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BATTLEFIELD TECHNICAL INTELLIGENCE

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Preface

Battlefield Technical Intelligence (TECHINT) is part of the overall TECHINT system. The purpose of this publication is to emphasize the importance of and to describe Battlefield TECHINT. This field manual provides the doctrine, tactics, techniques, and procedures used to collect and exploit foreign technological developments. This effort results in the production of the TECHINT that supports our mission.

This field manual describes the Battlefield TECHINT process at echelons corps and below (ECB) and its links with echelons above corps (EAC), Military Intelligence (MI) organizations, other services, and the strategic-level intelligence agencies that support it.

The information in this field manual applies to all Army personnel. It especially applies to Active Component (AC) and Reserve Component (RC) commanders and their staffs, US Army Training and Doctrine Command (TRADOC) Centers and Schools, and MI elements.

The doctrine in this publication conforms with and supports the principles contained in FM 34-1. This publication implements Standardization Agreement (STANAG) 2084, and complies with STANAGs 1059 and 2097 throughout, and 2014 and 2044 as indicated.

The proponent of this publication is HQ TRADOC. Submit changes for improving this publication on DA Form 2028 (Recommended Changes to Publications) to Commander, US Army Intelligence Center and School, ATTN: ATSI-TD-PAL, Fort Huachuca, AZ 85613-7000.

CHAPTER 1

MISSION

INTRODUCTION

This chapter describes the TECHINT mission. It explains TECHINT's two-part system and discusses TECKINT's historical relevance. This chapter also discusses the mutually dependent relationship between Battlefield TECHINT and the tactical commander; the advantages of TECHINT; and how the TECHINT process supports the levels of war.

The TECHINT mission is to support the tactical commander's effort to fight and win the AirLand Battle. TECHINT aids the commander by providing products that either identify or counter an adversary's momentary technological advantage. It is a vital link in the Intelligence Cycle and in our nation's efforts to preserve peace. TECHINT is also an integral part of all—source intelligence because it involves everyone from the individual soldier at the tactical level to policy makers at the strategic level .

The TECHINT system is made up of two parts: Scientific and Technical Intelligence (S&TI) and Battlefield TECHINT. S&TI supports the strategic level of war intelligence; while Battlefield TECHINT suppports the operational and tactical levels of war intelligence.

Often, the TECHINT process begins with one conscientious soldier who finds something new on the battlefield and takes the proper steps to report it. The information or item is then exploited at succeedingly higher levels until a countermeasure is produced to neutralize the enemy's technological advantage. While it is true that a single weapon or technology seldom means the difference between final victory or defeat, it can give one side a decisive battlefield advantage.

HISTORICAL PERSPECTIVE

In the 1920s, Germany was developin the weapons and systems it would use against the Allies in the 1940s. Because Allied nations did not include TECHINT in collection efforts, German scientific and technical advances went largely unnoticed. When information did come to light, Washington and London ignored or ridiculed it. Later, when the Germans fielded their advanced weapons and systems in war, the resulting technological surprise on the battlefield was devastating.

WORLD WAR II

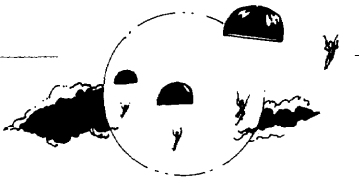
During the Air battle for Europe, the British used TECHINT to counter the German antiaircraft and night fighter defenses. They did this by exploiting captured aircraft radios and a captured radar station. (See page 1-2 for a discussion of the Bruneval Raid.)

The Allies captured many German and Italian weapons in North Africa. This collection led to the publishing of new technical material, such as--

- Technical manual E9 series handbooks on enemy weapons.



THE RAID ON BRUNEVAL:
An Offensive TECHINT Operation



At 2100 on 27 February 1942, GMT, 119 officers and men of Company C, 2nd Parachute Regiment, parachuted into a drop zone near the small village of Bruneval, France. The Company's mission was to raid a suspected German radar site on a cliff a few hundred yards from an accessible beach. The Company's objective was to bring back an item of extreme TECHINT interest -- the WURZBURG radar.

The Wurzburg radar was believed to be a mobile, short range, high precision radar that was responsible for the sudden and serious increase in Allied heavy bomber losses. Routine Allied photo reconnaissance originally discovered the installation in January 1942. French resistance forces were sent to investigate. They confirmed the site and a garrison troop strength of nearly 200 enemy signal, support, and security troops. They also reported that the nearby beach was not mired.

It was this intelligence and the urgent need to protect our planes that resulted in the commando raid that night. Once on the ground, the commandos moved quickly. They split into three equal groups. The first group secured the beach. The second group spread out and took up positions to act as a reserve/blocking force. The last group, the collection team and a special radar technical expert, moved forward to find and take the target.

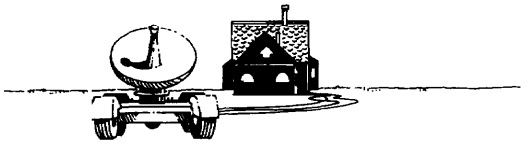
The collection team slipped through enemy defender positions, entered the installation, and found the radar. They used hacksaws, crowbars, and precision hand tools to dismantle the main components. As each part of the radar was exposed, it was sketched and photographed. The team also captured a German signalman -- the radar operator.

When they finished, the team destroyed what they couldn't take back with them, and began their move to the beach under progressively heavy fire. The surviving commandos were picked up by Allied landing craft and escaped across the Channel to England.

Exactly three and one-half hours after the mission began, it was over. Although two men were killed, six wounded, and six more listed as missing in action, the raid was deemed a great success. Not only was it the first raid on the Continent following the disaster at Dunkirk, but it resulted in the successful capture of a valuable piece of enemy materiel -- materiel that later proved to be of vital TECHINT interest.

Allied TECHINT experts examined the materiel as soon as they got it. The exploitation of this radar, along with the sketches and the photographs, quickly began to provide valuable TECHINT. For example, just from the recovered metal manufacturer's plates, analysts accurately determined how many Wurzburg radars had been produced and the current rate of production. When the German signalman was interrogated, he provided valuable information about the level of operator skills and operator training. Most important, though, TECHINT scientists used the captured materiel to build an operational Wurzburg radar mockup.

When the mockup was completed, they had a multifrequency radar that seemed, at first, to be almost impossible to jam. Scientists went to work to develop countermeasures to neutralize the radar's capabilities. Their efforts resulted in thin metallic strips cut to different lengths that could be dropped from airplanes. These strips reflected radar signals and effectively jammed the new radars. They dubbed these metal strips CHAFF. CHAFF turned out to be one of the most successful countermeasures developed during World War II -- particularly useful during the Normandy Invasion.





- Special series publications on German weapons.
- Training aids.
- Updates to handbwks on the German and Italian armies.

TECHINT exploitation of captured German Tiger and Panther Tanks led to several important battlefield countermeasures. Two of these were new armor tactics and more powerful antitank rockets.

The United States started a successful TECHINT program in the fall of 1943 called The Alsos Mission. This unit was made up of Counterintelligence (CI) Corps agents, scientists, and interpreters. Their mission was to capture and exploit personnel and mareriel of scientific and technical value.

The successes of this unit include:

- Exploitation of Italian and German nuclear scientists.
- Removal of numerous quantities of uranium one from the Albert Canal.
- Recovery of the international radium standards from what was to be the Soviet Occupied Sector of Germany.

Unfortunately, after the war the Alsos Mission, as well as general TECHINT collection, was abandoned.

THE KOREAN WAR

It wasn't until the beginning of the Korean War, when North Korean troops in Soviet-designed and Chinese-built armor rolled south, that the United States discovered it had little hard data on enemy weapon systems. We realized that to be able to develop effective countermeasures, TECHINT had to be an ongoing process. As a result, we once again began a concerted TECHINT effort.

In the Korean war, combat commanders found that their 2.36-inch bazooka rounds would literally bounce off T-34 tanks. With this combat deficit in mind, commanders began to support the TECHINT process by evacuating captured T34/85 tanks and other materiel back to TECHINT elements for analysis. TECHINT analyts both in theater and at the Chrysler Corporation examined the captured materiel. They responded by giving combat commanders new tactics and a redesigned M-48 tank.

THE VIETNAM WAR

Following the Korean War, the United States did not disband its TECHINT capability completely, as it had at the conclusion of previous conflicts. But neither did we maintain it at its wartime level. In fact, when the Vietnan conflict began, the US TECHINT capability consisted of only a few experienced personnel. However, as combat forces were committed and increased, so did our TECHINT capability and structure.

During the Vietnam War, an agency called the Combined Materiel Exploitation Center came into being. This wartime center's mission was to manage and coordinate the analysis of captured enemy equipment (CEE) and technical documents. The Combined Materiel Exploitation Center did this on a tactical level by dispatching

teams of experts and analysts into the tactical zone of each corps. These teams analyzed captured materiel in the field and recommended countermeasures to tactical commanders.

LESSONS LEARNED

The lessons learned from World War II, the Korean War, and finally the Vietnam War clearly indicated the need for a fully operational TECHINT system even in peacetime. To do otherwise was to invite a technological surprise that would give the enemy an unacceptable advantage on the next battlefield.

The TECHINT system had two goals: first, to keep a step ahead of Threat battlefield weapon systems; and second, to create TECHINT units that could provide instant Battlefield TECHINT capability in a "come as you are" war.

The TECHINT system we have today does just that. TECHINT elements exploit foreign and Threat materiel. They provide valuable studies which forecast trends in all areas including armor, antitank rockets, and even chemical warfare. For example, the changes in the individual soldier decontamination kit are a direct result of TECHINT.

THE TECHNICAL INTELLIGENCE SYSTEM

TECHINT is the end product of a complex process. It is the result of collecting, analyzing, and processing information on foreign technological developments. It is also the result of studying the performance of foreign materiel and its operational capabilities.

Foreign materiel is the all-encompassing term for the weapon systems, equipment, apparatus, documents, and supplies of a foreign military force or nonmilitary organization. TECHINT, in its broadest sense, may or may not have military applications. See Glossary-7 for the JCS Pub 1 definition of TECHINT.

Within the Department of Defense (DOD), two parts of the overall TECHINT system are task organized for military TECHINT collection: the S&TI community and the Battlefield TECHINT assets of the US Army.

The S&TI community focuses on the TECHINT requirements of strategic policy and the decision makers. Battlefield TECHINT serves the commander's intelligence requirements at the operational and tactical levels. S&TI and Battlefield TECHINT products support commanders during the preparation stage as well as the actual waging of war.

THE COMMANDER AND THE TECHNICAL INTELLIGENCE SYSTEM

A mutually dependent relationship exists between the support the combat commander gets from the TECHINT system and the support the TECHINT system gets from the combat commander. Operational and tactical commanders provide the raw material analysts need by identifying capturing, protecting, and evacuating enemy equipment, documents, and other items.

Commanders further ensure the success of the process by demanding Battlefield TECHINT support for the tactical effort to defeat the enemy. Analysts take this raw material and produce the countermeasures commanders need to overcome an enemy's technological advantage.

ADVANTAGES OF BATTLEFIELD TECHNICAL INTELLIGENCE

Like other intelligence disciplines, TECHINT guards against surprise in peace and war. It provides several distinct types of vital input to the all-source intelligence product. These include:

- Assessment of the capabilities and vulnerabilities of enemy weapon systems.
- Warning of changes in enemy tactics due to new or developing technology.
- Countermeasures.

Battlefield TECHINT elements are also organized to assist the commander in managing the quick evacuation of captured enemy materiel (CEM).

TECHINT analysts study a broad range of raw materiel. This enables them to provide viable TECHINT to the intelligence and electronic warfare's (IEW) all-source intelligence product. Some of the subject areas are: materiel; installations; and interrogation sources with information on supplies, maintenance, training, and battlefield doctrine.

TECHNICAL INTELLIGENCE SUPPORT TO THE LEVELS OF WAR

There are three levels of war: strategic, operational, and tactical. S&TI supports the strategic level while Battlefield TECHINT supports the operational and tactical levels of war. This support is defined in Figure 1-1.

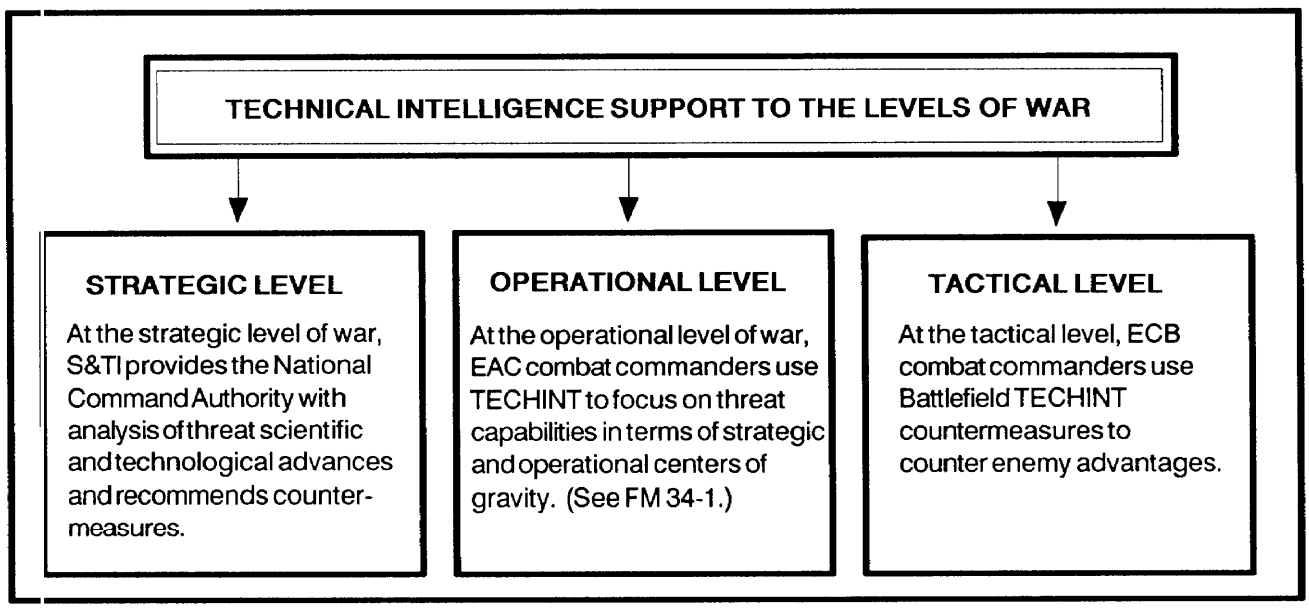


Figure 1-1. How TECHINT supports the three levels of war.

CHAPTER 2

ORGANIZATION

INTRODUCTION

This chapter describes the two parts of TECHINT: S&TI at the strategic level and Battlefield TECHINT at the operational and tactical levels. It introduces the members of the TECHINT community and provides an overview of the major players. This chapter also describes how the strategic level and the operational and tactical levels interface and interact with each other.

S&TI is designed to track and analyze foreign technological developments. It is used to analyze the performance and operational capabilities of foreign materiel that may have military application.

Although mainly a function of EAC and departmental level MI units, S&TI makes significant contributions toward fulfilling tactical unit battlefield TECHINT requirements. Enemy equipment and facilities are typical S&TI targets at tactical levels. When tactical units capture items of S&TI interest, the item are quickly evacuated to the theater TECHINT unit.

If it is possible to exploit the captured item to support immediate tactical and strategic requirements, the unit does this before sending it to a Continental United States (CONUS) S&TI center. However, if exploitation is not expected to result immediate tactical gain, the theater TECHINT unit quickly evacuates it to S&TI centers in CONUS for detailed exploitation and analysis.

SCIENTIFIC AND TECHNICAL INTELLIGENCE STRUCTURE

Elements of the Department of Defense (DOD) perform military S&TI activities for the US Government. These elements are discussed below. The S&TI community handles the nation's overall TECHINT needs during peacetime, and the strategic TECHINT requirements in wartime. Figure 2-1 shows DOD intelligence activities with S&TI and TECHINT functions and authority.

DEFENSE INTELLIGENCE AGENCY

The Defense Intelligence Agency (DIA) manages and reviews overall TECHINT activities throughout DOD. The S&TI directorate is the DIA action element for TECHINT. This directorate coordinates with external TECHINT agencies on nonpolicy matters concerning the production of S&TI. The National Photographic Interpretation Center (NPIC) is suborfiinate to the DIA. It contributes to the TECHINT effort through the exploitation of imagery.

NATIONAL SECURITY AGENCY

The National Security Agency (NSA) is the signals intelligence (SIGINT) organization of the US Government. It is responsible for the exploitation of cryptologic materiel.

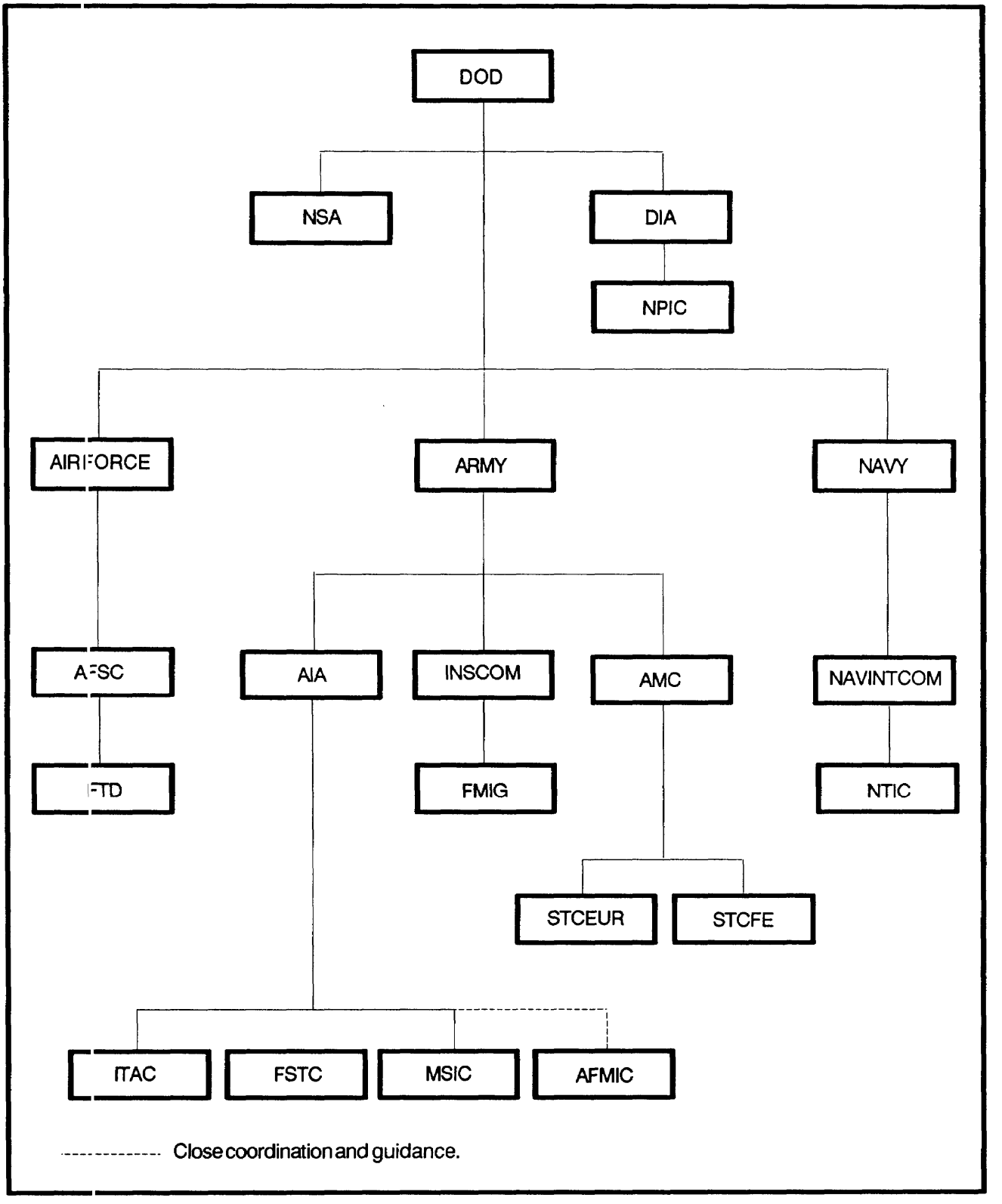


Figure 2-1. The Department of Defense S&TI community.

ARMED FORCES MEDICAL INTELLIGENCE CENTER

The Armed Forces Medical Intelligence Center (AFMIC) is a DOD production center. The director of AFMIC is responsible for exploiting foreign medical materiel. The director Supports the Army Foreign Materiel Exploitation Program (FMEP) and Army Medical Research and Development (R&D) requirements. The director does this by coordinating with the Army Deputy Chief of staff for Intelligence (DCSINT) in planning programming, and budgeting. The AFMIC--

- Studies and reports foreign medical S&TI and general medical intelligence to DOD and other federal agencies.
- Studies and reports foreign biological warfare S&TI capabilities.
- Administers the DOD Foreign Medical Materiel Exploitation Program (FMMEP).
- Provides "quick response" foreign medical intelligence support to the groups mentioned above.

The AFMIC maintains a mutually beneficial S&TI exchange with the Army Intelligence Agency (AIA) to round out Army capabilities.

AIR FORCE FOREIGN TECHNOLOGY DIVISION

The Air Force Foreign Technology Division (FTD), Air Force Systems Command, is the primary DOD agency producing foreign aerospace S&TI. It supports the Air Force Assistant Chief of Staff for Intelligence (AFACSI) and satisfies DIA requirements. It acquires, analyzes, produces, and disseminates S&TI related to current and future enemy capabilities.

NAVAL TECHNICAL INTELLIGENCE ACTIVITIES

The Navy proponent agency for TECHINT is the Naval Technical Intelligence Center (NTIC). The NTIC provides S&TI on technical characteristics and capabilities of foreign naval forces and merchant system. It provides S&TI support to the Commander of the Naval Intelligence Command (NAVINTCOM) and the Chief of Naval Operations.

ARMY TECHNICAL INTELLIGENCE ACTIVITIES

Although the Office of the Deputy Chief of Staff for Intelligence (ODCSINT) does not produce intelligence, it does have general staff responsibilities for all Amy TEHINT activities. The ODCSINT--

- Formulates policies and procedures for S&TI activities.
- Supervises and carries out the Army S&TI program.
- Coordinates DA staff and major subordinate command requirements for TECHINT.
- Is responsible for the Army foreign materiel program (FMP).

Army Intelligence Agency

The AIA is a field operating agency of the DCSINT. The AIA--

- Produces and disseminates intelligence on foreign ground forces, ground force systems, and related sciences and technologies in response to DA and DOD requirements.
- Provides Threat analysis and related projections to the Army combat development community to support force modernization programs.

The AIA commander is also the Assistant Deputy Chief of Staff for Intelligence. The AIA manages the Army FMP, as well as executing the FMEP for the DCSINT. The AIA is composed of three subordinate Army intelligence production centers:

- The Intelligence and Threat Analysis Center (ITAC).
- The Foreign Science and Technology Center (FSTC).
- The Missile and Space Intelligence Center (MSIC).

The FSTC and the MSIC are the Army's S&TI centers.

Army Intelligence and Threat Analysis Center. The Army ITAC produces comprehensive intelligence and CI analysis of the capabilities, vulnerabilities, and the threat posed by foreign ground and security forces today and in the future. These analyses emphasize from a tactical and doctrinal standpoint how the Threat uses key system.

Army Foreign Science and Technology Center. The Army FSTC produces and maintains intelligence on foreign scientific developments, ground force weapon systems, and technologies (except missile and medical). The FSTC analyzes--

- Military communications-electronics (C-E) systems.
- Types of aircraft used by foreign ground forces.
- Scientific R&D activities.
- Nuclear, biological, and chemical (NBC) warfare.
- Basic research in fields of possible military interest.

Army Missile and Space Intelligence Center. The Army MSIC acquires, produces, maintains, and disseminates S&TI pertaining to missile and space weapon systems, subsystems components, and activities. This S&TI represents state-of-the-art technology and supports DA and DOD strategic intelligence production, as well as the FMEP. The MSIC analyzes--

- Foreign antiparticle missiles.
- Antisatellite technology.
- Tactical air defense.
- short-range ballistic missiles (SRBM).
- Antitank guided missiles.

The MSIC plans, organizes, and manages a unique form of Threat support: The Army's develepment and acquisition of Threat simulators. These simlators support TRADOC and system program managers during the operational and training phases of new systems. They provide a visual and technological replication of the battlefield threat, when the actual foreign materiel cannot be acquired or is too costly to buy.

Army Materiel Command

The Army Materiel Command (AMC) shares responsibility for managing the overt acquisition of foreign materiel for TECHINT purposes. AMC buys foreign materiel domestically, as well as through its centers in Europe and the Far East. Through this program, the AMC also supports AIA and AFMIC.

Intelligence and Security Command

Under the direction of Headquarters, Department of the Army (HQDA), the Army Intelligence and Security Command (INSCOM) is the major command responsible for peacetime TECHINT operations. INSCOM fulfills its responsibilities through its TECHINT oversight function and by exercising operational control over the foreign materiel intelligence group (FMIG) during peacetime.

Oversight function. INSCOM fulfills its oversight function by--

- Providing the interface with strategic S&TI agencies in support of foreign materiel exploitation.
- Organizing, training, and equipping EAC TECHINT organizations during peacetime. This supports TECHINT development under contingency operations and aids in our transition to total war.
- Conducting worldwide human intelligence (HUMINT) operations in support of foreign materiel acquisition.

Foreign Materiel Intelligence Group. The FMIG is an EAC TECHINT battalion-size organization. It is located at Aberdeen Proving Ground. FMIG consists of a headquarters and headquarters company, an analyst comqany, and two training detachments. The training detachments are located at Aberdeen Proving Ground and at the National Training Center (NTC).

This group is the Army's only active-duty TECHINT unit. In peacetime, FMIG is subordinate to INSCOM and performs a primarily S&TI role.

During wartime, INSCOM gives up operational control. The unit deploys as an MI Battalion (TECHINT) to the theater commander's EAC MI Brigade and becomes a battlefield TECHINT asset. This supports TECHINT development under contingency operations and aids in our transition to total war.

In peacetime, FMIG--

- Conducts TECHINT operations and produces TECHINT reports.
- Maintains the capability to conduct TECHINT collection operations in support of Army, joint, and combined requirements.

- Prepares TECHINT reports in support of Army, joint, and combined requirements.
- Acts as the HQDA executive agent for foreign materiel used for training purposes. FMIG also provides TECHINT training to DOD analysts and strategic MI detachments. This supports the Army Threat program.

In addition, FMIG supports AIA with--

- Foreign materiel acquisition operations.
- Foreign materiel exploitation operations.
- Foreign Medical Materiel Exploitation (FMME) operations.

BATTLEFIELD TECHNICAL INTELLIGENCE STRUCTURE

The Army Battlefield TECHINT organization is designed to support both the operational and tactical levels of war. It includes elements to support EAC commanders and ECB commanders. EAC TECHINT assets consist of the AC TECHINT Battalion mentioned above and CAPSTONE EAC TECHINT Reserve units. CAPSTONE units are units with a wartime mission to deploy with Active and reserve units.

ECB TECHINT assets include Army Reserve TECHINT elements with a corps mission and detached teams from the AC TECHINT battalion.

Regardless of the echelon, TECHINT units are equipped to provide the supported commander with countermeasures based on CEM exploitation. This includes: identifying, analyzing, and supervising the evacuation of foreign and enemy equipment, weapon systems, technical documents, and other captured materiel.

ECHELONS ABOVE CORPS TECHNICAL INTELLIGENCE UNITS

In wartime, EAC TECHINT units consist of the Army's AC TECHINT battalion and activated RC TECHINT companies.The AC TECHINT battalion is organized to deploy as an entire unit, as in the case of total war. It is also capable of deploying teams in support of low-intensity conflict. In any case, the AC TECHINT battalion must fulfill all Battlefield TECHINT support requirements until RC TECHINT companies are activated and deployed.

Captured Materiel Exploitation Center

The TECHINT commander's mission is carried out through a Captured Materiel Exploitation Center (CMEC). This center is formed from the assets of organic and attached TECHINT elements and is augmented by other subject matter experts (SMEs). The CMEC--

- Manages the command's Battlefield TECHINT system, through the MI Brigade commander and the G2.
- Processes battlefield TECHINT.
- Coordinates, through proper channels, requires support to the TECHINT effort. (See Chapters 3 and 4.)

The CMEC, through the MI Brigade commander, also serves as the point of contact for strategic S&TI activities on the battlefield. (The CMEC

organization is shown at Figure 2-2.) The DIA and strategic-level S&TI centers support the CMEC with data base updates, requests for intelligence information (RII), and disposition instructions. (See Figure 2-3.)

Where possible, it is desirable for other armed services to combine assets for the acquisition and exploitation of foreign materiel. When this happens, the CMEC is called the Joint Captured Materiel Exploitation Center (JCMEC). (See Figure 2-4.)

Joint Captured Materiel Exploitation Center

The JCMEC consists of TECHINT personnel from each participating service. The United States Marine Corps (USMC) provides an RC Battlefield TECHINT detachment to augment the JCMEC and deployed USMC combat elements ashore. As in the CMEC, the commander of the JCMEC is the TECHINT advisor to the Joint Command J2. When a joint task force (JTF) is formal that does not have organic TECHINT support, the Active Army EAC TECHINT unit forms the nucleus of a JCMEC that provides that support.

The JCMEC either provides TECHINT reports through the Joint Intelligence Center (JIC) to the Theater or Joint Command J2 or through other reporting procedures established by the joint commander.

Combined Captured Materiel Exploitation Center

The Combined Captured Materiel Exploitation Center (CCMEC) is composed of scientific, technical, and military TECHINT managers and analysts from the United States and its allied countries. It is organized the same as the JCMEC. (See Figure 2-4.) The CCMEC directs the overall combined TECHINT effort, under the supervision of the combined intelligence staff. The CCMEC--

- Allows a free flow of information, reports, and TECHINT exploitation summaries between allies.
- Coordinates scientific exploitation assistance from allied scientists.
- Provides TECHINT teams for on-site exploitation and to assist specific echelons.

ECHELONS CORPS AND BELOW TECHNICAL INTELLIGENCE UNITS

ECB TECHINT assets are all in the RC. Their primary peacetime role focuses on training. However, certain Reserve TECHINT units and individuals continue to accomplish live, real world missions when tasked. In wartime, until the mobilization and arrival of the ECB TECHINT assets into the corps area of operations, TECHINT teams from the Active Army EAC TECHINT unit are dispatched to perform required TECHINT support to the corps. Once the ECB TECHINT units arrive, the TECHINT teams either are redeployed or remain in the corps area of operations exploiting materiel based on EAC intelligence requirements.

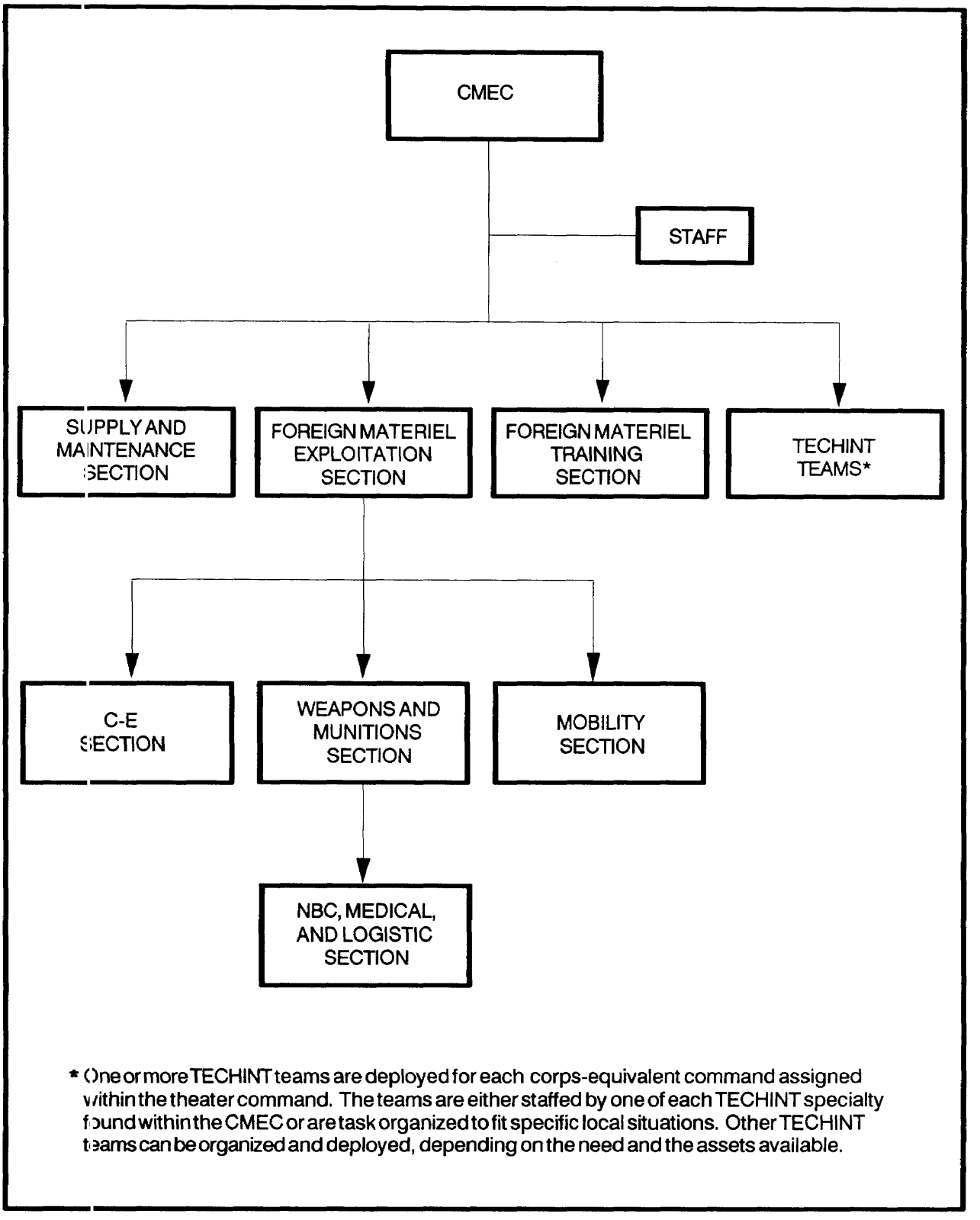


Figure 2-2. Captured Material Exploitation Center (CMEC) organization.

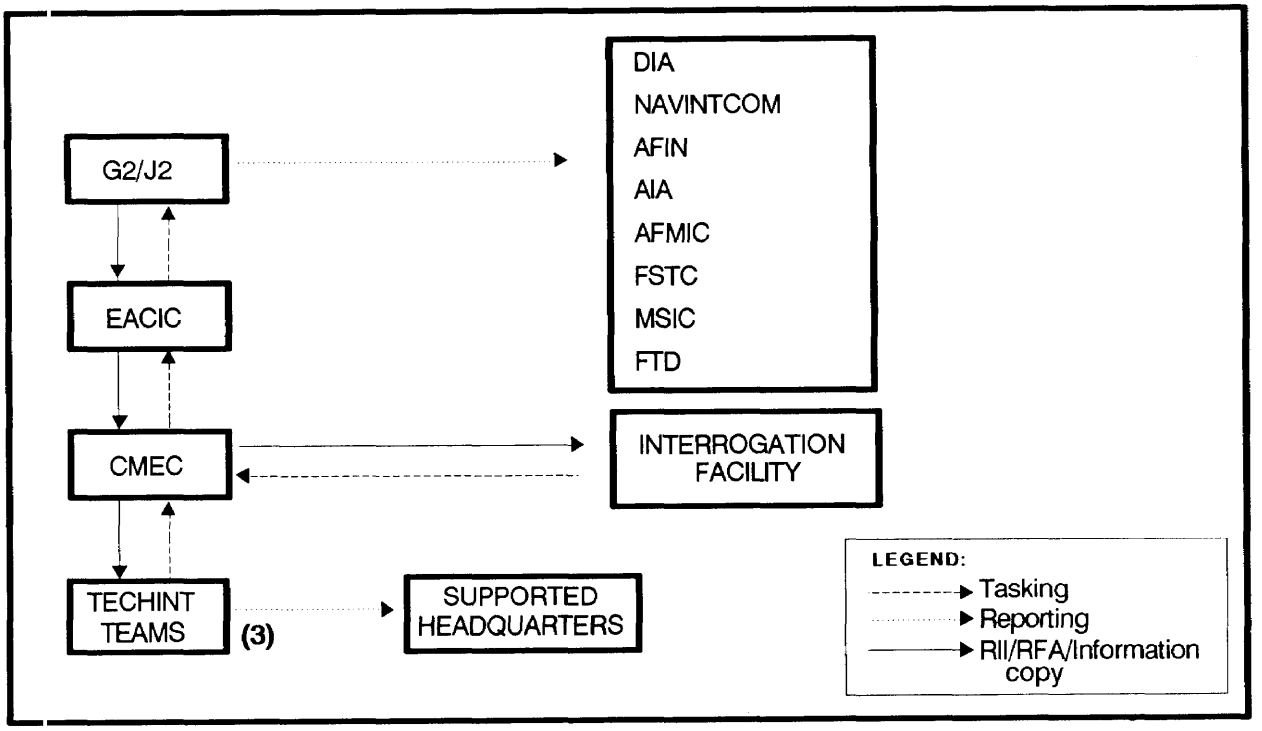


Figure 2-3. Captured Materiel Exploitation Center (CMEC) intelligence channels.

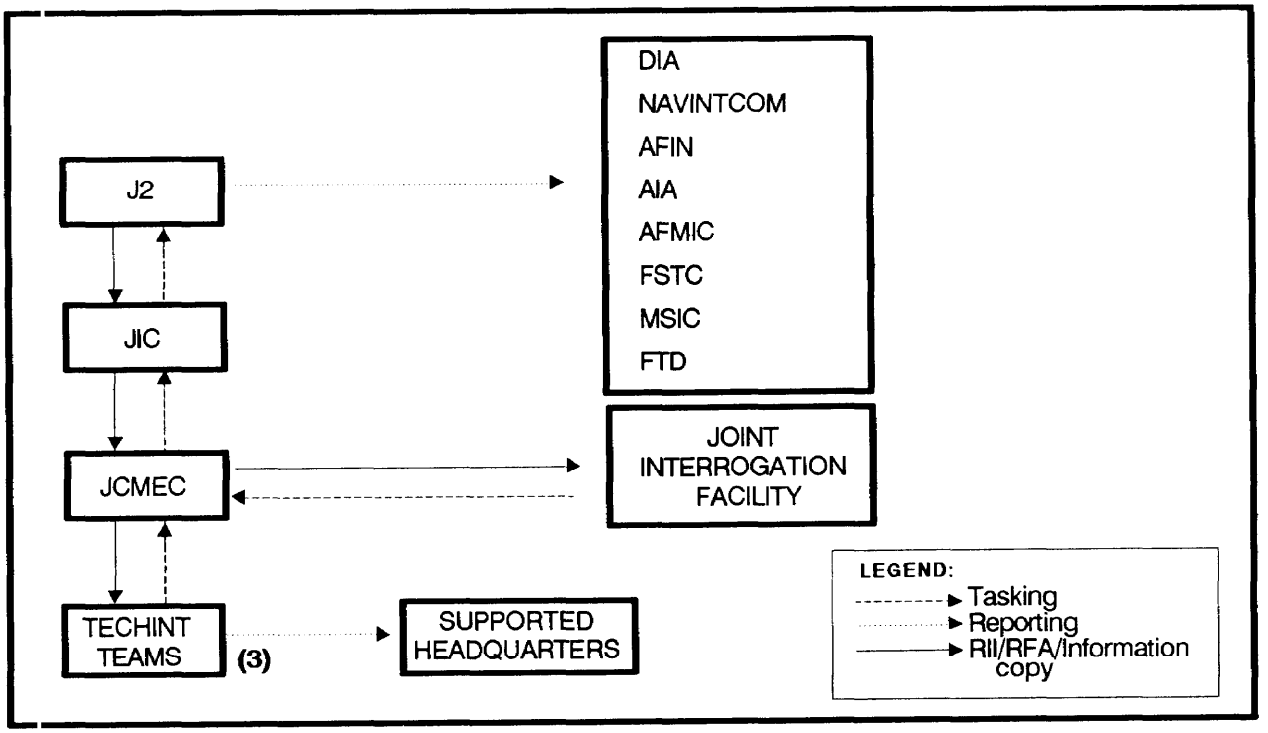


Figure 2-4. Joint Captured Materiel Exploitation Center (JCMEC) intelligence channels.

After mobilization, the CAPSTONE Reserve TECHINT assets are deployed with the Tactical Exploitation Battalion (TEB) supporting their designated corps. They form the TECHINT section of the Operations Analysis Company of the TEB (RC), under the operational control of the corps G2.

The TECHINT section of the Operations Analysis Company, TEB, analyzes the foreign materiel, including supplies and technical documents, acquired on the battlefield. This section also includes a packing and crating element. The TECHINT section normally deploys in the Corps Support Command (COSCOM) area to help evacuate equipment, but may locate near the enemy prisoner of war (EPW) holding area.

Battlefield TECHINT teams at ECB, whether they are organic to the TEB or the CMEC, are task organized and deployed to the target area. This is based on the type and location of the item discovered or secured and the assets available. These teams are equipped based on field conditions and the nature of the TECHINT found. In the field, they use common communications links from the nearest available unit -- usually the capturing unit -- to report their location and to request transportation and logistic support.

CHAPTER 3

OPERATIONS

INTRODUCTION

This chapter describes Battlefield TECHINT operations, functions, and procedures within the context of the Intelligence Cycle.

Battlefield TECHINT operations consist of collecting, handling, analyzing, evacuating, and exploiting CEE, documents, and other materiel.

Force commanders and their staffs, as well as the unit's TECHINT asset, are responsible for Battlefield TECHINT operations. However, the individual soldier normally initiates Battlefield TECHINT operations by capturing and reporting on an item of TECHINT interest.

