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ARMORED CAVALRY REGIMENT AND SEPARATE BRIGADE INTELLIGENCE AND ELECTRONIC WARFARE OPERATIONS

Table of Contents

	Page
Preface	iii
CHAPTER 1 - The Intelligence and Electronic Warfare Mission	1-1
Armored Cavalry Regiment	1-1
Separate Brigade	1-2
The Intelligence and Electronic Warfare System	1-2
Intelligence and Electronic Warfare Structure	1-7
CHAPTER 2 - Organization	2-1
Armored Cavalry Regiment	2-1
Regimental Tactical Operations Center Support Element	2-3
Military Intelligence Company (Armored Cavalry Regiment)	2-4
Separate Brigade	2-8
Brigade Tactical Operations Center Support Element	2-10
Military Intelligence Company (Separate Brigade)	2-10
CHAPTER 3 - Command, Control, and Communications	3-1
The Intelligence and Electronic Warfare Support	3-1
The Intelligence Cycle	3-6
Current Communications Systems	3-12
Future Communications Systems	3-21

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	Page
CHAPTER 4 - Combat Operations	4-1
Mission	4-1
Security Missions	4-1
Offensive Missions	4-13
Defensive Missions	4-18
Multidiscipline Counterintelligence	4-20
CHAPTER 5 - Sustainment	5-1
Service Support Platoon	5-1
Supply	5-2
Maintenance	5-4
Services	5-4
CHAPTER 6 - Operations in Special Environments	6-1
Deserts	6-1
Mountains	6-2
Jungles	6-3
Urban	6-4
Nuclear, Biological, and Chemical	6-5
APPENDIX A - Intelligence and Electronic Warfare Equipment	A-1
APPENDIX B - Reconnaissance and Surveillance Planning	B-1
APPENDIX C - Request and Report Formats	C-1
GLOSSARY	Glossary-1
REFERENCES	References-1
INDEX	Index-1

Preface

This manual provides intelligence and electronic warfare (IEW) doctrine and tactics for the armored cavalry regiment (ACR) and separate infantry and armor brigades. It provides doctrine for the organization and operations of IEW assets assigned to the ACR or separate brigade. This FM does not address support to the Theater Defense Brigade. Echelons above corps (EAC) operations and support are addressed in FM 34-37 and FM 100-7.

The target audience for this manual includes regimental and brigade commanders and staffs, military intelligence (MI) company commanders, and other assigned MI personnel and staffs. It applies to both active and Reserve Components (RC) .

This manual supersedes FM 34-35, 22 May 1987; and Chapter 3 and Section 1 of Chapter 4 of FM 34-30. Although it does not implement any International Standardization Agreements (STANAGs), it does comply with STANAGs 6004 and 6010.

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CHAPTER l

THE INTELLIGENCE AND ELECTRONIC WARFARE MISSION

The ACR and separate brigade are two of the most versatile organizations on the modern battlefield. To successfully accomplish their missions, they require IEW support. Each MI company organic to the ACR or separate brigade provides the majority of this support.

ARMORED CAVALRY REGIMENT

The ACR is a combined arms maneuver force, organized to provide reconnaissance and security for the corps. It may guard, screen, cover, conduct reconnaissance, or (when properly augmented) attack and defend.

Cavalry organization and employment exemplify two essential criteria of battle: the need to find the enemy and develop the situation with the least force possible and the need to provide reaction time and maneuver space to the main body commander. These criteria allow combat power to be massed at the critical time and place and are based on a principle of war-economy of force. The ACR is an economy of force organization. In AirLand Battle, it allows the corps commander to attain and retain initiative and agility.

RECONNAISSANCE AND SECURITY

Cavalry's basic tasks are reconnaisance and security. It accomplishes these tasks through combined arms action at all levels from the cavalry troop through regiment.

The purpose of reconnaissance is to gather timely information upon which commanders base plans, decisions, and orders. Cavalry conducts aggressive reconnaissance on the battlefield to reduce uncertainties about the terrain and the effects of weather upon it, and to determine the presence or absence of the enemy. Reconnaissance is conducted constantly .

The purpose of security is to provide reaction time, maneuver space, and information about the enemy to the main body. Security includes all measures to prevent observation, harassment, and surprise. Aggressive and bold reconnaissance is an integral part of security.

COUNTERRECONNAISSANCE

Counterreconnaissance is an inherent task in all security operations. Counterreconnaissance keeps enemy ground reconnaissance from observing the main body by defeating or blocking these hostile ground forces. In the execution of counterreconnaissance, cavalry operates either offensively or defensively using whichever tactics best accomplish the task. Hasty attack, ambush, and indirect fires are the principal techniques used.

Cavalry should be organized to defeat threat reconnaissance forces without requiring reinforcement . Threat reconnaissance capabilities in any given situation must be compared to the cavalry unit's capabilities to determine if

additional maneuver or combat support (CS) assets are required. This counterreconnaissance effort is essential to success on the modern battlefield. Many commanders have suffered tactical and operational defeat because the enemy penetrated security forces.

While the corps is preparing the main battle area (MBA) , the ACR is normally part of the covering force. The ACR also is used in economy of force roles and as a combat task force during offensive, defensive, and retrograde operations. When employed in the main battle or the revering force battle against a strong enemy, the ACR requires reinforcement. Corps provides additional combat, CS, and combat service support (CSS) units.

The ACR, because of its mobility and organization, is an appropriate combat force for perfoming reconnaissance and security operations over a large geographic area. This may be as large as 180 km for the regiment. For a detailed description of cavalry operations, see FM 17-95.

SEPARATE BRIGADE

The separate brigade may be employed as part of a division, a corps, or at EAC.The separate brigade is a combined arms force capable of independent operations. The organic elements of a separate brigade normally include artillery, engineers, air defense (AD) , MI, and appropriate CSS elements. The separate brigade is very similar to a divisional brigade.

The separate brigade is tasked for operations that do not normally require a division size combat force: economy of force; supporting attack; deception; reconnaissance in force; and flank, rear, or advance guard. It is a suitable reserve for an austere corps and is used as a separate on-line combat force in the MBA.

The separate brigade may also augment the combat power of a division, particularly during the concentration of forces at a decisive point. When used in this manner, it should be placed under the operational control (OPCON) of the reinforced division. When operating as part of a division, the separate brigade normally surrenders assets, includinq the MI company, to division control.

In these cases, IEW support to the separate brigade is essentially identical to support to the divisional brigade. IEW operations are discussed in FM 34-80. Separate brigade operations are discussed in FM 7-30 and FM 71-3.

The ACR and separate brigades require intelligence to plan and conduct operations. To provide this support, they have organic IEW assets. These assets also are part of the IEW system extending from the front-line soldier to the Department of the Army (DA) level.

THE INTELLIGENCE AND ELECTRONIC WARFARE SYSTEM

The IEW system accomplishes four major tasks: situation development, target development, electronic warfare (EW), and multidiscipline oounterintelligence (MDCI) . Each of these, discussed below, plays an important part in the proper execution of the AirLand Battle. To neglect one invites defeat.

SITUATION DEVELOPMENT

The first major IEW task is situation development. Situation development is evaluative in nature and resolves basic questions about the battlefield: "What is the enemy's most probable course of action?" "Where, when, how, and with what forces will the enemy attempt this course of action?" To accurately estimate what the enemy will do, the analyst needs a solid foundation in enemy order of battle (OB), including enemy tactics.

The analyst applies the procedure known as intelligence preparation of the battlefield (IPB) to answer these questions. This process helps the maneuver commander use the tenets of AirLand Battle to defeat the enemy. Throughout the process, however, the analyst must be sensitive to reports showing that the enemy may be adopting a course of action other than the one identified. To ignore or dismiss evidence contrary to the established estimate can cause the commander to make poor battle decisions.

The S2 must be open to all possibilities. The intelligence staff must war game enemy actions, even during the battle. Persons with views contrary to the norm should be listened to, lest critical information, indicators, or intelligence be overlooked or ignored. Situation development establishes the framework for doing the other three tasks. See FM 34-3 and FM 34-130 for more information on intelligence analysis and IPB.

TARGET DEVELOPMENT

Target development is the second major IEW task. It is a dynamic process that identifies targets which best support the commander's plan. An ACR commander relies heavily upon indirect fires. Similarly, the commander of a separate brigade oonducting an economy of force operation cannot afford to waste precious assets against low-value targets. The S2, along with the fire support officer (FSO), is responsible for finding the targets which best serve the commander's interest. These targets may be engaged with either lethal means, such as artillery or air strikes, or non-lethal means, such as jamming and deception. The target development process defines targets precisely for attack and prioritizes them. Figure 1-1 shows this process .

The prioritization process includes the nomination of targets as either high-value targets (HVTs) or high-payoff targets (HPTs). HVTs are those which are critical to the enemy commarder and the enemy plan. For example, engineer assets would be HVTs if the enemy was planning a river crossing. HVTs are not necessarily intended for destruction. The S2 section, based on its knowledge of enemy tactics and its prediction of enemy intent, develops the HVT list.

Based upon the HVT list and the commander's intent, the S3, fire support personnel, and S2 personnel develop an HPT list. These are targets which, if successfully attacked, contribute substantially to the success of the friendly plan. The S2 cues collection assets towards these targets in order to accurately determine their location and activity. The S3, FSO, EW officer, and air liaison officer (ALO) coordinate attacks upon the

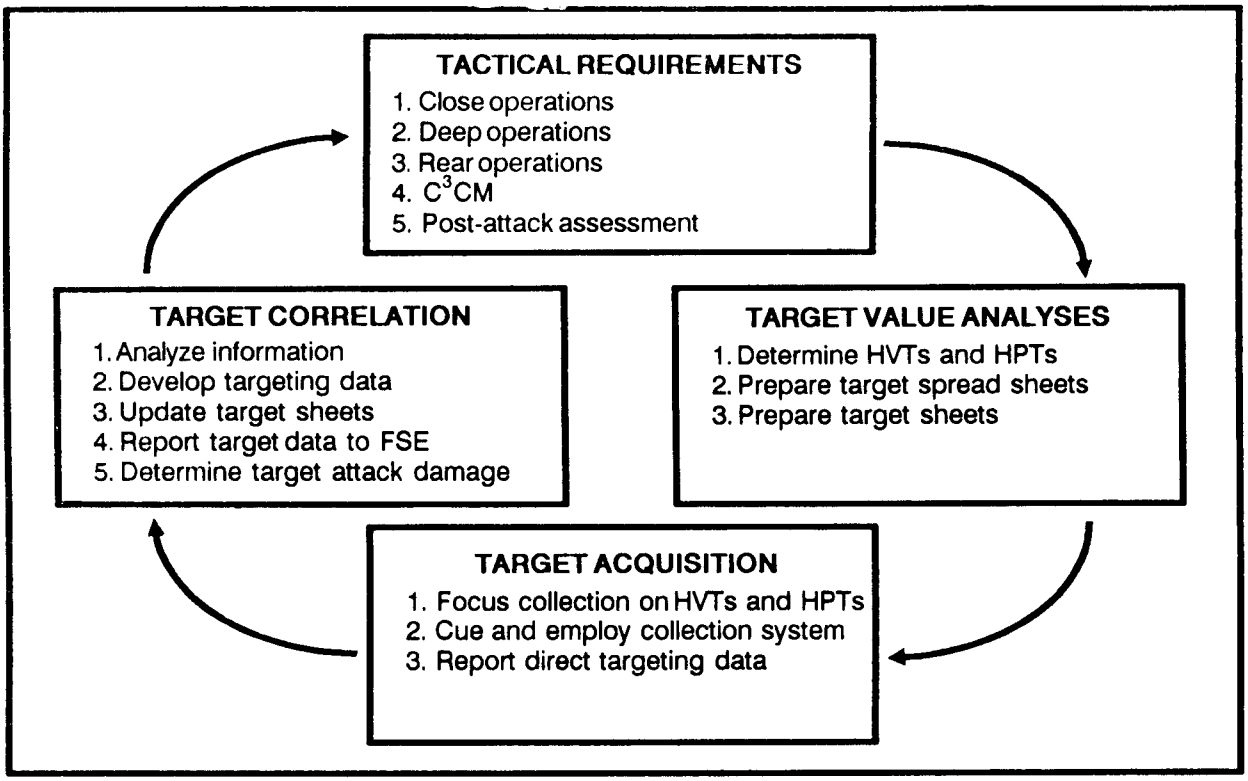


Figure 1-1. Target development process.

HPTs in order to maximize the success of the friendly plan. Target development procedures are detailed in FM 34-3, Chapter 7; and FM 6-20.

ELECTRONIC WARFARE

EW is the third major task of IEW operations. It includes electronic warfare support measures (ESM), electronic countermeasures (ECM), and electronic counter-countermeasures (ECCM). The S3 uses EW just as any other combat multiplier.

Electronic Warfare Support Measures

ESM are those measures taken to search for, intercept, locate, and identify enemy electromagnetic energy sources. These sources include but are not limited to enemy radios, beacons, and radars and are exploited for intelligence or combat information to support combat operations. Information of value may come from the content of the intercepted signal, the transmitter's location on the battlefield, or other characteristics. Obviously, ESM play an important role in the targeting process. Information gained through ESM is also used to update data bases, provide information for use in ECM operations, and confirm or deny many aspects of the enemy's OB.

Electronic Countermeasures

ECM reduce the effestiveness of the enemy's transmitters and

receivers. These measures include jamming and electronic deception. When integrated with lethal fires, ECM greatly enhance the effects of physical destruction. For this reason, ECM are planned for during the target development process discussed above.

Jamming. Jamming is used to disrupt enemy communications. It may also interfere with radar, beacons, and other devices, but the ACR and separate brigade cannot do this. By itself, jamming is not decisive. This means that jamming must be planned early, so that it may be integrated into the fire plan.

A jammer works by "drowning out" the intended signal at the receiver. The amount of power needed to do this depends on the power of the transmitter; the distances between the jammer, transmitter, and receiver; the types of antennas being used; and terrain features. Jammers are targeted against receivers, not transmitters.

Jamming normally cannot prevent the enemy from communicating . It increases the time the enemy needs to transmit orders or reports, thereby degrading command and control (C^2). Increasing the length of transmissions also supports direction finding (DF) by allowing more time for tipoffs and for obtaining multiple lines of bearing (LOB) . When targeted against secure communications, jamming can force the enemy to transmit in the clear. These communications can then be exploited for combat information or intelligence. When not used in jamming missions, jammers are used in an ESM role. They intercept communications but do not provide LOB. There are three types of jamming:

- Spot jamming targets specific frequencies, either in isolation, sequentially, or simultaneously. The advantage to spot jamming is that friendly frequencies are not likely to suffer interference. The disadvantage is that the enemy can continue operations by detuning slightly from the targeted frequency.

- Sweep jamming continuously sweeps through a frequency range. Since all frequencies are affected in turn, the target cannot avoid the jamming by detuning. Friendly radios may also be affected, unless terrain masking and directional antennas are carefully used.

- Barrage jamminq attacks all frequencies in a specified band simultaneously. Since the jammer's power is spread over this spectrum, the effective range of the jammer is reduced. As with sweep jamming, friendly frequencies may be affected.

Electronic Deception. Electronic deception is a highly effective form of ECM. It may be associated with falsely portraying friendly communications or sending false messages on enemy communications nets .

Manipulative electronic deception (MED) counters enemy EW and signals intelligence (SIGINT) efforts by changing the characteristics and profiles of friendly communications.

Simulative electronic deception (SED) is intended to mislead the enemy as to the actual composition, deployment, or capabilities of friendly forces. It creates fictitious units or portrays real units in false locations or activities. MED and SED are not conducted by the MI unit. With the advice of the S2, the S3 and the communications-electronics (C-E) officers create and orchestrate a deception plan, which is played out by friendly forces.

Imitative electronic deception (IED) , which includes imitative communications deception (ICD) and imitative noncommunications deception, is the third form of the deception component of ECM. This is conducted by the MI unit, which enters enemy radio nets and passes false traffic or commands to the enemy. Linguists with high proficiency in the target language, to include military jargon, are necessary to conduct ICD. ICD must be controlled carefully so that friendly communications intelligence capabilities are not revealed. Techniques also exist for imitative noncommunications deception, but the resources for these operations do not exist at the ACR or separate brigade (see FM 90-2A(C)).

Electronic Counter-Countermeasures

ECCM are those actions which are taken to guarantee the free use of the electromagnetic spectrum by friendly forces. These actions include proper frequency control, careful use and siting of antennas, and others. For a more detailed discussion of EW, see FM 34-40(S).

MULTIDISCIPLINE COUNTERINTELLIGENCE

The fourth major IEW task is MDCI. MDCI is a multidisciplined effort designed to counter enemy all-source collection attempts. To perform this function, MDCI conducts investigations, collections, operations and analysis, and production. MDCI is an integral part of the command counterreconnaissance effort.

While front-line troops and other IEW sensors identify and target enemy reconnaissance efforts along and across the forward line of own troops (FLOT), MDCI concentrates on identifying and targeting reconnaisance, intelligence, surveillance, and target acquisition (RISTA) efforts in our rear operations. MDCI focuses on the human intelligence (HUMINT) threat but also provides analytical support in identifying enemy SIGINT and imagery intelligence (IMINT) capabilities and intentions. MDCI has a limited neutralization and exploitation capability directed at enemy low-level HUMINT collectors or sympathizers acting in a collection or sabotage capacity. MDCI provides support to deception, rear operations, and operations security (OPSEC).

The ACR and separate brigade normally conduct deception in accordance with a corps plan. Deception support, if required, will come from corps. The organic counterintelligence (CI) team will become involved only from the aspect of briefing the deception cell about any unit peculiarities. Information regarding the effectiveness of

deception efforts originates at echelons corps and above.

In rear area protection, the focus is on freeing maneuver forces for close-in and deep operations. MDCI supports this effort by taking action to reduce vulnerability to enemy agents or units in the rear area.

OPSEC is a command responsibility under the staff supervision of the S3. MDCI support to OPSEC includes the development of friendly force profiles in an attempt to identify indicators, signatures, and patterns of various friendly actions. Profiles include such areas as C^2, tactical operations and maneuvers, logistics, administration, and intelligence. Once these patterns and signatures are identified, a list of essential elements of friendly information (EEFI) is created. The EEFI are those items which are denied to the enemy. Depending upon the collection methods available to the enemy, one or more OPSEC measures are adopted which prevent or hinder the enemy collection.

The CI team conducts liaison with the CI analysis section (CIAS) at corps and limited liaison with local agencies. Corps provides detailed MDCI support to the ACR or separate brigade. Corps assets must develop the friendly overhead and electronic profile and provide a detailed data base about the enemy's collection ability. This information is found in the MDCI estimate and summary. The MDCI personnel at the ACR or separate brigade then provide tailored briefings and updates to the commander and key staff elements.

The CI team uses the threat data obtained from the corps to make recommendations to the commander regarding actions required to defeat any rear area threat from enemy agents and unconventional or special purpose forces operating in the ACR or separate brigade rear area. The CI team has limited capability to independently develop threat data or respond to rear area threats.

Further information on MDCI is in FM 34-60 and FM 34-60A(S) . Details on the IEW system and roles are in FM 34-1, Chapter 2.

INTELLIGENCE AND ELECTRONIC WAREFARE STRUCTURE

The IEW structure consists of coordinators, producers, and executors. Under the direction of the force commander, these personnel ensure that the IEW system is responsive to the operational needs of the command.

The coordinators of the IEW system are the S2s and S3s at ACR or separate brigade and squadron or battalion. These officers are responsible to the commander for the IEW staff effort. They take the commander's guidance and translate it into terms which are usable by the collectors and executors for whom they are responsible.

The S2 is the enemy expert on the commander's staff, providing all other elements with information concerning the enemy's capability and intent. The S2 must coordinate closely with the S3 and FSO to ensure that planned actions best exploit the enemy's weaknesses and vulnerabilities. The S2 also serves as the enemy commander during the

war-gaming process. Figure 1-2 shows some of the responsibilities of staff elements, common at all echelons of the force structure.

At ACR and separate brigade, the S2 coordinates the intelligence effort. Based on the commander's guidance, the S2 manages the collection effort and supervises all-source analysis of information into an intelligence product. This information is then disseminate quickly through the communications channels. Intelligence is provided to squadrons or battalions, as well as to parent and adjacent units. Some of the responsibilities of the S2 include–

- Performing IPB in injunction with the S3, FS0, and other staff officers.
- Developing the information requires (IR) and priorities stated by the commander.
- Preparing operation plans (OPLANs), operation orders (OPORDs), requests for intelligence information (RII), ESM, and MDCI.
- Supervising the command's collection, ESM, and MDCI activities to support situation development and target development.
- Processing information from all available sources to produce intelligence.
- Assessing enemy courses of action.
- Developing document and personnel security policy for the command.
- Supervising engineer terrain team under OPCON to the unit.
- Supervising the command's special security office (SS0) representative.
- Supervising the staff weather officer (SWO) .
- Disseminating combat information and intelligence.
- Assessing enemy intelligence capabilities and procedures, their vulnerability to deception, and the effectiveness of friendly deception efforts.
- Providing MDCI support to OPSEC.
- Preparing intelligence estimates and annexes.

S2s are also often responsible for IEW assets attached to the unit. These assets are in many cases spread over a larger area than usual. An ACR squadron S2 has an area of responsibility equal to a division's frontage, with equally extensive enemy situations to monitor. If the unit is given an economy of force mission, the battalion or squadron S2 must assume responsibility for normal brigade or regimental functions. Corps-provided aids or graphics are not normally scalded for use by the ACR or separate brigade S2s in the performance of their duties and must

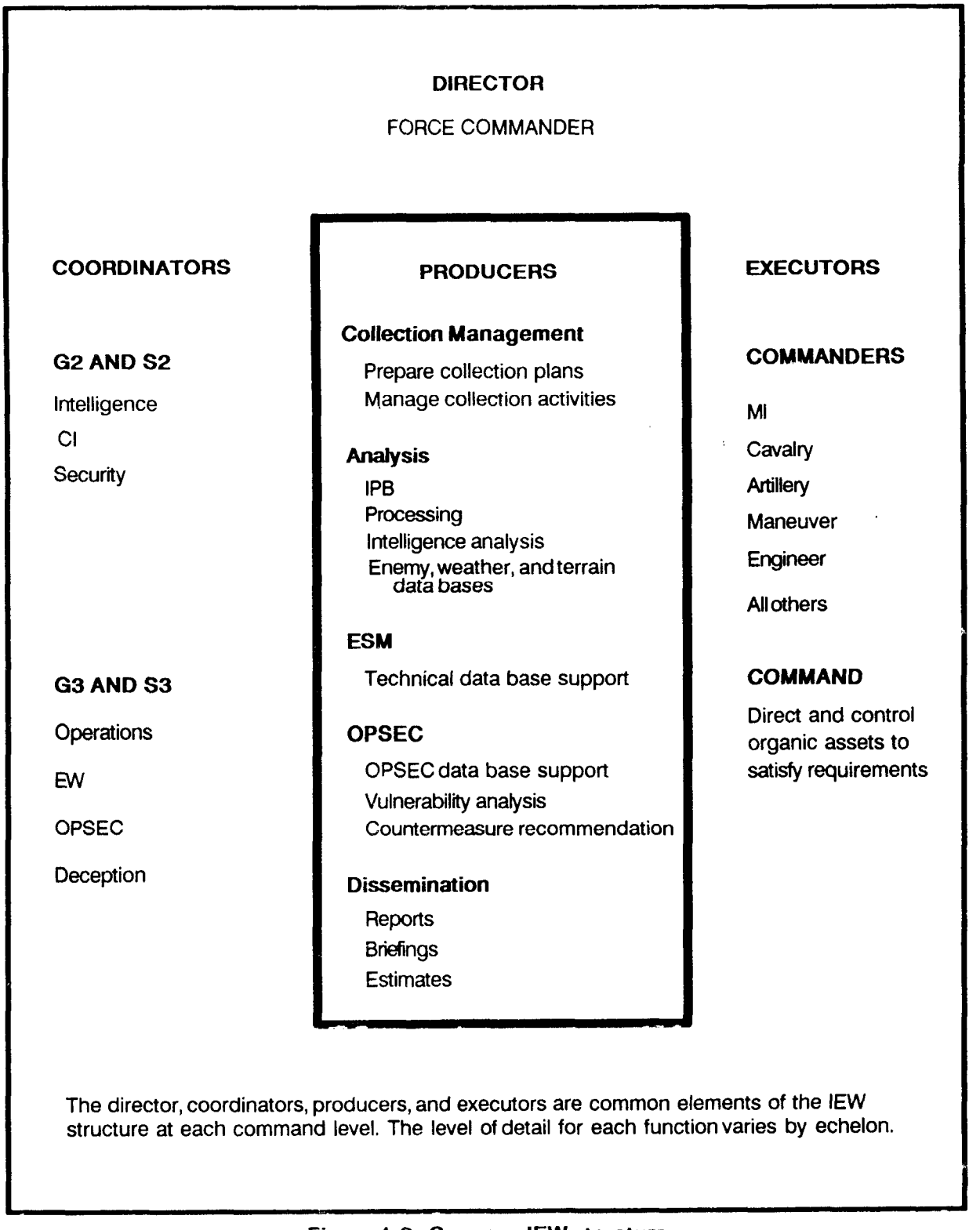


Figure 1-2. Common IEW structure.

be reworked to fit the unit's needs. Therefore, the S2 relies on the unit's organic intelligence production section (IPS) and extensive liaison with corps.

The S3 is key to the IEW system. The S3 has staff responsibility for ECM, ECCM, OPSEC, and battlefield deception. However, without information and intelligence from the S2, these efforts cannot be successful.

For example, during the planning process, the S2 provides a list of HVT's, which is constantly updated. When destroyed or disabled, HVTs severely impact the enemy commander's battle plan. The S3 cannot make valid targeting plans without knowledge of these targets and their susceptibility to jamming, artillery, deception, or other forms of attack. The IEW staff responsibilities for the S2 and S3 are shown in Figure 1-3. Other staff responsibilities are in FM 101-5.

The MI company commander executes the IEW plan developed in support of the maneuver commander's concept. These plans must be developed with input from the MI commander, who best understands the capabilities and limitations of the unit. The unit at ACR or separate brigade provides the primary capability available to the ACR or brigade commander to answer intelligence requirements and executes EW, MDCI, and related missions. The MI company's capabilities are detailed in Chapter 2.

Because of the potential for operations spread over a large geographic area, or missions conducted independently, each unit has an organic MI company. The actual structure of the MI company differs between the ACR and separate brigade. The MI company is one of the primary means of fulfilling the IEW needs of its parent unit. Both intelligence and combat information are produced by the separate brigade and ACR.

FUNCTIONS	STAFF RESPONSIBILITY	COORDINATION
INTELLIGENCE	S2	S3 and FSE
IPB	S2	S3 and FSE
Collection Management	S2	S3 and FSE
Situation Development	S2	S3
Target Development	S2	S3 and FSE
ELECTRONIC WARFARE	S3	S2, FSE, and C-E OFFICER
ESM	S2	S3
ECM	S3	S2 and FSE
ECCM	S3	S2, FSE, and C-E OFFICER
OPSEC	S3	S2
MDCI Support	S2	S3
C^3CM	S3	S2 and FSE
Intelligence Support	S2	S3, FSE, and ALO
EW Support	S3	S2 and FSE
OPSEC	S3	S2
Targeting	S3	S2, FSE, and ALO
Develop restricted frequency list	S3	S2, C-E OFFICER

Figure 1-3. IEW staff responsibilities.

CHAPTER 2

ORGANIZATION

Detailed information about the enemy, terrain, and weather must be available for the commander to plan an operations. The commander must receive this information in time to make sound tactical decisions. Once an operation has begun and the unit has made contact with the enemy, the commander needs continual IEW support to successfully conduct combat operations. Since ACRs and separate brigades are normally subordinate to a corps, they rely on corps for many of their intelligence requirements, just as a division does.

Intelligence assets face a monumental task on the AirLand battlefield. To fully appreciate the many battlefield requirements and to properly manage all available resources, intelligence users and producers must be familiar with battlefield organizations.

This chapter describes the IEW structure supporting the ACR and separate brigade. It describes the various organizations which provide combat information or intelligence to the commander and how the S2 accesses organizations outside the unit.

ARMORED CAVALRY REGIMENT

The ACR is unique in the force structure. It is a combat organization which focuses on reconnaissance and security. The ACR provides reports which allow corps commanders and others to make informed decisions concerning future operations. These reconnaissance efforts take the form of route, zone, or area reconnaissance, or a combination of these types within a single mission. Information forwarded includes terrain features, trafficability, natural and artificial obstacles, and descriptions of enemy forces in the area. These missions are accomplished by using a combination of mounted, dismounted, and aerial reconnaissance. Where the enemy attempts to deny information through counterreconnaissance, the ACR is capable of fighting for that information and defeating the enemy in the process. Figure 2-1 shows the organization of the ACR.

SCOUTS

The primary infomation-gathering asset of the ACR is the scout. Each of the armored cavalry troops has two tank and two scout platoons. The scout platoons consist of three sections, each with two vehicles. Each vehicle carries a five-man scout team. The scout teams are trained observers and are used to establish observation posts (OPs) day or night, emplace sensors, and acquire information through stealth or fire. These scout teams are used independently, or as part of a section, platoon, or troop. Once information is obtained, the scouts report it to the appropriate higher headquarters.

Like any other asset, scouts have advantages and disadvantages. Reports are real-time. Scouts report what they see at the moment A scout's activities are normally passive and do not reveal position. A trained scout reports on things

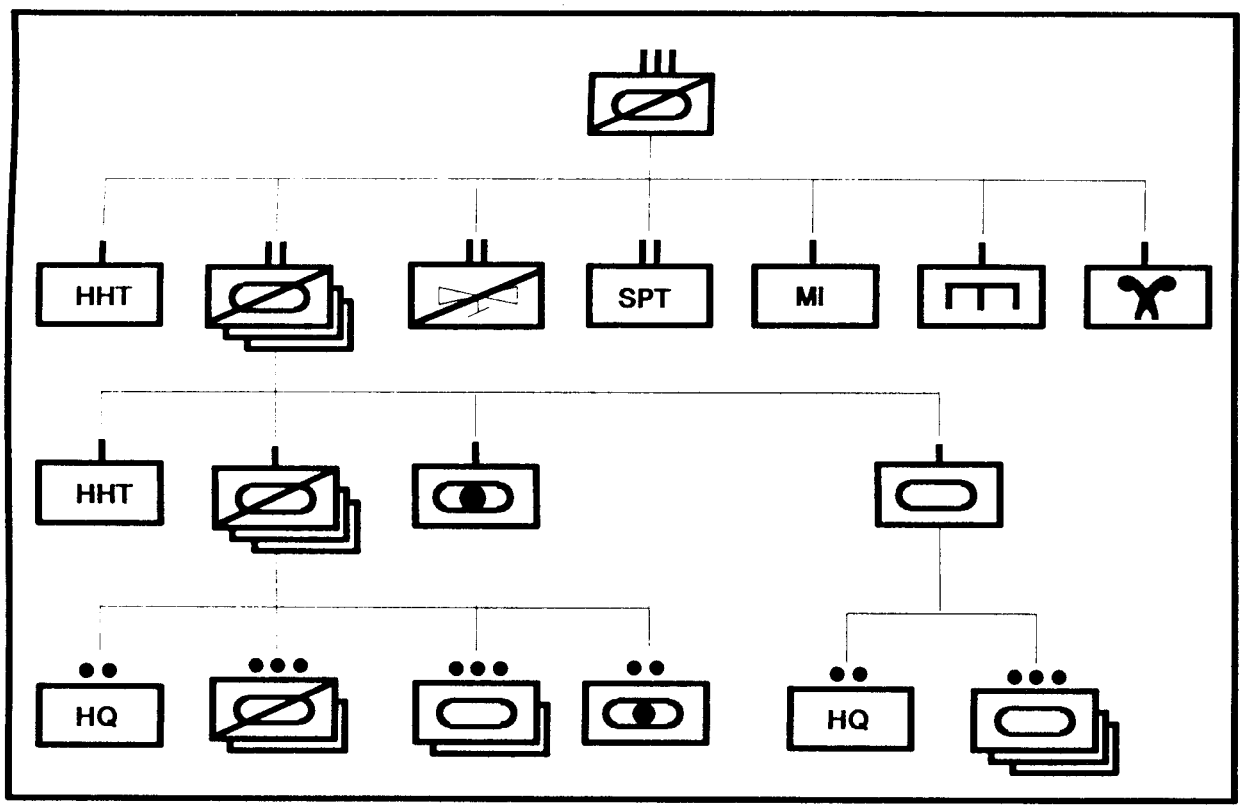


Figure 2-1. ACR organization.

not readily apparent to other assets; for example, trafficability due to soil conditions and detailed conditions of bridges and roads. On the other hard, scouts are subject to the enemy's deception and camouflage efforts and lose effectiveness after long, continuous operations.

REGIMENTAL AVIATION SQUADRON

In addition to ground troops, the ACR has a regimental aviation squadron, which maintains aeroscouts. These aeroscouts are used in several ways. They serve as target acquisition (TA) assets for both attack helicopters and artillery; they extend the range of the ground scout team; and they either augment or take the place of ground cavalry assets in areas of rugged terrain, weather permitting. The aviation squadron contains three QUICKFIX aircraft.

FIELD ARTILLERY BATTERY

Each armored cavalry squadron contains a field artillery (FA) battery. These batteries deploy four fire support teams (FIST), attaching one to each line troop or company. There is also one combat observation and laser team (COLT) to deploy at squadron level. The FIST are equipped with ground laser designators and serve as an excellent TA asset. In addition to the acquisition of targets, they are trained to accurately report the amount of damage done by indirect fire and close air support (CAS).

This ability greatly aids the S2 in determining enemy strength. There is no TA battery in the ACR. Therefore, there is no organic TA radar or real-time method of determining the location of enemy mortars and artillery pieces.

COMBAT ENGINEER COMPANY

A combat engineer company is also in the ACR. In addition to their more normal role of obstacle construction and reduction, the engineers provide detailed information on the status and condition of roads and bridges. They inform the commander about the strengths and weaknesses of the enemy's obstacles.

NUCLEAR, BIOLOGICAL, AND CHEMICAL COMPANY

The ACR has an organic nuclear, biological, and chemical (NBC) company. This company performs NBC reconnaissance, decontamination, and radiological survey. This reconnaissance capability should not be overlooked by the S2 when engaging in situation development or determining the conditions of routes to objectives.

MEDICAL UNIT

The ACR has a medical company organic to it. Medical personnel can provide information to the commander concerning the health of enemy prisoners of war (EPWs), enemy morale, logistics, possible use of biological weapons, and other items related to medical matters.

REGIMENTAL TACTICAL OPERATIONS CENTER SUPPORT ELEMENT

The Regimental Tactical Operations Center Support Element (RTOCSE) provides critical IEW support to ACR operations and is the nerve center for regimental IEW operations.

This element assists the regimental S2 and S3 staffs in analyzing and directing IEW and OPSEC support missions. The collection management and dissemination (CM&D) section and the IPS work under the staff supervision of the S2. The RTOCSE is organized as shown in Figure 2-2.

HEADQUARTERS

The RTOCSE headquarters coordinates between its operational sections and the ACR S2 and S3. The headquarters manages the RTOCSE assets in response to requirements from the S2 and S3. The RTOCSE is normally collocated with the ACR tactical operations center (TOC).

COLLECTION MANAGEMENT AND DISSEMINATION SECTION

This section translates the regimental commander's intelligence requirements into specific mission taskings. CM&D is the focal point for the receipt and dissemination of combat information and intelligence. The section develops collection plans and provides input to intelligence reports, plans, annexes, and other intelligence documents. It maintains communication and coordinates with the corps CM&D.

INTELLIGENCE PRODUCTION SECTION

The IPS performs all-source intelligence analysis and production. It develops and maintains an extensive intelligence data base including enemy electronic order of battle (EEOB). This

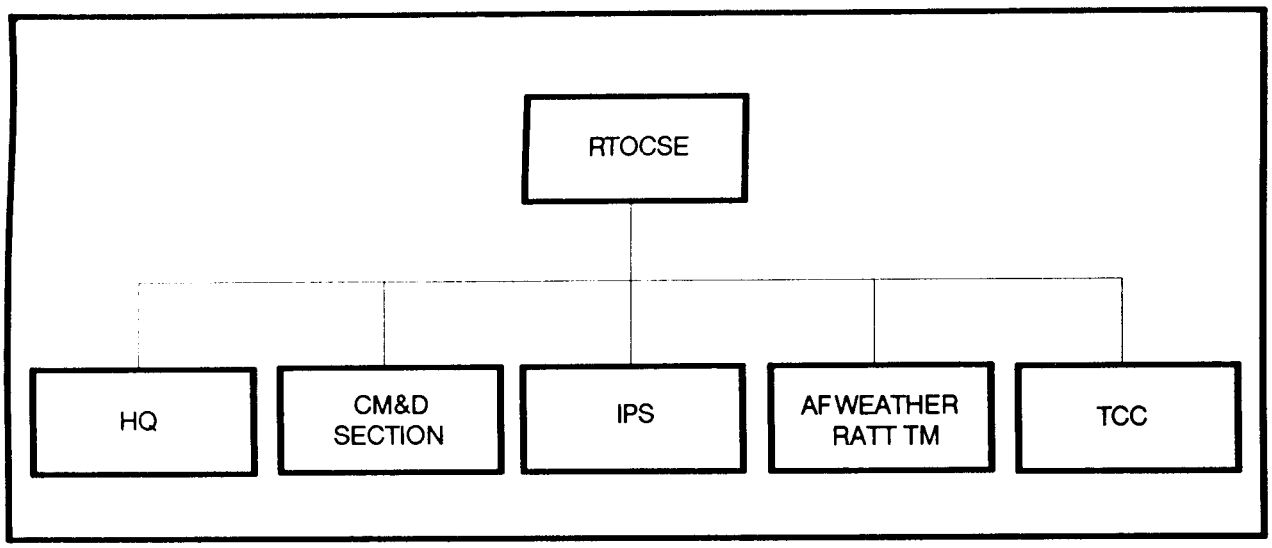


Figure 2-2. RTOCSE organization.

section identifies gaps in the collection effort, develops OB, and provides feedback to the CM&D section for adjustments to the collection plan. It also produces tailored briefings, estimates, and other intelligence products for the commander.

AIR FORCE WEATHER RADIO TELETYPEWRITER TEAM

The Air Force (AF) weather radio teletypewriter (RATT) section provides the required communications equipment needed by the United States Air Force (USAF) weather team supporting the ACR. This section is composed of one radio team chief and two RATT operators; it also provides its own RATT equipment. They will use mobile subscriber equipment (MSE) when it becomes available.

TELECOMMUNICATIONS CENTER SECTION

The telecommunications center (TCC) section provides the wire communications switchboard capability for the RTOCSE. The section is eliminated with the fielding of MSE.

MILITARY INTELLIGENCE COMPANY (ARMORED CAVALRY REGIMENT)

Figure 2-3 shows the organization of the MI company of the ACR. The MI company provides intelligence collection, integration, and multisource analysis; EW support; and CI support on a task-organized basis. The company is organized to provide centralized control and decentralized execution. It operates under the C^2 of the regimental commander. The company responds to taskings from the regimental S2 and S3. Its organization and operations are described in this and following chapters.

The MI company is structured to allow organizational flexibility and tailoring to perfom its mission. The company integrates intelligence, EW, and CI support assets under the direction of the company commander.

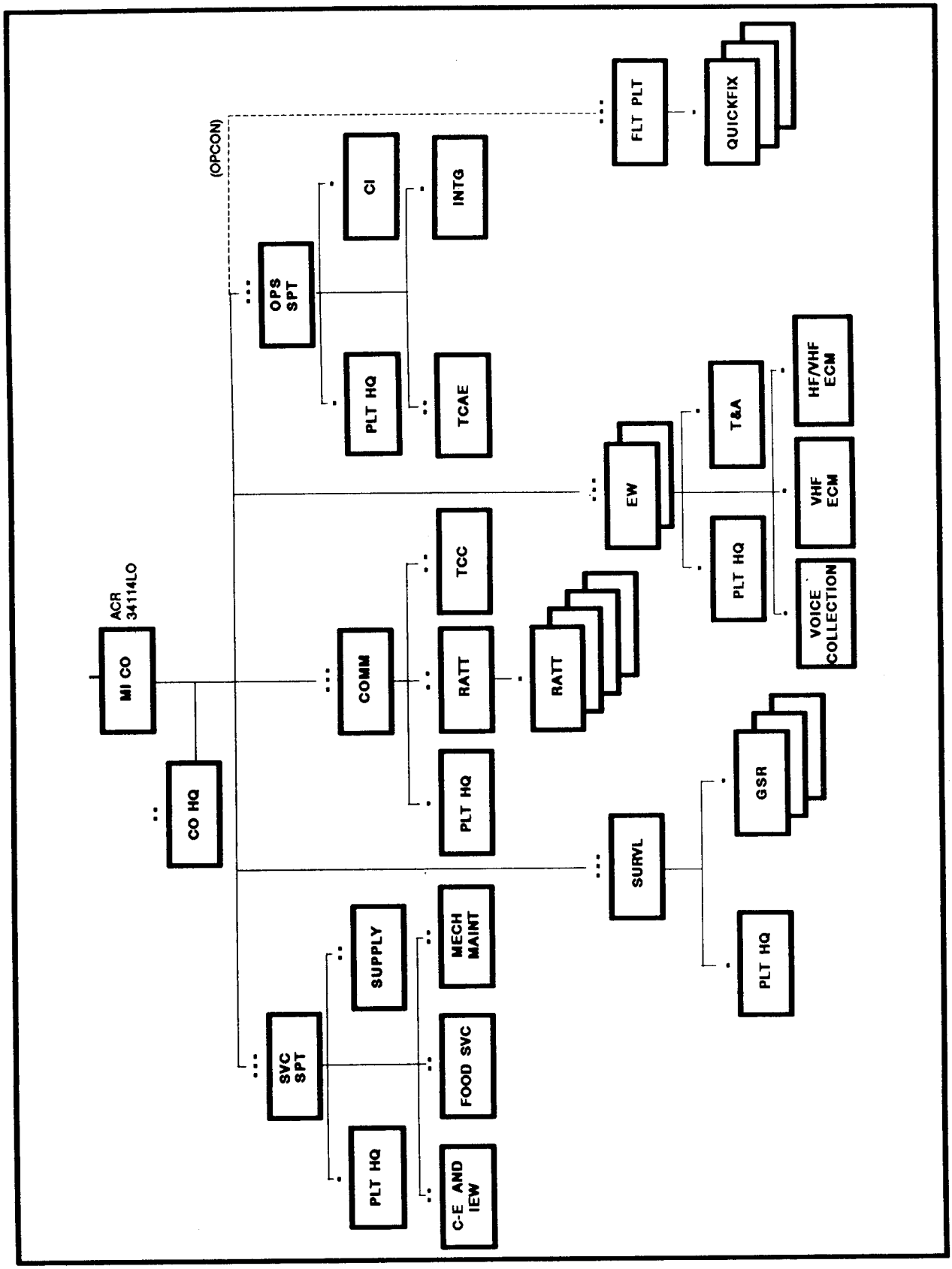


Figure 2-3. MI company (ACR) organization.

It coordinates with corps and division counterparts for mutual support. Appendix A discusses capabilities of IEW equipment found at all echelons.

COMPANY HEADQUARTERS

The company headquarters provides C^2 for assigned and attached elements. It is composed of the commander, a first sergeant (1SG), and administrative personnel.

SERVICE SUPPORT PLATOON

The service support platoon provides essential supply and maintenance support to the company. Maintenance support and services are discussed in Chapter 5.

COMMUNICATIONS PLATOON

Until MSE is fielded, the communications platoon provides personnel and equipment to staff and operates the company's telecommunications and RATT facilities. It contains a headquarters, ECM operations section, TCC section, and RATT section.

The headquarters section supervises the operations of the TCC and RATT sections. It assists the company commander in managing communications nets and radio frequencies, including weather nets. The platoon headquarters also provides custodial services for all cryptoqraphic material in the company.

The TCC section provides personnel and equipment to establish multichannel communications terminals at the technical control and analysis element (TCAE) center.

The RATT section consists of four RATT teams. It provides full duplex record traffic for tasking and reporting between the TCAE and deployed collection and jamming (C&J) platoons. This platoon will be eliminated when MSE is fielded. See Chapter 3 for a more detailed discussion of communications.

OPERATIONS SUPPORT PLATOON

The operations support platoon provides tactical MDCI and prisoner of war interrogation (IPW) support to the commander. The platoon headquarters manages the platoon's assets in response to company taskings. It monitors interrogation and MDCI assets to ensure mission accomplishment and proper logistic support. The CI teams perform MDCI, limited investigations, collection, operations, analysis, and dissemination in support of the mission.

At the ACR, MDCI operations are constrained due to the limited number of personnel assigned and due to the great area of operations (AO) of the ACR. Many operations require corps augmentation.

The TCAE is located at the company TOC. It provides detailed asset tasking to and technical control of all SIGINT/EW assets. Via the CM&D, the TCAE receives ECM mission taskings from the ACR S3 or fire support element (FSE); it receives SIGINT and ESM tasking from the S2. The TCAE–

- Manages taskings within the MI company.
- Supports the S3, as needed, with EW planning and mission tasking. During tactical displacements, the S2 should ensure that tasking for the TCAE remains uninterrupted.

One method is to have the MI company manage its own resources temporarily.

- Maintains a technical data base and produces and disseminates required and requested reports to the IPS and the CM&D section of the RTOCSE.

- Maintains communications with the corps TCAE for the exchange of technical control data and intelligence. A sensitive compartmented information facility (SCIF) security element is also assigned to provide 24-hour security for the TCAE.

The interrogation teams provide interrogation support to the ACR. The interrogators screen and interrogate EMS, refugees, and detainees. As directed by the commander, they screen captured enemy documents (CEDs) for information of immediate intelligence value. Personnel conduct brief priority intelligence requirements (PIR) driven interrogations and spot report combat information. These teams are normally located at the regimental EPW collection point but may, as required, provide support directly to a squadron (usually with corps augmentation. Constraints listed for the CI teams also apply to the interrogation teams.

SURVEILLANCE PLATOON

The surveillance platoon provides ground surveillance radar (GSR) for battlefield surveillance and early warning.

The platoon headquarters provides the interface between the MI company and the radar teams or squads. It supervises the deployment of company radar assets in response to taskings by the RTOCSE for the regimental S2.

The three GSR squads are each composed of three radars, one squad leader, and eight squad members. Normally, one squad is attached to each squadron and each squad is divided, operationally, into three radar teams.

ELECTRONIC WARFARE PLATOON

Each EW platoon contains a headquarters, transcription and analysis (T&A) team, voice collection team, very high frequency (VHF) ECM team, and high frequency (HF)/VHF ECM team.

The platoon headquarters manages the platoon's assets in response to tasking. It monitors these assets to insure mission accomplishment and proper logistic support.

The T&A team provides limited T&A support to the EW platoon. It coordinates analytic findings with the TCAE for intercept tipoffs and includes other intelligence products.

The voice collection team intercepts enemy HF and VHF communications. It provides limited immediate analysis of voice transmission as well as LOB or azimuth information on VHF intercepts. Collocation with the T&A team provides an analytic capability which allows immediate dissemination of combat information and intelligence.

The VHF ECM team is deployed by the EW platoon leader to jam enemy VHF communications. This team has a secondary role to support ESM missions.

The EW platoon leader deploys the HF/VHF ECM team to jam enemy HF and VHF communications and to support ESM missions as a secordary role.

FLIGHT PLATOON

The fliqht platoon provides airborne communications, intercept, DF, and jamming support. This platoon has its own maintenance personnel to ensure continued, reliable operation of the aircraft and related systems. The platoon is available only in the ACR, not in the separate brigade.

