

Chapter 3

Command, Control, and Information Management

The ASG headquarters integrates and synchronizes personnel, equipment, communications, and facilities to accomplish its support missions. ASG staff officers gather and analyze information. They formulate estimates and plans. They issue instructions and supervise the execution of operations by subordinate units. However, for maximum mission support effectiveness, comprehensive battlefield automation systems and supporting communications networks must be in place.

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ELEMENTS OF COMMAND

Command is defined as the authority to direct, coordinate, and control subordinate units. It includes the authority and responsibility to effectively use available resources and to plan the employment of subordinate units in accomplishing assigned missions. It also includes the responsibility for the health, welfare, morale, and discipline of assigned personnel.

ASG COMMANDER

The ASG commander is responsible for the mission and security of the ASG. He provides guidance and directives to the staff. The ASG commander must ensure that subordinate commanders have the resources to perform their missions. He specifies courses of action to be considered by ASG staffs and provides parameters for development of staff estimates. He directs the SPO to issue warning orders to subordinate elements. He indicates acceptable levels of risk for mission accomplishment.

EXECUTIVE OFFICER

The ASG executive officer directs and coordinates the activities of the directorates. He performs the duties of a chief of staff. The XO establishes staff operating policies and monitors the collection and dissemination of information pertinent to the ASG. He supervises mission analysis by ASG staffs. He relates the intents of the EAC support command and ASG commander. He provides mission analysis guidance based on the ASG commander's guidance. When authorized, he represents the ASG commander.

DIRECTORATE STAFF

The ASG headquarters is organized in a directorate staff structure. Directors respond to policies and

guidance from the commander. They implement the commander's guidance by directing subordinate battalions. They analyze the feasibility of concepts of operation based on the current logistics capabilities of subordinate units. They monitor and coordinate the functioning of subordinate battalions to ensure that they understand command priorities and that mission goals are achieved. Within their assigned functional areas, directorate staff analyze requirements and recommend courses of action to the commander. They expedite actions when needed to facilitate the use of scarce resources in the logistics support of operations. They provide information updates to the ASG commander on areas that are critical to ASG mission accomplishment. As necessary, they integrate ASG support activities with other organizations in the COMMZ.

LOGISTICS CHARACTERISTICS

A military force is only as combat capable as the adequacy and responsiveness of the logistics support it receives. To achieve success, logisticians must synchronize logistics concepts and support operations with strategic, operational, and tactical plans. For support to be where it is needed when it is needed, ASG commanders and staffs must adhere to the logistics characteristics discussed in FM 100-5 and amplified in FM 100-10. ASG staffs must continuously focus on —

- **Anticipation** of requirements and shifts in demands.
- **Integration** of logistics support with tactical operations.
- **Continuity** of logistics support to prevent interruption in operations.

- Responsiveness in adapting to changing situations, missions, and priorities—tailoring or task organizing organizations, repositioning support, reallocating assets, and redirecting LOCs.
- Improvisation to changing situations and requirements.

RISK ANALYSIS

Risk is defined as “that degree of adverse effect on the overall missions should the CSS capability be disrupted by enemy action or logistics failure, to include an estimation of the probability that disruption would occur.” Risk drives the amount of resources as well as the effort necessary to protect the CSS capability. For example, what will the support cost in terms of personnel and materiel resources? What will be the benefit derived in terms of responsiveness? Every support concept proposed must be subject to a risk analysis. The risks involved depend on the circumstances prevailing at the time.

In planning support, risk is assessed by all staff sections concurrently. They continuously balance the benefits derived from a particular support concept versus the risks involved in the support provided. They

COMMAND RELATIONSHIPS AND COORDINATION

Command relationships must be clear at all times. The ASG is a major subordinate command of the EAC support command. It is tasked by the EAC support command to perform GS supply and GS maintenance for theater-controlled items. The ASG must simultaneously perform supply and maintenance support tasks for both command levels. Figure 3-1 depicts ASGs in relation to other Services in a mature theater of operations. Command responsibilities are described in this section and in JCS Pub 2.