THE FUNCTIONAL STRUCTURE

Each command has directors, coordinators, produces, and executors who perform critical IEW functions. Battlefield TECHINT is a subsystem of the overall IEW system. Battlefield TECHINT has the same functional structure at each level of operational and tactical command:

- Directors are the force commanders; their requirements must be satisfied.
- Coordinators are the G2/S2 and the G3/S3 who supervise and direct the operations of producers and coordinate the command's executor efforts.
- Producers are the collection management and dissemination (CM&D) team members who support the coordinators.
- Executors are the unit commanders who do the assigned IEW mission.

The MI unit commander is the command's primary Battlefield TECHINT executor. But, as with other IEW missions, being primary does not mean being the only executor. Other essential Battlefield TECHINT collectors are the commanders of the following units and teams:

- Combat.
- Special operations.
- Military police (MP).
- NBC.
- Explosive ordnance disposal (EOD).
- Medical.
- Engineer.
- Civil Affairs (CA).
- All other organizations capable of executing Battlefield TECHINT operations.

The G2, G3, TECHINT commander, and MI commander comprise the Battlefield TECHINT team. The staff officers plan, organize, direct, coordinate, and control; while commands execute the directives. The MI commander manages MI assets to accomplish assigned Battlefield TECHINT missions. The MI commander exercises command and control

over all organic and attached MI assets, and has operational control over supportirq MI assets.

No single unit or organization is capable of meeting all of the force commander's Battlefield TECHINT requirements with organic assets. Each is dependent on other commands and organizations to complete the overall intelligence picture of the battlefield. These interdependencies require detailed interfaces. The IEW system and specific producers, such as the CMEC or attached TECHINT team, provide these interfaces.

THE INTELLIGENCE CYCLE

Intelligence is the responsibility of all commanders. This includes Battlefield TECHINT. Every unit must be prepared to capture, secure, report, and evacuate enemy materiel of TECHINT interest, with or without specific orders. Capturing and reporting items of known or possible TECHINT interest is the key to making the Intelligence Cycle a dynamic and viable tool in the Battlefield TECHINT effort.

The Intelligence Cycle (Figure 3-1) is dynamic because it allows for nontasked input. It is called a cycle because it is a continuous process. Each phase of the cycle is done sequentially, but all phases are done simultaneously. The Intelligence Cycle is defined as the planning and supervision of the four phases needed to accomplish the mission or meet the goal.

PLANNING AND SUPERVISION

The commander's staff plans the mission and supervises each phase of the Intelligence Cycle. Intelligence preparation of the battlefield (IPB) is the first step in planning the mission. (See FM 34-130.) IPB is used to analyze the data base we have on the enemy. This is done to determine the impact of the enemy, weather, and terrain on operations in specific battlefield situations. IPB is the basis for determining and evaluating enemy capabilities, vulnerabilities, and probable courses of action.

The five functions of IPB are:

- Terrain analysis.
- Weather analysis.
- Battlefield area evaluation.
- Threat evaluation.
- Threat integration.

During the IPB process, we also discover what we know and don't know about the enemy. This knowledge, or lack of it, along with the commander’s concept of the operations, drives intelligence collection requirements and their priorities.

THE FOUR PHASES

The four phases of the Intelligence Cycle area:

- Directing.
- Collecting.
- Processing.
- Disseminating.

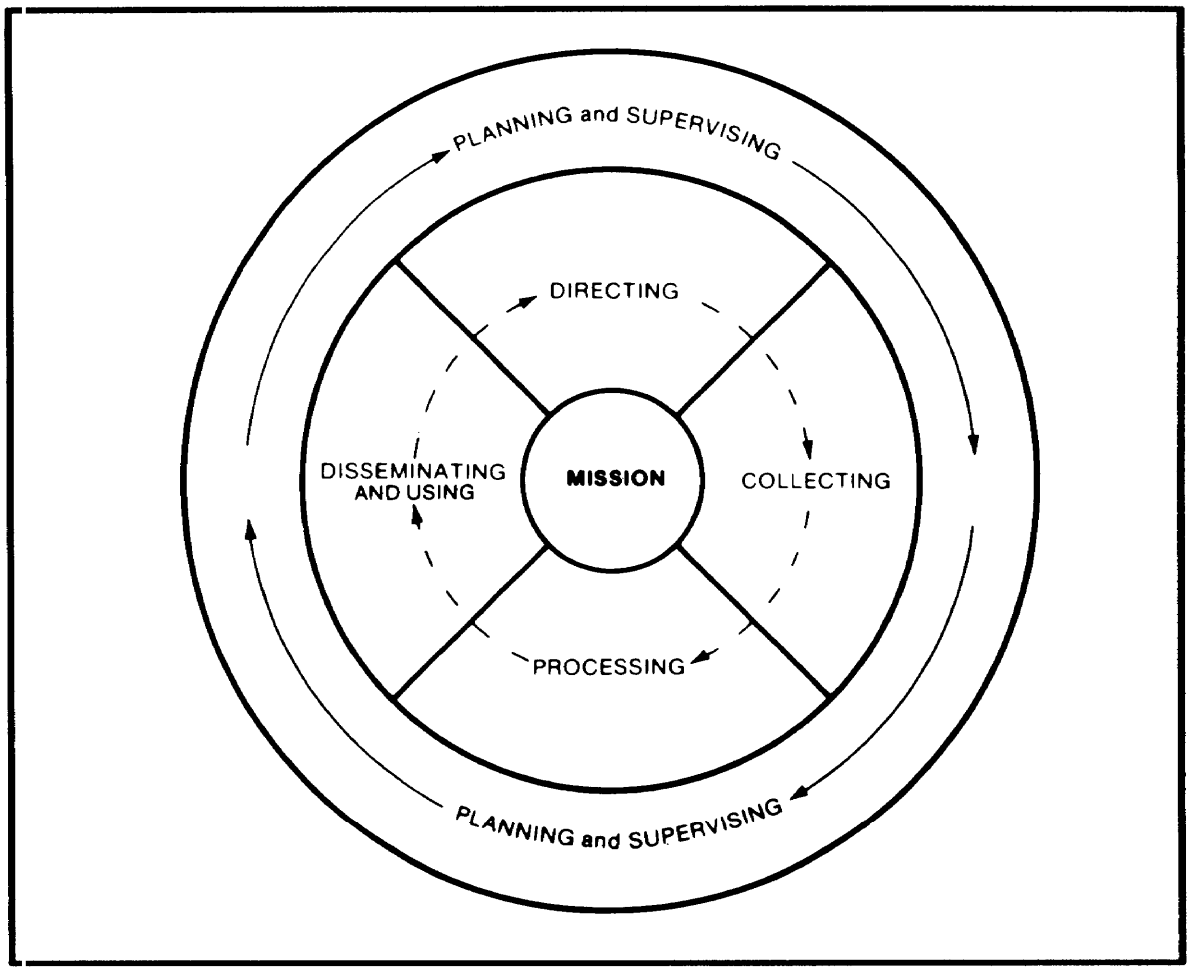


Figure 3-1. The Intelligence Cycle.

Directing

Directors establish priority intelligence requirements (PIR) and information requirements (IR). PIR and IR are the basis for all intelligence collection and production, including TECHINT. The commander, through the G2/S2, directs Battlefield TECHINT collection.

The theater MI Brigade TECHINT Battalion provides a TECHINT liaison element to the single discipline team (SDT) section of the all-source analysis center (ASAC) of the echelons above corps intelligence center (EACIC). (See Figure 3-2.) This TECHINT team coordinates collection management functions with the CMEC and serves as a link between the CMEC and the G2. It supports TECHINT integration into the all-source intelligence product and the establishment of TECHINT collection requirements.

The ASAC TECHINT team coordinates with the CMEC to match the requirements they have received to their specific operational or tactical areas of concern. Then they compare these requirements to the existing data base to make sure we only collect on requirements we have not already answered.

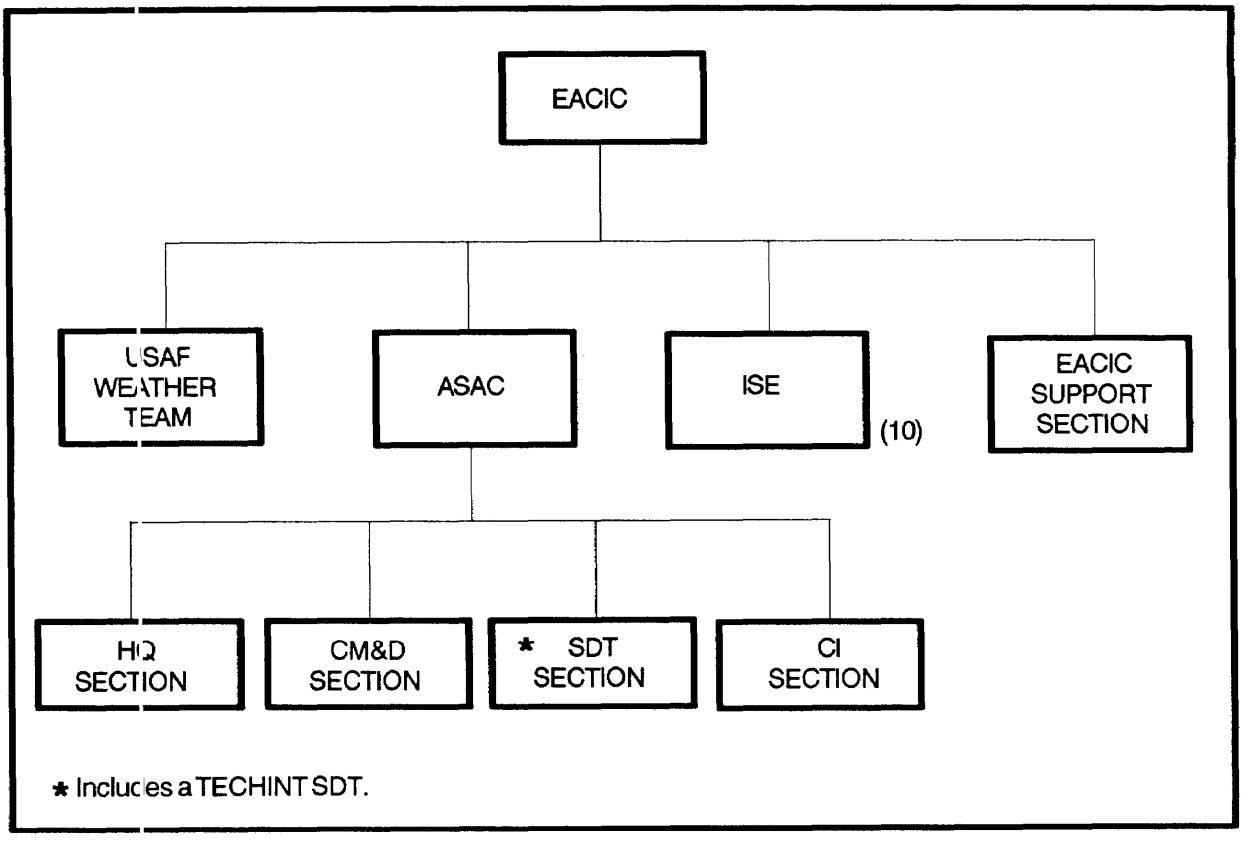


Figure 3-2. Echelons Above Corps Intelligence Center (EACIC) organization.

The ASAC TECHINT team also ensures these requests are translated into terms combat units or other specific collectors can understand and act on. (See Figure 3-3.)

The commander's list of PIR and IR is the preferred method of communicating Battlefield TECHINT collection requirements. However, if an item is found to beo special TECHINT interest, the echelon wanting the item provides reporting instructions, along with a photograph, sketch, or description of the item. This is forwarded as a specific order or request to the G2 or S2 of the command tasked.

The G2 or S2 of the tasked unit briefs the command about the item needed and the reporting channels to be used in case the item is located within their area of operations. (See Figure 3-4.)

A brigade combat team is tasked with a requirement for an R-123 radio. The ASAC TECHINT team realizes that collection odds are better if the individual soldier is told to look for the armored vehicle the radio is most likely to be found on. The team, therefore, translates the requirement so that the soldier is now looking for a combat vehicle such as the BTR-60, T-62, or BMP.

The general requirement is:	CAPTURE AN R-123 RADIO.
The translated requirement is:	CAPTURE AND SECURE ANY BTR-60, BTR-70, T-62, OR T-72 FOUND ON THE BATTLEFIELD. SALUTE REPORT CAPTURE THROUGH YOUR G2 TO THE CMEC.

Figure 3-3. Translation of TECHINT collection requirements.

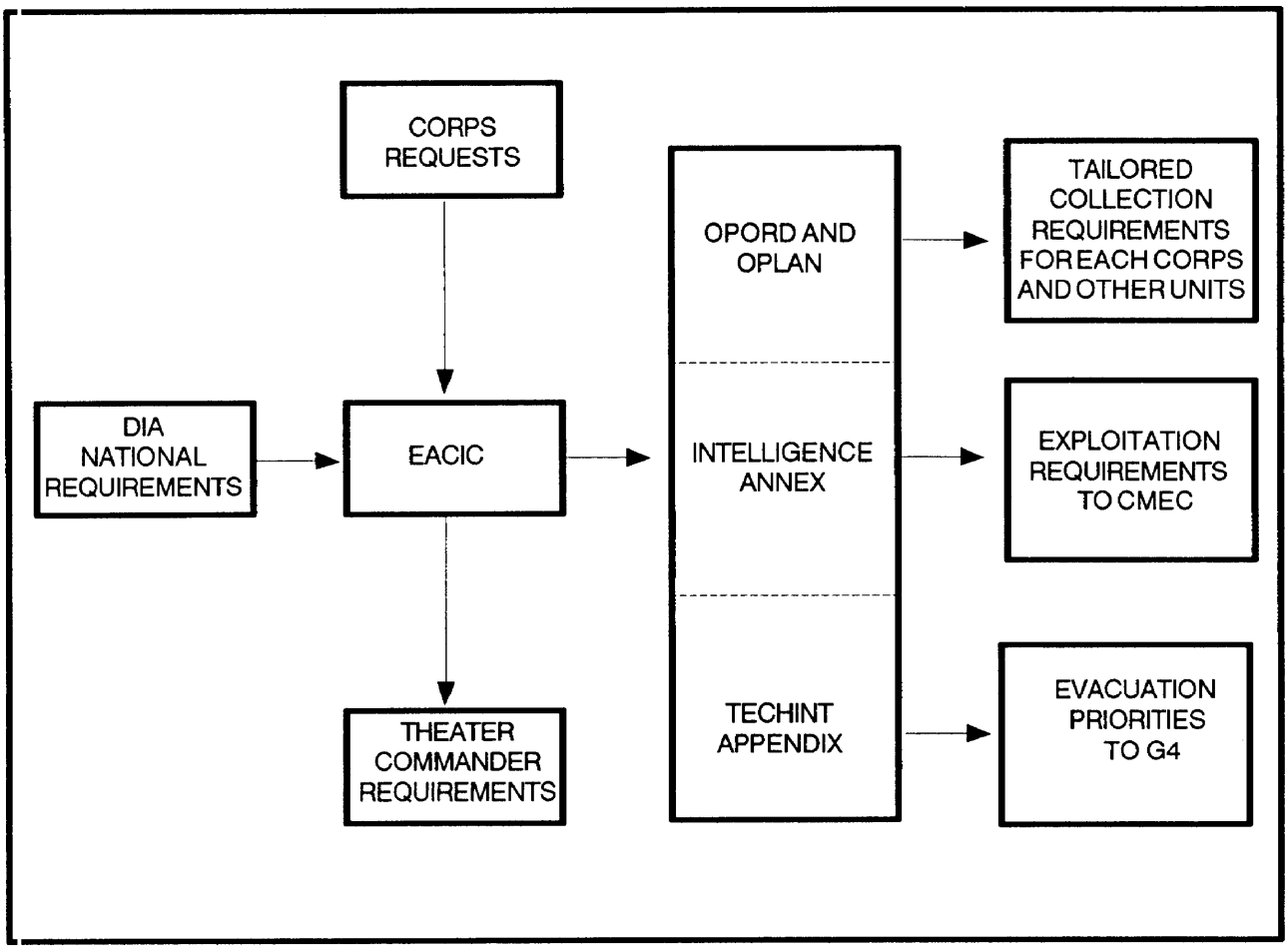


Figure 3-4. Technical intelligence collection planning.

Collecting

Collecting is the process of gathering information from all sources. Battlefield TECHINT collection also includes capturing, reporting, and evacuating CEM. All intelligence collection is guided by the commander's PIR and IR. TECHINT category PIR and IR and collection procedures are presented in the TECHINT Appendix of the Intelligence Annex to an Operation Order. (See Appendix A.)

The TECHINT appendix is also called the TECHINT plan. It is prepared at theater and all subordinate echelons to guide the Battlefield TECHINT effort of those commands. The TECHINT plan is updated, as needed, to identify foreign or enemy equipment and technical documents of new or special TECHINT interest. (See Appendix B.) The TECHINT plan establishes procedures and responsibilities for identifying, handling, reporting, evacuating, and exploiting special item of TECHINT interest. (See Appendixes C and D.)

Executors collect item of known or possible TECHINT interest. Combat units normally capture enemy materiel. The capturing unit safeguards the materiel. That unit then SALUTE reports the capture through the next higher command to the first TECHINT element in the reporting chain. Higher commands continue to forward the report of the capture until it reaches the CMEC or the TECHINT team.

Once the command's Battlefield TECHINT element receives notice of a possible TECHINT capture, they verify that the materiel is still required. The CMEC or TECHINT team then fowards instructions back to the capturing unit. The caputring unit continues to safeguard the TECHINT materiel until directed otherwise by higher headquarters.

Higher headquarters may decide to send a TECHINT team forward to exploit the CEM in place or supervise its disposition. They might direct the capturing unit to initiate evacuation or simply abandon or destroy the item. If the unit is ordered to evacuate the item, the command tells the unit how to package, mark, and tag it. This ensures proper handling, evacuation, and identification when it arrives at the CMEC. Figure 3-5 outlines the ideal sequence of events upon initial discovry of a possible item of TECHINT interest. The capturing unit provides security until instructions arrive. (See Appendixes C and D.)

Processing

Processing is the procedure by which information becomes intelligence. The theater MI Battalion (TECHINT) is responsible for Battlefield TECHINT. The CMEC or supporting TECHINT team is the TECHINT materiel processor. The CNEC or TECHINT team evaluates, correlates, and analyzes the enemy materiel in support of the all-source intelligence product.

FROM THE FOXHOLE TO THE CMEC

The soldier either captures or observes an item of possible TECHINT interest. The soldier quickly reports the encounter through his or her command to the Battalion S2. The soldier then either safeguards the item or continues the mission as directed.

Upon learning that a forward platoon or company has captured or encountered an item of possible TECHINT interest, the Battalion S2 promptly--

- o Coordinates security or continued observation of the item with the S3 and ensures the item is not tampered with in any way. Components, control knobs, and switches on C-E equipment should not be touched until the equipment is photographed or positions recorded.
- o Examines and screens the item against PIR and IR and determines whether the item is known or believed to be of TECHINT interest; or, whether, in the soldier's opinion, the item deserves initiative reporting.
- o Spot reports the capture or encounter in the SALUTE format through higher headquarters to the first Battlefield TECHINT element in the chain of command.
- o Coordinates continued security or observation of the item until receipt of further instructions.
- o Identifies items requiring immediate screening for combat information by other supporting MI elements. This could include C-E system items like code books, radios, or technical documents such as operator manuals.

Intermediate echelons of command continue forwarding the spot reported encounter or capture to their supporting Battlefield TECHINT element.

The supporting Battlefield TECHINT element receives the spot report and compares the information to requirements and the existing data base to see if collection is necessary. The element then decides further action and notifies the capturing unit accordingly. The CMEC or Battlefield TECHINT team's options at this point include, but are not limited to:

- o Requesting the capturing unit to provide further information, such as detailed descriptions, sketches, photographs, or documents captured with the item.
- o On-site screening or exploiting.
- o Destroying the item.
- o Abandoning the item unharmed.
- o TECHINT team-supervised or routine evacuating.
- o Priority evacuating to EAC.
- o Recommending turning over initial exploitation to other MI elements, such as TAREX or Interrogators, for immediate tactical information screening.

Figure 3-5. Sequence of collection events.

Disseminating

Disseminating and using intelligence is the last and most vital phase of the Intelligence Cycle. The CMEC and Battlefield TECHINT teams rapidly disseminate both raw data and processed intelligence of a perishable nature to those who need it. They do this without waiting for additional information or processing. They input all information obtained for further evaluation in support of the all-source intelligence product.

Following exploitation, the TECHINT team prepares and forwards the appropriate reports, summaries, diagrams, photos, and samples, or the actual piece of equipment to the CMEC or higher headquaters. Items are further exploited as the situation permits.

The most frequently used Battlefield TECHINT report is the SALUTE report. Information or intelligence believed to answer the supported commander's PIR and IR is, by definition, information of immediate value. All such information must be spot reported immediately, consistent with required security.

There is no prescribed format for the spot report. However, it should follow the SALUTE format: Size, Activity, Location, Unit, Time, Equipment; plus a remarks paragraph for any other PIR and IR information not included above. The SALUTE report is used to notify higher commands of the capture or identification of enemy materiel believed to answer PIR and IR. (See Figure 3-6.)

After initial battlefield exploitation, the TECHINT team prepares and forwards to the CMEC or higher headquarters the appropriate reports such as the Complementary Technical Report (COMTECHREP). The COMTECHREP includes: summaries, diagrams, photos, samples, or the actual piece of equipment. Items are further exploited as the situation permits.

After the TECHINT team finishes its evaluation, the team arranges to have the materiel evacuated to the CMEC. The CMEC performs a more detailed and time exploitation of the materiel. When they are finished, they submit their results in a Detailed Technical Report (DETECHREP).

The CMEC may also prepare a Special Technical Report. This report provides TECHINT input to studies and plans of the Command G2. (See Appendix E for these and other report fomarts.)

TECHINT analysts also prepare other reports such as operator manuals, maintenance manuals, TECHINT Bulletins, Tactical User Bulletins, and Technical Document Translation Reports:

- Operator and maintenance manuals are prepared the same way Army manuals are.
- The TECHINT Bulletin is a short descriptive report on a particular piece of equipment for the specific purpose of disseminating technical information.
- The Tactical User Bulletin is a short description of how the average soldier can operate a piece of equipment.
- The Technical Document Translation Report is based on translations, normally prepared by the interrogation company's document exploitation platoon.

SALUTE REPORT

TO: G2, V Corps DTG: 230900ZAug95

FROM: 2d Bde/23d Div (Armd) REPORT NO: 07-0623

1. SIZE: N/A

2. ACTIVITY: Capture of BTR-60

3. LOCATION: West bank of FULDA River, southwest of BEBRA (NB553476)

4. UNIT: 2d Bde/23d Div (Armd) (capturing unit)

5. TIME: Item captured on 230230ZAug95.

6. EQUIPMENT: N/A

7. REMARKS/OTHER INFORMATION: Response to PIR #23-0016-95. Item secured. Awaiting evacuation instructions.

Figure 3-6. Sample format for a SALUTE spot report.

The CMEC forwards copies of all reports through the supported commander to the next higher echelon.

BATTLEFIELD TECHNICAL INTELLIGENCE ORGANIZATIONS

The primary elements of the Army's Battlefield (TECHINT), system are the MI Battalion (TECHINT), direct support Battlefield TECHINT teams, and the CMEC. Their elements, structure, and mission are discussed below.

MI BATTALION (TECHINT)

The FMIG is the Army's only AC TECHINT unit. The FMIG mobilizes for war as a battalion and includes:

- A headquarter and headquarters company.
- An analyst company.
- Two training detachments.

RC TECHINT elements mobilize as either companies or battalions. Regardless of their size, both AC and RC TECHINT units have the same battlefield function.

The MI unit (TECHINT) mission is to provide intelligence derived from the exploitation of weapons, equipment, and other materiel found, captured, or squired within the theater Army area of operations. This includes all items of a scientific and technical nature.

The MI company (TECHINT) or the TECHINT battalion's analyst company consists of a headquarters and the following platoons:

- Intelligence support.
- C-E intelligence.
- NBC and medical intelligence.
- Weapons and munitions.
- Mobility intelligence.

DIRECT SUPPORT BATTLEFIELD TECHINT TEAMS

The EAC TECHINT battalion provides direct support Battlefield TECHINT teams to ECB MI units. These TECHINT teams are mobile. They are organized according to available resources and subordinate command requirements.

TECHINT teams perform a mission similar to, but more limited than, the CMEC. They concentrate on the initial identification and exploitation of CEM and providing TECHINT assistance to the corps or division tactical operations center. Detailed analyses by these teams are rare due to personnel limitations and lack of organic laboratory facilities.

The TECHINT battalion also provides a TECHINT liaison team to the SDT section of the ASAC, EACIC. This team supports collection management and TECHINT integration into the all-source intelligence product.

ECB Battlefield TECHINT teams normally have 10 analysts, 1 per each specialty found in the CMEC. (See Figure 3-7.)

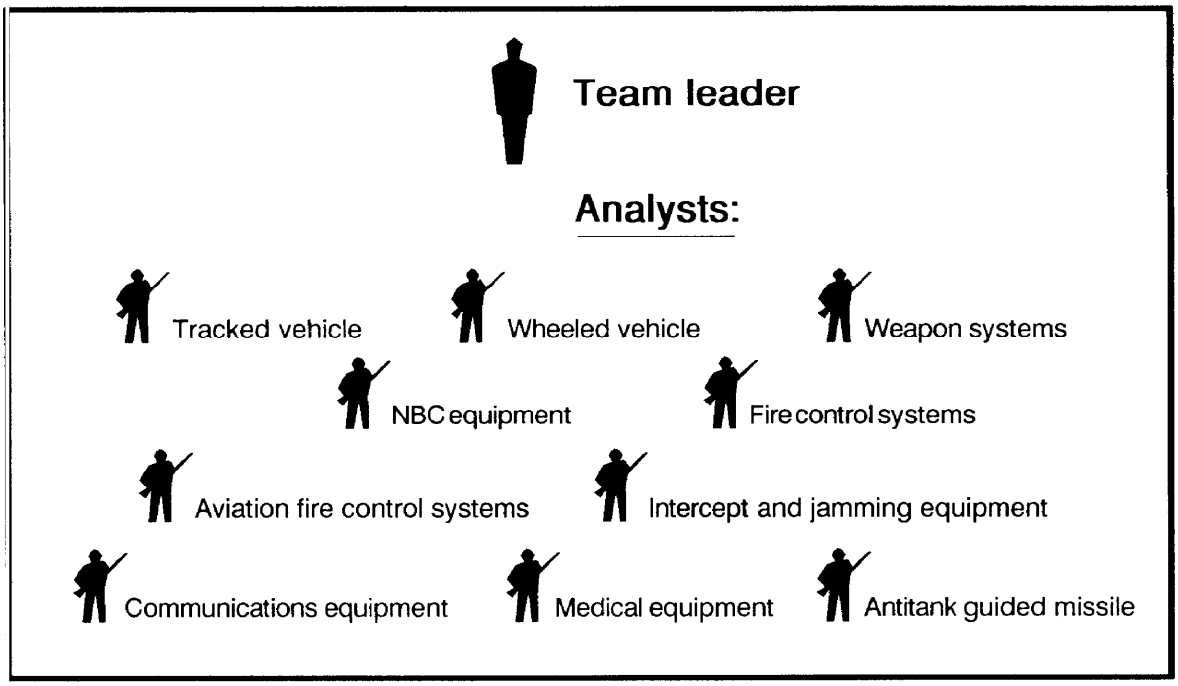


Figure 3-7. Battlefield TECHINT team composition.

CAPTURED MATERIEL EXPLOITATION CENTER

The TECHiNT battalion accomplishes its mission through a CMEC formed from its own resources and augmented by other SMEs. When augmentation includes SMEs from other services, the CMEC becomes a JCMEC.

The CMEC is the first real processor of CEM. When it receives CEM, it evaluates it to determine its level of TECHINT interest and importance. If an item is on the TECHINT requirements list or if it is of TECHINT interest, the CMEC concentrates on exploiting the CEM for immediate tactical or operational level use.

The specialists in the CMEC are able to conduct a rapid, initial scientific and technological analysis of this materiel in their battlefield laboratory. These specialists may include scientists and experts from other services, allies, and S&TI activities.

Any immediate countermeasures, information, or intelligence they develop is quickly distributed to appropriate combat, combat support, and combat service support battlefield elements for immediate use. At the same time, the CMEC quickly evacuates the CEM to CONUS for in-depth, detailed exploitation.

Ideally, the CMEC is located in the theater rear near main supply routes and air and sea ports. Regardless of its location, it is fully equipped with sensitive and sophisticated test equipment. Analyst teams use this equipment to perform more detailed and time-consuming exploitations than TECHINT teams can do at ECB.

The CMEC coordinates the evaluation of captured items of special. TECHINT interest to and from the CMEC. For items we cannot evacuate or that are of critical interest, the CMEC task organizes and deploys a quick reaction team to coordinate the evacuation or to exploit the item on-site.

The CMEC also task organizes its specialist assets into general support teams to meet requirements of echelons without TECHINT assets. These teams operate far forward to provide the CMEC and the supported commander timely screening and identification of CEM and evaluation of battle damaged friendly equipment.

CMEC teams provide the capturing unit with identification and tagging instructions so that the captured item is properly accounted for. The teams identify the items requiring exhaustive exploitation and coordinate their evacuation to the CMEC.

The CMEC and ECB Battlefield TECHINI teams are usually staffed with analysts capable of exploiting enemy equipment and documents in five functional areas: C-E, weapons and munitions, NBC, medical, and mobility:

- C-E TECHINT is the analysis and exploitation of foreign and threat and jamming equipment, intercept and jamming equipment, and like systems, including electro-optic and directed-energy technology.
- Weapons and munitions TECHINT involves the nalysis of foreign and enemy weapons and weapon systems, including rocket, tube artillery, and mortar-associated munitions and fire control systems.
- NBC TECHINT is based on the analysis of foreign and enemy offensive and defensive NBC materiel including flame munitions and obscurants. This analysis determines eneny strengths and vulnerabilities in relation to NBC operations. (See Appendix H.)
- Medical TECHINT focuses on the identification, evaluation, and exploitation of foreign and enemy medical materiel and general purpose systems modified for medical support.
- Mobility TECHINT exploits foreign and enemy vehicles, engineer and barrier crossing or breeching equipment, materiel handling equipment, and power generation. Mobility TECHINT determines the capabilities and vulnerabilities of the enemy to maneuver combat, combat service, and combat service suport resources on the battlefield.

BATTLEFIELD TECHNICAL INTELLIGENCE ANALYSIS

Once a TECHINT unit takes custody of the TECHINT item, Battlefield TECHINT exploitation begins. TECHINT analysts and specialists use checklists established by S&TI and Battlefield TECHINT units to exploit each type of enemy system or equipment for which requirements exist.

S&TI and Battlefield TECHINT units develop battlefield exploitation procedures from three sources:

- The US Army Test and Evaluation Command's international test operation procedures.

° Coordination with S&TI analysts.

° Their own experience.

Exploitation problems generally are standardized; however, these procedures are constantly updated and condensed into many different exploitation plans. This is based on the type of equipment or documents being exploited. These plans steer the analysis process.

The materiel moves up through the TECHINT chain (for example, from the corps team to the theater CMEC). As it does, each echelon completes as much of the exploitation procedure as possible. The enemy's current level of technology and our predictions about how it will be used on the battlefield determine which plan is used. (See Figure 3-8.)

TECHINT units maintain procedures and plans for sampling, exploiting, and handling materiel in the following categories:

° Missile guidance.

° Missile warhead, fuze, and propellants.

° Munitions and explosives, including fuze and warhead designs.

° Effects of munitions, explosives, and weapons.

° Small arms, guns, and artillery of all types.

° Tracked and wheeled vehicles and transporters.

° Different types of armor, radios, and radar.

° Electronic warfare (EW) and intercept and jamming equipment.

° Antenna, relay, and telephone equipment.

° Teletypes.

° Electro-optics.

° Directed energy.

° Automatic data processing (ADP) hardware and software.

° NBC weapons, defense equipment, and agents.

° Tactical aviation.

° Medical

° Mine warfare.

Although exploitation plans are extremly useful, it is the individual analyst who determines the actual steps to use in each procedure. Analysis always begins with what is, and is not, known about the piece of equipment.

For a comprehensive field list of specific exploitation plans see Appendix F.

EXPLOITATION CATEGORY REQUIREMENTS

MOBILITY REQUIREMENTS

Track Vehicles

List of subcategories.

- o Infantry fighting vehicles.
- o Cargo/transport.
- o Armored personnel carrier.
- o Tank chassis.
- o Self-propelled howitzer.
- o Self-propelled rocket launcher.
- o Tank destroyer.
- o Self-propelled antiaircraft.

Main category requirements.

- o Type of vehicle.
- o Engine type.
- o Cooling system.
- o Power train description.
- o Brake system.
- o Suspension system.
- o Steering system.
- o Vehicle description.
- o Electrical system.
- o Physical dimension.

Subcategory requirements.

- o Infantry fighting vehicle:
  - -- Type of armor.
  - -- Armor thickness.
  - -- Maximum personnel seating capability.
  - -- Firing ports location/number.
  - -- Location of hatches.
- o Cargo or transport:
  - -- Cargo compartment size.
  - -- Maximum height carrying capability.
  - -- Maximum personnel seating capability.
  - -- Type of cargo vehicle designed for.
- o Armored personnel carrier:
  - -- Type of armor.
  - -- Armor thickness.
  - -- Maximum personnel carrying capability.
  - -- Firing ports location/number.
  - -- Location of hatches.
- o Tank, howitzer, self-propelled rocket launcher or tank destroyer:
  - -- Type of protective armor.
  - -- Armor thickness.
  - -- Body design.
  - -- Number of road wheels and support rollers.
  - -- Turret location.
  - -- Type of track.
  - -- Location of hatches.
  - -- Power pack location.

Figure 3-8. Example of a TECHINT analyst exploitation plan.

CHAPTER 4

RESPONSIBILITIES

INTRODUCTION

This chapter outlines the various responsibilities of each staff officer or unit on the battlefield when supporting the the overall Battlefield TECHINT effort.

Battlefield TECHINT elements are resourced and responsible for collecting and processing CEM. Yet the Battlefield TECHINT system depends on many other units to work properly, like combat units that capture and the transportation units that evacuate items of TECHINT interest.

STAFF 0FFICERS

This section describes the responsibilities and duties of coordinating staff officers, as these duties relate to TECHINT direction, collection, processing, and dissemination. From the G1 to the G5, every staff officer contributes in some way to the successful production and use of TEHINT.

ASSISTANT CHIEF OF STAFF, G1, PERSONNEL

The G1 is the principal staff officer for the commander on all matters concerning human resources. The G1's involvement in the Battlefield TECHINT effort is a result of his or her primary coordinating staff responsibilities for--

- Planning and handling EPW evacuation and imprisonment. The prisoner evacuation channel is one of the richest sources of CEE and technical documents.
- Directing the command surgeon in captured medical supply disposition and medical intelligence responsibilities
- Identifying and coordinating with the G3 on assigning special duty personnel as CMEC translators and SMEs.

ASSISTANT CHIEF OF STAFF, G2, INTELLIGENCE

The G2 is the principal staff officer for the commander on all MI matters and, as such, has primary responsibility for the command's Battlefield TECHINT effort. The G2's primary Battlefield TECHINT responsibilities include, but are not limited to:

- Supervising the TECHINT program, including: interrogation of captured and detained persons with technical or scientific expertise; and exploiting captured technical documents and equipment.
- Supervising Battlefield TECHINT planning, directing, processing, and disseminating.
- Exercising staff supervision over the CMEC or attached Battlefield TECHINT team operations.

° Coordinating Battlefield TECHINT collection taskings, with the G3, MI, MP, NBC, EOD, and other combat and combat support units.

° Supervising CMEC's preparation of instructions to units capturing enemy materiel.

° Supervising CMEC's coordination of captured medical materiel exploitation, evacuation, and disposition with the command surgeon.

° Coordinating CEM evacuation with the G4. This includes coordinating transportation priorities, disposition, and opportunities to screen CEM logistic channels.

° Coordinating with the G5 the screening of materiel obtained from local nationals, displaced persons, and civilian detainees.

° Coordinating with the Staff Judge Advocate (SJA) to ensure compliance with the Geneva Conventions regarding exploitation of captured personnel and materiel.

ASSISTANT CHEIF OF STAFF, G3 , OPERATIONS

The G3 is the prncipal staff officer for the commander in matters concerning operations, plans, organization, and training. The G3's involvement in the Battlefield TECHINT effort is a result of his or her primary staff responsibilities. As they relate to Battlefield TECHINT, these responsibilities include:

° Exercising primary staff responsibility over the aviation officer, chemical officer, engineer officer, fire support cordinator, and the provost marshal (PM).

° Preparing, coordinating, and publishing the command SOP and operation plans and orders. This includes instructions for handling CEM, such as collection, reporting, exploitation, evacuation, and disposition.

° Reviewing subordinate command SOPs, plans, and orders to ensure provisions for Battlefield TECHINT are included.

° Incorporating TECHINT into current and future operations and plans.

° Assigning, attaching, and detaching Battlefield TECHINT assets to subordinate and adjacent commands.

° Assigning Battlefield TECHINT collection missions to subordinate elements of the command.

° Recommending to the commander our own use of CEM. This includes who the materiel should be allocated to, such as guerrillas or other local national forces.

° Training our troops in the safe disposition and use of CEM.

ASSISTANT CHIEF OF STAFF, G4, LOGISTICS

The G4 is the principal staff officer for the commander in matters concerning supply, maintenance, transportation, and services. As the logistic planner, the G4 has a vital coordination function essential to the TECHINT system. This includes--

- Exercising primary staff responsiblitiy over the EOD officer and the transportation officer.
- Coordinating with the supporrt command commander, who is responsible for logistic support operations; and the G3 for support of Battlefield TECHINT collection operations.
- Coordinating and developing command policy for the evacuation and disposition of captured materiel.
- Recommending to the G3 the main supply route and hence the main evacuation route of captured enemy personnel and materiel.
- Supervising the establishment and coordinating the operation of CEM collection points in the unit support area.
- Planning and coordinating the construction of the CMEC laboratory and operation facilities.
- Ensuring inventory and storage location records are properly maintained ard are reported through materiel management centers (MMC) channels.
- Reommonding policies and procedures for the use of captured nonintelligence-value equuipment; and providing technical staff assistance to the commands unit.

ASSISTANT CHIEF OF STAFF, G5, CIVIL AFFAIRS

The G5 is the commander's principal staff officer in all matters concerning civilians and their impact on military operations. This includes the political, economic, and social effects of military operations on civilian personnel. The G5's involvement in the Battlefield TECHINT effort is a result of his or her primary coordinating staff responsibilities for civilian liason and CA. These responsibilities include:

- Supervising CA functions of the command regarding care and handling of displaced persons, refugees, and any incidental foreign scientific or technical materiel CA personnel may secure.
- Ensuring inclusion of TECHINT collection and notification procedures in all CA operational SOPs, plans, and orders.
- Coordinating with the command’s Battlefield TECHINT unit the screening, exploitation, and evacuation of any CA-secured foreign materiel or CEM.
- Coordinating with the G2 and G4 the return of CEM to the civilian populace.

SPECIAL STAFF OFFICERS

Because TECHINT covers such a broad spectrum of disciplines, activities, and operations performed on the battlefield, the following special staff officers also play an important role in Battlefield TECHINT.

AVIATION OFFICER

The aviation officer is responsible for coordinating with staff movement and transportation personnel for air evacuations of CEM.

CHEMICAL OFFICER

The chemical officer is responsible for advising the commander on NBC intelligence matters. This officer recommends employment of chemical Troops in support of Battlefield TECHINT teams, analysis, and collection operations.

ENGINEER OFFICER

The command engineer officer is responsible for engineer planning and construction. The command engineer must incorporate Battlefield TECHINT analyses and studies regarding mobility and survivability characteristics of enemy weapon systems into these plans and operations. The command engineer is also responsible for construction support to CMEC activities.

EXPLOSIVE ORDINANCE DISPOSAL OFFICER

The EOD officer is responsible for supervising the EOD unit's technical and training activities. The EOD officer exercises operational control over assigned or attached EOD units.

In Battlefield TECHINT, the EOD officer has specific responsibility for establishing, operating, and supervising TECHINT reportiing procedures.

PROVOST MARSHAL

The PM is responsible for MP support to all command operations. The PM, depending on echelon, either commands the MP headquarter or exercises operational control over all assigned or supporting MP units. The PM's relationship to Battlefield TECHINT is extensive. The PM's responsibilities for planning and supervising include:

- Providing security for designated units, facilities, and convoys, including CEM, along the evacuation route and for TECHINT facilities when tasked by the G3.
- Accounting for and evacuating EPWs and associated captured documents and equipment.
- Establishing produres to ensure MPs identify, confiscate, report, and turn over to MI personnel new or unidentified equipment and technical documents discovered incidental to EPW handling operations.

COMMANDER, MI BATTALION (TECHINT)

The battalion commander (TECHINT) is responsible for Battlefield TECHINT support to all command operations. This commander serves as the theater commander's TECHINT adviser. This battalion is subordinate to the theater MI brigade and performs all coordination through the MI brigade commander.

In peacetime, the AC TECHINT battalion commander directs the FMIG at Aberdeen proving Ground. In wartime, the battalion commander directs the CMEC. The Battlefield TECHINT mission is accomplished through a CMEC formed from resources of the battalion commander's subordinate TECHINT analyst company, the headquarter and headquarters company, and other SMEs. (See Chapter 3.)

The TECHINT battalion commander's specific responsibilities for planning and supervising include:

- Producing TECHINT by exploiting CEE and technical documents
- Organizing TECHINT teams from CMEC assets to support tactical commands.
- Supervising the implementation of MI brigade policies and directives as they pertain to the theater's TECHINT effort.
- Recommending theater souvenir and war trophy policy.
- Coordinating the TECHINT training program with the G2/G3.
- Request technical document translation support from the MI brigade commander.
- Coordinating Air Force, Navy, S&TI, and foreign TECHINT operations within the MI brigade's area of operations.
- Coordinating CA participation in the Battlefield TECHINT system.
- Coordinating priority shipment authority with the transportation officer for large or unusual items.