The flight platoon, which is organic to the regimental aviation squadron, is deployed under the OPCON of the MI company. Operational intelligence reports transmitted from QUICKFIX collection missions are reported directly to the TCAE of the MI company for SIGINT analysis and dissemination within the regiment. The QUICKFIX aircraft operate well forward in the ACR AO prior to combat operations. QUICKFIX missions are preplanned and on call. One aircraft is on station at all times during the specified mission timeframe, while another aircraft is enroute to or from a forward arming refueling point (FARP).

The TCAE controls QUICKFIX operations. QUICKFIX normally transmits combat information and targeting data directly to the regimental S2 .

SEPARATE BRIGADE

The separate brigade, as shown at Figure 2-4, is organized like the divisional brigade. However, since the separate brigade is intended to assume independent missions, it is tailored to provide its own support.

Each of the battalions of the separate brigade has an organic scout platoon. The capabilities of the scout platoon are identical to those of an armored cavalry troop's scout platoon.

The cavalry troop of the separate brigade, where authorized, is identical in form and function to the armored cavalry troop of the ACR. It establishes screens, operates OPs, and gathers information through stealth or fire. The separate brigade has only one cavalry troop; therefore, reconnaissance missions are more limited than in the ACR.

The military police (MP) company can be a collection asset. Because they conduct battlefield cumulation control, MP cover large portions of the rear area. Therefore, they are capable of reporting on the status of supply mutes; the time, location, and direction of enemy overflights; and the general state of the civilian population. MP often provide the first warning of enemy activity in friendly rear areas. This is a limited asset and cannot be everywhere at once. Information collection is a secondary duty to battlefield circulation control and rear area protection.

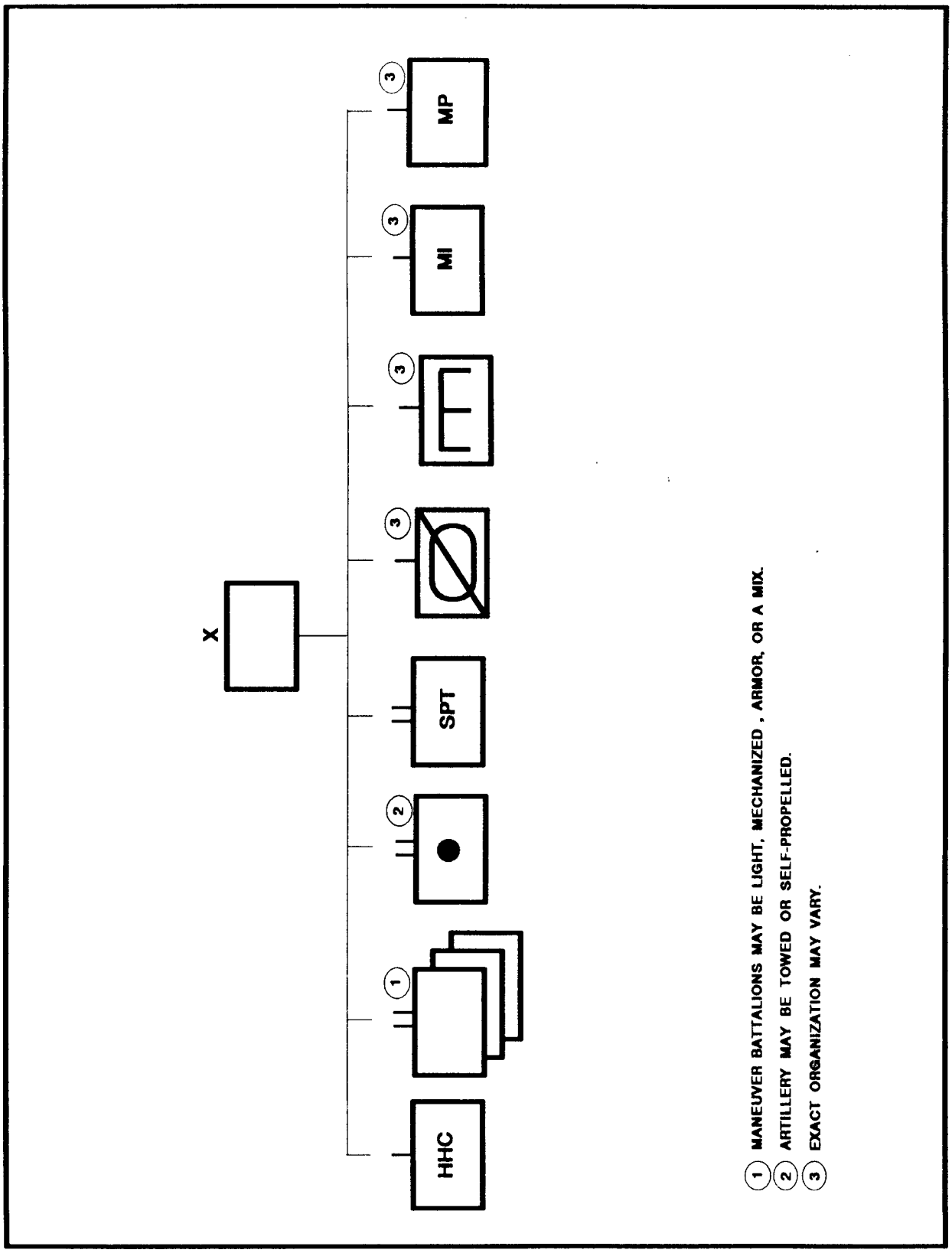


Figure 2-4. Separate brigade organization.

BRIGADE TACTICAL OPERATIONS CENTER SUPPORT ELEMENT

Although not part of the MI company, there is a TOC support element in the brigade which provides CM&D, intelligence production, and support to the USAF weather team. These capabilities are essentially identical to these in the ACR.

MILITARY INTELLIGENCE COMPANY (SEPARATE BRIGADE)

The MI company of the separate brigade differs only slightly from the MI company of the ACR. This company provides intelligence collection, EW, and MDCI support to the brigade commander on a task-orgainzed basis. In addition, it provides multisource analysis through its TCAE and operations support platoon. It coordinates with corps and divisions, as appropriate, for additional technical data, access to various data bases, and exchange of information. Figure 2-5 shows the organization of the MI company (separate brigade) .

COMPANY HEADQUARTERS

The company headquarters provides C^2 for all organic and attached assets. It includes the commander, lSG, and administrative personnel.

SERVICE SUPRORT PLATOON

The service support platoon perform all the functions that the service platoon of the MI company (ACR) performs. In addition, it contains two RATT teams which provide the communications link from the TCAE to the T&A section of the collection platoon. These teams will be removed with the fielding of MSE. See chapter 3.

COLLECTION PLATOON

Where the ACR fields two EW platoons, the separate brigade fields one collection platoon and one VHF ECM platoon. This platoon consists of a headquarters, a T&A section, and three voice collection teams. Because there are three collection team, the company can perform some DF operations, if required. Other considerations, such as terrain and the distance between assets, affect the practicality of such operations. One collection team is normally collocated with the platoon headquarters and T&A team for faster dissemination of combat information and increased security. The others are positional where they can best support the force. There are no ECM assets in this platoon.

OPERATIONS SUPPORT PLATOON

The operations support platoon of the separate brigade contains a platoon headquarters and interrogation and CI teams identical to those in the ACR. In addition, it contains the TCAE and provides asset tasking and technical control of all organic and attached EW assets.

SURVEILLANCE PLATOON

The GSR assets of the separate brigade are more limited than those of the ACR. There are two sections, each with three GSRs. These radar sets are normally attached to the maneuver battalions as determined by the brigade commander. The platoon headquarters assists in the deployment of the GSR on the

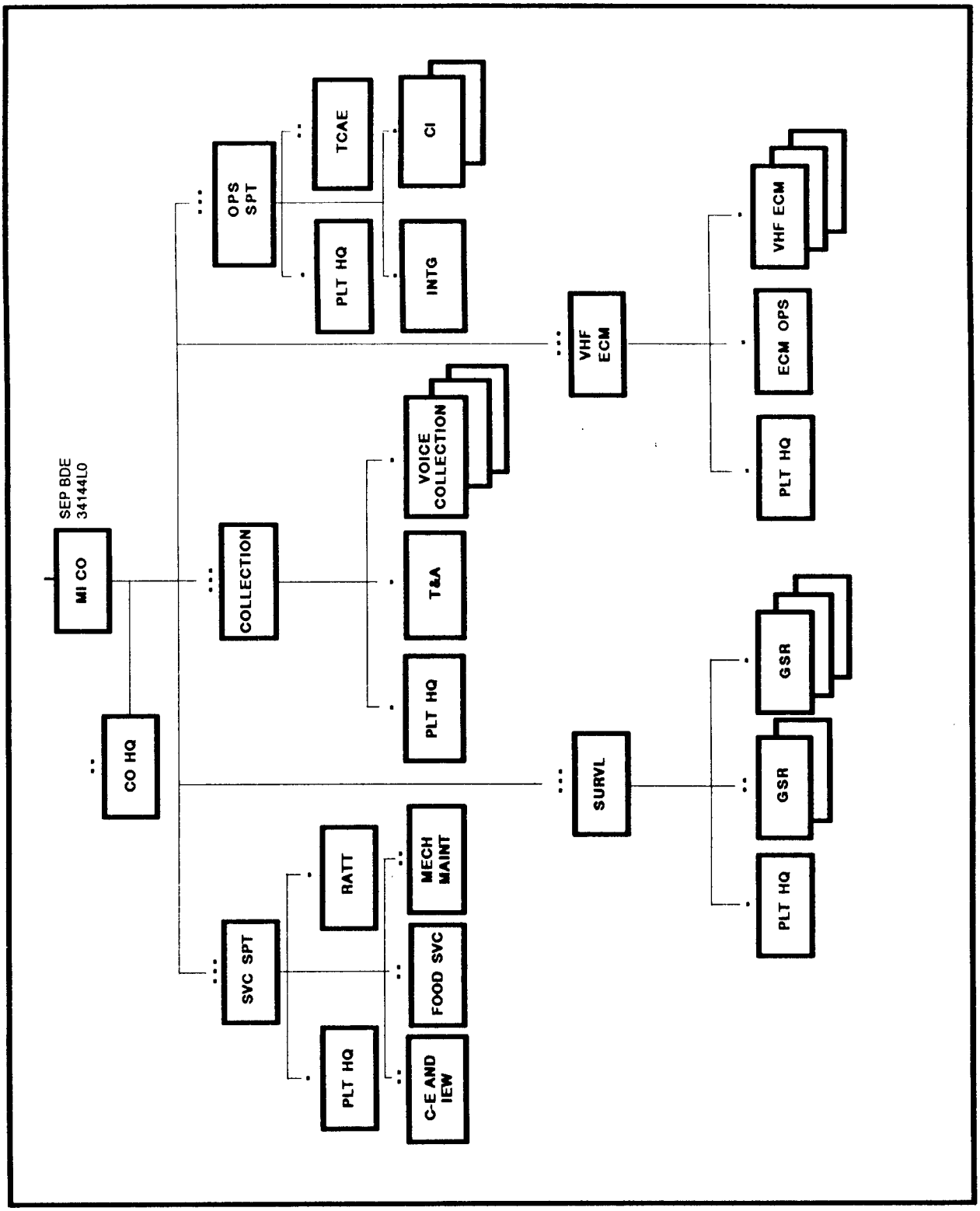


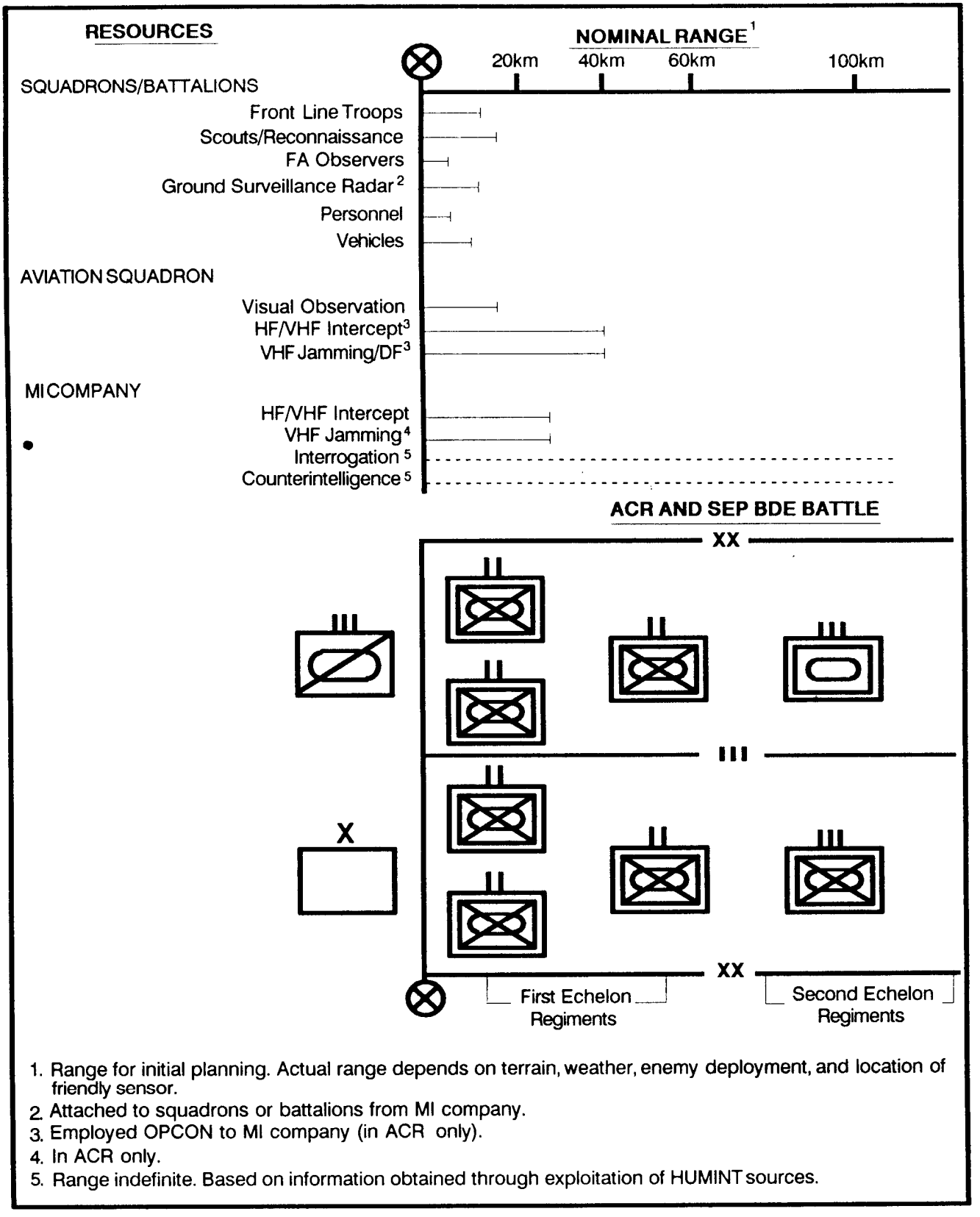
Figure 2-5. MI company (separate brigade) organization.

battlefield; it serves as an interface between the MI company, the deployed teams, and the battalion S2s.

The platoon leader's responsibilities include providing advice about GSR deployment, assisting deployed squads, and ensuring that GSR teams have the support and security needed to operate. Where necessary, the platoon leader can augment the intelligence section of a battalion for a short time. This is done to provide extra reconnaissance and surveillance (R&S) expertise to a battalion at a particularly critical time and place on the battlefield. Appendix B contains R&S planning guidance.

VERY HIGH FREQUENCY ELECTRONIC COUNTERMEASURES PLATOON

ECM support to the separate brigade is provide through the VHF ECM platoon. Figure 2-6 shows the ACR and separate brigade assets. Under the control of the TCAE, these assets are used to jam enemy VHF communications. There is no HF ECM capability in this platoon. The platoon has a secondary function of ESM. To support this function, the ECM operations section provides limited T&A capability. However, if the company task organizes in support of the brigade, this platoon will require augmentation to properly perfom 24-hour T&A operations.



1. Range for initial planning. Actual range depends on terrain, weather, enemy deployment, and location of friendly sensor.
2. Attached to squadrons or battalions from MI company.
3. Employed OPCON to MI company (in ACR only).
4. In ACR only.
5. Range indefinite. Based on information obtained through exploitation of HUMINT sources.

Figure 2-6. ACR and separate brigade resources.

CHAPTER 3

COMMAND, CONTROL, AND COMMUNICATIONS

ACR and separate brigade IEW resources must be able to deliver the information the commander needs to support the decision-making process. Rapid, reliable, and secure communications provide a means for IEW tasking and coordinating. It is the primary means the commander uses to get the intelligence, combat information, and targeting data he needs when he needs it.

This chapter describes the C^2 and communications systems that support IEW operations. The communication systems supporting these IEW operations are currently composed of VHF frequency modulation (FM) and HF RATT intelligence nets, which are being replaced by MSE. However, whatever the communications means, they are all integrated to complement each other and provide maximum flexibility, reliability, and responsiveness to support the ACR and separate brigade commanders.

The S2, S3, and the MI company commander are responsible for the IEW staff effort. They take the commander's guidance and translate it into terms the collectors and executors who support the ACR and separate brigade can use.

THE INTELLIGENCE AND ELECTRONIC WARFARE SUPPORT

The IEW system provides the same IEW support to the ACR and the separate brigade as it does to any other combat unit (see Chapter 1). The situation and target development tasks provide information on the enemy, weather, and terrain. This information is used in the intelligence estimate at the beginning of the decision-making process. These tasks continue through the battle. The situation changes as does the commander's plan. Producers change as well. As targets are selected and neutralized, target development priorities change. The process is dynamic. In the situation and target development process, combat information and other intelligence are analyzed to produce the all-source intelligence that satisfies the commander's PIR and IR.

COMMAND AND CONTROL

There are no significant differences in IEW C^2 between the ACR and the separate brigade. The ACR or separate brigade commander's concept of the operation generates the IEW mission. The S2 and S3 take this guidance and develop additional PIR and lR that support the commander's concept of the operation. Based on this guidance, the MI company commander can provide the direction subordinate elements need to accomplish the mission. The command and support relationships which direct MI company commanders are general support (GS), direct support (DS), GS-reinforcing (GS-R), and reinforcing.

General Support

GS provides MI support to the combat force as a whole, as directed by the force commander and primarily task-organized by the MI company commander. It is the most centralized of the support missions and provides MI support responsive to the maneuver commander.

Direct Support

DS provides support first to the supported unit and then to the force as a whole. An MI element in DS receives and executes missions directly on call from the supported unit. The element providing DS remains under the command of its parent unit.

General Support-Reinforcing

GS-R provides support to the unit as a whole, with secondary emphasis on reinforcing an MI element in DS or GS. An MI element with a GS-R mission responds to the needs of the unit commander first. Then it responds to requests from the reinforced MI element second. The GS-R element remains under the control of the parent unit.

Reinforcing

Reinforcing provides support to one MI element by another MI element. This support is responsive to the needs of the reinforced element. The reinforcing MI element is under the OPCON of the reinforced unit .

In addition to the standard support relationship, selected IEW resources also can be attached to squadron elements. Attachment is a command relationship. It places an asset under the temporary C^2 of the supported unit. The directive ordering this relationship establishes specific terms of attachment. An attachment is most often used when placing GSRs under squadron or battalion control.

KEY PLAYERS

The key players in fusing IEW into the overall tactical concept are the intelligence and operations staffs. Their missions are to support the commander and assist subordinate commanders.

The S2 and S3 must anticipate the commander's requirements. Both require a solid foundation in tactics to accomplish their missions. Their functions are reciprocal and complementary: both should be able to do the other's job and both require close cooperation and coordination. The S2 and S3 assist in developing and training subordinate unit intelligence and operations staffs.

The S2, S3, and the MI commander comprise the IEW team. The staff officers plan, organize, direct, coordinate, and control while the MI commander executes the directives. The IEW team is held together by the force commander. He gives the team leadership, motivation, focused perspective, and direction. FM 34-80 describes in detail the responsibilities and functions of the S2 and S3.

Maneuver Commanders

Maneuver commanders define the IEW mission and explain how it supports their concept of operations. They--

- Coordinate with supporting IEW unit commanders, such as the MI IEW company team commander, to organize IEW resources for combat .
- State their PIR, IR, and operational needs; specify their desired effects; and assign missions to subordinate unit commanders .
- Ensure that all organic, attached, or supporting unit commanders understand their intentions for IEW support to combat operations.

- Provide subordinate commanders the necessary latitude to make decisions that can allow rapid reaction to fleeting tactical opportunities.

The commanders position themselves to effectively control their combat forces. They accurately determine where the IEW effort must provide support priorities to ensure success. The relative need for information from the depth and width of the AO and the synchronization of various IEW resources, arms, and services are the two tactical considerations which determine where to place command posts (CPs).

Brigade and battalion commanders leave their CPs and position themselves at vantage points well forward in the AO, when circumstances dictate. Regardless of location, the commanders monitor and follow enemy actions based on real-time combat information obtained by IEW resources positioned throughout their respective AO. They track the actions of subordinate battalions and companies, respectively, through close coordination with their subordinate unit commanders. They also reamin cognizant of how units are being supported throughout their AO.

All unit standing operating procedures (SOPs) will address succession of command and delegation of authority. At the brigade and battalion levels, the executive off icers (XOs) know the commanders' location and communicate with him face-to-face, by amplitude modulated (AM) or FM radio, or through messengers. Special staff officers at both brigade and battalion level main CPs maintain similar contact with their unit commanders who are in support of combat operations. Unit SOPs establish who is in charge. Succession of command in all units is planned to permit continued combat operations in case the commander is incapacitated.

Staff

Brigade and battalion staffs are composed of people specifically ordered or detailed to assist the commander in the exercise of command. The commander uses his staff to accomplish his duties without becoming continually involved in many of the specific details incident to command. This allows him to obtain first-hand knowledge by visiting subordinate units. The staff reduces demands on the commander's time and assists the commander and subordinate units by–

- Issuing warning orders.
- Providing information.
- Making estimates and recommendations.
- Preparing OPLANs and OPORDs.
- Supervising the execution of established orders.

The relationship between the commander and staff must be close and effective. The commander clearly articulates his concept and intent for all operations. The staff then takes appropriate actions before and during the battle to attain the commander's objectives. This must be done without constant communication with the commander. The staff, understanding the

commander's intent and fully aware of time and distance factors, takes appropriate actions as the conditions of battle change.

This relationship applies to all attached or supporting IEW units in the brigade and battalion AO. It includes especially the MI battalion's IEW company team and its subordinate or attached platoons, squads, and teams.

Intelligence Officer

S2s coordinate the intelligence effort. Based on the commander's guidance and concept of the operation, the S2--

- Identifies intelligence requirements.
- Manages the collection effort.
- Supervises all-source analysis.
- Ensures rapid dissemination of needed intelligence and combat information.
- Through the RTOCSE or Brigade Tactical Operations Center Support Element (BTOCSE), tasks MI organizations and other elements of the command with collection missions.
- Requests support and receives intelligence from higher echelons, adjacent units, other services, Allies, and national sources.
- Integrates intelligence from all sources to meet the commander's information and operational needs.
- Gathers combat information and intelligence about the enemy, weather, and terrain.
- Uses his expertise to reduce battlefield uncertainties.
- Provides commander with estimates and other critical intelligence in support of unit operations.
- Thinks like enemy commanders and views the battlefield from an enemy point of view.
- Directs the intelligence effort to view the patterns of enemy activity that serve as indicators, focusing on specific rather than general requirements. S2 direction gives meaning to seemingly insignificant bits of information, and intelligence products of value to commanders are developed.
- Develops intelligence requirements and priorities.
- Prepares plans, orders, and requests for intelligence, ESM, and MDCI.
- Supervises and coordinates the command's intelligence collection, ESM, and MDCI activities to support situation development and target development.
- Processes information from all available sources to produce intelligence.
- Assesses enemy intentions.

- Develops document and personnel security policy for the command.
- Supervises the command's SS0.
- Supervises and directs the efforts of the engineer terrain team under his OPCON and coordinates support from other teams.
- Exercises staff supervision of the SWO.
- Supervises and coordinates predictions of fallout from enemy-employed nuclear weapons and chemical dispersion.
- Disseminates combat information and intelligence to other staff sections.
- Assesses enemy intelligence capabilities and procedures, their vulnerability to deception, and the effectiveness of friendly deception operations.
- Provides MDCI support.
- Prepares intelligence estimates and annexes.

Operations Officer

The S3 has staff responsibility for planning and directing the commander's operational concept of the mission. He is also responsible for the OPSEC, deception, and EW operations of the command. The S3--

- Plans and coordinates EW operations.
- Directs ECM actions needed to support planned and ongoing operations.
- Identifies, in coordination with the G2 or S2 (as appropriate), ESM requirements to support EW.
- Coordinates with the C-E officer to establish ECCM to protect friendly C-E operations.
- Prepares the EW annex to OPLANs and OPORDs.
- Identifies and recommends EEFI.
- Implements OPSEC measures to frustrate the enemy intelligence collection effort.
- Plans and coordinates deception operations to support the commander's scheme of fire and maneuver.

Fire Support Coordinator

The FSO plans and coordinates fire support. This officer needs intelligence and combat information for fire support targeting and target development. The FSO, S2, and S3 coordinate closely in selecting HPT's and developing targeting data for attacking HPT's.

MI Company Commander

MI company commanders must clearly understand the overall mission of the force commander, the MI unit mission, and how the MI unit will be organized to support the force commander's objective. The MI company commander--

- Selects objectives for MI unit assets that will directly and indirectly contribute to the ultimate objective.

- Establishes his CP at a place where he can best provide effective C^2 of assigned and attached elements. (The company CP usually locates 0.5 to 3 km from the ACR or separate brigade main CP.)

- Dispatches and retains C^2 of platoons and sections assigned DS or GS missions. Control of teams deployed for attachment ends when they reach the units to which they are attached. These elements may be employed forward, in the rear, or on the ACR or separate brigade flanks.

- Ensures that logistical support is available and is provided to his assets deployed in DS or GS roles. For surveillance squads attached to squadron or battalion task forces (BTFs), he is responsible for personnel and mission-peculiar support.

- Advises the ACR or separate brigade commander, S2, and S3 on the most effective employment of MI company assets.

- Ensures MI company assets are employed to provide support to the ACR or separate brigade in accordance with mission tasking.

- Assists deployed platoons and sections with mission-peculiar maintenance, supply, and personnel support.

- Checks deployed platoons, squads, and teams to ensure maximum operating efficiency.

- Coordinates the retrofitting of teams that have severe equipment damage or casualties.

- Assumes control and responsibility for all company assets during redeployment.

THE INTELLIGENCE CYCLE

Intelligence operations follow a four-phase process known as the intelligence cycle. The intelligence cycle, shown at Figure 3-1, is oriented to the commander's mission. Supervising and planning are inherent in all phases of the cycle.

The intelligence cycle is continuous. Even though the four phases are conducted in sequence, all are conducted concurrently. While available information is processed, additional information is collected. The intelligence staff plans and directs the collection effort to meet new demands. Previously collected and processed information (intelligence) is disseminated as soon as it is available or needed. Appendix C shows standard formats commonly used for reporting and tasking.

DIRECTING

The intelligence effort begins by determining requirements, establishing priorities, and communicating information or intelligence collection orders (to subordinate elements) and requests (to higher and adjacent units). The commander directs the intelligence and operations staff. Sources of

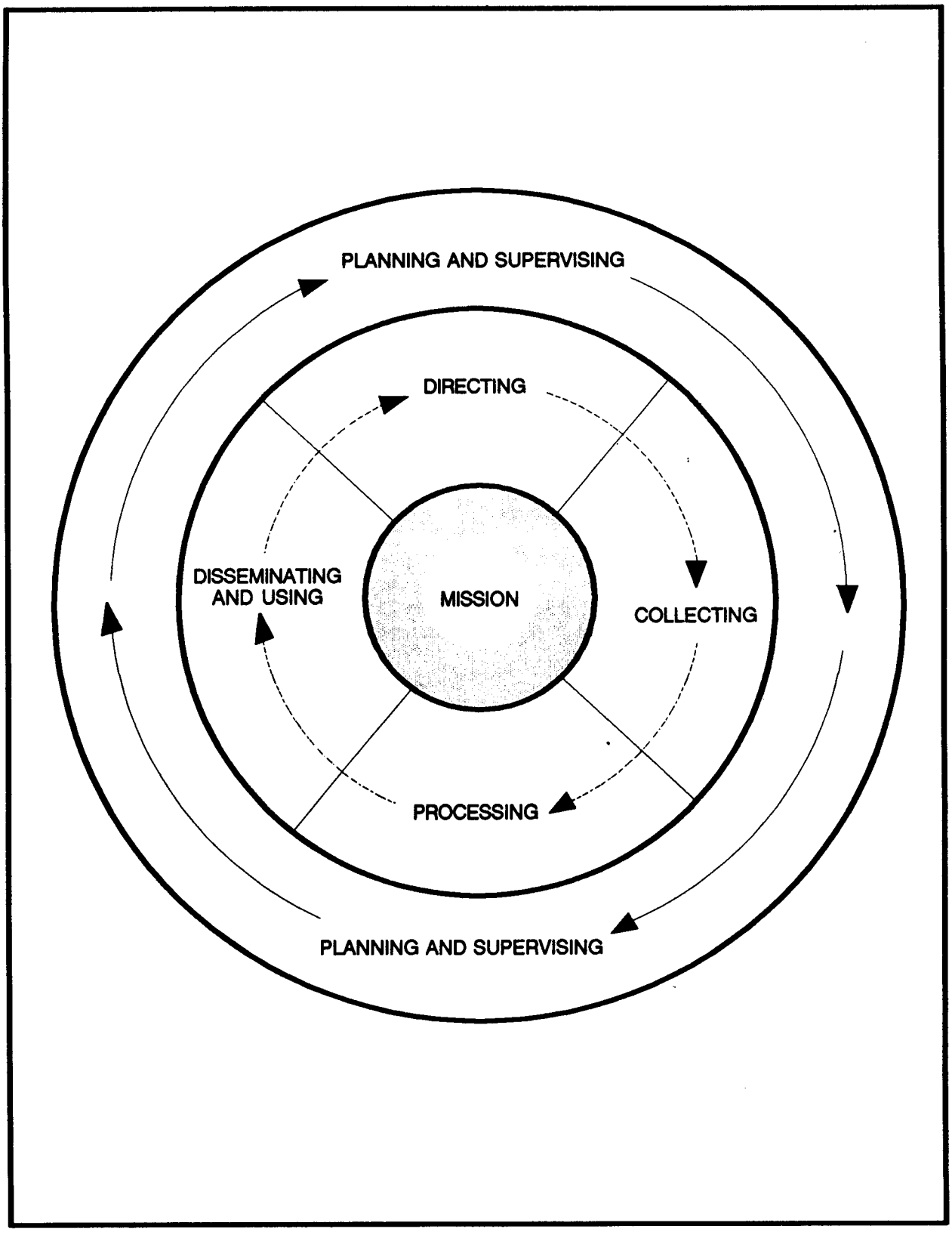


Figure 3-1. The intelligence cycle.

information or intelligence requirements include--

- Commander's planning guidance, concept of the operation, and stated requirements.
- Mission, enemy, terrain, troops, and time available (METT-T) analysis by intelligence and operations staff.
- RIIs from higher, adjacent, Allied, and subordinate units and elements, and from other staff elements within the command.

IR are items of information about the enemy and the environment that must be collected and processed to meet the intelligence requirements of the commander. IR can either support PIR or be stand-alone requirements of a lesser priority than PIR. Both PIR and IR serve as the basis for collection and intelligence efforts.

The most important IR are designated as PIR. The commander chooses PIR based in part on the recommendation of the S2. PIR are those intelligence requirements for which a commander has an anticipated and stated priority in the task of planning and decision making. However, an excessive number of PIR degrades efforts to focus relatively scarce intelligence collection resources on the most essential intelligence requirements.

Intelligence analysts in the IPS advise the S2 regarding the PIR and IR. They analyze METT-T factors and apply the commander's guidance and concept of the operation to determne what intelligence and information is needed. The IPS reviews the existing data base to identify information that is already available and that which must be acquired. They pass requirements for new information to the CM&D section as additional collection requirements. Figure 3-2 shows the directing phase from the commander's intent to the commander's requirements.

COLLECTING

Based on requirements, the CM&D section manages the collection effort. The CM&D section develops a collection plan that is keyed to the PIR and IR. It continuously updates the collection plan as the situation changes.

The IPS assists the CM&D section in planning and supervising the collection effort. It converts intelligence requirements into specific information requirements (SIR). SIR are keyed to indicators which, when integrated with other indicators and factors present on the battlefield, may provide clues to the enemy's most probable course of action. Collection operations generate information from various sources. This information is fed into the IPS. The IPS–

- Monitors incoming reports.
- Advises the CM&D section when PIR or IR are satisfied.
- Identifies new requirements.
- Detemïnes when previously requested information is no longer needed.
- Reports combat information immediately.

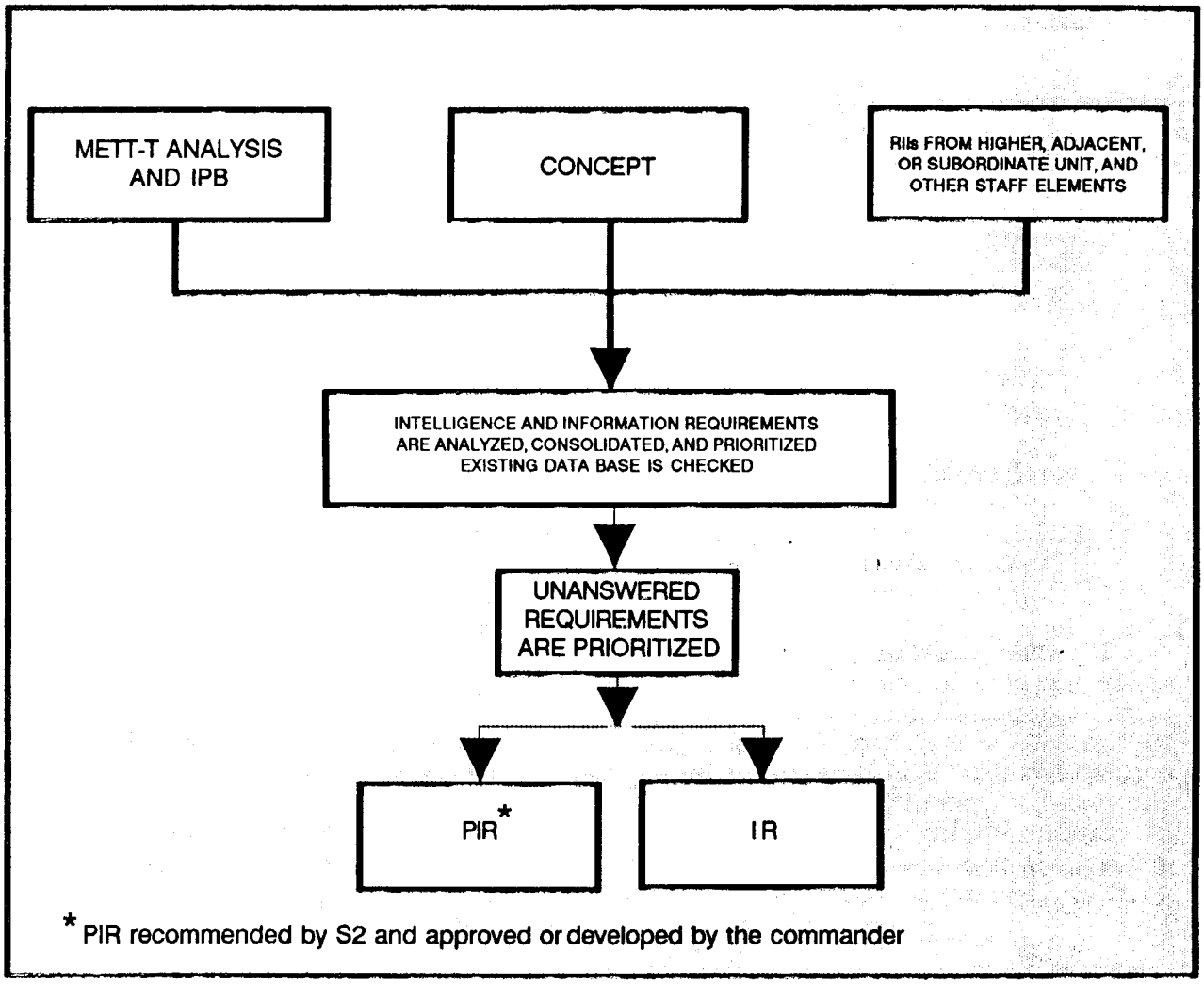


Figure 3-2. Commander's requirements and guidance.

- Processes information to develop the intelligence needed for tactical decisions and targeting.

PROCESSING

The IPS perfoms IPB and furnishes input to the intelligence estimate. Although a terrain analysis team is not provided to the ACR or separate brigade, this support can be provided by the terrain team (corps) or theater Army terrain support elements as appropriate. The IPS–

- Receives weather support from a USAF weather team from the Air Weather Service (AWS).
- Processes into intelligence information reported to the CM&D section.
- Brings together information from all sources to develop the products needed to meet the commander's requirements.

- Develops and maintains an extensive intelligence data base. This data base includes enemy intelligence collection capabilities, enemy air defense, and EEOB.
- Identifies gaps in the collection plan and reports these gaps to the CM&D section.
- Maintains an intelligence situation map (SITMAP) and any target folders needed to support the target development.
- Prepares and maintains IPB, situation development, and target development templates.

The USAF weather team, under the staff supervision of the S2, provides operational weather support to the ACR or separate brigade. The supporting USAF AWS unit provides personnel augmentation to the host MI company during tactical operations and training. The weather team is composed of–

- A SWO.
- A TOC forecast element.
- A weather observation team.

The SWO is the senior weather section representative, a member of the special staff, and principal advisor to the ACR or separate brigade commander and staff on operational weather support capabilities provided by the AWS. The SWO--

- Normally operates in the CM&D section of the TOC support element and maintains communications with the TOC forecast element.
- Receives coordinated weather support requirements (for forecasts, observations, climatological studies, and so forth) from the commander and staff.
- In turn, tasks appropriate elements of the weather team or other weather units to satisfy his requirements.

The TOC forecast element–

- Maintains the weather data base.
- Analyzes weather data and products.
- Issues tailored weather information and intelligence to organic elements requiring support.
- Provides inflight weather services for aircraft and receives pilot reports by FM radio.
- Operates the weather FM radio net.
- Operates the weather team teletype and facsimile equipment for multichannel communications with the weather team at the corps TOC.
- Uses dedicated HF RATT whenever multichannel is not available.
- Normally operates at the main CP complex but outside the TOC area.

- Must have reliable communications with each element requiring support.

The weather observation team takes local weather observations and measurements to satisfy local operational and meteorological requirements at helipads, landing zones (LZs), and/or drop zones (DZs). It transmits observations to the TOC forecast element via the FM radio net or other available cummunications. The forecast element, in turn, transmits tactical weather products to the deployed team.

The terrain team (corps) assists the IPS in its IPB functions by producing general and detailed military terrain analyses, trafficability studies, overlays, and overprinted maps. These terrain intelligence products are used as a basis for determining the effects of weather on the terrain and projected military operations. The terrain team (corps)--

- Provides terrain analysis and map evaluation support to the corps.
- Deploys to the corps main CP complex and works with the all-source production section (ASPS) under the staff supervision of the G2.
- Collects, compiles, and produces graphic and textual data in support of corps needs.
- Establishes and maintains at least two close interfaces to enhance the IPB support mission.
- Interfaces with the team's parent engineer topographic battalion at EAC for terrain analysis and map evaluation support beyond its capability.
- Interfaces with the imagery interpretation (II) section at the corps ASPS for aerial imagery and technical II support.

These teams are not found in either the ACR or the separate brigade structure. Instead, they are normally attached or under OPCON from the parent corps.

DISSEMINATING AND USING

Disseminating and distributing intelligence and combat information to the right user at the right time is critical. A fast-moving battle dictates the use of the quickest means of distribution. Electrical message, secure voice radio, and telephone are the primary means of distribution. Standardized report formats, as well as fragmentary unformatted messages, carry the bulk of information and are transmitted quickly to keep pace with the constantly changing situation.

The dissemination function in the CM&D section is as important as the collection management function. Intelligence and combat information are of little value if not delivered when and where they are needed. Failure in this respect defeats a thorough and successful collection and processing effort.

While the CM&D section is responsible for dissemination, actual distribution requires the

coordinated efforts of the entire S2 Staff. The SOP must lay out specific distribution means. Some of these distribution means are frequencies, addresses, and report formats; or other means based on mission requirements, battlefield situation, and available resources. The S2 staff elements responsible for dissemination, including distribution, are the CM&D section, the ASPS, and the operations and plans section.

CURRENT COMMUNICATIONS SYSTEMS

The current family of communications systems includes radio, wire and telephone, and messengers. The user decides on the best system to transmit messages considering the speed and security of each system. The same message may be transmitted by different means in different situations.

FREQUENCY MODULATION RADIO

The company's primary means of communication is FM voice radio in the VHF range. Radios are limited by line of sight (LOS). All MI FM nets in the ACR or separate brigade are securable. The net diagrams shown are the same for ACR and separate brigade. Specific terminology may differ. FM radios can be remoted to remove the electronic signature from the operator.

The company commander exercises C^2 over his company via the FM radio command and operations net (Figure 3-3). An FM radio link between the CM&D section and the TCAE is used for tasking and reporting intelligence information (Figure 3-4).

FM radio is also used for mission tasking and reporting between the TCAE and the two EW platoons (Figure 3-5). Each EW platoon has an internal FM mission control net (Figure 3-6). A similar net can be used by the surveillance platoon when required. However, since surveillance teams are normally attached to squadrons and battalions, they generally operate in the squadron or battalion battlefield information coordination center (BICC) net (Figure 3-7).

The company commander and the TCAE are part of the ACR or separate brigade command and operations and intelligence nets (Figures 3-8 and 3-9). The service support platoon of the MI company participates in the supported unit's administration and logistics net. There is also an administrative and logistics net internal to the MI company (Figure 3-10).

ULTRA HIGH FREQUENCY

There is an ultra high frequency (UHF) voice and data link to the OPCON QUICKFIX aerial platforms. The two T&A teams monitor and participate in these links as required (Figure 3-11). There is also a UHF communications link with certain corps aerial exploitation battalion assets via the commander's tactical terminal (CIT).

MULTICHANNEL

The forward radio company of the corps signal brigade installs, operates, and maintains a multichannel terminal at the combat unit TOC. Elements of the combat unit, including the CM&D section, use this terminal to enter the corps

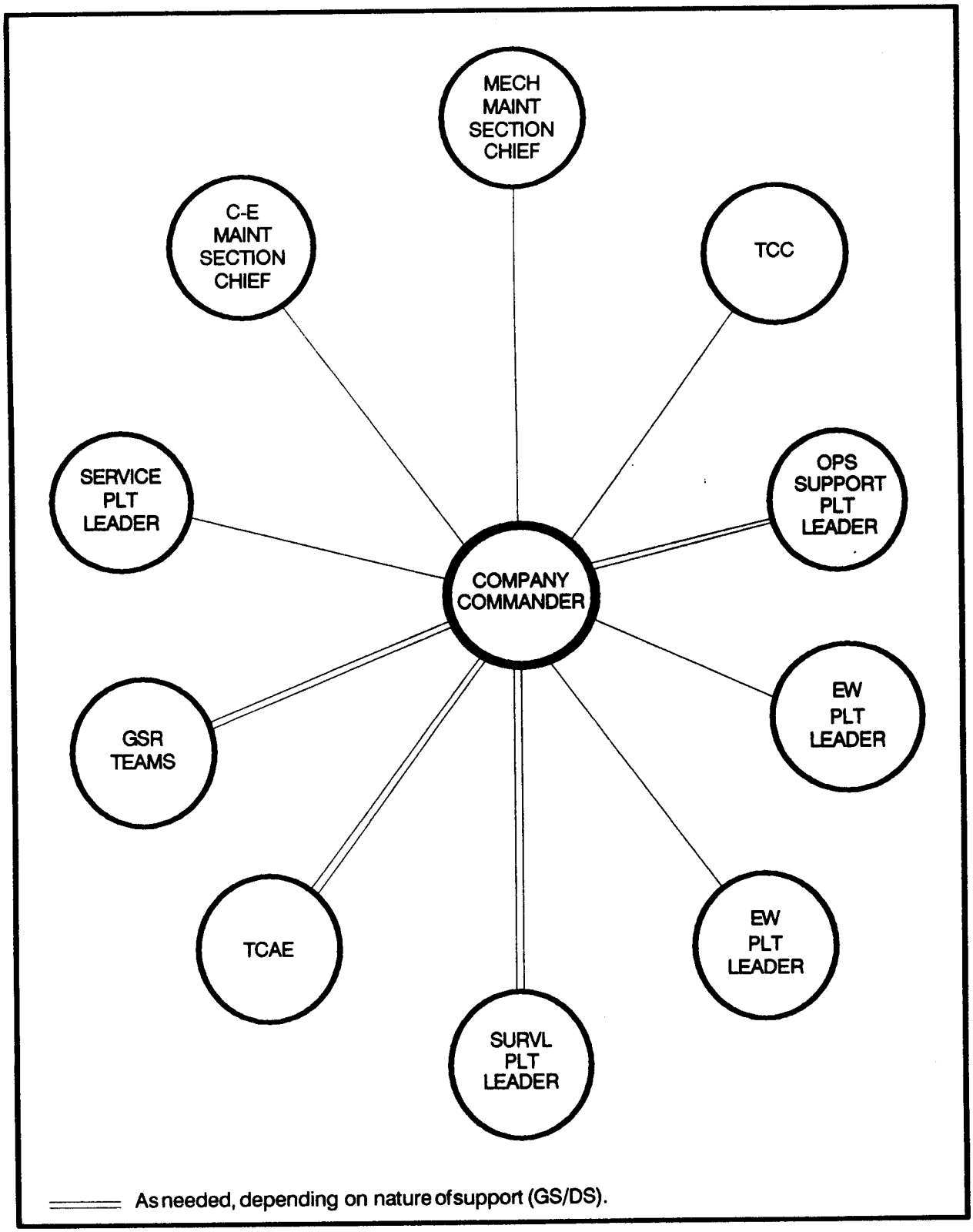


Figure 3-3. MI company command net (FM voice).

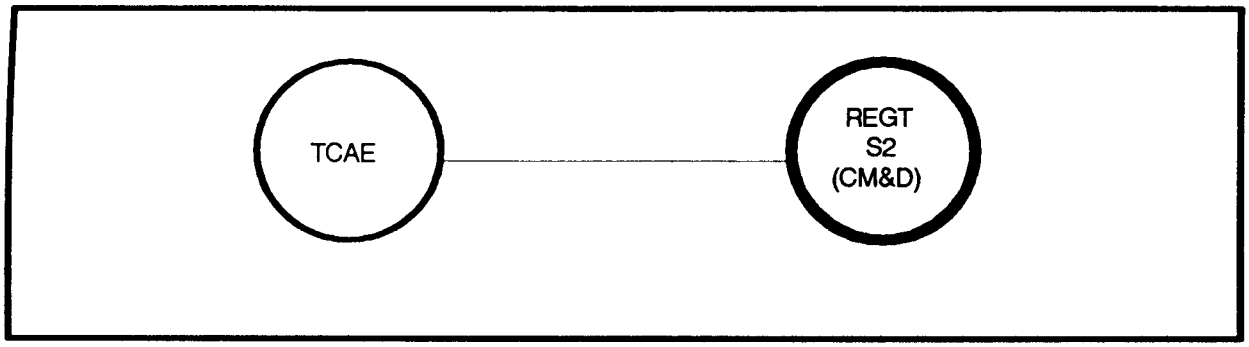


Figure 3-4. CM&D tasking and reporting net (FM).