NOTE: In this post cold war era, when threat capabilities may range from peacetime to conflict (operations other than war) requiring two or less corps, OLS headquarter may not be necessary. The current system of multiple chainsaf-command requires excessive staffs and coordination and is therefor slow to implement. The Headquarters Echelons Above Corps Study currently a Louisiana Maneuvers Issue, questions whether the presence of another headquarters deployed in theater is necessary or whether missions can he performed by a CONUS command(s). The result of this study will impact on the command relationships discussed in this section.

compare the risk inherent in not expending a scarce resource on one requirement in favor of another. They must determine if the concept is supportable and whether the responsiveness of the support provided outweighs the risk involved.

Predictable Risks

Certain aspects of logistics support can be objectively calculated and predicted with a high degree of certainty or accuracy. For example, requirements can be predicted using the planning factors and analytical techniques outlined in FM 101-10-1/2. These planning factors have proven to be accurate in predicting expected requirements.

Variable Risks

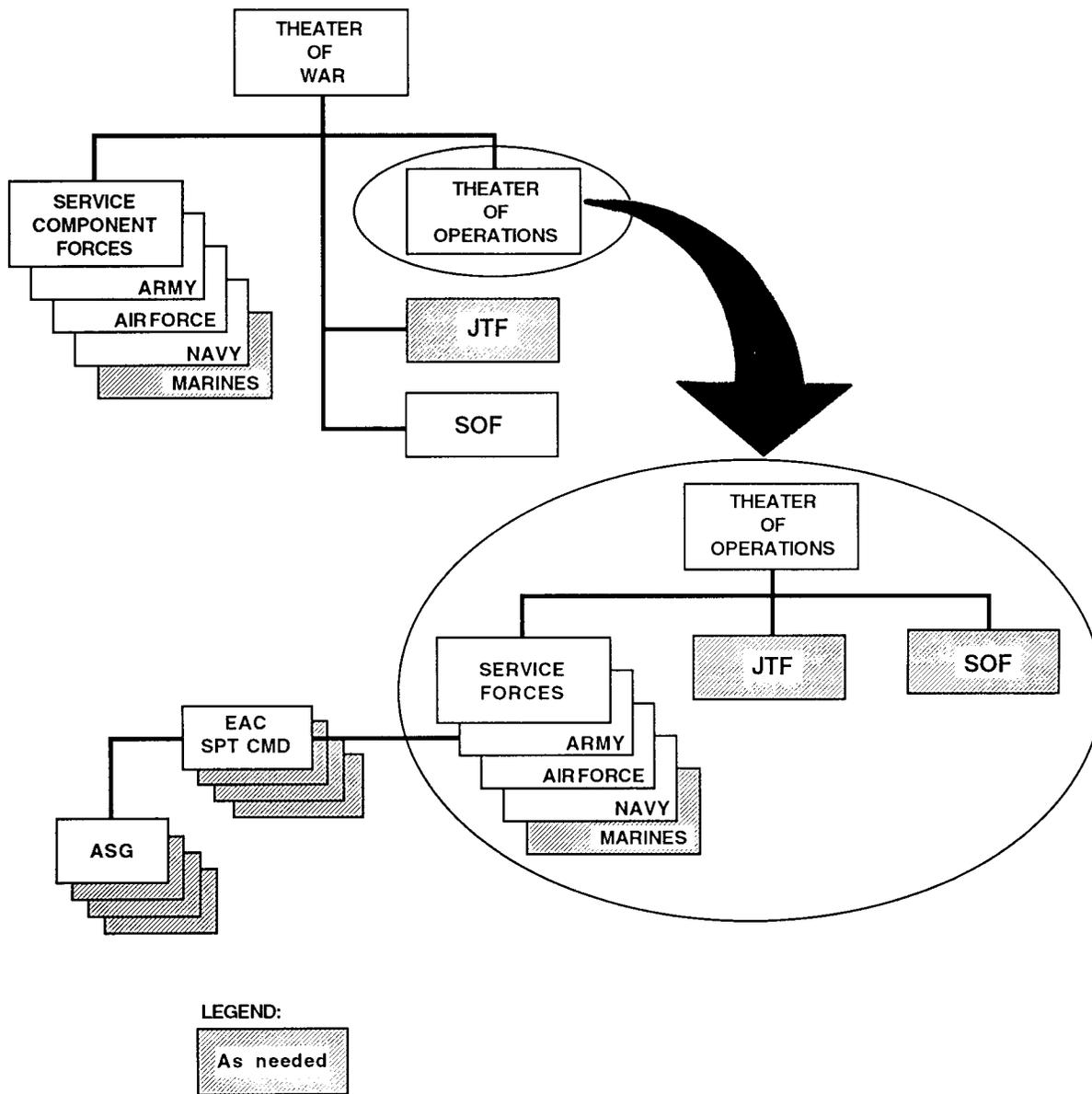
Other areas of logistics support may require assigning subjective probabilities. For example, the friendly situation and support from friendly units may change. The weather is always subject to change. Support priorities and conditions are also subject to change. Support operations staffs must determine the impact of these changes on future mission accomplishment. They must analyze the impact of events and of each alternative course of action on their concept of support.