COMMAND SURGEON

The command surgeon advises and assists the commander on medical matters. The command surgeon has extensive responsibilities to the Battlefield TECHINT system, including:

- Using TECHINT analyses when advising the commander on medical effects of the environment and NBC weapons on personnel.
- Developing procedures to confirm or deny enemy use of NBC.
- Using medical intelligence to examine and process captured medical supplies and equipment. This includes planning and coordinating the use of medical laboratories and personnel to assist in analysis by Battlefield TECHINT elements.
- Recommending medically related PIR and IR to the G2.

° Recommending use of captured medical. supplies in support of EPWs and local nationals. This includes ensuring no usable captured medical supplies are ever destroyed.

° Analyzing biological warfare agent specimens collected on the battlefield. With the G2/G3, coonrdinating countermeasures, quarantine remmendations, and otther appropriate actions to safeguard friendly forces.

UNITS AND ORGANIZATIONS

This section describes the responsibilities and duties of specific organizations and units on the battlefield. These responsibilities relate to TECHINT collection and the overall Battlefield TECHINT system.

CAPTURED MATERIAL EXPLOITATION CENTER

The CMEC's primary function is prcessing CEM into combat information and TECHINT. The CMEC is organized around the Theater MI Brigade's TECHINT Battalion; it is also augmented from other SMEs. When augmented by experts from other services, it becomes a Joint CMEC or JCMEC. When augmented by experts from other nations it becomes a combined CMEC or CCMEC. Regardless of the command or echelon it supports, it has the same capabilities. The CMEC--

° Exploits CEE and technical documents.

◦ Analyzes friendly weapon systems damaged in battle.

° Produces TECHINT reports, that include countermeasures, for tactical commanders.

° Provides studies, operational plans and orders, maps, and special reports to disseminate the CMEC findings.

° Provides render safe procedures (RSP) to combat units for found or captured enemy munitions and weapon systems.

° Coordinates the safe handling and evacuation of CEM with EOD elements.

° Coordinates subordinate Battlefield TECHINT team supervision of evacuation of special-interest CEM from ECB to theater.

° Supervises exacuation of CEM from theater to CONUS .

° Coordinates with the joint interrogation center the selection of EPWs for TECHINT exploitation.

◦ Provides accountability for captured enemy documents and equipment within the theater TECHINT system.

◦ Provides CEM disposal instructions to tactical commanders.

° Maintains TECHINT data files.

° Maintains S&TI and Battlefield TECHINT PIR and IR.

CAPTURING UNITS

Combat units are usually the first to encounter new or modified enemy materiel. However, other units such as engineers, NBC teams, and logistic units may also encounter or caputure such materiel. With this materiel Often comes operating instructions and other technical documents. The intelligence officer at each echelon must coordinate with G3/S3 regarding TECHINT and captured or encountered enemy materiel. Together, they establish unit security, render-safe, reporting, and dissemination procdures.

If possible, capturing units must strive not to destroy TECHINT material known or believed to answer PIT and IR (including unidentified or new items) before receiving disposition instructions. Captured enemy equipment, documents, and logistic complexes must be promptly safeguarded and reported through intelligence channels. Captured items known or believed to answer PIR and IR will be SALUTE reported through higher command to the first Battlefield TECHINT element.

MI Unit

The MI unit is especially responsive to specific requests for TECHlNT. The MI unit's activities and operations often result in individual discovery or acquisition of Battlefield TECHINT. materiel. Such activities include interrogation, CI, document. exploitation, imagery interpretation, EW, and unnamed aerial vehicle operations.

All MI units are responsible for establishing SOPs for handling, screening, and reporting TECHINT-related encountered incidental to organizational activities. See Figure 4-1 for examples of items requiring immediate MI screening; this list is not all inclusive.

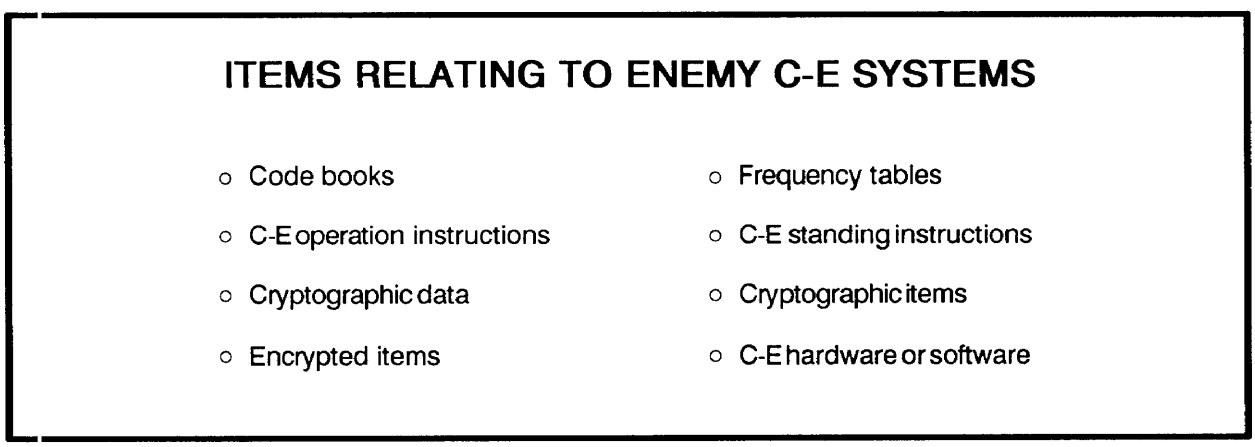


Figure 4-1. Examples of materiel, including documents and equipment, requiring immediate MI screening.

Special Operations Forces

Special operations forces consist of special forces and ranger units, psychological operations (PYSOP) teams, and CA elements.

Special forces and ranger units. These forces usually operate deep in enemy controlled areas. This means they are generally the first to discover, identify, and provide information on a variety of TEHIINT-related equipment, documents, or facilities. They can provide--

- New or previously unacquired materiel.
- Locations of enemy materiel.
- Other tactical data.

Psychological operations teams. PSYOP personnel support theter, corps, and division. Historicaly, PSYOP has supported TECHINT collection through creative PSYOP operations designed to secure TECHINT-related materiel, equipment, information, or personnel.

An example of a successful PSYOP operation comes from the Korean War: We paid $100,000 to a North Korean pilot for flying his soviet MIG to the south, after broadcasting the MIG bounty by leaflet and radio. The benefits were enormous. The communists gounded all MIG flights for eight days; and getting the MIG turned out to be a TECHINT windfall.

A PYSOP operation specifically designed to provide TECHINT occurred during the Vietnam War: A PSYOP campaign encouraged enemy soldiers to surrender with their weapons and equipment intact; rewards were offered and paid to Viet Cong and North Vietnamese Army troops who did this.

This type of campaign not only reduced the number of weapons available to the enemy but also provided a continuous source of materiel for exploitation by the CMEC.

Civil affairs elements. These elements provide support to tactical and operational commanders by coordinating liaison between military forces, civil authorities, and area of operations personnel. CA support to the Battlefield TECHINT system includes:

- Providing SMEs to assist in the TECHINT analysis of food and agriculture; public communications, health, transportation, and supply: public works and utilities; and centers of commerce and industry.
- Securing TECHINT-related materiel and foreign experts having CA wartime responsibility for civil administration and refugee handling.

Engineer Topographic and Terrain unit

These units are responsible for collecting, evaluating, and disseminating topographic inforamtion and terrain intelligence. They normally function at theater, corps, and division levels. TECHINT units use engineer topographic and terrain. products to support TECHINT collection planning. Engineers also support analysis and exploitation of foreign equuipment and technical documents when this materiel is within their field of expertise.

Military Police

MPs operate throughout the theater of operations providing route security and ETW handling and evacuation. They often confiscate foreign equipment and documents from EPWs. MPs follow specific procedures for notifying MI personnel of equipment or documents of intelligence interest discovered incidental to EPW handling operations.

If not done previously, MPs mark or tag all enemy materiel and personnel in their custody. Since EPWs and materiel may become separated, MPs use a three-part capture tag to clearly identify which prisoner the captured material came from. Accurate identification on the capture tag helps TECHINT analysts and interrogators match materiel with associated EFWs. It also makes it easier to return certain property to the EPW. Figure A-5 shows the front and back of a captured enemy equipment tag; Figure A-6 shows the front and back of an EPW capture tag.

Nuclear, Biological, and Chemical Reconnaissance Team

NBC reconnaissance teams locate, identify, and mark contaminate areas. They collect, identify, and evacuate suspected samples of nuclear materials and chemical and biological (CB) warfare agents. This function is an important supplement to normal TECHINT unit.

collection capabilities. Collection, handling, storage, and shipment of these samples must be done using SOPs developed in a coordinated effort between the command surgeon, the staff NBC officer, and the staff intelligence officer.

Medical unit

Combat zone and communications zone medical support units are capable of giving specialized medical, laboratory, and medical intelligence assistance to TECHINT and other MI disciplines.

The medical unit's S2/S3 coordinates this assistance to MI. Some examples of the types of assistance medical units can provide are in Figure 4-2.

Explosive Ordnance Disposal

One of the most critical, yet deadly, sources of TECHINT on the battlefield is explosive ordnance. To safely exploit this source, EOD units provide specially trained personnel to support TECHINT teams and units in the area of operations.

EOD personnel examine existing reports and prepare reports on new and unusual items of explosive ordnance for TECHINT purposes.

TECHINT personnel should be familiar with EOD activities and responsibilities, as described in AR 75-15. Foreign explosive ordnance is extremly important to TECHINT analysts. TECHINT personnel must coordinate closely with EOD personnel for proper disposal and evacuation of explosive ordnance.

ONLY EOD PERSONNEL DO THE ACTUAL HANDLING OF EXPLOSIVE ORDNANCE. Conversely, EOD units must notify TECHINT personnel of types and locations of foreign equipment and munitions they encounter. See Appendix C for more information on EOD units.

TYPES OF MEDICAL INTELLIGENCE ASSISTANCE

- Assessing health of friendly and enemy soldiers and its impact on military operations.
- Investigating, assessing, and reporting suspicious outbreaks of disease or unexplainable illness.
- Analyzing suspected biological warfare agent samples and biological specimens from possible victims (human or animal).
- Identifying potential health-related vulnerabilities of friendly or enemy forces.
- Integrating medical intelligence and medical Threat into the IPB or Threat all-source intelligence product.
- Providing special handling and storage for captured controlled drugs and other pilferable medical materiel.
- Providing limited laboratory analysis of unidentified captured drugs, pharmaceuticals, and biological compounds so they can be identified, if possible.

Figure 4-2. Types of medical intelligence support available on the battlefield.

THIS APPENDIX COMPLIES WITH STANAG 2014, EDITION 5.

APPENDIX A

EXAMPLES OF EXTRACTS FROM A THEATER ARMY INTELLIGENCE ANNEX

INTRODUCTION

This appendix provides examples of an intelligence annex, a TECHINT appendix to that annex, and TECHINT-related Tabs A, B, and C. It also contains an example of a CEE tag and a prisoner of war tag.

THE THEATER ARMY INTELLIGENCE ANNEX

Figure A-1 shows input for TECHINT operations. This annex is tailored for the Theater Army headquarters.

1. SUMMARY OF ENEMY SITUATION.

2. INTELLIGENCE REQUIREMENTS.
   a. PIR:
      (1) Is the enemy locating and destroying our tanks in limited visibility? If so, how can we counter this?
      (2) Unusual or unexplained damage to US equipment and materiel.
      (3) Unexpected defensive and or offensive capabilities of enemy equipment.
   b. IR: What are the capabilities and or limitations of the AT-8 ATGM?

3. INTELLIGENCE ACQUISITION TASKS.
   a. General. Capture of any enemy materiel will be immediately reported through intelligence channels IAW priorities described below.
      (1) 15th Corps. Priority of collection on foreign equipment is T-64B, AT-8, and SA-13.
      (2) 235th Corps. Priority of collection on foreign equipment is BTR-70, BMP-1, and individual protective vest (body armor).
      (3) 23d MI Bde (EAC).
         (a) 1st Bn.
         (b) 2d Bn.
         (c) 3d Bn.
            1 One TECHINT team and a TECHINT support element to operate within each corps area, attached to each corps MI Bde (for support only).

Figure A-1. Example of an extract from a Theater Army Intelligence Annex.

2 Screening and exploitation of captured materiel IAW priorities described in Appendix A, TECHINT.

3 Fully integrate TECHINT operations and teams with both IPW and TAREX operations.

4. MEASURES FOR HANDLING PERSONNEL, DOCUMENTS, AND MATERIEL.

a. Personnel.

b. Documents.

c. Materiel.

(1) All materiel will be reported IAW procedures and priorities described in Appendix A, TECHINT.

(2) All materiel will be evacuated to the nearest collection point and held for TECHINT screening IAW Appendix A, TECHINT.

(3) Items designated by TECHINT personnel as possessing intelligence value will be evacuated to destinations designated by TECHINT personnel IAW priorities described in Appendix A, TECHINT.

(4) No materiel will be diverted for other uses until screened and released by TECHINT personnel.

5.

6.

7. REPORTS AND DISTRIBUTION. All equipment-related intelligence SALUTE and IPW reports will include the CMEC as an INFO addressee.

Figure A-1. Example of an extract from a Theater Army Intelligence Annex (continued).

THEATER ARMY TECHNICAL INTELLIGENCE APPENDIX

Figure A-2 is an example of a theater Army TECHINT appendix. It shows how CEM must be handled, reported, and disposed of. This appendix is tailored for theater Amy.

APPENDIX A, TECHINT, to ANNEX A, Intelligence, to OPLAN/OPORD ___, HQ, ____.

Reference: Map, series, ...

Time zone used throughout this plan or order:____

1. PURPOSE. This appendix establishes policy and prescribes responsibilities and procedures for the proper handling, reporting, intelligence exploitation, and disposition of CEM.

2. POLICY.

a. The theater captured materiel exploitation program is controlled and directed by the G2.

b. Exploitation activities are carried out by the CMEC which is formed around the ___ MI Battalion (TECHINT) which is attached to _____.

c. The G2 exercises staff responsibility over the intelligence exploitation of captured materiel throughout the area of operations and establishes requirements for evacuation of specific items to CONUS for further exploitation.

d. The G3--

(1) In coordination with the G2, approves requests and assigns priorities for issue of CEM to US units engaged in special missions or training based on the following prioritized uses of captured materiel:

(a) Intelligence.
(b) Special operations forces.
(c) Operational purposes.
(d) Issue to friendly forces.
(e) Internal defense.
(f) As substitutes or supplements to US equipment.

(2) Coordinates provision of EOD support, as required, in the exploitation of captured materiel IAW AR 75-15 and to fill requirements stated by the G2.

Figure A-2. Example of a TECHINT Appendix to an Intelligence Annex.

e. The G4 supervises the movement to the CMEC and CONUS of CEM determined to be of intelligence value. The G4 supervises disposition of surplus CEM as well as recaptured US materiel.

f. The SJA provides legal guidance concerning the disposition of certain categories of enemy materiel, structures, and facilities.

g. The CMEC conducts and coordinates the exploitation of captured materiel within the command. The G2 requests support from Naval and Air Force components when captured materiel includes enemy naval and aerodynamic systems and materiel. In addition, the CMEC--

(1) Examines, evaluates, and classifies CEM.

(2) Prepares and disseminates TECHINT reports, summaries, and analyses.

(3) Receives and processes validated intelligence requirements for items of enemy materiel.

(4) Participates in technical interrogations of EPW and assists in the captured enemy technical documents screening process.

(5) Integrates the exploitation of specified items with TAREX elements.

(6) Deploys TECHINT teams forward into corps areas to conduct preliminary screening of evacuated materiel and to respond to targets of opportunity that cannot be processed in a normal manner.

(7) Deploys TECHINT liaison elements to the J2 or theater G2 intelligence centers, interrogation facilities, and the Surgeon General to provide assistance in collecting, planning, coordinating, and managing TECHINT operations.

h. Subordinate commands--

(1) Designate and supervise the operation of collection points in each area's support command where forces operating in the area evacuate captured materiel.

(2) Designate and operate logistic facilities in each area's support command to receive, store, issue, and dispose of excess captured materiel.

(3) Designate and operate ammunition storage areas where captured ammunition and explosive items can be stocked.

(4) Provide any necessary logistic support to evacuate captured materiel needed for intelligence, operational, or other purposes.

i. The commander of Naval Forces and the commander of Air Force Forces provide a minimum of two liaison personnel each to the CMEC. These people coordinate exploitation requirements, exploitation of enemy naval and aerodynamic systems, and other support.

Figure A-2. Example of a TECHINT Appendix to an Intelligence Annex (continued).

3. PROCEDURES.

a. The following general procedures will be followed when handling and processing captured materiel.

(1) The recovery and evacuation of CEM is a command responsibility at all levels. The prescribed method of evacuation is through normal logistic channels and IAW priorities established in this appendix and TAB A to this appendix.

(2) Enemy materiel captured by US military personnel is the property of the United States and must be protected from pilferage, cannibalization, and souvenir hunters. Commanders at all levels will provide adequate security for captured materiel until it has been screened by TECHINT personnel.

(3) The collection operations management system objectives and subobjectives are shown in TAB A. This list itemizes enemy materiel that intelligence agencies need. When items listed in TAB A or any of its updates are captured or otherwise obtained, commanders will ensure this is reported through intelligence channels to the G2. They will also ensure materiel is evacuated for intelligence exploitation.

(a) Report the capture of items listed in TAB A by at least IMMEDIATE precedence through intelligence channels to the G2; INFO the CMEC. Evacuate these items expeditiously to at least the supporting DISCOM collection point to await further disposition instructions from the G2.

(b) Report the capture of standard types of foreign materiel that have been apparently modified or changed in some way, as above, at a PRIORITY precedence. Evacuate these items to COSCOM collection points by available backhaul capabilities on a PRIORITY basis. Hold equipment for further disposition instructions.

(c) Report the capture of other items of enemy materiel as above at a ROUTINE precedence. Evacuate these items to COSCOM collection points by available backhaul capabilities on a space-available basis. Hold equipment at the collection point until released by TECHINT personnel.

(d) The theater G2 will be the focal point for coordinating the evacuation of key items of intelligence interest to CONUS for strategic level exploitation.

(4) The exploitation of CEM below division and separate brigade level is limited.

(a) The primary responsibility at this level is to recover and evacuate enemy materiel from the capture location to the nearest maintenance collection point; except for food and medical supplies. These supplies are handled through Class V and VIII supply channels.

Figure A-2. Example of a TECHINT Appendix to an Intelligence Annex (continued).

(b) Significant items of materiel that cannot be evacuated, either because of the tactical situation or due to their size, will be left in place and reported immediately.

(5) At division and separate brigade level, intelligence and operations personnel exploit captured materiel to the extent necessary to determine its immediate tactical significance. Exploitation at this level does not replace the need for detailed evaluation and analysis by technical specialists from the CMEC. For this reason, significant items of captured materiel must be evacuated promptly.

(6) CMEC TECHINT teams screen and field-exploit captured materiel. These teams normally operate in the corps and division support areas under the command of the CMEC. Exploitation functions are normally carried out at the corps support area collection points.

(a) These teams select items of intelligence interest or items needed to meet other CMEC requirements. They evacuate these items to the CMEC or to a designated location, by collection point personnel through logistic channels.

(b) Captured materiel not required may be released to the collection point commander for disposition IAW service department regulations and theater G4 instructions.

(7) Selected captured materiel evacuated to the CMEC is subjected to detailed examination and evaluation to--

(a) Determine Threat performance capabilities, and the limitations of enemy materiel.

(b) Produce information that military countermeasures can be developed from.

(c) Provide input on a continuous basis to the strategic, integrated S&TI program IAW with DIA and theater policies.

b. Materiel requiring special handling.

(1) C-E equipment. The supporting MI unit screens all captured materiel in this category. Do not change dial settings and frequencies before this materiel is screened. After screening, evacuate this materiel to corps support area collection points for screening by TECHINT and other specialized personnel.

(2) Ammunition and explosives. The complete recovery and expeditious evacuation of enemy ammunition and components are essential. The identification of known or new enemy weapon systems and the threat posed by each must be made as soon as possible. IAW AR 75-15, EOD teams are also responsible for preparing PRETECHREPs on first-time-seen enemy ammunition and explosives. EOD teams are also responsible for preparing COMTECHREPs. This is because there are not enough TECHINT personnel trained in EOD.

(3) Medical materiel. Medical materiel will not, under any circumstance, be destroyed. It will be left in place if it cannot be evacuated. It will be handled IAW normal Class VIII procedures.

(4) Significant items. All items in TAB A receive special handling as described in paragraph 3a(3)(a), above.

Figure A-2. Example of a TECHINT Appendix to an Intelligence Annex (continued).

(5) Technical documents. Captured or recovered technical documents such as gun books, logbooks, packing slips, firing tables, and equipment manuals are normally evacuated with the piece of equipment along captured personnel evacuations channels. If the tactical situation does not permit the materiel to be evacuated, forward the document to the CMEC and include an equipment description.

c. War trophies. No item is authorized for retention as a war trophy or souvenir without commander's approval.

d. Requirements.

(1) DIA levies strategic intelligence requirements for enemy materiel. Submit in-theater intelligence requirements for enemy materiel through intelligence channels to the G2.

(2) Submit in-theater, operational, and training requirements to the G3 for review, approval, and assignment of priority for issue.

e. Disposition.

(1) Items required in support of operational requirements or for distribution to host-country forces are separately designated by the G3. See TAB B to this Appendix for the current list.

(2) Items that have no intelligence value or that we have no operational need for is inventoried, reported through logistic channels to the G4, and retained in designated collection points for disposition.

f. Destruction. Captured materiel, excluding medical items, is destroyed only when capture is imminent or if materiel is declared hazardous to soldier safety by EOD or TECHINT personnel. When materiel needs to be destroyed, record all factory markings and take photographs first; then destroy the materiel.

[redacted]
(Signed)

OFFICIAL:

[redacted]
COMMANDING

TABS:
A - Specific TECHINT collection requirements.
B - Items for screening and release for operational purposes.
C - Foreign materiel capture tag.

Figure A-2. Example of a TECHINT Appendix to an Intelligence Annex (continued).

Figure A-3 is an example of a Tab A to a TECHINT Appendix. This tab covers specific TECHINT collection requirements.

Tab A to Appendix __, TECHINT, to Annex ___, Intelligence, to the PLAN/OPORD___, HQ, ___.

PRIORITIZED:

1. Information on any enemy weapon systems which apparently have a greater offensive or defensive capability than previously believed.

2. Any friendly equipment or people that have received unexplained battle damage or injuries.

3. Any unknown or unidentifiable piece of enemy equipment.

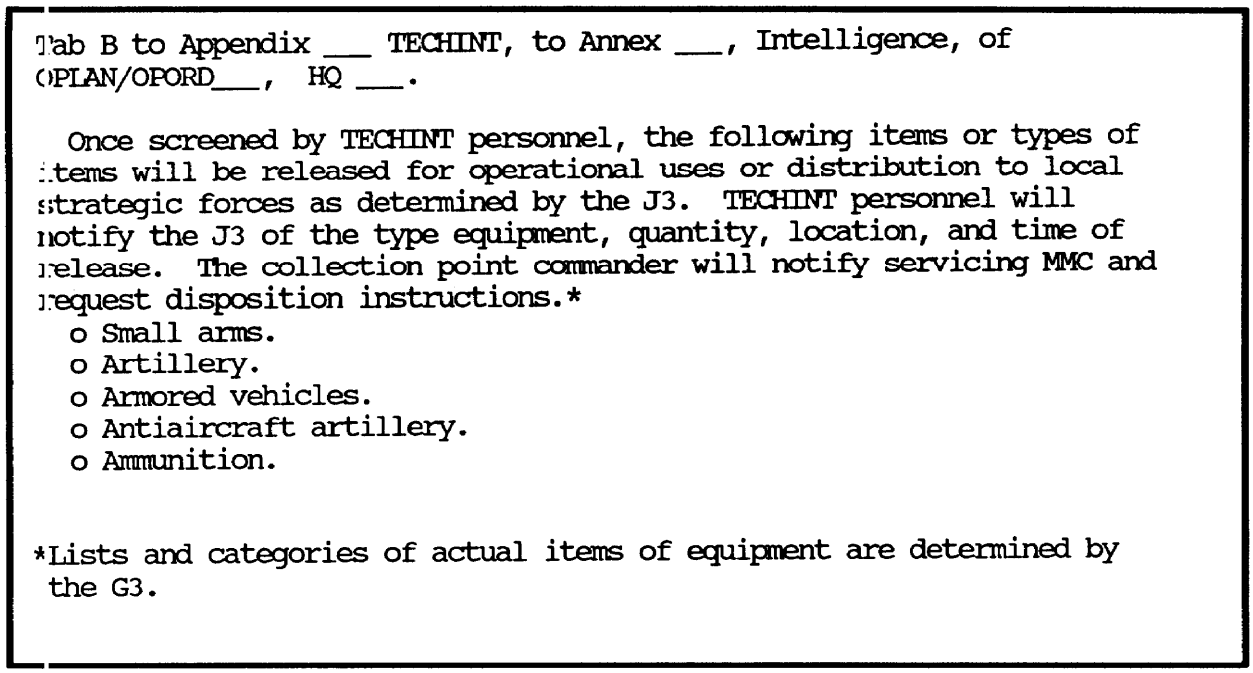
4. Specific equipment items are listed under the following or additional categories.

   a. CW/BW/nuclear.
   b. EW.
   c. Lasers.
   d. Antitank weapons.
   e. Armored vehicles.
   f. Ammunition.
   g. Helicopters.
   h. Artillery.
   i. Tactical air defense.
   j. Improved Surveillance techniques and equipment.
   k. Tactical ADP.
   l. SRBMs.
   m. Combat engineer.
   n. Medical.

5. These same items are collected for the Air Force and the Navy.

Figure A-3. Example of a Tab A to a TECHINT Appendix of an Intelligence Annex.

Figure A-4 is an example of a Tab B to a TECHINT appendix of an Intelligence Annex. It shows disposition instructions for items of no TECHINT interest.



Tab B to Appendix ___ TECHINT, to Annex ___, Intelligence, of OPLAN/OPORD___, HQ ___.

Once screened by TECHINT personnel, the following items or types of items will be released for operational uses or distribution to local strategic forces as determined by the J3. TECHINT personnel will notify the J3 of the type equipment, quantity, location, and time of release. The collection point commander will notify servicing MMC and request disposition instructions.*

- o Small arms.
- o Artillery.
- o Armored vehicles.
- o Antiaircraft artillery.
- o Ammunition.

*Lists and categories of actual items of equipment are determined by the G3.

Figure A-4. An Example of a Tab B to a TECHINT Appendix of an Intelligence Annex.

CAPTURED ENEMY EQUIPMENT TAG

Figure A-5 is an example of the front and reverse sides of a CEE tag. It is used as a tab to the TECHINT Appendix to the Intelligence Annex of the Operations Plan or Operations Order.

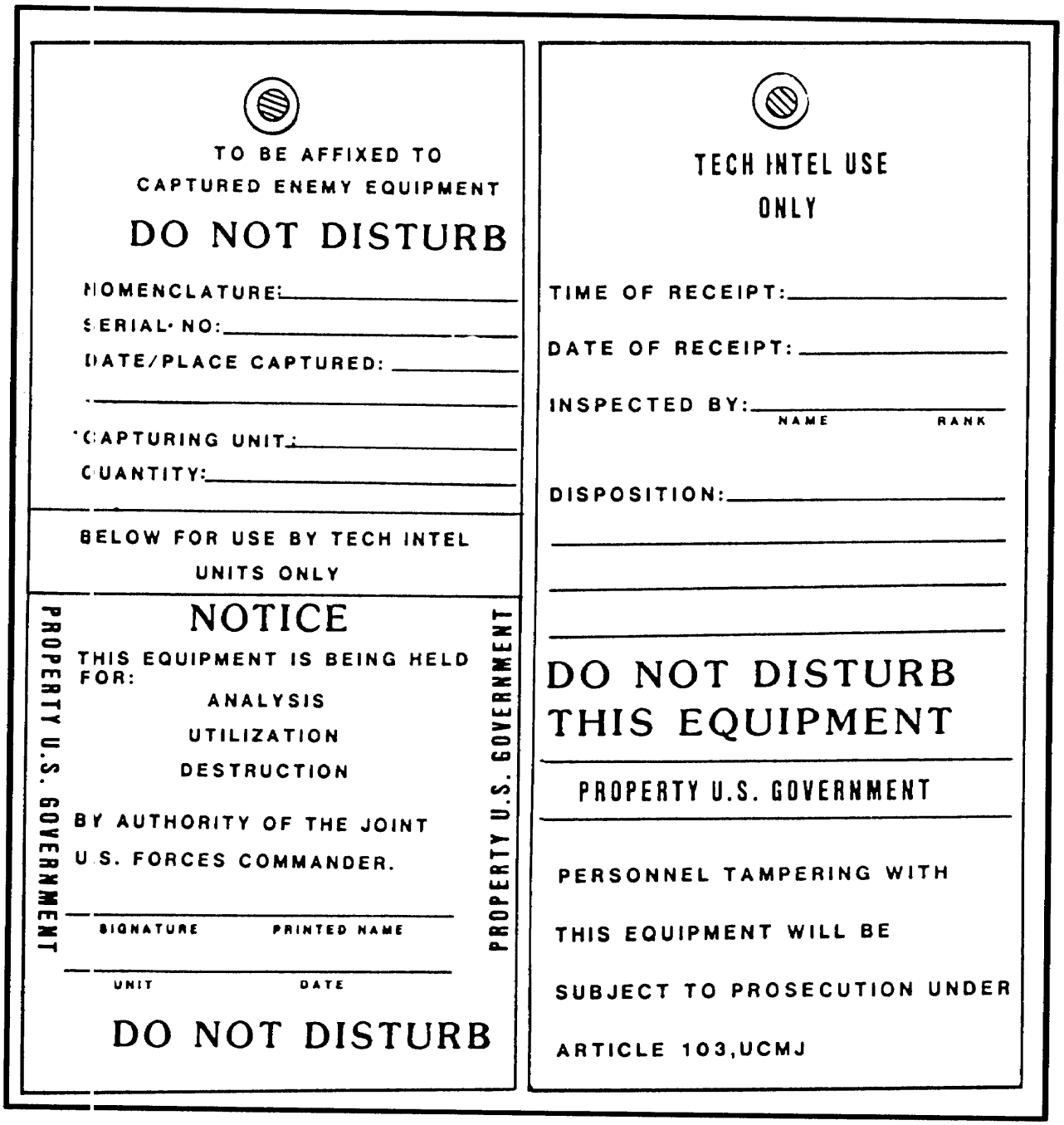


Figure A-5. Front and reverse sides of captured enemy equipment tag.

Figure A-6 is an example of the front and reverse sides of a prisoner of war capture tag.

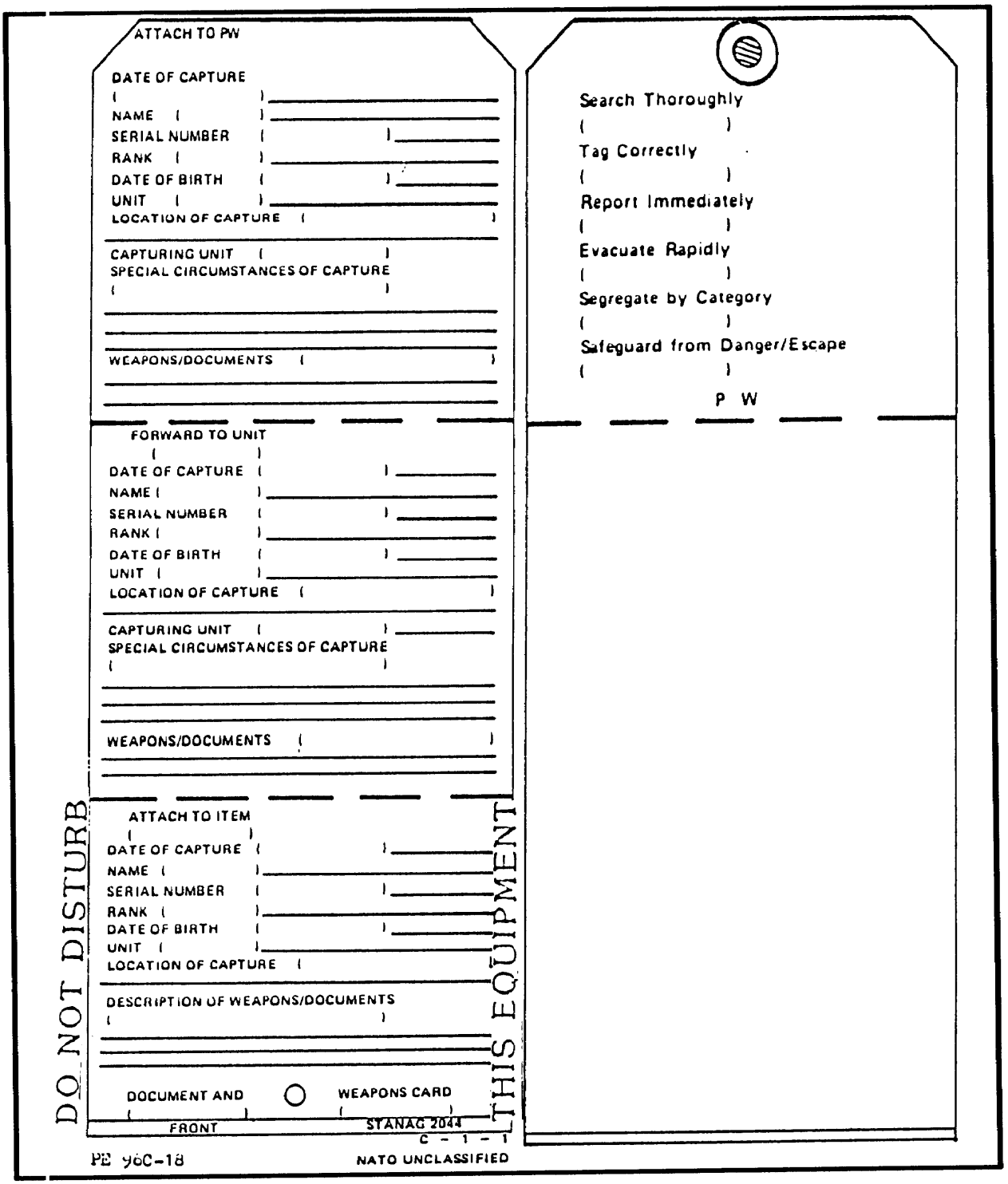


Figure A-6. Front and reverse sides of a prisoner of war tag.

THIS APPENDIX IMPLEMENTS STANAG 2084, EDITION 5.

APPENDIX B

TYPES OF ENEMY EQUIPMENT AND DOCUMENTS COLLECTED AND EXAMINED BY TECHNICAL INTELLIGENCE TEAMS

INTRODUCTION

TECHINT teams are interested mainly in new equipment or equipment under development. This appendix provides a series of figures that contain lists of the types of materiel, by branch of service, that are considered significant.

TYPES OF EQUIPMENT

Figure B-1 shows Threat ground systems and subsystems of possible TECHINT interest.

ARMY MATERIEL

- o Guided missiles.
- o Ammunition: all types including mines, demolitions, pyrotechnics, chemical, and obscurants.
- o Infantry weapons.
- o Sabotage equipment.
- o Armored fighting vehicles.
- o Military vehicles, excluding armored fighting vehicles.
- o Artillery, including antitank, antiaircraft and field rocket weapons, and guided missile launching systems.
- o Engineering: amphibious and river crossing equipment.
- o Communication equipment and non-C-E equipment, including surveillance, target acquisition, and night observation aids.
- o Airborne equipment.
- o Special weapons: NBC warfare equipment, flame and incendiary weapons, smoke and obscurants, and equipment for dispersion of CB warfare agents and protective devices.
- o Miscellaneous materiel:
  - -- Camouflage equipment.
  - -- Clothing and personal equipment.
  - -- Medical equipment
  - -- Rations.
- o Laser weaponry and equipment.
- o Computer and associated equipment.

This list is not all-inclusive nor does it indicate collection priorities.

Figure B-1. Types of Army materiel of TECHINT interest.

Figure B-2 shows Threat airborne systems and equipment of possible TECHINT interest.

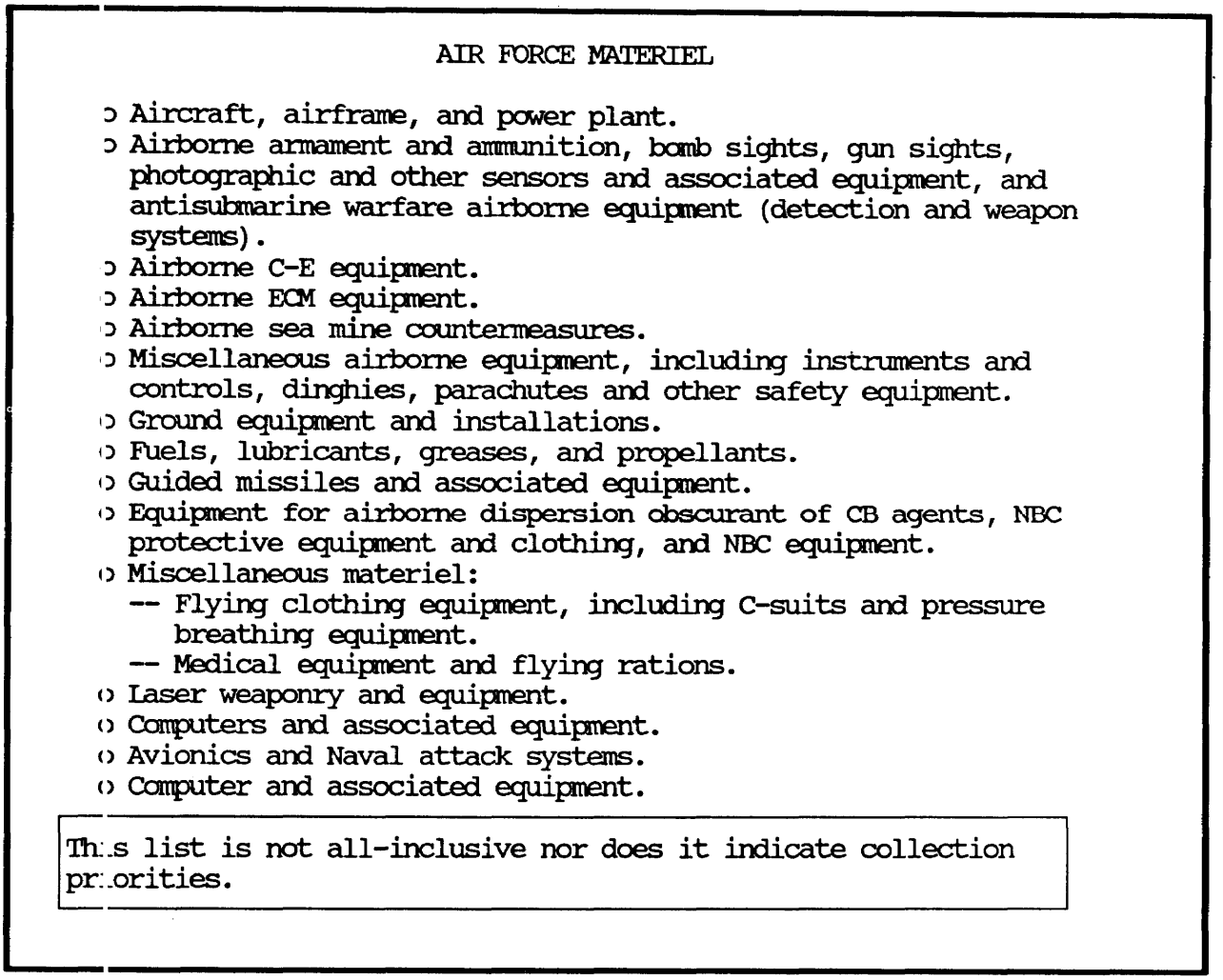


Figure B-2. Types of Air Force materiel of TECHINT interest.

Figure B-3 shows Threat seaborne systems and equipment of possible TECHINT' interest.

NAVY MATERIEL

- o Ships.
- o Missiles and launching systems.
- o Shipboard ordnance (including guns and fire control equipment) such as:
  - -- Radar.
  - -- Stable elements.
  - -- Spotter telescopes.
  - -- Gun turrets.
  - -- Hoists.
  - -- Range finders.
  - -- Range keepers.
  - -- Gun mounts.
  - -- Ammunition.
  - -- Rammers.
  - -- Fuses.
  - -- Fuses setters.
  - -- Ammunition stowage facilities
  - -- Recoil mechanisms.
  - -- Ahead thrown weapons of all types, including:
    - Hedgehogs, mousetraps, weapon "A" equivalents, limbo types, depth charge racks, and "Y" and "K" gun launchers.
    - Torpedoes and torpedo tubes, including antisubmarine warfare launchers.
    - Rockets and rocket launchers, including CHAFF launchers.
    - Towed decoys, EW equipment, and electro-optical equipment.
- o Sea mines: all types, including moored, bottom, and floating; contact and influence.
- o Mine countermeasures.
- o Harbor defense equipment: including nets, booms, alerting devices not tenders.
- o Navy electronics, infrared, detection and communication equipment, sonars, fathometers, sonobuoys, and all types of acoustic array--bottom, moored, or floating.
- o Fuels, lubricants, greases, and propellants.
- o Special weapons, including chemical warfare equipment, flame and incendiary equipment for dispersion of CB warfare agents, together with protective devices like clothing, gas masks and canisters, and salt water spray deck washing equipment for NBC protection.
- o Equipment for the dispersion of CB agents; NBC protective equipment and clothing.
- o Demolition and sabotage equipment, underwater demolition team equipment (sleds and masks).

Figure B-3. Types of Navy materiel of TECHINT interest.

- o Naval engineering systems, including:
  - -- main propulsion machinery, nuclear plant steam or gas turbines, boilers, diesel engines, and auxiliary equipment including motor generators, heat exchanges, pumps, evaporators, and fuel oil systems for boilers and diesel engines, including fuel pumps and fuel oil heaters.
  - -- Pressure gauges, boiler accessories, including safety valves, steam control valves, gauge glasses, feed water check valves, propellers, hull zincs, refrigerating machinery, submarine storage batteries and their ventilating equipment, ammeters, voltmeters, and amp/hr meters.
  - -- Steering engines, engine room telegraph systems, submerged atmospheric gas analyzers, CO^2 scrubbers, compressors, and ship's underwater logs.
  - -- Samples of metals used in shipbuilding and any information (description) of welding techniques used in shipbuilding.
- o Hydrofoil and hovercraft, small boats and boat handling equipment, life rafts and signal apparatus or any of their components such as hydrofoil foils.
- o Anchors, chains, windlasses, winches, fueling and transfer at sea rigs, and cargo handling gear.
- o Hydrographic survey ship's equipment, including
  - -- High altitude research rockets and their launching equipment.
  - -- Sonars and fathometers.
  - -- Sea bottom sampling gear like drags and coring equipment.
  - -- Deep sea anchors.
  - -- Sea current measuring devices.
  - -- Biological sampling equipment.
  - -- Nahsen bottles and other equipment like laboratory instruments.
- o Diving apparatus.
- o Laser weaponry and equipment.
- o Computers and associated equipment.