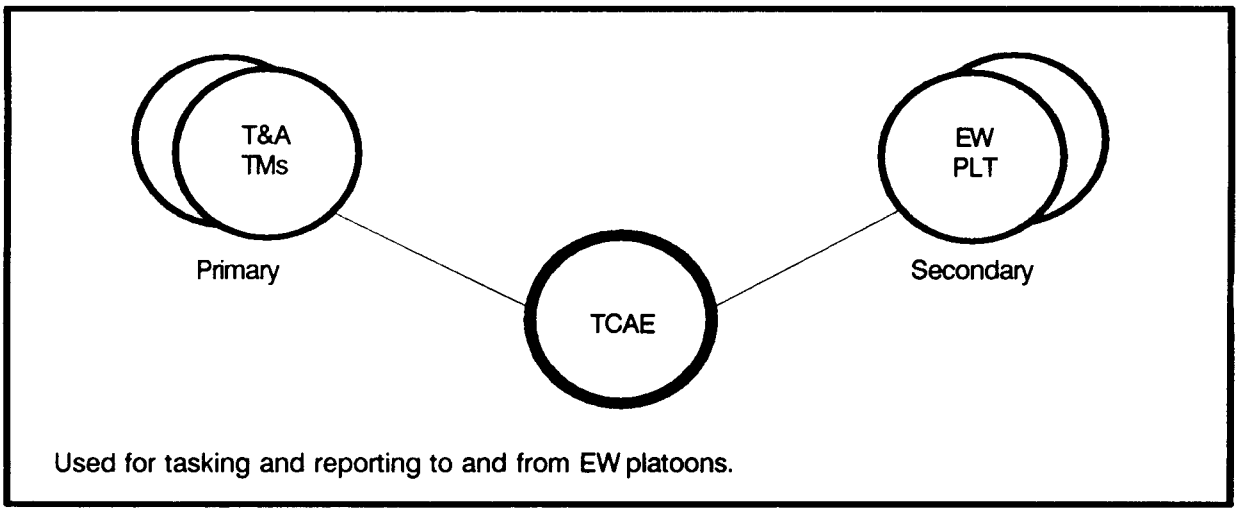


Figure 3-5. TCAE operations net (FM) secure.

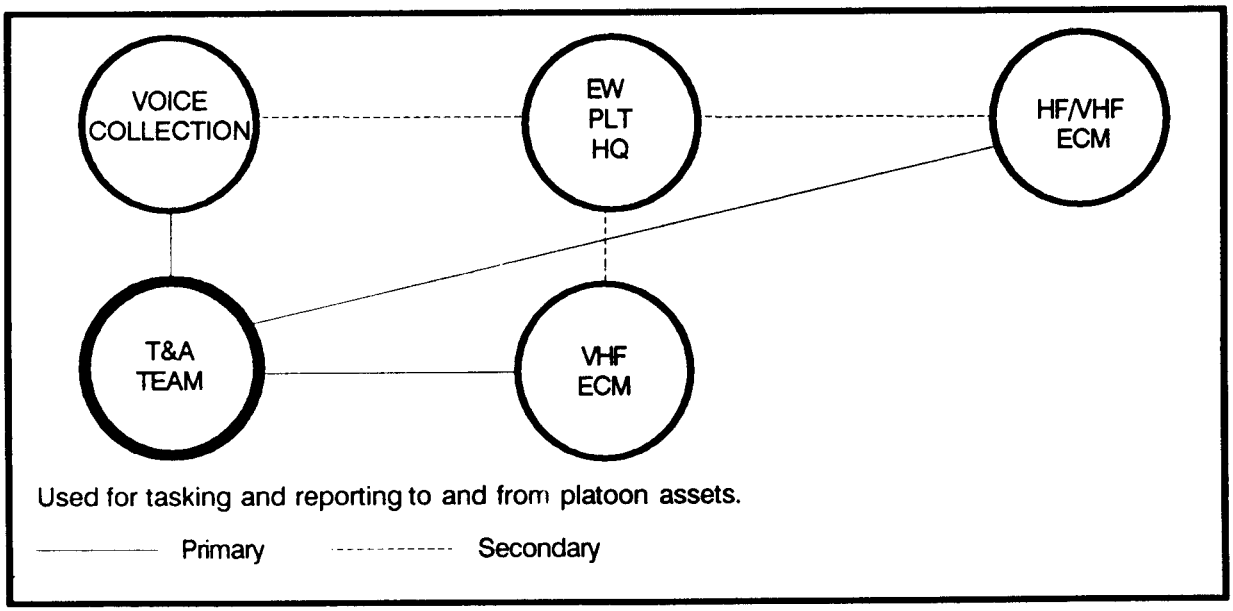


Figure 3-6. EW platoon mission net (FM) (one for each EW platoon).

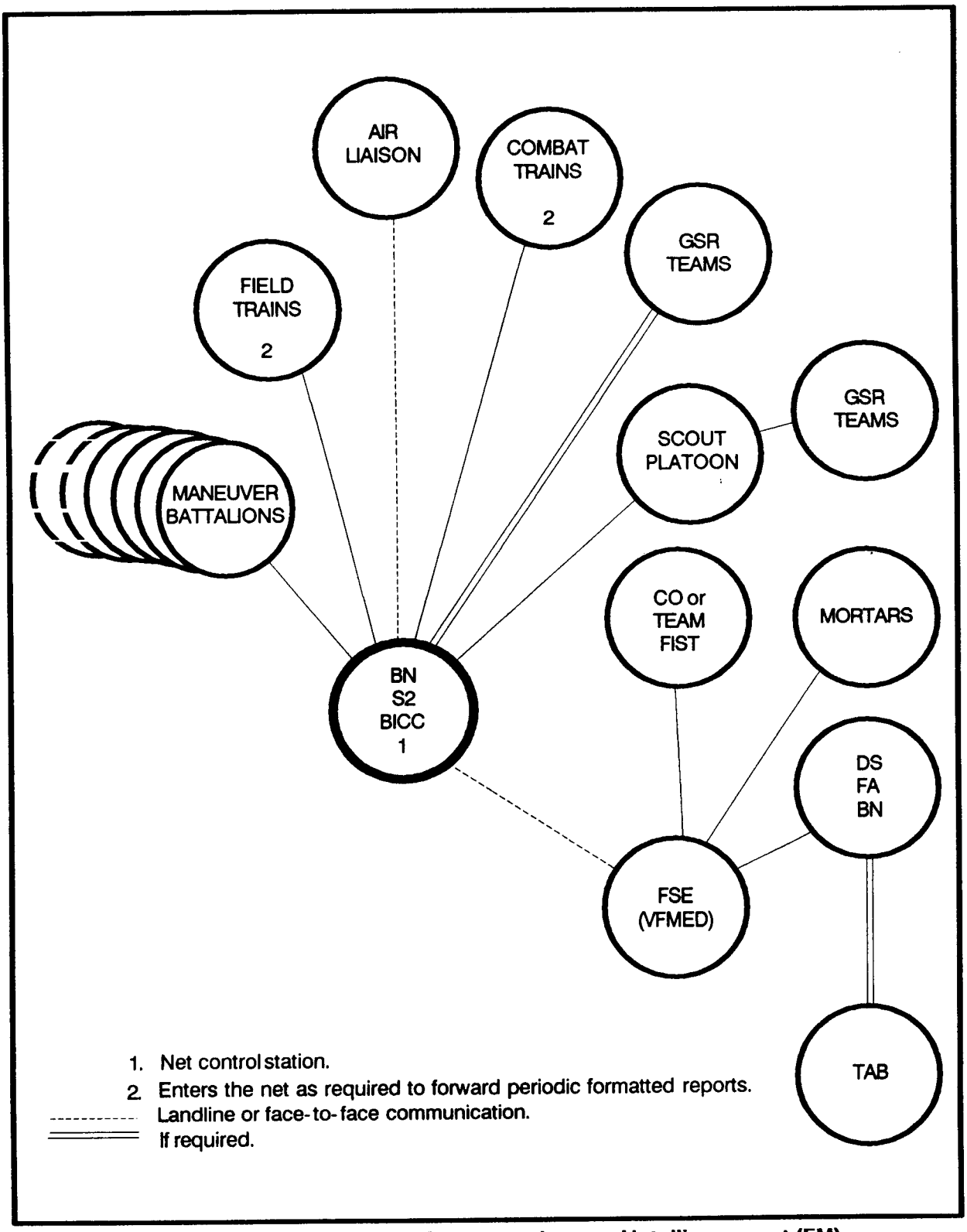


Figure 3-7. Battalion or squadron operations and intelligence net (FM).

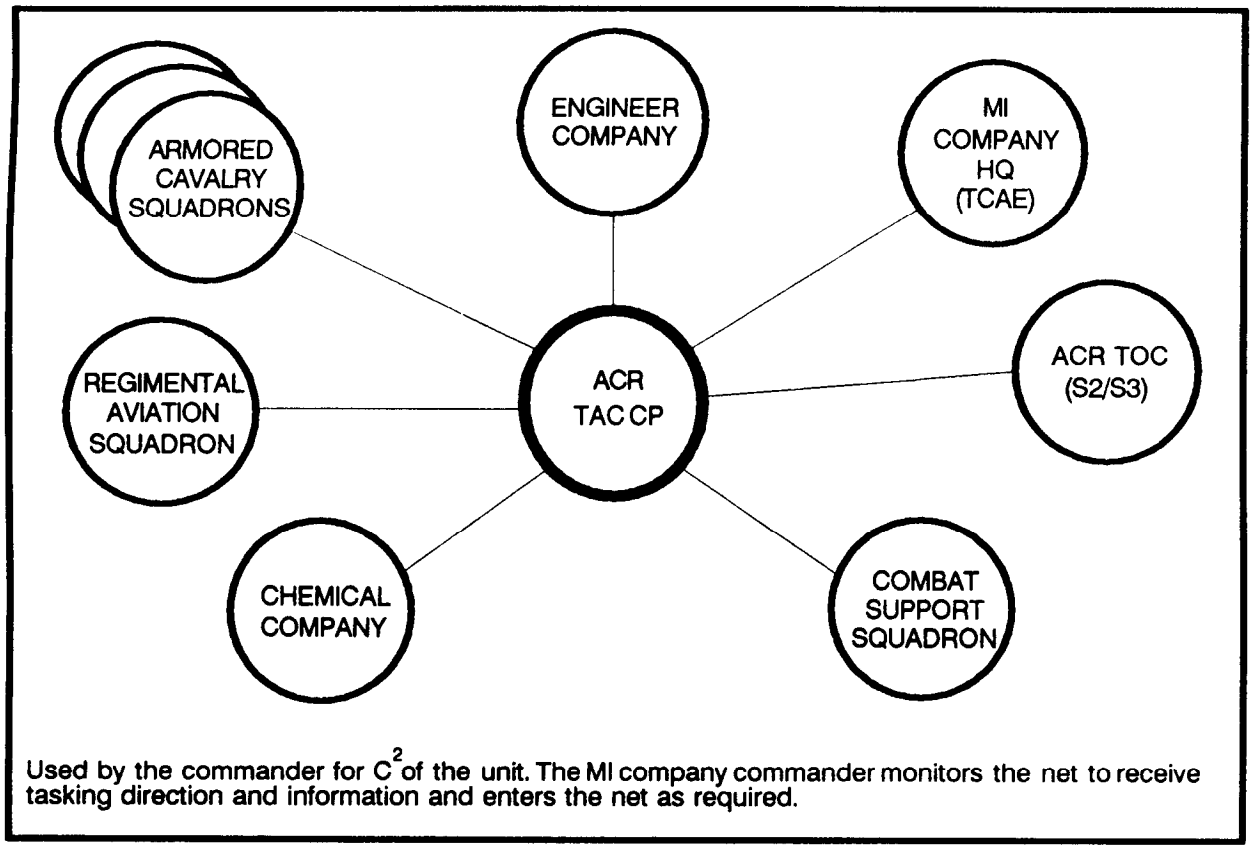


Figure 3-8. Regiment or brigade command net (FM).

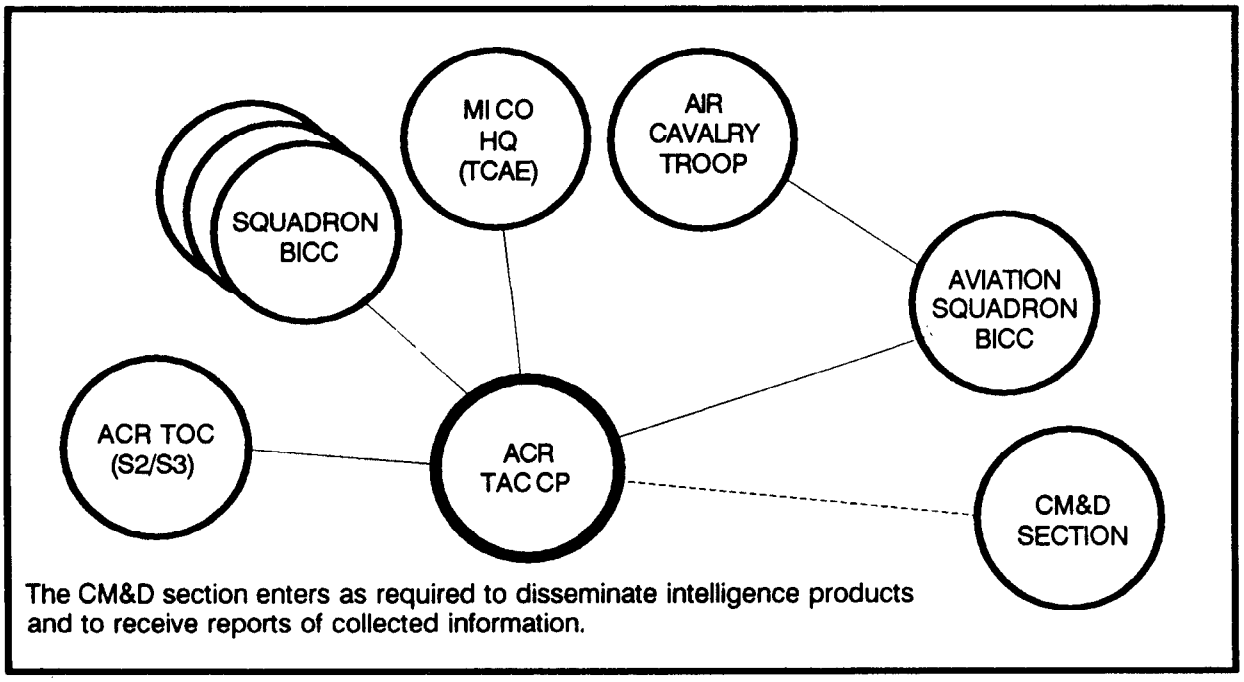


Figure 3-9. Regiment or brigade operations and intelligence net (FM) (AM voice: backup).

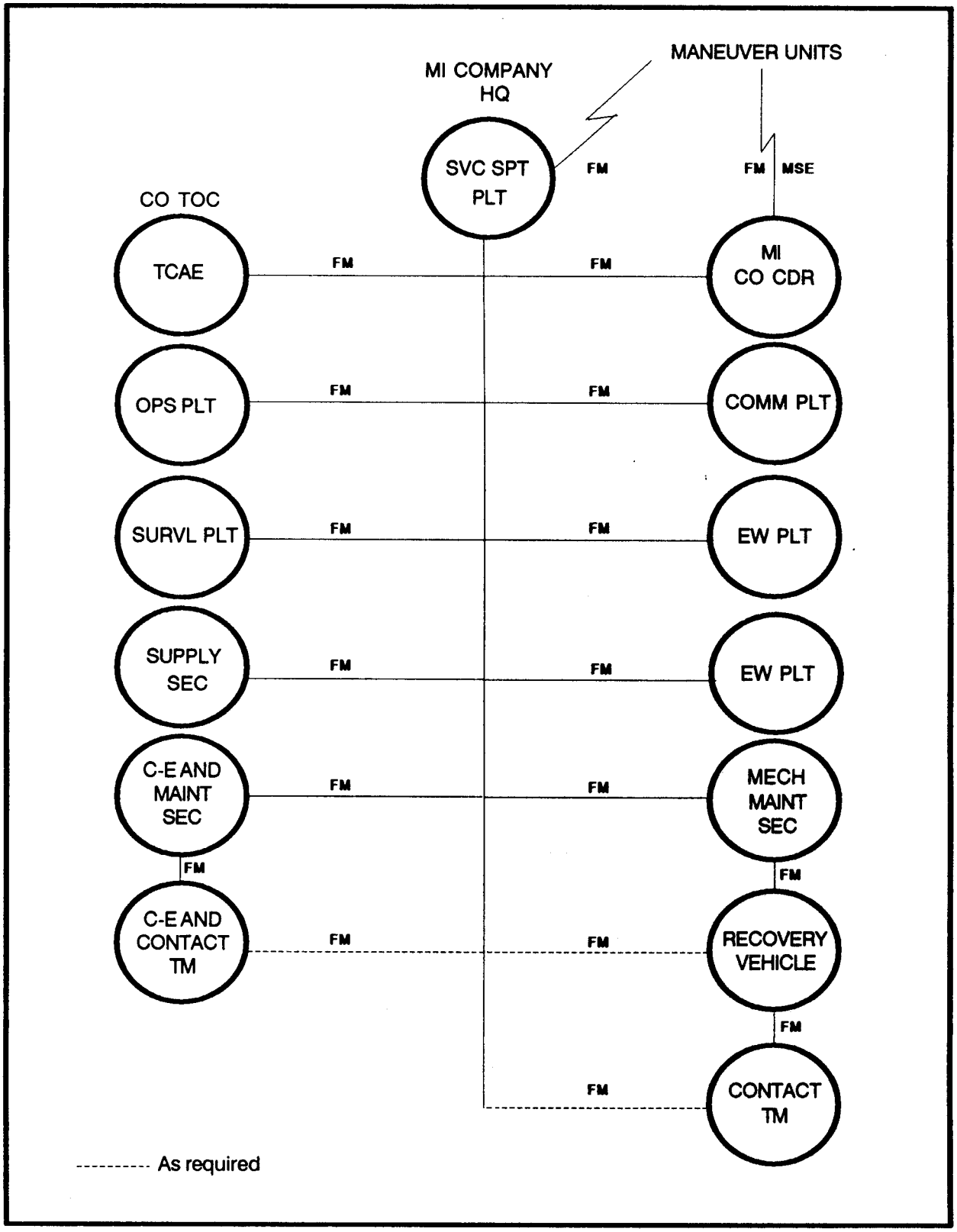


Figure 3-10. MI company administrative and logistics net.

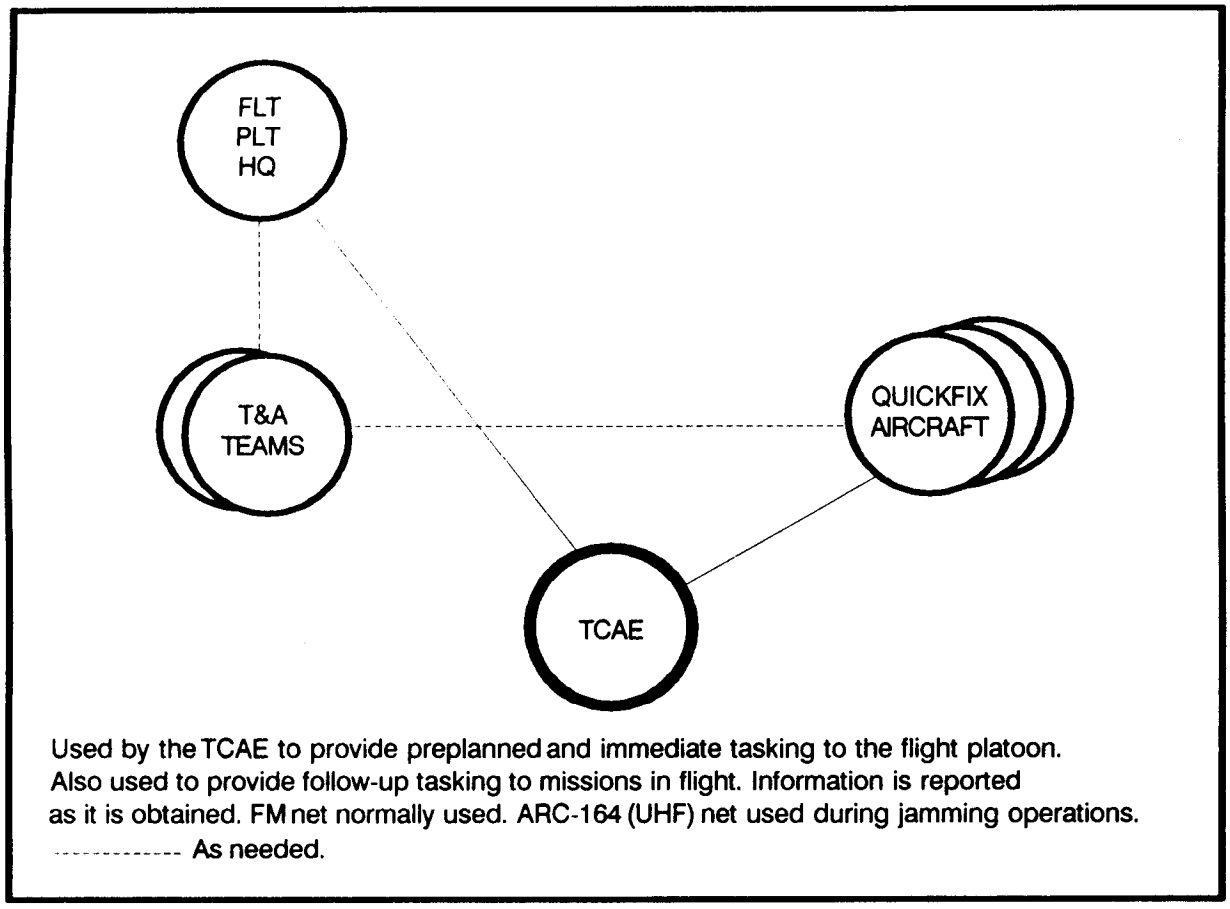


Figure 3-11. MI company flight platoon tasking and reporting net (FM) (secure or UHF).

multichannel network. This is a secure area communications system connecting major corps elements, including corps main, corps tactical CP, Corps Support Command (COSCOM), subordinate divisions, and corps CS and CSS units.

The MI company has an organic multichannel terminal which, when connected with the corps multichannel network, permits record copy communications between the company and the combat unit CM&D section, the corps MI brigade, the corps TCAE, the corps G2, and other corps assets. The MI company enters the corps multichannel system through the access node at the combat unit's TOC, using its own cable and wire to complete the link. This means the company TOC needs to be located within 2 to 3 km of the combat unit TOC.

RADIOTELETYPEWRITER

The MI company has organic RATT equipment for record traffic tasking and reporting between the TCAE and deployed EW platoons (Figure 3-12). The RATT produces a larger electronic signature than FM voice radios. This increased signature makes the TCAE and the EW platoon operations centers more vulnerable

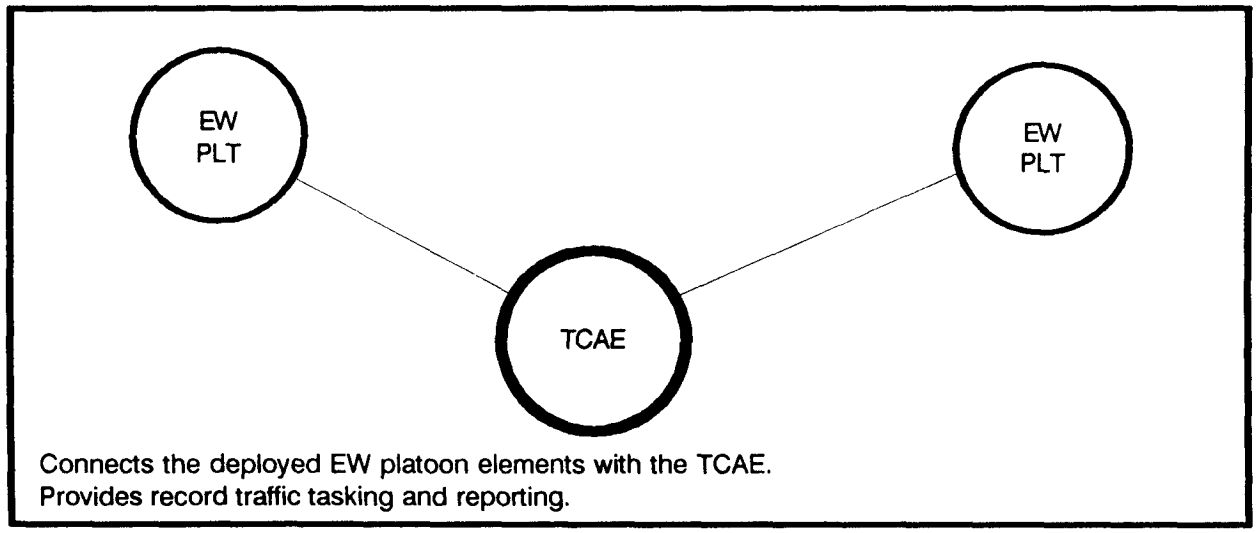


Figure 3-12. MI company operations net (RATT) (one for each EW platoon).

Figure 3-12.

on the battlefield to threat radio electronic combat (REC).

The company RATT section provides personnel and equipment to install and operate the organic RATT equipment located at the TCAE and with the deployed EW platoons. The communications company of the corps MI brigade provides the personnel and equipment to operate the RATT links to the TCAE and the CM&D section. The corps CM&D RATT net serves a dual function by doubling up as the corps SSO link to the combat unit (Figures 3-13 through 3-15). These nets give the CM&D section and the TCAE the capability to enter corps RATT nets. This includes sensitive compartmented information (SCI) nets.

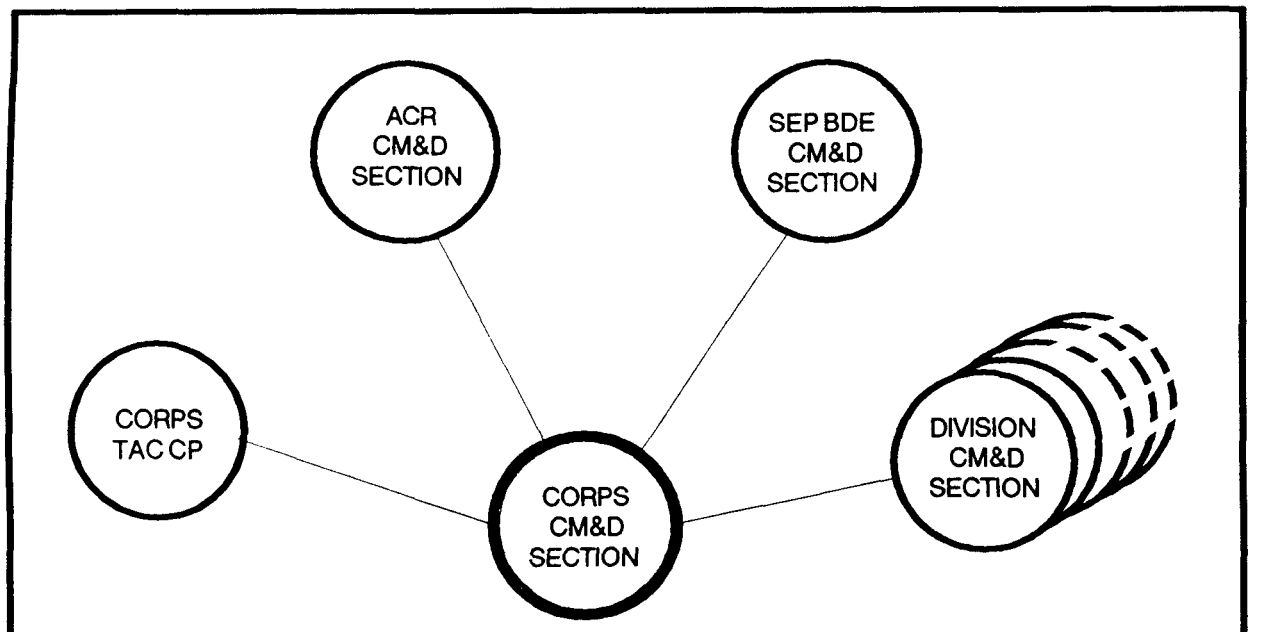
The ACR and separate brigade weather nets (RATT or facsimile) are used to exchange weather information between the corps and the ACR and separate brigade AF weather team.

WIRE AND CABLE

Wire and cable communications interconnect elements located in the company TOC. Wire and cable are also used to connect the company communications assets into the combat unit's TOC multichannel node. EW platoon operations centers also use wire and cable when applicable.

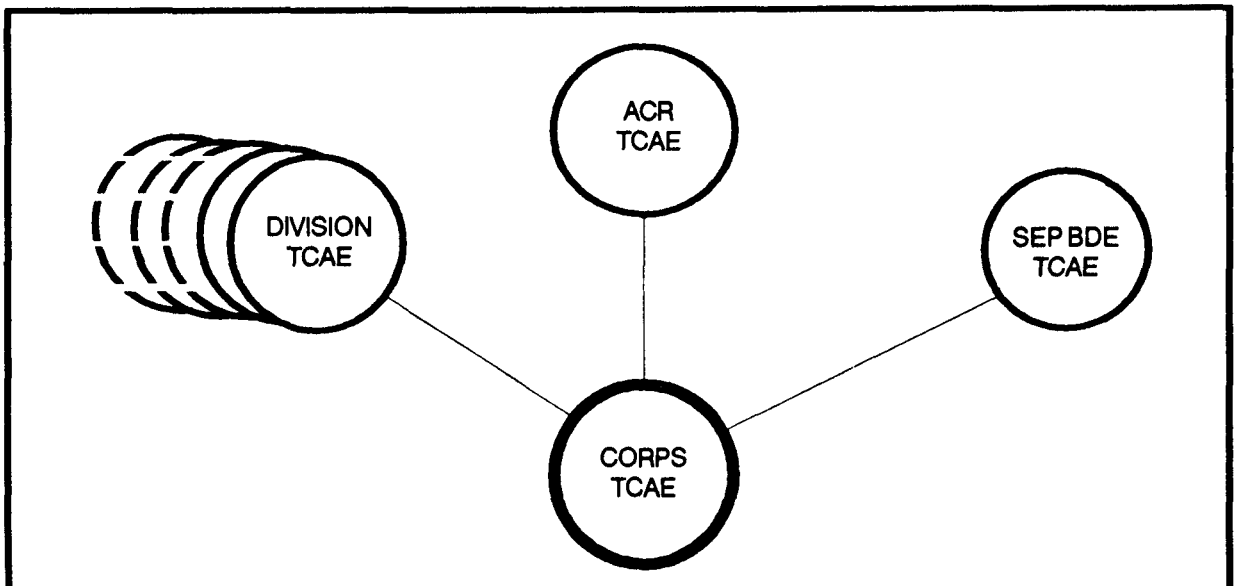
MESSENGER

The MI company also uses messengers to transport sensitive information. Messengers provide the most secure means of communication available. The corps may provide air messenger service. When possible and combat effective, visual and sound signals are used to communicate on the battlefield. Refer to the signal operation instructions (SOI) for information on visual and sound communications.



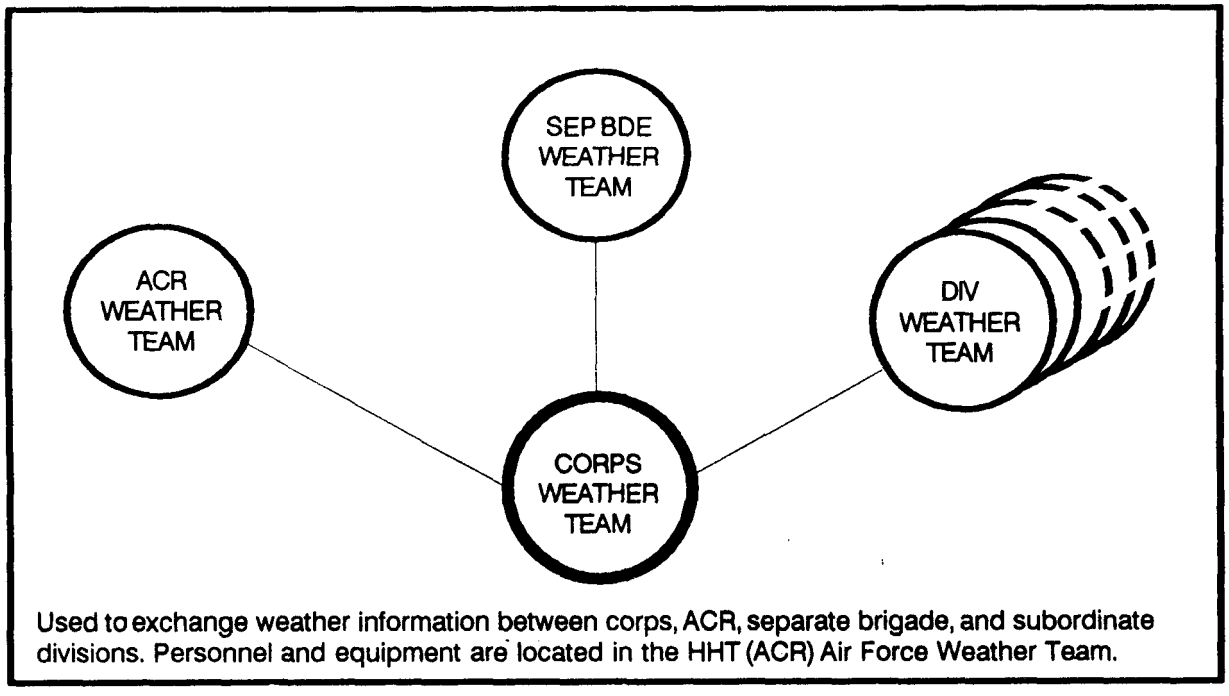
The corps brigade provides personnel and equipment to the ACR or separate brigade CM&D section to operate a station in this net. Can disseminate collateral and SCI products. Provides backup to the Corps Multichannel System. This net doubles as the corps SSO net.

Figure 3-13. Corps CM&D net (RATT).



The corps brigade provides personnel and equipment for the unit TCAE to operate in this net. Used to exchange technical control data and EW information and intelligence.

Figure 3-14. Corps TCAE operations net (RATT).



Used to exchange weather information between corps, ACR, separate brigade, and subordinate divisions. Personnel and equipment are located in the HHT (ACR) Air Force Weather Team.

Figure 3-15. Corps weather net (RATT or facsimile).

FUTURE COMMUNICATIONS SYSTEMS

The Army is conducting an upgrade of its communications systems. These new systems will be more resistant to jamming and will be simpler to use.

SINGLE CHANNEL AND GROUND AIRBORNE RADIO SYSTEM

The current VRC-12 series of VHF/FM radios is being replaced by the Single Channel and Ground Airborne Radio System (SINCGARS). This new radio will provide enhanced ECCM capabilities. SINCGARS radio nets are identical to FM radio nets.

MOBILE SUBSCRIBER EQUIPMENT

The Army is replacing the current system of multichannel equipment with MSE. This includes RATTs and TOCs. MSE is a common-user communications system within the corps, providing both static and mobile communications. It provides communications to CPs and selected high priority units from the forward brigade or covering force area (CFA) to the corps rear. Both the ACR and the separate brigade will field MSE.

MSE allows the user to install several types of terminal communications equipment. Voice communications are provided by digital nonsecure voice terminals (DNVTs), digital subscriber voice terminals (DSVTs), and mobile subscriber radiotelephone terminals (MSRTs). Hard-copy is provided through lightweight digital facsimile (LDF) and communications terminals (CTs).

The DNVTs and DSVTs are installed with landline into either a large extension node (LEN) or a

small extension node (SEN). LENs are normally found only in support of large CPs, such as the corps main CP. There are two versions of the SEN, either or both of which may be found in the ACR or separate brigade AO. The SEN(V1) is equipped to handle up to 26 wire subscribers. The SEN(V2) accommodates up to 41 wire subscribers.

Unlike the DNVT and DSVT, the MSRT is a mobile system. Using the MSRT, the subscriber uses radio access units (RAUs) to access the MSE network. RAUs are positioned throughout the battlefield to provide overlapping coverage. Each RAU has a nominal effective radius of 15 km, depending on the terrain. LDFs and CTs are separate units which can be attached to the data port on the DSVT, DNVT, or MSRT.

The SEN and LEN use highly directional antennas. These antennas are resistant to jamming and DF. The MSRT uses an omnidirectional antenna. This antenna operates in the tactical FM range so it is susceptible to both DF and jamming. Operators must be trained in proper radiotelephone procedures to reduce the risks to DF and jamming. While the electronic signature of the MSRT is identical to the current VRC family of radios, it is significantly different from SINCGARS. This is important because only high-priority units or assets will be using the MSRT. That means it will be an enemy HVT.

All components of MSE, including the DNVT, are secured to transmit up to collateral SECRET. In addition, users of the DSVT and MSRT may encrypt their transmissions for anything up to SCI by using a special variable, just as we do now when we use the VINSON communications security system to transmit SCI.

The Corps Communications Brigade provides LEN, SEN, and RAU according to the corps commander's plan. Thus, there is no doctrinal number of assets allocated to the ACR or separate brigade AO, although we expect at least one SEN will be located near the ACR or separate brigade TOC. This is the location that the MI company uses for access to the MSE network. The need for communications with the corps is one factor which drives the placement of the MI CP to within .5 to 3 km from the ACR or separate brigade TOC.

The MI company of the ACR and separate brigade have identical sets of projected MSE, as shown in Figure 3-16. The TCAE has three LDFs and two CTs to provide nonvoice communications with other units. These are not used for communication with QUICKFIX. TCAE-QUICKFIX communications will remain UHF data links. The IPS of the ACR and separate brigade have an equipment fill identical to the CM&D. Communications for the USAF weather team are provided by one dedicated DNVT and one LDF.

Any MSE user can access any other MSE user simply by dialing a telephone number. Specific numbers are in the MSE telephone directory. There are no dedicated links, such as with RATTs. Instead, any station may call any other station to pass traffic. There will be a number allocated to each terminal. Thus, the TCAE will have five numbers allocated, one for each DSVT, DNVT, and MSRT. This means authorized subordinates can communicate as needed. It also reduces the chance

ACR	SEP BDE
CM&D 1 x DNVT, 1 x DSVT, 1 x CT, 1 x LDF IPS 1 x DNVT, 1x DSVT, 1 x CT, 1 x LDF USAF WEATHER TEAM 1 x DNVT, 1 x LDF	CM&D 1 x DNVT, 1 x DSVT, 1 x CT, 1 x LDF IPS 1 x DNVT, 1x DSVT, 1 x CT, 1 x LDF USAF WEATHER TEAM 1 x DNVT, 1 x LDF
MI CO	MI CO
CO HQ 1 x MSRT, 1 x DNVT TCAE 1 x MSRT, 3 x DSVT, 1 x DNVT, 3 x LDF, 2 x CT C&J PLT (x2) 1 x MSRT, 1 x DSVT C-E MAINT 1 x DNVT	CO HQ 1 x MSRT, 1 x DNVT TCAE 1 x MSRT, 3 x DSVT, 1 x DNVT, 3 x LDF, 2 x CT COLLECTION PLT 1 x MSRT, 1 x DSVT ECM PLT 1 x MSRT, 1 x DSVT C-E MAINT 1 x DNVT

Figure 3-16. Projected MSE sets in ACR and separate brigade.

that a station will be unavailable when important traffic needs to be passed.

The actual use of the MSE depends on the type of operation being conducted. For example, in highly mobile operations like pursuit, a roving force screen, or some covering force operations, there may not be time to emplace SEN and run landline to them. In these cases, the MSRT is used, assuming sufficient RAUs have been placed into the AO.

When either the ACR or separate brigade is used in an economy of force role, or in some type of operation allowing the force to be relatively stationary, MSE is the communications system of choice. In these situations there is generally time to run landline to the SEN for use with the DNVT and DSVT. Running this landline is a user responsibility, not a function of the signal unit. The end result is a more secure communications link that is less susceptible to jamming or DF.

Another benefit of MSE is that it allows the ACR and separate brigades near real-time access to the data bases and intelligence products of the corps. This is whether they access these data bases through stationary or mobile units. This includes not only the corps itself and the subordinate divisions but also such diverse units as air defense artillery (ADA), engineers, medical, and others with unique intelligence value.

CHAPTER 4

COMBAT OPERATIONS

This chapter describes the doctrinal principles for employing IEW resources in support of various combat operations. It uses the l0th US Corps, the 208th ACR, and the 312th Separate Brigade as examples. It describes, in scenario format, how IEW assets deploy in these operations, how they focus their efforts, and how they integrate their operations with unit operations.

Elements of the IEW system join with other combat and support elements to form the combined arms team. Employing IEW resources as part of that team multiplies the combat power of the unit. These assets allow the ACR or separate brigade to use fire and maneuver effectively, determine enemy intentions, disrupt enemy C^2, and protect the unit and its operations from enemy intelligence collectors. The commander integrates IEW with the scheme of fire and maneuver to support all phases of the battle.

MISSION

The employment of IEW assets depends on METT-T, the commander's concept of the operation, and the missions specified in OPLANs and OPORDs. To support the maneuver commander properly, the MI commander and staff officers must understand the purpose and conduct of combat operations.

SECURITY MISSIONS

There are three types of security missions: screen, guard, and cover. The ACR conducts all three on behalf of the parent corps. The separate brigade may also conduct these operations, but its structure is best suited to the guard and cover missions.

SCREEN

The purpose of screening missions is to provide early warning to the main body. IEW assets rarely oonduct detailed operations because of the size of the AO in a screen, the time available, and the mission. By the time the screening operation starts, most of the situation development work should be done.

Screening forces–

- Maintain surveillance.
- Provide early warning to the main body.
- Impede and harass the enemy with supporting indirect fires.
- Destroy enemy reconnaissance elements, if possible.
- Maintain contact, but not become decisively engaged with the enemy.

Stationary Screen

When screening a stationary friendly force, the commander designates a phase line (PL) along or near the planned OPs. The commander also designates a PL designating the rear of the screen area. The area between these two PLs is the responsibility of the screen commander. MI assets

belonging to the screen commander occupy positions between these two PLs or coordinate with the commander of the main body for permission to be in the main force's area.

The MI commander makes sure MI assets do not occupy areas the screening force designates as OPs. He also makes sure MI assets are told as far in advance as possible of anticipated friendly movement. One technique is to locate a platoon headquarters near a squadron or battalion TOC and to assign the MI platoon leader to liaise with the screening commander's staff. Because MI assets need more time to prepare to move than screening forces, they must have advance notice if they are to stay with the forces and still maintain battlefield coverage. Thus, to properly support a screening force operation, MI assets must be mobile. MI assets must be able to move all of their equipment and systems quickly and efficiently with organic IEW equipment.

Moving Screen

The commander conducts a moving force screen the same way he conducts a stationary screening operation; with screening forces leapfrogging to successive OPs. However, when the main body is moving quickly, constantly moving patrols may be substituted for leapfrogging OPs. In a moving screen, MI assets must consider both the speed of the main body and locations suitable for collection along the route.

Aerial assets are substituted when ground assets cannot tear down, displace, set up, and resume operations and still keep pace with the main body. Of all the security missions, the roving screen is the most difficult. This is because the screening force must provide security for the main body while also conducting zone and route reconnaissance along its path.

GUARD

A guard force performs all the tasks a screening force performs. Guard missions require units to fight the lead enemy regiments at ACR or separate brigade level, and the enemy advance guard battalions at squadron or battalion level. The ACR may be assigned a guard mission to support corps operations. Squadrons also frequently perform guard operations, as do separate brigades. A guard force–

- Prevents enemy ground observation of, and direct fire against, the main body.
- Reconnoiters, attacks, defends, and delays, as necessary, to accomplish its mission.
- Normally operates within the range of main body indirect fire weapons.

A unit conducting a guard mission is usually deployed in a series of battle positions. They launch attacks or defend from these positions as the commander directs. Not all subordinate units need to occupy battle positions. It is possible that portions of the unit will conduct screens in areas where the likelihood of contact is slight. Like the screen, a guard may be for either a stationary or a moving main body. These missions include advance, flank, or rear guard actions. The names of these actions indicate the location of the guard force in relation to the main body.

The advance guard supporting stationary forces is similar to a covering force operation. Advance guards for stationary forces are discussed later in this chapter.

Advance guards for moving forces engage the enemy and develop the situation through fire and maneuver. They destroy the enemy's reconnaissance forces and discover weak areas in the enemy formation for the main body to exploit.

Flank guards protect the flank of a force, whether the force is moving or stationary. They occupy a series of battle positions, either parallel to the mute of the moving force or parallel to the stationary force's boundary. They are also responsible for protecting the area between the main body and the guard force.

Rear guards protect the rear of a force when that force is roving.

IEW support to a guard requires more effort and preparation than to a screen because the guard force is expected to engage the enemy, if required. IEW assets also have more time to prepare and act. The MI commander coordinates with maneuver commanders to place IEW assets just as in the attack or defense. IEW assets may occupy locations close to battle positions of the supported force, assuming that these IEW sites do not hinder the commander's concept of the operation. The advantage for IEW assets who collocate with combat troops is the protection the combat troops provide. Jammers, of course, must never conduct ECM operations from locations near friendly battle positions because their electromagnetic signature makes them easy to detect and attracts enemy fire.

COVER

Covering force missions include all the tasks performed in screening and guard missions. The covering force operates independently from the main body. The purpose of covering force operations is to develop the situation early and deceive, disorganize, and destroy enemy forcing. However, unlike screening and guard forces, a covering force is tactically self-contained and often seeks to become decisively engaged with the enemy. Cover operations are performed in the offense or defense and can be conducted by either the ACR or separate brigade.

There is no clear line between the covering force battle and the main battle. Covering forces continue to operate in some areas, while the main battle is pursued in othens. Throughout the operation, battles shift from defensive action in one locale to offensive action. That is why the ACR or separate brigade conducting a covering force mission must be prepared for either mission.

When a covering force action begins, the main body generally is not engaged. Depending on how much warning it gets, and the mission of the main body, the covering force can be heavily augmented with engineers, MI, and artillery before the battle begins. With less warning, support arrives with the battle already underway. In any event, the covering force is expected to continue resistance until the corps has had time to deploy. Because it operates independently from the corps main body, the MI company must be able to move all of its personnel, systems,

and equipment with its own organic assets.

In the offense, a cavalry unit serves as the covering force and deploys in advance of the main body. The difference between an advance guard and an advance covering force is scope. The covering force operates further from the main body, for longer periods, and engages larger forms than the advance guard. However, IEW support is the same for both missions.

When the offensive covering force has advanced as far as possible, it assumes a defensive posture until the main body conducts a passage of lines through it. Throughout the mission, the MI company closely coordinates with forward moving units, providing them with the technical data, combat information, and intelligence they need when they need it.

SITUATION DEVELOPMENT

During screen and guard missions, the S2 relies on the information developed during situation development to locate probable enemy avenues of approach. Throughout these missions, the S2 constantly informs the commander as the enemy situation changes so that the commander has sufficient time to act. As the S2 answers the commander's PIR and IR, he makes sure this combat information and intelligence are quickly disseminated to the other users who need it and that new PIR and IR are addressed.

During the covering force mission, situation development is critical. This is true in both offense and defense. During the offense, the ACR attempts to develop the situation for the parent corps. Intelligence must mirror and support this effort. Throughout the mission, the S2 carefully analyzes the enemy's plan to discover weak flanks or seams between units that the covering force can exploit. The S2 focuses collection activities on the areas of greatest concern to the commander. Beginning with IPB, the S2 section carefully analyzes information and reports received from all sources. The estimate of the enemy's actions is updated continually so that the ACR commander and the corps commander can decide where to focus their efforts.

TARGET DEVELOPMENT

During the screening mission the S2 conducts limited target development. He uses previously developed HVT and HPT lists directed towards finding enemy reconnaissance elements and their controlling headquarters. The screening force commander wants to destroy these elements because this will strip away enemy reconnaissance and impede the main force from deploying.

OPs and patrols are the primary source of targeting information about enemy reconnaissance assets. Using indirect fire to destroy these enemy assets, OPs and patrols are able to conceal their own locations. This is important because OPs and patrols do not have the combat power to engage a large force directly.