COSCOM COMMANDER

ASG units or elements may be deployed for unique support capabilities or when support requirements exceed the capability of the COSCOM and DISCOMs. These elements may be organized into a tailored area support element-forward. Until the ASG is deployed, these elements may be placed under the tempormy operational control of the COSCOM and attached to appropriate corps support group battalion. Refer to FMs 63-3 and 54-30. Depending upon requirements, these elements could also be placed under the operational control of their functional counterparts in another Service.

NUMBERED ARMY COMMANDER

A numbered Army commander serves as the senior Army commander above the corps. He commands all Army forces in a contingency area and reports directly to the unified commander. He assumes full responsibility for all Army activities and serves as the single Army point of contact in the theater. When the contingency area expands as additional forces are deployed, the JTF or higher commander may expand NA forces into a EAC support command to provide theater wide support.



NOTE: Additional subordinate command levels also exist for Air Force, Navy, and Marine Corps forces, but are not depicted on this chart.

Figure 3-1. ASGs in relation to other Services in a theater of operations and mature theater of war.

SERVICE COMPONENT COMMANDER

The service component commander is the senior officer of a service component assigned to a unified command. The service component commander is responsible for all command responsibilities of his force to include logistics within the unified command. The commander with the preponderance of ground forces is normally designated the joint force land component commander. He oversees land warfare in the theater. The numbered army headquarters commander is the Army service component commander.

JOINT FORCE COMMANDER

A joint force commander commands forces of two or more military services. During contingency operations, the theater combatant commander may assign operational control of all forces to a joint force commander. The joint force commander exercises OPCON through subordinate component commanders. He establishes guidance and objectives and allocates air and land assets.

COMBATANT COMMANDER

The combatant commander is a commander of a unified or specified command. He has the flexibility to employ forces wherever required to accomplish his assigned responsibilities. He organizes unified inter-service operations to offset commencement of hostilities within his area of responsibility. He organizes the theater based on —

- Operational situation.
- Forces allocated.
- Mission complexity.
- Political and military alliance agreements.
- Geography of the theater.

The combatant commander synchronizes centralized staff planning. His staff establishes procedures and techniques for decentralized execution. A combatant commander may subdivide this theater of war into subordinate theaters of operations. When the theater of operations commander commands forces from more than one Service, he is called a joint force commander. His staff ensures that his concept of operations, phasing, and logistics support the combatant commander's campaign plan, phasing, and priorities.

ECHELONS ABOVE CORPS SUPPORT COMMAND COMMANDER

The EAC support commander is the senior Army logistics commander in theater. The EAC support commander is responsible for supporting US Army forces in a theater. He ensures integration with other Services, nations, and joint activities through his tactical operations center.