This list is not all-inclusive nor does it indicate collection priorities.

Figure B-3. Types of Navy materiel of TECHINT interest (continued).

Figure B-4 shows Threat Command, Control, and Communication systems and equipment of possiible TECHINT interest.

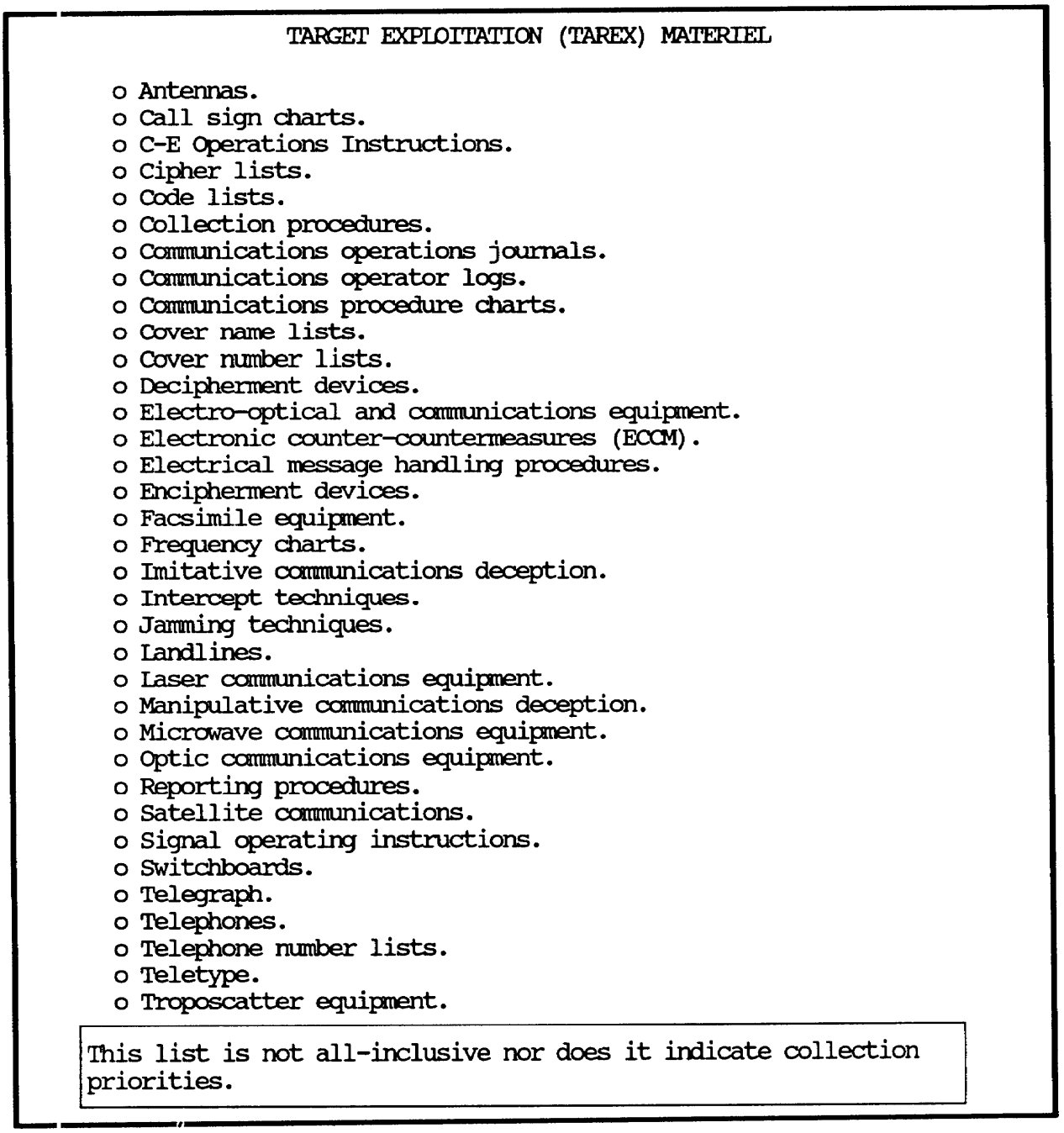


Figure B-4. Types of Target Exploitation (TAREX) collection materiel.

Use the COMTECHREP to report the capture of enemy materiel. See Appendix E for examples of various COMTECHREP report formats.

APPENDIX C

EXPLOSIVE ORDNANCE DISPOSAL UNITS

INTRODUCTION

One of the most critical yet deadly sources of TECHINT on the battlefield is explosive ordnance. In order to safely exploit this ordnance, EOD units, in accordance with theater mission priorities--

- Provide EOD personnel to support TECHINT teams and units.
- Examine existing reports.
- Prepare reports on new and unusual items of explosive ordnance for OD TECHINT purposes.

This appendix describes the support EOD personnel provide to TECHINT elements and how they interface.

PROCEDURES

EOD personnel perform all RSP. As a result, their expertise and assistance are vital when explosive ordnance is being examined, moved, or evacuated. Their assistance is particularly critical when the ordnance is unidentifiable. In these cases, in addition to rendering the ordnance safe, the methods they use also may eliminate or reduce damage to the item.

When explosive ordnance is obtained, photograph it as completely as possible before and after it is moved. These photographs must show scale and indicate dimensions. When photography is not possible, make detailed drawings with accurate measurements.

After foreign explosive CB ammunition is rendered safe, it is forwarded through TECHINT channels to the designated chemical laboratory. There, samples of the agent filling are extracted. These samples are analyzed by the chemical laboratory and then forwarded to a medical laboratory for identification.

TECHINT units are particularly interested in exploiting known ordnance and weapons that may have been recently modified. The Threat often does this without making substantial style or body changes. When an unidentified item is uncovered it may indicate a major new threat capability or a modification to an existing capability. Often fragments of unidentified ordnance and weapons, retrieved at considerable risk, are the crucial element in the identification process.

The follwwing guidelines apply to the recovery and evacuation of explosive ordnance:

- New or unknown types of foreign explosive ordnance recovered by EOD must be turned over to TECHINT units for disposition.
- Foreign nuclear weapons or components, including sabotage devices, are evacuated through TECHINT channels. Security classification of such items, once in evacuation channels, will not be lower than SECRET (RESTRICTED DATA).

° Security and technical escorts are required to provide safety controls for shipments of NBC and other hazardous items of explosive ordnance. The procedures used in peacetime to accomplish this may have to be modified in war due resource limitations. At EAC TECHINT, personnel coordinate with the G2 staff to establish the requirement and arrange for escorts.

COLLECTION

The danger of fires, explosions, burns, and accidents always exists when dealing with explosive ordnance. This is because often ordnance is armed or booby-trpped and must be disarmed before it can be evacuated. EXTREME CAUTION MUST BE EXERCISED WHEN TAUT WIRE AND PULL RELEASES ARE ENCOUNTERED.

ONLY TRAINED WEAPONS AND MUNITIONS SPECIALISTS ANALYZE OR TEST CAPTURED MINES AND BOOBY TRAPS. Therefore, when this type of ordnance is discovered the unit should not attempt to disarm or move it. THESE PROCEDURES ARE PERFORMED ONLY BY EXPERIENCED EOD PERSONNEL. EOD personnel are responsible for the explosive components or hazardous materials associated with such devices.

Place requests for personnel to dismantle and strip fuses and other dangerous components through TECHINT and EOD staffs. Unusual mechanisms like booby traps are reported immediately by SALUTE report to the CMEC. This ensures that foreign explosive ordnance reports, of great interest to TECHINT personnel, are acted on quickly.

FOREIGN AMMUNITION

Foreign munitions are of great value to the intelligence effort. Samples of ammunition are important to Army R&D efforts and may also have immediate tactical significance. New and modified foreign munitions are of special interest, as well.

The markings and materials used may have strategic value; or the mere existence of certain items of ammunition is extremely important to know. At the tactical level, we need to know how the ammunition is used, its effectiveness, country of origin, and possible countermeasures. Duds, components, and fragments of ammunition often reveal the type of caliber of enemy supporting weapons.

Recovered sabotage or booby-trap devices provide valuable indications of probable enemy courses of action. Manufacturng methods and details of design are valuable to Army R&D agencies Some other types of information that are important to collect against are listed below:

° New items of enemy explosive ordnance.

° Design or changes in design of known explosive ordnance.

° Changes in manufacturing techniques.

° Quality and type of materials and explosive content.

° Packaging storage, and maintenance techniques.

° Place and date of manufacture.

° All documents relating to the foregoing, including sources or potential sources of information.

° All specialized explosive ordnance designed to simulate small arms, crew-served weapons, and artillery fire for covering and deception.

OPERATIONS

TECHINT personnel coordinate closely with EOD personnel when disposing or evacuating explosive ordnance. EOD PERSONNEL WILL DO THE ACTUAL HANDLING OF EXPLOSIVE ORDNANCE. Conversely, EOD units must notify TECHINT personnel of the types and locations of foreign materiel and munitions.

R E P O R T S

All information collected by EOD personnel on first-seen foreign explosive ordnance is reported immediately. EOD teams send reports through EOD control centers to EOD staff officers. Staffs place the reports in intelligence channels for distribution to all interested levels of command.

EOD personnel prepare a preliminary technical report (PRETECHREP) when they find explosive ordnance that may be of TECHINT value. They forward the report by the fastest means to the EOD control unit to other intelligence and EOD units.

Included in the report is a tentative RSP (for EOD use only). This is included whether it is necessary to disarm the item or not.

The PRETECHREP serves two purposes:

° It alerts TECHINT teams to go to the site.

° It provides other EOD units information on new items of explosive ordnance.

TECHINT personnel prepare COMTECHREPs Type B. EOD personnel also prepare these reports in the absence of a TECHINT team or when requested by G2s or their representatives. This report is as complete and detailed as possible. EOD personnel prepare and send this report by the fastest means through the EOD control unit to the TECHINT unit. These report formats are at Appendix E. Figure C-1 shows EOD support to TECHINT units.

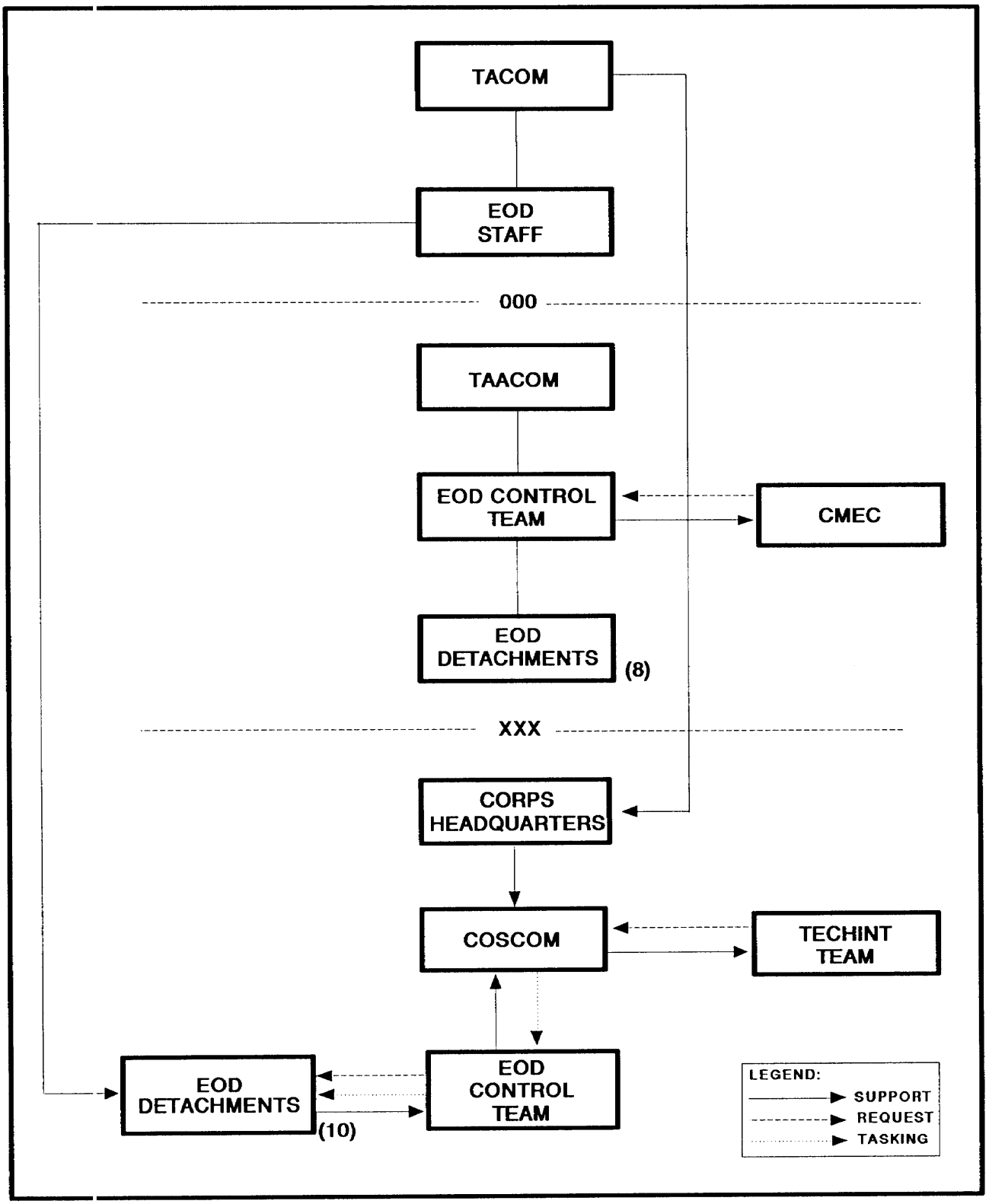


Figure C-1. Explosive ordnance disposal (EOD) support to TECHINT.

THIS APPENDIX COMPLIES WITH STANAG 2044, EDITION 4
AND IMPLEMENTS STANAG 2084, EDITION 5

APPENDIX D

HANDLING AND EVACUATION

INTRODUCTION

This appendix covers the procedures for handling and evacuating routine CEM as well as TECHINT CEM. CEM may or may not be of intelligence interest. Some basic guidelines and procedures on how to handle TECHINT interest items follow:

- CEM evacuation channels and handling procedures are usually the same as similar US items. For example, we will usually want to route captured petroleum, oil, and lubricants (POL) samples through our POL points.
- The echelon requiring the item is responsible for coordinating and tasking evacuation and handling.
- The capturing unit always notifies higher command of the capture and then safeguards the known or possible TECHINT item until higher command provides disposition instructions.
- Special handling and evacuation procedures are often situation dependent and cannot always be foreseen and included in SOPs and operation orders.

GUIDANCE AND DECISIONS

The plans, policies, and procedures for evacuation of foreign materiel are prescribed by joint, unified, and theater headquarters. These plans are based on DA and DOD policies and guidance. Each command echelon in theater Army must esnure that its plans comply with theater Army directives and the theater Army TECHINT plan. The final disposition of CEE and associatd technical documents (ATD) rests with the capturing nation.

As stated before, the echelon wanting the captured item is responsible for coordinating and tasking its handling and evacuation. Routine CEM evacuation guidance, such as raw material found in railroad yards, is best established in advance in the command's various operation orders and SOPs. Special situations, as in the case of high priority TECHINT interest items, require active coordination among the command's different assets to get the job done.

Coordinating and tasking is the job of the echelon commander's staff. Their ability to coordinate between the logistic units that move the item and the specialists (such as TECHINT, EOD, and NBC) often required to do it safely, is the key to the reuse and intelligence exploitation of CEM. An overview of the coordination involved is shown in Figure D-1.

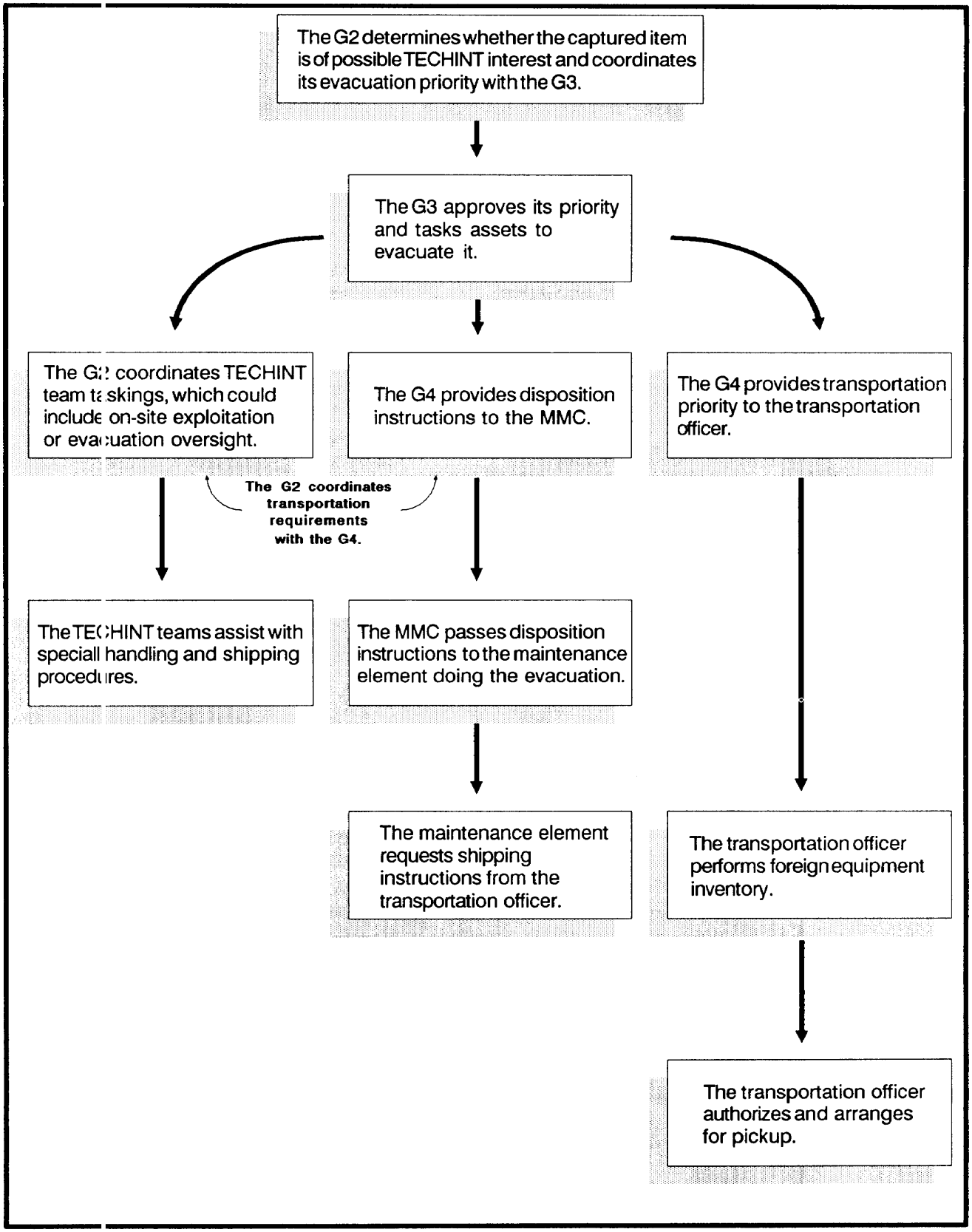


Figure D-1. Flow of captured materiel guidance and decisions.

LOGISTIC CHAIN OF RESPONSIBILITIES AND FUNCTIONS

Logistic assets evacuate CEM. They do this according to available assets and the priorities set by the commander and staff. The G4 is the principal staff officer charged with coordinating the bulk of this task. The command surgeon, responsible for medical items, coordinates class VIII.

The G4 provides staff guidance to the MMC and the movement control office (MCO) or the movement control center (MCC). The MMC controls combat service support and maintenance inventories and is the management arm that ensures proper accountability. (See Figure D-2.)

The support commands Divisional Support Command (DISCOM), COSCOM, and Theater Army Area Command (TAACOM). They exercise command and control over supporting units in carrying out the directives issued by the G4.

The division medical supply officer (DMSO) or the medical supply, optics, and maintenance (MEDSOM) elements manage the command's collecting, inventory, and evacuating procedures and functions for captured medical materiel.

The MMC manages the command's other collecting, inventory, and evacuating functions. This includes captured materiel. The MMC operations staff is organized by function and commodity. The division MMC manages classes I through VII, and IX materiel. Personnel in the division MMC keep the records for, as well as provide allocation and disposition instructions for, the class of supply they oversee.

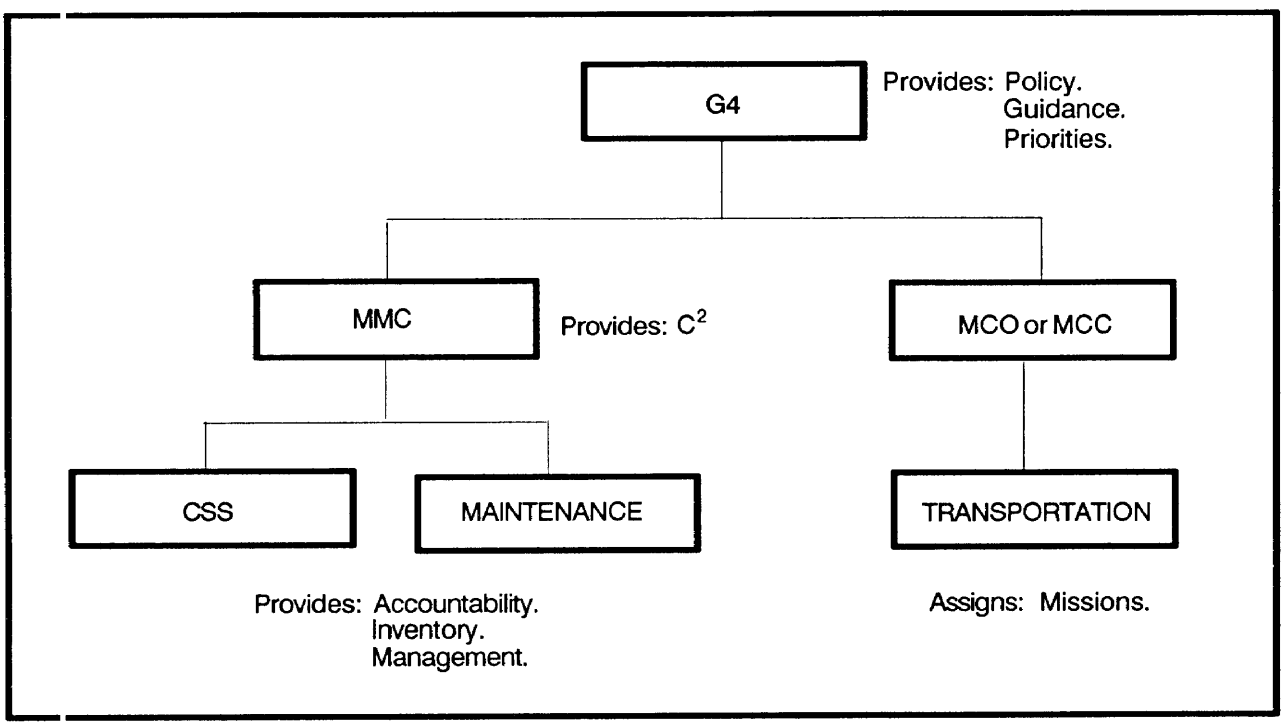


Figure D-2. Organization of logistic chain responsibilities and functions.

TRANSPORTATION PLANNING AND ALLOCATION

The G4 coordinates logistic support to evacuation operations by developing a command transportation plan. (See Figure D-3). The command transportation officer and the movements control element use the transportation plan to task invidual transportation units. (See Figure D-4). The transportation units carry out the missions tasked to them.

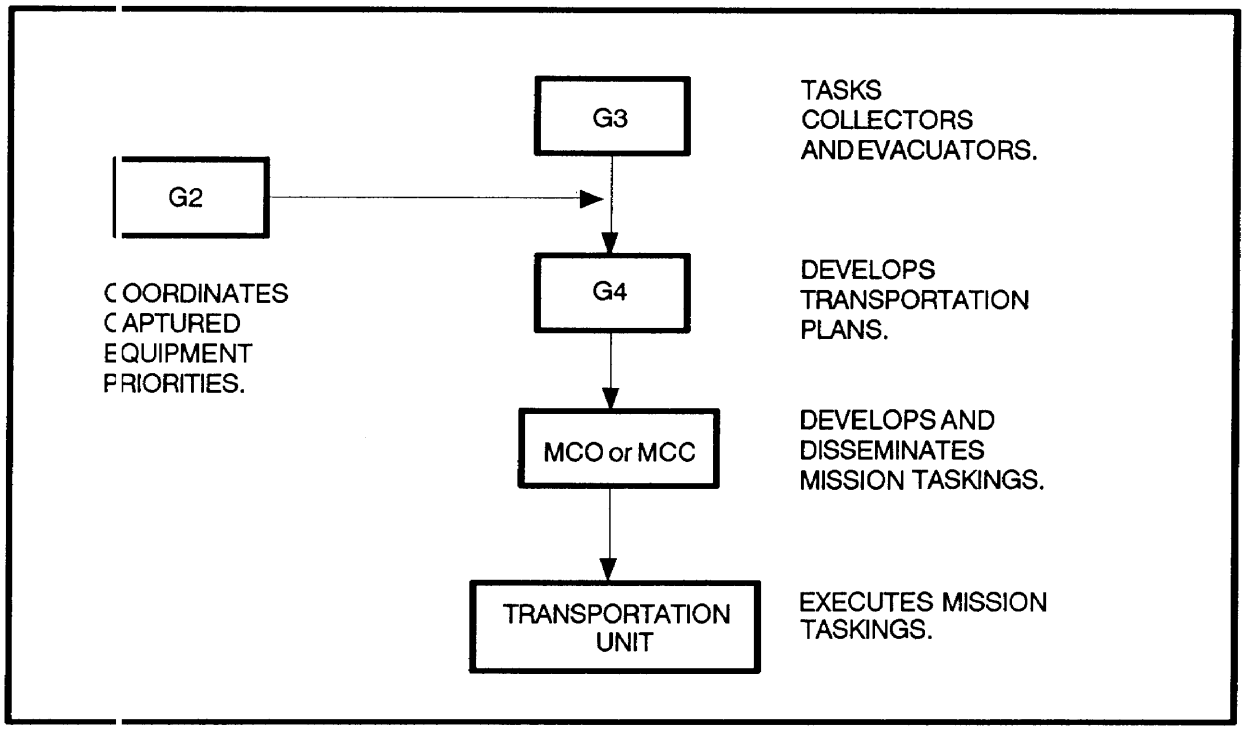


Figure D-3. Transportation planning and allocation.

DISPOSAL AND TRANSFER

Simply because we acquire foreign materiel does not mean we own it. This is especially true of items acquired during belligerent or peacekeeping operations. For example, when captured or confiscated foreign materiel is regulated by international law or could be claimed by an ally, disposition must be coordinated with the SJA.

The Army transfers foreign air and naval materiel and ATDs to the Navy or the Air Force at the lowest practical level. Until the actual transfer, these item remain in Army channels.

We return items originally evacuated for Amy intelligence exploitition to logistic channels when exploitation is completed. This is done after TECHINT elements make sure that no other echelon or agency needs the item.

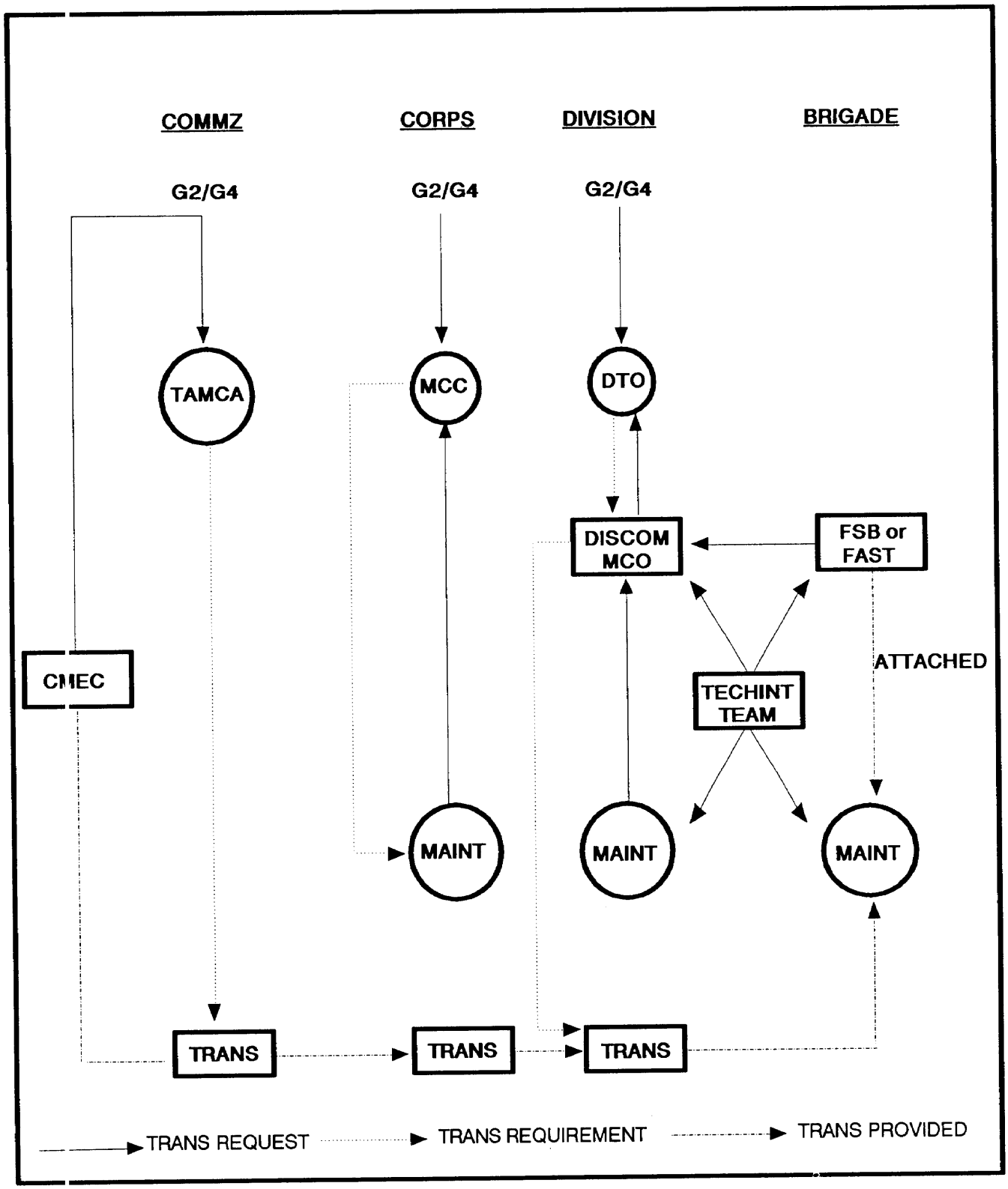


Figure D-4. Transportation operations.

EVACUATION CHANNELS

As stated in the introduction, we will usually want to evacuate CEM along the same channels as like US items. The system must, however, have the flexibility to evacuate high priority intelligence item directly from division collection points to the Theater CMEC. Routine evacuation channels are described below.

Abandoned or unserviceable US and captured foreign materiel is evacuated to collection pionts for classification, segregation, and disposition. Collection points operate wherever needed throughout the theater of operations.

In the corps area, at least one materiel collection point is established. Others are established in TAACOM. Collection points in the communications zone are generally operated by the collection and classification element of general support maintenance battalion.

In division areas, DISCOM maintenance companies operate materiel collection points. Figures D-5 through D-1O show the evacuation flow through the collection points for each class of supply. Captured items are handled and processed the same way as similar US items.

Salvage points established by related supply units are located near unit maintenance collection points (See Figures D-5 and D-6). These two points handle the collection, classification, inventory, and disposition of Classes II, VII, and IX materiel. The heavy division (armor and mechanized infantry) has the most suitable assets for evacuation of foreign materiel. It can handle large item such as tanks.

The process is much the same in light divisions. However, evacuation, especially of heavier items, depends on COSCOM assets. This is because light divisions do not have the transportation assets that heavy divisions do.

POL units establish their own section and sites to handle captured POL materiel. Supply units also establish POL sites and sections. Commanders test and use captured POL at the lowest echelon possible. Only samples of POL items are evacuated to TECHINT analysts. (See Figure D-7.)

Class V ordnace, including missiles, is evacuated through conventional ammunition supply points (ASPs). Ammunition supply units establish their own sections and sites to handle captured Class V. (See Figure D-8.)

Class VIII medical items are evacuated through established medical supply points, the DMSO, and the MEDSOM elements. (See Figure D-9.) Medical materiel must never be destroyed. If unable to evacuate, it will be left in place and unharmed.

Captured aviation items, especially airframes, are evacuated through aviation maintenance channels or with assistance from aviation maintenance units. (See Figure D-10.)

In a low-intensity conflict environment, large and heavy items are evacuated on an ad hoc basis.

Except for NBC hazardous materiel, foreign materiel requiring evacuation to CONUS is eventually shipped to the Transportation Officer, Foreign Systems Division, Army FSTC.

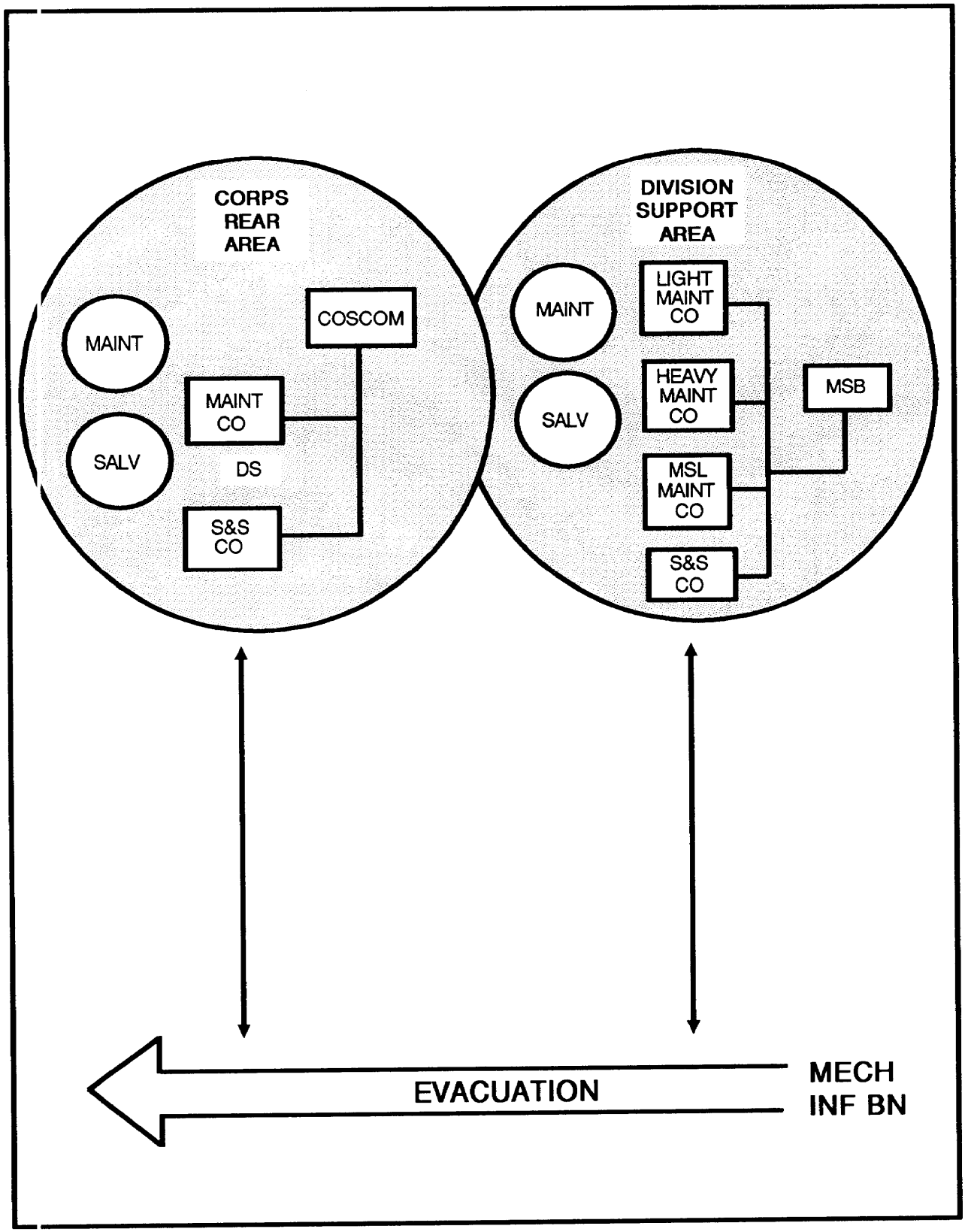
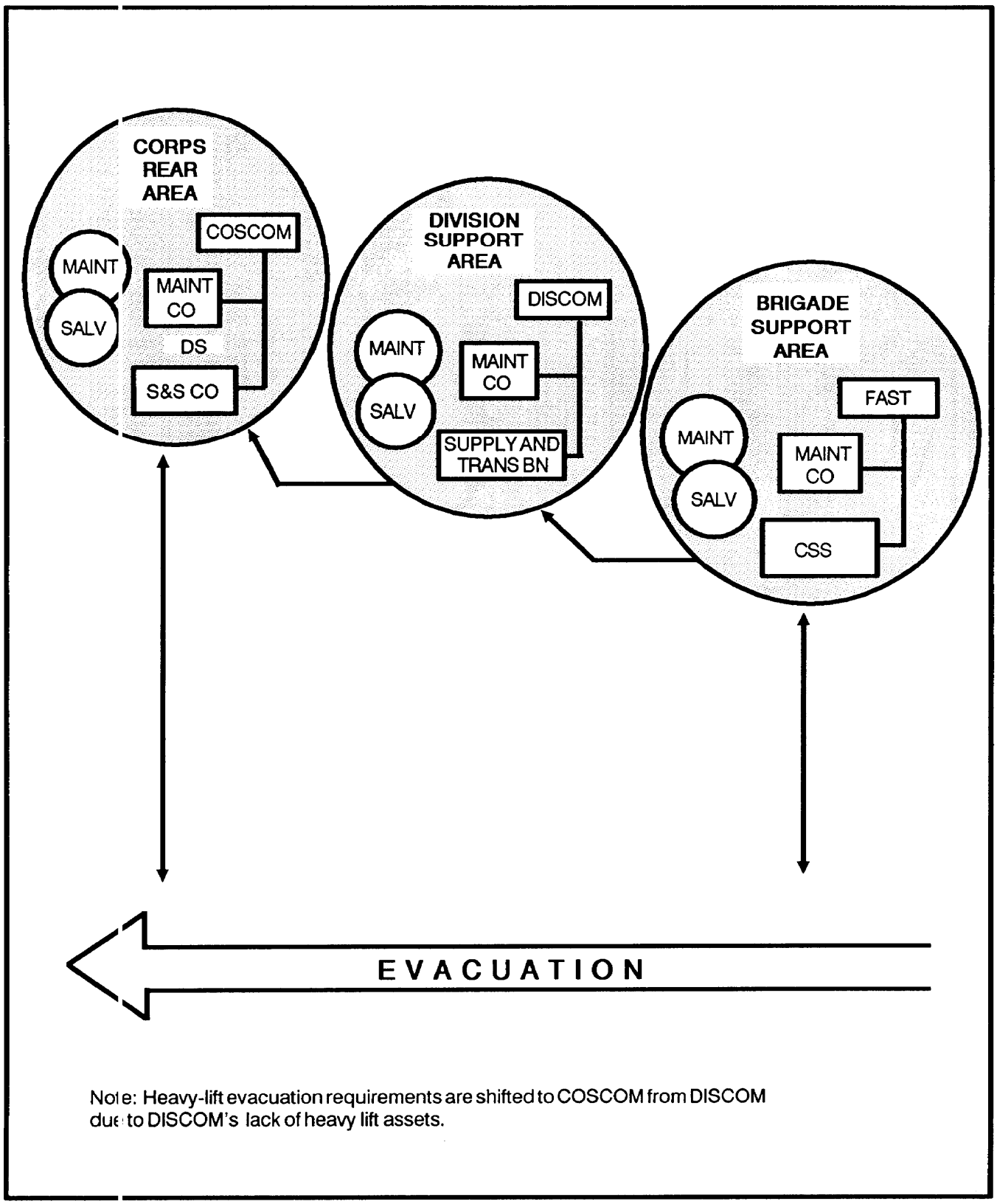


Figure D-5. Normal evacuation of captured materiel in a heavy infantry division for classes II, VII, IX.



Note: Heavy-lift evacuation requirements are shifted to COSCOM from DISCOM due to DISCOM's lack of heavy lift assets.

Figure D-6. Normal evacuation of captured materiel: airborne, light infantry, and air assault division for class II, VII, and IX.