In guard missions, target development is conducted the same way it is done in the offense or defense. The major difference is in the number and type of assets that are available to support these operations. For example, squadrons or battalions are seldom allocated all the MI company assets to support them when they are assigned a guard

mission. If they need more IEW support, it must come from main body assets.

In covering missions, target development supports the covering force mission; that is, the destruction of enemy reconnaissance and first echelon forces. The S2 normally has more target development systems available during covering operations than in other operations. These systems include extra DF equipment, dedicated aerial systems, and TA radar. That is why the S2 must know the characteristics of, and how to use, a variety of target development assets.

It is also common for large amounts of fire support to be dedicated to the covering force, especially when the covering force is in the defense. To use these systems to the best advantage, the S2 must consider targets well beyond the range of usual regimental assets and support systems. While the S2 does not determine the method for engaging a target, he is responsible for letting fire support and air liaison personnel know about lucrative targets as they are located and identified.

ESM assets help locate possible targets by cueing scouts towards a particular area on the ground. Since there are insufficient ESM ground positions to attempt DF against enemy reconnaissance, the MI company and the S2 work together to narrow the area of search. They do this by comparing L0Bs obtained from the ESM positions to IPB products that show avenues of approach (AAs) and areas of interest (AIs) to enemy reconnaissance.

Areas that do not support movement, like bodies of water and steep slopes, are eliminated. Then ground or air patrols can concentrate on the remaining areas. Speed is the key to success in this operation. Enemy reconnaissance moves quickly and usually presents a small target. These enemy patrols must be found before they have the chance to slip through the screen and report on the activities of the main body.

QUICKFIX also supports this counterreconnaissance effort by seeking two targets. The first target is enemy reconnaissance patrols. The second target is the controlling headquarters of the reconnaissance force. In most cases, this CP is close enough to the reconnaissance patrol for QUICKFIX to locate. The headquarters is targeted according to the commander's plan. This is usually through a combination of lethal or nonlethal means.

ECM are integrated into the overall effort with ECM equipment normally employed first in an ESM role and then in an ECM role. ECM cannot target every net used by the enemy because there are more communications links than jammers. Some lines are beyond the effective range of the systems and some of these nets can be exploited for intelligence. That is why, after contact is made with the enemy, ECM are employed in combination with fires to enhance their effect. Typical ECM targets are enemy reconnaissance, C^2, and fire direction nets.

ELECTRONIC WARFARE

EW is conducted the same way in an R&S mission as it is conducted in offense or defense. Because the screen or guard mission is not the main effort, little or no augmentation is expected from higher

headquarters. Even fewer assets may be allocated if the unit is tasked to conduct operations on both flanks of the parent unit. That is why combat information and intelligence must be obtained and transmitted quickly.

ECM give the commander another attack option. However, for ECM to be effective in security missions, it must be integrated with the fire support plan. Because ECM equipment is spread over a comparatively large front, it is more effective if it is used to support deception operations rather than used as jammers. Whether these deception operations are imitative or manipulative, they must be cleared through higher headquarters before they are initiated to avoid damage to the main body.

EW efforts reflect the high intensity of cover operations. ESM normally are augmented for the covering force operation. With the addition of voice intercept assets, the MI company can sometimes conduct DF operations. However, this depends on the type of terrain and the amount of frontage to be covered. If there are insufficient assets to properly cover the entire frontage, the MI commander makes recommendations to the maneuver commander so he can weight the IEW effort.

ESM and ECM assets are focused on the most probable enemy positions or AA. This makes the jamming support more effective and supports a more detailed intelligence gathering effort. Where the commander's plan allows for decisive engagement, ESM and ECM assets are placed farther forward, relying on the strength of the covering force for protection and warning.

MULTIDISCIPLINE COUNTERINTELLIGENCE

The major MDCI contribution across the operational continuum is force protection. MDCI accomplishes this mission through investigations, operations, collection operations, analysis, and production. MDCI activities are perfomed at all levels of war and during all types of operations across the operational continuum. However, MDCI activities are most productive prior to and after tactical operations.

Specific MDCI activities vary depending on METT-T. During the cover and other security missions, MDCI focuses on disseminating foreign intelligence threat briefings to the maneuver commander and the staff. Data for these briefings come from the corps through the MDCI estimate and summaries. This information is used to recommend countermeasures which protect EEFI.

MDCI activity also focuses on obtaining early warning about enemy intelligence, sabotage, and unconventional warfare (UW) threats to the friendly force. This warning may come through liaison with friendly police and intelligence agencies or through low-level source operations (LLSO) conducted by MDCI personnel.

In the following example, the l0th US Corps has deployed to defensive positions along the Inter-German border (IGB). The 208th ACR is the covering for while the main body prepares the MBA. The 312th Separate Brigade is the corps reserve. Figure 4-1 is an example of an OPORD prepared by the 208th ACR staff. Figure 4-2 shows the AO.

References: Omitted
Time Zone: Omitted
Task Organization:

1st Squadron	208th Aviation Squadron (-)
N Troop (OPCON)	
A/98th Engr (OPCON)	Regimental Troops
	208th Engr Co
2d Squadron	96th Engr Co
0 Troop (OPCON)	528th MI Co (-)
B/98th Engr (OPCON)	B/210th MI Bn (TE)
	1/312th MI Co
	2/312th MI Co
3d Squadron	420th FA Bde (Corps) (OPCON)
P Troop (OPCON)	
C/98th Engr (OPCON)	

SITUATION: Omitted

Enemy: Omitted
Friendly:

(1) Situation: The 208th ACR will be performing a covering force mission in the corps sector. The 23d AD is in the north and the 52d Mech Division is in the south. The 312th Separate Brigade is the corps reserve.

(2) Attachments/Detachments: Omitted.

(3) Weather: Omitted.

MISSION: 208th ACR establishes a covering force along the IGB (PL ROME) from NB 718 485 to NB 880 960 NLT 021500 to deny enemy access to PL Paris for 24 hours. Upon completion of battle handoff to 23d AD and 54th ID (M), occupy AA SHILOH vicinity CLEEBERG (MA 6889) and act as the corps reserve.

EXECUTION:

a. Commander's intent. We will engage the enemy as far forward as possible. I want to use concentrated artillery fires and attack helicopters to temporarily halt the enemy advance at key choke points, and aggressive attacks into his flanks to destroy his formations. I want to destroy as much of the first echelon regiments as possible, which will further slow the enemy as he passes the second echelon forward. Key to the success of 10th (US) Corps mission is early identification of the enemy's main efforts, and slowing those attacks before they reach the MBA.

b. Concept of the operation.

(1) Maneuver. 208th ACR will establish a covering force across the corps sector with 1/208th in the north, 2/208th in the center, and 3/208th in the south. Destroy and slow the enemy through fires and maneuver. Upon completion of covering force operations, all units conduct a rearward passage of lines and move to occupy AA SHILOH.

Figure 4-1. Example of an OPORD for a covering force.

(2) Fires. Omitted.

(3) IEW.

(a) Priority of intelligence collection is to locate the enemy's reconnaissance and target acquisition assets, monitoring enemy C^2 nets from battalion to regimental level, and discovering the intent of the lead regiments.

(b) Priority of jamming effort is to battalion and regimental command nets, reconnaissance nets, and fire support nets.

(4) Engineer. Omitted.

c. 1st Squadron. Omitted.

d. 2d Squadron. Omitted.

e. 3d Squadron. Omitted.

f. 208th Aviation Squadron. Omitted.

g. 528th MI Company.

(1) Priority of effort in covering force operations is to 1st, 2d, and 3d Squadron in order. Accept attachment of corps assets and OPCON of QUICKFIX platoon.

(2) Organization for combat.

528th MI Co (-): GS to 208th ACR.
B/210th MI Bn (TE).
Coll Plt/312th MI Co.
VHF ECM Plt/312th MI Co.
1/GSR/528th MI Co attached to 1/208 ACR.
2/GSR/528th MI Co attached to 2/208 ACR.
3/GSR/528th MI Co attached to 3/208 ACR.

h. Coordinating instructions.

(1) PIR.

(a) Where will 8th combined arms Army (CAA) make its main effort in 10 Corps sector?

(b) Where and when will 8th CAA use chemical or nuclear weapons?

(c) When and where will 8th CAA attempt to seize crossings on the FULDA and HAUNE Rivers?

(2) Omitted.

SERVICE SUPPORT: Omitted.

COMMAND AND SIGNAL: Omitted.

Figure 4-1. Example of an OPORD for a covering force (continued).

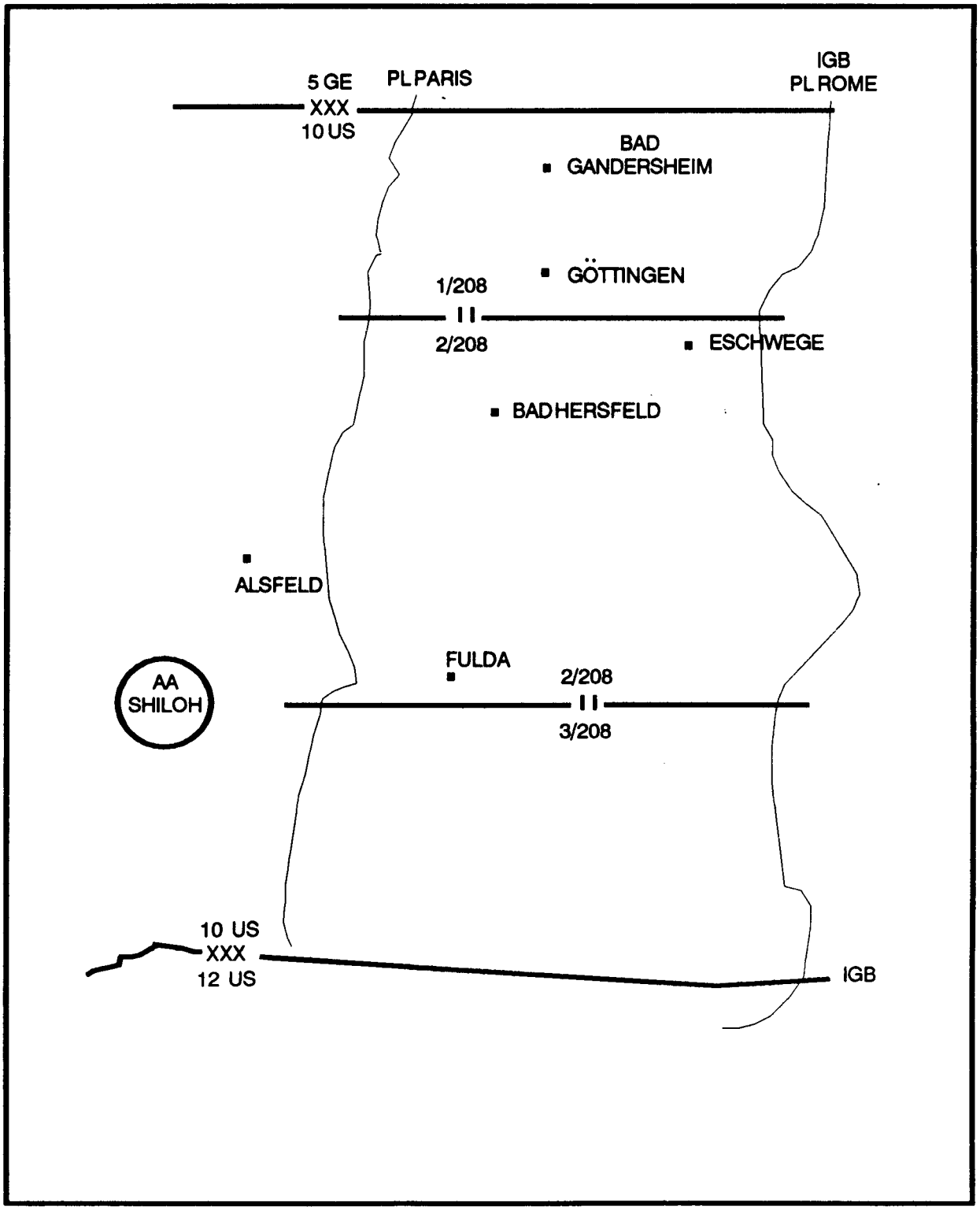


Figure 4-2. AO for 208th ACR.

TACTICS, TECHNIQUES, AND PROCEDURES FOR SECURITY MISSIONS

The MI company commander analyzes the unit's mission by looking at implied and specified tasks in the ACR OPORD. By looking at the maneuver commander's intent, the MI company commander determines how the battlefield should look as a result of the operation.

All leaders are responsible for understanding the commander's intent two echelons up. In this example, this is the corps commander. In this mission the corps commander calls for the ACR to deny access to PL Paris (Figure 4-2). Information collection and processing focuses on the ACR commander's PIR. Priorities of collection, jamming, and effort are all in the ACR OPORD, as is the company's organization for combat. Since the MI company commander provides input to the OPORD, there should be no surprises here.

The company commander knows that the enemy will probably employ three motorized rifle divisions (MRDs): two to the north and one to the south of Fulda. There are also two tank divisions (TDs), but the commander realizes that the regiment is not concerned with them during the covering force battle. This information is in the intelligence annex and estimate.

A map reconnaissance and the intelligence annex and estimate show that the terrain favors the defender. It is also favorable to the MI company. There is enough high ground to provide radio LOS across the IGB, at least at the onset of hostilities. The greatest problem is the difficulty in moving assets from one sector to another. There is a well developed secondary road network in the AO. The company commander will use this to shift MI assets without using main supply routes (MSRs). The secondary roads will also allow the assets to avoid most enemy forces, which will use routes more suited to large units.

To help compensate for the wide frontage, and because MI assets are never held in reserve, the corps commander attaches the B/210th MI Bn (Tactical Exploitation (TE)) and the VHF jamming and voice collection platoons from the 312th MI Company of 312th Separate Brigade to the 208th ACR. These are subattached by the ACR to the MI company. The commander decides to keep these units concentrated in relatively narrow sectors. This will allow for easier transfer of control when they are returned to their parent units. This type of attachment and subattachment will be common on the modern battlefield. The MI commander must be prepared to accept nonorganic units or to be detached from his parent unit.

B/210th MI Bn (TE) will be used to weight the main effort in the north. Its assets include 3xMLQ-34, 3xTRQ-32, and 3xTRQ-30. The assets from the 312th Separate Brigade will be used in the south. The MI commander is accepting some risk here because the corps commander can commit the reserve, and these platoons will revert to the 312th Separate Brigade. If this happens, the ACR's organic platoons are too far away to provide support. The commander will use QUICKFIX to fill any gaps in coverage.

Tasking and reporting will be through the TCAE, just as with the MI company's organic platoons. These units will require careful coordination for terrain use and reporting combat information, since

they probably have no habitual association with the ACR. The commander notices that no interrogation or CI teams have been allocated from corps. This represents a potentially serious problem.

The date-time group (DTG) is now 021500. There should be no time constraints in establishing the CFA.

COMPANY HEADQUARTERS

The commander locates the headquarters up to 5 km from the regimental TOC. This ensures that communications can be maintained, by messenger if necessary. The TCAE is located with the company CP. It ensures continuous technical control of assets and reporting to the ACR and corps. The commander gives instructions to the TCAE to carefully monitor the friendly situation. Constant reports are sent to deployed assets, including nonorganic units. In a fast moving covering force battle, the commander cannot afford to have IEW assets cut off from friendly lines.

ELECTRONIC WARFARE PLATOON

The EW platoon deploys where it can best achieve radio LOS. The platoon usually stays within the bundaries of a maneuver squadron for ease of coordination. However, if the required terrain is in another squadron's sector, the platoon may deploy across boundaries as long as proper liaison is done. Normally, the platoon leader deploys the headquarters, T&A team, and voice collection team to the same location. If RATTs are fielded, one will be present at the platoon headquarters. This grouping increases local security. It also drastically reduces the platoon's radio signature since the voice collectors can give verbal reports.

Voice Collection Teams

The company commander deploys one organic platoon in 1/208th ACR AO, and one in 2/208th AO. B/210th MI Bn (TE) operates throughout both sectors. The platoons from the 312th Separate Brigade are deployed in the 3/208th AO. Using the same boundaries as maneuver squadrons makes coordination for support easier but does not mean that the platoon is dedicated to that squadron. The commander is responsible for site selection and asset placement. The TCAE coordinates through the regimental S3, and the commander designates a single point of contact (POC) to confirm locations with the appropriate squadron S3. The company commander and the TCAE will closely manage this because of the number of nonorganic assets operating in the CFA.

The voice collection teams intercept RISTA and regimental to battalion command nets. The ACR will exploit these nets for combat information. The TCAE will forward technical data to the corps and division TCAEs to develop data bases. DF may be possible in l/208th and 2/208th sectors, but not in the south, where 3/208th is operating. This is because there are not enough collectors operating there.

VHF and HF/VHF ECM Teams

These teams deploy with their parent platoons. If the TCAE has a well developed data base, it may conduct ECM missions from the beginning of hostilities. If this is the case, the company commander coordinates closely with the FSO while the fire plan is being

developed. This ensures that the jammers are used to their full capability.

If the data base is less well developed, the jammers initially conduct the ESM mission. The commander uses the MLQ-34's greater mobility, higher power, and faster displacement time to the best advantage. Because of its liner power, the TLQ-17A must operate closer to the enemy to be effective. Since it lacks mobility, it takes longer to displace and prepare for follow-on missions. Therefore, the commander decides to use the TLQ-17 to provide coverage when MLQ-34s are displacing and only conduct short operations with them. At other times, they will be used to conduct ESM operations.

Noncommunications Intercept Teams

There are no noncommunications intercept teams organic to the ACR. However, there are three of them in the B/210th MI Bn (TE), which has been attached to the ACR. The MI company commander can suballocate these collectors, but does not, based on the factors of METT-T. Because of the frontage the ACR is occupying, it is better to concentrate these assets in the main effort. This will also allow better transfer back to the B/210th MI Bn (TE) after the covering force battle. The TCAE tasks them to locate surveillance radar associated with reconnaissance units, counterbattery radar, and air defense radar.

OPERATIONS SUPPORT PLATOON

The operations support platoon may deploy anywhere in the ACR's sector, depending on the mission. Where additional assets are provided by corps, the headquarters will centrally locate, usually with the company CP. The entire platoon may also locate with a single squadron, if that is where the priority of effort is to be. The platoon relies on the maneuver squadrons and corps MP support to process, transport and guard EPW.

Interrogators

Interrogation in screen, guard, or rover operations should be decentralized to the lowest level possible, often the troop. This requires additional DS interrogation teams from corps. Since none have been provided under the current OPORD, the company commander begins immediate coordination for support. The company commander contacts the MI brigade S3 and specifies the number of teams when they are needed. Until the teams arrive, organic interrogation teams are located at the regimental EFW point. They conduct brief interrogations to obtain information of immediate tactical value.

Counterintelligence Teams

The CI teams at the regiment are capable of varied operations. These include LLSO in areas directly adjacent to the CFA; liaison with friendly units, police, and intelligence agencies; and limited investigations or interviews as directed by higher headquarters. However, the number of MDCI personnel assigned to the unit preclude conducting more than a few operations at one time. Based on METT-T, the commander will decide where the greatest payoff lies. Corps will almost always need to provide additional assets to the unit. In addition, corps always provides MDCI estimates, summaries, and data bases.

SURVEILLANCE PLATOON

The normal command relationship for GSRs is to attach them to maneuver squadrons. The MI company commander will still be responsible for repairing the actual GSR, because the MI company has the only available repair personnel in the regiment. In the squadron, the S2 is normally responsible for employing and tasking GSR. They are used to search AAs, choke points, or named areas of interest (NAIs) during times of limited visibility to detect or locate enemy activity.

FLIGHT PLATOON

The commander coordinates the use of the flight platoon with ground assets in order to provide continuous coverage. These assets can operate where ground equipment would suffer from LOS or mobility problems caused by the terrain. In addition to ESM and jamming, the flight platoon provides aerial observation of the rear area. The aircraft are used to DF, intercept, and jam communications nets at longer ranges than ground assets.

Tasking and reporting are the same as for ground assets.

OFFENSIVE MISSIONS

The battle has gone fairly well. The 208th ACR has held PL Paris for over 24 hours, destroying the lead regiments and identifying the enemy's main attack. As the 208th ACR conducted battle hand-over, it released its attachments back to its parent units.

The MI company refuels and resupplies. Any possible repairs are made to its equipment. While the ACR moves into AA SHILOH, the MI company is GS-R to an MI battalion in the MBA. The assets are controlled by the MI company. The commander is careful to keep the assets as close as possible to AA SHILOH. In case the ACR is committed, the MI company can rejoin the ACR. The company commander of the 312th MI Company places those assets GS-R to the 523d MI Battalion.

In the MBA, the 23d AD and 52d ID (Mech) have inflicted serious losses on the combined arms army (CAA). The corps commander gives 312th Heavy Separate Brigade (Mech) a warning order to execute a counterattack in the Hessian Corridor. At this time, the 312th MI Company ends its GS-R role and begins to operate GS to the 312th Heavy Separate Brigade (Mech).

The primary purpose of offensive operations is to destroy the enemy. The ACR and separate brigade receive IEW support in offensive missions in the same manner as a divisional brigade. The major types of offensive operations are the movement to contact, hasty and deliberate attacks, exploitation, and pursuit.

In all operations, counterreconnaissance is critical. The enemy retains reserves at all levels which can devastate movement to contact, an attack, or pursuit. These reserves, though, are only effective if the enemy commander knows where and when to employ them. Destroying enemy reconnaissance and destroying or disabling C^2 reduces, if not eliminates, the chance for effective employment of the reserve.

MOVEMENT TO CONTACT

Movement to contact is designed to gain or regain contact with the enemy. While normally associated

with mobile operations where both sides are contesting the initiative, movement to contact occurs at some level in virtually all attacks where forces are not in immediate proximity. It is characterized by rapid movement along multiple axes, decentralized control, and rapid deployment of combined arms formations from the march to attack or to defend. The critical elements of the movement to contact are security to the front and flanks, smooth and rapid deployment into the attack when contact is made, and prior coordination of supporting fires.

HASTY AND DELIBERATE ATTACKS

The primary difference between the hasty and the deliberate attack is the amount of time available to plan and prepare. Hasty attacks are conducted with the forces on hand without extensive reconnaissance. They are used to seize or retain the initiative. Deliberate attacks are well planned, usually against a strong enemy defense. They require complete reconnaissance, with detailed situation and target development.

Both the ACR and the separate brigade can conduct such attacks. However, because of its structure, the ACR is not well suited to a deliberate attack. The normal function of the ACR when the corps conducts a deliberate attack is to serve as the reconnaissance element and to maintain contact with the enemy before the attack. The ACR also provides advance, flank, and rear security during the attack.

EXPLOITATION

Exploitation occurs after a successful penetration of the enemy's lines. It creates as much havoc as possible, destroying the enemy's rear services and second echelons. If the enemy begins a withdrawal, exploitation develops into a pursuit.

PURSUIT

Pursuits are characterized by an exceptionally rapid tempo, often covering hundreds of kilometers over days or weeks. In the pursuit, the enemy is relentlessly attacked, with the objective of causing complete collapse. Air insertions are used extensively to cut off the enemy's escape routes. High-speed forces parallel the enemy, attacking exposed flanks and isolated units. Because of their structure, both the ACR and the separate brigade are well suited to pursuit operations. They have the necessary mobility and self-contained logistics systems to allow them to function with minimal augmentation.

The ACR or separate brigade may either conduct an exploitation independent of outside assistance or spearhead a pursuit conducted by a corps.

SITUATION DEVELOPMENT

Situation development in the offense is an ongoing process. From reconnaisance reports and knowledge of the enemy's doctrine, likely defensive positions are plotted. As much as possible, this is further refined with additional reconnaissance patrols or flights. In the hasty attack, for example, situation development is basic, relying on extensive templating. In the deliberate attack, a more concrete picture of the enemy's composition, disposition, and intent is developed, along with contingencies.

In any event, situation development seeks to determine the enemy's most probable course of action. There are occasions when either the entire separate brigade or the ACR is used for situation development on behalf of the parent corps. This is when the separate brigade or ACR conducts a reconnaissance in force; that is, seizes a limited objective to force the enemy to react. Here, the ACR or separate brigade S2 is looking to see with what forces the enemy reacts to the limited attack. The object is to report the enemy's reaction completely and quickly to the corps. The end result is that the corps commander is provided either detailed information about the enemy or, if the enemy does not react, with an opportunity to expand the reconnaissance in force into a full-scale attack.

TARGET DEVELOPMENT

Target development is focused on destroying or disabling the most lucrative targets on the battlefield. The process is the same as in any other situation. HVT and HPT lists are developed and the targets are attacked according to the commander's intent. The staff avoids the temptation to search for or develop the definitive HVT or HPT list. These lists are always situation dependent. Even in similar tactical situations, facing different enemy forces results in different HPT lists and means of attack.

For example, if an enemy commander is known to be weak or susceptible to deception efforts, that commander should not be targeted by lethal means. Instead, the commander should be left in place, where perhaps a strong commander would be targeted by air or artillery. Similarly, if the enemy has a great deal of artillery, but is short on logistics, targeting the logistics better serves friendly goals than attacking the artillery directly.

SIGINT or ESM assets assist in this target development process, just as they did in the reconnaissance and security missions. Of importance here is the interface between the S2 and the FSO. The speed at which targeting information is passed determines the efficiency with which targets are serviced. Also, the S2 can receive valuable information from the reports of forward observers (FOs) and TA assets, where available, and units already in contact.

ELECTRONIC WARFARE

EW is an important combat multiplier. However, it alone is not capable of disabling the enemy. To be truly effective, EW is integrated into the overall plan and used in conjunction with lethal forms of attack. In the offense, EW assets are used to weight the main attack. Voice collection is somewhat degraded if the enemy is in the defense, because of the use of landline and other alternate forms of communication. Still, some communications use radio, particularly those associated with a counterattack force, and these can be exploited.

Jamming during offensive operations must be tightly controlled. This aids OPSEC by not revealing friendly areas of concentration and allows the most important targets to be serviced first. As with target development, there is no master list of nets to be attacked with either jamming or deception.

For instance, if a joint air attack team is planned, enemy ADA nets assume primary importance. In the early stages of a deliberate attack, enemy reconnaissance nets may be attacked as part of the counterreconnaissance effort. The MI company commander coordinates closely with the S3 and ensures that the company's personnel fully understand the friendly scheme of maneuver.

Jammers must be in position early enough to support the attack, and operations are nearly continuous. The EW planners cannot be satisfied when they have denied the enemy their primary frequencies. To truly deny or degrade communications, alternate frequencies must also be attacked. Requirements for EW become complicated in the pursuit. If the MI company is unable to keep pace with the combat forces, its EW equipment becomes useless. In those cases, the MI commander reacts with the skillful use of the QUICKFIX, using it to satisfy all EW requirements.

MULTIDISCIPLINE COUNTERINTELLIGENCE

The importance of MDCI varies greatly in the offense. In the ACR and separate brigade, given the high tempo of operations and the small size of MDCI support, MDCI personnel are often restricted to a few vital missions. As an attack progresses, MDCI personnel work to identify collaborators, possible enemy agents, and the enemy's political infrastructure which could present a future threat to the rear area.

The brigade staff prepares an initial order which sets forth counterattack contingencies. This order will be as detailed as time permits. Figure 4-3 is an example of an OPORD prepared by the 312th Heavy Separate Brigade (Mech).

TACTICS, TECHNIQUES, AND PROCEDURES FOR OFFENSIVE MISSIONS

The MI commander performs a mission analysis just as in the cover. The MI commander decides on the scheme of support after considering METT-T, implied and specified tasks, and the contents of OPORDs and OPLANs. After completing this process, OPORDs are issued to subordinates. Support to offensive operations for ACRs or separate brigades is generally the same as support to a divisional brigade (see FM 34-80).

COMPANY HEADQUARTERS

The headquarters must be mobile and displace frequently to remain near the maneuver CP. It does not displace while the TOC is displacing, unless necessary. This helps ensure continuous intelligence flow from deployed assets to subordinate commanders and staffs.

COLLECTION PLATOON

During movement, this platoon is used primarily to identify and collect technical data on enemy emitters. DF operations will be extremely limited during movement, though some support may come from airborne assets. The actual amount of information collected will depend primarily on the enemy's posture. If the enemy is developing a defense, most communications will be with wire and are not vulnerable to intercept.

REFERENCES: Omitted
TIME ZONE: Omitted
TASK ORGANIZATION:

TF 1-141 IN (M)
1-141 IN (M) (-)
A/1-17 AR

TF 1-142 IN (M)
1-142 IN (M) (-)
B/1-17 AR

TF 1-17 AR
1-17 AR (-)
A/1-141 IN (M)
B/1-142 IN (M)

1-18 AR
A/1-31 CAV

BDE CONTROL
1-71 FA
312th Engr Co
312th MI Co (-)

BDE TRAINS

SITUATION (Omitted): Attachments and Detachments: 1 and 2 Plt (Collection and VHF ECM Plt), 312th MI Co detached effective 031800.

MISSION: 312th Bde acts as corps reserve. Occupy AA GETTYSBURG NLT 032000 and prepare to counterattack in accordance with contingency plans EAGLE, HAWK, FALCON, AND CONDOR.

EXECUTION:

a. Concept of the operation. The 312th Heavy Separate Brigade will conduct a tactical movement to AA GETTYSBURG, secure the area, and conduct training and resupply for counterattack contingencies.

(1) Maneuver (Omitted).

(2) Fires (Omitted).

(3) IEW.

(a) Priority of intelligence collection is to identify rear area threats to the discovery of our location and purpose.

(b) Priority of jamming and intercept: none.

b. Subunit instructions.

(1) Omitted.

(2) 312th MI Co.

(a) Attach VHF Jamming Platoon and Collection Platoon to 528th MI Co or 208th ACR NLT 030100.

(b) Priority of effort in AA GETTYSBURG is to OPSEC support.

c. Coordinating instructions.

(1) Radio listening silence in effect immediately.

(2) Omitted.

Figure 4-3. Example of a counterattack OPORD.

VERY HIGH FREQUENCY JAMMING PLATOON

This platoon will be as far forward as possible in the attack. Initially, the platoon will be used to conduct ESM operations, so it will not compromise the unit OPLAN. When the actual attack begins, the as directed against HVTs as determined in the OPLAN. Normal priorities include C2, fire support, and intelligence nets. The actual targets are based on METT-T and normally change with the phases of the operation.

SURVEILLANCE PLATOON

The maneuver commander normally attaches GSR to the maneuver battalions. They will be weighted towards the front and vulnerable flanks of the unit. If the attack is conducted at night or under conditions of reduced visibility, the GSRs may be usd to vector friendly forces on azimuths of advance.

OPERATIONS SUPPORT PLATOON

When the commander studied the factors of METT-T, he realized that the brigade would cover a great deal of ground quickly. Therefore, the subordinate battalions would be hard pressed to evacuate EFWs quickly. To gain the maximum information from EFWs, the commander places the interrogation teams in DS of the lead battalion. Additional teams, if obtained from corps, will be used to support other battalions and the brigade itself. The organic CI teams are placed in the company CP. They make contact with corps and provide updates about the enemy intelligence collection threat to the commander. As needed, the commander directs one or both of these teams to meet with friendly police and intelligence agencies.

FLIGHT PLATOON

There is no organic flight platoon in the separate brigade. However, since the ACR is in corps reserve, the flight platoon may be under the OPCON of the brigade. If so, it is tasked through the TCAE, as are organic assets.

DEFENSIVE MISSIONS

The 312th Separate Brigade has been stopped by the division it attacked, inflicting and sustaining heavy losses. The l0th Corps commander orders the 208th ACR to take up defensive positions just behind the remnants of the 312th Sep Bde, to reinforce the sector. The ACR transitions from reserve to the defense in a manner similar to the separate brigade's transition from reserve to the counterattack. The MI company's efforts switch from OPSEC to collection of the information it needs to conduct a defense. A unit defends for one of the following reasons:

- To await logistical support before resuming the offense.
- To free assets for offensive operations elsewhere (economy of force operations).
- To prepare general deployment positions (GDPs) prior to hostilities.
- To wear down enemy forces prior to attacking them.
- To retain or deny terrain, facilities, or installations to the enemy.

Regardless of the reason, the ultimate urpose of the defense is

to destroy the enemy and regain the initiative. The IEW system identifies weaknesses and exploits vulnerabilities of the attacking enemy so the maneuver commander can maintain or regain the initiative.

Both the ACR and the separate brigade can defend, but the ACR must be augmented with extra infantry or armor to be successful. If attached to a division for economy of force operations, the ACR and separate brigade may surrender control of the MI company to the division. This depends on the division commander's concept of the operation. The MI company reports through the division's tasking and reporting channels. Tactics and techniques are generally the same as for a divisional brigade.

SITUATION DEVELOPMENT

Situation development in the defense answers the same basic questions as in any other mission: "What is the enemy's most likely course of action? Where, when, and with what forces will the course of action be pursued?" To answer these questions, the S2 focuses collection assets at specific NAIs at specific times. Neither the ACR nor the separate brigade has sufficient assets to cover all NAIs at all times. Therefore, during the IPB process, the S2 develops event templates which show the expected enemy actions at specific times on the battlefield. Any asset which can collect required information is identified and enough assets are tasked to ensure redundancy of coverage. (For details on collection management, see FM 34-2.)

TARGET DEVELOPMENT

Target development supports the requirement to strip the enemy of the iniative. The targets which are attacked are those which the enemy most needs to continue the attack. For example, if crossing rivers, the enemy requires extensive engineer support; if committing the second echelon, the enemy requires clear communications and functioning C^2. HPTs are determined not only by the enemy's operation but also by the phase of that operation.

Target development in the prepared defense is usually easier than in the offense because there is more time available to the defender. This allows for detailed surveillance of tarqet areas of interest (TAIs).

If the situation warrants, observers may even be placed where they are bypassed by the enemy, so that they may accurately direct fire against the enemy's follow-up forces. Through all of this, the S2 constantly reviews the HPT list and recommends necessary changes to the S3, based on the changing enemy situation.

ELECTRONIC WARFARE

EW focuses where it is most needed, not on the entire ACR or separate brigade frontage. The area of need depends on the commander's concept of the operation. It may be where the commander plans to conduct a counterattack; it may be where the main defensive effort is planned; or it may be in a weaker sector, where a combat multiplier is needed for the defense to succeed.

ESM assets are positioned where they can best support the operation. They remain active as long as possible before they need to displace. ECM assets should be used in the ESM mode until jamming is

authorized by the commander or a designated representative.

Coordination of jamming becomes an issue in the defense, as it will require more information to execute successfully than in the offense. When attacking, the eneny moves through TAIs established by friendly forces. To achieve maximum effectiveness, jamming is combined with fires and directed against the enemy in the TAI. This requires precise timing and knowledge of the enemy's location.

MULTIDISCIPLINE COUNTERINTELLIGENCE

To be successful, MDCI activities need time. Therefore, they cannot begin on short notice and still be expected to bear fruit during a defensive battle. MDCI in the defense, or any MDCI activity, is a continuation of earlier operations. Liaison begun in the offense or covering battle may only begin to pay dividends in the defense. However, it is probable that the EEFI has changed and MDCI personnel will need to redirect their efforts. This is one of the reasons that MDCI personnel must be constantly apprised of objectives in and changes to the friendly plan.

MDCI personnel support the defense by conducting aggressive operations to reduce or eliminate the rear area Level I threat and to gain warning of Level II and Level III threats. They may also recommend OPSEC and deception measures. The S3 then makes any changes desired to OPSEC or deception measures.

TACTICS, TECHNIQUES, AND PROCEDURES FOR DEFENSIVE MISSIONS

The commander deploys MI systems in accordance with METT-T. Initially, IPB and the commander's concept of the operation guide the MI commander. However, the employment scheme changes with the situation. IPB will aid the MI commander in determining where radio LOS is best, so that the enemy can be detected and jammed as far forward as possible.

AAs also influence placement of assets. If there is only one major avenue into the defensive sector, IEW assets can be concentrated there. If there are a number of approaches, the MI commander uses aerial assets to cover them (see FM 34-80).

COMPANY HEADQUARTERS

As in cover, the company headquarters is placed within 5 km of the TOC. If the situation is static, the commander uses a great deal of wire for communications. In a fluid situation, radio is the preferred method.

ELECTRONIC WARFARE PLATOON

The EW platoons deploy with their assets forward. The company commander will usually task the platoon leader to coordinate with the squadron S3 for asset placement. The platoon leader also establishes liaison with the squadron TOC to provide combat information. During the battle, the priority of EW is focused on the enemy's lead C^2, reconnaissance, and fire support. The intent is to find the enemy's main effort in the regimental sector.

After the main effort is identified, priorities shift to the enemy's fire support and AD

systems. As these systems are located, they are passed to the FSO who processes them in accordance with the targeting plan. Because there are only two organic platoons and three maneuver squadrons, boundaries and AOs may not be consistent.

SURVEILLANCE PLATOON

The commander attaches the GSRs to the maneuver squadrons according to the number of AAs into their sectors. They are used and report just as they were in the cover.

OPERATIONS SUPPORT PLATOON

Based on the data received from corps, the CI teams assess the enemy's collection abilities and recommend countermeasures. They are not responsible for the OPSEC plan; this is a command responsibility under the supervision of the S3. They may also conduct limited investigations in the defensive sector when tasked by corps. Liaison with local agencies is important to the success of the MDCI effort, due to the small number of agents in the ACR and separate brigade. Interrgators operate at the regimental EPW collection point. This is because there is usually more time available to evacuate prisoners during a defensive operation. If corps provides additional team, they may be placed in the squadron area.

FLIGHT PLATOON

The MI company commander receives OPCON of the flight platoon as in all other operations. It is controlled through the TCAE. There are no significant differences between defensive operations and operations in the covering force.

CHAPTER 5

SUSTAINMENT

This chapter describes the organization and capabilities of the MI company's organic service support platoon. It describes the classes of supply and how the commander supplies the company. It also describes maintenance support and services. Sustainment is the commander's responsibility.

Both the ACR and separate brigade conduct independent operations which stress mobility. To support these operations, the MI company is 100 percent mobile with organic assets. It is capable of conducting sustainment operations using organic assets.

SERVICE SUPPORT PLATOON

The service support platoon, shown at Figure 5-1, provides essential supply, food service, and maintenance support to the company.

PLATOON HEADQUARTERS

The platoon headquarters supervises the company's sustainment operations, allowing the commander to attend to other functions. The platoon leader's responsibilities include coordinating with both the ACR or separate brigade S4 and the squadron or battalion S4. This coordination is vital. Because the company is spread over the entire unit frontage, supplies may be misrouted. Only constant attention by the platoon leader or company commander prevents this.

SUPPLY SECTION

This section provides the personnel needed to conduct normal company-level supply functions which include--

- Requisitioning.

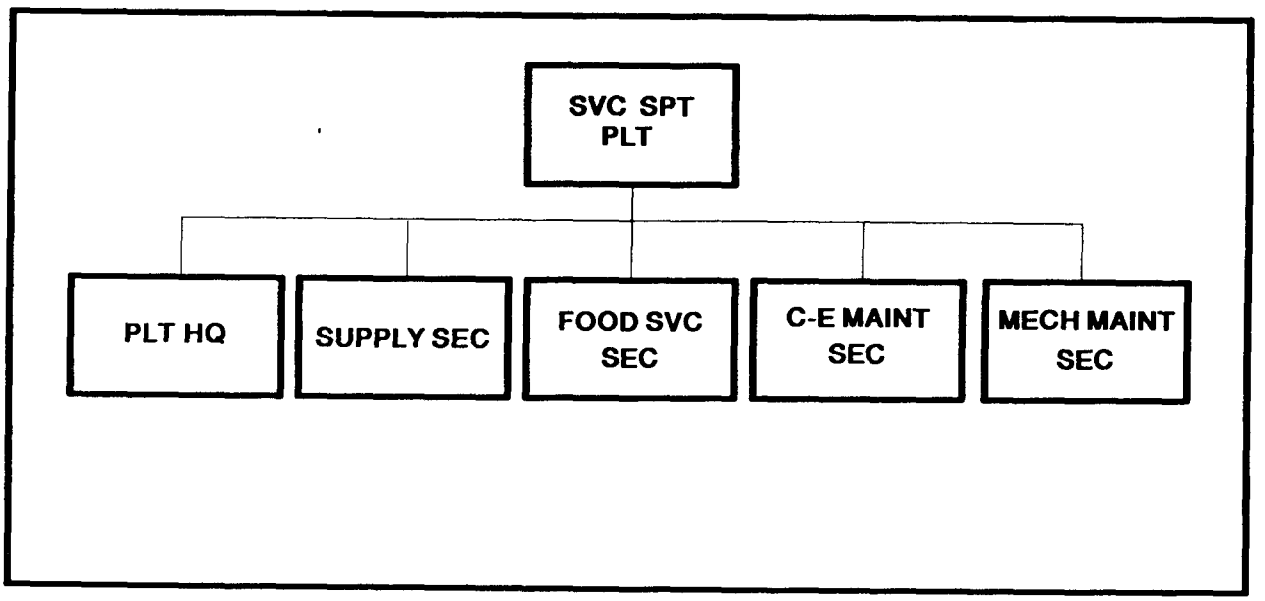


Figure 5-1. Service support platoon.

- Small arms maintenance and repair.
- Maintenance of supply and clothing records .

FOOD SERVICE SECTION

This section is authorized six cooks and one mobile kitchen trailer (MKT). Normally, it is attached to the headquarters and headquarters troop (HHT) or headquarters and headquarters company (HHC) for consolidated food service in the field trains.

COMMUNICATIONS-ELECTRONICS MAINTENANCE SECTION

This section provides organizational and DS maintenance for company EW systems; GSR; remotely monitored battlefield sensor system (REMBASS) (when augmented); and C-E equipment, less communications security (COMSEC) and avionics. It is equipped to provide contact teams to support deployed assets.

MECHANICAL MAINTENANCE SECTION

This section provides consolidated vehicle, generator, and air conditioner maintenance support. It can provide limited vehicle recovery (with its 5-ton wrecker and M578) and is staffed and equipped to provide forward contact teams for deployed elements. It does not have aviation maintenance capability. It is also capable of limited refueling operations with its 2-truck and 1-trailer mounted tank and pump units (TPUs) (3-TPUs, 750 gallons).

SUPPLY

The logistics package (LOGPAC) system is a once or twice daily resupply of Classes I, III, and V; it includes Classes II, IV, VI, and VII when required. (The classes of supply are described below.) Bulk supplies are broken down in the brigade support area (BSA) or regimental support area (RSA) and loaded onto heavy expanded mobility tactical trucks (HEMTTs). They then travel to the field trains of the squadron or battalion and are readjusted to meet the needs (current and forecasted) of the individual troops and companies. Classes I, II, and VI items and clean laundry can be carried by unit supply section 5-ton trucks. Class IV items are carried by HEMTTs is required. Class VII items can be brought forward by their new crews.

At the field trains, the squadron or battalion support platoon leader picks up this convoy of 5-ton trucks, new combat vehicles, and cargo and fuel HEMTTs. He leads them along the MSR to a predetermined logistics release point (LRP). Troop or company lSGs pick up their LOGPACS and take them to their respective units. When necessary, empty vehicles pick up garbage and dirty laundry. When required, the dead and wounded personnel are evacuated. EPWs are also transported in these vehicles to the LRP by the lSG. The support platoon leader leads the convoy back to the field trains. The convoy goes to the BSA or RSA to drop off their loads, reload, and come forward again.

CLASS I - RATIONS

Due to the often wide frontages covered, it is impossible for the MI company to feed its deployed element. If necessary, cooks and equipment from the food service personnel are normally nearby providing security for the deployed element. If necessary, cooks and equipment from the food service section can be attached to the supported squadron, battalion, ACR, or separate brigade HHT or HHC. The supported unit can provide both hot and prepackaged meal ready-to-eat (MRE) rations. However, deployed elements should carry a basic load of MREs as determined by local policy.

CLASS II - CLOTHING, TENTAGE, TOOL SETS, AND INDIVIDUAL EQUIPMENT

Class II items are ordered through the company supply section, which forwards requests through logistical channels to the RSA or BSA. Items come forward through the LOGPAC system.

CLASS III - PETROLEUM, OILS, AND LUBRICANTS

The company has a limited refueling capability to support ground elements. This is performed using organic truck-mounted TPUs and a trailer-mounted liquid dispensing tank. Wholesale refueling is normally done at the Class III supply points in the RSA or BSA, where unit elements are operating, or by attached elements coordinating petroleum, oils, and lubricants (POL) replenishment through the supported unit. POL for aircraft are provided at airfields and at the ACR FARPs, which are established by the ACR aviation squadron. Aviation petroleum products are also available at FARPs established by other units in the AO.

Packaged greases and lubricants are stocked by the company supply and maintenance sections. These items normally are available at supporting supply points, FARPs, and supported Units.

CLASS V - AMMUNITION

The company carries a basic load of ammunition. It is resupplied, when necessary, through ammunition transfer points (ATPs) in the BSA or RSA and in coordination with the regimental ammunition officer. The supply section issues a basic load of ammunition to elements deploying forward. Elements attached to squadrons coordinate to replenish ammunition supplies through the unit to which attached. Elements in other support roles are resupplied by the company or the supported unit, depending on distance forward.

CLASS VIII - MEDICAL SUPPLIES

Class VIII supplies are obtained by the company and its deployed elements from their supporting medical aid station. Troop or company medics treat and evacuate wounded MI company soldiers attached to their units.

CLASS IX - REPAIR PARTS

Stocked organizational maintenance mission repair parts is based on the unit's prescribed load list (PLL). Requests for common repair parts are forwarded to the ACR support squadron. The support squadron fills or forwards the requests to the ACR's material management center (MMC). Requests

not filled at this level are passed to the corps level MMC and filled at the lowest level where parts are available.

OTHER CLASSES OF SUPPLY

Class IV (construction) and Class VII (major end items) are provided through the supporting supply unit. Requests for controlled items flow through command channels. Class VI (personal demand items) are made available via sundry packs through the Class I system Class X (material to support nonmilitary programs) is not used by the MI company and is, therefore, not described here. COMSEC equipment is distributed through cryptologistic channels. Distribution normally is coordinated between the unit cryptographic custodian and the cryptographic custodian at the next higher headquarters.

MAINTENANCE

The mechanical maintenance section sets up in the RSA or BSA. If required, it requests additional support from the regimental support squadron (RSS) maintenance troop or the brigade support battalion maintenance company. Class IX requests go through the RSS. The maintenance troop of the ACR or maintenance company of the separate brigade evacuates equipment that cannot be repaired at ACR or separate brigade.

The maintenance section of the MI company has one 5-ton wrecker for recovery. Vehicles must self-recover when possible. The maintenance sections of supported units can offer limited recovery assets, but their priority is to their own vehicles.

COMMUNICATIONS-ELECTRONIC EQUIPMENT

The C-E and IEW maintenance section provides unit-level maintenance for the MI company's communications equipment and GSRs. Maintenance support teams (MSTs) repair the equipment onsite when possible. If equipment is not repairable here, it is evacuated to the RSS maintenance troop or separate brigade maintenance company. If they cannot repair it, they send it to EAC maintenance.

ELECTRONIC WARFARE EQUIPMENT MAINTENANCE

The C-E and IEW maintenance section provides unit and DS maintenance for the MI company's EW equipment. When possible, equipment is repaired onsite by MSTs. EAC provides intermediate GS maintenance for the QUICKFIX system.

SERVICES

The MI company does not provide its own services. It must rely on the ACR, separate brigade, or higher headquarters for that support. The basic services are discussed below.

BATH SERVICE

Shower points are coordinated with the S4 by the service platoon leader. Platoon, 1SG, and section sergeants coordinate rotation to the points. Deployed elements may be able to go with their supported units, depending on time and mission constraints.

LAUNDRY SERVICE

Laundry is turned in by soldiers during LOGPAC operations and passed from supply section personnel to the

laundry collection point in the field trains. After laundering by corps personnel, the laundry travels back down to the field trains and comes forward with a LOGPAC. Processing time is situation dependent.