The EAC support commander has two types of organizations within the COMMZ to accomplish the support mission —

- **Area Support Organizations.** Area support organizations encompass the EAC support command and its subordinate ASGs. The combatant commander further subdivides his AOR into ASGs. The EAC support commander designates area of responsibilities to the ASGs.

Figure 1-6, see page 1-11, depicts this area orientation in a mature theater.

- **Mission-oriented Organizations.** Mission-oriented organizations have functional responsibilities. Examples are the transportation commands and engineer commands. While these commands may have the same geographical support orientation as the EAC support command, they are not responsible for geography.

THEATER COMMANDER

The theater commander establishes area command in the COMMZ by assigning geographic responsibilities to one EAC support command. The EAC support command coordinates OLS required by the corps as well as support outlined in cross-Service agreements. The EAC support command commander coordinates operations for his spetlgeographical area within the COMMZ. He subdivides his area and assigns geographic responsibilities to ASGs based on METT-T.

The ASG is under the command of the EAC support command. It receives policy direction, broad guidance, and planning and general supervision from the EAC support command. The EAC support command provides the ASG an analysis of the AO. The EAC support command plans and coordinates operations. ASGs execute operations. ASGs perform their DS supply, GS supply, DS maintenance, and field services mission in accordance with the EAC support command's direction. Coordination between the ASG and EAC support command elements occurs through typical staff command channels.

EAC SUPPORT COMMAND MMC

The EAC support command MMC provides detailed instructions to ASG supply and maintenance units that implement the guidance received from the theater headquarters. ASG units receive materiel release orders and maintenance work loading from EAC support command MMC. ASG headquarters staff coordinate directly with the MMC on technical matters. Otherwise, the ASG receives direction via traditional staff relationships.

HOST NATION

Normally ASG boundaries for providing support coincide with HN military echelon and civil boundaries. When HNs identify and account for their assets, most refer to military districts, civil states, or national boundaries. AHN military region headquarters and a political or civil state headquarters may exist within most ASG AOs.

ASGs may rely heavily on services and supplies from a HN. Use of HN sources for materiel or services frees ASG assets to perform other tasks. However, US forces must not become too dependent upon HN units.

Conversely, ASGs may also provide services and supplies to HN units. HN units may be given a US force or activity designator and receive supplies from the Army wholesale supply system just as US units do.

The EAC support commander authorizes the use of HNS. Agreements with the HN for support are initiated at the theater or EAC support command level. CMO or CA personnel are assigned to these headquarters to negotiate agreements. The ASG commander may contract with the HN or control HN assets.

The ASG HNS logistics directorate manages and coordinates support received from or provided by HN units and organizations under agreements negotiated by theater and EAC support command civil affairs elements. The HNS logistics directorate verifies the proper execution of contracts. It oversees integration of contracted support with the US Army support system. The directorate also coordinates the use of HN industrial facilities by ASG units.

Rarely will two HNS agreements be identical. Even if the same nation is providing support to two ASGs the support agreement details may differ.

ASG HEADQUARTERS AND HEADQUARTERS COMPANY

The ASG HHC is the command and control element of the ASG. Figure 3-2, see page 3-6, depicts the ASG HHC

OTHER ORGANIZATIONS

The EAC support command or theater headquarters negotiates the support relationships between the ASG and other organizations. The execution of agreed-upon support occurs daily at the ASG level.

Some support relationships require complex coordination. For example, out-of-sector support and exchange of support with other services or allies require detail planning.

Some support relationships will be temporary. For example, the ASG provides DS supply and DS maintenance and field services to units passing through the ASG AO. Deploying units moving through the ASG area receive support. Tactical units, conducting rear operations, receive support from the ASG until they return to the combat zone.

Other coordination with other units in the area is coordinated through typical command channels. For example, ASG units request transportation support by submitting a request to a MCT that tasks truck units.