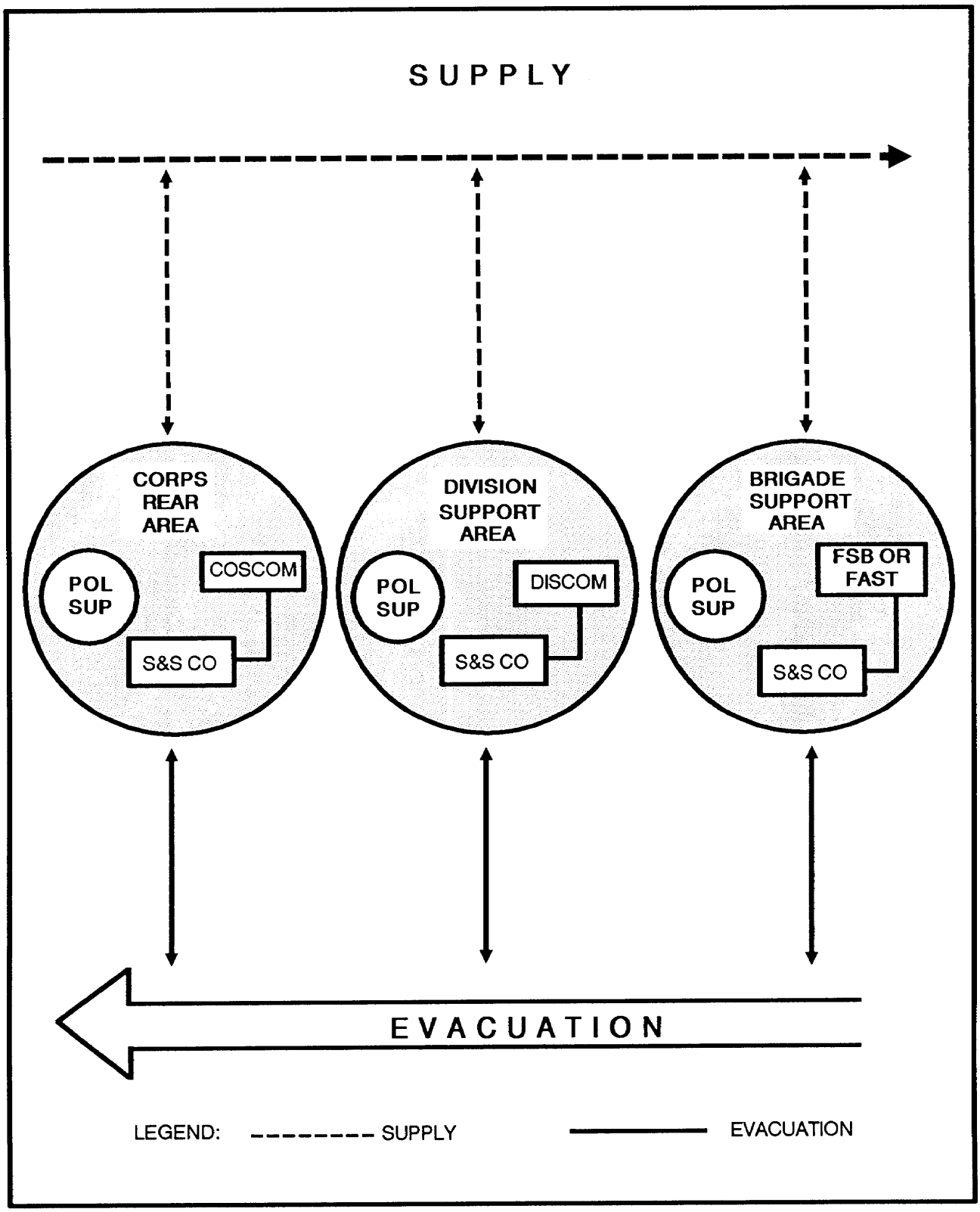


Figure D-7. Evacuation of captured petroleum, oil, and lubricants.

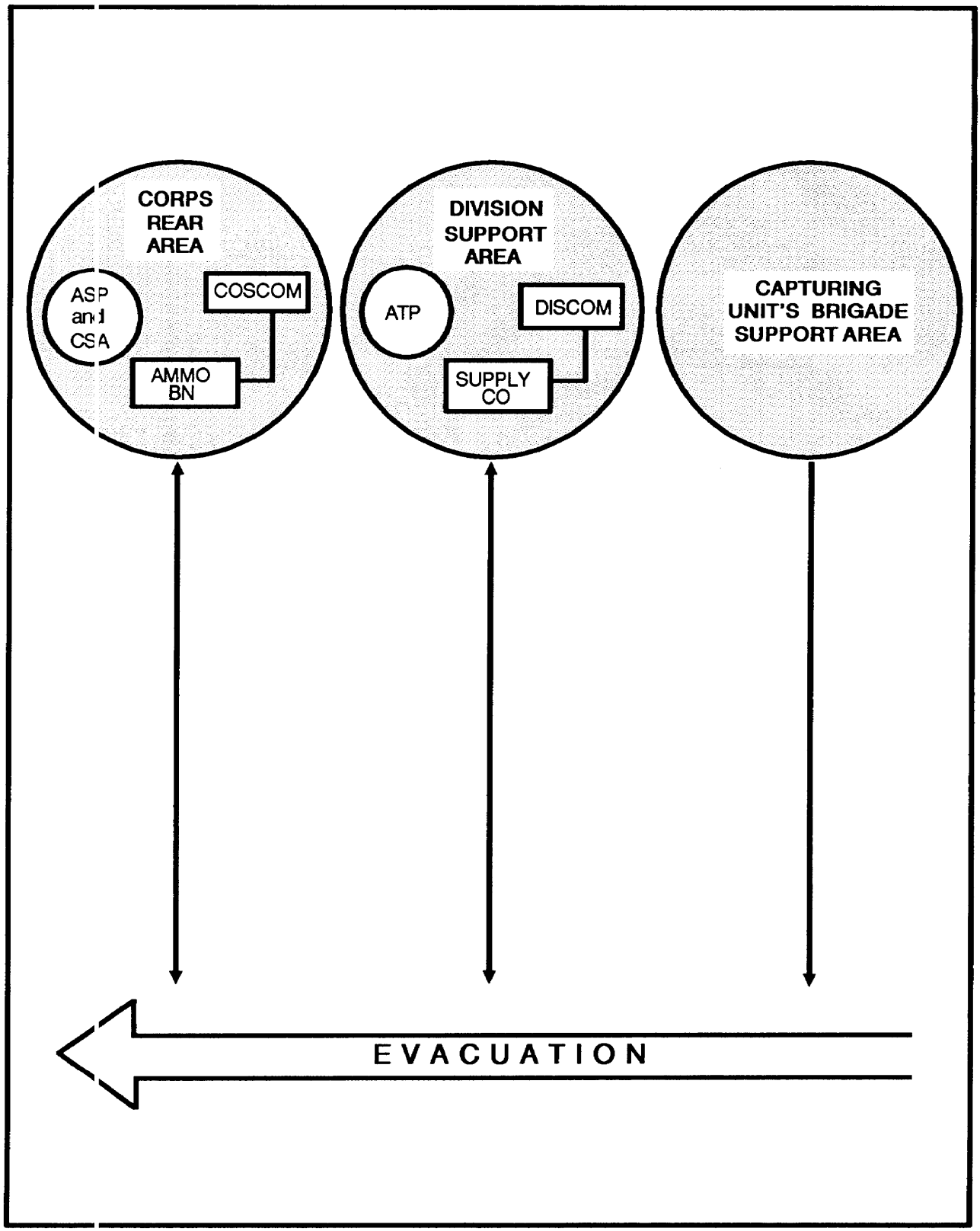


Figure D-8. Evacuation of captured ammunition and explosives.

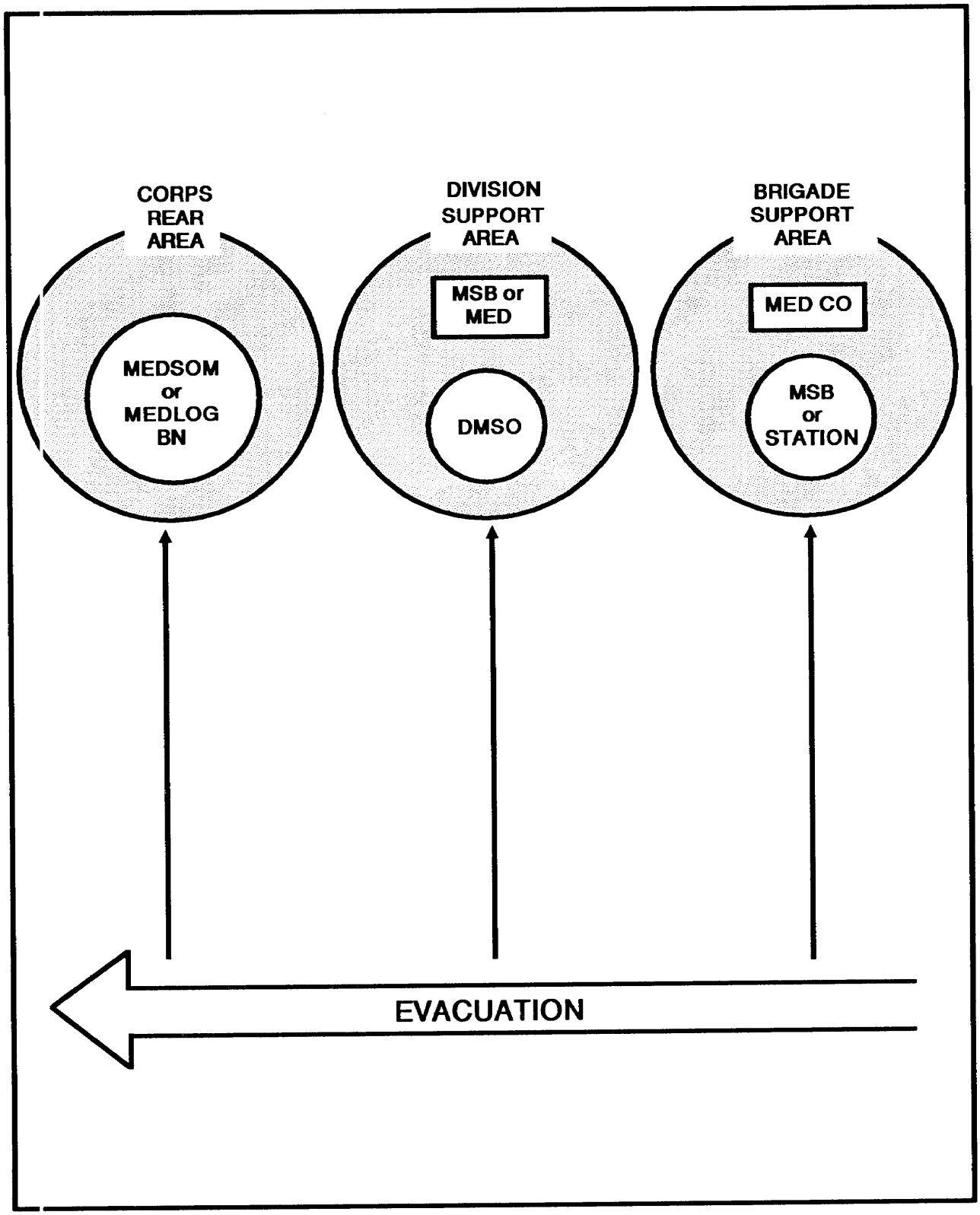


Figure D-9. Captured medical materiel evacuation system.

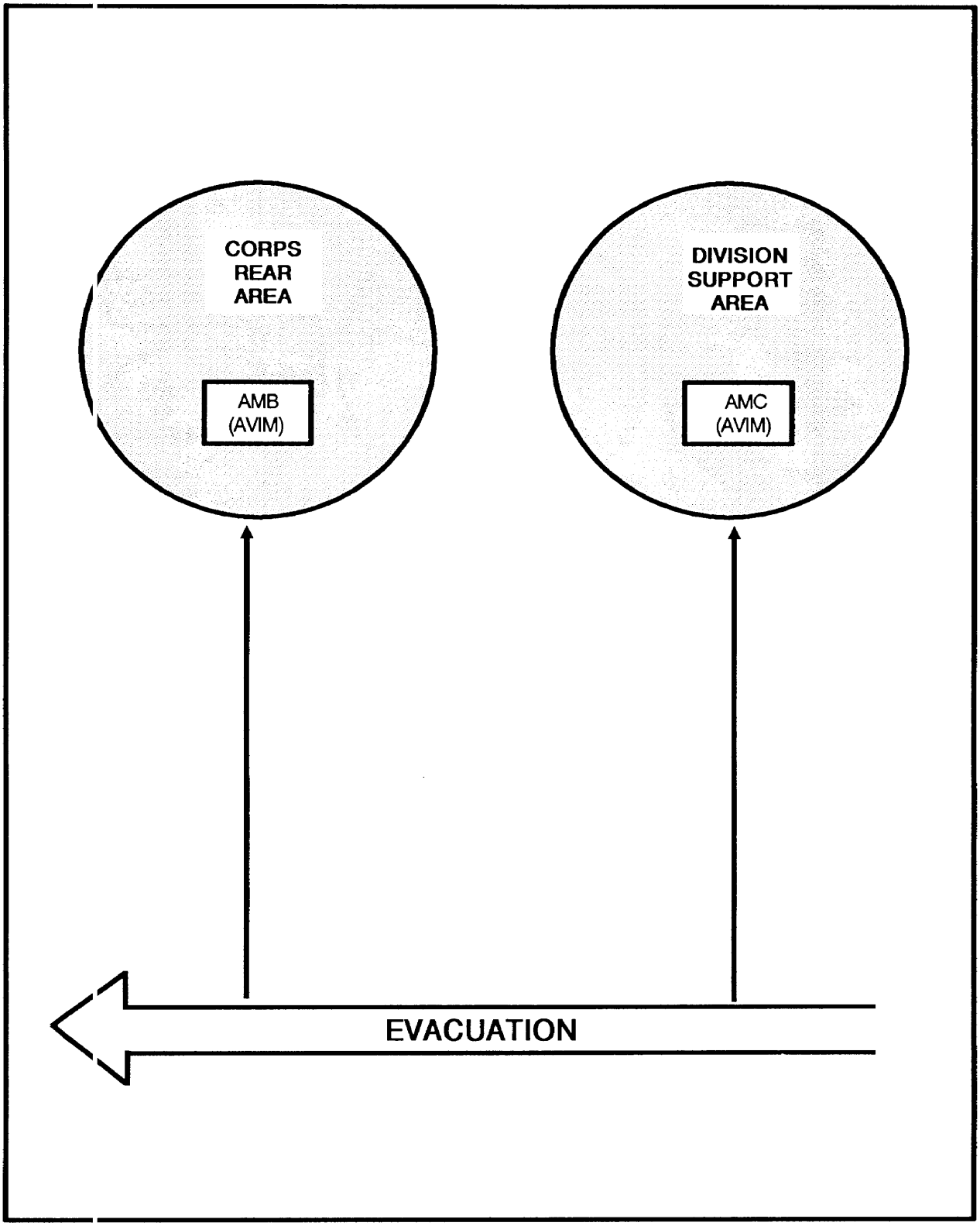


Figure D-10. Evacuation of captured aviation items.

RESPONSIBILITIES

The personnel, activities, and elements responsible for the recovery and evacuation of CEM are usually the sample as those responsible for handling like US items. A good example is the MP responsibilities.

MPs are responsible for US prisoners; they, therefore, have similar evacuation responsibilities for captured enemy personnel and any documents and equipment found on them. MI interrogators and TECHINT analysts exploit these sources of intelligence along the evacuation chain.

THE CAPTURING UNIT

The capturing unit always is responsible for reporting, safeguarding, and initiating accountability of CEM. The capturing unit reports the capture with either a SALUTE report or a PRETECHREP. (See Appendix E). It safeguards the item within mission parameters, until relieved. It initiates accountability by marking and tagging the item according to established procedures. (See Figures D-11 and D-12).

The capturing unit usually is tasked to move captured items wanted for intelligence exploitation to a collection point. If the capturing unit is tasked with evacuation, it coordinates any assistance required with the command responsible for direct support maintenance at their echelon.

The capturing unit may be tasked with the destruction of the item. This may require combination with either EOD or NBC assets to do it safely. The command orders destruction of CEM to prevent its reuse by the enemy. The one case where it is illegal to destroy captured enemy materiel involves captured enemy medical materiel. The staff surgeon always determines the disposition of medical materiel. According to the Laws of Land Warfare, if friendly forces cannot use it for EPWs, refugees, and indigenous population, we must leave it in place and unharmed.

The capturing unit must report the discovery of unusual mechanisms used as booby traps through intelligence channels to the CMEC and EOD by SALUTE report. Countermeasures must be coordinated with EOD personnel. EOD personnel are responsible for the final disposition of explosive components or hazardous materials associated with such devices and recovered ammunition.

EXPLOSIVE ORDNANCE DISPOSAL

As already discussed, TECHINT units have a profound interest in foreign explosive ordnance. The assistance of EOD personnel in the examination, movement, and evacuation of explosive ordnance cannot be overemphasized. All item of foreign ordnance should first be rendered safe by EOD personnel. If this is not feasible, the item should be rendered safe in place by any destructive method that minimizes damage to the item. For more information on EOD assistance to evacuation operations, see Appendix C.

Collection of TECHINT data may require dismantling of ordnance and stripping fuses and other dangerous components. These operations will be performed only by experienced personnel. Dismantling and stripping

ANNEX C TO STANAG 2044
(edition no. 4)

STANDARDIZE CAPTIVE AND EQUIPMENT/DOCUMENT TAG

GENERAL

1. A standardization tag is considered necessary for temporary use in identifying captured personnel and equipment or documents captured with personnel, before formal documentation can be completed. This tag should contain on one side the minimum necessary information in a standard format. The reverse side may be used for national handling instructions. The tag is not to be used for labelling captured equipment or documents not associated with captured personnel. The procedure for dealing with such equipment is covered by STANAG 2084.

2. The tag which is in 3 parts will be used as follows (Note 1):

a. Top part (marked "A")

To serve as identification of captured personnel before completion of the Prisoner of War Record; and to serve as a substitute identifying card when required.

b. Middle part (marked "B")

For administrative purposes according to national requirements.

c Bottom part (marked "C")

To mark document and/or equipment.

3. The form is to be printed in the national language of the capturing unit and in one of the NATO official languages.

4. A specimen tag and description is at Appendix 1 to this annex.

PREPARATION INSTRUCTIONS

5. Each captive is to be tagged by the capturing unit as soon as possible.

6. If a captive possesses equipment or documents, the capturing unit is to complete the bottom part of the tag (C) and affix it to the equipment or documents as soon as possible.

7. The tag number is to be preceded by the printed national code (see STANAG 1059) -e.g. BE, CA, FR, etc...

NOTE 1: Those nations which do not wish to use 3 part tags may have only a 2 part tag consisting of the top and bottom parts (marked A and C).

Figure D-11. Standardize captive and equipment/document tag. Extract from STANAG 2044, Edition 4.

EXTRACT FROM STANAG
2084

HANDLING AND REPORTING OF CAPTURED ENEMY EQUIPMENT AND DOCUMENTS

3. Document. For the purpose of this agreement, 'document' is defined as any recorded information regardless of its physical form or characteristics including, but not limited to, all:

a. Written material, whether handwritten, printed or typed.

b. Painted, drawn or engraved material.

c. Sound or voice recordings.

d. Imagery.

e. Punched cards, punched paper tape, printed output and associated material.

f. Reproductions of the foregoing, by whatever process.

PROCEDURES FOR HANDLING OF CAPTURED ENEMY DOCUMENTS (CED).

General.

17. CED are valuable sources of information and should be exploited for intelligence purposes with minimum of delay.

18. CED associated with CEE (i.e. ATD marked TECHDOC) will be handled as described in part I. All other types of CED will be handled as described in this part. Such documents are to be divided into categories as follows:

a. Category A. Documents containing information concerning subjects of priority intelligence interest.

b. Category B. Cryptographic documents, encrypted items and all other documents relating to enemy communications systems.

c. Category C. Documents considered of less intelligence value.

d. Category D. Documents containing no information of intelligence value.

19. In principle CED belong to the nation of the capturing unit, but in order to ensure that information of tactical intelligence interest is efficiently utilized, such documents should be handled through command channels in the initial phases of the exploitation process. Final, thorough investigation will be the responsibility of the capturing nation.

Figure D-12. Handling and reporting captured enemy equipment and documents. Extract from STANAG 2084, Edition 5.

20. CED associated with a PW, or copies thereof, should follow the PW during the PW interrogation process. Otherwise, the exploitation of CED should be carried out in accordance with the principles laid down for CEE in Part I, paras. 6 - 10.

EXPLOITATION PROCESS

21. CED will be exploited through the following process but, whenever feasible, in order to expedite the handling, the processing stages may be combined.

a. Preliminary screening and reporting of information of immediate tactical value by capturing unit.

b. Complementary examination, translation, categorization (see para 18), reporting, reproduction and dissemination by or for intelligence staffs.

c. Detailed exploitation and further reporting, reproduction and dissemination.

MARKING OF CED

22. The capturing unit will tag or otherwise mark the CED as follows:

National identifying letters as prescribed in STANAG 1059.

Designation of capturing unit including service.

Serial number of the CED. This will consist of a number allocated sequentially by the capturing unit.

Date-time of capture.

Place of capture (UTM coordinates).

Summary of circumstances under which the CED was obtained.

Interrogation serial number of any associated PW, if appropriate or known.

23. Reproduction and dissemination of CED and translation as necessary will be carried out at the earliest possible stage of the exploitation process. Copies of CED considered of interest or translations thereof and lists of exploited documents, whether disseminated or not, will be submitted to appropriate NATO and national staffs.

Figure D-12. Handling and reporting captured enemy equipment and documents. Extract from STANAG 2084, Edition 5 (continued).

HANDLING OF CATEGORY 'B' DOCUMENTS

26. Category B documents require special, restricted handling. National and NATO HQ should be kept informed of the seizure and disposition of such documents as soon as possible. They are to be handed over to the most relevant Service without delay. Here they should be handled in close coordination with the communications staff.

HANDLING OF SPECIAL DOCUMENTS

27. Unmarked maps, charts, air imagery and other types of cartographic material and information should be forwarded to the nearest geographic staff, survey unit or topographical section for exploitation. Copies may be retained to meet operational needs.

28. Marked maps, charts, and air imagery will be handled as ordinary types of CED, but relevant geographic staffs, survey units and topographical sections are to be informed of their existence, with scale, series, edition and other identification data.

29. Personal papers belonging to a PW will be returned to the PW after examination in accordance with the Geneva Convention. Copies of such papers may be made and forwarded if considered appropriate.

Figure D-12. Handling and reporting captured enemy equipment and documents. Extract from STANAG 2084, Edition 5 (continued).

are conducted only in response to a specific requirement for such action. The request must be placed through TECHINT and EOD staffs.

Only trained weapons and munitions specialists should analyze or test captured mines and booby traps. Exercise extreme caution when taut wire and pull releases or similar devices are encountered.

NUCLEAR, BIOLOGICAL AND CHEMICAL

All CB hazardous items are handled and shipped in accordance with command SOP and national policy. Evacuation is best handled after coordination with either an NBC reconnaissance team, NBC qualified TECHINT team, or a task organized medical element. NBC samples, after theater tactical exploitation, should be shipped to: US Army Chemical and Biological Agent, Technical Evaluation Board, Aberdeen Proving Ground, Maryland, 21005. (See Appendix H.).

TECHINT ANALYSTS AND THE CMEC

When evacuation is either unecessary or can be delayed, TECHINT personnel may be tasked to perform on-site analysis. This can provide immediate tactical information and countermeasures vital to the combat

force commander. On-site analysis also ensures the recoverry of intact components which become useless once wires are clipped and subcomponents have been disturbed. This type of analysis is limited by the battlefield situation and available assets.

During on-site analysis, TECHINT teams look for--

- Equipment operational characteristics, performance, capabilities, and vulnerabilities.
- New weapons and devices.
- Modifications.
- Possible countermeasures.
- Identification and proper handling of radioactive materiel.
- Specific orientation and siting of equipment.
- Recovery and evacuation of explosive ordnance and NBC munitions.

At times, a large number of like item will be acquired. The TECHINT collection teams must have the opportunity to examine the materiel thoroughly. They will be especially interested in lot numbers, dates of manufacture, and factory markings. When a sufficient number of items are gathered, they are processed through normal evacuation or salvage supply channels and are no longer needed by MI.

TECHINT my also be tasked with on-site supervision of the item's handling and evacuation. The CMEC will coordinate with appropriate staffs to evaluate the need to use TECHIINT personnel to--

- Supervise the evacuation.
- Arrange necessary technical escorts to the CMEC or to sites in CONUS.

TECHINT teams are capable of coordinating the handling and shipping with the necessary medical, intelligence, NEC, and strategic-level elements for captured CB items.

MARKING AND TAGGING

Labeling CEM properly is vital to the timely exploitation of the item. It speeds up the often slow process of producing effective countermeasures for the soldier in combat. Proper labeling provides the analyst team information necessary for the item's timely exploitation. It also allows interrogators and TECHINT teams to match up knowledgable prisoners with the documents or equipment they were captured with; since sometimes they become separated in the evacuation process.

There are two procedures for marking and tagging CEM. The acronym CEM includes CEE and ATDs. The procedure used depends on whether the captured item is associated with a captured person or not.

CEM Captured With Personnel

For CEM captured with personnel, tag the captured person and any associated CEM with the three-part tag shown in Figure A-6.

Be careful to use this tag 0NLY to label items either captured with or known to be associated with a particular captured person. (See Figure D-11).

CEM Captured By Itself

For CEM captured by itself, tag the piece of equipment or associated document with the tag shown in Figure A-5. Furthermore, label all documents believed to be of a technical nature such as operator manuals, with the flag word "TECHDOC." (See Figure D-12.)

Responsibilities

These responsibilities must be clearly established by command SOP. The equipment and document tags accompany the materiel to its final destination. Article 103 of the Uniform Code of Military Justice is printed on the reverse side of the tag to prevent indiscriminate tampering.

As part of core training, all personnel should be instructed in how to tag. They should know the consequences when personnel and equipment are not properly tagged. Training should stress protecting and preserving the original markings on materiel at the time of capture.

The first unit that performs exploitation for intelligence purposes will tag CEE with the serial number and any ATD with the serial number. In addition, the flag word “TECHDOC" will be affixed to the ATD in a way that will not deface the document.

The capturing unit is responsible for tagging items of foreign materiel. Weather-resistant equipment tags facilitate the segregation, collection, analysis, and evacuation of materiel. These tags are normally produced within the theater. They are securely attached to the item itself and to the shipping container. If weather-resistant tags are not available, use any materiel (for example, rations packing) on which pertinent capture data can be recorded.

The CMEC is responsible for retagging, marking, and arranging the preparation of captured materiel for shipment to CONUS. The preservation and packaging platoons in COSCOM supply units prepare item for shipment.

SECURITY AND ESCORT

Many items of foreign materiel acquired by US forces and determined to be of TECHINT value require safeguarding in storage as well as during evacuation. Such items may be sensitive due to their criticality or because of a US classification assigned. At all stages during the intelligence exploitation processs, CEE and ATDs will be placed under guard to prevent looting, misuse, or destruction.

Initially, the capturing unit is responsible for safeguarding materiel, based on instructions from the next higher headquarters. The materiel must be protected from looting, loss, destruction, or recapture. When foreign materiel is sensitive or of special value, MP elements nomally provide physical security during its storage and evacuation.

Particular attention must be paid to the peculiarities of nulcear weapons’ escort and the technical escort requirement for NBC materiel.

RECOVERY AND EVACUATION OF TECHNICAL DOCUMENTS

Technical publications and manuscripts of concern to TECHINT relate to the technical design or operation of the materiel. Such documents may be acquired separately from the materiel they refer to. Therefore, it is essential that TECHINT personnel coordinate with interrogation elements to exchange information about related documents.

All enemy documents captured on the battlefield are sent immediately to the first intelligence staff officer in the chain. The S2/G2 routes all enemy documents to the nearest interrogation element for tactical exploitation. Interogators screen the documents for immediate information and forward them to higher command, as required.

In any case, all known or suspected technical documents are marked "TECHDOC" and treated with highest priority and forwarded by way of the intelligence officer up through the higher command until their value is detemined.

Associated Technical Documents

Under certain circumstances an ATD is both exploited and evacuated at the same time to allow a thorough document exploitation of technical data as well as a translation. Under these circumstances, photograph the ATD or make a suitable facsimile, and forward the original. An exception is engraved materiel, such as manufacturer's plates, permanently attached to the CEE. This not considered a document.

Documents Associated with a Captured Person

Documents obtained through liaison with interrogation elements should be accompanied by pertinent interrogation reports. These reports will be in the form of--

- A SALUTE report.
- A tactical interrogation report.
- A special interrogation report.
- An intelligence information report.
- A biographic report in accordance with DIAM 58-13.
- A knowledgeability brief.

Cryptographic and Other Electronic Equipment and Documents

TECHINT units use special procedures for handling captured C-E equipment and documents. These items are tagged and evacuated to the nearest target exploitation element as soon as possible after initial tactical exploitation.

WAR TROPHIES

Foreign equipment is frequently a target of souvenir hunters. An effective war trophy policy must be established to ensure that these items are not retained or destroyed unnecessarily by the capturing unit.

APPENDIX E

REPORTS

INTRODUCTION

There are six basic reports that battlefield TECHINT analysts use. They are--

- SALUTE report.
- Preliminary technical report (PRETECHREP).
- Complementaly technical report (COMTECHREP).
- Detailed technical report (DETECHREP).
- Translation report.
- Special technical report.

This appendix provides a brief description and a sample report format for the SALUTE report, PRETECHREP, and types A and B of the COMTECHREP. It summarizes the DETECHREP, translation report, and special technical report and gives a breakdown of the essential items for each of these reports.

Special reports that TECHINT analysts need to know about also are described and a list of the types of reports the S&TI community produces is provided.

SALUTE REPORT

The SALUTE report is an oral or written report prepared by the acquiring units or intermediate command echelons. It is used to report rapidly, by electrical or other means, the acquisition of foreign materiel. These reports are forwarded through intelligence channels to the CMEC. Corps may use this report as a basis for the dispatch of TECHINT teams if none is in the acquisition area. Figure E-1 lists the minimum items needed to complete a SALUTE report.

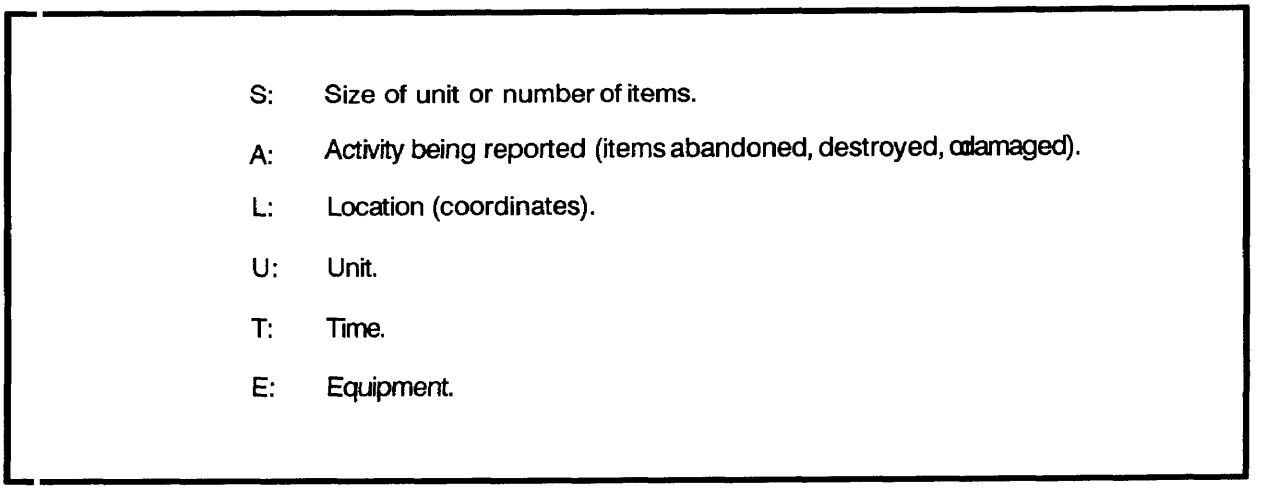


Figure E-1. SALUTE Report.

PRELIMINARY TECHNICAL REPORT

Corps TECHINT teams prepare a PRETECHREP on all captured foreign materiel after preliminary screening. This report is transmitted by the quickest means through intelligence channels.

The PRETECHREP contains a general description of the equipment. It alerts tactical units to significant technical information of immediate tactical importance. It can also be used by the TECHINT teams for reporting inventories at collection points through intelligence channels so that location, quantities, and type of equipment can be monitered. An example of a PRETECHREP is at Figure E-2.

(Classification)

PRETECHREP

To be submitted by accelerated intelligence reporting procedures immediately following the acquisition of significant enemy equipment.

A. Type of equipment and quantity.
B. Date and time of capture.
C. Location (map reference).
D. Capturing unit and circumstances of capture.
E. Enemy formation from which captured and origin.
F. Brief description with distinguishing marks and, if possible, manufacturer.
G. Technical characteristics with an immediate value, including information or any photographs available.
H. Time and origin of message.
I. Present location of disposal of captured enemy equipment.
J. Tentative RSP (EOD use only).

(Classification)

Figure E-2. Format for a Preliminary Technical Report (PRETECHREP).

COMPLEMENTARY TECHNICAL REPORT

The COMECHREP (types A, B, and C) is prepared by TECHINT teams operating in a corps area in support of corps elements. The COMTECHREP is submitted after complementary examination. It supplements information given in the PRETECHREP.

COMPLEMENTARY TECHNICAL REPORT - TYPE A

The comtechrep A is provided to Air Force TECHINT. Air Force teams usually are not on the scene of captured or downed enemy aircraft before destruction, recapture, or loss. Army TECHINT personnel, usually the first persons on the scene, will examine the matriel and submit a COMTECHREP Type A. This report often constitutes the only information that can be provided to Air Force TECHINT. If enemy naval materiel is acquired, Type A report format can be modified for reporting such acquisition. (See Figure E-3.)

COMTECHREP - TYPE A

(Classification)

The COMTECHREP Type A is used to report information about aircraft. These reports are submitted by the fastest available means right after the enemy aircraft is first examined.

A. Date and location of crash and map reference.

B. Type of aircraft and:

(1) Overall length.

(2) Overall wingspan.

(3) Approximate angle of wing sweep.

C. Identification and distinguishing marks.

D. (1) Type of engine(s) and condition.

(2) Type of intake and configuration and if adjustable.

E. Cause of crash; number, location, and caliber of projectile strikes; condition of aircraft.

F. Armament:

(1) Guns of all types, installation positions quantity.

(2) Ammunition and number of magazines.

(3) Bombs and bomb installations.

(4) Mines and mine carriers.

(5) Rocket projectiles and carriers with type of homing device.

(6) Pyrotechnics, number, and type.

G. Armor-plate: quantity, position, thickness, strikes, penetration.

H. Number of crew and their fate.

I. Wings and control surfaces: leading edge, if protected against balloon cables by cutters, strengthening, or other special devices.

J. State if samples are obtainable of--

(1) Fuel.

(2) Oil.

(3) Coolant.

(4) Hydraulic fluids.

(5) Deicing fluids.

K. Equipment.

(1) Internal equipment. State condition and whether bomb sights bomb, or missile guidance systems, radio, photo and other sensors, and associated equipment and instruments are standard. If not, specify modifications, alterations, or omissions. Obtain radio or electronic frequency settings if possible.

(2) External equipment. Describe aerials if not standard.

L. Landing gear: type and condition.

M. General remarks and special points or unusual features not mentioned to include refueling problems or overload tanks.

N. Name plates photographed:

(1) Airframe.

(2) Engine.

(3) Others.

O. Other information.

P. Name of officer in command of TECHINT team making examination.

Q. Time and origin or message.

(Classification)

Figure E-3. Format for a Complementary Technical Report (COMTECHREP), Type A.

COMPLEMENTARY TECHNICAL REPORT TYPE B

The COMTECHREP Type B is used to report information about explosive ordnance. TECHINT team prepare these reports; as do EOD personnel. However, EOD personnel only prepare them in the absence of a TECHINT team or when requested by G2s or their representatives. This report must be as complete and detailed as possible. EOD personnel prepare and sned this report by the fastest means EOD control unit to the TECHINT unit as soon as the initial examination is completed.

The rule of thumb is to complete all of the items in the report that you have information for and to strive for the most complete report possible. However, when a detailed report might result in serious delay and the report is of significant or new items of extreme urgency, complete only paragraphs A-E, L(l), Y and AA of COMTECHREP Type B in the initial priority message.

Additional paragraphs of particular impotance, for example, those referring to safety (U) or design (M) may be included at the originator's discretion. Paragraph AA should state an estimate of the time required for a detailed report to be completed. The format for a Type B COMTECHREP is at Figure E-4.

(Classification)

COMTECHREP - TYPE B

A. Date and location of acquisition; acquired by and or for whom.
B. Nationality, designation, and identification marks.
C. Description.
D. Overall length, including fuze, tail, vanes or control surfaces and fittings, and measurement of various states (if there are several).
E. Maximum diameter of each state (if there are several).
F. Shape, design, and internal configuration (streamlining shells).
G. Span of vanes and control surfaces.
H. Number, relative positions, and dimensions (width, length, size, and or configuration of control surfaces.)
I. Thickness of casing at:
    (1) Nose.
    (2) Sides.
    (3) Base.
J. Type and materials of body and control surface.
K. Color and markings of:
    (1) Nose.
    (2) Body.
    (3) Tail and vanes.
L. Weights:
    (1) Total weight, including propellant.
    (2) Weight of filling.

Figure E-4. Format for a Complementary Technical Report (COMTECHREP), Type B.

M. Nature of main filling. If of a CW/BW nature, give method of filling, for example, bomblets or massive fill; specify method of delivery, such as spray, groundburst, or airburst. For antitank missiles with HEAT warheads, give full details of cone liner materials, cone angle, and diameter. For antitank missiles with non-HEAT warheads, give full description of the warhead.

N. Type of missile guidance system and method of stabilization environment (control and guidance radar(s), acquisition radar); frequencies used for reception response (in case of a transponder); and proximity fuse (if there is one). ECM and ECCM equipment and or chaff-dispensing equipment.

O. Sensors.

P. Diameter or radome and size of homing dish, if fitted.

Q. Dimensions (internal and external) of wave guides in the homing head, and wave guides and or aerials in the wings or body, and the technology used.

R. Homing head, transducer design, and shape and size (torpedoes).

S. Method of propulsion and propeller data (torpedoes).

T. Detonating system, fuzing system (nose, tail, or transverse) and firing mechanism details.

U. Type of suspension, giving details of devices used, such as electrically operated hoods or release gear.

V. Antihandling or booby-trap devices.

W. Other information (to include estimate of time required to prepare item for shipment to TECHINT center or designated industrial firm for detailed analysis).

X. Name of officer in command of technical team making examination.

Y. Time and origin of message.

Z. Energy used for mobile systems other then propulsion.

AA. Estimate of time required for completion.

NOTE: If feasible, a preliminary set of photographs should be sent with the report.

(Classification)

Figure E-4. Format for a Complementary Technical Report (COMTECHREP), Type B (continued).

COMPLEMENTARY TECHNICAL REPORT TYPE C

The COMTECHREP Type C is used to report items not reported under COMTECHREP Types A and B. COMTECHREP Type C is submitted within 72 hours after an item of captured equipment, not covered under Types A and B, is acquired. (See Figure E-5.)

(Classification)

COMTECHREP TYPE C

A. Date found and location (map reference).
B. Type of equipment and quantity.
C. Origin.
D. Description with distinguishing marks (additional details).
E. Condition of equipment.
F. Technical characteristics of immediate tactical value (additional details).
G. Recommended disposal.
H. Name plates photographed.
I. Photographs taken.
J. Other information.
K. Name of team chief.
L. Time and origin of message.

(Classification)

Figure E-5. Format for a Complementary Technical Report (COMTECHREP), Type C.

DETAILD TECHNICAL REPORT

The DETECHREP is usually prepared by the CMEC. It is prepared and submitted by the proper authority or specialist team after detailed initial exploitation of captured equipment or materiel is completed. This exploitation takes place in the rear area. This report has no set format. The flag word "DETECHREP" should be used as the report identifier, and must include data identifying CEE and its disposition.

TRANSLATION REPORT

The translation report is prepared on all captured documents that might answer the command's PIR and IR. prisoner of war interroation (IPW) units normally prepare translation reports.

SPECIAL TECHNICAL REPORT

The special technical report is used by the EACIC to provide input to studies and plans for the G2. It contains special information on items of significant intelligence interest. No format is prescribed; the content is governed by the nature of the TECHINT desired by EACIC.

OTHER REPORTS

Other intelligence reports may be submitted in advance, but not in lieu of the reports listed above. (See FM 34-3) .

Other documents prepared by TECHINT analysts are--

- Operator manuals.
- Maintenance manuals.
- TECHINT Bulletins.
- Tactical User Bulletins.
- Summaries and vulnerability assessments.

Operater and maintenance manuals have standard formats similar to the Army series 10 or 20 manuals.

A TECHINT Bulletin is a short, descriptive report on a particular piece of equipment for the specific purpose of disseminating technical information. It may be prepared from field exploitations and document research.

A Tactical Use Bulletin is a short description of how an average soldier can operate a single piece of equipment, such as all individual weapon or a cargo truck, to enhance unit missions. Tactical User Bulletins will not normally be produced on more compliated systems such as integrated weapon systems requiring special training.

SCIENTIFIC AND TECHNICAL INTELLIGENCE REPORTS

The following is a list of S&TI reports that are produced on a recurring basis as a result of strategic exploitations and studies. (The organization that produces the report is shown in parentheses after the report name.)

- Medical capabilities studies (DIA).
- Disease occurrence worldwide (DIA).
- S&TI analysis bulletins (FSTC).
- FTD weekly aerospace systems report (FTD).
- ITAC intelligence note.
- AFMIC weekly wire.
- AFMIC foreign medical materiel report.
- MSIC collateral weekly wire.
- Foreign materiel collection requirement status report (FSTC).
- S&TI register (STIR) (DIA).
- Index of approved S&TI tasks (STARDEX) (DIA).
- Catalog of approved S&TI tasks (CAST) (DIA).
- Summary of Army FMEP activities (FSTC).
- Foreign materiel exploitation report (limited distribution, results of real-world exploitation projects) (FSTC).
- Foreign materiel catalog (DIA).
- Various DIA, FSTC, and S&TI studies, reports, handbooks, and special purpose documents.