MAPS

Maps are ordered and picked up by supply sections based on S2 forecasts. Deployed elements should coordinate with the unit they are supporting to ensure they have the proper maps.

CHAPEL SERVICE

Ministry teams hold services when possible. Sls announce times and locations. Deployed personnel attend services with the nearest unit they are supporting.

FINANCE, PERSONNEL ADMINISTRATION, AND LEGAL SERVICES

The personnel and administration battalion of the COSCOM provides these services.

GRAVES REGISTRATION

Deceased personnel are evacuated to the BSA or RSA by any means available. Normally, empty cargo trucks are ambulances are used. The S4 establishes a groves registration (GRREG) point in the BSA or RSA, supported by a division or corps GKREG team. This team further evacuates the dead to division and corps collection points.

CHAPTER 6

OPERATIONS IN SPECIAL ENVIRONMENTS

The ACR and the separate brigade offer self-contained and powerful, yet small, combat forces. Because of this as well as the global commitments of the United States, it is likely that either may be deployed throughout the world. This chapter describes some of the challenges encountered in varied typical environments.

DESERTS

The term "desert" includes varied environments. A desert is arid or semi-arid at low or high altitude. There is little or no vegetation, or there is a great deal of specialized plant life. Soil is sandy and soft or exceedingly rocky. In the desert, there is little water available, so water supply becomes critical. Operations in the desert are characterized by rapid movement of mechanized forces, good observation and fields of fire, and a relative lack of key terrain in the traditional sense.

All equipment in the desert suffers from the environment. Dust, sand, and high temperatures take their toll, especially on electronic and communications equipment. Cleanliness and frequent operator checks are mandatory if equipment is to be kept functional. It is important to keep POL pure and equipment free of dust.

Grounding electrical equipment also presents problems. Some units carry salt and extra water to soak ground rods, providing a better ground. In addition, the condition of the soil causes mobility problems. Soft sand and loose gravel, especially in wadis or washes, trap vehicles. Sharp rocks and thorns as large as nails puncture tires. Vehicles, operating at some distance from maintenance assets, must be capable of self-recovery. Crews must be trained in those techniques.

Radio communications are occasionally degraded due to thermal heating and dead spots. During daylight, heat, dryness, and soil mineral content can cause a significant degradation of radio communications. These same factors affect radio intercept. At night, communications and intercept are excellent. There is also more communications traffic, as CSS units and others take advantage of the cover of darkness to conduct their activities. Jamming is also more effective in the desert, where the terrain usually does not provide a masking effect.

Visual, GSR, and thermal imaging systems are used to their maximm range in the desert. All of these systems are degraded or rendered useless by strong dust storms. Visual systems are affected by mirages. Thermal systems perform exceptionally well at night when there are extreme differences between target and background temperatures.

As a result of the excellent visibility and radio communications, OPSEC assumes great importance in the desert. Deception operations are almost mandatory for overall success. Poor camouflage or light

discipline comprises an entire operation.

Troops require even more care in the desert than equipment does. They must be acclimatized if they are to conduct sustained operations. Heat stroke is a constant danger, and the radical temperature changes from day to night lower resistance to disease. The leader must enforce troop hygiene and rest cycles, reinforce water intake, and monitor food intake carefully. Heat makes soldiers sluggish, irritable, and inattentive-all of which increase the chances of a critical mistake on the battlefield.

Situation development and target development in desert operations reflect the great distances involved and the high speed of movement. A commander's AI is expanded to provide adequate warning to the force. Since ground forces are able to move faster than on European terrain, decision points (DPs) for interdiction are placed farther back along AAs to allow FA, air, and maneuver systems sufficient time to react. While ground forces can move faster in the desert, there is no corresponding increase in the capabilities of SIGINT or other collectors found in the ACR or separate brigade. Therefore, the S2 relies more on corps and airborne systems to cover NAIs at long range. The S3 also uses airborne jammers to cover TAIs at similar ranges.

EW in the desert may rely extensively on the QUICKFIX, even though ground-based jammers have their capabilities enhanced. This is because of the possible lack of road networks in the desert. Concealment of QUICKFIX is difficult because of the excellent visibility and the lack of masking terrain. Rotor wash raises clouds of dust which are seen for miles. This is reduced by using hard landing sites and minimizing low-level hovering. QUICKFIX also is degraded by the heat, which lowers the lift capability of the aircraft. When using QUICKFIX, consider the capabilities for visual observation from the platform. Crews should report sightings of enemy units as a matter of course.

Because land navigation is difficult in the desert, the quality of ESM may suffer. Troops must be well trained in determining their location without convenient landmark. Improperly detemining a DF station's positions will degrade the quality of LOBs, cuts, and fixes. One possible solution is close coordination with FA survey parties. Additional information on desert warfare is in FM 90-3.

MOUNTAINS

Defending forces enjoy advantages in mountainous terrain. Progress through the terrain is slow. Other characteristics of mountain warfare are--

- Increased canalization along a few lines of communication (LOCs).
- Increased importance of indirect fire.
- Reduced ranges for direct fire weapons.
- Increased collection operations from heights above LOCs.

Because of these considerations, the ACR and heavy separate brigade are not suited to mountain warfare, unless augmented by light infantry or air assault forces.

Airborne equipment is degraded by the lack of lift at high altitude and the presence of fog, high winds, and ice. Radio LOS is hampered by the rugged terrain. Since there are only two lightweight portable collection systems in the ACR and three in the separate brigade, there are large areas where there can be no SIGINT collection. The best source of combat information from high ground is HUMINT–the scout. The scout's observations are supplemented by foot patrols.

Situation development and target development in the mountains are difficult because of the difficulty in observing NAIs and TAIs. It is relatively easy to conceal itself from observation and direct fire. Therefore, terrain analysis and templating must be considered carefully. Analysts must be familiar with enemy tactics in the mountains, which are somewhat different from those normally employed. The ACR must make good use of air cavalry to detect targets and call for and adjust fire. Having no similar aviation assets, the separate brigade uses its organic ground troops to perform the same functions.

EW operations are degraded in mountainous terrain. Enemy communications sites use terrain masking and relay systems to thwart both DF and ECM activities. ESM and ECM systems are best employed above the valleys, concentrating on the valley floors for any enemy approaches. This, of course, raises the issue of mobility and getting the equipment into position.

Ground-based signals intercept and DF systems frequently are placed into DS of the squadrons and battalion because of the dispersion of the friendly forces. The company commander must emphasize getting equipment to operating locations in time to influence the battle. One nonstandard use of ECM equipment is as high-powered communications systems. The extra power of the TLQ-17A and MLQ-34, as compared to standard radios, allows them to overcome some of the problems of terrain. Additional information on mountain warfare is in FM 90-6.

JUNGLES

Jungle terrain varies from tropical rain forests and triple canopy to swamps and tropical savannas. They are characterized by high rainfall, humidity, and thick vegetation. Because of the potential lack of road networks and the large areas which are impassable to vehicles, the ACR and the separate brigade may find jungle operations difficult. Light infantry and air assault forces are suited to jungle operations, and the ACR or separate brigade will usually augment these types of forces.

High incidences of rust, corrosion, and fungal infestation are caused by the high humidity and moisture. This forces strict daily maintenance on equipment, especially electronic systems.

Because of the density of jungles, IEW operations are decentralized, with assets usually operating in DS of squadrons or battalions. As in other areas of

reduced trafficability, lightweight portable and airborne system prove more versatile than ground-based systems.

Situation development and target development focus on two different items: the relatively small AAs for foot movement, such as trails and stream; and suitable LZs and DZs on the battlefield, where air assault forces could be employed. Interdiction of TAIs are primarily by indirect fire, CAS, and heliborne forces, as ground maneuver is often too slow to influence activity. ECM also is employed, but effective ranges of systems are reduced because of the foliage. As in other specialized environments, enemy tactics differ from the norm. Analysts must be familiar with these specialized tactics.

The jungle climate reduces the effective range of radio communications. This applies to radio intercept jamming as well as communications. Ground-based intercept and jamming equipment are concentrated where the enemy's main effort is expected to occur. Establishing an effective baseline for DF operations is not possible due to terrain and vegetation. Airborne systems conduct the majority of DF operations, while the ground-based systems collect combat information for use by the squadron or battalion commander. Additional information on jungle warfare is in FM 90-5.

URBAN

It is more likely that the ACR and the separate brigade will be employed in urban terrain than in any other specialized environment. The ACR, though, is less suited to such combat than the separate brigade. As in most specialized operations, the key to success in urban terrain is dismounted infantry, which is lacking in the ACR. Tanks, antitank guided missiles (ATGMs), and infantry fighting vehicles (IFVs) are at a relative disadvantage in the city because of the close range of fighting and the need to engage targets well above and below ground level.

Situation development and target development in urban warfare is morm complex than in other situations. Planners must consider sewer and subway plans, fields of fire from buildings and rooftops, helicopter LZs on buildings, and other factors. AAs are generally unrestricted leading into the built-up area but then become exceedingly restricted. In the urban area, alleys, sewers, and connecting passages between buildings become planning considerations. Targeting enemy forces in basements or large buildings becomes complicated. Indiscriminate use of CAS or indirect fire creates large amounts of rubble which serves to provide more places for the enemy to hide. These and other considerations are addressed in FM 34-130.

Urban terrain limits EW support. All forms of intercept are degraded by the densly packed buildings. Power lines will limit ESM ranges and cause false L0Bs. This includes radar, AM, and FM. Intercept is improved by placing lightweight portable systems in tall buildings. Due to their limitations, other ground-based systems are best used on the outskirts of the area where they are used against approaching forces. This means that they may

have to be deployed well to the flanks of the urban area.

Airborne jammers are useful in disrupting communications into or out of the city, as will ground-based jammers if they are placed between the enemy in the city and higher headquarters. Other than this, the utility of ECM is very limited.

MDCI operations in urban areas are extremely important. MDCI is a primary means of force protection. It ensures that the commander knows what threats are in the area, including terrorist, UW, and others. Augmentation from the MI brigade at corps is essential to accomplish this important mission. Additional information on urban warfare is in FM 90-10.

NUCLEAR, BIOLOGICAL, AND CHEMICAL

On the modern battlefield, commanders at all levels must consider the possibility of being in an NBC environment. Studies of operations in NBC environments have revealed that C^2 suffered in an NBC environment due to several factors.

Chief among these factors was leader exhaustion. Leaders are more active in early phases of an NBC environment. They ensure that soldiers are in correct mission-oriented protection posture (MOPP). They attend to additional tasks, such as monitoring chemical detection equipment, and so on. As a result, leader effectiveness deteriorates quickly.

Communications are significantly degraded in an NBC environment. The number of transmissions may double because of the disorientation of leaders and battlefield uncertainty. The length of transmissions also increases because of difficulty in communicating while wearing protective gear.

As soldiers tire, their effectiveness drops off, degrading camouflage, maintenance, and routine job performance.

There are three principles of NBC defense which will enhance survivability: contamination avoidance, protection, and decontamination.

CONTAMINATICN AVOIDANCE

Contamination avoidance is the best way to minimize the effects of NBC weapons. Passive measures, such as use of NBC monitoring and detection equipment and vulnerability analysis to avoid becoming a target, are the first important steps in contamination avoidance. Operations are planned away from areas of contamination when mission requirements permit.

PROTECTION

When units must operate in a contaminated area, protection is necessary. As outlined above, unit performance will suffer due to heat stress, dehydration, loss of manual dexterity, and so forth. Logistical requirements for exchange of overgarments and filters increase, as does the need for water. Studies indicate that each soldier requires about 13 quarts of drinking water per day to prevent dehydration in an extended NBC environment. Other studies show that after 72 hours in an NBC environment, approximately

20 percent of the soldiers are clinically dehydrated.

DECONTAMINATION

Once exposd to an NBC agent, decontamination becomes necessary. Complete decontamination is impossible, due to the absorption of agents into materials. Battlefield decontamination is very time consuming, and most decontamination is the responsibility of the contaminated unit. Vehicle decontamination and clothing exchange are set up under the supervision of NBC defense units. Decontamination is discussed in FM 3-5.

The use of nuclear weapons adds another dimension to IEW operations. Aside from the destruction caused by blast and radiation and the creation of contaminated areas, electro-magnetic pulse (EMP), transient radiation effects on electronics (TREE), and blackout create very real hazards to MI units even when far from the actual explosion.

EWP is a very sharp pulse of radio-frequency energy caused primarily by air bursts. The intense electric and magnetic fields produced can fuse microcircuits and damage unprotected electronic and electrical equipment over a large area.

TREE is a temporary phenomena where EMP is permanent. It is caused by gamma radiation given off by a nuclear blast.

Blackout is a temporary loss of communications caused by disturbances in the atmosphere. It dissipates when the disturbances cease.

EMP and TREE mitigation techniques are critical to an MI unit. The loss of collectors and jammers to EMP removes the MI unit from combat as effectively as the loss of its personnel. During times of increased probability of use of nuclear weapons, redundant systems are shut down, including collectors, jammers, radios, and automation equipment. All antennas should be removed; power lines disconnected; and the systems, where possible, should be placed in an enclosed shelter.

Systems such as the AN/TRQ-32, which have their own shelters, should have the doors and ventilation panels closed. Proper grounding techniques should be used. To mitigate TREE, duplicate data bases should be maintained for automation equipment, and equipment not in use should be shielded. During blackout, wire or messengers must be used.

The common requirement for success in an NBC environment is training. Soldiers and leaders must practice working in MOPP; they must adjust to reduced visibility, dexterity, and ability to communicate caused by overgarments. Physical fitness and endurance are important, as is intimate knowledge of mission and NBC defense equipment. Leaders must train replacements, delegate authority, and be mentally and physically prepared for the rigors of an NBC environment.

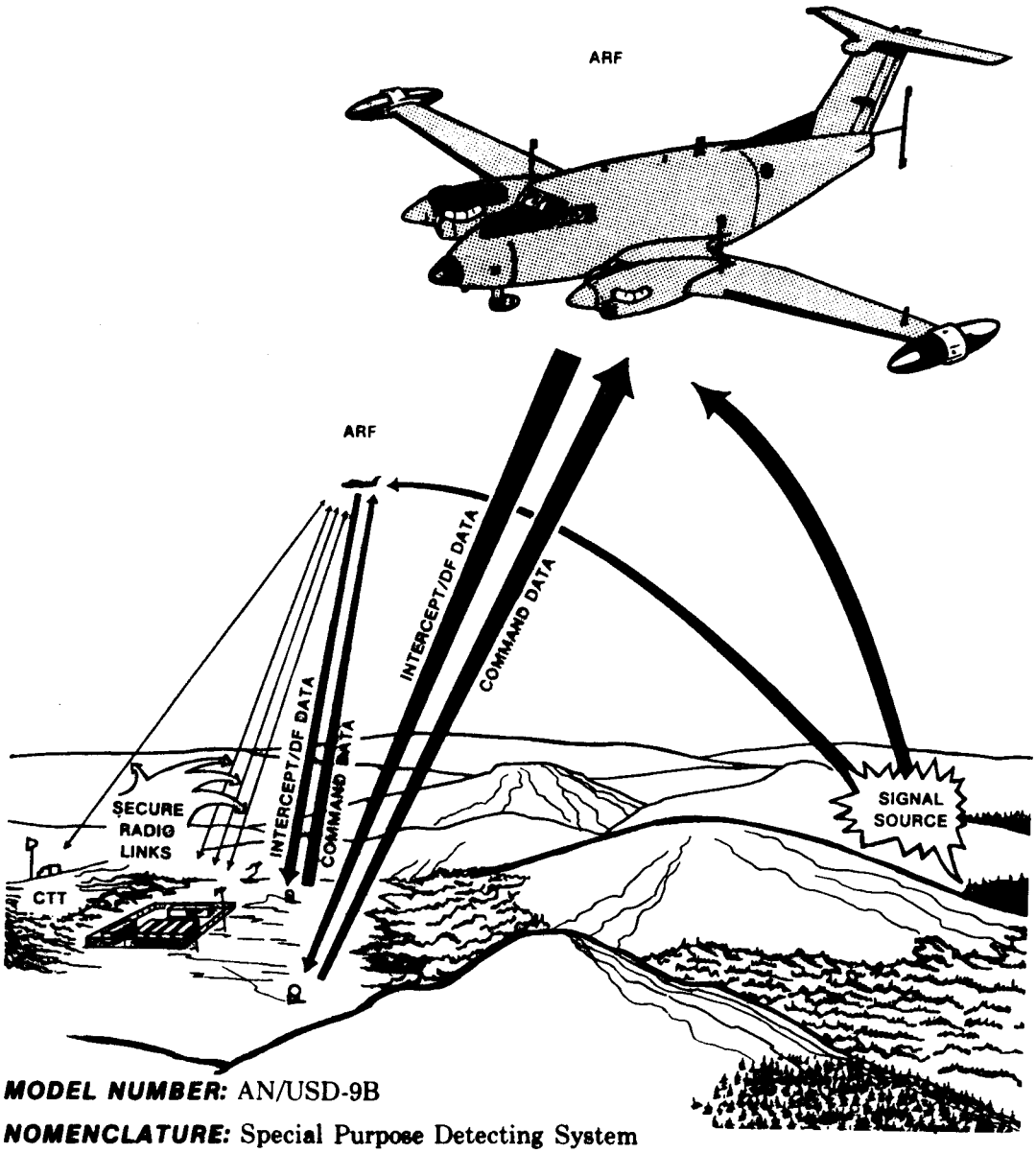
APPENDIX A

INTELLIGENCE AND ELECTRONIC WARFARE EQUIPMENT

The coordinators of the IEW effort may use either organic or nonorganic assets to accomplish the mission. Figure A-1 shows equipment available in the ACR or separate brigade, as well as items which may augment the effort. The exact assets available will depend on the commander's concept of the operation. Other IEW equipment appears in TC 34-1.

IEW EQUIPMENT	ACR	SEP BDE	DIV	CORPS
GUARDRAIL	—	—	—	6
QUICKLOOK	—	—	—	6
OV-1D	—	—	—	10
QUICKFIX	3	—	3	—
MLQ-34	2	3	3	3
TLQ-17A	2	—	3	—
TRQ-30	2	3	3	3
TRQ-32	2	3	3	3
TSQ-138	—	—	1	—
MSQ-103	—	—	3	3
PPS-5B	9	6	12	—
TPQ-36	—	1	3	—
TPQ-37	—	—	2	—

Figure A-1. IEW equipment matrix.



MODEL NUMBER: AN/USD-9B

NOMENCLATURE: Special Purpose Detecting System

PROJECT NAME: GUARDRAIL Common Sensor (GRCS)

NSN: NA

LIN: NA

CLASSIFICATION TYPE: NA

Figure A-2. Special purpose detecting system (deployed), GUARDRAIL.

PURPOSE AND USE: The AN/USD-9B is a combined airborne/ground remotely controlled intelligence collection system. It is designed to intercept and DF communications and non-communications (radar) emitters in the tactical environment. The information is processed and reported in near real-time to tactical commanders at corps level and below.

DESCRIPTION: The AN/USD-9B GUARDRAIL Common Sensor is comprised of the following:

- AN/ARW-83(V)5 ARF mounted in the RC-12K aircraft.
- AN/TSQ-105(V)4 IPF mounted in four interconnected 8 x 40-foot vans.
- AN/TSC-87 CTT (up to 32 terminals) at the supported commands.
- AN/ARM-163(V)4 AGE. A flight line maintenance/test set housed in a Chevrolet step van.
- STE located in an electronics shop AN/GSM-271A (IPF maintenance van) and electronics shop AN/ARM-185A (ARF maintenance van).

GRCS combines IGRV (the communications high accuracy airborne location system (CHAALS)) and advanced QUICKLOOK (AQL) into one system with a common airborne platform and a common IPF. A typical mission requires two ARF to orbit in an area of interest, with the option of adding a third platform to increase accuracy. The IPF sends data commands to and receives information from the ARFs through a secure data link. The IPF (which houses all operational personnel) processes information and reports (utilizing the ARFs as a radio relay) to the CTTs in the field. The IPF is linked to the worldwide AUTODIN network by a computer interface with the TRI-TAC switching system.

REPLACES: GUARDRAIL V, Improved GUARDRAIL V.

MODEL DIFFERENCES: The GRCS's ARF is mounted in a RC-12K aircraft. The IGRV's ARF is mounted in a RC-12D aircraft; GUARDRAIL V's ARF is mounted in a RU-21H aircraft.

TABULATED DATA:

COMINT frequency range	HF, VHF, UHF
ELINT frequency range	classified
Altitude range (air frame)	up to 31,000 ft
Power requirement for IPF	200+ kW, 208 VAC, 60 Hz

PRIME MOVER: RC-12K aircraft; Hemut 10-ton tractor truck (proposed)

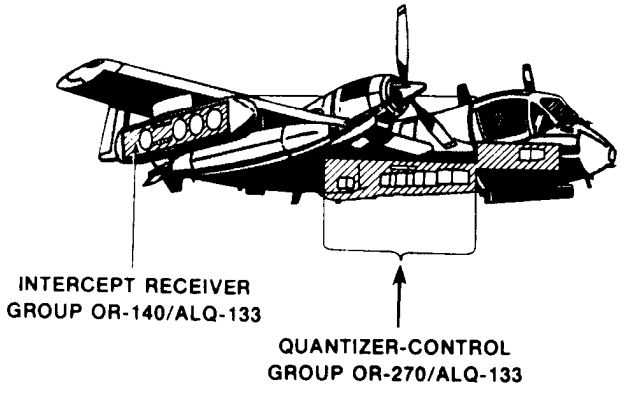
POWER SOURCE: Aircraft's internal power system (ARF). The GRCS IPF comes with a PDS which is mounted on two trailers. The PDS consists of four 200 kW diesel generators and associated hardware. The IPF can be powered by using the generators on the PDS or by accessing commercial power. Commercial power applications must be routed through the PDS distribution panels.

OPERATOR/MAINTENANCE MOS: 05D (98D), 98C, 98G, 98J, 33R

TRAINING: 231-F27, (Expanded) GUARDRAIL Common Sensor Operator Course (USAISD) (Projected); 102-33R10, EW/Intercept Aviation Systems Repairer Course (USAISD) (Projected)

REFERENCE: To be developed

Figure A-2. Special purpose detecting system (deployed), GUARDRAIL (continued).



Noncommunications Identification and Collection System Mounted on a MOHAWK RV-1D Aircraft

MODEL NUMBER: AN/ALQ-133

NOMENCLATURE: Noncommunications Identification and Collection System

PROJECT NAME: QUICKLOOK II

NSN: 5865-00-134-2601

LIN: NA

CLASSIFICATION TYPE: NA

PURPOSE AND USE: The AN/ALQ-133 is an airborne noncommunications intercept, identification, and location system. The level of system deployment is classified.

DESCRIPTION: The AN/ALQ-133 QUICKLOOK II is an airborne, automated radar collection system. It is used to collect and classify noncommunications signals data. A part of the AN/ALQ-133 system (intercept receiver group and quantizer-control group) is mounted on a MOHAWK RV-1D aircraft. The remainder of the system (simulator set AN/USM-393) is mounted in a V-495/USM-393 which is groundbased. Communications are provided by secure UHF data links from the V-495/USM-393 to the RV-1D aircraft crew. The Army communications system provides secure record traffic communications to the ground processor.

REPLACES: QUICKLOOK I

MODEL DIFFERENCES: QUICKLOOK I was a similar system but was not remotely controlled.

TABULATED DATA:

Range	LOS
Signal types	CW, pulse
Altitude range (air frame)	up to 18,000 ft

PRIME MOVER: MOHAWK RV-1D aircraft

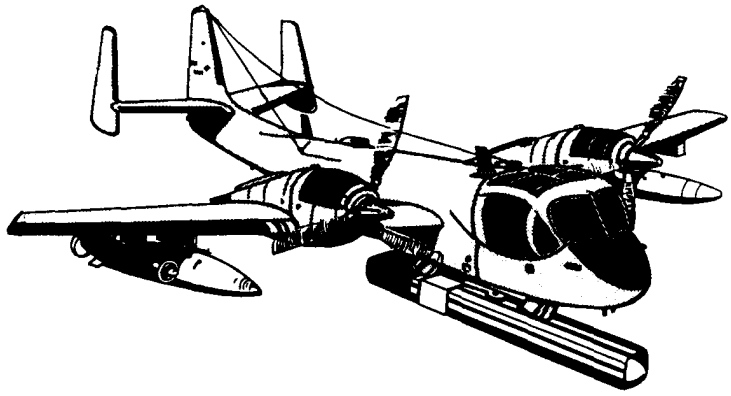
POWER SOURCE: Aircraft's internal power system

OPERATOR/MAINTENANCE MOS: 98J, 33R

TRAINING: 233-F8, QUICKLOOK II Operator Course (USAISD); 102-33R10, EW/Intercept Aviation Systems Repairer Course (USAISD)

REFERENCE: TM 11-5895-955-10-1 (U)

Figure A-3. Noncommunications identification and collection system, QUICKLOOK.



Radar Surveillance Set Mounted on a MOHAWK OV-1D Aircraft

MODEL NUMBER: AN/APS-94F

NOMENCLATURE: Radar Surveillance Set

PROJECT NAME: NA

NSN: 5841-01-070-3859

LIN: NA

CLASSIFICATION TYPE: NA

PURPOSE AND USE: The AN/APS-94F, a corps asset, produces permanent radar maps (radar imagery filmstrips) of terrain. These near real-time maps are interpreted in-flight to detect moving targets and maintain surveillance on military ground activity.

DESCRIPTION: The AN/APS-94F radar surveillance set is a side-looking airborne radar (SLAR). The surveillance set is mounted under and to the right of the MOHAWK OV-1D fuselage. The radar imagery filmstrips produced during flight are removed when the aircraft lands. The filmstrips are processed through the tactical imagery interpretation facility (TIIF) which is groundbased.

REPLACES: AN/APS-94D

MODEL DIFFERENCES: A PIP upgraded the AN/APS-94F to state-of-the-art equipment.

TABULATED DATA:

Resolution	30 m
Altitude range	up to 16,000 ft

PRIME MOVER: MOHAWK OV-1D aircraft

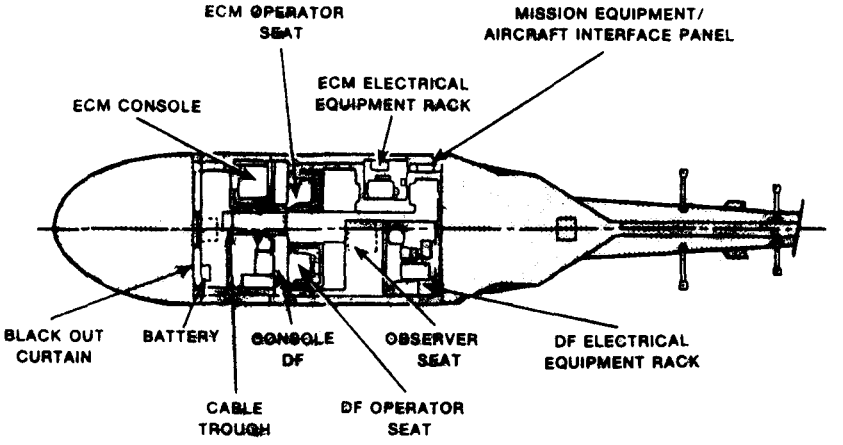
POWER SOURCE: Aircraft's internal power

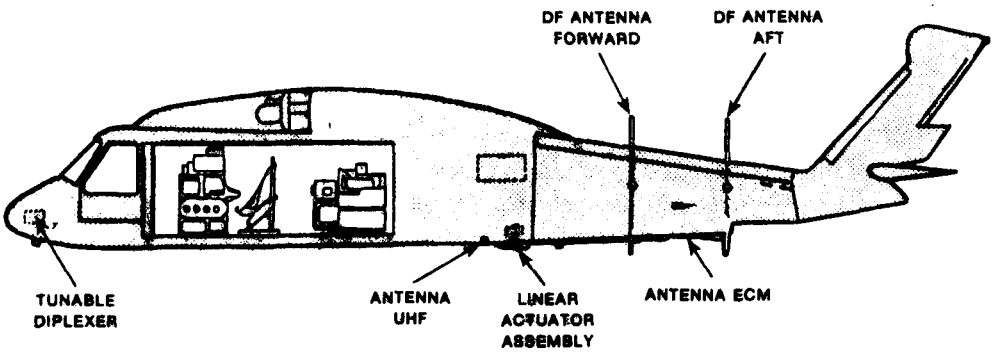
OPERATOR/MAINTENANCE MOS: 96H, 33V

TRAINING: 221-96H10, Aerial Sensor Specialist Course (USAICS); 102-33V10, EW/Aerial Surveillance Sensor Repairer Course (USAICS)

REFERENCE: TM 11-5895-1078-10 (U)

Figure A-4. Radar surveillance set, AN/APS-94F.





MODEL NUMBER: AN/ALQ-151(V)2

NOMENCLATURE: Special Purpose Countermeasures System

PROJECT NAME: QUICKFIX IIB (EH-60A Configuration)

NSN: 5865-01-132-1303

LIN: Z19973

CLASSIFICATION TYPE: Standard

Figure A-5. Special purpose countermeasures system, QUICKFIX.

PURPOSE AND USE: The AN/ALQ-151(V)2 subsystem is a division and armored cavalry regiment (ACR) level special purpose countermeasures system. This subsystem is a part of the heliborne system (EH-60A). The EH-60A includes a modified UH-60A helicopter fitted with special avionics and EW mission equipment. The EW mission equipment includes ESM and ECM equipment. The ESM equipment is used to detect a target signal of interest and locate its transmitting antenna. The ECM equipment is used to jam target signals. The AN/ALQ-151(V)2 equipment can operate separately, with each other, or interface with the AN/TSQ-114B(V)2 TRAILBLAZER for enhanced direction finding (DF) accuracy.

DESCRIPTION: The AN/ALQ-151(V)2 QUICKFIX IIB subsystem contains a computer controlled countermeasures group and ESM equipment. This equipment is used to process ARDF data and provides an automatic reference point for the location of the ARDF platform. The AN/TLQ-17A(V)2 system provides the ECM equipment used for active countermeasures. The ESM and AN/TLQ-17A(V)2 equipment operate independently of each other. The system includes a UHF data link for interfacing with other QUICKFIX IIB systems when airborne. A UHF secure voice radio is provided for communications with the ground control.

REPLACES: QUICKFIX IIA (EH-1X and EH-1B Configurations)

MODEL DIFFERENCES: Although the AN/ALQ-151(V)2 system is similar to the AN/ALQ-151(V)1 system, there are differences. The AN/ALQ-151(V)2 system requires two operators while the AN/ALQ-151(V)1 requires one operator. The mission equipment has new racks, units, and cables. The AN/ALQ-151(V)2 uses a modified BLACK HAWK UH-60A helicopter as the platform while the AN/ALQ-151(V)1 uses a modified IROQUOIS UH-1H helicopter.

TABULATED DATA:

Range	LOS
Bandwidth	8, 30, or 50 kHz
Frequency (receiver/transmitter)	HF and VHF
Signal types	AM, FM, CW, SSB
Altitude range (air frame)	up to 19,300 ft
Power requirements	115/200 VAC, 3 phase, 30 or 45 kW, 400 Hz, and 28 VDC provided by two 200 amp converters

PRIME MOVER: Modified BLACK HAWK UH-60A utility helicopter

POWER SOURCE: Aircraft's internal power system

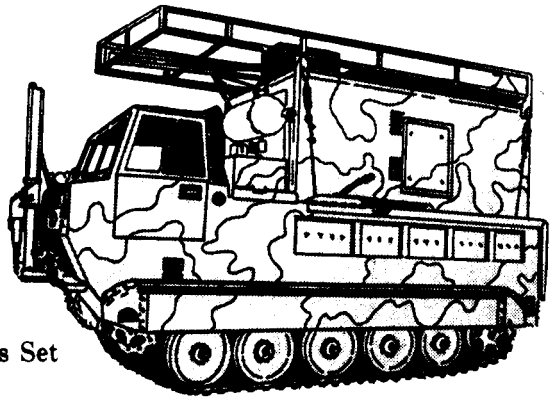
OPERATOR/MAINTENANCE MOS: 98G, 33R

TRAINING: 102-33R10, EW/Intercept Aviation Systems Repairer Course (USAISD); 102-33R30, EW/Intercept Aviation Equipment Repairer Basic Noncommissioned Officer Course (BNCOC) (USAISD) (FY89); 231-F26, QUICKFIX Operation Course (USAISD) (Projected)

REFERENCE: TM 32-5865-012-10 (U)

Figure A-5. Special purpose countermeasures system, QUICKFIX (continued).

Special Purpose Countermeasures Set Mounted on an M1015 Cargo Carrier



MODEL NUMBER: AN/MLQ-34

NOMENCLATURE: Special Purpose Countermeasures Set

PROJECT NAME: TACJAM

NSN: 5865-01-008-6629

LIN: R40073

CLASSIFICATION TYPE: Standard

PURPOSE AND USE: The AN/MLQ-34 is a division/corps level special purpose countermeasures set. It is used for high-powered communications jamming. It can be used to jam or harass single-channel tactical enemy communications links. The set can generate up to three rapid sequential but independent jamming signals in the VHF range.

DESCRIPTION: The AN/MLQ-34 TACJAM is a transportable groundbased VHF communications jamming set. The set is housed in an S-595 shelter. The AN/MLQ-34 uses a quick erection pneumatic antenna mast topped with a folding LP antenna. A projected (early 1990s) high-speed data link can be used to transfer encrypted data to and from the technical control and analysis center (TCAC) for tasking and reporting. Currently, secure voice is the primary communications means used.

REPLACES: Programmed to replace AN/GLQ-3B

MODEL DIFFERENCES: NA

TABULATED DATA:

Frequency range	VHF
Number of possible modulation waveforms	21
RF power output	classified
Height (shelter)	82 in
Weight (shelter)	9,046 lb
Power requirements	120/208 VAC, 60 kW, 3 phase, 400 Hz

PRIME MOVER: M1015 cargo carrier

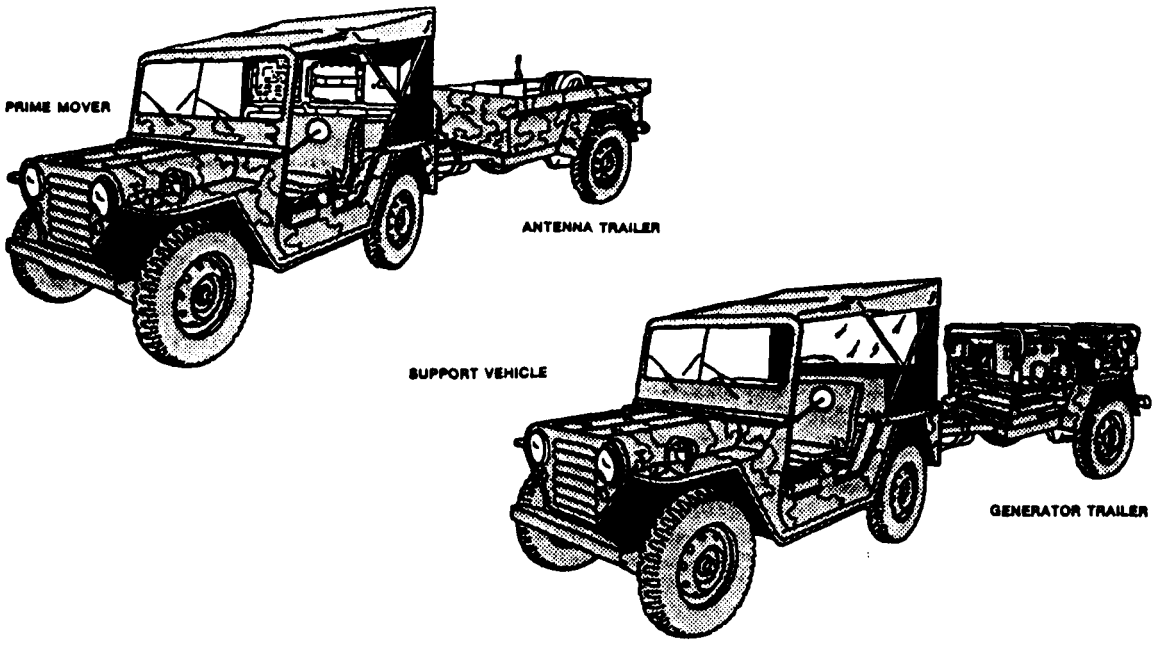
POWER SOURCE: On board 60 kW generator

OPERATOR/MAINTENANCE MOS: 98G, 33T

TRAINING: 231-ASIK3, Electronic Warfare Operations Course (USAISD); 102-33T10, EW/Intercept Tactical Systems Repairer Course (USAISD); 102-33T30, EW/Intercept Tactical Systems Repairer BNCOC (USAISD)

REFERENCES: TC 34-90 (C), TM 32-5865-060-10 (U)

Figure A-6. Special purpose countermeasures set, AN/MLQ-34 TACJAM.



MODEL NUMBER: AN/TLQ-17A(V)1

NOMENCLATURE: Countermeasures Set

PROJECT NAME: TRAFFICJAM

NSN: 5865-01-004-1098

LIN: C30607

CLASSIFICATION TYPE: Limited Procurement-Urgent (LPU)

PURPOSE AND USE: The AN/TLQ-17A(V)1 is a division level transportable electronic countermeasures set. This tactical, mobile jamming set is used against communications signals transmitting in the 1.5 to 80 MHz frequency range. The AN/TLQ-17A(V)1 can be used for surveillance (ESM) or jamming (ECM) against ground and airborne communications.

DESCRIPTION: The AN/TLQ-17A(V)1 TRAFFICJAM is mounted in a jeep and trailer. The AN/TLQ-17A(V)1 includes—

- R-2107/TLQ-17A(V) receiver (jeep mounted).
- T-1386/TLQ-17A(V) transmitter (jeep mounted).
- PP-7472/TLQ-17A(V) power supply (jeep mounted).
- AN/UNH-16A tape recorder.
- Interface unit assembly.
- OE-391/TLQ-17A(V) band 1 antenna group (will be mounted in a jeep trailer when fielded) (formally AS-3632/TLQ-17A(V)).
- OE-390/TLQ-17A(V) band 2 antenna group (mounted in a jeep trailer) (formally AS-3289/TLQ-17A(V)).

Figure A-7. Countermeasures set, AN/TLQ-17A(V) series TRAFFICJAM.

The jeep mounted components are installed in an MT-4983/TLQ-17A(V) electrical equipment rack. The set can be operated in a mounted or dismounted configuration. The support jeep tows a modified M416 trailer containing two MEP-021A generators. Communications are provided by a VHF secure voice radio. A PIP integrates a high-speed data link into the set. Additionally, the set receiver (R-2107/TLQ-17A(V)) will be modified to provide two frequency cursors to quickly identify signal(s) of interest and an amplitude cursor to remove low level RF signal baseline clutter. This modification has been developed and incorporated into the QUICKFIX II (airborne system) being produced. Modification of ground sets commenced in FY87.

REPLACES: AN/TLQ-17

MODEL DIFFERENCES:

AN/TLQ-17A(V)2. The AN/TLQ-17A(V)2 is mounted in EH-1H and EH-60A helicopters. It is part of the QUICKFIX mission equipment and uses helicopter mounted antennas.

AN/TLQ-17A(V)3. This set will replace the AN/TLQ-17A(V)1. The AN/TLQ-17A(V)3 receiver, transmitter, and power supply along with communications equipment will be installed in an S-250 shelter. The shelter will be transported and powered by an M1028 CUCV. This set is being developed and is scheduled for fielding in FY88.

AN/TLQ-17A(V)4. This set will be similar to the AN/TLQ-17A(V)3 except that the S-250 shelter will be transported and powered by a high mobility multipurpose wheeled vehicle (HMMWV). It will be developed and fielded subsequent to allocation of HMMWV shelter carriers.

TABULATED DATA:

Range	LOS
Frequency (receiver/transmitter)	1.5 to 80 MHz
RF power output	up to 550 watts
Signal types	AM, FM, CW, SSB
Power requirements	208 VAC, 3 phase, 3 kW, 400 Hz

PRIME MOVER: AN/TLQ-17A(V)1, M151A1/A2 utility truck with M416 antenna trailer and M569 power generator trailer; AN/TLQ-17A(V)2, EH-1H and EH-60A helicopters; AN/TLQ-17A(V)3, M1028 CUCV; AN/TLQ-17A(V)4, M1037 HMMWV

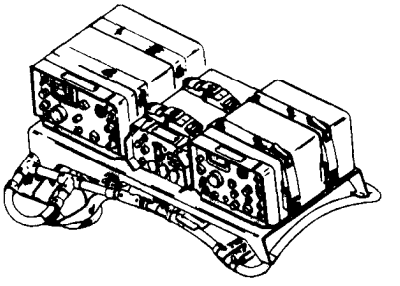
POWER SOURCE: AN/TLQ-17A(V)1, MEP-021A generator set; AN/TLQ-17A(V)2, EH-1H and EH-60A power systems; AN/TLQ-17A(V)3, CUCV under-the-hood power (UHP) system; AN/TLQ-17A(V)4, HMMWV UHP system

OPERATOR/MAINTENANCE MOS: 05H (98H), 98G, 33T

TRAINING: 231-ASIK3, Electronic Warfare Operations Course (USAISD); 102-33T10, EW/Intercept Tactical Systems Repairer Course (USAISD); 102-33T30, EW/Intercept Tactical Systems Repairer BNCOC (USAISD)

REFERENCES: TC 34-84 (U), TM 32-5865-005-10 (U), TM 32-5865-005-23 (U)

Figure A-7. Countermeasures set, AN/TLQ-17A(V) series TRAFFICJAM (continued).



MODEL NUMBER: AN/TRQ-30(V)

NOMENCLATURE: Radio Receiver

DESCRIPTION: The equipment in the AN/TRQ-30(V) includes one R-1218/UR or one R-1518/UR or both radio receivers, one AN/PNH-7 recorder/reproducer, and various antennas. Depending on the receiver selected, the AN/TRQ-30(V) receives AM, FM, CW, MCW, LSB, or USB signals in the 0.536 to 157.5 MHz frequency range.

TABULATED DATA: R-1218/UR

Frequency Range:	0.536 to 20.5 MHz
Type of Reception:	AM, CW, MCW, LSB, and USB
Power Supply:	Internal--12 D type alkaline batteries (BA-30) External--110/220 volts alternating current (VAC) or 24 volts direct current (VDC) in a vehicle mode
Operating Time:	Approximately 12 hours
Compatible Antennas:	AS-1523 or AS-2887/UR (39-inch whip)

TABULATED DATA: R-1518-UR

Frequency Range:	19 to 157.5 MHz
Type of Reception:	AM, FM, and CW
Power Supply:	Internal--12 D type alkaline batteries (BA-30) External--110/220 VAC or 24 VDC in a vehicle mode
Operating Time:	Approximately 8 hours
Compatible Antennas:	AS-1526, AS-1527, AS-1528, or AS-2887/UR (39-inch whip)

TABULATED DATA: AN/PNH-7

Tape Speed:	15/16 inches a second
Recording Time:	1 hour each direction (total 2 hours)
Tape Required:	Cassette C-60 (300 feet, .150 inches wide)
Power Supply:	Internal--8 D type batteries (BA-30) External--110/230 VAC or 22 to 30 VDC in a vehicle mode
Operating Time:	Approximately 8 hours

Figure A-8. Radio receiver, AN/TRQ-30(V) equipment setup for DF.

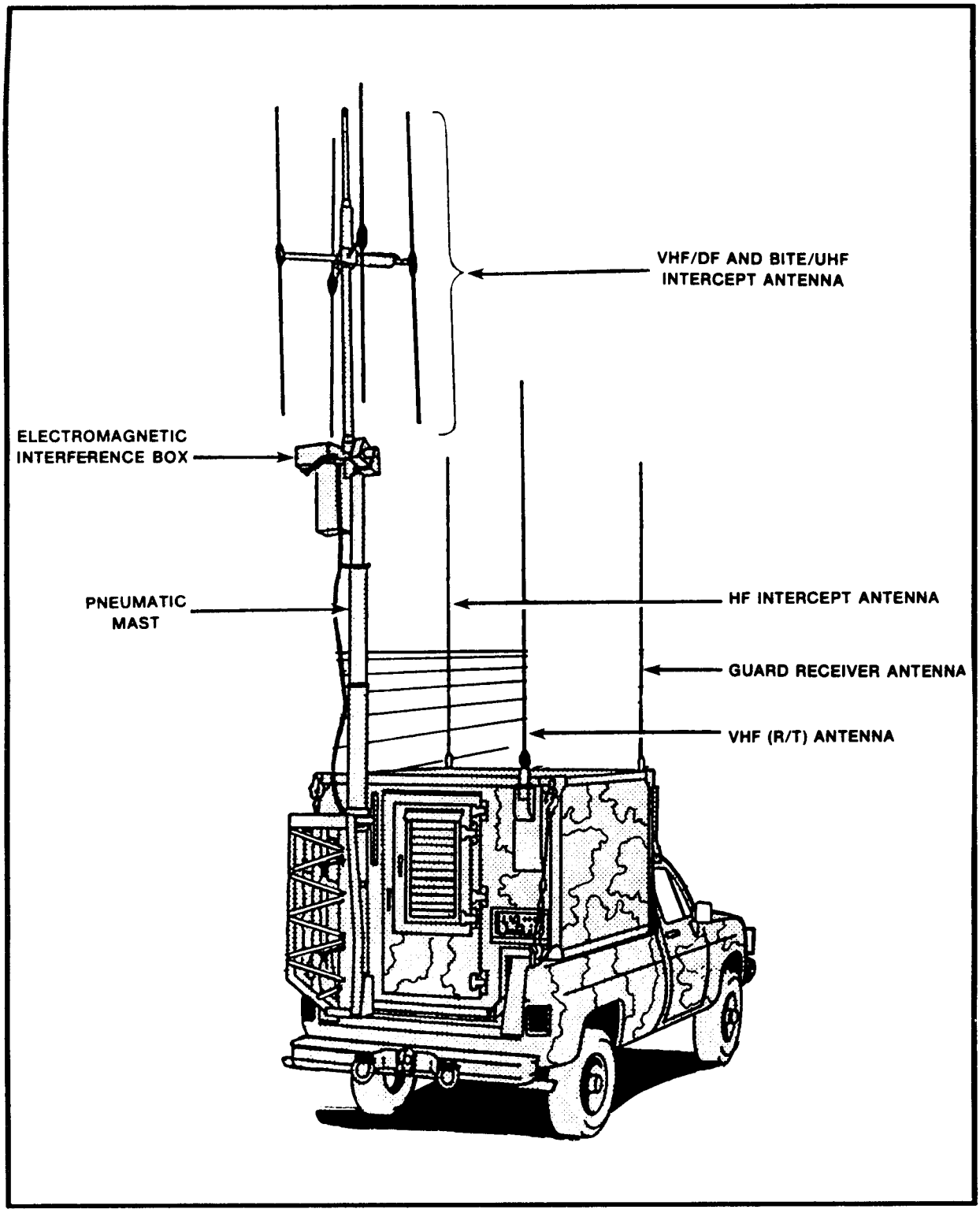


Figure A-9. AN/TRQ-32(V)2 TEAMMATE.

MODEL NUMBER: AN/TRQ-32(V)2

NOMENCLATURE: Radio Receiving Set

PROJECT NAME: TEAMMATE

NSN: To be determined

LIN: R36854

CLASSIFICATION TYPE: Standard

PURPOSE AND USE: The AN/TRQ-32(V)2 is a corps, division, and ACR level radio receiving set. It is used to receive, record, and determine the direction of transmitted signals. Communications intercept is provided in the HF, VHF, and UHF ranges. Direction finding LOB support is provided in the VHF range only. Up to four sets can be netted by way of FM data links for automated DF operations.