SUBORDINATE UNITS

ASG headquarters staffs develop policies and relate those policies and planning guidance to subordinate organizations. They relate priorities and review and integrate unit plans. Support operations staff officers assess subordinate unit mission capabilities against requirements. They resolve support problems between ASG units and customer units. As necessary, they intercede with the MMC on workload levels and changes in available resources.

The ASG also provides basic facilities and services for subordinate units. SPO and support operations directorate staffs coordinate with the ROC (ASG) on the locations of subordinate units. Legal services, public affairs support, and maintenance of real property are centrally controlled by the ASG headquarters.

Subordinate units must be afforded sufficient latitude to allow initiative and technical expertise to be applied to challenges encountered. Often subordinate personnel have greater technical knowledge than the commander and staffs who control and coordinate their activities.

organization. FM 101-5 describes the responsibilities of principal staff officers. AR 611-101 and DA Pamphlet 600-3

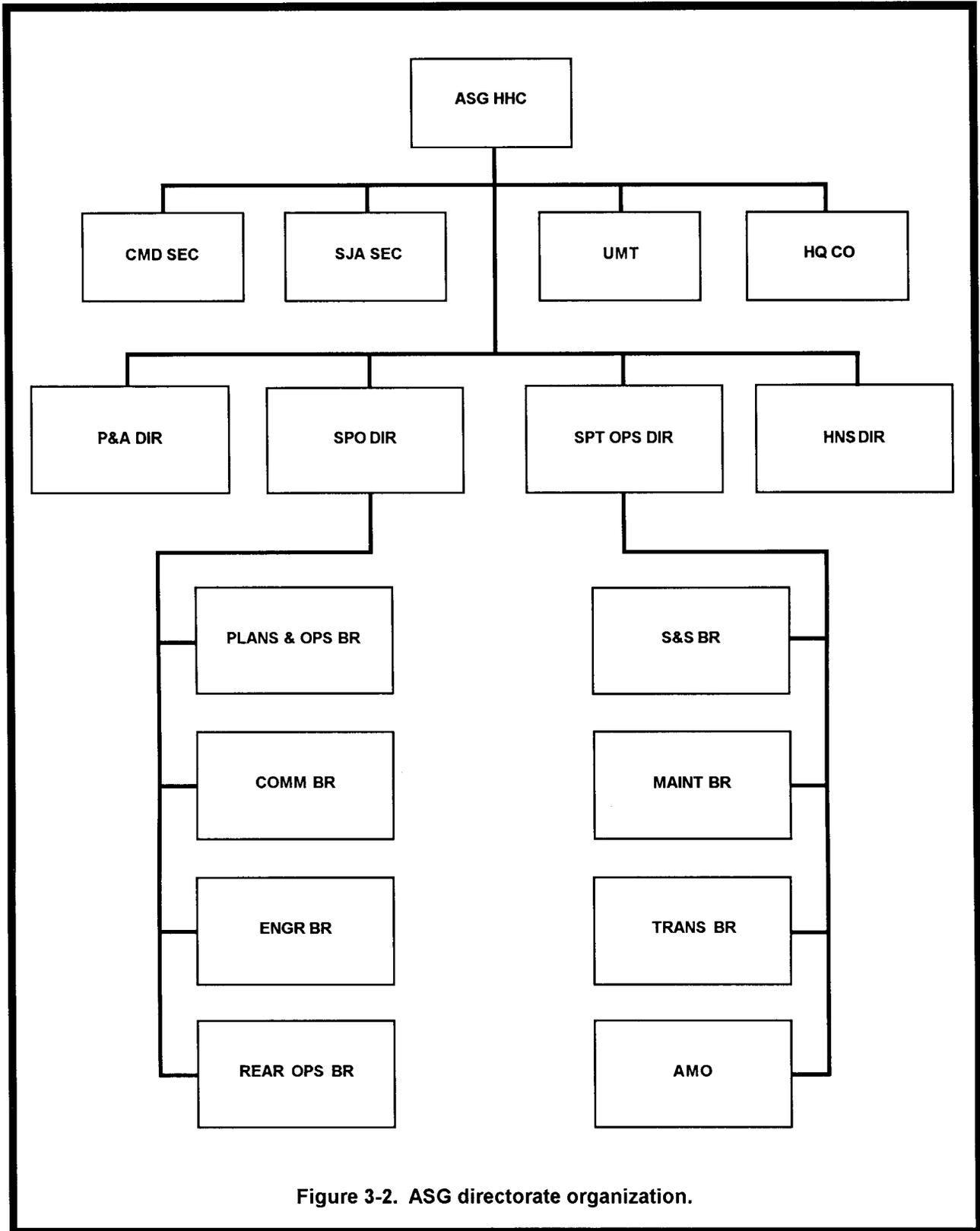


Figure 3-2. ASG directorate organization.

describe the officer positions listed on the TOE. AR 611-201 describes enlisted positions. Directorate or section and branch functions and tasks are described below. ARTEP 63-622-MTP covers tasks that support ASG staff operations.

ASG HHC EMPLOYMENT

The ASG HHC normally deploys in one echelon. However, factors of METT-T may dictate that a main and alternate command post be formed. Initially, the headquarters establishes a forward LOC and CP. Employing the ASG HHC in a bare base field environment requires an area approximately 1000 meters square. This allows for approximately 300 meters between the LOC and headquarters company elements.

Whenever the tactical situation permits, the ASG uses freed facilities for administrative and operational logistics support activities. Employing the ASG HHC in an urban area with existing buildings and facilities enhances its ability to accomplish its missions, particularly those dealing with coordination with the HN and the reception of follow-on units.

The headquarters may be one of four-plus units assigned to a base for security. Since it is employed in the COMMZ, it normally moves less than once every 40 days or more.

COMMAND SECTION