0THER DISSEMINATE MEANS

Another form of dissemination is foreign materiel training through displays, briefings, and foreign materiel familiarization. This is done in both peacetime wartime. In peacetime, it is accomplished as part of the Opposing Force (OPROR) Program, as established by AR 350-2. Its four principal objectives are:

- Develop an appreciation of the capabiliteis, strengths, and weaknesses of the combat doctrine, tactics, equipment, and organization of potential adversary armed forces.
- Develop a sense of purpose in training by focusing on potential rather than fictional adversaries.
- Provide realistic field training through operations against a noncooperative Threat using the tactics and, when possible, the equipment of potential adversary armed forces.
- Improve and expand unit combined arms, intelligence, EW, CI, operations security (OPSEC), battlefield deception, and defense against unconventional warfare capabilities.

The foreign materiel training portion of the Threat program pertains to the acquisition and distribution of, and familiarization training on, foreign equipment. Headquarters INSCOM is responsisible for managing this part of the program. Along with user units and major commands, the INSOX foreign materiel activity at Aberdeen Proving Ground, is INSCOM's action agent for the execution of these responsibilities.

The foreign materiel training program trains TECHINT teams in dissemination methods that could be realistically accomplished in a theater during active hostilities.

Division and corps G2 OPFOR cadres are trained at Aberdeen Proving Ground. They become knowledgeable on the operation and technical characteristics of foreign weapons and vehicles. TECHINT exploitation worldwide provides the equipment to support this program. When these cadres return to their units, they use this knowledge to design the training that becomes part of their overall Threat program.

In wartime, TECHINT training teams and detachments provide in-theater familiarization training to arriving and frontline units when they are pulled to the rear for rest and refit. Also, they form a ready pool of trained replacements or augmentees for existing TECHINT units upon mobilization or at the start of an actual conflict.

These training elements provide up-to-date training on known and suspected enemy weapon systems by virtue of their being part of the theater TECHINT unit. Daily TECHINT analysis is used in this training. These data are also an important part of any regeneration effort to turn captured equipment around for use by US or other friendly forces or for developing effective countermeasures.

APPENDIX F

TECHNICAL INTELLIGENCE EXPLOITATION PLAN AND CATEGORY REQUIREMENTS

INTRODUCTION

This appendix includes an Exhausting listing of exploitation categories and collection requirements regarding item of possible interest to Battlefield TECHINT. We include it as a suggested "field guide" for RC TECHINT units.

PRELIMINARY REQUIREMENTS FOR EXPLOITATION

The preliminary requirements for exploitation are:

- Determining safety requirements.
- Examining additional information requirements.
- Determining intended recipient of intelligence.
- Formulating detailed project timeline for assessment format.
- Conducting a leader-reconnaissance of subject to be assessed and the area of the assessment.

GENERAL EXPLOITATION PLAN

The genera1 exploitation plan covers--

- Initial photography. Preliminary photographs of outside and inside (shows status of equipment before assesment).
- Invenventory
  - --Examine system for any written information (documents, operator manuals, maps), data plates, or operating instructions.
  - -- Identify all individual equipment components requiring separate analysis.
- If equipment requires further analysis, determine exploitation category and proceed.

EXPLOITATION CATEGORY REQUIREMENTS

MOBILITY REQUIREMENTS

Track Vehicles

List of subcategories.

- o Infantry fighting vehicles.
- o Cargo/transport.
- o Armored personnel carrier.
- o Tank chassis.
- o Self-propelled howitzer.
- o Self-propelled rocket launcher.
- o Tank destroyer.
- o Self-propelled antiaircraft.

Main category requirements.

- o Type of vehicle.
- o Engine type.
- o Cooling system.
- o Power train description.
- o Brake system.
- o Suspension system.
- o Steering system.
- o Vehicle description.
- o Electrical system.
- o Physical dimension.

Subcategory requirements.

- o Infantry fighting vehicle:
  - -- Type of armor.
  - -- Armor thickness.
  - -- Maximum personnel seating capability.
  - -- Firing ports location/number.
  - -- Location of hatches.
- o Cargo or transport:
  - -- Cargo compartment size.
  - -- Maximum height carrying capability.
  - -- Maximum personnel seating capability.
  - -- Type of cargo vehicle designed for.
- o Armored personnel carrier:
  - -- Type of armor.
  - -- Armor thickness.
  - -- Maximum personnel carrying capability.
  - -- Firing ports location/number.
  - -- Location of hatches.
- o Tank, howitzer, self-propelled rocket launcher or tank destroyer:
  - -- Type of protective armor.
  - -- Armor thickness.
  - -- Body design.
  - -- Number of road wheels and support rollers.
  - -- Turret location.
  - -- Type of track.
  - -- Location of hatches.
  - -- Power pack location.

MOBILITY REQUIREMENTS

Wheeled Vehicles

List of subcategories.

- o Reconnaissance vehicles.
- o Cargo/transport.
- o Armored personnel carrier.
- o Infantry fighting vehicles.

Main category requirements.

- o Type of vehicle.
- o Engine type.
- o Cooling system.
- o Power train description.
- o Physical dimension.
- o Electrical system.
- o Brake system.
- o Suspension system.
- o Steering system.
- o Vehicle description.

Subcategory requirements.

- o Reconnaissance:
  - -- Maximum personnel seating.
  - -- Armor thickness.
  - -- Special exhaust system.
- o Cargo or transport:
  - -- Cargo compartment size.
  - -- Maximum weight carrying capability.
  - -- Maximum personnel seating compartment.
  - -- Type of cargo vehicle designed for.
- o Armored personnel carrier:
  - -- Armor thickness.
  - -- Maximum personnel seating capability.
  - -- Firing ports locations/number.
  - -- Location of hatches.
  - -- Type of armor.
- o Infantry fighting vehicle: Same as above.

Engineer Equipment

List of subcategories.

- o Clearing equipment.
- o Ditching equipment.
- o Water/gap crossing equipment.
- o Air compressor.
- o Power supply equipment.
- o Special purpose equipment.

Main category requirements.

- o Type prime mover.
- o Engine type.
- o Cooling system.
- o Power train description.
- o Physical dimensions.
- o Brake system.
- o Suspension system.
- o Electrical system.
- o Steering system.
- o Vehicle description.

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MOBILITY REQUIREMENTS

Subcategory requirements.

- o Clearing equipment:
  - -- Type.
  - -- Crew.
  - -- Power.
  - -- Capabilities.
- o Ditching equipment: Same as above.
- o Water/gap crossing equipment:
  - -- Crew.
  - -- Capacity.
  - -- Power.
  - -- Type.
  - -- Width of bridge.
  - -- Height of bridge.
  - -- Length of bridge.
  - -- Spanning length.
- o Power supply equipment:
  - -- Type.
  - -- Power.
  - -- Capabilities.
- o Air compressor: Same as above.
- o Special purpose equipment: Same as above.

Rotary Wing Aircraft

List of subcategories.

- o Cargo/transport.
- o Attack/assault.

Main category requirements.

- o Body type.
- o Main rotor system.
- o Tail rotor system.
- o Landing gear.
- o Fuel system.
- o Engines.
- o Cooling system.
- o Electrical system.
- o Cargo compartment size.
- o Cargo loading/unloading system.
- o Maximum personnel seating.
- o Maximum weight-carrying capability.
- o Flight controls.
- o Armor.
- o Internal weapons mounts.

Subcategory requirements.

- o Cargo/transport: External winch platform.
- o Attack/assault:
  - -- Weapons mounts.
  - -- Machine guns.
  - -- Rockets.
  - -- Bombs.
  - -- Antitank guided missiles.
  - -- Target acquisition systems.

C-E REQUIREMENTS

Communications

List of subcategories.

- o Radio.
- o Line equipment.

Main category requirements.

- o Size.
- o Weight.
- o Document and manuals.
- o Vehicular mounted or manpack.
- o Location found (building, van, field, house).
- o Data plate information (nomenclature, serial number).
- o Power requirement.
- o Planning range/range of operation.

Subcategory requirements.

- o Radios:
  - -- RF power output.
  - -- Types of antennas used.
  - -- Modes of operation.
  - -- Frequency range.
  - -- Tuning method (continuous or detent).
  - -- Presets (yes/no; how many).
  - -- Batteries.
  - -- External antenna matching unit.
  - -- Number of power supplies.
  - -- Remote capability.
  - -- Retransmission capability.
  - -- Type of radio (transceiver, receiver, transmitter).
  - -- Types of modulation (AM or FM).
  - -- Morse code capability.
  - -- Frequency hopping capability.
- o Line equipment:
  - -- Wire thickness.
  - -- Ringer capability.
  - -- Line handling capability.
  - -- Motor speed.
  - -- Words per minute transmission.
  - -- Line current.
  - -- Size of paper used.
  - -- Reperforator capability.
  - -- Built-in operator pack.
  - -- Length and diameter of patch cord.

C-E REQUIREMENTS

Radar

List of subcategories.

- o Air traffic control.
- o Weather radar.
- o Ground surveillance.
- o Fire control.

Main category requirements.

- o Size.
- o Weight.
- o Documents and manuals.
- o Location found (airport, battlefield, house, van).
- o Data plate information (nomenclature, serial number).
- o Power requirements.
- o Frequency range.
- o Scanning range.
- o RF power output.
- o Pulse repetition rate.
- o Peak power.
- o Target indicator.
- o Pulse width.
- o Planning range.
- o Vehicular mounted or manpack.

Electronic Warfare

List of subcategories.

- o Jammers.
- o Direction finders.

Main category requirements.

- o Size.
- o Weight.
- o Documents and manuals.
- o Location found (building, van, field).
- o Vehicular mounted or manpack.
- o Data plate information (nomenclature, serial number).
- o Power requirements.
- o Frequency range.
- o Frequency hopping capability.

Subcategory requirements.

- o Jammers:
  - -- Bandwidths it can jam at one time.
  - -- Signal strength when jamming.
  - -- Can it jam radars as well as communications?
- o Direction finders:
  - -- Can it locate a target alone?
  - -- How long does it take to locate a target?
  - -- Is it an automatic or manual DF unit?

C-E REQUIREMENTS

Electronic Devices

List of subcategories.

- o Searchlights.
- o Starlight scopes.
- o Mine detectors.
- o Distance measuring devices.
- o Wind/weather measuring devices.

Main category requirements.

- o Size.
- o Weight.
- o Documents and manuals.
- o Location found (building, van, field).
- o Data plate information (nomenclature, serial number).
- o Power requirement.
- o Vehicular mounted or manpack.

Subcategory requirements.

- o Searchlights:
  - -- What is the candlepower rating?
  - -- What is the range of the light?
- o Starlight scopes:
  - -- What is the range it can detect someone or something?
  - -- What is the minimum amount of light required to operate?
  - -- Is it a transmitter and a receiver?
  - -- Can it be mounted on a weapon as well as handheld?
- o Mine detectors:
  - -- What is the depth it can detect items in soil?
  - -- What is the depth it can detect items in water?
  - -- Can it detect metallic and nonmetallic objects?
  - -- How many transmitters does it have?
  - -- How many receivers does it have?
- o Distance measuring devices:
  - -- What is the maximum distance it can measure?
  - -- What is the minimum distance it can measure?
  - -- Can it measure in metric and American standards?

C-E REQUIREMENTS

- o Wind/weather measuring devices:
  - -- What is the maximum wind speed it can measure?
  - -- What is the minimum wind speed it can measure?
  - -- What type of weather measurements will it give?
  - -- Does it give a printout of the weather report?

CHEMICAL, MEDICAL, AND LOGISTIC (CML) REQUIREMENTS

Detectors

List of subcategories.

- o Chemical/biological detection and identification.
- o Radiation detection and measuring instruments.

Main category requirements.

- o Size.
- o Weight.
- o Documents and manuals.
- o Vehicular or manpacked.
- o Location found (building, van, field, house).
- o Data plate information (nomenclature, serial number).
- o Planning range/range of operation.
- o Power requirements.
- o Inventory.
- o Photographs.

Subcategory requirements.

- o Chemical/biological detector and identification sets and kits:
  - -- What agents will they detect or identify?
  - -- Remote capabilities (Y/N).
  - -- How easy is it to use?
  - -- How effective are they?
  - -- Levels of agents detected.
  - -- Can detectors distinguish agents?
  - -- Can kits identify multiple agents at the same time?
  - -- Will it sample air/soil/water (which one or ones)?
- o Chemical/biological detectors and alarms:
  - -- What agents will it detect?
  - -- Remote capabilities (Y/N).
  - -- How easy is it to use?
  - -- How effective is it?
  - -- Type of alarm (audio or visual).
  - -- Time of contact between sampling and alarm.
- o Radiological dosimeters and dosimeter sets:
  - -- Equipment required to read.
  - -- What total dose measured?
  - -- Does it measure present or total dose?

CHEMICAL, MEDICAL, AND LOGISTIC (CML) REQUIREMENTS

-- Type radiation measured.

o Radiological area survey meters:

-- Type radiation measured.
-- Manpack, aircraft, or vehicle mounted.
-- How is equipment operated?
-- What type of radiation detected?

o Radiological low-level radiation detection meters:

-- Type of radiation measured.
-- What level is measured?
-- How is equipment operated?

Decontamination Equipment

List of subcategories.

o Individual decontamination kits.
o Portable decontamination apparatuses.
o Vehicle mounted decontamination apparatuses.

Main category requirements.

o Size.
o Weight.
o Documents and manuals.
o Location found (building, van, field, house).
o Data plate information.
o Power requirement.
o Inventory.
o Photographs.

Subcategory requirements.

o Individual decontamination kits:

-- How many times can it be used?
-- Type of decontaminants used.
-- What agents are they used against?
-- How easy are they to use?
-- How effective are they?

o Portable decontamination apparatuses:

-- How equipment is transported.
-- Type of decontaminants used.
-- What agents are they used against?
-- How easy are they to use?
-- How effective are they?
-- Amount of equipment it can decontaminate.
-- Extra equipment needed to support.

CHEMICAL, MEDICAL, AND LOGISTIC (CML) REQUIREMENTS

- o Vehicle mounted decontamination apparatuses:
  - -- Where mounted?
  - -- Type of decontaminants used.
  - -- What agents are they used against?
  - -- How many crew members required?
  - -- How effective is it?
  - -- Amount of equipment it can decontaminate.
  - -- Extra equipment needed to support operation.

Protection Equipment

List of subcategories.

- o Individual protection.
- o Collective protection.

Main category requirements.

- o Size.
- o Weight.
- o Documents and manuals.
- o Location found.
- o Data plate information.
- o Power requirement.
- o Inventory.
- o Photographs.

Subcategory requirements.

- o Individual protection:
  - -- What protection is afforded?
  - -- How is equipment used?
  - -- How effective is equipment?
  - -- Type of filter, if present.
  - -- How easy is it to maintain?
- o Collective protection:
  - -- What protection is afforded?
  - -- How is equipment used?
  - -- How effective is equipment?
  - -- Type of filtering system.
  - -- How easy is it to maintain?
  - -- Number of personnel system can accommodate.

Smoke Systems

List of subcategories.

- o Hand grenade.
- o Smoke pot.
- o Smoke drum.
- o Smoke barrel.
- o VESS.
- o Smoke generator.

Main category requirements.

- o Size.
- o Weight.
- o Documents and manuals.

CHEMICAL, MEDICAL, AND LOGISTIC (CML) REQUIREMENTS

- o Location found.
- o Data plate information.
- o Power requirement.
- o Inventory.
- o Photographs.

Subcategory requirements.

- o Hand grenades:
  - -- Is it signaling smoke?
  - -- What is the duration of smoke?
  - -- How effective is the smoke?
  - -- Does the smoke contain any additives?
- o Smoke pot:
  - -- What is the burn time?
  - -- How effective is the smoke?
  - -- Can the pots be stacked?
  - -- Is it a floating smoke pot?
  - -- Does the smoke contain any additives?
- o Smoke drum:
  - -- What is the burn time?
  - -- How effective is the smoke?
  - -- Is it a floating drum?
  - -- Does the smoke contain any additives?
- o VESS:
  - -- How effective is the smoke?
  - -- How much of the vehicle fuel supply is required?
  - -- Does the smoke contain any additives?
- o Smoke generator:
  - -- How effective is the smoke?
  - -- How is it supplied with fuel?
  - -- What fuel is used?
  - -- What maintenance is required?
  - -- Does the smoke contain any additives?

NBC Vehicles

List of subcategories.

- o Reconnaissance vehicles.
- o Area marking.

CHEMICAL, MEDICAL, AND LOGISTIC (CML) REQUIREMENTS

Main category requirements.

- o Size.
- o Weight.
- o Documents and manuals.
- o Location found.
- o Data plate information.
- o Power requirement.
- o Inventory.
- o Photographs.

Subcategory requirements.

- o Reconnaissance vehicles:
  - -- Wheeled or tracked vehicle.
  - -- Is vehicle equipped with overpressure?
  - -- What chemical detectors are used?
  - -- What radiological detectors are used?
  - -- Miscellaneous NBC equipment.
- o Area marking vehicles:
  - -- Wheeled or tracked vehicle.
  - -- Is vehicle equipped with overpressure?
  - -- What chemical detectors are used?
  - -- What radiological detectors are used?
  - -- Type of marking sets used.
  - -- Miscellaneous NBC equipment.

Medical Kits

List of subcategories.

- o Personal kits.
- o Medical kits.
- o Specialized kits.

Main category requirements.

- o Size.
- o Weight.
- o Manuals.
- o Location found.
- o Data plate information.
- o Power requirement.
- o Photographs.
- o Inventory.

Subcategory requirements.

- o Personal kits:
  - -- How and where carried?
  - -- Type of injuries and ailments that can be treated.
- o Medical kits:
  - -- How and where carried?
  - -- Type of injuries and ailments that can be treated.
  - -- How kit is issued?
- o Specialized kits:
  - -- How and where carried?

CHEMICAL, MEDICAL, AND LOGISTIC (CML) REQUIREMENTS

-- Type of injuries and ailments that can be treated.
-- How kit is issued?

Hospitals

List of subcategories.

- o Aid stations.
- o Mobile hospitals.
- o Permanent hospitals.

Main category requirements.

- o Size.
- o Documents, manuals, and forms.
- o Location found.
- o Power requirements.
- o Treatment capabilities.
- o Personnel required to operate.
- o Number of personnel that can be treated.
- o Photographs.
- o Inventory.
- o Adjacent hospital activities (labs, clinics).
- o At which level of command controlled.

Subcategory requirements.

- o Aid stations:
  - -- Amount of time required to become operational.
  - -- Logistic support needed for movement.
  - -- Time required for evacuation.
- o Mobile hospital:
  - -- Amount of time required to become operational.
  - -- Logistic support needed for movement.
- o Permanent hospital:
  - -- Amount of time required to become operational.
  - -- Logistic support needed for movement.

Medical Vehicles

List of subcategories.

- o Ambulances.
- o Aircraft.

Main category requirements.

- o Documents and manuals.
- o Inventory.
- o Photographs.
- o Crew members required.
- o Personnel transport capability.
- o On-board treatment capability.
- o On-board NBC protection capability.

Subcategory requirements.

- o Ambulance:

-- Wheeled or tracked vehicles.

-- What type fuel used?

Messing

List of subcategories.

- o Field utensil.
- o Portable pots and pans.
- o Portable immersion heater.
- o Field rations.

Main category requirements.

- o Size.
- o Weight.
- o Documents and manuals.
- o Location.
- o Data plate information.
- o Inventory.
- o Photographs.
- o Year of manufacture.

Subcategory requirements.

- o Field utensil (material used).
- o Portable pots and pans (types of material).
- o Portable immersion heater (fuel used).
- o Field rations:
  - -- Types of rations.
  - -- How to prepare.
  - -- Number of servings per pack.

Camouflage and Concealment

List of subcategories.

- o Camouflage netting.
- o Camouflage screening.
- o Camouflage clothing.

Main category requirements.

- o Size.
- o Weight.
- o Documents and manuals.
- o Location found.
- o Data information.
- o Inventory.
- o Photographs.
- o Colors.
- o Pattern.
- o Type of material used.
- o Radar reflective (yes or no).
- o Infrared reflective (yes or no).
- o Serviceability and durability.

Subcategory requirements.

- o Camouflage netting.
- o Camouflage screening.
- o Camouflage clothing.

CHEMICAL, MEDICAL, AND LOGISTIC (CML) REQUIREMENTS

Body Armor

List of subcategories.

- o Body vest.
- o Helmets.

Main category requirements.

- o Size.
- o Weight.
- o Documents and manuals.
- o Location found.
- o Data plate information.
- o Inventory.
- o Photographs.
- o Type of protection given.
- o Type of material used.

Subcategory requirements.

- o Body vest.
- o Helmets.

WEAPONS AND MUNITIONS REQUIREMENTS

Missiles, Rockets, and Munitions

List of subcategories.

- o Artillery.
- o Mortars.
- o Bombs.
- o Mines.
- o Booby traps.
- o Grenades.
- o Missiles.
- o Rockets.

Main category requirements.

- o Size.
- o Type/use.
- o Filler.
- o Fuze.
- o Markings.
- o Color code.
- o System used in.

Subcategory requirements.

- o Artillery and missiles:
  - -- Propellant and rocket motor.
  - -- Guidance.
- o Mortars, projected grenades, and rockets (propellant).
- o Mines (additional fuze wells).

Artillery

List of subcategories.

- o Tube artillery.
- o Conventional antiaircraft.

Main category requirements.

- o Towed or self propelled:
  - -- Self propelled (cab or turret-opened or closed).
  - -- Towed (type of prime mover).
- o Caliber.
- o Type of recoil (spring, hydraulic, pneumatic).
- o Length of recoil movement.
- o Type of elevation system (manual or power) and limit.
- o Type of traverse system (manual or power) and limit.
- o Muzzle brake and flash suppressor.

Subcategory requirements.

- o Tube artillery:
  - -- Type of breech mechanism (sliding wedge).

WEAPONS AND MUNITIONS REQUIREMENTS

-- Type of ammunition (fixed, semifixed, separate).
-- Rifled or smooth bore.
-- Bore evacuator.
-- Fire control (direct or indirect).

o Antiaircraft:

-- Single or multiple barrels.
-- Type of fire control.
-- Type of loading mechanism.
-- Type of firing mechanism (percussion, electric).
-- Gun drive system (manual, electric, mechanical).

Small Arms

List of subcategories.

o Pistols.
o Rifles.
o Machine guns.
o Cannons.

Main category requirements.

o Caliber.
o Type feeding and quantity.
o Single shot or automatic.
o Smooth bore or rifled.
o Fixed sights or adjustable.
o Heavy or light weapon.
o Muzzle brake or flash suppressor.
o Type ammunition used.
o Type locking system.
o Gas or recoil operated.

Subcategory requirements.

o Pistols:

-- Revolver or semiautomatic.
-- Rimmed cartridge.
-- Last round stop.

o Rifles:

-- Carbine, assault, or sniper.
-- Steel sights or scope.
-- What power scope.
-- Last round stop.
-- Fixed or removable bayonet.
-- Fires from open or closed bolt.

o Machine guns:

-- Heavy or light.
-- Vehicle mounted or conventional.
-- Stock or spade grips.

WEAPONS AND MUNITIONS REQUIREMENTS

-- Last round stop.
-- Fixed or adjustable bipod or tripod.

o Cannons:

-- Ground and antiaircraft capabilities.
-- Manual and electric fire.
-- Type of fire control.
-- Fires from open or closed bolt position.

Grenade Launchers

List of subcategories.

o Hand held.
o Tripod mounted.
o Vehicle mounted.

Main category requirements.

o Caliber.
o Rifled or smooth bore.
o Method of loading.
o Firing method.
o Type of round.

Subcategory requirements.

o Hand held (attached to another weapon).
o Tripod mounted (crew served, number of members).
o Vehicle mounted (single or multitubed).

Fire Control

List of subcategories.

o Off carriage.
o On carriage.

Main category requirements.

o Use (observation, target designation, aiming, range).
o Type (night vision, laser, optic).
o Style (periscope, telescope, stereoscopic) and power.
o Manual or powered.
o Reticle (type, quantity, stabilized).

Subcategory requirements.

o Off carriage:

-- Weight.
-- Tripod use.
-- Day or night use.
-- Durability.

o On carriage:

-- Where mounted?
-- Type of power for operation.

WEAPONS AND MUNITIONS REQUIREMENTS

Recoilless Rifles

List of subcategories.

- o Ground mounted.
- o Vehicle mounted.
- o Shoulder fired.

Main category requirements.

- o Caliber.
- o Smooth or rifled.
- o Breech type.
- o Type of firing mechanism.
- o Spotting gun.
- o Fire control.
- o Type of round.

Subcategory requirements.

- o Ground mounted:
  - -- Type of mount.
  - -- Elevation and traverse (methods and limits).
  - -- Crew served (number of members).
- o Vehicle mounted:
  - -- Type of vehicle.
  - -- Elevation and traverse (methods and limits).
  - -- Type of mount (can it also be used in ground role).
  - -- Crew served (number of members).
- o Shoulder fired:
  - -- Weight.
  - -- Pistol or grip.
  - -- Bipod.

Turret and Cupola Mounted Weapons

List of subcategories.

- o Tanks.
- o Infantry fighting vehicles.

Main category requirements.

- o Type of vehicle.
- o Location.
- o Size.
- o Weapons.
- o Viewing and fire control.
- o Method of operation (power, manual or stabilized).
- o Ammunition storage (quantity, type, location).
- o Attachments (lights, antennas, grenade projectors).

Subcategory requirements.

- o Tanks:
  - -- Main gun:
    - Caliber.
    - Smooth or rifled.
    - Bore evacuator and muzzle flash suppressor.
    - Breech type.
    - Recoil type.

WEAPONS AND MUNITIONS REQUIREMENTS

- Elevation and traverse (method and limits).
- Firing mechanism.
- Ammunition types.
- Method of firing.

-- Coaxial weapons:

- Caliber.
- Type.
- Ammunition.
- Method of firing.

-- Cupola:

- Weapons.
- Traverse and elevation (method and limits).
- Fire control.
- Method of firing.

-- Crew compartment:

- Number of stations.
- Firing ports.

o Infantry fighting vehicles:

-- Main guns:

- Caliber.
- Type.
- Method of loading.
- Method of firing.
- Fire control.
- Elevation and traverse (method and limits).

-- Coaxial weapons:

- Caliber.
- Type.
- Method of loading.
- Method of firing.

-- Crew compartment:

- Number of stations.
- Firing ports.
- Ammunition storage (quantity and type).

Mortars

List of subcategories.

o Manpack.
o Towed.
o Self propelled.

Main category requirements.

o Caliber.
o Recoil type (if any).
o Traverse mechanism and limits.
o Elevation mechanism and limits.
o Type of firing mechanism.
o Type of ammunition (fixed or separate loading).
o Fire control.

WEAPONS AND MUNITIONS REQUIREMENTS

Subcategory requirements.

- o Manpack:
  - -- Mount type (base plate, tripod).
  - -- Number of crew members required and their mission (two for the tube, one for the base plate, three for the tripod).
  - -- Capable of mounting on a vehicle.
- o Towed:
  - -- Prime mover.
  - -- Type of carriage (single or multiple axle).
- o Self propelled:
  - -- Type of vehicle.
  - -- Dismountable.

APPENDIX G

FOREIGN IANGUAGE TEXT RECOGNITION GUIDE

INTRODUCTION

When TECINT teams are able to correctly identify foreign language text, it has two immediate benefits. First, it speeds the exploitation process; second, it ensures that TECHINT personnel request the correct linguistic support.

This appendix contains language identification hints TECHINT personnel can use to quickly identify some of the many languages used in documents, on equipment plates, and on other identification materiel. By identifying and reporting the correct language, TECHINT personnel can request the right linguistic support. This speeds the entire battlefield TECHINT process.

The materiel in this appendix was compiled by the FSTC. Keep in mind that because there are thousands of languages and dialects in use in the world today, this material is not complete. However, it should prove useful in most situations TECHINT teams are likely to encounter.

LANGUAGE SYSTEMS

The world's written languages can be divided into alphabet languages and character languages. The only present-day character system is the Chinese system, which has been borrowed by other languages. But there are many alphabets. The most important alphabets currently in use are--

- The Roman alphabet (used by English and many other languages).
- The Cyrillic alphabet (used by Russian, some other Slavic languages, and most of the minority languages of the Soviet Union) .
- The Arabic alphabet (used in the Middle East and other areas influenced by Islam).

Other alphabets exist, but their use is more restricted:

- The Hebrew alphabet is used for Hebrew and Yiddish; the Greek alphabet is used for Greek.
- The Devanagari alphabet is used for Sanskrit and other languages in India.

Figure G-1 shows some of these spoken languages and some of the locations where they are spoken.

In addition, there are special alphabets for languages like Georgian in the USSR; Telugu and the other Dravidian languages in southern India; Lao and other languages in southeast Asia; and Amharic in Ethiopia.

Illustrations of the main alphabets are normally available in standard desktop dictionaries like Webster's New Collegiate Dictionary. Many unusual scripts are illustrated in the revised and enlarged edition of the Romanization Guide, dated 1 April 1972. This is put out by the Office of the Geographer, Directorate for Functional Research, Bureau of Intelligence and Research, US Department of State, and the US Board on Geographic Names.

Language	Location
Chinese	People's Republic of China, Taiwan, Hong Kong, Thailand
English	United States, Canada, Great Britain, Ireland, Australia, New Zealand
Spanish	Spain, South America, Central America, Mexico
Hindi	North Central India
Russian	Soviet Union, Europe
Arabic	Saudi Arabia, Yemen, South Yemen, United Arab Emirates, Oman, Kuwait, Bahrain, Katar, Iraq, Syria, Jordan, Lebanon, Egypt, Sudan, Libya, Tunisia, Algeria, Morocco
Portuguese	Portugal, Brazil, Africa, Asia
Japanese	Japan
German	Germany, Austria, Switzerland
Urdu	Pakistan, India
French	France, Belgium, Switzerland, Canada, Morocco, Tunisia, Algeria, Lebanon, Syria, Laos, Cambodia, Vietnam
Korean	Korea, China, Japan
Italian	Italy, Switzerland
Vietnamese	Vietnam
Turkish	Turkey, Bulgaria, Greece, Cyprus
Persian (Farsi, Dari)	Iran, Afghanistan (Tadzhik, USSR)
Polish	Poland, United States, Soviet Union
Ukrainian	Ukrainian SSR
Rumanian	Romania, Moldavian SSR
Serbian (Croatian)	Yugoslavia
Pashto	Afghanistan, Northwest Pakistan
Czech (Slovak)	Czechoslovakia
Dutch	Netherlands, Suriname, Belgium
Hungarian	Hungary, Romania, Czechoslovakia, Yugoslavia
Danish (Norwegian)	Denmark, Norway
Bulgarian	Bulgaria
Swedish	Sweden
Belorussian	Belorussian SSR
Finnish	Finland
Albanian	Albania, Yugoslavia
Lithuanian	Lithuanian SSR
Latvian	Latvian SSR
Slovenian	Slovenia (Northwest Yugoslavia)
Estonian	Estonian SSR
Macedonian	Macedonia (Yugoslavia)

Figure G-1. A Partial list of spoken languages and locations where they are spoken.

Reliable detailed information about foreign languages for people who can not actually read them is available in manuals compiled for professional librarians. These manuals can be found at your local library.

ROMAN ALPHABET LANGUAGES

The most complex language recognition problem is to distinguish between the numerous languages that use the Roman alphabet. The twenty-six letter alphabet is used here as the basic alphabet. The other Roman alphabet languages use these same letters, but many use fewer than twenty six and a few use more.

Unfortunately, just because a letter is not used is not a very useful language recognition criterion. This is because it is difficult to know whether a letter is absent because it is never used or because it simply wasn't needed to write the text in question.

Five of the letters <a, e, i, o, u> are referred to collectively as "vowels," while the rest are called collectively "consonants." The rules designating letters as vowels or consonants vary from language to language. Some languages, for instance, consider <l>, <r>, or <y> to be vowels. Most of the Roman alphabet languages modify letters by putting extra marks above, in, or below them. These marks are called diacritics. They are among the best criteria for language recognition.

DIACRITICS

Figure G-2 shows the principal diacritics used by various languages to modify the Roman alphabet. Figure G-3 shows the languages that use these diacritics. The diacritics are divided into three groups, depending on whether they are written above, in, or below the letter. They are given standard names for convenience; their actual names vary from language to language.

Figure G-3 summarizes the occurrence of various diacritics in selected Roman alphabet languages and gives examples of letters with diacritics on them.

WESTERN EUROPEAN LANGUAGES

Western European languages include those commonly called Romance and Germanic languages.

DISTINGUISHING FRENCH, GERMAN, AND DUTCH

French

French is generally easiest to recognize because it is so familiar and has so many words in common with English. French uses acute <´> and grave <`> on <e>. Acute is not used on any other letters, but grave is used occasionally on <a> and <u>. Circumflex <^> is used on <a, e, i, o, u> and cedilla <¸> is used under <c>. The French commonly omit diacritics over capital letters and in typescript. Definite article forms: le, la, les. French also uses a trëma <oe, ï, ë>.

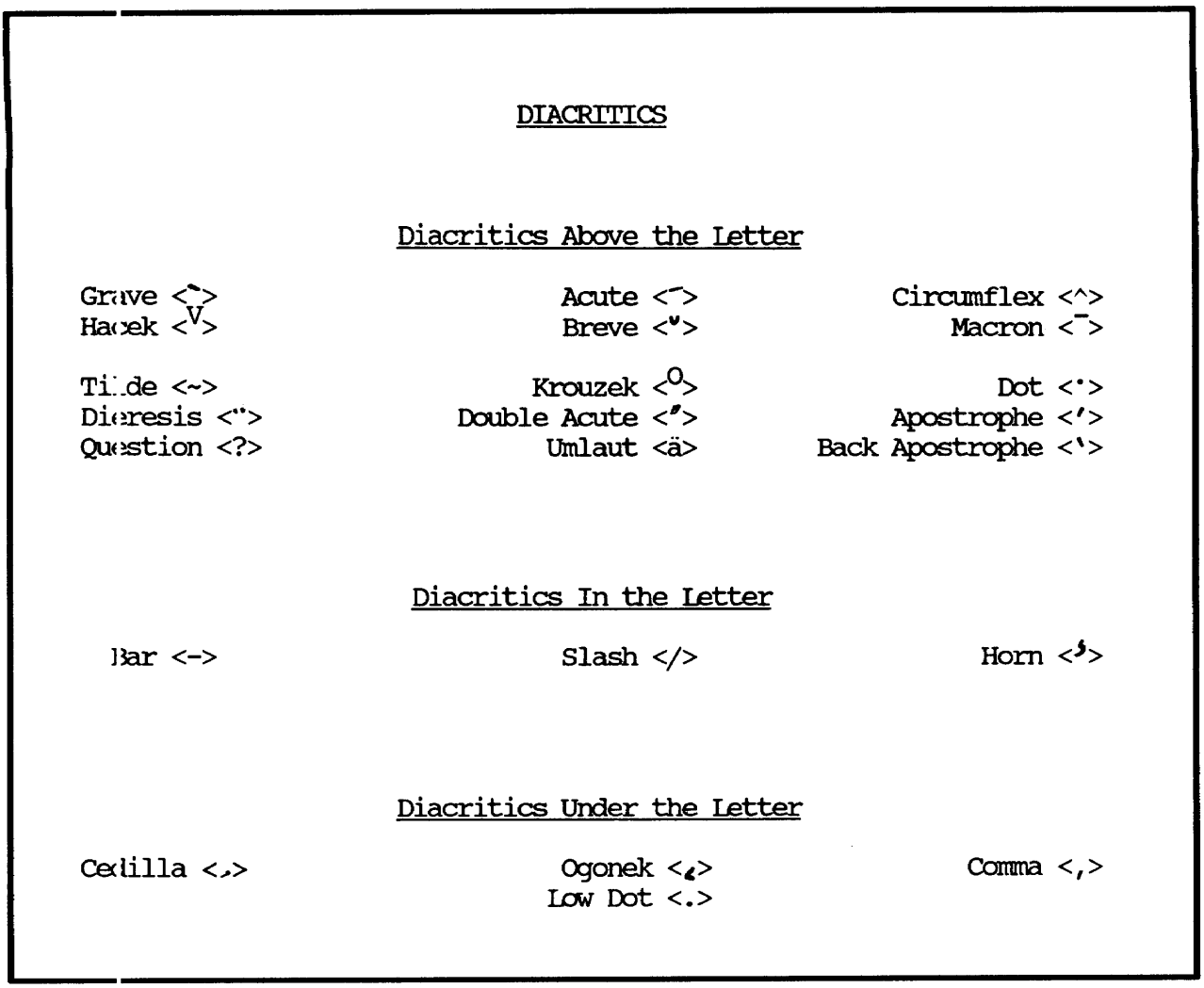


Figure G-2. Table of diacritics.

German

German uses the umlaut <¨> on <a, o, u>. This is the language's only diacritic. German also uses a special letter, the Eszett <ß>, which does not begin a word. In regular prose, capitalization is rather frequent since all nouns are capitalized. Definite article forms: der, die, das, des, dem, den.

Dutch

Dutch can be mistaken for German; however, Dutch does not capitalize its nouns in regular prose. Dutch adopted a few diacritical forms from the French language. These include: acute <een>; grave <crepe>; apostrophe <'t, z'n, d'r, etc.>; dieresis <België>; and sometimes the cedilla <¸>. Definite article forms: de and het.

Diacritics Written Above the Letter

<`> grave: French, Italian, Portuguese, Vietnamese, e.g., <à>
</> acute: Croatian, Czech, French, Greek, Hungarian, Italian, Polish <N, O, S, C, Z>, Slovak, Spanish, Portuguese, Vietnamese; e.g., <á, ó>
<^> circumflex: French, Italian, Portuguese, Rumanian, Vietnamese, Turkish, e.g., <â, ô>
<v> hacek: Croatian, Czech, Estonian, Latvian, Lithuanian <S, Z, C>, Slovak, Slovenian, e.g., <č, ě>
<˘> breve: Rumanian, Turkish, Vietnamese; e.g., <ă, ğ>
<¯> macron: Latvian, Lithuanian; e.g., <ā, ū>
<~> tilde: Estonian, Portuguese, Spanish, Vietnamese; e.g., <ã, ñ>
<°> krouzek: Czech, Danish, Norwegian, Swedish; e.g., <å, ů>
<.> dot: Lithuanian <e>, Polish, Turkish, e.g., <ė, ż>
<"> dieresis: Albanian, Estonian, Finnish, French, German, Hungarian, Slovak, Portuguese <ü>, Spanish, Swedish, Turkish; e.g., <ä, ë>
<"> double acute: Hungarian; e.g., <ő, ű>
<'> apostrophe: Czech, French, Slovak; e.g., <ď, ť>
<?> question: Vietnamese; e.g., <ả, ẻ>
<‘> back apostrophe: Latvian; e.g., <ģ>

Diacritics Written In (or Touching) the Letter

<-> bar: Croatian, Polish, Vietnamese; e.g., <đ, ł, ₫>
</> slash: Danish, Norwegian, Polish; e.g., <ł, ø>
<'> horn: Vietnamese; e.g., <ư, ơ>

Diacritics Written Under the Seat

<¸> cedilla: Albanian, French, Portuguese, Turkish, e.g., <ç, ş>
<˛> ogonek: Lithuanian
<,> comma: Latvian, Rumanian; e.g., <ķ, ș>
<.> low dot: Vietnamese; e.g., <ạ, ẹ>

Figure G-3. The occurrence of diacritics in various languages.

DISTINGUISHING SPANISH, PORTUGUESE, AND ITALIAN

For Spanish, look for acutes occasionally over vowels, tilde over <n> but not over vowels, no grave accents, and words that end in <n>. For Portuguese look for the tilde over <a> and <o> but not over <n>, the cedilla under <c>, and some words that end in <m>. For Italian look for occasional graves over vowels, no tildes or cedillas, and numerous doubled consonants; e.g. <tt>, <gg>, <pp>, <vv>, etc. Of course, look for the definite articles: they are frequently used and mostly different in the three languages.

Spanish

Spanish uses acute </> on vowels <a, e, i, o, u> and tilde <~> on <n>. Since the acute marks irregular word accent, there will normally be no more than one acute per word and it will appear on the last vowel or third from last vowel. Dieresis <"> is used occasionally over <u>. Grave <`> and circumflex <^> are not used. Definite article forms: el, la, los, las.

Portuguese

Portuguese uses acute </>, grave <`>, and circumflex <^> occasionally over vowels. and tilde <~> frequently over <a> and <o>. Cedilla <¸> is used under <c>. Dieresis <"> is used over vowels occasionally. Definite article forms: o, os, a, as.

Italian

Italian uses acute </> on <e> and grave <`> on vowels <a, e, i, o, u> to indicate unusual accent. Some type fonts may substitute circumflex <^> for grave. Normally there will be no more than one grave per word and it will appear on the last vowel or third from last vowel. Definite article forms: il, lo, i, gli, la, le.

NORTHERN EUROPEAN LANGUAGES

Northern European languages include North Germanic and Slavic, as well as unique languages of the Finno-Ugric family. The distinguishing features of each are described below.

Swedish

Swedish uses dieresis <"> on <a> and <o> and krouzek <°> on <a>. A frequent word is och; meaning "and."

Danish and Norwegian

Danish and Norwegian use the same alphabet. They use krouzek <°> on <a> and slash </> on <o>, and a special letter, the ae digraph <Æ,æ>. Written Danish and Norwegian are difficult to tell apart, but anyone who can read one can make sense out of the other. A frequent word in both languages is og; meaning "and."

Finnish

Finnish is very different from the other northern European languages, but it is similar to Estonian, which is spoken in the USSR. Finnish uses dieresis <¨> on <a> and <o>. About 60 percent of the average text consists of vowels (including <y>). Look for frequent double vowels; <aa>, <ee>, <ii>, etc.

Estonian

Estonian uses tilde <~> on <o>, dieresis <¨> on <a, o, u>, and hacek <ˇ> on <s, z> infrequently in foreign words. At first glance Estonian looks very much like Finnish, and both are of the Finno-Ugric family. To tell the two languages apart, look for <y> (Finnish) or <u> with dieresis (Estonian).

Hungarian

Hungarian uses acute <´> on <a, e, i, o, u>, dieresis <¨> on <o, u>, and double acute <˝> on <o, u>. These three diacritics are very frequent and should all appear in an average paragraph. Definite article forms: a, az. Though not Northern European, Hungarian is listed here because it is in the Finno-Ugric family.

ROMAN ALPHABET SLAVIC LANGUAGES

It is often difficult to distinguish between the Roman alphabet Slavic languages. Of these languages, Polish is easiest to distinguish from the rest because it does not use hacek <ˇ>, whereas the other do; and because it uses <w> frequently and <v> almost never, whereas the opposite situation occurs in the other languages.