DESCRIPTION: The AN/TRQ-32(V)2 TEAMMATE is housed in an S-457B/G shelter. The shelter is mounted on an M1028 CUCV. The AN/TRQ-32(V)2 is comprised of the following subsystems:

- Operator terminal.
- Antennas.
- Receiver.
- Direction finder.
- Audio/recorder.
- Hydraulic generator/air conditioner.
- Communications.
- Data processing.

The receiver subsystem provides the capability for two operators to independently intercept and analyze signals. It also allows programmed, directed, or general search to be performed. Each operator can independently determine a LOB on a signal through use of a dedicated operator control panel display. The communications subsystem provides secure FM voice radio, nonsecure field telephone, and a secure UHF data link.

REPLACES: AN/TRQ-32(V)1

MODEL DIFFERENCES: The AN/TRQ-32(V)2 provides data processing and secure UHF data link capabilities.

TABULATED DATA:

	Shelter only	*Shelter on M1028*
Frequency range (intercept)	HF, VHF, UHF	
Frequency range (DF)	VHF	
Height	70 1/10 in	105 in
Width	79 1/10 in	79 3/5 in
Depth	86 3/5 in	220 7/10 in
Weight	3,198 lb	8,948 lb
Power requirements	110/240 VAC, single phase, 5 kW, 60 Hz	

PRIME MOVER: M1028 CUCV

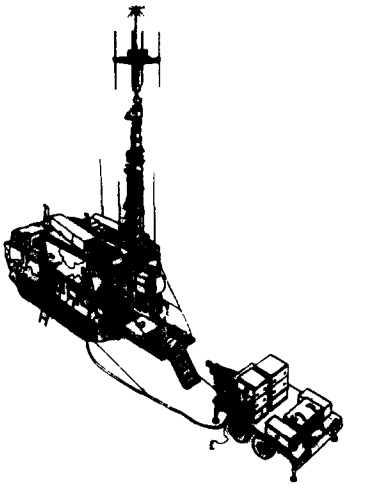
POWER SOURCE: PTO hydraulic generator

OPERATOR/MAINTENANCE MOS: 98G, 05H (98H), 33T

TRAINING: 231-ASIK3, Electronic Warfare Operations Course (USAISD) (Projected); 102-33T10, EW/Intercept Tactical Systems Repairer Course (USAISD) (Projected)

REFERENCES: TM 32-5895-050-10 (U), TM 32-5895-050-24&P (U)

Figure A-9. AN/TRQ-32(V2) TEAMMATE (continued).



MODEL NUMBER: AN/TSQ138B(V)2

NOMENCLATURE: Special Purpose Detecting System

PROJECT NAME: TRAILBLAZER

NSN: 5811-01-165-7408

LIN: D02454

CLASSIFICATION TYPE: Standard

PURPOSE AND USE: The AN/TSQ138B(V)2 is a special purpose detecting system. It is used as a groundbased tactical HF/VHF/UHF intercept and VHF direction finding support system.

DESCRIPTION: The AN/TSQ138B(V)2 TRAILBLAZER consists of five AN/TSQ-138 master control stations. Communications between the MCSs is accomplished by a secure data link. Each station consists of an electronic equipment shelter mounted on a M1015 cargo carrier and has a trailer support unit. The shelters have a ballistic-protected exterior. The communications subsystem consists of—

- An intra-data link provided by a UHF radio.
- An external tasking and reporting data link provided by a UHF radio.
- A VHF secure voice radio for command and control. Also programmed for the system is the enhanced position location and reporting system (EPLRS) for position/navigation and data distribution.

REPLACES: AN/TSQ138B(V)1

MODEL DIFFERENCES: There are no AN/TSQ-139 remote slave stations associated with the five MCSs configuration.

TABULATED DATA:

Master control station—

Height	98 in
Width	97 in
Depth	205 in
Weight	9,712 lb
Power requirements	19.26 kW

PRIME MOVER: M1015 cargo carrier

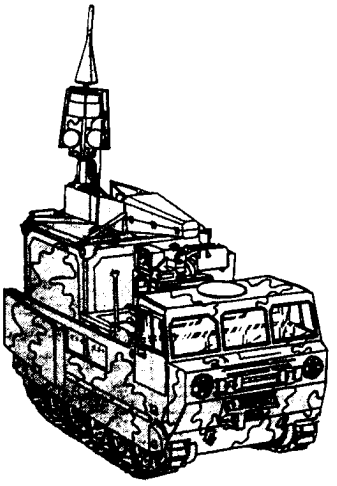
POWER SOURCE: MEP-114A generator set, 30 kW, 400 Hz (primary); generator set 60 kW, 400 Hz, on board an M1015 cargo carrier (secondary)

OPERATOR/MAINTENANCE MOS: 98G, 33T

TRAINING: Unit training; 231-ASIK3, TRAILBLAZER Operator Course (USAISD)

REFERENCE: TM 32-5811-902-10 (U)

Figure A-10. Special purpose detecting system, AN/TSQ-138B(V)2 TRAILBLAZER.



MODEL NUMBER: AN/MSQ-103C

NOMENCLATURE: Special Purpose Receiving Set

PROJECT NAME: TEAMPACK (Enhanced)

NSN: 5811-01-095-1875

LIN: NA

CLASSIFICATION TYPE: Standard

PURPOSE AND USE: The AN/MSQ-103C is a division/corps level special purpose receiving set. It is used to intercept, process, display, and record noncommunications signals data.

DESCRIPTION: The AN/MSQ-103C TEAMPACK (Enhanced) is a special purpose receiving set mounted in a protective shelter. The shelter is mounted on an M1015 cargo carrier. The majority of the equipment is housed in the shelter. The antenna/receiver group is mounted externally on the antenna mast. The AN/MSQ-103C is composed of five functional groups working collectively to achieve signal reception and display. The set operates over a frequency range subdivided into six separate bands within the UHF/SHF ranges. The AN/MSQ-103C operator has a secure VHF radio for tasking and reporting. A PIP integrated a high-speed data link into the system for tasking and reporting.

REPLACES: AN/MLQ-24, AN/MSQ-103A

MODEL DIFFERENCES: The AN/MSQ-103C is mounted on an M1015 cargo carrier. The AN/MSQ-103B is mounted on an M1028 CUCV.

TABULATED DATA:

Range	LOS to 30 km
Frequency range	UHF, SHF
Signal types	pulsed, CW
Communications equipment	AN/VRC-46 radio
Height	70 in
Weight	7,420 lb
Power requirements	120/208 VAC, 3 phase, 20 kW, 400 Hz

PRIME MOVER: M1015 cargo carrier

POWER SOURCE: MEP-112A diesel generator

OPERATOR/MAINTENANCE MOS: 98J, 33T

TRAINING: 233-98J10, EW/SIGINT Noncommunications Interceptor Course (USAISD) (FY87); 102-33T10, EW/Intercept Tactical Systems Repairer Course (USAISD)

REFERENCES: TC 34-87 (C), TM 32-5811-030-10-1 (U)

Figure A-11. Special purpose receiving set, AN/MSQ-103C TEAMPACK (enhanced).

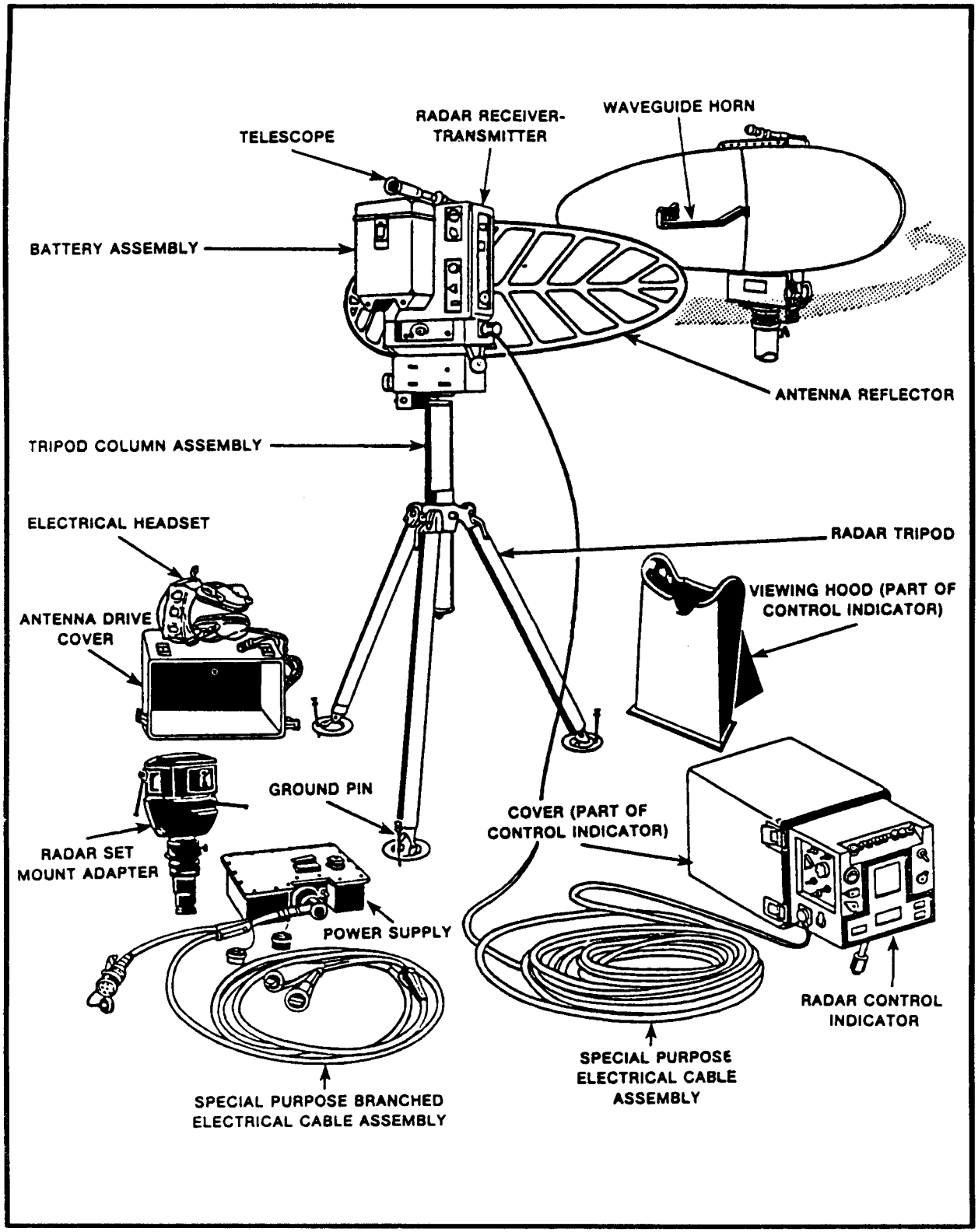


Figure A-12. AN/PPS-5B radar set.

MODEL NUMBER: AN/PPS-5B

NOMENCLATURE: Radar Set

PROJECT NAME: NA

NSN: 5840-01-009-4939

LIN: NA

CLASSIFICATION TYPE: NA

PURPOSE AND USE: The AN/PPS-5B is a portable, battery powered radar set. It is used to locate, identify, and track moving ground targets at ranges up to 10,000 m.

DESCRIPTION: The AN/PPS-5B radar set, when emplaced, consists of two major operating assemblies (tripod mounted components and control indicator (CI)). The two major assemblies are connected by a remote cable. The tripod mounted components include the receiver-transmitter, antenna, battery box, and telescope. The CI receives output from receiving circuits of the transmitter and presents them on the A- and B-scopes and as audible signals in the headsets. The control indicator controls the movement of the antenna in azimuth. The power for the CI is received through the remote cable from the battery on the receiver-transmitter.

REPLACES: NA

MODEL DIFFERENCES: NA

TABULATED DATA:

Range	*minimum*	*maximum w/o CI*	*maximum w/CI*
Moving personnel	50 m	3,000 m	6,000 m
Moving vehicles	50 m	5,000 m	10,000 m
Azimuth coverage		choice of automatic sector scanning over sector width of 533, 1,067, 1,600, or 1,955 mils; searchlighting at any azimuth	
Elevation coverage		+400 mils to −600 mils	
Frequency		16.0 to 16.5 GHz	
Power requirements		6 VDC	

PRIME MOVER: Personnel, vehicle

POWER SOURCE: Storage battery BB-622/U, BB-422/U, BB-248/U (requires two connected in a series), BB-249/U (requires two connected in a series); PP-2953 power supply; PU-532/PPS generator set

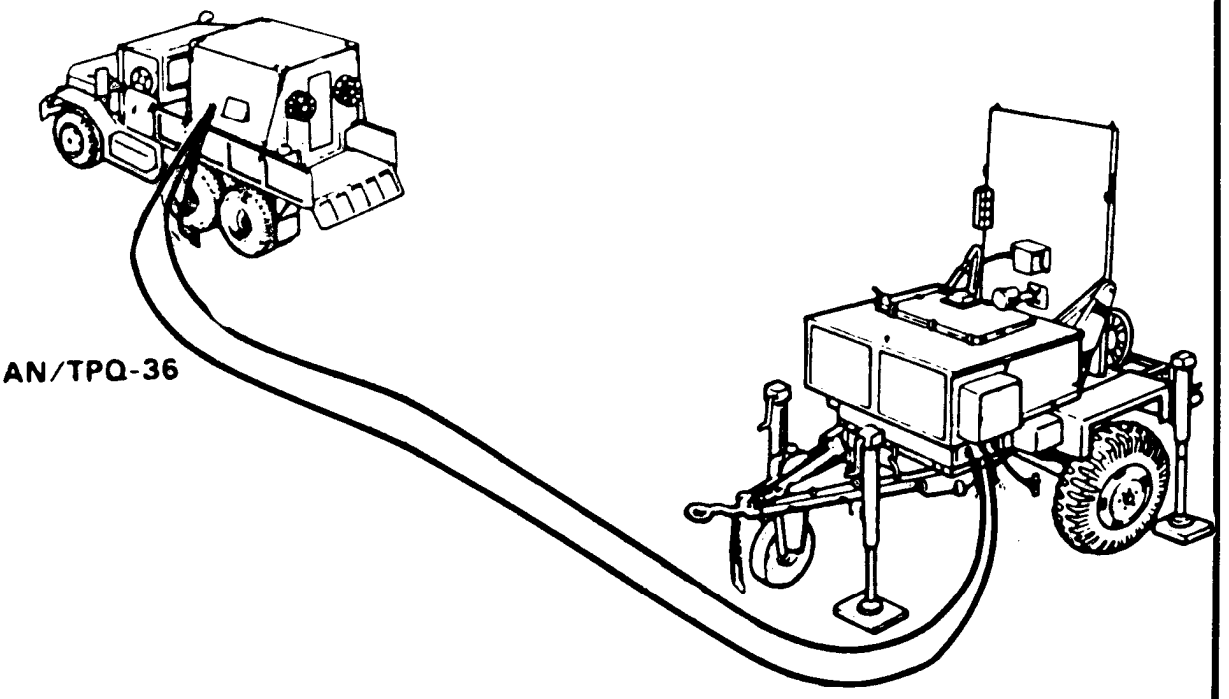
OPERATOR/MAINTENANCE MOS: 96R

TRAINING: Ground Surveillance System Operator Course (USAICS)

REFERENCE: TM 11-5840-298-12 (U)

Figure A-12. AN/PPS-5B radar set (continued).

2 1/2-TON TRUCK WITH S-250 SHELTER



MODEL NUMBER: AN/TPQ-36

NOMENCLATURE: Mortar Locating Radar

PURPOSE: Detects and locates enemy mortars, short-range artillery and rockets.

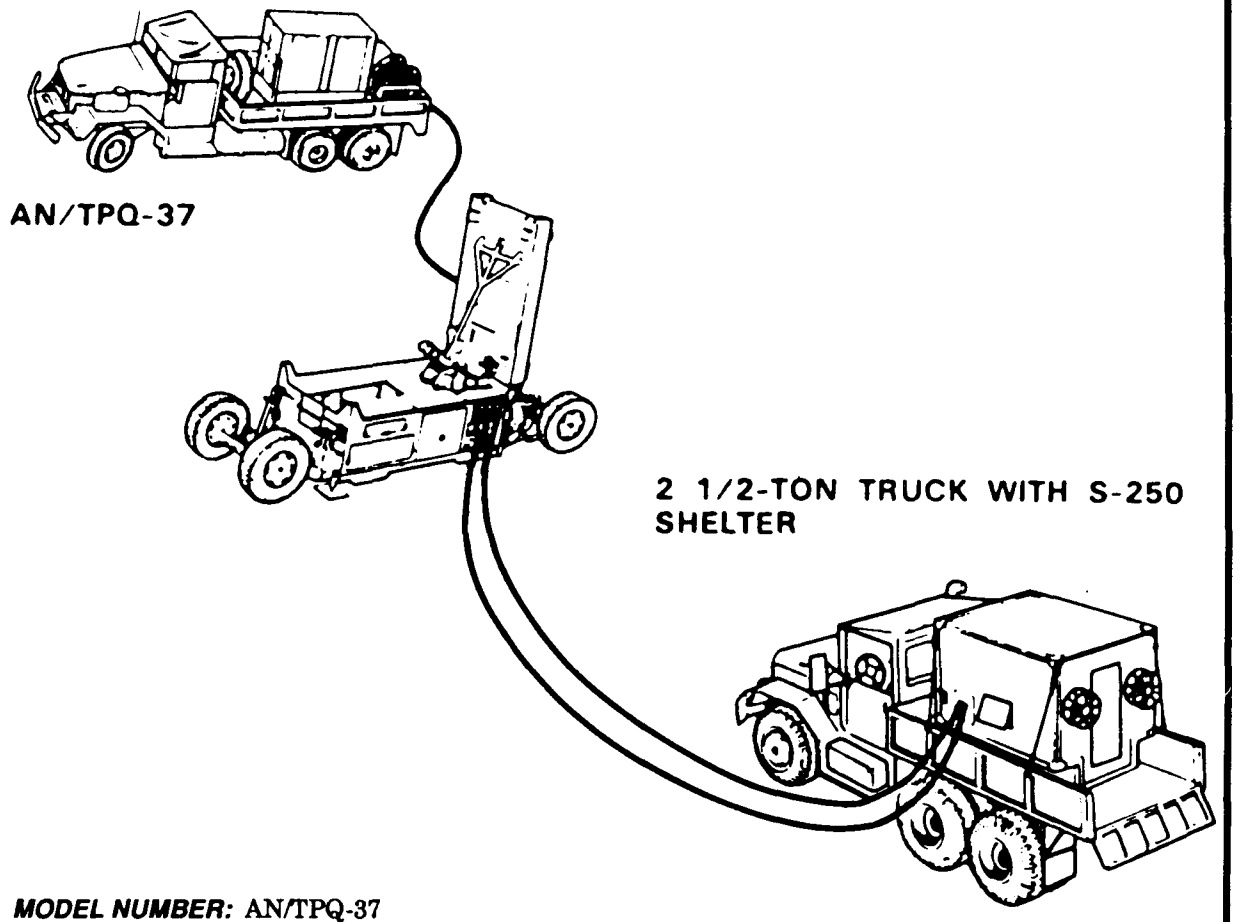
DESCRIPTION: The AN/TPQ-36 is a phased array radar system which uses a combination of radar techniques and computer-controlled signal processing. Tracking of projectiles in flight can provide the weapon location which can be transmitted to the FDC. The system can also adjust friendly fire.

TABULATED DATA:

Azimuth coverage	13^{0} to 90^{0}
Maximum range	15 km mortar and artillery 30 km rockets
Emplacement	15 minutes
Displacement	5 minutes

PRIME MOVER: 2-1/2 ton truck

Figure A-13. Locating radar set AN/TPQ-36.



MODEL NUMBER: AN/TPQ-37

NOMENCLATURE: Artillery Locating Radar

PURPOSE: Detects and locates enemy mortars, long-range artillery and rockets.

DESCRIPTION: The AN/TPQ-37 is a phased array radar system which uses a combination of radar techniques and computer-controlled signal processing. Tracking of projectiles in flight can provide the weapon location, which can be transmitted to the FDC. The system can also adjust friendly fire.

TABULATED DATA:

Azimuth coverage	up to 90°
Maximum coverage	30 km artillery 50 km rocket
Emplacement	15 minutes
Displacement	5 minutes

PRIME MOVER: 5-ton truck.

Figure A-14. Locating radar set AN/TPQ-37.

APPENDIX B

RECONNAISSANCE AND SURVEILLANCE PLANNING

The ACR and separate brigade S2s are responsible for managing and planning R&S operations. The S2 ensures full surveillance coverage of the battlefield is being conducted by the squadron or battalion. The S2 does this based upon guidance from the ACR and brigade commander, corps G2, and detailed knowledge of the enemy, weather, and terrain through IPB. See FM 34-2-1 for more information on R&S operations.

NAMED AREAS OF INTEREST

The ACR or separate brigade S2 identifies some of the NAIs that the squadron or battalion S2 needs to cover in the R&S plan and gives the limit of advance for reconnaissance assets. Other NAIs to be covered will be developed by the squadron or battalion. The squadron or battalion S2 puts together the R&S plan based upon the guidance from the higher S2, commander, and mission of the unit. The squadron or battalion S2 sends a copy of the R&S plan to the ACR or separate brigade S2. The ACR or separate brigade S2 insures that no gaps exist between the squadrons or battalions and sends the entire regiment or brigade R&S plan to corps. The R&S plan is a tool that ties intelligence, maneuver, and fire support together to further develop the enemy situation and targeting process.

In order for the squadron or battalion S2 to implement an effective R&S plan, the S2 must use the following terms:

- Reconnaissance. A mission undertaken to obtain by visual observation or other detection methods, information about the activities and resources of an enemy, or potential enemy; or to secure data concerning the meteorologic, hydrographic, or geographic characteristics of a particular area.
- Surveillance. The systematic observation of aerospace surface, or subsurface areas, places, persons, or things by visual, aural, electronic, photographic, or other means.
- Security. Measures taken by a military unit, an activity, or installation to protect itself against all acts designed to or which may impair its effectiveness.
- Counterreconnissance. All measures taken to prevent hostile observation of a force, area, or place. Actions taken to counter enemy R&S efforts through the depth of the AO. It is a combat function directed by the S3 with intelligence support from the S2.

RECONNAISSANCE AND SURVEILLANCE PLAN

The purpose of the R&S plan is to find out and verify information about the enemy and terrain that affects the ground force maneuver plan using the assets of the ACR or separate brigade. These assets are

scouts, aircraft, artillery FOs, MI company, engineers, chemical, infantry, and armor.

According to FM 101-5, the S3 is responsible for and has tasking authority over maneuver elements. The S2 makes recommendations to the commander or S3. The S2 is the primary user of the scouts and often tasks them. In some units the S2 has tasking authority over R&S assets after the R&S plan has been approved by the commander and the S3. Every unit has its own SOPs regarding R&S responsibilities.

The commander's approval of the R&S plan is considered as tasking authority. Many times the S3 does not have time to prepare and publish separate R&S missions, so the S2 does it. Once the S2 has written the formal plan and coordinates it with the S3, he sends it to the commander for approval. Once the commander has signed the fragmentary order (FRAGO) or warning order, the taskings within it become missions ordered by the commander, regardless of who wrote it.

STEPS FOR DEVELOPING AND IMPLEMENTING RECONNAISSANCE AND SURVEILLANCE PLAN AT SQUADRON OR BATTALION

The squadron or battalion S2 must understand the mission and commander's intent. (PIR or IR are established from these two concepts.)

- The S2 prepares a warning order to the R&S assets so they can begin preparations. R&S starts as soon as possible and continues throughout the operation.
- The S2 and the rest of the staff conduct IPB together. An R&S plan cannot be developed without NAIs and TAIs. These come directly from the IPB process.
- The S2 prepares a situation template based on what the enemy is expected to do.
- From the situation template and IPB, the S2 develops an event template. This template will assist the S2 in selecting NAIs that help confirm or deny enemy intentions. The R&S plan should focus on these NAIs.
- The S2 coordinates with the S3 to ensure that the necessary assets to employ for R&S are not already assigned a mission. He coordinates with the FSO to ensure that FA assets know where and when R&S assets will operate. The S2 briefs the officer in charge or chiefs of these assets on the enemy, weather, and terrain. The S2 uses the IPB products completed to date (such as photographs, terrain models, and R&S overlays) as part of the brief. The S2 explains what the commander wants to accomplish and what you as the S2 expect from each asset. The squadron or battalion S2 gives them the big picture and then directs them to their specific roles:
  - Do not just focus on the enemy; have the R&S assets report on terrain, obstacles, AAs, and weather effects on terrain.

- It is imperative that all assets have primary and alternate means of communications and adequate logistics.
- Ensure all assets report regularly, even if a negative report.
- Have the S3 or a member of that section present at the briefing to ensure proper coordination takes place.
- Try to augment scout missions with GSRs, FOs, and engineers to increase the information potential.
- If time permits, write an R&S annex to the OPORD. If there is not enough time, prepare an R&S overlay and disseminate it to the units and assets.

RECONNAISSANCE AND SURVEILLANCE OVERLAY

The R&S overlay is constructed with R&S assets graphically oriented to satisfy the commander's PIR. As a minimum, the R&S overlay includes three sections: graphic display of deployed R&S assets and planned R&S deployments; a legend containing administrative data and instructions to R&S assets; and distribution.

Graphic

The R&S overlay will show--

- Number, location, and parent unit of listening post or OP.
- Patrol routes, start points, release points, and checkpoints.
- Scout screen line or locations.
- GSR primary and supplementary locations, left and right scan limits, mission and target areas.
- REMBASS.

Legend

The legend will contain--

- Required operational times.
- Coordinating instructions.
- Enemy activities likely to be detected.
- Reporting requirements.

Distribution

A distribution listing will usually contain—

Troop or company team.

Asset of officer in charge or chief.

S3, FSO, engineers, and ACR or separate brigade S2.

QUESTIONS THAT A RECONNAISSANCE AND SURVEILLANCE PLAN SHOULD ANSWER

There are several questions that the R&S plan should answer regarding the area of the objective and the axis of advance.

Area of the Objective

- Did the reconnaissance pinpoint sufficient numbers of vehicle fighting positions, orientations, and individual emplacements to permit the S2

to accurately template enemy dispositions down to at least platoon level?

- Did reconnaissance accurately pinpoint or classify all obstacles (for example, location, dimension, type, gaps, and bypasses)?
- Did the reconnaissance, if tasked, breach obstacles, mark for day or night, and report location and type of marking?
- Did reconnaissance report the above obstacles no later than 1 hour prior to main body departure time (to permit order revision if necessary)?
- Did they withdraw undetected (stealth)?
- Was at least one OP established off the objective but able to maintain surveillance of the objective to assist with C^2 and to make ca11s for indirect fire and adjustments during maneuver and assault?

Axis of Advance

- Did the reconnaissance cover the entire axis from the line of departure (LD) to the objective?
- Did the reconnaissance identify and answer all questions about obstacles?
- Did the reconnaissance mark the routes?
- Were OPs established overlooking the axis of advance?
- Were infiltration routes located for dismounted attack?
- Did the reconnaissance conduct at least a hasty reconnaissance of all key terrain and suspected or probable enemy locations capable of overwatching and placing effective fire into the axis of advance?
- Was the trafficability along the axis determined?
- Was all the information reported at least 1 hour prior to LD?
- If required, was reconnaissance continued beyond the objective to locate enemy positions, obstacles, possible avenues of counterattack or reinforcement, and avenues of withdrawal?
- Was a defensive screen established beyond the objective to detect and report counterattack or reinforcement?

ESSENTIAL ELEMENTS FOR RECONNAISSANCE AND SURVEILLANCE MISSION SUCCESS

There are three essential elements for R&S mission success: planning, preparing, and executing.

Planning

The S2 should—

- Create a realistic situation template for guiding the reconnaissance effort.
- Prepare a specific R&S plan, either in the OPORD or separate annex.
- Prepare the R&S plan as soon as possible and give the appropriate assets warning orders.
- Employ assets with the scouts.
- Select one person to be the leader for the R&S effort, preferably the S2.

Preparing

The S2 should--

- Ensure the assets are prepared to meet the schedule.
- Brief the mission to all participating assets.
- Rehearse the mission.
- Establish an adequate communication net for the reconnaissance effort.

Executing

The S2 should--

- Use dismounted techniques to maintain stealth.
- Ensure that reconnaissance elements maintain regular status reporting.
- Coordinate between reconnaissance assets during the mission.
- Ensure the reconnaissance element knows whether or not to engage the enemy. Most reconnaissance missions never engage unless in a life-threatening situation.

AUGMENTING ASSETS

In order for an R&S mission to achieve its maximum effectiveness, other assets should be augmented to the reconnaissance element. Example:

- Supplement FOs with the scouts to call in or change indirect fires.
- Use infantry to locate and mark infiltration mutes.
- Locate tanks close enough to the reconnaissance elemental a source of protection if called upon. (It is more commom to supplement tanks in the counterreconnaissance role.)
- Aviation assets often fly in and out of the squadron or battalion sector and are tasked to provide observation information. Helicopters also are used to insert R&S assets.

Reconnaissance elements frequently locate and breach obstacles or evaluate trafficability. Engineers are trained in this function and can provide timely information if added to the reconnaissance force. Signal assets can be supplemented to act as

a relay or retransmission station to cover the long distances scouts usually travel during reconnaissance missions. (GSRs can also be used to do this.)

PATROL REPORTS

Patrol reports are prepared in detail, based upon the S2's debriefing of the patrol leader and other key members of the patrol. Results are relayed to potential users as combat information and are included in the S2's intelligence data base. Results of patrols are normally transmitted to the regiment or brigade S2 when obtained. Patrols will also report information of immediate use via radio to the S2, based on reporting instructions stated in the patrol plan.

Other R&S assets report combat information using SOP reporting formats or the size, activity, location, unit, time, equipment (SALUTE) spot report format. R&S assets may report on the squadron or battalion command net, operations net, intelligence net, or some combination of the three. Reporting is detailed in the instructions in the R&S plan and normally is based on the unit SOP.

FORMATS AND OVERLAYS

- Reconnaissance asset utilization matrix (Figure B-1).
- Scout plan format (Figure B-2).
- Patrol order (Figure B-3).
- Patrol plan format (Figure B-4).
- GSR or REMBASS plan format (Figure B-5).
- Patrol report format (Figure B-6).
- Squadron of ACR in defense R&S overlay (Figure B-7).
- Battalion of a separate brigade in offense R&S overlay (Figure B-8).
- Squadron of ACR in offense R&S overlay (Figure B-9).
- Battalion of a separate brigade in defense R&S overlay (Figure B-10).

SQUADRON or BATTALION: _____

Date: _____

A check indicates asset named was employed in the listed task.

Tasks	Assets									
	NAI	Scout	GSR	Vision Aids	FO	Infantry	Armor	Aviation	Engineer	Signal or EW
Objective										
Locate enemy positions										
Locate objective obstacles										
Breach or mark obstacles										
Establish objective OP										
Direct fires										
Assist C^2										
Route										
Locate screen										
Locate route obstacles										
Breach or mark obstacles										
Mark assault route										
Infiltration route										
Establish route OP										
Terrain reconnaissance										
Trafficability										
Timely communication										
Other										
Reconnaissance beyond objective										
Establish screen										

Figure B-1. Reconnaissance asset utilization matrix.

1. Mission (PIR or IR included):
2. Start time:
3. Completion time:
4. Actions upon enemy contact:
5. Actions at obstacles:
6. Location of friendly minefields and barriers:
7. Routes:
8. Boundaries:
9. Phase Lines:
10. SP, LD, RP, PP, and checkpoints:
11. Fire support planning:
12. Organization and communications frequency for reporting:
13. Platoon actions upon completion of the mission:
14. Special instructions:

Figure B-2. Scout plan format.

1. Situation.
    a. Enemy Forces.
        (1) Identification.
        (2) Location.
        (3) Activity.
        (4) Strength.
        (5) Capabilities.
        (6) Probable course of action.
    b. Friendly Forces.
        (1) Mission of next higher unit.

B-3. Patrol order.

(2) Location and actions of adjacent units.

(3) Mission and routes of adjacent patrols.

(4) Unit providing fire support.

c. Weather.

d. Terrain.

2. Mission. Explain what the patrol is looking for based upon briefing from S2.

3. Execution.

a. Concept of Operation.

(1) Maneuver.

(2) Fire support.

b. Subunit Tasks.

c. Coordinating Instructions

(1) Actions at the objective.

(2) Times of departure and return.

(3) Movement technique and order of movement.

(4) Routes.

(5) Departure and reentry of friendly lines.

(6) Rally points and actions at rally points.

(7) Actions on enemy contact.

(8) Actions at danger areas.

(9) Actions at halts.

(10) Locations of friendly minefields and other obstacles.

(11) Rehearsals.

(12) Inspections.

Figure B-3. Patrol order (continued).

(13) Debriefings.

(14) PIR or IR. Exactly what is the purpose of this mission.

(15) Annexes.

4. Service and Support.

a. Rations and Water.

b. Arms and Ammunition.

c. Uniform and equipment each patrol member will carry.

d. Methods of handling wounded, dead, and EPW and their equipment.

5. Command and Signal.

a. Signal.

(1) Frequencies and call signs.

(2) Pyrotechnics.

(3) Hand and arms signals.

(4) Challenge and password.

(5) Code words and reports.

b. Command.

(1) Chain of command.

(2) Location of patrol leader during movement and at the objective.

ANNEXES:

A - Patrol Base.

B - Link-up.

C - Intelligence.

D - Overlay.

E - Air Movement.

Figure B-3. Patrol order (continued).

1. Patrol Number:

2. Unit assigned and size of patrol:

3. Mission (PIR or IR included):

4. Start time:

5. Completion time:

6. Actions upon enemy contract:

7. Actions at obstacles:

8. Locations of friendly minefields and barriers:

9. Route:

10. SP, RP, PP, and checkpoints:

11. Fire support planning:

12. Organization and communications frequency for reporting:

13. Actions upon completion of the mission:

14. Special instructions:

Figure B-4. Patrol plan format.

1. Mission:

2. Time GSR or REMBASS required to be operational:

3. Routes to GSR site or REMBASS emplacement areas:

4. Location of primary or alternate and subsequent GSR sites and REMBASS strings and fields.

5. Left and right scan limits in mils of GSRs (search missions); point target location (monitor mission):

6. Withdrawal routes to subsequent GSR sites:

7. Location of friendly minefields and barriers:

8. Actions upon enemy contact:

9. PP and checkpoints:

10. Fire support planning:

11. Organization and communications frequency for reporting:

12. Special instructions:

Figure B-5. GSR or REMBASS plan format.

PATROL REPORT FORMAT

(DESIGNATION OF PATROL)

TO: _____

MAPS: _____

A. Size and composition of patrol.
B. Mission.
C. Time of departure.
D. Time of return.
E. Routes out and back.
F. Terrain. (Description of the terrain--dry, swampy, jungle, thickly wooded, high brush, rocky; depth of ravines and draws; condition of bridges as to type, size, and strength; effect on armor and wheeled vehicles.)
G. Enemy. (Strength, disposition, condition of defense, equipment, weapons, attitude, morale, exact location, movements, and any shift in disposition; time activity was observed; coordinates where activity occurred.)
H. Any map corrections.
I. (Not used.)
J. Miscellaneous information (including aspects of nuclear, biological, and chemical warfare).
K. Results of encounters with enemy. (Enemy prisoners and disposition, identifications, enemy casualties, captured documents and equipment.)
L. Condition of patrol, including disposition of any dead or wounded.
M. Conclusions and recommendations (including to what extent the task was accomplished and recommendations as to patrol equipment and tactics).

_____ _____ _____
Signature Grade/Rank Organ Unit of Patrol Leader

N. Additional remarks by interrogator.

_____ _____ _____
Signature Grade/Rank Organ Unit of Patrol Leader Time

O. Distribution.

Figure B-6. Patrol report format.

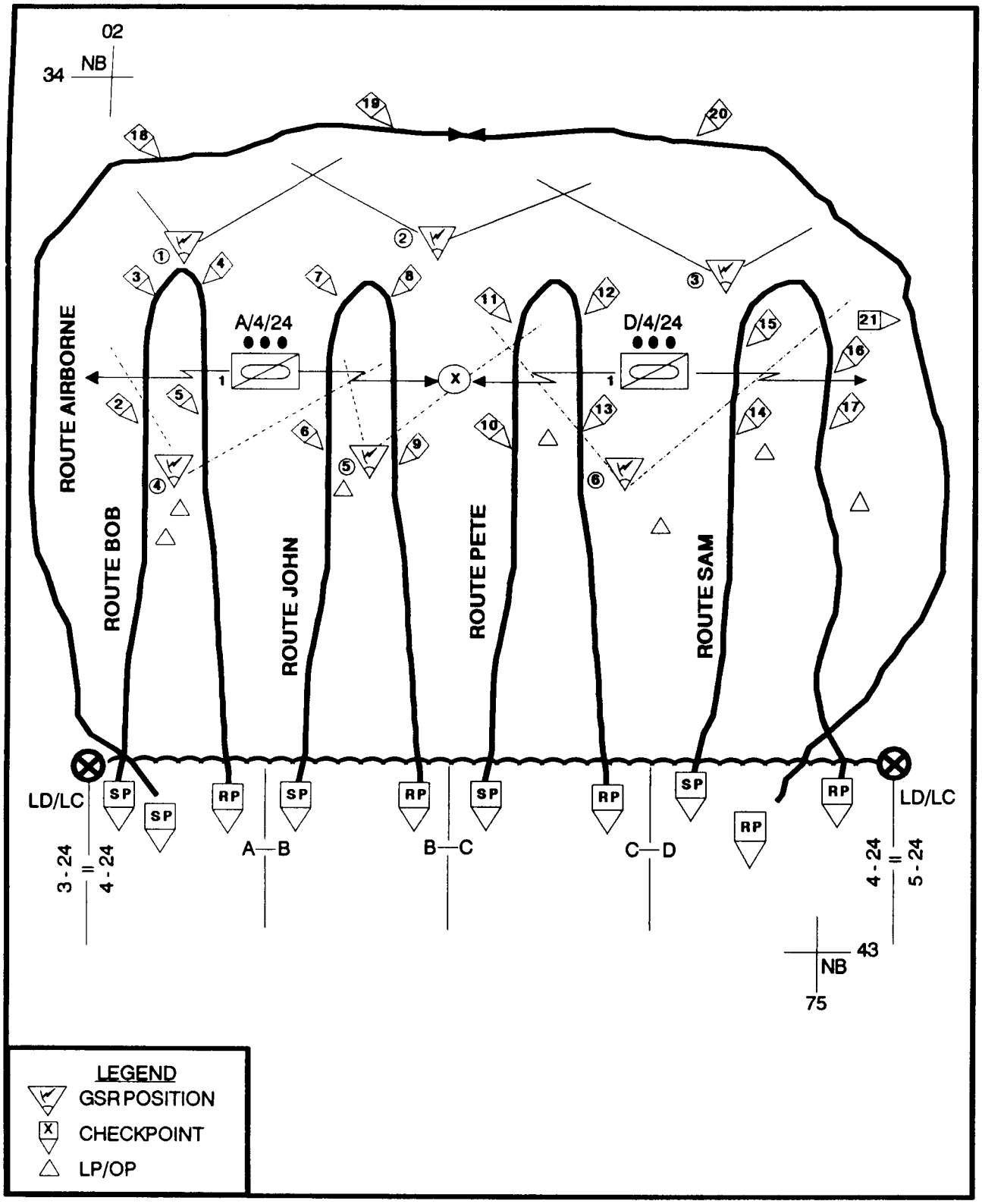


Figure B-7. Squadron of ACR in defense R&S overlay.

INSTRUCTIONS

GSR: Establish positions 1, 2, 3, NLT 1800. Target: Enemy reconnaissance MRB (BMP with T-62) moving south along AA toward our sector. Establish positions 4, 5, 6 on order. Coordinate with respective troop for withdrawal. Coordinate with scouts and patrol leader if patrols in your AO.

SCOUTS: 1/A/4/24 establish screen in front of Troops A and B NLT 1700. 1/D/4/24 establish in front of C and D NLT 1700. The two scout platoons will coordinate prior to establishing screen.

PATROLS: TM A SP NLT 2100. Coordinate Route BOB with 1/A scout platoon leader. Target: Infiltration routes vicinity CPs 3 and 4. Coordinate with GSR in your sector. TM B SP NLT 2100. Coordinate Route JOHN with 1/A scout platoon leader and GSR in your sector. Target: Enemy platoon AA vic CPs 7 and 8. TM C SP NLT 2100. Coordinate Route PETE with 1/D scout platoon leader. Target: Likely enemy platoon stream crossing sites CPs 11 and 12. TM D SP NLT 2100. Coordinate Route SAM with 1/D scout platoon leader and GSR near your AO. Target: Enemy platoon size stream crossing sites vic CPs 15 and 16.

LP/OP: All troop and teams establish LP/OPs NLT 1700.

AIR: Aerial reconnaissance on Route AIRBORNE SP NLT 1600. Target: Enemy MRB mobility corridor located vic CPs 19 and 20. Coordinate with Troops A and D and GSRs.

REPORTS: Report on the squadron intelligence net using TACREP format. Patrol leader report to squadron S2 NLT 1 hour upon completion of patrol. Report combat information on operations or intelligence net. SITREP required hourly.

DISTRIBUTION: Troops A, B, C, and D; Scout platoon; FSO; S3; GSR TMs; S3 Air; engineers; Regiment S2.

LEGEND:
Map sheet name:
Map sheet scale:
Map sheet number:
Map sheet series:
Prepared by:

Figure B-7. Squadron of ACR in defense R&S overlay (continued).

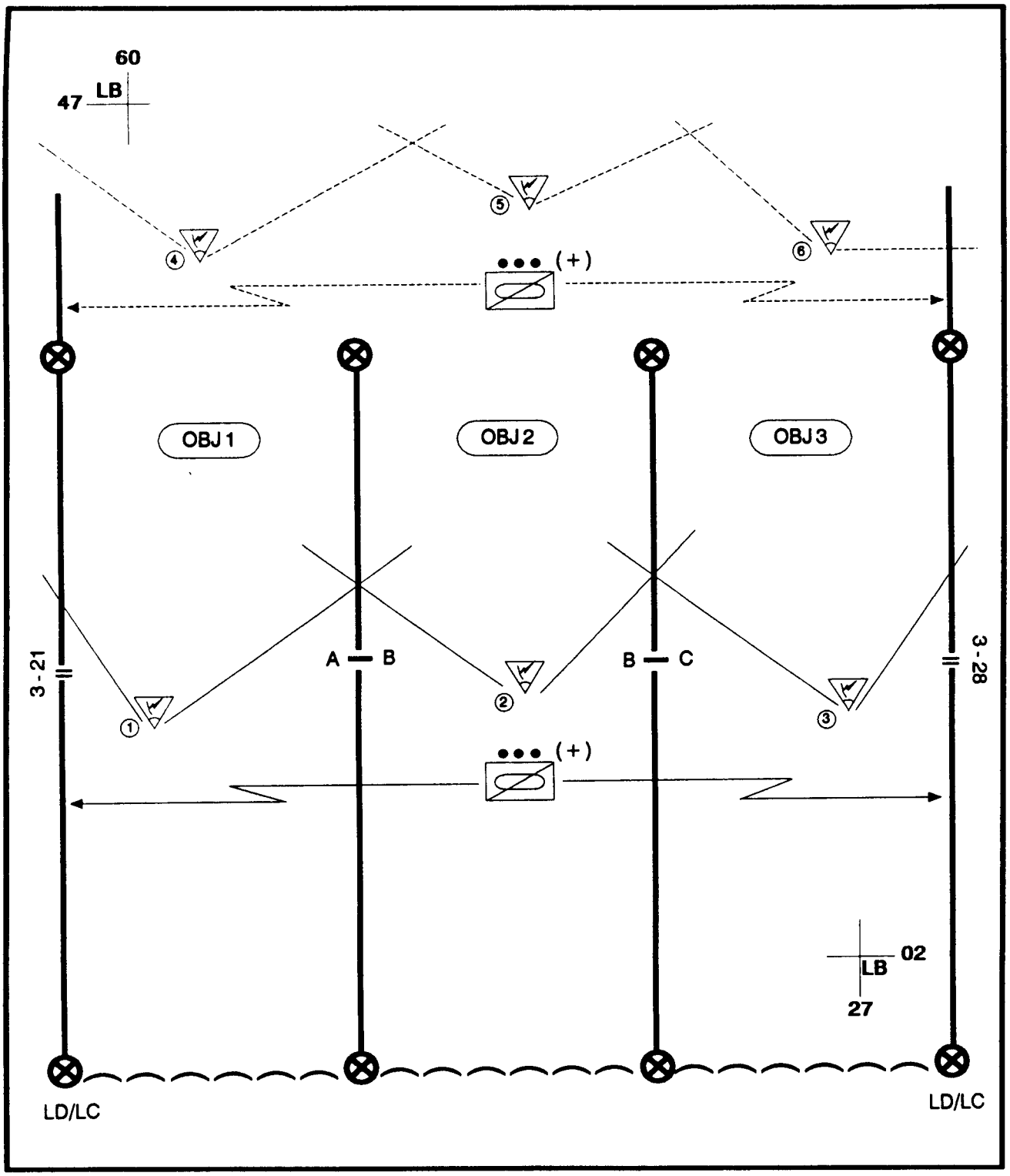


Figure B-8. Battalion of a separate brigade in offense R&S overlay.

INSTRUCTIONS

GSR: Establish positions 1, 2, and 3 NLT 1900. Establish positions 4, 5, and 6 on order. Target: Enemy reinforcements or counterattack. Coordinate with scout platoon leader and appropriate company or team.

SCOUTS: Scout platoon establish screen NLT 1900. Establish secondary screen on order. Target: Enemy reconnaissance or counterattack. Coordinate with company or teams and GSRs.

REPORTS: Report on the battalion operations or intelligence net using TACREP format. SITREP required every 30 minutes.

DISTRIBUTION: Company or TMs A, B, and C; FSO; S3; GSR; scout platoon; engineers; BDE S2.

Figure B-8. Battalion of a separate brigade in offense R&S overlay (continued).

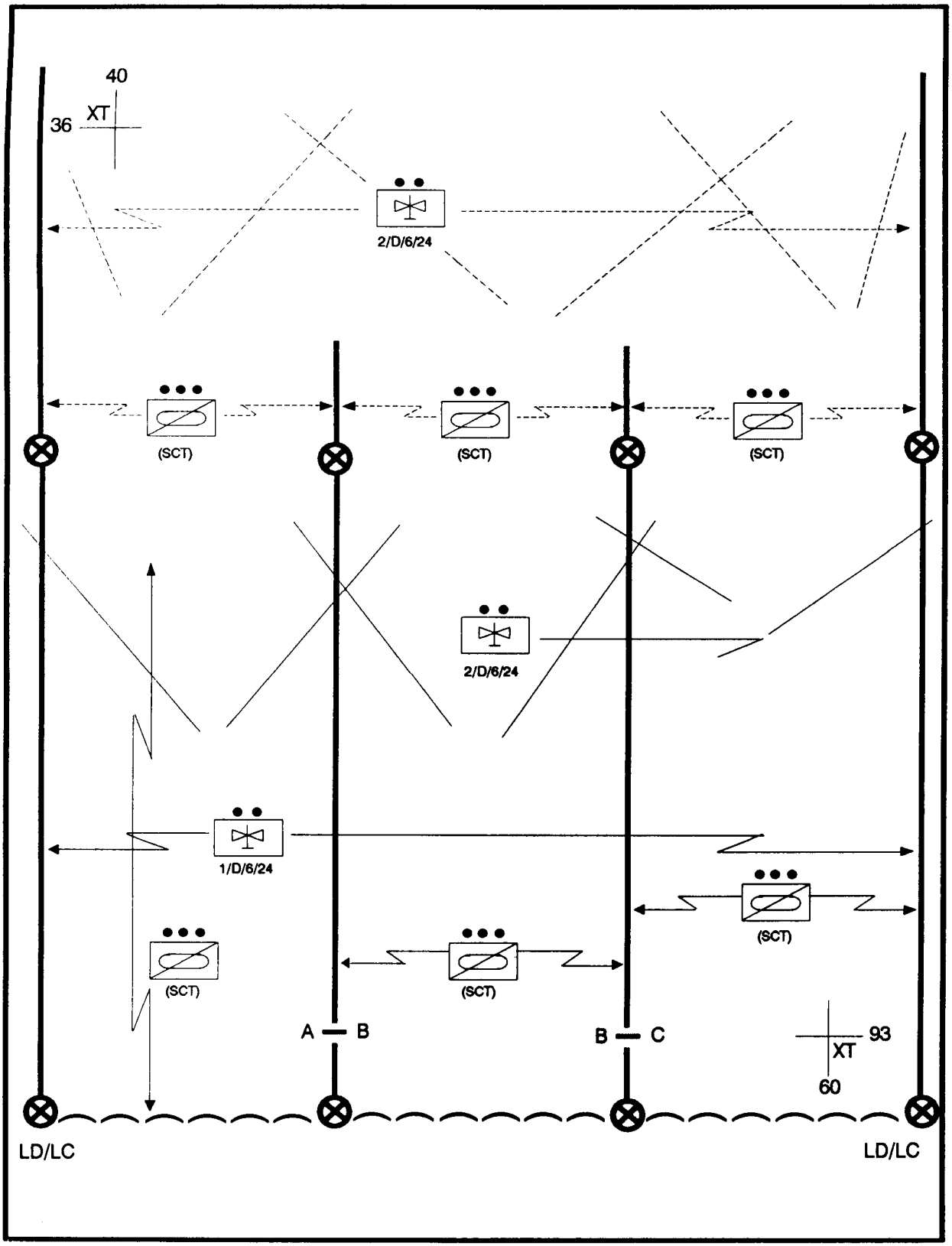


Figure B-9. Squadron of ACR in offense R&S overlay.

INSTRUCTIONS

GSR: Establish positions 1, 2, and 3 NLT 1600. Target: Enemy reconnaissance elements. On order establish positions 4, 5, and 6. Target: Reconnaissance elements of enemy counterattack. Coordinate with scout platoon leader and troop commander of your specific AO.

AIR: 1/1/D/6/24 establish aerial screen approximately 15 km in front of squadron advance NLT 1800. 1/2/D/6/24 establish aerial screen approximately 25 km in front of squadron advance NLT 1800. On order 1/2/D/6/24 establish aerial screen approximately 30 km north of squadron new FLOT. Target: enemy reconnaissance and forward positions. Coordinate with appropriate troop commander.

SCOUTS: Troop A scouts begin reconnaissance on Highway 3 NLT 1800. On order establish screen approximately 10 km north of objective. Troop B scouts begin screen NLT 1800. On order establish screen approximately 10 km north of objective 2. Troop C scouts establish screen NLT 1800. On order establish screen approximately 10 km north of objective 3. Target: Enemy reconnaissance and forward positions. During the movement each scout platoon will screen approximately 10 km in front of the troop's lead element. Each scout platoon leader will coordinate with his respective troop commander and GSR chief.

REPORTS: Report on the squadron operations or intelligence net using TACREP format. SITREP required every 30 minutes.

DISTRIBUTION: TMs A, B, C,; scout platoon; FSO; S3; GSR; engineer; S3 Air; Regiment S2.

LEGEND:
Map sheet name:
Map sheet scale:
Map sheet number:
Map sheet series:
Prepared by:

Figure B-9. Squadron of ACR in offense R&S overlay (continued).

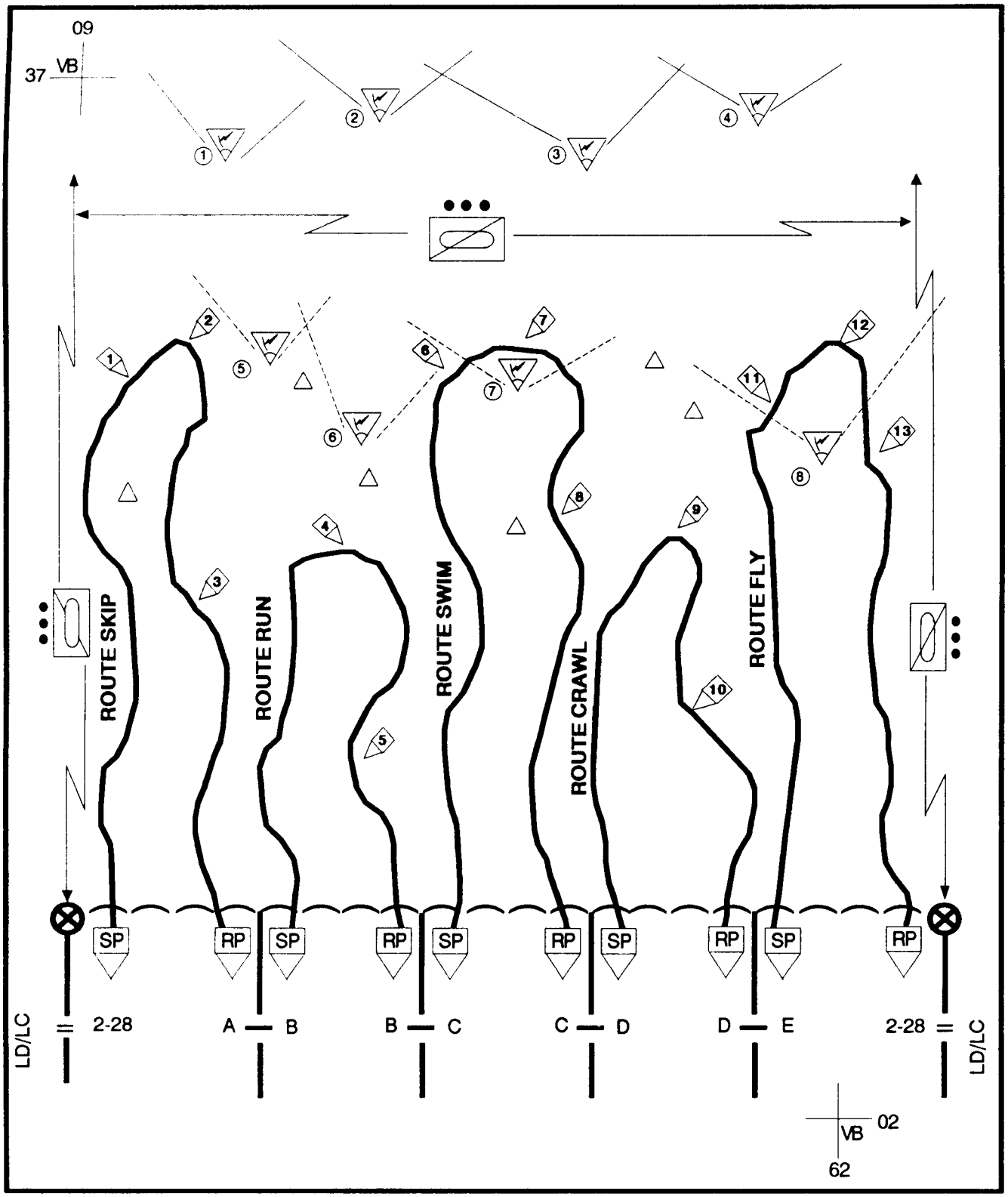


Figure B-10. Battalion of a separate brigade in defense R&S overlay.

INSTRUCTIONS

GSR: Establish positions 1, 2, 3, and 4 NLT 1500. Establish positions 5, 6, 7, and 8 on order. Target: Enemy reconnaissance elements. Coordinate with scout platoon leader for insertion and withdrawal.

SCOUTS: Establish screen NLT 1500. Coordinate with GSR and appropriate company commander. Target: Enemy reconnaissance.

PATROLS: TM A SP NLT 1900. Target: Enemy infiltration routes at CPs 1, 2, and 3. Coordinate with scout platoon leader on flank and forward. TM B SP NLT 2000. Target: Friendly obstacles. TM C SP NLT 1900. Target: enemy platoon size stream crossing sites at CPs 6 and 7. Coordinate with scout platoon forward of your sector. TM D SP NLT 2000. Target: Friendly obstacles. TM E SP NLT 1800. Target: Enemy AA at CPs 11, 12, and 13. Coordinate with scout platoon on flank and forward of your sector.

LP/OP: All company or teams establish LP or OPs NLT 1400.

REPORTS: Report on battalion operations or intelligence net using TACREP format. Patrol leaders report to battalion S2 NLT 1 hour upon completion of patrol. Report combat information on battalion operations or intelligence net. SITREPs required hourly.

DISTRIBUTION: TMs A, B, C, D; scout platoons; FSO; S3; GSR; engineers; BDE S2.

Figure B-10. Battalion of a separate brigade in defense R&S overlay (continued).

APPENDIX C

REQUEST AND REPORT FORMATS

Standard formats are used to report intelligence or information; task assets; or to receive information, intelligence, and orders or instructions. These formats can be echelon-specific, like the patrol report usually prepared at battalion level; or they may be general in nature, like the spot report used at all echelons.

This appendix provides a brief description of the most common intelligence-related formats and examples prepared or used at the brigade and battalion levels. Several of the reports within this appendix have been written in the US Message Text Format (USMTF). For more information on these, refer to JCS Publication 25.

MEACONING, INTRUSION, JAMMING, AND INTERFERENCE REPORT FEEDER

Use the meaconing, intrusion, jamming, and interference report feeder (MIJIFEEDER), Figure C-1, to report MIJI incidents to the appropriate C-E officer.

INTELLIGENCE REPORT

The intelligence report (INTREP), Figure C-2, is the primary method of reporting HUMINT information. Use it for the joint exchange of information provided through tactical collection efforts. This report provides timely information regarding events that could have an immediate or significant effect on current planning and operations. It is also used to pass critical information to national level agencies.

INTELLIGENCE SUMMARY

The intelligence summary (INTSUM), Figure C-3, provides a brief summary of information of intelligence interest covering a specific period of time. It provides a summary of the enemy situation in forward and rear areas, enemy operations and capabilities, and weather and terrain characteristics.

ELECTRONICS lNTELLIGENCE REQUIREMENT TASKING MESSAGE

The electronic intelligence requirement tasking message (ERTM), Figure C-4, is used for OPCON of electronic intelligence (ELINT) collection resources by operational commanders or requests for ELINT collection sources outside the commander's control.

TACTICAL REPORT

Use the tactical report (TACREP), Figure C-5, to quickly report vital intelligence information such as fleeting target, threat or danger to friendly units, distress situation, radio DF and other EW information, newly discovered enemy intentions, battle damage assessment (BDA) data, and combat information that cannot be exchanged with tactical data systems between tactical units.

This message includes enemy activity; ship, aircraft, or ground vehicle type; related unit; location; speed and direction of movement for maritime, air, and

ground enemy units with amplifying information; and EW information such as emitter frequency, bandwidth, call sign, and type of EW.

REQUEST FOR INTELLIGENCE INFORMATION

The RII, Figure C-6, is used to request intelligence information from other units. Use it to request the status of an anticipated response of a previous request.

RESPONSE TO REQUEST FOR INTELLIGENCE INFORMATION

The response to request for intelligence information (RRII), Figure C-7, is used to reply to an RII. If information is contained in a previous message, the RRII should reference that message.

TACTICAL ELECTRONIC INTELLIGENCE REPORT

The tactical electronic intelligence report (TACELINT) , Figure C-8, is used to report time-critical operational ELINT and parametric information. Use it for indications and warning, data base maintenance, OB, and strike planning. ELINT collectors use this message as a reporting vehicle.

ELECTRONIC WARFARE MISSION SUMMARY

Use the electronic warfare mission summary (EWMSNSUM), Figure C-9, to summarize significant EW missions and the status of offensive EW assets. Use the TACREP for reporting results of ESM operations.

ELECTRONIC WARFARE REQUESTING OR TASKING MESSAGE

The electronic warfare requesting or tasking message (EWRTM), Figure C-10, is for tasking units to perform EW missions or to request EW support from nonorganic units. The EWRTM describes ECM and ESM targets. Use the electronic warfare employment message (EWEM) to answer EWRTMs that you receive. Do not use the EWRTM to task or request SIGINT assets. Use the electronic intelligence requirements tasking message (ERTM) and the communications intelligence advisory tasking (COMINTADTSK) to task or request SIGINT assets.

ORDER MESSAGE

The order message, Figure C-11, contains the standard five-paragraph combat order. Use it to send directives and instructions to subordinate commands. Send information copies to higher and adjacent headquarters as required. The message includes the type of order; task organization; and comments about situation, mission, execution, administration, log, and command signal.

SITUATION REPORT

Use the commander's SITREP, Figure C-12, for changes in the situation since the last report. Areas covered are current OPLANs, current status, unit readiness, situations that may affect operations, operational problems, recommended courses of action, and items included in other reports.

This message is divided into the following areas:

- Effective time period.
- Map reference.
- Enemy situation changes.
- Friendly situation changes.
- Administration and logistical situation.
- General comments and recommendations.
- The commander's personal evaluation of the situation.

THE INTELLIGENCE ESTIMATE

The intelligence estimate, Figure C-13, is a logical and orderly examination of the intelligence factors affecting mission accomplishment. It provides commanders with a basis for planning operations and for disseminating intelligence to their staffs and to other headquarters. It consists of five paragraphs which outline an analysis of the AO, enemy strength, and enemy capabilities that can influence the mission.

The intelligence estimate is generally written at division and higher headquarters and briefed down to battalion. In a contingency operation, it may be written at the brigade level. The intelligence summary may be presented to the commander formally or informally, either written or oral, detailed or summarized. However, when possible, a written estimate is preferred.

The intelligence staff officer prepares the intelligence estimate of the enemy situation. An estimate is prepared at the commander's direction or on the intelligence staff officer's initiative.

The intelligence estimate includes--

- Mission.
- AO.
- Enemy situation.
- Enemy capabilities.
- Conclusions.

THE INTELLIGENCE ANNEX

The intelligence annex, Figure C-14, disseminates information about forces essential to the conduct of the operation. It also gives any other necessary intelligence orders or guidance for the operation in question. In addition, it serves as a medium for instructing subordinate commanders to acquire information necessary for the conduct of the operation. Such information often can be obtained only immediately before or during the operation itself. The intelligence annex is not a substitute for an intelligence collection plan.

The intelligence annex is a formal intelligence tasking document that may accompany an OPLAN or OPORD. It should be brief and clear. Its first paragraph gives a summary of the enemy situation necessary to understand the OPLAN or OPORD and may refer to annotated maps, enemy situation overlays, or current intelligence reports. Subsequent paragraphs contain specific collection requirements and instructions. SOP information should not be repeated in the intelligence annex.

FORMAT

```
LINE 1:  CLASSIFICATION
LINE 2:  SET FIELD NAME/EXERCISE NAME//
LINE 3:  SET FIELD NAME/FRIENDLY UNIT DESIGNATOR/CALL SIGN//
LINE 4:  SET FIELD NAME/ELECTRONIC COUNTERMEASURES TYPE/LOCATION/
         DATE-TIME//
LINE 5:  SET FIELD NAME/TYPE OF ELECTRONIC INTERFERENCE EXPERIENCE/
         ELECTRONIC COUNTERMEASURES EFFECT/FRIENDLY ELECTRONICS
         COUNTER-COUNTERMEASURES ACTION/ENEMY REACTION TO FRIENDLY ECCM
         ACTIONS//
LINE 6:  SET FIELD NAME/FREQUENCY OF ECM/LOWER RADIO FREQUENCY LIMIT/
         UPPER RADIO FREQUENCY LIMIT/RATED SIGNAL STRENGTH//
```

EXAMPLE

```
UNCLAS
EXER/BRAVE SHIELD 8 5//
MSGID/MIJIFEEDER/CTG21.4.3/0622002//
UNIT/USS NEW JERSEY (BB-62)/CHARLIE FOUR//
MIJITYP/JAMMING/521825 N02513500E/221155Z/-/SURFACE SEARCH RADAR//
MIJIEFF/NOISESTATC/DELAYS/WORKTHRU/INCREPER//
MIJIPRM/5450.5MHZ/5600.5MHZ/RSS:2//
```

Figure C-1. MIJIFEEDER report.

FORMAT

```
LINE 1:   CLASSIFICATION
LINE 2:   SET FIELD NAME/EXERCISE NAME//
LINE 3:   SET FIELD NAME/MESSAGE TITLE/ORIGINATOR/DATE-TIME//
LINE 4:   SET FIELD NAME/HEADING INFORMATION//
LINE 5:   SET FIELD NAME/TYPE OF SOURCE OF INTELLIGENCE INFORMATION/
          ACTIVITY DATE-TIME/EVALUATION OF INFORMATION//
LINE 6:   SET FIELD NAME
LINE 7:   /DATE ELEMENT/TARGET TYPE/EQUIPMENT NAME/EQUIPMENT
          MODEL/QUANTITY
LINE 8:   AMPLIFYING DETAILS
LINE 9:   AMPLIFYING DETAILS//
LINE 10:  AMPLIFYING DETAILS//
```

EXAMPLE

```
EXER/BRAVE SHIELD 95//
MSGID/INTREP/1STBN/2DMAR/0622019//
HEADING/INFORMATION//
SOURCE/PATROL/2207352/AL//
1BL
/DE TGTTYP EQPT                                EQMOD  QTY
01 MDMTK   T-62                                  -    10
02 LTWHL   2.5 TON TRKS                          -    12//
```

Figure C-2. Intelligence report.

FORMAT

```
LINE 1:       CLASSIFICATION
LINE 2:       SET FIELD NAME/EXERCISE NAME//
LINE 3:       SET FIELD NAME/MESSAGE TITLE/MESSAGE SERIAL NUMBER//
LINE 4:       SET FIELD NAME/DATE-TIME FROM/DATE-TIME TO//
LINE 5:       SET FIELD NAME/HEADING INFORMATION//GROUND SUMMARY//
LINE 6:       HEADING/ENEMY MOVEMENT
LINE 7:       /DATA ENTRY/CONTEXT QUANTITY/TARGET TYPE/EQUIPMENT
              TYPE/ACTIVITY TYPE/LOCATION
LINE 8:       /AMPLIFYING DETAILS
LINE 9:       /AMPLIFYING DETAILS
LINE 10:      HEADING/NUCLEAR SUMMARY
LINE 11:      /DATA ENTRY/ENEMY UNIT DESIGNATOR
LINE 12:      /AMPLIFYING DETAILS
LINE 13-14:   SET FIELD NAME/LOCATION/RADIUS,WIDTH,ELLIPTICAL
              AREA/LOCATION/LOCATION/LOCATION/LOCATION//
LINE 15-16:   SET FIELD NAME/NARRATIVE//
LINE 17-18:   SET FIELD NAME/AMPLIFYING DETAILS//
LINE 19:      SET FIELD NAME/HEADING INFORMATION//CHEMICAL SUMMARY//
LINE 20:      HEADING/AIR SUMMARY
LINE 21:      /DATA ENTRY/CONTEXT QUANTITY/COUNTRY OF SIGHTING/AIRCRAFT
              NAME/ACTIVITY TYPE/ACTIVITY DAY-TIME/LOCATION
LINE 22:      /AMPLIFYING DETAILS
LINE 23:      /AMPLIFYING DETAILS
LINE 24-26:   SET FIELD NAME/NARRATIVE//
LINE 27:      SET FIELD NAME/COUNTRY OF SIGHTING/AIRFIELD NAME/LOCATION//
```

EXAMPLE

```
UNCLAS
BORDER STAR 96
INTSUM/060900 003
FM 060400 TO 060800
GROUND SUMMARY
ENEMY MOVEMENT
10 x T72 MVNG NW FM NA 1234 AT 060530
36 x BMP DIGGING IN NA 1239 AT 060720
NUCLEAR SUMMARY
NSTR
AIR SUMMARY
4 x SU-25 FROGFOOT CONDUCTED GND ATK 060530 AT NA 5678
1 x SU-25 DEST
```

NOTE: THE INTSUM WILL CONTAIN AS MANY DETAILS AS NEEDED TO ACCURATELY PORTRAY THE SITUATION.

Figure C-3. Intelligence summary.

FORMAT

```
LINE 1:  CLASSIFICATION
LINE 2:  SET NAME/ERTM/ORIGINATOR//
LINE 3:  SET NAME/PLACE//
LINE 4:  SET NAME/DATA ENTRY/ELINT NOTATION/EMITTER DESIGNATION
         /LOWER LIMIT/HIGHER LIMIT/TARGET LOCATION//
LINE 5:  SET NAME/REF NUMBER/LOCATION/FINGERPRINT/DEVIATION
         /COMBINATIONS/ACCURACY/ACCEPTABLE ERROR/TIME INTERVAL/INTERVAL
         BETWEEN VIEWING/REPORTING TIME/REPORTING DELAY/DURATION//
```

EXAMPLE

```
UNCLAS
MSGID/ERTM/533 MI BN//
AREAREQ/CTRY:BC//
SELTGT
/DE/ELNOT/EMIT-DESIG   /LOWRF      /HIGHRF    /TGTLOC
/01/A123 /ADOBE        /     190MHZ/    210MHZ/7333N10249W
/02/A321 /CHIEF        /      82MHZ/     98MHZ/3541N9620W//
SELRQR
/DE/DE/L/I/P/E/REQACC /ACPTACC/ERR/ERA/TR /TA /DUR
/01/- /Y/Y/N/Y      50M/    100M/ 2H/ 8H/10M/20M/ 2D
/02/- /N/N/Y/Y      50M/    100M/12H/ 1D/ 2H/ 4H/12H//
```

Figure C-4. Electronics intelligence requirement tasking message.

FORMAT

```
LINE 1:  CLASSIFICATION
LINE 2:  SET NAME/TACREP/ORIGINATOR//
LINE 3:  SET NAME/EFFECTIVE TIME/AMOUNT/SOURCE/SUBJECT TYPE/PRIMARY
         IDENTIFIER/UNIT IDENTIFICATION/LOCATION//
LINE 4:  SET NAME/AMPLIFYING DATA//
LINE 5:  SET NAME/RADIO FREQUENCY/BANDWIDTH/CALL SIGNS//
```

EXAMPLE

```
UNCLAS
MSGID/TACREP/CTF134//
GNDOP/121130Z/1/US/TTY/TGR-1/UNK/UK:123ABC234//
OPSUP/SER:A/UNID:6TH CAA/AREANM:NORTHERN FRONT/ACTTYP:RVRCRS/ETD:121530Z
/DEPART:GEROFT//
COMEW/12.530MHZ/2.5/ATRAS//
```

Figure C-5. Tactical report.

FORMAT

```
LINE 1:  CLASSIFICATION
LINE 2:  SET FIELD NAME/EXERCISE NAME//
LINE 3:  SET FIELD NAME/MESSAGE TITLE/MESSAGE SERIAL NUMBER/DATE-TIME//
LINE 4:  SET FIELD NAME/DATE-TIME DESIRED/LATEST TIME INFORMATION OF
         VALUE/MISSION PRIORITY//
LINE 5:  SET FIELD NAME/LOCATION/RADIUS, WIDTH, ELLIPTICAL AREA/
         LOCATION/LOCATION/LOCATION/LOCATION//
LINE 6:  SET FIELD NAME/LOCATION/RADIUS//
LINE 7:  SET FIELD NAME/LOCATION/WIDTH//
LINE 8:  SET FIELD NAME/LOCATION/ELLIPTICAL AREA//
LINE 9:  SET FIELD NAME/NARRATIVE//
```

EXAMPLE

```
UNCLAS
EXER/BRAVE SHIELD 95//
MSGID/RII/9TL8/0622320//
REQDATF/DATDES:950623L320Z/LTIOV:950623L750Z/PRY:2//
TRCPLOT/453724NL573418E/-/4505ONL5738L6E/455019NL572618E/454327NL565137E/
453724NL573418E//
TRCPLOT/453724NL573418E/RAD:IONM//
TRCPLOT/453724NL573418E/WDTH:2000YD/454050NL573816E//
TRCPLOT/453724NL573418E/ELP:2000YD-1000YD-135.5//
NARR/REQUEST ALL ENEMY AIR DEFENSE INSTALLATIONS IN THIS AREA//
RMKS/INCREMENTAL RESPONSE REQUESTED BY FASTEST MEANS POSSIBLE AS
INFORMATION BECOMES AVAILABLE//
```

Figure C-6. Request for intelligence information.

FORMAT

LINE 1: CLASSIFICATION
LINE 2: SET FIELD NAME/MESSAGE TITLE/ORIGINATOR/DATE-TIME//
LINE 3: SET FIELD NAME/SERIAL LETTER/ORIGINATOR/DATE-TIME//
LINE 4: SET FIELD NAME/NARRATIVE//

EXAMPLE

UNCLAS
EXER/BRAVE SHIELD 95//
MSGID/RRII/III MEF/0622027//
REF/A/RII/9TIS/062232Z//
NARR/WE SHOW THAT TEN SAM SITES ARE ACTIVE IN REQUESTED AREA AT:

	LOCATION	TYPE SAM	NOTE
1	453721N1573420E	SA 8	LAST KNOWN LOC
2	453905N1574010E	SA 2	4 LAUNCHERS UP
3	453901N1575010E	SA 2	6 CONFIGUR
4	454010N1565130E	SA 8	
5	454015N1571020E	SA 2	HGT FINDR DAM
6	455120N1565959E	SA 2	
7	454131N1570110E	SA 4	
8	454120N1565739E	SA 4	
9	454130N1792731E	SA 3	
10	454122N1575751E	SA 6	LAST LOC//

Figure C-7. Response to request for intelligence information.

FORMAT

LINE 1: CLASSIFICATION
LINE 2: SET FIELD NAME/EXERCISE NAME
LINE 3: SET FIELD NAME/MESSAGE TITLE/ORIGINATOR/DATE-TIME//
LINE 4: SET FIELD NAME/COLLECTOR DIGRAPH/COLLECTOR MISSION NUMBER//
LINE 5: SET FIELD NAME/TARGET SIGNAL IDENTIFIER/DETECTION TIME/TIME LOST/ELINT NOTATION OR SORTING CODE/EMITTER DESIGNATION/COUNTRY OF SIGHTING//
LINE 6: DATA ENTRY/EMITTER LOCATION DATA CATEGORY/LOCATION/RADIUS/ ORIENTATION IN DEGREES TO THE TENTH, TRUTH, MAGNETIC, OR GRID/DECIMAL LENGTH OF SEMI-MAJOR AXIS/DECIMAL WIDTH OF SEMI-MAJOR AXIS//
LINE 7: SET FIELD NAME/DOWNGRADING AND CLASSIFICATION MARKINGS//

EXAMPLE

SECRET*
EXER/BRAVE SHIELD 95//
MSGID/TACELINT/TP 501 MI BN/050600Z//
COLLINFO/HB/-/DF266//
SOI/-/060812Z/060821A/XXXXX/HIGHBLOW/GC/P0041800Z//**
EMLOC/-/F/LS:512242N0115030E/-/027T/02.4NM/01.NM//
DWNGRADE/DECLAS: 31 DEC 99//

* NOTE: CLASSIFICATION IS FOR EXAMPLE PURPOSES ONLY.
** ACTUAL ELINT NOTATION, OR SORTING CODE FOR FIELD 4 OF THE SOI SET, IS NOT SHOWN.

Figure C-8. Tactical electronic intelligence report.

FORMAT

```
LINE 1:  CLASSIFICATION
LINE 2:  SET NAME/EWMSNSUM/ORIGINATOR//
LINE 3:  SET NAME/TIME FROM/TO: /ASOF:  //
LINE 4:  SET NAME/HEADING//
LINE 5:  SET NAME/DATA ENTRY/REQUEST NUMBER/COUNTRY/LOCATION/CALL SIGN
         /UNIT NAME//
LINE 6:  SET NAME/DATA ENTRY/FUNCTION/EQUIPMENT NAME/NOTATION
         /FREQ BANDWIDTH/SIGNAL TYPE//
LINE 7:  SET NAME/DATA ENTRY/ON TIME/OFF TIME/PRIORITY/ECM TYPE/ECM
         TECHNIQUE//
LINE 8:  SET NAME/DATA ENTRY/PRIME FREQ/SECOND FREQ/LOWER RF/UPPER RF/
         PRFPRI//
LINE 9:  SET NAME/DATA ENTRY/EW ASSET//
```

EXAMPLE

```
UNCLAS
MSGID/EWMSNSUM/1ST PLT CO A 501 MI BN//
PERID/081200Z/TO:081800Z/ASOF:081200Z//
HEADING/EW/MISSIONS//
SETGWHO
/DE/REQNO /CY/EMITLOC       /TGT-CALL-SIGN  /ENUNIT
/01/A123  /WA/4523N12246W   /ABADABA        /1ST ADA BN//
SETGWHAT
/DE/FC/TGT-EQUIP-NAME     /ELNOT/RF BANDWIDTH/SIG
/01/RR/SWAMPRAT           /AM159/         14.2/C//
SEECMACT
/DE/ON-TIME/OFFTIME/PRY/ECM-TYP/ECM-TECQ
/01/100001Z/102400Z/ 4/INTERFER/INCDSP00F//
SETGFREQ
/DE/PRYFREQ      /SECFREQ     /LOWRF       /HIGHRF      /PRFPRI
/01/             -/           -/   58.2 MHZ/   79.3 MHZ/PRI20//
SEWSYST
/DE/TYPEWS
/01/MSQ-103C//
```

Figure C-9. Electronic warfare mission summary.

FORMAT

```
LINE 1:   CLASSIFICATION
LINE 2:   SET NAME/EWRTM/ORIGINATOR//
LINE 3:   SET NAME/UNIT NAME//
LINE 4:   SET NAME/ECM TARGETS//
LINE 5:   SET NAME/DATA ENTRY/REQUEST NUMBER/COUNTRY CODE/EMITTER LOCATION
          /TARGET CALL SIGN/ENEMY UNIT NAME//
LINE 6:   SET NAME/DATA ENTRY/RADIO-RADAR FUNCTION/TARGET EQUIPMENT NAME
          /ELINT NOTATION OR SORTING CODE/FREQUENCY BANDWIDTH/SIGNAL
          TYPE//
LINE 7:   SET NAME/DATA ENTRY/ON TIME/OFF TIME/PRIORITY/ECM TYPE
          /ECM TECHNIQUE//
LINE 8:   SET NAME/DATA ENTRY/PRIMARY FREQUENCY/SECOND FREQUENCY
          /LOWER RF LIMIT/UPPER RF LIMIT/PRIPRF//
LINE 9:   SET NAME/ESM TARGETS//
LINE 10:  SET NAME/DATA ENTRY/REQUEST NUMBER/COUNTRY CODE/EMITTER LOCATION
          /TARGET CALL SIGN/ENEMY UNIT NAME//
LINE 11:  SET NAME/DATA ENTRY/RADIO RADAR FUNCTION/TARGET EQUIPMENT NAME
          /ELINT NOTATION/FREQUENCY BANDWIDTH/SIGNAL TYPE//
LINE 12:  SET NAME/DATA ENTRY/PRIMARY FREQUENCY/SECOND FREQUENCY
          /LOWER RF LIMIT/UPPER RF LIMIT/PRIPRF//
LINE 13:  SET NAME/DATA ENTRY/ESM ON TIME/ESM OFF TIME/PIR
          CATEGORY/PRIORITY//
```

EXAMPLE

```
UNCLAS
MSGID/EWRTM/501 MI BN/TASKUNT/2D C&J PLT//
HEADING/ECM TARGETS//
SETGWHO/DE/REQNO /CY/EMITLOC   /TGT-CALL-SIGN   /ENUNIT/01/A543A
/ZZ/4530N08045E   /UNK                          /-//
SETGWHAT/DE/FC/TFT-EQUIP-NAME   /ELNOT/RF-BANDWIDTH/SIG
/01/RR/JUMPER                   /A0001/      14.5/S//
SEGCMACT/DE/ON-TIME/OFFTIME/PRY/ECM-TYP/ECM-TECQ/01/051200Z/100600Z/
2/JAMMING/BLANKET//
SETGFREQ/DE/PRYFREQ   /SECFREQ   /LOWRF   /HIGHRF   /PRFPRI
/01/   32.0MHZ/   42.0MHZ/               -/        -/PRI10//
HEADING/ESM TASKING//
SETGWHO/DE/REQNO /CY/EMITLOG   /TGT-CALL-SIGN   /ENUIT
/01/26021 /ZZ/32VMN123123      /SGEZZ           /34TH MRR//
SGETWHAT/DE/FC/TGT-EQUIP-NAME   /ELNOT/RF-BANDWIDTH/SIG
/01/GM/FASTDITCH                /P555A/          28.5P//
SETGFREQ/DE/PRYFREQ   /SECFREQ   /LOWRF   /HIGHRF   /PRFPRI
/01/                -/          -/   67MHZ/     83MHZ/--//
SECOLACT/DE/ON-TIME/OFFTIME/PIRCAT/PRY/01/051200Z/072400Z/  22/ 1//
```

Figure C-10. Electronic warfare requesting and tasking message .

FORMAT

```
LINE 1:     SET FIELD NAME/EXERCISE NAME//
LINE 2:     SET FIELD NAME/OPERATION NAME/PLAN ORIGINATOR AND NUMBER//
LINE 3:     SET FIELD NAME/MESSAGE SHORT TITLE/ORIGINATOR//
LINE 4:     SET FIELD NAME/SERIAL LETTER/MESSAGE SHORT TITLE/ORIGINATOR/
            DATE-TIME-GROUP//
LINE 5:     SET FIELD NAME/TYPE OF PLAN OR ORDER/ORIGINATOR AND NUMBER//
LINE 6:     SET FIELD NAME/MAP SERIES/SHEET NAME/EDITION NUMBER/REFERENCE
            NAME//
LINE 7:     SET FIELD NAME/SET FIELD NAME/TIME ZONE//
LINE 8:     SET FIELD NAME/MESSAGE SHORT TITLE//
LINE 9:     HEADING
LINE 10:    UNIT NAME/LOCATION/COMMENTS
LINE 11:    AMPLIFYING DETAILS
LINE 12:    AMPLIFYING DETAILS
LINE 13:    AMPLIFYING DETAILS
LINE 14:    AMPLIFYING DETAILS
LINE 15:    AMPLIFYING DETAILS//
LINE 16:    SET FIELD NAME/MESSAGE SHORT TITLE/AMPLIFYING DETAILS
LINE 17:    AMPLIFYING DETAILS//
LINE 18:    SET FIELD NAME/MESSAGE SHORT TITLE/AMPLIFYING DETAILS//
LINE 19:    SET FIELD NAME/MESSAGE SHORT TITLE/AMPLIFYING DETAILS
LINE 20:    AMPLIFYING DETAILS//
LINE 21:    SET FIELD NAME/MESSAGE SHORT TITLE/AMPLIFYING DETAILS
LINE 22:    AMPLIFYING DETAILS//
LINE 23:    SET FIELD NAME/MESSAGE SHORT TITLE/AMPLIFYING DETAILS//
LINE 24:    SET FIELD NAME/MESSAGE SHORT TITLE/AMPLIFYING DETAILS//
LINE 25:    SET FIELD NAME/ACKNOWLEDGE INDICATOR//
```

EXAMPLE

```
EXER/BOLD PUSH 85//
OPER/YELLOWSTONE/II CORPS 1602//
MSGID/ORDER/6TH INF DIV//
REF/A/ORDER/II CORPS/251630ZSEP85//
ORDTYP/FRAGORD/6TH INF DIV 1602-2//
MAP V1075/CULVER CITY/AMS2/ATLAS//
TIMEZONE/Z//
HEADING/TASK ORGANIZATION//
SUNIT
/UNITDES                  /UNITLOC                  /CMNTS
/1ST BDE                  /32UMN123123              /EFF 261800Z SEP
/3-326 INF BN             /-                        /-
/3-327 INF BN             /-                        /-
/3-328 ARMOR BN           /-                        /-
/1-319 FA BN              /-                        /DS//
GENTEXT/SITUATION/ENEMY:  ANNEX A {INTELLIGENCE}
FRIENDLY: 23D ARMD DIV REPLACES 50TH ARMD DIV ON THE NORTH, DEFENDS IN
SECTOR//
GENTEXT/MISSION280600Z, 6TH INF DIV DEFENDS IN SECTOR//
GENTEXT/EXECUTION/CONCEPT OF OPERATION:  ANNEX B {OPERATIONS OVERLAY}
1ST BDE REPLACED 3RD BDE ON THE NORTH. RETENTION OF HILL 528 IS CRITICAL//
GENTEXT/ADMIN AND LOG/ANNEX J {SERVICE SUPPORT} ANNEX K {CIVIL-MILITARY
OPERATIONS}//
GENTEXT/COMMAND AND SIGNAL/DIV MAIN VIC MV 132163, DIV TAC VIC MV 133193//
GENTEXT/AUTHENTICATION/HOPE, MG OFFICIAL: YOUNG, COL G3//
AKNLDG/Y//
```

Figure C-11. Order message.

FORMAT

```
LINE 1:   CLASSIFICATION
LINE 2:   SET NAME/SITREP/ORIGINATOR//
LINE 3:   SET NAME/TIME FROM/TO:/ASOF://
LINE 4:   SET NAME/HEADING//
LINE 5:   SET NAME/COUNTRY/ACTIVITY TYPE/ENEMY UNIT NAME/UNIT LOCATION
          /TIME OF SIGHTING//
LINE 6:   SET NAME/HEADING//
LINE 7:   SET NAME/UNIT NAME/UNIT LOCATION//
LINE 8:   SET NAME/AMPLIFICATION DATA//
LINE 9:   SET NAME/HEADING//
LINE 10:  SET NAME/AMPLIFICATION DATA//
LINE 11:  SET NAME/HEADING//
LINE 12:  SET NAME/AMPLIFICATION DATA//
```

EXAMPLE

```
UNCLAS
MSGID/SITREP/12TH INF DIV//
PERID/121315Z/TO:122330Z/ASOF:121330Z/HEADING/ENEMY//
SEUNIT
/CY/ACTTYP/ENUNCT              /UNIT LOC              /TIMPOS
/ZZ/RECON/UNK RECON CO         /SWAYBACK RIDGE        /120830Z
/ZZ/DEPLOY/4TH MRB             /32FUV12341234         /120910Z//
HEADING/OWN SITUATION//
SNREADY
/UNITDES                       /UNITLOC
/C-1-6 MECH                    /VIC HILL 428
/4-4 ARMOR                     /32FUD875182//
AMPN/C-1-6 MECH C4 FOR PERSONNEL, COMBAT READY 72 HOURS.
4-4 ARMOR C4 FOR EQUIPMENT, READY 24 HOURS//
HEADING/GENERAL//
AMPN/WORK CONTINUING ON UPGRADE OF MRL SYSTEMS//
HEADING/COMMANDER EVALUATION//
AMPN/ATTACK WITHIN 72 HOURS UNLIKELY//
```

Figure C-12. Situation report.

(Classification)

Headquarters
Place
Date, time, and zone

(Short title identification)

INTELLIGENCE ESTIMATE NO. _____

References: Maps, charts, or other documents.

1. MISSION

The restated mission determined by the commander.

2. THE AREA OF OPERATIONS

This paragraph discusses influence of the AO in arriving at conclusions. It is based on the facts and conclusions of IPB and the analysis of the AO, if one has been prepared. It may be a reference to an analysis of the AO, if adequate coverage and discussion are contained therein.

a. Weather.

(1) Existing situation. Include light data and either a weather forecast or climatic information, as appropriate. Use appendixes for detailed information.

(2) Effect on enemy courses of action. Describe the effects of weather on each broad course of action (such as attack, defend). Each description concludes with a statement of whether the weather favors the course of action. Among the courses of action, include use of chemical agents, nuclear weapons, and special methods, techniques, equipment, procedures, or forces.

(3) Effect on own courses of action. Describe in the same manner as for (2) above, except that the estimate excludes the use of biological agents.

b. Terrain.

(1) Existing situation. Use graphic representations such as IPB templates where possible. Use annexes for detailed material. Include as much information as necessary for an understanding of observation and fire, concealment and cover, obstacles, key terrain features, and avenues of approach (AA). Include effects of nuclear fires, enemy biological and chemical agents, and any other pertinent considerations on each of these factors as appropriate.

(Classification)

Figure C-13. The intelligence estimate.

(Classification)

(Short title identification)

(2) Effect on enemy courses of action. Describe in the same manner as for the effects of weather in a(2) above. For defensive courses of action, state the best defense area and the best AA leading to it. For attack courses of action, state the best AA.

(3) Effect on own courses of action. Describe in the same manner as for effects of weather in a(3) above.

c. Other Characteristics. The following additional characteristics considered pertinent are included in separate subparagraphs: sociology, politics, economics, psychology, and other factors. Other factors may include such items as science and technology, materiel, transportation, manpower, and hydrography. These factors are analyzed using the same subheading as weather and terrain.

3. ENEMY SITUATION

This paragraph gives information on the enemy which will permit later development of enemy capabilities and vulnerabilities and refinement of these capabilities into a specific course of action and its relative probability of adoption.

a. Disposition. Reference may be made to overlays, enemy SITMAPs, or previously published documents.

b. Composition. Summarize enemy OB that can influence accomplishment of the mission. Reference may be made to previously published documents. Special mention is made of units capable of EW, low-intensity operations, and other special operations, as appropriate.

c. Strength. Enemy strength is listed as committed forces, reinforcements, air, nuclear weapons, and chemical and biological agents. The purpose of this listing is to assist in developing enemy capabilities and vulnerabilities for use by the commander and staff in selecting courses of action. The unit mission, location of the enemy, enemy doctrine, and the level of command at which the estimate is being prepared are factors to be considered.

(1) Committed Forces. List those enemy ground maneuver units currently in contact and those ground maneuver units with which imminent contact can be expected, regardless of the specific friendly course of action implemented. Designation of enemy forces as committed forces depends on disposition, location, controlling headquarters, and doctrine. The

(Classification)

Figure C-13. The intelligence estimate (continued).

(Classification)

(Short title identification)

intelligence officer usually accounts for committed forces based on the size of unit doctrinally used to oppose the friendly unit. Generally, enemy units are counted in terms of units two echelons below the friendly unit's size. (For example, a brigade S2 normally considers committed forces in terms of companies; a division G2, in terms of battalions; and a corps G2, in terms of regiments). If there is doubt whether a unit is a committed force or a reinforcement, it is considered a reinforcement. This attributes to the enemy the maximum capability to reinforce forces to oppose a given friendly course of action.

(2) Reinforcements. Include designation and location. Reinforcements are those enemy maneuver units that may or may not be employed against us, depending upon our specific choice of a course of action and upon enemy plans. Reinforcements are enemy units not committed in or out of the friendly sector, but which can react to the friendly course of action, subject to time and distance considerations, in time to influence the accomplishment of the mission. Imminent contact is not expected. Disposition, location, level of control, or other factors at the time of the estimate are considered in determining which enemy forces are reinforcements.

(3) Air. List the number of enemy aircraft by type within operational radius. Include the number of possible sorties per day by type of aircraft, if known.

(4) Nuclear Weapons and Chemical and Biological Agents. Estimate, as appropriate, the number, type, yield, and delivery means of enemy nuclear weapons and chemical and biological munitions or agents available to the enemy.

d. Recent and Present Significant Activities. List selected items of information to provide bases for analysis to determine relative probability of adoption of specific courses of action and to determine enemy vulnerabilities. Enemy failure to take expected actions is listed, as well as positive information.

e. Peculiarities and Weaknesses. Based on knowledge of enemy tactical doctrine, practices, the principles of war, the AO, and the enemy situation previously described and discussed, list peculiarities and weaknesses. Briefly describe each, indicating the extent to which they may be vulnerable and how they influence possible friendly courses of action. The items listed are grouped under the headings indicated below. Only pertinent headings are used.

(1) Personnel. An estimate of strength is usually included if less than 80 percent of authorized strength. Status of morale is included, if known.

(Classification)

Figure C-13. The intelligence estimate (continued).

(Classification)

(Short title identification)

(2) Intelligence. An estimate of enemy intelligence success, ineffectiveness, or susceptibility to deception and detection is usually included.

(3) Operations. An estimate of combat effectiveness is usually included if less than excellent.

(4) Logistics. An estimate of the enemy's capability to support its forces logistically is included if there are apparent weaknesses.

(5) Civil-Military Operations. An estimate of the attitudes of the enemy and the civilian populace and the status of food supply, medical facilities, communications, and other critical resources is usually included.

(6) Personalities. An estimate of the capabilities and weaknesses of the enemy commander and principal staff officers is usually included.

4. ENEMY CAPABILITIES

Based on all the previous information and analyses, develop and list enemy capabilities. The listing provides a basis for analyzing the available information. It shows those capabilities the enemy can adopt as specific courses of action and their relative probability of adoption.

a. Enumeration. State what, when, where, and in what strength for each capability.

b. Analysis and Discussion. Discuss each capability (or appropriate combination of capabilities) in a separate subparagraph. This will provide a basis for conclusions of enemy capabilities and their relative probability of adoption. Include consideration of enemy deception measures. All the previous pertinent information and conclusions are tabulated as either supporting or rejecting the adoption of the capability. After listing all the evidence, each capability is judged from the point of view of whether the adoption of the capability is advantageous to the enemy. Such judgments need not be made if the conclusion is obvious or if there is no evidence that the enemy will adopt the capability, unless the capability is one that will make the accomplishment of the friendly mission highly doubtful or impossible. This exception is to focus attention on dangerous threats.

5. CONCLUSIONS

Based on all the previous information and analyses, state conclusions concerning the total effects of the AO on friendly courses of action. State

(Classification)

Figure C-13. The intelligence estimate (continued).

(Classification)

(Short title identification)

the courses of action most likely to be adopted by the enemy, including their relative probability for adoption, and the effects of enemy vulnerabilities that can be exploited. These conditions assist in the selection of a friendly course of action.

a. Effects of Intelligence Consideration on Operations. Indicate whether the mission set forth in paragraph 1 can be supported from the intelligence standpoint. Indicate which course(s) of action can best be supported.

b. Effects of the AO on Own Courses of Action. For attack courses of action, indicate the best AA. For defensive courses of action, indicate the best defense areas and the best AA leading to and into the defense areas. (This subparagraph is omitted if the discussion of the effects of the area on own courses of action in paragraph 2 has been omitted because of the availability of a current analysis of the AO.)

c. Probable Enemy Courses of Action. List courses of action in order of relative probability of adoption. A listed course of action may include several subordinate courses of action that can be executed concurrently. Usually, no more than two or three courses of action, in order of probability of adoption, can be justified by the available evidence.

d. Enemy Vulnerabilities. List the effects of peculiarities and weaknesses that result in vulnerabilities which are exploitable at own, higher, or lower levels of command. The order of listing these vulnerabilities has no significance.

/s/ _____
(Designation of staff officer)

Annexes (as required)

(Classification)

Figure C-13. The intelligence estimate (continued).

(Classification)
(Change from Oral Orders, if any.)

Copy No 4 of _____ copies
312th Sep Bde (Issuing headquarters)
ZELLE (4671), BUTTANO (Place of Issue)
101900 September 19__ (DTG of Signature)
BQ 13 (Msg reference number)

Annex A (Intelligence) to Operations Order 24

Reference: Map, BUTTANO, Edition 2, 1:50,000 sheets 204 (ZELLE-PAGT.) (Time zone used throughout the order. Maps, charts, and other relevant documents.)

1. SUMMARY OF ENEMY SITUATION

See INTSUM, this HQ, 101800 September, and Appendix 1, Situation Overlay.

2. PRIORITY INTELLIGENCE REQUIREMENTS

a. Priority Intelligence Requirements.
(1) Will enemy reinforce his forces along the FLOOD River before the time of attack? If so, when, where, and with what forces? Special attention to the mechanized regiment and the medium tank regiment in vicinity of BURG.
(2) Will enemy employ nuclear weapons against us? If so, when, where, how many, of what yield, and by what delivery means?
b. Information Requirements.
(1) Will enemy continue to defend in his present position? If so, how will he organize his forces on the ground, and with what troops? Special attention to locations and activities of reserves, and vulnerability to nuclear attack.
(2) Will enemy attack prior to 110500 September? If so, when, where, and in what strength? Special attention to the axis Hill 536-Hill 524-CR 981.
(3) Will enemy use CB agents? If so, what agent, when, how, and where?