The languages of Czechoslovakia--Czech and Slovak--can be distinguished from the Roman alphabet languages of Yugoslavia, Croatia, and Serbia because Czech and Slovak use acute <´> on vowels (including <y>) and Croatian and Slovenian don't. Acutes are so frequent in Czech and Slovak that the absence of acutes in an average length sentence can be taken as a valid negative test. To distinguish between Czech and Slovak see above.

The presence of the diacritics listed above for Croatian indicate that it may be Croatian; but there isn't any convenient way to test for Slovenian against Croatian. If in doubt between Croatian and Slovenian, assume Croatian unless it can be established that the text was published in Ljubljana.

Polish

Polish uses acute <´> on <c, n, o, s, z>; ogonek <˛> on <a, e>; bar <-> (occasionally depending on font as a substitute for slash) on <L, l, Z>, such as <L, l, Z>; and <˙> dot on <z>. Letters <w> and <z> are very frequent in Polish, and the <v> almost never occurs.

Czech

Czech uses acute <'> on <a, e, i, o, u, y>, hacek <^{V}> on <c, d, e, n, r, s, t, z>, krouzek <°> on <u>. The letter <r> with hacek is frequent in Czech and lacking in Slovak.

Slovak

Slovak uses acute <'> on <a, e, i, l, r, o, u, y>; dieresis <"> on <a>; circumflex <^> on <o>; hacek <^{V}> on <c, d, l, n, s, t, z>; and apostrophe <'> on <d, l, t>. the digraph <ie> is fairly frequent in Slovak and very infrequent in Czech. Slovak is used in eastern Czechoslovakia. Suspect Slovak if Bratislava is the origin.

Croatian

Croatian uses acute <'> on <c>, hacek <^{V}> on <c, s, z>, and bar <-> on <d>. Croatian is used in northern and coastal Yugoslavia around the city of Zargreb.

Slovenian

Slovenian uses hacek <^{V}> on <c, s, z> and no other diacritics. Slovenian is used in extreme northwest Yugoslavia around the city of Ljubljana.

Rumanian

Rumanian uses breve <^{V}> on <a>, circumflex <^> on <a, i>, and comma <,>under <s, t>.

Albanian

Albanian uses dieresis <"> on <e> and cedilla <¸> under <c>. The <e> with dieresis is very common. Another recognition mark of Albanian is the use of <q> without <u>.

Lithuanian

Lithuanian uses hacek <^{V}> on <c, s, z>, macron <¯> on <u>, dot <.> on <e>, and ogonek <˛> under <a, e, i, u>. The frequent occurrence of ogonek is a good recognition sign for Lithuanian.

Latvian

Latvian uses hacek <^{V}> on <c, s, z>, macron <¯> on <a, e, i, o, u>, and comma <,> under <k, l, n>. Comma is also used under <G> (upper case letter only), while back apostrophe <‘>is used on <g> (lower case letter only). In this case the two marks are variant forms of the same diacritic. The macrons and commas are a good recognition sign for Latvian.

OTHER ROMAN ALAPHABET LANGUAGES

Turkish and Vietnamese use the Roman alphabet with unusual diacritics.

Turkish

Turkish uses breve <˘> on <g>, dieresis <¨> on <o, u>, and cedilla <¸> on <c>. Turkish has two forms of the letter <i>. One has the upper case <I> and a corresponding lower <ı> that looks like an "i" without the dot. The other letter has the lower case form <i> (the same as English) and a corresponding upper case form that looks like English "I" with a dot <İ>. Turkish also uses circumflex <^> <latif> <lugat>.

Vietnamese

Vietnamese uses a very complex system of diacritics. It uses breve <˘> on <a>, circumflex <^> on <a, e, o>, horn <ʃ> on <o, u>, and bar <-> on <d>. In addition to these, the following five diacritics are used with vowels to indicate tone: grave <‘>, acute <’>, low dot <.>, question <?>, and tilde <~>. Vowels with breve, circumflex, and horn can, and often do, have a tone diacritic. So, in Vietnamese, one letter can have two diacritics on it.

CYRILLIC ALPHABET LANGUAGES

The Cyrillic alphabet is used to write Russian, Ukrainian, Belorussian, and many minority languages in the Soviet Union. It is also used to write Bulgarian and Serbian. The Cyrillic alphabet and the Roman alphabet are both derived from forms of the Greek alphabet so there is a general resemblance. Some Cyrillic letters seem to Americans to be backwards or oddly shaped. Figure G-4 shows the characters and diacritics not found in Russian. With the exception of one letter Ъ, which is only used sometimes in Russian, none of these letters appear in the normal Russian text.

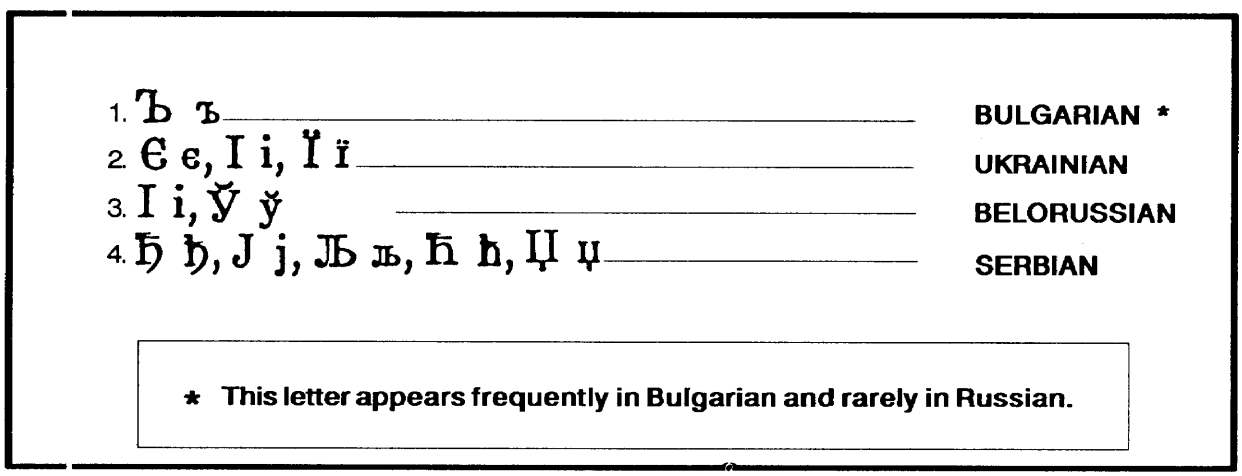


Figure G-4. Distinguishing major Slavic languages from Russian.

SLAVIC LANGUAGES

Figure G-4 gives the simplest recognition guide for identifying documents that look like Russian but are actually other Slavic languages or minority languages.

TRANSLITERATION

Figure G-5 shows the different foms of the Cyrillac alphabet for five principal Cyrillac alphabet languages and the recommended transliterations for each letter. Pay particular attention to the transliteration of Russian. These equivalents must be used when reporting on materiel bearing Russian nameplates. DO NOT REPORT ON FOREIGN EQUIPMENT AND DOCUMENTS USING THE ORIGINAL CYRILLIC CHARACTER. The Figure classifies each letter as "C" for consonnant or "N" for nonconsonant.

Russian

Russian is the most frequently encountered Cyrillic alphabet language and should always be the prime suspect. The key to recognizing Russian is the fact that it uses both letter 12 and letter 39 and does not use letter 13 at all. (See Figure G-5.)

Bulgarian

Bulgarian is perhaps the second most frequently encountered Cyrillic-alphabet language and the most difficult for the non-specialist to differentiate from Russian. Bulgarian uses fewer letters than Russian. For example, a letter used often in Russian and never in Bulgarian is the letter 39 in Figure G-5; however, the way to be sure that it is not Bulgarian is to see if the letter 38 in Figure G-5 comes before a consonant or "C" letter. Note that letter 38 is frequent in Bulgarian and rare in Russian; moreover, when letter 38 occurs in Russian, it always occurs before an "N" letter.

Proper transliteration is very important. When an analyst reads a Russian nameplate and writes down P-105A, but it is actually an R-105D (P is not P, rather “R,” and <¤> is wrongly symbolized by A), then it results in incorrect reporting.

The column in Figure G-5 marked “other” is not supplied with any transliteration equivalents. This column contains similar letters that are encountered in the written languages of various minority nationalities in the USSR. These languages belong mainly to the Uralic family or the Altaic family, and a Russian linguist will be unable to make any sense out of them. Recognition of any documents in these languages as non-Slavic is a helpful first step in document exploitation. In the following discussion the letters are referred to by their numbers on the chart in Figure G-5.

Ukrainian

Ukrainian is distinguished by the use of letter 12 and letter 13 and the non-use of letter 39. Letter 9 and 14 also are unique to Ukrainian, but their frequency is low and their absence may be accidental.

No.		Russian		Ukrainian		Belorussian		Bulgarian		Serbian		Other
1.	N	А а	a	А а	a	А а	a	А а	a	А а	a	Ă ă Ā ā Ææ
2.	C	Б б	b	Б б	b	Б б	b	Б б	b	Б б	b	–
3.	C	В в	v	В в	v	В в	v	В в	v	В в	v	–
4.	C	Г г	g	Г г	g	Г г	g	Г г	g	Г г	g	Ғ ғ Ґ ґ
5.	C	Д д	d	Д д	d	Д д	d	Д д	d	Д д	d	–
6.	C	–	–	–	–	–	–	–	–	Ђ ђ	đ	–
7.	N	Е е	e/ye	Е е	e	Е е	e/ye	Е е	e	Е е	e	Ё ё Ə ə
8.	N	Ё ё	ë/yë	–	–	Ё ё	ë/yë	–	–	–	–	–
9.	N	–	–	Є є	ye	–	–	–	–	–	–	–
10.	C	Ж ж	zh	Ж ж	zh	Ж ж	zh	Ж ж	zh	Ж ж	ž	Ӝ ӝ Җ җ
11.	C	З з	z	З з	z	З з	z	З з	z	З з	z	Ӟ ӟ Ҙ ҙ
12.	N	И и	i	И и	y	–	–	И и	i	И и	i	Й ӣ Й й
13.	N	–	–	І і	i	І і	i	–	–	–	–	Ӏ і І І
14.	N	–	–	Ї ї	yi	–	–	–	–	–	–	–
15.	C	Й й	y	Й й	y	Й й	y	Й й	y	–	–	–
16.	C	–	–	–	–	–	–	–	–	Ј ј	j	–
17.	C	К к	k	К к	k	К к	k	К к	k	К к	k	Қ қ К к
18.	C	Л л	l	Л л	l	Л л	l	Л л	l	Л л	l	Ԯ ԯ
19.	C	–	–	–	–	–	–	–	–	Љ љ	lj	–
20.	C	М м	m	М м	m	М м	m	М м	m	М м	m	–
21.	C	Н н	n	Н н	n	Н н	n	Н н	n	Н н	n	Ң ң Ҥ ҥ Ҥ ҥ
22.	C	–	–	–	–	–	–	–	–	Њ њ	nj	–
23.	N	О о	o	О о	o	О о	o	О о	o	О о	o	Ӧ ӧ Ө ө Ө ө
24.	C	П п	p	П п	p	П п	p	П п	p	П п	p	–
25.	C	Р р	r	Р р	r	Р р	r	Р р	r	Р р	r	–
26.	C	С с	s	С с	s	С с	s	С с	s	С с	s	Ҫ ҫ
27.	C	Т т	t	Т т	t	Т т	t	Т т	t	Т т	t	Ҭ ҭ
28	C	–	–	–	–	–	–	–	–	Ћ ћ	ć	–
29.	N	У у	u	У у	u	У у	u	У у	u	У у	u	Ӯ ӯ Ӱ ӱ Ӯ ӯ
30.	C	–	–	–	–	Ў ў	w	–	–	–	–	Ү ү Ѵ ѵ Ѵ ѵ
31.	C	Ф ф	f	Ф ф	f	Ф ф	f	Ф ф	f	Ф ф	f	–
32.	C	Х х	kh	Х х	kh	Х х	kh	Х х	kh	Х х	h	Ҳ ҳ
33.	C	Ц ц	ts	Ц ц	ts	Ц ц	ts	Ц ц	ts	Ц ц	c	–
34.	C	Ч ч	ch	Ч ч	ch	Ч ч	ch	Ч ч	ch	Ч ч	č	Ӵ ӵ Ҷ ҷ Ҷ ҷ
35.	C	–	–	–	–	–	–	–	–	Џ џ	dž	h h
36.	C	Ш ш	sh	Ш ш	sh	Ш ш	sh	Ш ш	sh	Ш ш	š	–
37.	C	Щ щ	shch	Щ щ	shch	–	–	Щ щ	sht	–	–	–
38.	N	Ъ ъ	"	–	–	–	–	Ъ ъ	ŭ	–	–	–
39.	N	Ы ы	y	–	–	Ы ы	y	–	–	–	–	–
40.	N	Ь ь	'	Ь ь	'	Ь ь	'	Ь ь	'	–	–	Ы ы
41.	N	Э э	e	–	–	Э э	e	–	–	–	–	–
42.	N	Ю ю	yu	Ю ю	yu	Ю ю	yu	Ю ю	yu	–	–	–
43.	N	Я я	ya	Я я	ya	Я я	ya	Я я	ya	–	–	–

Figure G-5. Cyrillic alphabet and transliteration chart.

Notes:

1. The letters are numbered sequentially for ease of reference. The alphabetic order given is the convenient one, which is not necessarily the traditional one.

2. The letters marked "N" are nonconsonants; and the letters marked "C" are consonants.

3. Letters 7 and 8 have alternate transliterations for Russian and Belorussian. In all cases, the first transliteration is used when the letter occurs after a "C" letter; the second transliteration is used in all other cases, including when the letter begins the word.

4. Letter 8 is not considered a separate letter and its dieresis is often omitted.

5. Letter 4 is pronounced something like "h" in Ukrainian and Belorussian and "h" is often the recommended transliteration. However, transliteration "g" is recommended here to eliminate confusion with the letters transliterated "sh" and "zh."

6. The "Other" category refers to various minority languages in the Soviet Union, many of which are Uralic or Altaic languages.

Figure G-5. Cyrillic alphabet and transliteration chart (continued).

When Ukrainian is identified, pay particular attention to the transliration of letter 12. The recommended transliteration for letter 4 is "g" in spite of the fact that its pronunciation is closer to English “h."

Belorussian

Belorussian is distinguished by the use of Letter 13 and letter 39 and the non-use of letter 12. Letter 30 is unique to Belorussian, but its frequency isn’t high enough to use it as an identification sign. As in Ukranian, letter 4 in Belorussian is transliterated "g" and pronounced like "h."

Serbian

Serbian is spotted easily by the several unique letters it uses: letters 6, 16, 19, 22, 28, and 35. Serbian is conventionally transliterated into Croatian, and this is what the chart gives. The diacritics of the Croatian script are discussed in the "Roman alphabet languages" section above.

Macedonia

Macedonia is spoken by perhaps two million people in southeastern Yugoslavia. The Macedonian alphabet is similar to the Serbian, except that letters 6 and 28 are not used and three other letters are added. The added letters are letter 4 with an acute <->, letter 17 with an acute <->, and <S, s>. Macedonian language documents are rare.

ARABIC ALAPHABET LANGUAGES

The Arabic alphabet has generally followed the spread of Islam and has been used to write numerous languages, some of which (notably Turkish) no longer use it. This alphabet, appropriately modified, currently is used for all the dialects of Arabic and for Persian, Urdu, and other Indo-Iranian languages, such as Dari, Pashto, and Kurdish. The Russian and Cyrillic alphabets seem even more related to one another when compared to Arabic.

ARABIC AND PERSIAN

The best distinction a nonlinguist can make is to separate Persian documents from Arabic documents. The Persian linguist cannot read Arabic, and vice versa, unless they know both languages.

Arabic

Arabic is spoken over a large area extending from Morocco on the west to borders of ancient Persia (modern Iran) on the east. The spoken language varies widely in this area, but the written language is fairly standard. Only a specialist could hope to distinguish the varieties of Arabic, but a sharp-eyed nonlinguist can learn to recognize Arabic and distinguish it from Persian. The best indication is perhaps the presence of letter 32, which is not used in Persian. The next best indication is perhaps the frequent occurence of the definite article <ال>, which is spelled with letter 1 (initial) and letter 27 (initial). A final characteristic is the absence of the special Persian letters: such as letters 3, 7, 14, and 26. Since this is a negative indication, however, it cannot be used by itself to prove that a text is Arabic.

Persian

Persian is used in Iran. It is indicated by the presence of the special Persian letters 3, 7, 14, and 26, and by the absence of letter 32. Other indications are a paucity of letter 1 and 27 combinations (the Arabic definite article) and a slightly different preference in numeral usage. Numeral usage is discussed below and illustrated in Figure G-6.

160-9170 -94-5

International	Arabic	Persian	International	Arabic	Persian
0	٠	٥ or ٠	6	٦	۶ or ٦
1	١	۱	7	٧	۷
2	٢	۲	8	٨	۸
3	٣	۳	9	٩	۹
4	٤	۴ or ٤	10	١٠	١٥ or ١٠
5	٥	۵ or ٥	20	٢٠	٢٥ or ٢٠

Figure G-6. International, Arabic, and Persian numbers.

In school, the numerals used in the United States and most of the rest of the world are often called 'Arabic numerals,' but these are not the same form used in Arabic alphabet languages. The real Arabic numerals are illustrated in Figure G-6. This figure also shows Arabic and Persian variants of the numerals along with their international equivalents. Note that unlike the Arabic alphabet (which is, of course, read from right to left), ARABIC NUMERALS ARE READ FROM LEFT TO RIGHT, THE SAME WAY AS OUR OWN NUMERALS ARE READ.

Document collectors should familiarize themselves with the Arabic numerals so they can read page numbers in collected documents and properly reassemble documents that have come apart. Collectors should remember that one of the results of the right to left orientation of the Arabic alphabet is that the apparent "back" of a document is actually the front.

Figure G-7 illustrates the Arabic alphabet in its Arabic and Persian variants. Notice that each letter has four forms, labeled "alone," "final," "medical," and "initial." Notice that "initial" is to the right of "final." These column labels indicate two of the main differences between Arabic script and Roman script: First, the letters change in order to connect to other letters, and Second, THE SCRIPT IS WRITTEN FROM RIGHT TO LEFT.

The letters with asterisks by their numbers cannot connect to a following letter. The initial form is used to begin a word when the letter follows a nonconnectable letter. The medial form is used after a connectable letter or when it is used by itself; for example, to letter paragraphs in a document.

No.	Arabic				Persian			
	Alone	Final	Medial	Initial	Alone	Final	Medial	Initial
1.	ا	ا	ا	ا	ا	ا	ا	ا
2.	ب	ب	ب	ب	ب	ب	ب	ب
3.	-	-	-	-	پ	پ	پ	پ
4.	ت	ت	ت	ت	ت	ت	ت	ت
5.	ث	ث	ث	ث	ث	ث	ث	ث
6.	ج	ج	ج	ج	ج	ج	ج	ج
7.	-	-	-	-	چ	چ	چ	چ
8.	ح	ح	ح	ح	ح	ح	ح	ح
9.	خ	خ	خ	خ	خ	خ	خ	خ
10.	د	د	د	د	د	د	د	د
11.	ذ	ذ	ذ	ذ	ذ	ذ	ذ	ذ
12.	ر	ر	ر	ر	ر	ر	ر	ر
13.	ز	ز	ز	ز	ز	ز	ز	ز
14.	-	-	-	-	ژ	ژ	ژ	ژ
15.	س	س	س	س	س	س	س	س
16.	ش	ش	ش	ش	ش	ش	ش	ش
17.	ص	ص	ص	ص	ص	ص	ص	ص
18.	ض	ض	ض	ض	ض	ض	ض	ض
19.	ط	ط	ط	ط	ط	ط	ط	ط
20.	ظ	ظ	ظ	ظ	ظ	ظ	ظ	ظ
21.	ع	ع	ع	ع	ع	ع	ع	ع
22.	غ	غ	غ	غ	غ	غ	غ	غ
23.	ف	ف	ف	ف	ف	ف	ف	ف
24.	ق	ق	ق	ق	ق	ق	ق	ق
25.	ك	ك	ك	ك	ك	ك	ك	ك
26.	-	-	-	-	گ	گ	گ	گ
27.	ل	ل	ل	ل	ل	ل	ل	ل
28.	م	م	م	م	م	م	م	م
29.	ن	ن	ن	ن	ن	ن	ن	ن
30.	و	و	و	و	و	و	و	و
31.	ه	ه	ه	ه	ه	ه	ه	ه
32.	ة	ة	-	-	-	-	-	-
33.	ى	ى	ى	ى	ى	ى	ى	ى

Figure G-7. The Arabic alphabet.

DIACRITICS

Another feature of the Arabic alphabet is the use of diacritics to differentiate many of the letters. Figure G-8 illustrates the diacritics used in Arabic and Persian.

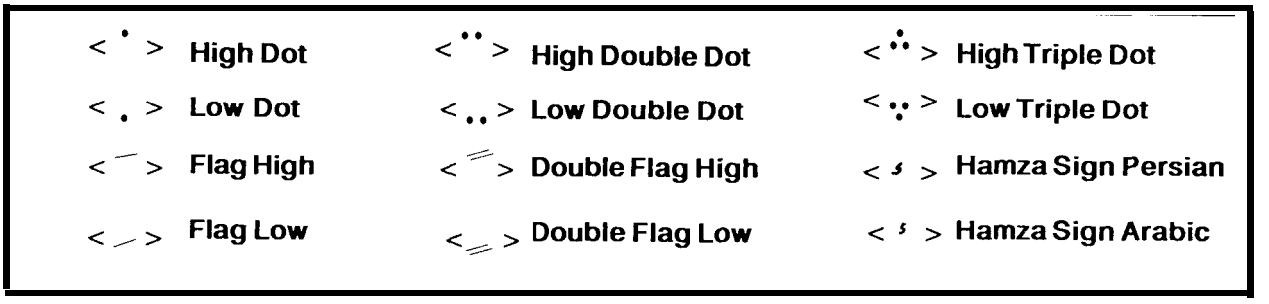


Figure G-8. The diacritics of Arabic and Persian.

Using Figures G-7 and G-8, note that letters 2, 3, 4, 5, 29, and (partially) 33 have the same base form with the following diacritics: high dot <◌̇>, letter 29; low dot <◌̣>, letter 2; high double dot <◌̈>, letter 4; low double dot <◌̤>, letter 33, initial and medial only; high triple dot <◌⃛>, letter 5; and low triple dot <◌⃜>, letter 3.

Letter 8 is the base form for another diacritic set: High dot <◌̇>, letter 9; low dot <◌̣>, letter 6; low triple dot <◌⃜>, letter 7. Letter 10 is the base form, and letter 11 adds high dot <◌̇>. Letter 12 is the base form. Letter 13 adds high dot <◌̇>, and letter 14 adds high triple dot <◌⃛>. Letter 15 is the base form and letter 16 adds high triple dot <◌⃛>.

Letters 17, 19, and 21 are the base forms for letters 18, 20, and 22 respectively; the added diacritic for all three is high dot <◌̇>. Letters 23 and 24 have approximately the same base form with high dot <◌̇> on letter 23 and high double dot <◌̈> on letter 24. Letters 25 and 26 have the same base form. Letter 25 uses flag <◌̄> on its initial and medial forms and hamza sign < ◌ؤ > on its final and alone forms.

Letter 26 uses double flag <◌̿> on all its forms and hamza sign < ◌ؤ > on its final and alone forms. Letter 31 is the base form, and letter 32 uses high double dot <◌̈>. For grammatical reasons letter 32 is not used initially or medially.

SAMPLES OF ARABIC AND PERSIAN

Figure G-9 gives a sample of printed Arabic. Note the frequent occurrences of letter 1 and letter 27: the definite article at word beginnings. Remember, words begin on the right. The seventh line from the top, for instance, has four obvious occurrences and two other occurrences in modified forms that have not been discussed here. There are 18 occurrences of letter 32, at least one occurrence in every line except lines 9 and ll and four occurrences in lines 3 and 8.

وفضلا عن ذلك فلقد كان فى كل القوانين القائمة ما يكفى لمواجهة الأحداث والاضطرابات التى وقعت وكذلك للنظر فى أمر ما نسبه رئيس الجمهورية فى خطابه إلى أحزاب الأقلية ، وإلى الجماعات الإسلامية ، وإلى بعض الشخصيات المدنية المسلمة ، والمسيحية . . فالقوانين القائمة تكفل الحفاظ على أمن البلاد وسلامتها ضد ما يهدد وحدتها الوطنية من أخطار وبالتالى فان القرار المطعون فيه لايمكن أن يعتبر - بحال - عملا من أعمال الضرورة - كما أن القرار المطعون فيه خالف صريح نص المادة ٤١ من الدستور التى تنص على عدم جواز القبض أو تقييد الحريات فى غير حالة التلبس إلا بأمر من القاضى المختص أو النيابة العامة ، تستلزمه ضرورةالتحقيق وصيانة أمن المجتمع وفقا لأحكام القانون - وأنه لم يرد فى أوراق الدعوى أى دليل على أن المتحفظ عليهم ضبطوا فى حالة تلبس أو أنه أجرى معهم تحقيق سابق على التحفظ ، حتى يتضح منه أن هذا التحفظ كان اجراء لازما .

Figure G-9. Printed Arabic.

Figure G-10 illustrates typewritten Arabic. Note that lines 1, 2 5, and 10 begin (on the right) with the definite article (letter 1 and letter 27). There are 20 other obvious occurrences of these letters at the beginning of words and several others that are less obvious. Lines 1, 2, and 9 end (on the left) with letter 32. Letter 32 occurs five other times in the sample. Arabic script permits some letters to be stretched in order to even out text on the left. The long lines at the left of the sample are instances of this.

الدفع ببطلان اجراءات التحقيق لعدم توفير حماية
التحقيق الابتدائى وهو حق المتهم فى الاستعانة
بمحام - اعمالا لنص المادتين ٦٩ / ٧١ من الدستور
والمواد ٧٧ - ١٢٤ - ١٢٥ من قانون الاجراءات
الجنائية وأنه لا يقدح من ذلك أن المتهمين لم يودعوا
تقريرا فى قلم كتاب المحكمة بأسماء محاميهم وذلك
لان ظروف المتهمين والحالة التى كانوا عليها قبل
عرضهم على النيابة العامة كانت لا تسمح لهم بايداع
تقرير فى قلم كتاب المحكمة بأسماء محاميهم وأن العبارة
التى يثبتها المحقق فى صور محضر التحقيق من أنه
سأل المتهم عما اذا كان لديه محام فنفى ذلك - وهى

Figure G-10. Typewritten Arabic.

Figure G-11 illustrates printed Persian. Note the double flags <ً>, two in the first line and eight more in the rest of the sample. Note the low triple dots <..>, one in the first line and eight more in the rest of the sample. Neither of these diacritics occurs in Arabic.

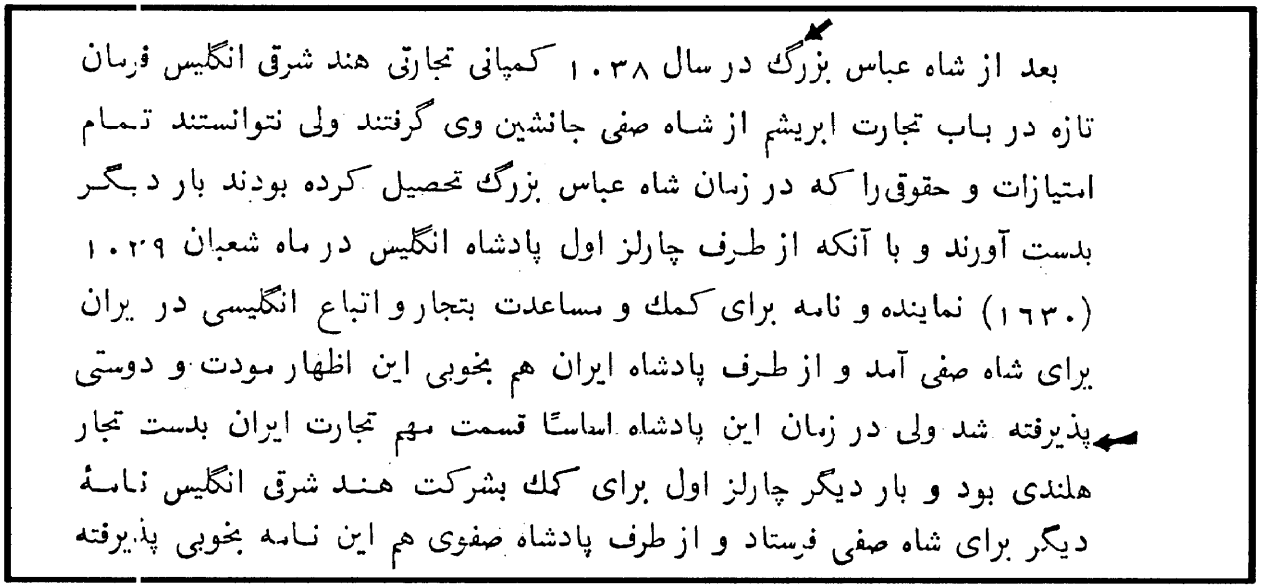


Figure G-11. Printed Persian (arrows indicate distinguishing features).

OTHER ARABIC ALPHABET LANGUAGES

Dari

Dari is used Afghanistan and favored by the government. Since its written form is heavily influenced by Perrsian models, there isn't any easy way for the nonspecialist to distinguish it from Persian.

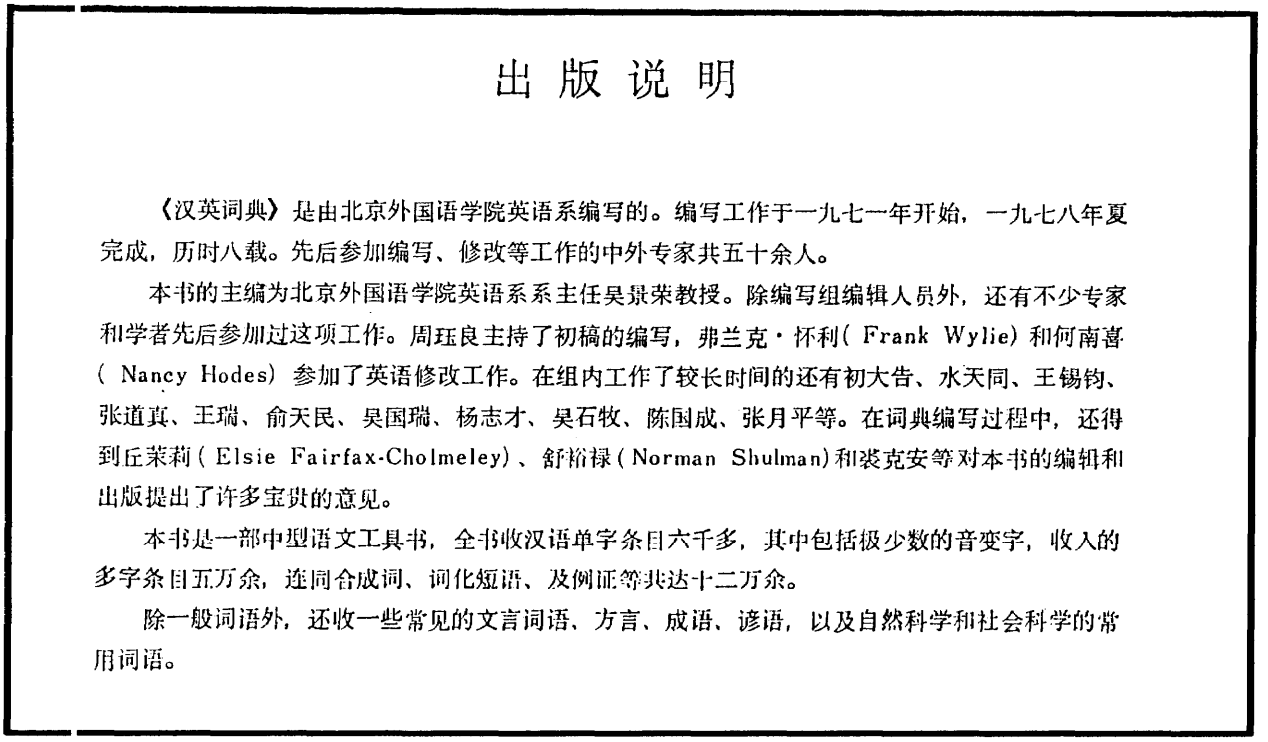
Kudish, Pashto, and Urdu

The other notable Arabic alphabet language; are Kurdish, Pashto, and Urdu. Kurdish is spoken by the Kurdish tribes of Iraq, Iran, and Turkey. Pashto is used widely in Afghanistan and Urdu is the predominant language of Pakistan. These languages contain letters and diacritics not listed for Arabic or Persian. If one of these languages is suspected, refer the problem to a linguist.

CHARACTER LANGUAGES

Character languages use writing system with symbols that stand for words or meaningful elements of words rather than for sounds. Character languages, such as hieroglyphic Egyptian, existed in earlier times; but today, the only character languages are Chinese and languages that have wholly or partially borrowed the Chinese system, such as Japanese and Korean.

The easy way to distinguish the three languages is to look for the distinctive phonetic symbols of Japanese and Korean. If these symbols are not present, conclude that the language is Chinese. Chinese is the model for the other two, and these languages borrow freely from Chinese. Figures G-12, G-13, and G-14 give sample texts of Chinese, Japanese, and Korean.



出 版 说 明

《汉英词典》是由北京外国语学院英语系编写的。编写工作于一九七一年开始，一九七八年夏完成，历时八载。先后参加编写、修改等工作的中外专家共五十余人。

本书的主编为北京外国语学院英语系系主任吴景荣教授。除编写组编辑人员外，还有不少专家和学者先后参加过这项工作。周珏良主持了初稿的编写，弗兰克·怀利（Frank Wylie）和何南喜（Nancy Hodes）参加了英语修改工作。在组内工作了较长时间的还有初大告、水天同、王锡钧、张道真、王瑞、俞天民、吴国瑞、杨志才、吴石牧、陈国成、张月平等。在词典编写过程中，还得到丘茉莉（Elsie Fairfax-Cholmeley）、舒裕禄（Norman Shulman）和裘克安等对本书的编辑和出版提出了许多宝贵的意见。

本书是一部中型语文工具书，全书收汉语单字条目六千多，其中包括极少数的音变字，收入的多字条目五万余，连同合成词、词化短语、及例证等共达十二万余。

除一般词语外，还收一些常见的文言词语、方言、成语、谚语，以及自然科学和社会科学的常用词语。

Figure G-12. Sample Chinese text.

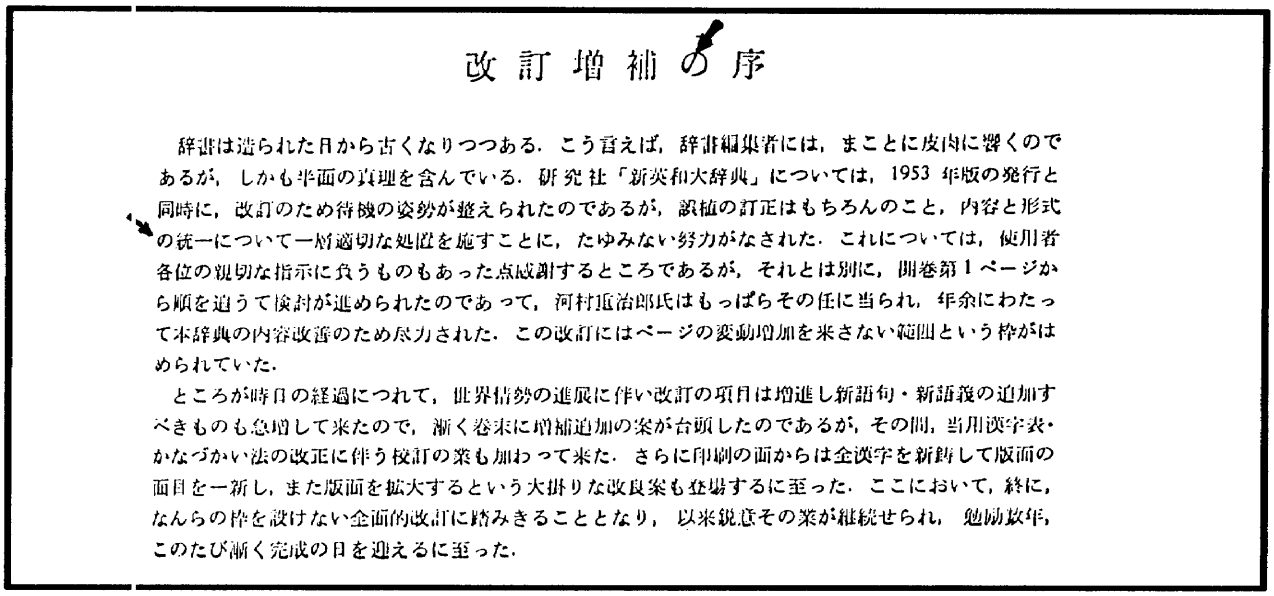
Korean and Japanese language texts use Chinese characters whenever it might be unclear to use one of their own symbols. This means that the higher or more academic a text is the more Chinese characters it will have.

Figure G-12 shows Chinese characters. They are more detailed, complex, and square or precise than Japanese or Korean.

Figure G-13 shows Japanese symbols with quite a few Chinese symbols.

Figure G-14 shows Korean with fewer Chinese symbols used.

NOTE: North Korean text seldom has any Chinese characters as a matter of official policy.

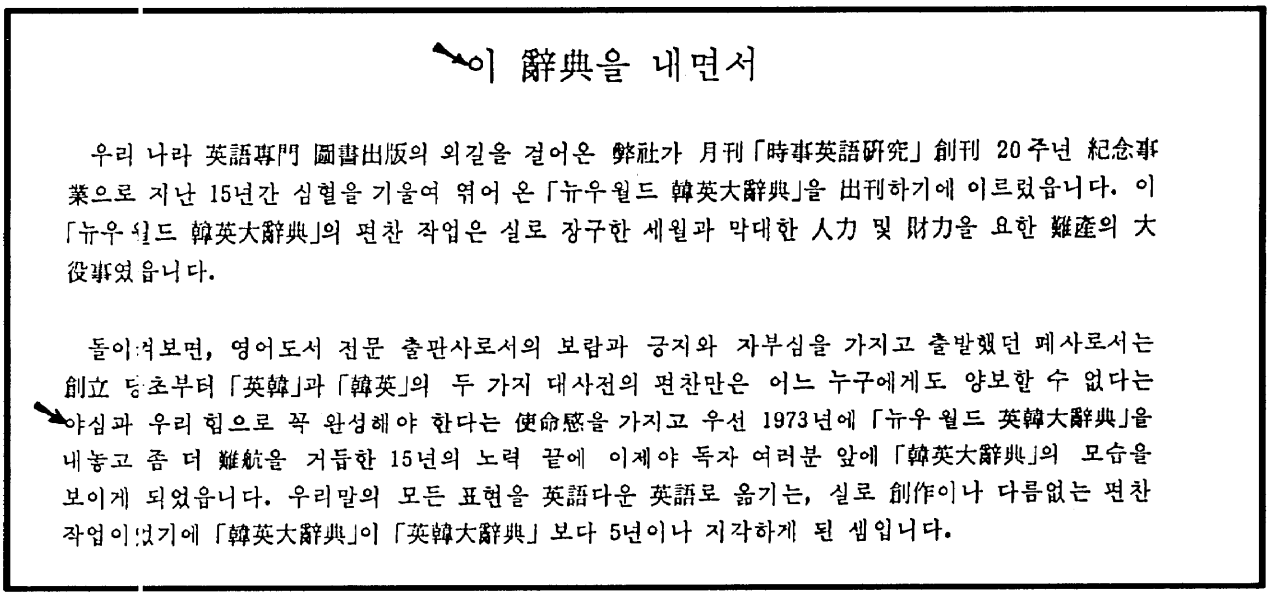


改訂増補の序

辞書は造られた日から古くなりつつある．こう言えば，辞書編集者には，まことに皮肉に響くのであるが，しかも半面の真理を含んでいる．研究社「新英和大辞典」については，1953 年版の発行と同時に，改訂のため待機の姿勢が整えられたのであるが，誤植の訂正はもちろんのこと，内容と形式の統一について一層適切な処置を施すことに，たゆみない努力がなされた．これについては，使用者各位の親切な指示に負うものもあった点感謝するところであるが，それとは別に，開巻第 1 ページから順を追うて検討が進められたのであって，河村重治郎氏はもっぱらその任に当られ，年余にわたって本辞典の内容改善のため尽力された．この改訂にはページの変動増加を来さない範囲という枠がはめられていた．

ところが時日の経過につれて，世界情勢の進展に伴い改訂の項目は増進し新語句・新語義の追加すべきものも急増して来たので，漸く巻末に増補追加の案が台頭したのであるが，その間，当用漢字表・かなづかい法の改正に伴う校訂の業も加わって来た．さらに印刷の面からは全漢字を新鋳して版面の面目を一新し，また版面を拡大するという大掛りな改良案も登場するに至った．ここにおいて，終に，なんらの枠を設けない全面的改訂に踏みきることとなり，以来鋭意その業が継続せられ，勉励数年，このたび漸く完成の日を迎えるに至った．

Figure G-13. Sample Japanese text.



이 辭典을 내면서

우리 나라 英語專門 圖書出版의 외길을 걸어온 弊社가 月刊「時事英語硏究」創刊 20주년 紀念事業으로 지난 15년간 심혈을 기울여 엮어 온「뉴우월드 韓英大辭典」을 出刊하기에 이르렀읍니다. 이「뉴우월드 韓英大辭典」의 편찬 작업은 실로 장구한 세월과 막대한 人力 및 財力을 요한 難産의 大役事였읍니다.

돌이켜보면, 영어도서 전문 출판사로서의 보람과 긍지와 자부심을 가지고 출발했던 폐사로서는 創立 당초부터「英韓」과「韓英」의 두 가지 대사전의 편찬만은 어느 누구에게도 양보할 수 없다는 야심과 우리 힘으로 꼭 완성해야 한다는 使命感을 가지고 우선 1973년에「뉴우 월드 英韓大辭典」을 내놓고 좀 더 難航을 거듭한 15년의 노력 끝에 이제야 독자 여러분 앞에「韓英大辭典」의 모습을 보이게 되었읍니다. 우리말의 모든 표현을 英語다운 英語로 옮기는, 실로 創作이나 다름없는 편찬 작업이었기에「韓英大辭典」이「英韓大辭典」보다 5년이나 지각하게 된 셈입니다.