3. INTELLIGENCE ACQUISITION TASKS

a. Orders to attached and subordinate units.
(1) 1-141 IN.
(2) 1-142 IN.
(a) Report as obtained.
1. Status of construction of defensive positions and minefields on and to the east of the FLOOD River.
2. Location size of ammunition storage sites and location, size, and content of engineer equipment parks.
3. Clearing of lanes through obstacles within aggressor position in division zone.

(Classification)

Figure C-14. Example of an intelligence annex (when issued separately from OPORD).

(Classification)

4. Number, size, and composition of enemy patrols, and time they were observed.

5. Activity and size of units blocking our patrolling in forward areas.

6. The interception of enemy patrols equipped for CB activity.

7. The presence of enemy troops carrying protective masks or wearing protective clothing.

(b) Report as obtained. Negative reports by 110400 September.

1. Activity in medium tank regiment (-) and tank battalion assembly area in vicinity of BURG.

2. Location and activity of mechanized regiment in vicinity of BURG.

(3) 1-7 AR.

(a) Report as obtained.

1. Activity of mechanized battalion north and east of CR 987.

2. Activity of mechanized battalion on Hill 503.

3. Status of construction of defensive positions and minefields on and to the east of FLOOD River.

4. Location and size of ammunition storage sites and location, size, and content of engineer equipment parks.

5. Clearing of lanes through obstacles within aggressor position in division zone.

6. Number, size, and composition of enemy patrols and time they were observed or contacted.

7. Activity and size of units blocking our patrolling in forward areas.

8. The interception of enemy patrols equipped for CB activity.

9. The presence of enemy troops carrying protective masks or wearing protective clothing.

(b) Report as obtained. Negative report by 110400 September.

1. Activity in medium tank regiment (-) and tank battalion assembly area in vicinity of BURG.

2. Location and activity of mechanized regiment in vicinity of BURG.

(4) A/1-31 Cav Report as obtained.

(a) Activity of mechanized battalion on Hill 503.

(b) Status of construction of defensive positions and minefields on and to the east of the FLOOD River.

(c) Location and size of ammunition storage sites and location, size, and content of engineer equipment parks.

(d) Clearing of lanes through obstacles within aggressor position in division zone.

(Classification)

Figure C-14. Example of an intelligence annex (when issued separately from an OPORD) (continued).

(Classification)

(e) Number, size, and composition of enemy patrols, and time they were observed.

(f) Activity and size of units blocking our patrolling in forward areas.

(g) The interception of enemy patrols equipped for CB activity.

(h) The presence of enemy troops carrying protective masks or wearing protective clothing.

(5) 1-71 FA.

(a) Report as obtained.

1. Status of construction of defensive positions and minefields on and to the east of the FLOOD River.

2. Clearing of lanes through obstacles within aggressor position in division zone.

3. Number, size, and composition of enemy patrols, and time they were observed or contacted.

4. Activity and size of units blocking our patrolling in forward areas.

5. The interception of enemy patrols equipped for CB activity.

(b) Report as obtained. Negative reports by 110400 September. Locations of artillery positions, including number of weapons, caliber, and state of preparation of position.

(6) 210 Avn (OPCON).

(a) Report as obtained.

1. Activity of mechanized battalion north and east of CR 987.

2. Activity of mechanized battalion on Hill 503.

3. Location, size, and type of unit in vicinity of Hill 536 (north of BURG).

4. Status of construction of defensive positions and minefields on and to the east of the FLOOD River.

5. Location and size of ammunition sites, location, size, and content of engineer equipment parks.

6. Preparation of emplacements suitable for, and presence of equipment appropriate to, atomic demolition munitions (ADM).

7. The interception of enemy patrols equipped for CB activity.

(b) Report as obtained. Negative reports by 110400 September.

1. Movement on the following roads:

a. North on Highway 25.

b. West on Highway 2.

c. West on Highway 4.

2. Activity in medium tank regiment (-) and tank battalion assembly area in vicinity of BURG.

3. Location and activity of mechanized regiment in vicinity of BURG.

4. Location of artillery positions, including number of weapons, caliber, and state of preparation of positions.

(7) 20 Engr. Report as obtained.

(a) Status of construction of defensive positions and minefields on and to the east of the FLOOD River.

(Classification)

Figure C-14. Example of an intelligence annex (when issued separately from an OPORD) (continued).

(Classification)

(b) The interception of enemy patrols equipped for CB activity.

b. Requests to higher, adjacent, and cooperating units.

(1) 1st Corps is requested to provide:

(a) As obtained.

1. Location, size, and type of unit in vicinity of Hill 536 (north of BURG).

2. Number, types, direction of movement, and time of movement of air or surface vehicular traffic within the division zone, with special attention to Highway 2.

3. Troop concentrations, including types of vehicles, east of Highway 25 within the divisional AI.

4. Evidence of field fortifications and troop concentrations along the following lines:

a. Hill 503-CR 987

b. Hill 518-Hill 536-Hill 499

5. Location and size of ammunition storage sites and locations, size, and content of engineer equipment parks.

6. Instances of heavily guarded vehicular movement. Special attention to Highway 2 from ZILCH to BURG.

7. Areas under unusual security restrictions in the divisional AI.

8. Presence of special security troop units in any area east of Highway 25.

9. Any location in the divisional AI from which civilians have been evacuated.

10. Launcher sites for guided missiles or rockets within divisional AI.

11. Preparation of emplacements suitable for, and presence of equipment appropriate to, ADM.

12. The interception of enemy patrols equipped for CB activity.

13. All CB supply movement and dumping in zone.

14. The presence of enemy troops carrying protective masks or wearing protective clothing.

(b) As obtained; negative reports by 110400 September.

1. Movement on Highway 25.

a. North on Highway 25.

b. West on Highway 2.

c. West on Highway 4.

2. Activity in medium tank regiment (-) and tank battalion assembly area in vicinity of BURG.

3. Location and activity of mechanized regiment in vicinity of BURG.

4. Location and activity of mechanized regiment southwest of CR 994.

5. Locations of artillery positions, including number of weapons, caliber, and state of preparation of positions.

6. Command posts, supply points, and medical facilities east of Highway 25.

(Classification)

Figure C-14. Example of an intelligence annex (when issued separately from an OPORD) (continued).

(Classification)

(2) 18 Inf Div is requested to provide:

(a) As obtained.

1. Troop concentrations, including types of vehicles, east of Highway 25 within the divisional area of interest.

2. Instances of heavily-guarded vehicular movement. Special attention to Highway 2 from ZILCH to BURG.

3. Areas under unusual security restrictions in the divisional area of interest.

4. Presence of special security troop units in any area east of Highway 25.

5. Any location in the divisional area of interest from which civilians have been evacuated.

6. Launcher sites for guided missiles or rockets within divisional area of interest.

7. Locations of heavy artillery positions, including number of weapons, caliber, and state of preparation of positions.

8. Preparation of emplacements suitable for, and presence of equipment appropriate to, ADM.

9. The interception of enemy patrols equipped for CB activity.

10. All CB supply movement and dumping in zone.

11. The presence of enemy troops carrying protective masks or wearing protective clothing.

(b) As obtained; negative reports by 110400 September.

1. Movement on Highway 25.

a. North on Highway 25.

b. West on Highway 2.

c. West on Highway 4.

2. Location and activity of mechanized regiment southwest of CR 994.

(3) 52 Mech Div is requested to provide as obtained:

(a) Troop concentration, including types of vehicles, east of Highway 25 within the divisional area of interest.

(b) Instances of heavily guarded vehicular movement. Special attention to Highway 2 from ZILCH to BURG.

(c) Areas under unusual security restrictions in the divisional area of interest.

(d) Presence of special security troop units in any area east of Highway 25.

(e) Any location in the divisional area of interest from which civilians have been evacuated.

(f) Launcher sites for guided missiles cr rockets within divisional area of interest.

(g) Locations of heavy artillery positions, including number of weapons, caliber, and state of preparation of positions.

(h) Preparation of emplacements suitable for, and presence of equipment appropriate to, ADM.

(i) The interception of enemy patrols equipped for bn activity.

(j) All CB supply movement and dumping in zone.

(Classification)

Figure C-14. Example of an intelligence annex (when issued separately from an OPORD) (continued).

(Classification)

(k) The presence of enemy troops carrying protective masks or wearing protective clothing.

(4) Supporting MI elements provide information derivable from SIGINT and ESM and will respond to specific tasking as described in separate instructions.

4. MEASURES FOR HANDLING PERSONNEL, DOCUMENTS, AND MATERIEL. See Division SOP.

5. DOCUMENTS AND EQUIPMENT REQUIRED.

a. Maps. SOP distribution of map, BUTTANO, 1:50,000. SELLE-PAGT.

b. Photographic. The following aerial photographs will be furnished:

(1) Basic cover of division zone (1:20,000 approximate), six copies of each brigade and div arty; one copy each tank battalion, mechanized infantry battalion, 1/21 Cav, division engineer, aviation battalion or group, and division signal officer.

(2) Annotated airphotos distributed automatically, as available.

6. COUNTERINTELLIGENCE.

a. Appendix 2, Counterintelligence.

b. All units coordinate use of Army aircraft through BTOC to minimize number of aircraft in air over division zone prior to attack.

7. REPORTS AND DISTRIBUTION.

Effective 110800 September units will submit INTSUM at 0800, 1200, 1600, 2000, 2400, and 0400 hours daily in lieu of times prescribed in brigade SOP.

8. OTHER INSTRUCTIONS (as required).

None.

Acknowledge.

POWERS
BG

Appendixes: 1 - Situation Overlay
2 - Counterintelligence

Distribution: Same as OPORD

OFFICIAL:

/s/ AUSTIN

AUSTIN

S2

NOTE: In joint service operations where international standardization agreements do not apply, the intelligence annex in JCS Publication 12 will be used.

(Classification)

Figure C-14. Example of an intelligence annex (when issued separately from an OPORD) (continued).

SPOT REPORT

The spot report uses the SALUTE message format to report enemy size, activity, location, unit, time, and equipment. Figure C-15 shows a spot report.

```
FROM:  S2, NTH INF BN
TO:  S2, NTH SEP BDE
COMBAT OUTPOST NO. 33:--A/a/NTH PATROL REPORTS
SIGHTING FOUR ENEMY TANKS MOVING SOUTHWEST
ALONG RTE 49 AT NB123456 AT 061450Z HRS.  RATE OF
TRAVEL APPROX 5 KPH.  HATCHES WERE OPEN AND ENEMY
PERSONNEL OBSERVED WERE WEARING PROTECTIVE
MASKS.  UNIT MARKINGS WERE UNREADABLE DUE TO
MUD AND SANDBAGS.
```

Figure C-15. Example of a spot report.

COLLECTION PLAN

Collection plans provide a framework that collection managers (GMs) use to determine and evaluate intelligence needs. They use the plan to meet those needs. Because of the diversity of missions, capabilities, and requirements, the collection plan has no prescribed doctrinal format. The commander's PIR form the basis of the collection plan. The collection plan helps the commander see as deep in space and time as possible. It should--

- Cover the AirLand Battle tenets of deep, close, and rear operations.
- Have a tridimensional approach: width, length, and height of the battlefield.
- Cover higher and adjacent unit collection capabilities.
- Be flexible and responsive to changes as they occur.
- Be a working document and cover only priority requirements.
- Should be brief and precise.

The selection of a format is based on the requirements of the headquarters, and the resources available for collection management. Regardless of the format selected, it must follow the logical sequence of collection management. In addition, the plan must be easily adjustable to changing requirements, situations, and missions.

A written intelligence collection plan worksheet is a valuable aid in planning and directing the collection effort, particularly for those requirements concerned with enemy capabilities and vulnerabilities. The detail in which the worksheet is prepared

depends on the particular requirements to satisfy and the overall coordination needed in the collection effort.

At battalion and brigade, the collection plan worksheet is informal. It may consist of a list of available collection means plus brief notes or reminders on current intelligence requirements and specific information to collect.

At corps and division, collection planning is more complex. The PIR of a corps commander often require in-depth analysis. The coordination of the overall collection effort is a major undertaking. For that reason, written collection worksheets prepared at these echelons are detailed.

Figure C-16 shows a collection plan format suitable for corps and division. Brigades and battalions can modify this format to fit their requirements. Figure C-17 is an example of a completed collection plan using fictitious data.

Another method for maintaining a collection plan is in the form of a visual file index using 5- by 8-inch cards (see Figures C-18 and C-19). In this method, a collection requirement is displayed across the bottom of a card. The remainder of the card may contain the following:

- Priority.
- Request or request number.
- Time requested and time when information will no longer be of value.
- Additional distribution of results.
- Collection agencies tasked and time.
- Time the answer was received.
- Answer.
- Time the answer was disseminated to the requester.

Priorities can be shown by using different colored cards or index tabs. For example, a red card or index tab could indicate a highly time sensitive request to the CM, no matter how many shift changes take place.

The CM can group the cards in the visual files; for example: OB factors, NAI, requester, collector. In each operation the file may start out one way and, by necessity, change as the situation changes. This is accomplished quickly as the cards are easily manipulated.

When the collection requirement is satisfied, the card is removed from the visual files. The remainder of the cards are not disrupted. The CM can then place the 5- by 8-inch card in a small file organized by geographic areas. This enables the CM to build a data base on the responsiveness of the collection agencies by areas.

If the visual file method is used, the CM must maintain two charts. One is used to show the PIR and IR which drive the collection effort. The other lists the available units and agencies, and those tasked with each requirement. This chart is needed to prevent overloading or overlooking any single available collector. These two charts are shown at Figure C-20.

PIR AND IR	INDICATORS	SPECIFIC IR	COLLECTION AGENCIES	PLACE AND TIME TO REPORT	REMARKS
LIST PIR AND IR. LEAVE SUFFICIENT SPACE TO LIST INDICATORS FOR EACH PIR AND IR IN COLUMN 2.	**INSTRUCTION** LIST INDICATORS THAT WILL SATISFY EACH PIR AND IR.	LIST SPECIFIC INFORMATION REQUIRED TO SATISFY THE INDICATOR. KEY REQUIREMENTS TO NAI ON THE EVENT TEMPLATE, IF POSSIBLE. THESE REQUIREMENTS ARE THE BASIS FOR SPECIFIC ORDERS AND REQUESTS.	PLACE AN "X" UNDER EACH AGENCY THAT CAN COLLECT THE REQUIRED INFORMATION. CIRCLE THE "X" WHEN AN AGENCY HAS BEEN SELECTED AND TASKED.	PLACE MAY BE A HEADQUARTERS OR UNIT. TIME MAY BE SPECIFIC, PERIODIC, OR AS OBTAINED.	INCLUDE MEANS OF REPORTING. FOR EXAMPLE: - SPOT REPORT - ESTABLISHED COMMUNICATIONS (MULTICHANNEL, FM, RATT). - BY SOP (IF CRITERIA APPLIES FOR RESPONDING TO COLLECTION REQUIREMENTS).
1. WILL THE ENEMY ATTACK? IF SO, WHEN, WHERE, AND IN WHAT STRENGTH? 2. —	**EXAMPLE** MASSING OF MECH ELEMENTS, ARTILLERY, AND LOGISTIC SUPPORT.	ENEMY MOVEMENT BETWEEN RIDGE VIC 5D47-5042 TO SEINE RIVER. REPT SIZE AND TYPE UNIT AND DIRECTION OF MOVEMENT, AND TERMINATION POINT. SPECIAL ATTENTION TO NAIs 3, 5, AND 8.			

Figure C-16. Collection plan format.

CLASSIFICATION

UNIT: 52nd Inf Div (Mech)

COLLECTION PLAN

PERIOD COVERED: FROM H-12 Hours TO H+12 Hours

PRIORITY INTELLIGENCE REQUIREMENTS AND INFORMATION REQUIREMENTS	INDICATIONS (ANAYLSIS OF INTELLIGENCE REQUIREMENTS)
PIR 1. Will the enemy attack? If so, who, what, when, where, and in what strength?	a. Formation of RAGs & DAGs. b. Excessive barrage jamming. c. Massing of motorized rifle elements, tanks, artillery & logistic support. d. Movement of units forward.

AVENUE OF APPROACH — COORDINATES FM TQ 5720 TO UQ 9273

MOBILITY CORRIDOR NO — FM TO

NAMED AREA OF INTEREST	DISTANCE	TIME NET	TIME NLT	SPECIFIC ORDERS OR REQUEST	OBSERVED TIME
NAI 2	20km	H-12	1a H+4	Report formation of RAGs & DAGs for the following units: 67TD, 63TD, U/I MRD VIC UQ0617	
NAI 1	10km	H-12	1b H+12	Report jamming of all nets w/emphasis on CMD & control nets	
NAI 2	30km	H-12	1c H+12	Report number & type of vehicles in fwd assembly areas emphasis to vic TQ6020, TQ8218 UQ0617	
NAI 3	50km	H-12	1d H+1	Report of movement south out of fwd assembly areas vic highways 75, 23, 120, 36 & 7	

AVENUE OF APPROACH — COORDINATES FM TO

MOBILITY CORRIDOR NO — FM TQ 5901 TO TQ 8220

NAMED AREA OF INTEREST	DISTANCE	TIME NET	TIME NLT	SPECIFIC ORDERS OR REQUEST	OBSERVED TIME
NAI					
NAI					
NAI					

AGENCIES TO BE EMPLOYED

I CORPS	II CORPS	23d ARMD	1st BDE	2d BDE	3d BDE	DIV ARTY	DISCOM	52d CEWI	52d MP Co	DIV ADA BN	DIV CAV SQDN	CBT AVN BN	ENGR BN	G-5
x	x	⊗						⊗						
x	x	x	⊗	⊗	⊗	⊗	⊗	x	x	x	x	x	x	x
⊗	x	x						⊗				x		
⊗	x	x						⊗				⊗		

AGENCIES TO BE EMPLOYED

HOUR AND DESTINATION OF REPORTS	REMARKS
As Obtained	As Needed

Briefly state specific information to be sought that will substantiate each indication.

Specific information needs become the basis for orders and requests to collect information.

(List all available units that can be employed in the collection of required information).

Place an "X" under each unit that can acquire the specific information sought. Circle the "X" under the unit actually selected that will be assigned collection action.

CLASSIFICATION

Figure C-17. Suggested collection plan format.

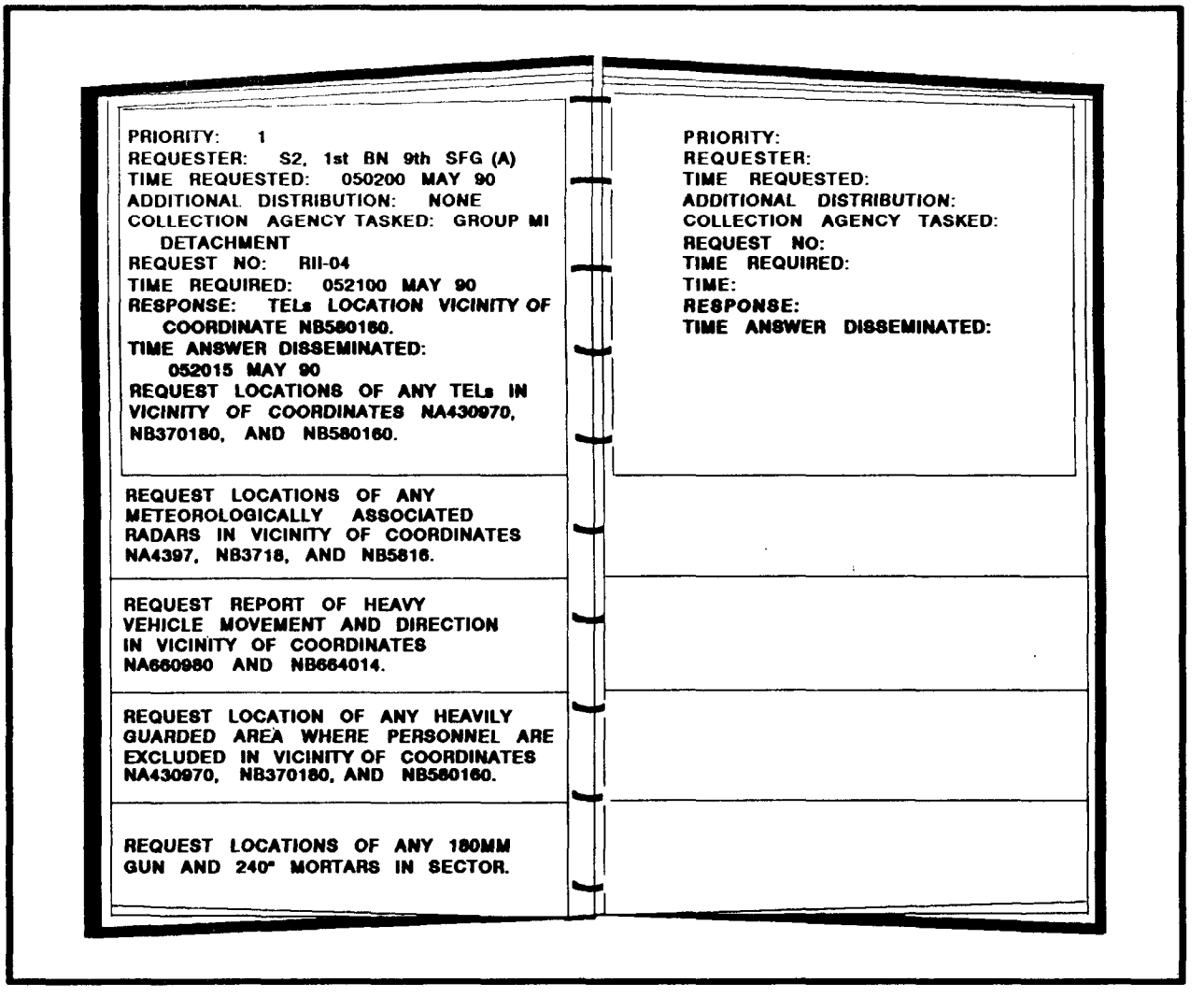


Figure C-18. Collection coordination visual file folder.

PRIORITY : 1
REQUESTER : S2, 1st BN 9th SFG (A)
TIME REQUESTED : 050200 MAY 90
ADDITIONAL DISTRIBUTION : NONE
COLLECTION AGENCY TASKED : GROUP MI DETACHMENT

REQUEST NO : RII-04
TIME REQUIRED : 052100 MAY 90
TIME : 050215 MAY 90

RESPONSE : TWO TELs LOCATION VICINITY OF COORDINATES NB580160; UNDER CAMOUFLAGE LAUNCHERS ERECTED.

TIME ANSWER DISSEMINATED : 052015 MAY 90.

REQUEST LOCATIONS OF ANY TELs IN VICINITY OF COORDINATES NA430970, NB370180, AND NB580160.

Figure C-19. Collection coordination visual file card.

PIR	IR
1. What is the location of the second echelon? When will it be committed? 2. What avenue of approach will the enemy use into FULDA?	1. Does the enemy intend to deploy nuclear weapons in the division sector?

AGENCIES	TASKING
MI BATTALION	RII-01
DIVISION ARTILLERY	RII-03
ENGINEER BATTALION	
ARMORED CAVALRY SQUADRON	
BRIGADES	
CORPS	RII-02, RII-04, RII-05
ADJACENT DIVISIONS	

Figure C-20. Charts used in determining commander's PIR and IR and available agencies and tasking.

GLOSSARY

Acronyms and Abbreviations

AA	avenue of approach
acft	aircraft
ACR	armored cavalry regiment
AD	air defense
ADA	air defense artillery
ADM	atomic demolition munitions
admin	administrative
adv	advance
AE	aerial exploitation
AF	Air Force
AGE	auxiliary ground equipment
AI	area of interest
ALC	administration and logistics center
ALO	air liaison officer
AM	amplitude modulation
anal	analysis
AO	area of operations
approx	approximately
AQL	advanced QUICKLOOK
AR	armor
ARF	airborne relay facility
ARDF	airborne radio direction finding
armd	armored
arty	artillery
ASPS	all-source production section
ATGM	antitank guided missile
ATP	ammunition transfer point
attn	attention
avn	aviation
AWS	Air Weather Service
BAT-D	battlefield deception
BDA	battle damage assessment
bde	brigade
BICC	battlefield information coordination center
bn	battalion
BNCOC	basic noncommissioned officer course
BSA	brigade support area
BTF	battalion task force
BTOCSE	Brigade Tactical Operations Center Support Element
btry	battery

C	Chief
C^2	command and control
C^3	command, control, and communications
C^3CM	command, control, and communications countermeasures
CAA	combined arms army
cam	camouflage
C&J	collection and jamming
C-E	communications-electronics
CAS	close air support
cav	cavalry
CB	chemical biological
cbt	combat
CDE	chemical defensive equipment
cdr	commander
CED	captured enemy document
CFA	covering force area
CHAALS	communications high accuracy airborne location system
CI	counterintelligence
CIAS	CI analysis section
CM	collection manager
cm	centimeter
cmd	command
CM&D	collection management and dissemination
co	company
COI	communications operation instructions
coll	collection
COLT	combat observation and laser team
COMINT	communications intelligence
COMINTADTSK	communications intelligence advisory tasking
comm	communications
COMSEC	communications security
COSCOM	Corps Support Command
CP	command post
CS	combat support
CSS	combat service support
CT	communications terminal
CTOC	corps tactical operations center
CTOCSE	corps tactical operations center support element
CTT	commander's tactical terminal
CUCV	commercial utility cargo vehicle
CW	continuous wave
DA	Department of the Army
DAG	division artillery group
DF	direction finding
DISCOM	division support command
div	division
DNVT	digital nonsecure voice terminal
DP	decision points

DS	direct support
DSA	division support area
DSVT	digital subscriber voice terminal
DTG	date-time group
DTOC	division tactical operations center
DZ	drop zone
E	east
ea	each
EAC	echelons above corps
ECCM	electronic counter-countermeasures
ECM	electronic countermeasures
EEFI	essential elements of friendly information
EEOB	enemy electronic order of battle
ELINT	electronic intelligence
elm	element
ELSEC	electronic security
EMP	electromagnetic pulse
en	enemy
engr	engineer
EOB	electronic order of battle
EPLRS	enhanced position location and reporting system
EPW	enemy prisoner of war
ERTM	electronic intelligence requirement tasking message
ESM	electronic warfare support measures
EW	electronic warfare
EWEM	electronic warfare employment message
EWMSNSUM	electronic warfare mission summary
EWRTM	electronic warfare requesting or tasking message
1SG	first sergeant
FA	field artillery
FARP	forward arming and refueling point
FDC	fire direction control
FIST	fire support team
FLOT	forward line of own troops
FM	frequency modulation
FO	forward observer
FRAGO	fragmentary order
FSE	fire support element
FSO	fire support officer
fld	field
flt	flight
ft	feet

G1	Assistant Chief of Staff, G1 (Personnel)
G2	Assistant Chief of Staff, G2 (Intelligence)
G3	Assistant Chief of Staff, G3 (Operations and Plans)
G4	Assistant Chief of Staff, G4 (Logistics)
G5	Assistant Chief of Staff, G5 (Civil Affairs)
GDP	general deployment position
GE	Germany
GRCS	GUARDRAIL common sensor
GRREG	graves registration
GS	general support
GS-R	general support-reinforcing
GSR	ground surveillance radar
HEMTT	heavy expanded mobility tactical truck
HF	high frequency
HHC	headquarters and headquarters company
HHD	headquarters and headquarters detachment
HHT	headquarters and headquarters troop
HMMWV	high mobility multipurpose wheeled vehicle
HPT	high-payoff target
HQ	headquarters
hr	hour
HUMINT	human intelligence
HVT	high-value target
HWB	howitzer battery
Hz	hertz
I&S	intelligence and surveillance
ICD	imitative communications deception
ICTT	improved commander's tactical terminal
ID	infantry division
IDS	intermediate direct support
IED	imitative electronic deception
IEW	intelligence and electronic warfare
IFV	infantry fighting vehicles
IGB	inter-German border
IGRV	improved GUARDRAIL V
IGS	intermediate general support
II	imagery interpretation
IMINT	imagery intelligence
in	inch
IN	infantry
intel	intelligence
intg	interrogation
INTREP	intelligence report
INTSUM	intelligence summary
IPB	intelligence preparation of the battlefield

IPF	integrated processing facility
IPS	intelligence production section
IPW	prisoner of war interrogation
IR	information requirements
kHz	kilohertz
km	kilometer
kph	kilometers per hour
kW	kilowatt
lb	pound
LC	line of contact
LD	line of departure
LDF	lightweight digital facsimile
ldr	leader
LEN	large extension node
LIN	line item number
LLSO	low-level source operations
LOB	line of bearing
LOC	lines of communication
log	logistics
LOGPAC	logistics package
LOS	line of sight
LP	log periodic
LPU	limited procurement urgent
LRP	logistics release point
LRS	long-range surveillance
LRSU	long-range surveillance unit
LSB	lower sideband
LZ	landing zone
m	meter
MACOM	major Army command
maint	maintenance
MBA	main battle area
MC	mobility corridor
MCW	modulated continuous wave
MCOO	modified combined obstacles overlay
MCS	master control station
MD	mechanized division
MDCI	multidiscipline counterintelligence
mech	mechanical
MED	manipulative electronic deception
METT-T	mission, enemy, terrain, troops, and time available
MG	major general
MHz	megahertz

MI	military intelligence
MIJI	meaconing, intrusion, jamming, and interference
MIJIFEEDER	meaconing, intrusion, jamming, and interference report feeder
MKT	mobile kitchen trailer
mm	millimeter
MMC	materiel management center
MOPP	mission-oriented protection posture
MOS	military occupational specialty
MOSC	military occupational specialty code
MP	military police
MRD	motorized rifle division
MRE	meal ready-to-eat
MSC	major subordinate command
MSE	mobile subscriber equipment
msg	message
MSR	main supply route
MSRT	mobile subscriber radiotelephone terminal
MST	maintenance support team
MTOE	modified tables of organization and equipment
mvr	maneuver
N	north
NA	not applicable
NAI	named areas of interest
NATO	North Atlantic Treaty Organization
NBC	nuclear, biological, and chemical
NCO	noncommissioned officer
NET	no earlier than
NICP	national inventory control point
NLT	no later than
no	number
noncom	noncommunications
NSN	national stock number
O&I	operations and intelligence
OB	order of battle
obj	object
obsn	observation
OP	observation post
OPCON	operational control
OPLAN	operation plan
OPORD	operation order
ops	operations
OPSEC	operations security
org	organization

PA	grid zone identifier
PDS	power distribution system
PIP	Product Improvement Program
PIR	priority intelligence requirements
PL	phase line
PLL	prescribed load list
plt	platoon
POC	point of contact
POL	petroleum, oils, and lubricants
PP	passage point
proc	processing
PTO	power take-off
PW	prisoner of war
R&S	reconnaissance and surveillance
RADAR	radio detection and ranging
RAG	regimental artillery group
RATT	radio teletypewriter
RAU	radio access unit
RC	Reserve Components
REC	radio electronic combat
REMBASS	remotely monitored battlefield sensor system
rept	report
RF	radio frequency
RII	request for intelligence information
RISTA	reconnaissance, intelligence, surveillance and target acquisition
RP	release point
RRII	response to request for intelligence information
RSA	regimental support area
RSS	regimental support squadron
RTOC	regimental tactical operation center
RTOCSE	Regimental Tactical Operations Center Support Element
recon	reconnaissance
regt	regiment
/s/	signed
S1	Adjutant (US Army)
S2	Intelligence Officer (US Army)
S3	Operations and Training Officer (US Army)
S4	Supply Officer (US Army)
SALUTE	size, activity, location, unit, time, equipment (spot report format)
SCI	sensitive compartmented information
SCIF	sensitive compartmented information facility
sct	scout
sec	section
SED	simulative electronic deception

SEN	small extension node
sep	separate
SHF	super high frequency
SIGINT	signals intelligence
SIGSEC	signal security
SINCGARS	Single Channel and Ground Airborne Radio System
SIR	specific information requirements
SITMAP	situation map
SITREP	situation report
SLAR	side-looking airborne radar
SOI	signal operation instructions
SOP	standing operating procedure
SP	start point
spt	support
sqdn	squadron
SSB	single side band
SSO	special security office
STANAG	Standardization Agreement
STE	special-purpose test equipment
survl	surveillance
svc	service
SWO	staff weather officer

T&A	transcription and analysis
TA	target acquisition
TAB	target acquisition battery
TACELINT	tactical electronic intelligence
TACJAM	Tactical Communications Jamming System, AN/MLQ-34
TACP	tactical air control party
TACREP	tactical report
tac	tactical
TAI	target areas of interest
TCAC	technical control and analysis center
TCAE	technical control and analysis element
TCC	telecommunication center
TCT	tactical commander's terminal
TD	tank division
TE	tactical exploitation
TEL	transporter erector launcher
telecomm	telecommunications
TF	task force
TIIF	tactical imagery interpretation facility
TIRP	terrain index reference point
TIRS	terrain index reference system
tk	tank
tm	team
TOC	tactical operations center
TOE	table of organization and equipment

TPU	tank and pump unit
TRADOC	US Army Training and Doctrine Command
TREE	transient radiation effects on electronics
trns	trains
trp	troop
UHF	ultra-high frequency
UHP	under-the-hood power
UI	unidentified
unk	Unknown
unclas	unclassified
US	United States
USAF	United States Air Force
USAICS	United States Army Intelligence Center and School
USAISD	United States Army Intelligence School, Fort Devens
USB	upper sidebank
USMTF	United States Message Text Format
UW	unconventional warfare
VAC	volts alternating current
VDC	volts direct current
veh	vehicle
VFMED	variable format message entry device
VHF	very high frequency
vic	vicinity
VRC	vehicular radio communications
wpn	weapon
XO	executive officer

References

REQUIRED PUBLICATIONS

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

Field Manuals (FMs)

7-30	Infantry, Airborne, and Air Assault Brigade Operations
17-95	Cavalry Operations
34-1	Intelligence and Electronic Warfare Operations
34-2-1	Reconnaissance and Surveillance and Intelligence Support to Counterreconnaissance
71-3	Armored and Mechanized Infantry Brigade
100-7	Army Component Operations
101-5	Staff Organization and Operations
101-5-1	Operational Terms and Symbols

RELATED PUBLICATIONS

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

Field Manuals (FMs)

3-5	NBC Decontamination
6-20	Fire Support in the AirLand Battle
34-2	Collection Management
34-3	Intelligence Analysis
34-10	Division Intelligence and Electronics Warfare Operations
34-25	Corps Intelligence and Electronics Warfare Operations

34-80	Brigade and Battalion Intelligence and Electronic Warfare Operations
34-130	Intelligence Preparation of the Battlefield
90-2	Battlefield Deception
90-2A	(U) Electronic Deception, Confidential
90-3	Desert Operations (How to Fight)
90-5	Jungle Operations (How to Fight)
90-6	Mountain Operations
90-10	Military Operations on Urbanized Terrain (MOUT) (How to Fight)

Standardization Agreements (STANAGs)

6004	Meaconing, Intrusion, Jamming and Interference Report
6010	Electronic Warfare in the Land Battle - ATP-51

Training Circulars (TCs)

34-84	AN/TLQ-l7A(V), Countermeasures Set Operations
34-87	(U) AN/MSQ-l03C, Operations, Confidential
34-90	(U) AN/MLQ-34, Tactical Communications Jammer Operations, Confidential

Technical Manuals (TMs)

32-5865-005-10	Operation Instructions, Countermeasures Set AN/TLQ-17A(V)
32-5865-005-23	Organizational and Direct Support Maintenance of the TLQ-17A, Models Vl and V2
32-5865-060-10	Operations Manual for the MLQ-34
32-5895-070-10	Operations Manual for the TRQ-32, Models Vl and V2
32-5895-050-24&P	Organizational Direct Support, General Support, and Parts Manual for the TRQ-32

32-5811-030-10-1	Operator's Manual, Vol I, Special Purpose Receiving System AN/MSQ-103C
32-5865-012-10	Operation Instructions for Special Purpose Countermeasures System, AN/ALQ-151(V)2

Miscellaneous

JCS Pub 25	US Message Text Formatting Pro gram

classes of supply, 5-1 through 5-4

collection management
  as part of intelligence cycle, 3-11
  purpose of collection plan, C-25

command and control (C^2)
  attaching assets as a command relationship, 3-2
  by regimental commander, 2-4
  ESM support, 4-5
  for assigned and attached elements, 2-6
  for organic and attached assets, 2-10
  in an NBC environment, 6-5
  in defensive missions, 4-18, 4-19
  in IEW missions, 3-1
  in offensive missions, 4-13, 4-18
  on the objective, B-4
  responsibilities of the MI company commander, 3-5, 3-12
  using FM radio command and operations net, 3-12

commander's intent
  directing phase, 3-8
  responsibility for understanding, 4-10

counterreconnaissance
  definition of, B-1
  in cavalry operations, 1-1, 1-2
  in combat operations, 2-1
  in MDCI effort, 1-6
  in offensive missions, 4-13, 4-16
  in security operations, 1-1
  QUICKFIX, 4-5

cover
  as a security mission, 4-1, 4-3
  function of ACR, 1-1
  in EW operations, 4-5

desert environment
  characteristics of, 6-1
  equipment cleanliness in, 6-1
  grounding electrical equipment, 6-1
  radio communications in, 6-1
  situation development in, 6-2
  target development in, 6-2

direct support (DS)
  for interrogators, 4-12
  in command and support relationships, 3-1, 3-2
  logistical support, 3-6
  maintenance, 5-2, 5-4

DS. See direct support.

ECCM. See electronic counter-countermeasures.

ECM. See electronic countermeasures.

electronic countermeasures (ECM). See also electronic warfare.
  division of EW, 1-4
  ICD, 1-6
  IED, 1-6
  in fire support, 4-5, 4-6, 4-11
  in jungles, 6-3
  in mountainous terrain, 6-3
  in urban terrain, 6-5
  jamming and electronic deception, 1-5, 4-3, 4-5, 4-12, 4-20
  MED, 1-5
  purpose, 1-4
  responsibilities of the S3, 3-5
  SED, 1-6
  support to ACR and separate brigade, 2-6 through 2-12

electronic counter-countermeasures (ECCM). See also electronic warfare.
  division of EW, 1-4
  definition of, 1-6
  responsibilities of S3, 1-10, 3-5
  SINCGARS enhancement of, 3-21

electronic deception. See also electronic warfare.
  as part of ECM, 1-6, 1-6

electronic warfare (EW). See also IEW tasks.
  equipment maintenance, 5-4
  IEW system task, 1-2, 1-4
  in combat operations, 4-11
  in jungles, 6-3
  in R&S missions, 4-5
  in the offense, 4-15
  in the area of need, 4-19
  in the desert, 6-3
  in the mountains, 6-3
  in urban terrain, 6-4
  planning, 2-6
  platoon responsibilities, 2-7, 3-12, 4-11, 4-20

electronic warfare support measures (ESM). See also electronic warfare.
  definition of, 1-4
  in the desert, 6-2
  in the mountains, 6-3
  in support of target development, 4-4, 4-15
  in urban terrain, 6-4
  placing assets in covering force, 4-6, 4-20
  responsibilities of the S2, 1-8, 2-6, 3-4
  responsibilities of the S3, 3-5
  role of VHF ECM platoon, 2-12
  role of VHF ECM team, 2-8
  role of VHF jamming platoon, 4-18
  use of jammers, 1-5, 2-8, 4-12, 4-13

ESM. See electronic warfare support measures.

EW. See electronic warfare.

fire support officer (FSO)
  responsibilities of, 3-5

FSO. See fire support officer.

future communications systems. See SINCGARS and MSE.

general support (GS)
  as centralized support mission, 3-1
  in command and support relationship, 3-1
  logistical support, 3-6
  maintenance for QUICKFIX system, 5-4

general support-reinforcing (GS-R)
  in command and support relationship, 3-1
  support to the unit and MI elements, 3-2

GS. See general support.

GS-R. See general support-reinforcing.

guard
  as a function of the ACR, 1-1
  as a function of the separate brigade, 1-2
  as a security mission, 4-1
  in support of EW, 4-5
  in support of situation development, 4-4
  in support of target development, 4-4
  types of, 4-2 through 4-4

hazards of nuclear weapons
  blackout, 6-6
  EMP, 6-6
  TREE, 6-6

high-payoff target (HPT)
  commander's intent, 1-3
  definition of, 1-3, 1-4, 3-5, 4-4, 4-15, 4-19

high-value target (HVT)
  definition of, 1-3, 1-10, 3-22, 4-4, 4-15, 4-18

HPT. See high-payoff target.

HVT. See high-value target.

IED. See imitative electronic deception.

IEW. See intelligence and electronic warfare.

IEW equipment matrix, A-1

IEW structure
  coordinators, 1-7, 1-9, A-1
  executors, 1-7, 1-9
  producers, 1-7, 1-9

IEW tasks
  EW, 1-4
  MDCI, 1-6
  situation development, 1-2
  target development, 1-3

imitative electronic deception (IED), 1-6. See also electronic warfare.

information requirements (IR)
  development of, B-2
  in patrol order, B-10
  in patrol plan, B-11
  in scout plan, B-8
  in support of PIR, 3-8
  S2 responsibilities for, 1-8

intelligence and electronic warfare (IEW).
  assets, 1-2, 1-8
  plan, 1-10
  support to ACR and separate brigade, 1-1, 1-2, 2-1

intelligence cycle, 3-6

intelligence production section (IPS)
  functions of 2-3, 3-8, 3-9
  in relationship to the CM&D, 3-22
  responsibilities of the S2, 1-10
  responsibilities of the TCAE, 2-7

IPS. See intelligence production section.

IR. See information requirements.

jamming. See also electronic warfare.
  airborne, 6-4
  barrage, 1-5
  purpose of, 1-5
  spot, 1-5
  sweep, 1-5

jungle environment
  characteristics of, 6-3
  constrictions of, 6-3
  EW operations in, 6-4
  situation development in, 6-3
  target development in, 6-3

key players
  in IEW, 3-2 through 3-5

logistics package (LOGPAC)
  definition of, 5-2
  procedures for using the system, 5-3 through 5-5

LOGPAC. See logistics package.

manipulative electronic deception (MED), 1-5, 1-6. See also electronic warfare.

MDCI. See multidiscipline counterintelligence.

MED. See manipulative electronic deception.

METT-T. See mission, enemy, terrain, troops, and time available.

mission, enemy, terrain, troops, and time available (METT-T)
  employment of IEW assets, 4-1, 4-6
  factors, 4-12
  in defensive missions, 4-20
  in offensive missions, 4-16, 4-18
  responsibilities of IPS, 3-8

mobile subscriber equipment (MSE). See also SINCGARS.
replacement for multichannel equipment, 2-4, 2-6, 2-10, 3-1, 3-21
types of equipment, 3-21 through 3-23

mountain environment
characteristics of, 6-2
EW operations in, 6-3
situation development in, 6-3
target development in, 6-3

MSE. See mobile subscriber equipment.

multidiscipline counterintelligence (MDCI). See also IEW tasks.
activities in, 4-6
force protection contribution, 4-6, 6-5
IEW system task, 1-2, 1-6
in defensive missions, 4-20
in offensive missions, 4-16
in relation to METT-T factors, 4-12
responsibilities of MI Co (Sep Bde), 2-10
responsibilities of operations support platoon, 2-6, 4-21
responsibilities of S2, 1-8, 3-4, 3-5
support to OPSEC, 1-7

NBC. See nuclear, biological, and chemical.

NBC environment
effect on command and control, 6-5
principles of NBC defense, 6-5

nuclear, biological, and chemical (NBC)
blackout, 6-6
contamination avoidance, 6-5
decontamination, 6-6
EMP, 6-6
functions in the ACR, 2-3
protection, 6-5
TREE, 6-6

offensive operations
exploitation, 4-13, 4-14
hasty and deliberate attacks, 4-14
jamming in, 4-15, 4-16
movement to contact, 4-13, 4-14
purpose of, 4-13
pursuit, 4-14

operations security (OPSEC)
in defensive missions, 4-21
in offensive missions, 4-15
MDCI support to, 1-6
measures, 1-7
responsibilities of the S2, 1-8
responsibilities of the S3, 1-10

OPSEC. See operations security.

PIR. See priority intelligence requirements.

priority intelligence requirements (PIR)
basis for intelligence efforts, 3-1, 3-8, 4-10
development of, B-2
in patrol order, B-2
in patrol plan, B-11
in scout plan, B-10

R&S. See reconnnaissance and surveillance.

radio teletypewriter (RATT)
being replaced with MSE, 3-21, 3-22
equipment in the TCAE and EW platoons, 3-18, 3-19, 4-11
reponsibilities of the ACR, 2-6
responsibilities in the separate brigade, 2-10
responsibilities in the SWO, 3-10
used by the AF weather team, 2-4

RATT. See radio teletypewriter.

radio communications
in the desert, 6-1
in the jungle, 6-4

reconnaissance and security
focus of the ACR, 1-2, 2-1
purpose of, 1-1
use of SIGINT and ESM assets in, 4-15

reconnaissance and surveillance (R&S)
development of, B-2
formats and overlays, B-6, B-14 through B-21
in EW missions, 4-5
in the separate brigade, 2-12
managing and planning of, B-1 through B-6
plan, B-3

reconnaisance in force
in the separate brigade or ACR, 1-2, 4-15

reinforcing (R)
in command and support relationship, 3-1
support to reinforced elements, 3-2

resources
collection plan, C-25
command and control of, 3-2, 3-3, 3-8
ELINT, C-1
in ACR and separate brigade, 2-13
in IEW missions, 3-2, 4-1
lack of, 1-6
management of, 2-1, 2-7, 3-1
responsibilities of the S2, 3-12, B-1

scouts
advantages and disadvantages, 2-1
functions of, 4-5
information-gathering assets, 2-1, B-2, B-5, B-6
types of, 2-2

screen
as a function of the ACR, 1-1
as a function of the separate brigade, 2-8
as early warning, 4-1, 4-5
decentralized interrogation in, 4-12
functions of a, 4-1, 4-2
in an R&S overlay, B-3
in axis of advance, B-4
in support of EW, 4-5, 4-6
in support of situation development, 1-1, 4-4
in support of target development, 4-4
types of, 4-1, 4-2
when using MSE, 3-23

SED. See simulative electronic deception.

signals intelligence (SIGINT), C-11
analysis and dissemination, 2-8
assets, 2-6, 4-15
in the mountains, 6-3
in the desert, 6-2
used with MDCI, 1-6
used with MED, 1-5

SIGINT. See signals intelligence.

simulative electronic deception (SED), 1-5. See also electronic warfare.

SINCGARS. See single channel and ground airborne radio system.

Single Channel and Ground Airborne Radio System (SINCGARS). See also MSE.
future communications system, 3-21

situation development. See also IEW tasks.
as part of AirLand Battle, 1-2
in desert operations, 6-2
in defense missions, 4-19

in guard missions, 4-2 through 4-4
in jungle operations, 6-4
in mountain operations, 6-3
in offense missions, 4-14
in screening missions, 4-1
IPS responsibilities, 3-10
NBC reconnaissance capability, 2-3
process of, 1-3
responsibilities of S2 in, 1-8, 3-4

supply. See also classes of supply.

target development. See also IEW tasks.
as part of Airland Battle, 1-2
in covering operations, 4-4
in desert environment, 6-2
in guard missions, 4-4
in jungle operations, 6-4
in mountain operations, 6-3
in offensive operations, 4-19
information on enemy, weather, and terrain, 3-1
IPS repsonsibilities, 3-9
prioritizing targets, 1-3
process of, 1-3, 1-5, 3-1, 4-15
responsibilities of S2 in, 1-8, 3-4

terminal communications equipment. See MSE.

urban environment
characteristics of, 6-4
effect in EW, 6-4
MDCI operations in, 6-5
situation development in, 6-4
target development in, 6-4

USAF weather team
communications for, 2-4, 3-22
composition of, 3-10
in support of IPS, 3-9, 3-10