Figure G-14. Sample Korean text.

Chinese is written with several thousand symbols called characters. International numerals are widely used and scientific and technical Chinese will contain quoted European words in Roman letters. The characters are constructed according to a complex system based on the use of only a few different stroke types (less than 10) and a large set of elements called “radicals" (about 200). Radicals are made up of one or more elements associated with them. These radicals and strokes are used to construct the characters. The characters are thought of as occupying rectangular space and

good calligraphy allots about the same area to each character, regardless of complexity.

Figure G-15 shows the fifty most common radicals in Chinese. Some will occur by themselves as characters. Most will more frequently occur as constituents of more complex characters. The People's Republic of China has recently changed the form of some of these elements, but most are unchanged and the traditional forms still occur even there.

Except for numerical zeroes and the small circles that are used as punctuation marks to indicate the end of a sentence, printed Chinese doesn't have any circles. If the text has a lot of circles and curves, suspect some language other than Chinese.

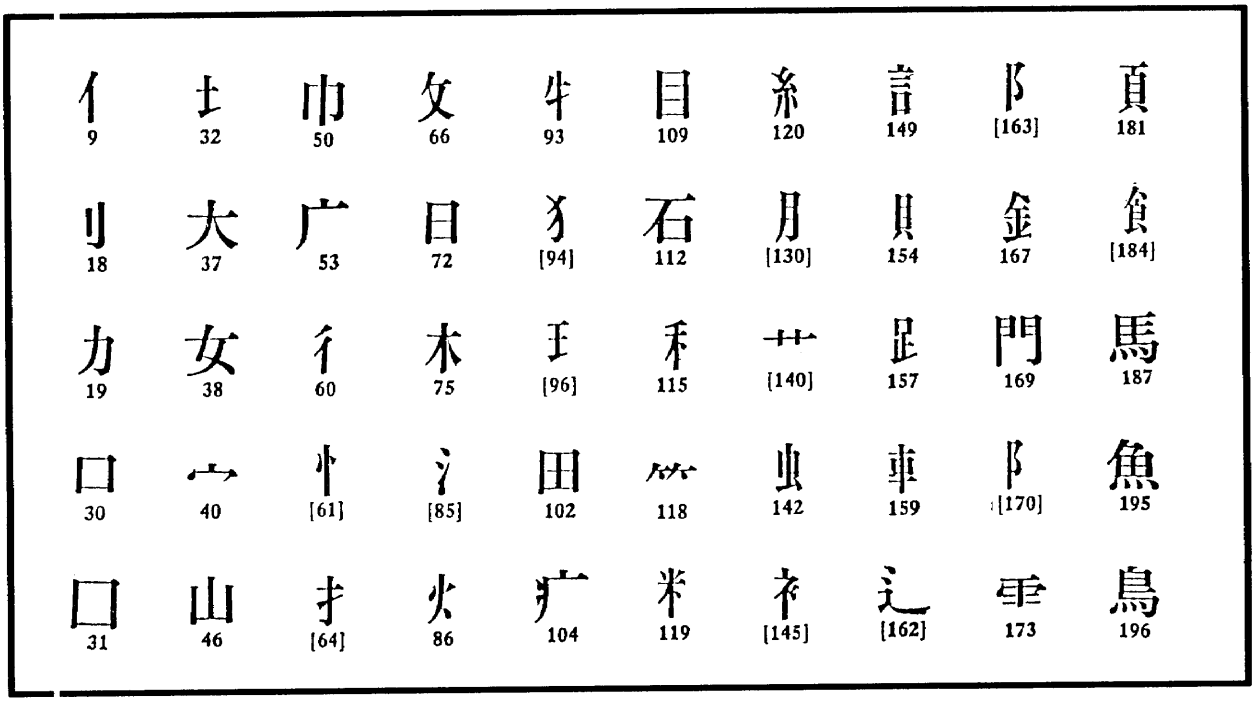
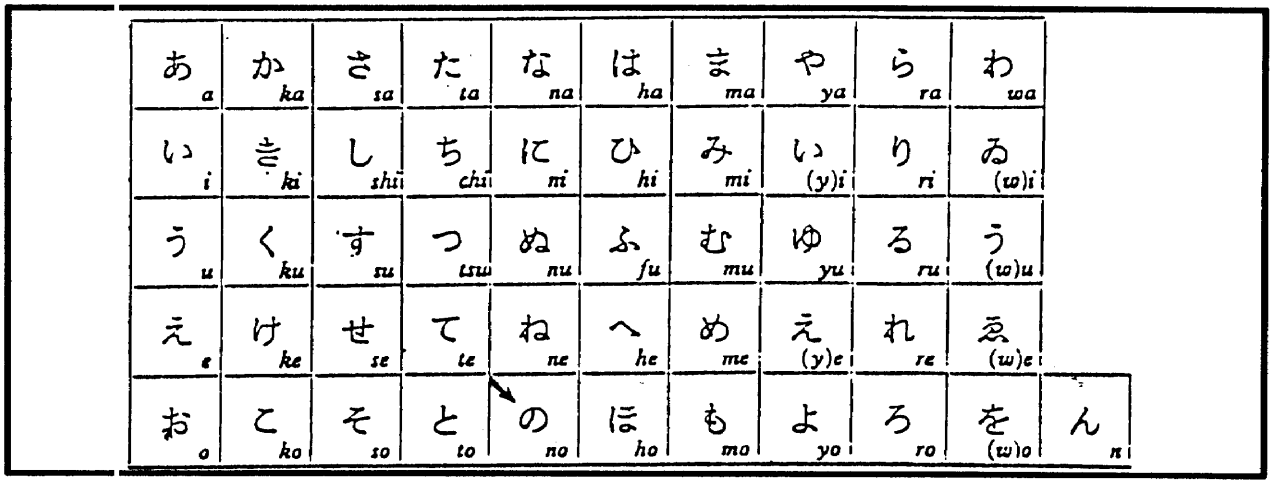


Figure G-15. The fifty most common Chinese character radicals.

Japanese has a mixed writing system. Like the Chinese, the Japanese normally use international numerals in their scientific and technical literature; but this isn't the real reason their writing system is mixed. Japanese writing is mixed because in general it uses Chinese characters to write the lexical stem of nouns and verbs (the part of the word that conveys the basic meaning); and a set of phonetic symbols invented in Japan called hiragana to write the grammatical affixes of the nouns and verbs as well as entire auxiliary words.

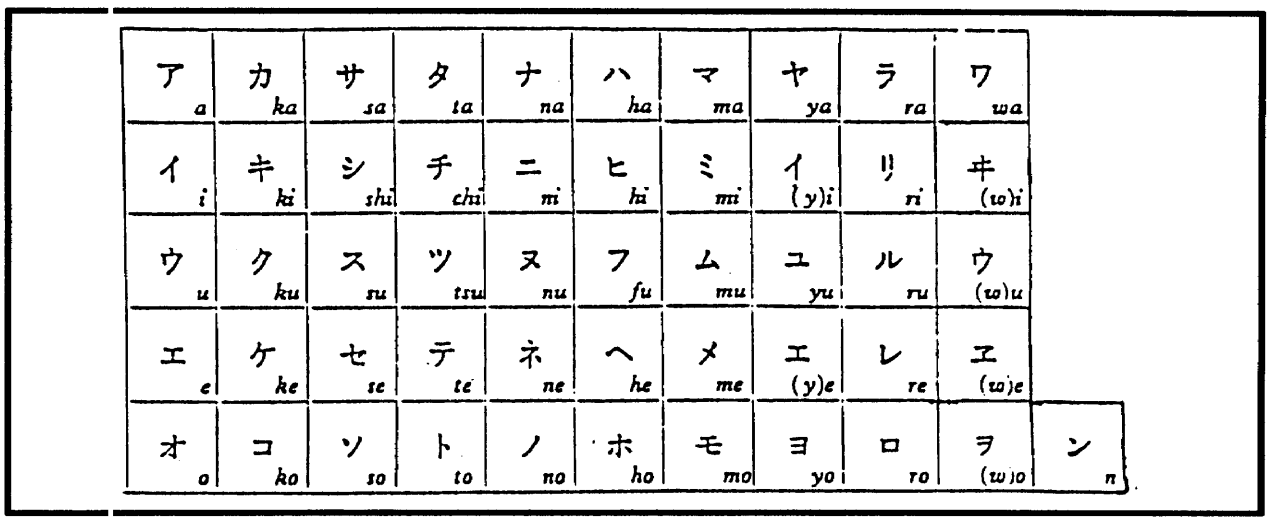
Japanese also use another set of phonetic symbols, also invented in Japan, called katakana to write words borrowed from European languages. The presence of these katakana symbols distinguishes Japanese. Normal prose will contain perhaps 60 to 70 percent hiragana symbols. Unlike Chinese characters, hiragana are written with curved strokes. Katakana are less frequent.

The hiragana are illustrated in Figure G-16 and the katakana are illustrated in Figure G-17. Pay particular attention the fifth symbol from the left in the bottom row of the hiragana (Figure G-16), the one labeled "no." this symbol is used to write a very common grammatical affix. It will almost always occur frequently in any Japanese text.



あ a	か ka	さ sa	た ta	な na	は ha	ま ma	や ya	ら ra	わ wa
い i	き ki	し shi	ち chi	に ni	ひ hi	み mi	い (y)i	り ri	ゐ (w)i
う u	く ku	す su	つ tsu	ぬ nu	ふ fu	む mu	ゆ yu	る ru	う (w)u
え e	け ke	せ se	て te	ね ne	へ he	め me	え (y)e	れ re	ゑ (w)e
お o	こ ko	そ so	と to	の no	ほ ho	も mo	よ yo	ろ ro	を (w)o	ん n

Figure G-16. The Japanese hiragana syllabary.



ア a	カ ka	サ sa	タ ta	ナ na	ハ ha	マ ma	ヤ ya	ラ ra	ワ wa
イ i	キ ki	シ shi	チ chi	ニ ni	ヒ hi	ミ mi	イ (y)i	リ ri	ヰ (w)i
ウ u	ク ku	ス su	ツ tsu	ヌ nu	フ fu	ム mu	ユ yu	ル ru	ウ (w)u
エ e	ケ ke	セ se	テ te	ネ ne	ヘ he	メ me	エ (y)e	レ re	ヱ (w)e
オ o	コ ko	ソ so	ト to	ノ no	ホ ho	モ mo	ヨ yo	ロ ro	ヲ (w)o	ン n

Figure G-17. The Japanese katakana syllabary.

Korean

Korean can be written entirely in its native alphabet. Therefore, symbols from this script will overwhelmingly predominate in any normal Korean text. Chinese characters, however, are considered learned and prestigious, so a certain number of them will be encountered in quantities that vary with the pretensions of the author.

The Korean alphabet was developed under the influence of Chinese writing models, so to the untrained eye Korean alphabetic writing looks like Chinese characters. The letters of European alphabets from words, but the symbols of the Korean alphabet are grouped together to form a syllable. This means that a Korean word may extend over several goupings.

Also, while the letters of European words are read horizontally, Korean alphabetic symbols are read vertically--from the top to the bottom of each group--with the left preceeding the right when the symbols are side-by-side.

Figure G-18 illustrates the symbols of the Korean alphabet. Pay close attention to the second symbol from the left in the third row, the one that looks like a circle with a stem at the 12 o'clock position. It is a very frequent symbol and doesn't look like Japanese.

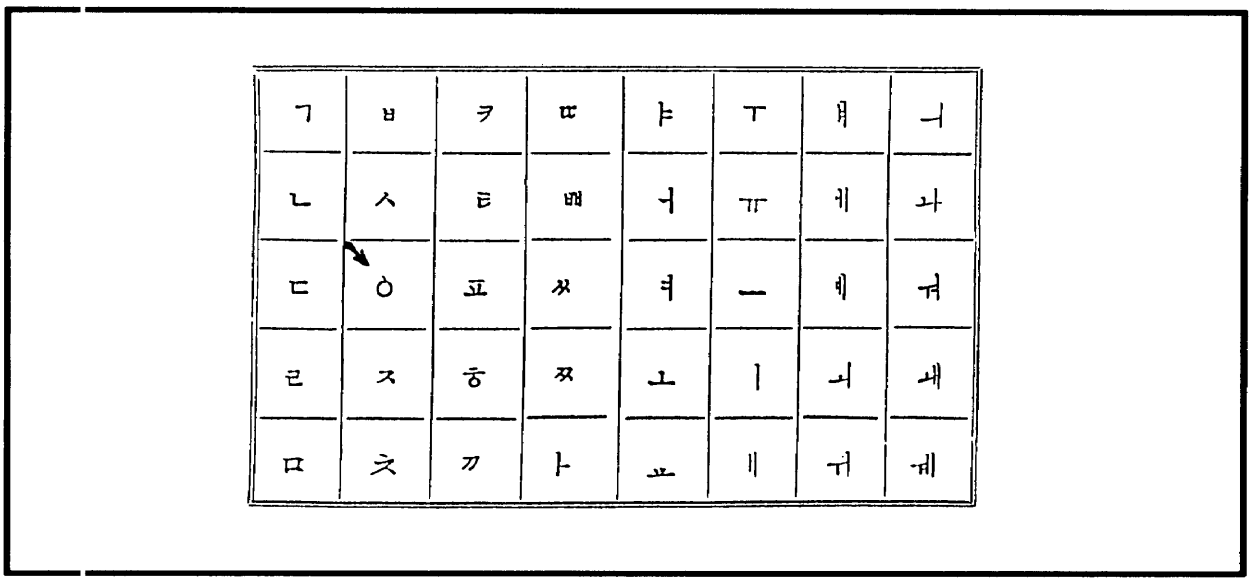


Figure G-18. The Korean alphabet.

APPENDIX H

CHEMICAL AND BIOLOGICAL WARFARE SAMPLING PROCEDURES

INTRODUCTION

Our ability to collect and analyze toxic and chemical agents in time of war is very important. Clear cut procedures to collect, package, document, and transport chemical warfare samples are needed so that we can collect in a variety of battlefield environments. These procedures are outlined in this appendix. These procedures are critical for--

- Battlefield commanders who need to know if the enemy might retaliate with chemicals and, if they do, how to avoid or safely cross contaminated areas.
- Medical personnel who provide prophylatic or postcontamination treatment.
- National leaders who ensure that foreign governments comply with existing CB warfare treaties.

This appendix provides guidance for acquiring and packaging suspected CB samples for safe shipment. It also designates the elements who carry out these tasks. This includes procedures for proper handling, labelling, packaging, and transporting supsected CB samples from the battlefield to the laboratory.

OPERATIONAL CONCEPT

Current battle doctrine presupposes a nonlinear battlefield where nuclear and chemical weapons are tactically integrated. By using long-range weapons, the depth of the battlefield is extended and close-in, rear, and deep operations may be fought concurrently.

Operations in this environment are extremely fluid and highly lethal. Clearly, NBC doctrine and procedures, including reconnaissance operations are critical to mission accomplishment.

Commanders must consider the potential for enemy use of biological weapons. They must be prepared to act quickly when chemical or biological warfare is suspected to minimize its effects. Some of the indications of CB warfare are:

- Unexplained sickness or death.
- Ordnance (munitions) containing known or suspected CB agents.
- Attacks involving an uknown causative agent.
- Outbreaks of mission-degrading symptoms.

When CB warfare is suspected, samples are collected, labelled, secured, and transported to the appropriate facility for analysis.

COLLECTION AND MANAGEMENT

Samples suspected of containing CB agents are divided into two categories according to their origin: environmental and biomedical. Both medical and nonmedical units and teams are responsible for collecting samples suspected of containing CB agents.

160-1917O--94-6

Use the followng procedures to collect and manage environmental and biomedical samples following a suspeted CB attack. WEAR APPROPRIATE MISSION—ORIENTED PROTECTIVE POSTURE (MOPP) CLOTHING. The packaging procdures listed here can ensure the safety of personnel handling the samples in transit as well as making sure that the samples are not contaminated. Use the following procedures to identify and document environmental and biomedical samples.

ENVIRONMENTAL SAMPLES

Personnel responsible for the collection of environmental samples are--

- NBC reconnaissance teams
- TECHINT teams.
- Preventive medicine units.
- EOD teams.

NOTE: When possible, obtain background samples from "clean" areas beyond the perimeter of the attack site and use these as baseline data for comparisons. Collect these the same way you collect samples from contaminated areas; however, package each of the samples separately.

Complete a Sample Documentation Form 1, Agent Data, on all samples. (See Figure H-1.) Use agent detector kits. Record the results on the Sample Documentation Form 1; this form can be used with the NBC-6 report.

Types of Samples

Environmental CB agent samples are collected in the field. They include samples of--

- Liquid aerosols or vapor.
- Vegetation.
- Soil.
- Water.
- Small animals.
- Equipment and ordnance.

Packaging Samples

Package the samples in accordance with the instructions that follow.

Liquid aerosol and Vapor.

To sample liquid aerosols vapors--

- Use an electric or hand pump to collect the air in two Tenax GC-Type Chemical Tubes. (Record the type of pump used and the volume sampled.)
- Return the sampling tube to the piglette.
- Mark the outside with a sample identification code. See Figure H-2.
- Close the ends tightly.
- Attach a Sample Documentation Form.

SAMPLE IDENTIFICATION NUMBER:

1. Reason for collection

____Chem or bio attack	____Soldiers becoming sick
____Chem or bio alarm activated	____Soldiers dying
____Positive M256 or chemical detection	____Positive recon team findings

____Other_____

2. Location 3. Date and Time 4. Unit or Collector

Town: Sample of collection:
Country: Sample of attack:
Coordinates:

5. Terrain description

Flat	Hills	Mountain	Desert
Jungle	Shore	River	Sparce Trees

____Other_____

6. Weather

Clear Cloudy Rainy Fog Snow Dusty Mist

____Other_____

7. Wind

None Windy Gusts Mild Breeze High Winds

8. Odor (Only if noted. Waft it to nose, but do not make a deliberate attempt to sniff sample.)

None	Sweet	Fruity	Irritating	Pepper
Flower	Changing		Other	

Describe:_____

SAMPLE IDENTIFICATION NUMBER:

9. Symptoms Time of onset_____
Dizziness Duration of symptoms_____
Partial or full paralysis
Headache
Blurred vision
Test of consciousness (other symptoms in SF 600)

Figure H-1. Sample Documentation Form 1, Agent Data.

10. Consistency
Smoke Mist Dust Rain Gel Dry
Visible Invisible

11. Explosion
Air Ground Other_____
Describe:_____
Estimated Height:_____Size:_____Distance:_____

12. Delivery methods Unknown Artillery Mortar
RPG or Grenade Rocket Aircraft Other
Describe:_____

13. Description of sample and state of sample
Soil Multiple environmental samples
Vegetation (Circle) Yes No
Other_____

14. Description of sample and state of sample
Biomedical
Urine Tissue sample
Blood (Describe)_____
Other body fluids_____

Fresh Aged Color
Size of Sample_____

Figure H-1. Sample Documentation Form 1, Agent Data (continued).

Vegetation. Collect vegetation which appears in any way different from normal nearby vegetation, such as discolored or withered vegetation or vegetation having powder or droplets present. Vegetation samples should be collected at several locations within suspected contaminated areas. To collect samples--

- Cut several affected leaves or a handful of grass. (Do not crush the sample.)
- Place the sample in a mylar bag and seal it.
- Collect similar reference vegetation from an unaffected area and place it in a separate mylar bag and seal. The minimum sample size of value is three leaves or three handsful of grass.) One leaf is of little value but is better than nothing. Bark is acceptable but not preferred.
- Mark the bag with a sample identification number.

Soil. Collect samples from areas stained with oils or powders, from discolored areas, or from areas that look different in appearance from the surrounding soil. A similar soil sample from an unaffected area is

1. Samples acquired by a government official or provided by another source must be carefully controlled to be of the greatest value. To accomplish this, physical custody of the sample is maintained by the government representative. A sample identification number is also assigned and affixed to the sample or its container.

2. To prevent confusion, the sample number must be used when referring to the sample or to information concerning its acquisition. A sample number consists of the following:

   a. Country of acquisition. This is a two-digit alphabetic code for the country where the sample was collected.

   b. Date Acquired. This consists of a six-digit numerical code for the year, month, and day when the sample was collected.

   c. Sample sequence number. This is a three-digit numerical code. It begins with sample number 001, 002, 003, and so forth.

   d. Collector identification. This consists of a two- or three-digit alphabetic abbreviation of the collector's first and last name. When the identity of the collector needs to be protected, it should be coded by using XA through XZ and then XXA through XXZ, if necessary. Keep an index of codes and identities separately in classified files so that you can contact the person again if you need to.

EXAMPLE

LA-850115-002-JD

LA	= Sample was acquired by a collector in Laos.
850115	= Sample was obtained 15 Jan 85.
002	= This is the second sample received on 15 Jan 85 by the collector.
JD	= The sample was collected by John Doe.

Figure H-2. Example identification and control.

needed for reference (soil of the same type and texture is preferred.) The minimum sample volume is approximately the size of a cigarette pack on its side.

- Use a knife, spoon, spatula, or piece of metal to collect the sample.
- Place the sample in a mylar bag.
- Mark the bag with a sample identification number.

Water. Use the M272 water test kit or other appropriate test kit to--

- Determine the presence of chemical agents.
- Record the test results on a Sample Documtation Form 1.
- Take samples at standing pools or along streams where dead animals are seen.

To collect bulk water samples (preferred when oily globules or suspended solids are present):

- Skim surface water into teflon bottle.
- Fill the bottle, screw on the top, and ensure the seal is leak-proof with parafilm or plumber's antiseize tape.
- Mark a sample identification number on bottle.

When using the SepPak Cartridge for liquid sampling, consider the following:

- The C-18 SepPak cartridge extracts and concentrates contaminants in water.
- Methanol and distilled water is used to prime the SepPak.

Slowly draw 200 milliliters (ml) of sample water through the cartridge with a 50 ml syringe. Discard the liquid and syringe. Place the cartridge in a teflon battle marked with a sample identification number.

To obtain a sample of sludge on the shore or from a shallow bottom:

- Scoop the top of solids with an open bottle.
- Close the bottle and seal it with parafilm.
- Mark the bottle with an identification number.
- Place several sample bags in one mylar bag.
- Place the reference samples in a separate mylar bag. (Do not overfill.)
- Press excess air from the bag and seal the adhesive end.
- Seal the package with tape.
- Mark sample identification number(s).
- Include the Sample Documentation Form 1.

Small Animals. Mammals are preferred. To package small animals for evacuation--

- Place the animal in a mylar bag.
- Press excess air from this bag.

- Seal the adhesive flap and seal the bag with tape.
- Mark with sample identification number.
- Attach the Sample Documentation. Form 1.

Equipment and Ordnance. Before approaching or handing any exploded or unexploded ordnance, contact the DOD unit for assistance. The EOD unit attempts to identify the ordnance by physical characteristics or markings and then render it safe. If the ordnance is CB in origin, EOD packs the sample in the field and transfers it to a TECHINT element for transfer to CONUS.

The sample must be marked with a sample identification number. It must be documented with the Sample Documentation Form 1 and DD Form 1911, Materiel Courier Receipt.

Protective equipment and clothing from casualties can be important sources of CB agent samples. To get a sample--

- Place the equipment or clothing in a large mylar bag.
- Fold, expel excess air from the bag, and seal.
- Mark the bag with an identification number.
- Place the bag in a second mylar bag.
- Seal and mark with an identification number.
- Complete and attach the Documentation Form 1.
- Form the sample to TECHINT for transfer to corps G2.
- Document the transfer on DD Form 1911.

BIOMEDICAL SAMPLES

We get biomedical samples from acutely ill soldiers having symptoms of CB agent intoxication or from personnel killed in an attack. The following elements collect these samples:

- Battalion-level medical units.
- Division-level medical treatment facilities.
- Comabt zone hospitals.
- Communications zone hospitals.
- Evacuation hospitals.
- NBC reconnaissance teams (small animals only)
- Medical TECHINT teams.

In the theater of operations, these team can obtain biomedical samples from patients and cadavers.

The best biomedical sample is an acutely ill soldier or a cadaver evacuated to CONUS immediately. Complete Sample Documentation Form 1, Figure H-1, Sample Identification and Control, Figure H-2, and Sample Documentation Form 2, Figure H-3 on all biomedical samples. A copy of the physical examination or an extract of significant findings is enclosed with the biodmedical samples.

The following samples should be collected whenever casualties occur. They should be collected in triplicate: distributing two within CONUS and

HEAD

_____Headache
_____Dizziness
_____Loss of consciousness
_____Hearing and seeing strange things

EYE

_____Dimness of vision (reduced light)
_____Blurred vision

NOSE

_____Runny nose
_____Nose bleed

THROAT

_____Increased saliva
_____Hoarseness
_____Bleeding
_____Dry mouth

RESPIRATORY

_____Difficulty breathing
_____Coughing bloody sputum
_____Wheezing
_____Increased sputum

HEART

_____Heart running fast
_____Heart pounding

GASTROINTESTINAL

_____Nausea
_____Bloody diarrhea
_____Diarrhea (content, frequency, water)
_____Vomiting blood
_____Vomiting (color, frequency, contents)

GENITOURINARY

_____Bloody urine

MUSCULOSKELETAL

_____Muscle twitchings (local or general)
_____Seizure (convulsions)
_____Paralysis (part affected, partial or total)
_____Muscle weakness

SKIN

_____Reddening
_____Itching
_____Blister pain
_____Pain
_____Numbness

OTHER_____

Figure H-3. Sample Documentation Form 2, Symptoms.

sending one to the area medical laboratory.

- Urine.
- Whole blood or serum.
- Sputum.
- Cerebrospinal fluid.
- Organs and tissues.
- Mediastinal lymph node.

Once collected, samples are refrigerated or chilled immediately. DO NOT FREEZE. Sample Documentation Forms 1 and 2 (see Figure H-3) are completed on all biomedical samples. Medical personnel perform biomedical sample collection to ensure that a valid sample is obtained. The following guidance applies to collecting samples.

- Collect samples from patients during acute phase and at day 7.
- Collect urine samples (20-50 ml per sample x 3) in urine specimen cups. Secure the top of the cup with wide tape, and place the cup in individual sealable bags.
- Collect whole blood or serum samples (5ml per sample x 3) in red-top blood tubes and place in individual, sealable bags.
- Collect sputum only from acutely ill patients (x 3). These samples are collected in urine cups. Secure the cup with wide tape and place it in individual sealable mylar bags.
- Collect cerebrospinal fluid (2 ml per sample x 3) in red-top blood tubes and place in individual, sealable bags.
- Take at least 30 grams of organs or tissues (human, postmortem x 3) and place in a sterile container in individual, sealable bags. Refrigerate immediately. (Liver, spleen, lung, subcutaneous fat, cerebral spinal fluid, kidney, heart, and brain.)
- Collect at least two mediastinal lymph nodes.
- Take animal tissue samples as a lower priority to human samples.
- Animals should be mamalian only (no birds).

Once critical and significant biomedical samples are identified in OCONUS, they are turned over to TECHINT for disposition to appropriate laboratories (CONUS or OCONUS). Sample Documentation Forms 1and 2 provide sample and corroborative information.

PACKAGING BIOMEDICAL SAMPLES

Biomedical samples must be properly packaged. Proper packaging keeps the sample from getting contaminated. It also ensures that illness, disease, or death does not result during transport and storage. To properly package biomedical samples:

- Place the mylar bag(s) or sample container(s) in a plastic bag.
- Remove excess air and seal tightly.
- Mark the container with a sample identification number.
- Place 1 to 2 inches of packing material (vermiculate or foam) around the sample bag in a rigid container.

- Wrap jars, tubes, or specimen cups in a bubble wrap or other suitable material so they do not move in the container.
- Place a lid on the container and seal with wide tape.
- Place a warning on the outside of the container as follows: "DO NOT OPEN. CONTAINS HAZARDOUS OR INFECTOUS MAERIAL OR SUSPECTED CHEMICAL OR BIOLOGICAL AGENTS."
- Place the environmental and biomedical samples in an insulated chest.
- Ensure that the sample is packed tightly and an adequate supply of refrigerant is available.
- Seal the chest and label accordingly.
- Inspect the packaging prior to its departure from the OCONUS theater of operation to CONUS.
- The procedure should further meet the specification contained in TM 38-250, para 10-51; Title 42, CFR71-25; and CFR49, parts 173,386 and 173,387 for etiological agents.
- Document all samples with Sample Documentation Forms 1 and 2.
- Number samples per instructions in Figure H-2.
- Forward samples through intelligence channels to corps G2. (Finding units are responsible for this.)
- Document the sample transfer with DD Form 1911, Materiel Courier Receipt. See Figure H-4.

EVACUATION

When it is necessary, the G2 ensures that additional packaging and consolidation of doubly wrapped samples is done before the materiel is shipped on to CONUS. The G2 completes the sample identification in accordance with Attachment B and document sample transfers on DD Form 1911.

Division surgeons send samples through channels to the Corps G2. When people die from CB causes, the division or the corps surgeon coordinates with combat units and graves registration units to transfer the bodies quickly to battalion-, division-, or corps-level medical units or hospitals to obtain biomedical samples. They use DD Form 1911 to document sample transfers.

The corps G2 coordinates sample shipments to approved CONUS and OCONUS laboratories and to the area medical laboratory. The G2 must notify the US Army CB Agent Technical Evaluation Board (CBATEB) within one hour after a sample suspected of containing CB agents is receivd. The G2 also makes any other required notifications promptly.

Generally, samples are evacuated through MI channels. Combat units make sure samples are delivered to someone who can get the material to the G2. The G2 is responsible for properly packaging, documenting, and notifying packaging. Figure H-5 lists these responsibilities.

MATERIEL COURIER RECEIPT

SHIPMENT DESCRIPTION

SHIPMENT TRANSFERS

PRIVACY ACT STATEMENT

PREVIOUS EDITION MAY BE USED UNTIL 31 DEC 87

Figure H-4. Department of Defense (DD) Form 1911, Materiel Courier Receipt.

PACKAGING AND SHIPPING

The G2 ensures that--

- o Packaging is inspected visually for signs of leaking or breakage.
- o The outer wrapping is intact. DO NOT UNWRAP. Overwrap if any irregularities exist.
- o If overwrapping is required, the time, date, place, and reason are given.
- o Samples are refrigerated or chilled (DO NOT FREEZE).
- o Delays are minimized.

The G2 forwards all samples from the theater to approved CONUS or OCONUS laboratories and the area medical laboratory 12 to 24 hours after they are collected. If samples are not shipped within 24 hours, they lose their operations and intelligence value.

DOCUMENTING

The G2 is responsible for properly documenting samples. The following information must accompany every sample:

- o Sample Documentation Forms 1 and 2.
- o DD Form 1911, Materiel Courier Receipt (see Figure H-4).

NOTIFYING

When the G2 sends the notification message, it is marked "immediate precedence" and has the appropriate security classification markings. The action addressee is CDR CRDEC APG MD//CBATEB//. The notification message contains the sample identification number and any details about how the sample was acquired. This message provides the following information:

- o Background information.
- o Physical description.
- o Results of preliminary tests after sample collection.
- o Where, when, and under what conditions the sample was acquired.
- o Description of incident.
- o Casualty symptoms (if applicable).
- o Shipment information, such as:
  - -- Shipping date.
  - -- Type of transportation.
  - -- Flight number and destination; ETA CONUS.
  - -- Shipment description (such as size and weight).

Figure H-5. Intelligence Officer (G2) responsibilities.

Figure H-5. Intelligence Officer (G2) responsibilities.

ACRONYMS

AC	Active Component
ADP	automatic data processing
AFACSI	Air Force Assistant Chief of Staff for Intelligence
AFIN	Air Force Intelligence
AFMIC	Armed Forces Medical Intelligence Center
AFSC	Air Force Systems Command
AIA	Army Intelligence Agency
AM	amplitude modulated
AMB	aviation maintenance battalion
AMC	Army Materiel Command
ammo	ammunition
amp	amplitude
AR	Army regulation
ASAC	all-source analysis center
ASP	ammunition supply point
ATD	associated technical document
ATGM	antitank guided missile
ATP	ammunition transfer point
attn	attention
AVIM	aviation intermediate maintenance
AZ	Arizona
bde	brigade
bio	biological
bn	battalion
BW	biological warfare
C^2	command and control
CA	civil affairs
CAST	catalog of approved S&TI tasks
CB	chemical and biological
CBATEB	Chemical and Biological Agent Technical Evaluation Board
CCMEC	Combined Captured Materiel Exploitation Center
CED	captured enemy documents
C-E	communications-electronics
CEE	captured enemy equipment
CEM	captured enemy materiel
chem	chemical
CI	counterintelligence
CM&D	collection management and dissemination
CMEC	Captured Materiel Exploitation Center
CML	chemical, medical, and logistics
co	company

COMTECHREP	complementary technical report, type B
CONUS	Continental United States
COSCOM	Corps Support Command
CSA	corps storage area
CSS	combat service support
CW	chemical warfare
DA	Department of the Army
DCSINT	Army Deputy Chief of Staff for Intelligence
DETECHREP	detailed technical report
DF	direction finding
DIA	Defense Intelligence Agency
DISCOM	Division Support Command
DMSO	division medical supply officer
DOD	Department of Defense
DS	direct support
DTG	date time group
DTO	district transportation officer
EAC	echelons above corps
EACIC	Echelons Above Corps Intelligence Center
ECB	echelons corps and below
ECCM	electronic counter countermeasures
ECM	electronic countermeasures
EOD	explosive ordnance disposal
EPW	enemy prisoner of war
ETA	estimated time of arrival
EW	electronic warfare
FAST	forward area support team
FM	field manual/frequency modulated
FMEP	foreign materiel exploitation program
FMIG	foreign materiel intelligence group
FMME	foreign medical materiel exploitations
FMMEP	Foreign Medical Materiel Exploitation Program
FMP	foreign materiel program
FSB	forward support battalion
FSTC	Foreign Science and Technology Center
FTD	foreign technology division
G1	Assistant Chief of Staff, G1, Personnel
G2	Assistant Chief of Staff, G2, Intelligence
G3	Assistant Chief of Staff, G3, Operations
G4	Assistant chief of Staff, G4, Logistics
G5	Assistant chief of Staff, G5, Civil Affairs
GMT	Greenwich mean time

HEAT	high explosive antitank
hq	headquarters
HQDA	headquarters, Department of the Army
hr	hour
HUMINT	human intelligence
IADB	Inter-American Defense Board
IAW	in accordance with
IEW	intelligence and electronic warfare
inf	infantry
info	information
INSCOM	Intelligence and Security Command
intel	intelligence
IPB	Intelligence preparation of the battlefield
IPW	prisoner of war interrogation
IR	information requirements
ISE	intelligence support element
ITAC	Intelligence Threat Analysis Center
J2	intelligence officer of the joint headquarters
J3	Operations Directorate
JCMEC	Joint Captured Materiel Exploitation Center
JCS	Joint Chiefs of Staff
JIC	Joint Intelligence Center
JTF	joint task force
maint	maintenance
MCC	Movement Control Center
MCO	movement control office
mech	mechanized
med	medical
MEDLOG	Medical Logistic Battalion under future force structure
MEDSOM	medical, supply, optical, and maintenance
MI	military intelligence
ml	milliliter
MMC	Materiel Management Centers
MOPP	mission-oriented protective posture
MP	military police
MSB	maintenance support battalion
MSIC	missile and space intelligence center
msl	missile

N	no
NATO	North Atlantic Treaty Organization
NAVINTCOM	Naval Intelligence Command
NBC	nuclear, biological, and chemical
no	number
NPIC	National Photographic Interpretation Center
NSA	National Security Agency
NTC	National Training Center
NTIC	Naval Technical Intelligence Center
NUCINT	nuclear intelligence
OCONUS	Outside Continental United States
ODCSINT	Office of the Deputy Chief of Staff for Intelligence
OPFOR	opposing forces
OPLAN	operations plan
OPORD	operations order
OPSEC	operations security
PIR	priority intelligence requirements
POL	petroleum, oils, and lubricants
PM	provost marshal
PRETECHREP	preliminary technical report
PSYOP	psychological operations
pub	publication
PW	prisoner of war (in STANAGs only)
RC	Reserve Component
R&D	research and development
recon	reconnaissance
RF	radio frequency
RFA	request for assistance
RII	request for intelligence information
RPG	rocket propelled grenade
RSP	render safe procedure
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)
salv	salvage
S&S	supply and service
S&TI	scientific and technical intelligence
SDT	single discipline team
SF	standard form
SIGINT	signals intelligence
SJA	Staff Judge Advocate
SME	subject matter expert

SOP	standing operating procedure
SRBM	short-range ballistic missile
SSR	Soviet Socialist Republic
STANAG	Standardization Agreement
STARDEX	index of approved S&TI tasks
STCEUR	Science and Technology Center - Europe
STCFE	Science and Technology Center - Far East
STIR	S&TI register
sup	supply
TAACOM	Theater Army Area Command
TACOM	Tactical Army Command
TAMCA	Theater Army Movement Control Agency
TAREX	target exploitation
TB	technical bulletin
TEB	tactical exploitation battalion
TECHDOC	technical document
TECHINT	technical intelligence
TM	technical manual
TRADOC	US Army Training and Doctrine Command
trans	transportation
UCMJ	Uniform Code of Military Justice
US	United States
USA	US Army
USAF	US Air Force
USAICS	US Army Intelligence Center and School
USMC	US Marine Corps
USSR	United Soviet Socialist Republics
UTM	universal transverse mercator
VESS	vehicular smoke system
W&M	weapons and munitions
Y	yes

COMMUNICATIONS INTELLIGENCE (DOD, IADB)	Technical and intelligence information derived from foreign communications by other than the intended recipients. Also called COMINT.
FOREIGN MATERIAL PROGRAM	The Army program for exploiting, developing, or providing foreign military materiel, commercial representations of foreign materiel with potential military application, related foreign documents in the Army inventory, and exploitation reports on this materiel of value to US intelligence, research and development, test and evaluation, and military planning, operations and training. This includes planning concerning intelligence and non-intelligence acquisition requirements, management of signature and simulator programs, participation in evacuation efforts, and support to the Opposing Forces Program.
MATERIAL	This term will not be used in the text.
MATERIALS	Raw substances, scrap, semifinished and finished; supplies.
MATERIEL-(DOD)	All items (including ships, tanks, self-propelled weapons, aircraft, etc., and related spares, repair parts and support equipment, but excluding real property, installations, and utilities) necessary to equip, operate, maintain, and support military activities without distinction as to its application for administrative or combat purposes.
MEDICAL INTELLIGENCE-(DOD)	That category of intelligence resulting from collection, evaluation, analysis, and interpretation of foreign medical, bio-scientific, and environmental information which is of interest to strategic planning and to military medical planning and operations for the conservation of the fighting strength of friendly forces and the formation of assessments of foreign medical capabilities in both military and civilian sectors.

NUCLEAR INTELLIGENCE-(DOD)	Intelligence information derived from the collection and analysis of radiation and other effects resulting from radioactive sources. Also called NUCINT.
SCIENTIFIC AND TECHNICAL INTELLIGENCE-(DOD, IADB)	The product resulting from the collection, evaluation, analysis, and interpretation of foreign scientific and technical information which covers: a. foreign developments in basic applied research and in applied engineering techniques; and b. scientific and technical characteristics, capabilities, and limitations of all foreign military systems, and materiel, the research and development related there to, and the production methods employed for their manufacture. Also called S&T Intelligence.
TECHNICAL INTELLIGENCE-(NATO)	Intelligence concerning foreign technological developments, and the performance and operational capabilities of foreign material, which have or may eventually have a practical application for military purposes. (JCS Pub 1 definition.)

REFERENCES

REQUIRED PUBLICATIONS

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

Field Manuals (FMs)

34-1	Intelligence and Electronic Warfare Operations
34-37	Echelons Above Corps Intelligence and Electronic Warfare Operations

RELATED PUBLICATIONS

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

Army Regulations (ARs)

(U) 10-53	US Army Intelligence and Security Command, Confidential
59-8	Department of Defense (DOD) Common User Airlift
75-15	Responsibilities and Procedures for Explosive Ordnance Disposal
350-2	Opposing Force Program
380-5	Department of the Army Information Security Program
380-6	Laser Guidance System Security Classification Guide
381-26	Army Foreign Materiel Exploitation Program
700-99	Acquisition, Accounting, Control, and Disposal of Captured Enemy Equipment and Foreign Material

Defense Intelligence Aqency Manual (DIAM)

(U) 58-13	Defense Human Resources Intelligence Collection Procedures, Secret/NOFORN
(U) 75-1	Scientific and Technical Intelligence Production, Confidential

Department of Defense (DD) Form

1911	Materiel Courier Receipt

Department of the Army (DA) Form

2028	Recommended Changes to Publications and Blank Forms

Field Manuals (FMs)

3-5	NBC Decontamination
5-30	Engineer Intelligence
9-15	Explosive Ordnance Disposal Service and Unit Operations
2 - 3	Soldier's Manual of Common Tasks (Skill Levels 2, 3, and 4)
34-3	Intelligence Analysis
34-52	Intelligence Interrogation
34-130	Intelligence Preparation of the Battlefield
101-5	Staff Organization and Operations

Joint Chiefs of Staff Publication (JCS Pub)

1	Department of Defense Dictionary of Military and Associated Terms

Standardization Agreements (STANAGs)

1059	National Distinguishing Letters for Use by NATO Forces, Edition 5
2014	Operations Orders, Warning Orders, and Administrative/ Logistics Orders, Edition 5
2044	Procedures for Dealing with Prisoners of War, Edition 4
2084	Handling and Repporting of captured Enemy Equipment a Documents, Edition 5
2097	Nomenclature for Soviet Bloc Army Weapons and Equipment, Edition 5

Supply Bulletin (SB)

708-21	Federal Supply Classification: Part I, Groups and Classes

Technical Bulletin (TB)

(U) 381-5 series Foreign Materiel Catalog (FOMCAT), Secret

Technical Manual (TM)

38-250	Packaging and Materials Handling: Preparing of Hazardous Materials for Military Air Shipments

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