The ASG commander, assisted by the executive officer, controls and supervises all units assigned or attached to the ASG. The ASG commander may have to implement special reporting procedures to obtain the management information necessary to control subordinate units.

The command section monitors the logistics support and work load of subordinate units to ensure that their mission performance is satisfactory. Command section personnel perform the following tasks:

- Analyze mission requirements in EAC support command OPLANs/OPORDs.
- Assign responsibilities to the ASG directors.
- Issue planning guidance to directorate staffs and subordinate organizations.
- Plan support activities.
- Supervise the deployment of subordinate battalions or task force equivalent.
- Establish a LOC and CP.
- Cross-level elements and critical resources among subordinate battalions.

- Coordinate support activities.
- Monitor mission performance of units.
- Keep the EAC support command informed of current status, trends, and problems with logistics support.
- Direct defense of the assigned perimeter.
- Monitor base security.

PERSONNEL AND ADMINISTRATION DIRECTORATE

The P&A directorate directs, supervises, and coordinates personnel management and administration activities throughout the ASG. The director performs the functions of adjutant described in FM 101-5. Directorate personnel develop and implement plans, policies, and procedures for P&A support in the ASG. They provide personnel service support and administrative services. They coordinate with the personnel group to expedite replacement requirements and individual personnel actions pertinent to ASG personnel. They also coordinate ASG law and order operations, and labor services.

The P&A directorate informs the ASG commander of personnel actions or changes in strength or capability that impact the ASG mission. The directorate receives summarized personnel information from the EAC support command personnel group on the units assigned and attached to the ASG. This data is used when recommending priority of assignment of replacement personnel.

P&A directorate personnel perform the following tasks:

- Develop the administrative portion of ASG OPLANs or OPORDs
- Prepare the P&A portion of the ASG SOP.
- Develop personnel estimates.
- Coordinate personnel management services.
- Recommend changes to personnel authorizations.
- Provide current policy and restrictions on the use of HN labor.
- Prepare strength and status reports using SIDPERS.
- Provide administrative support.
- Implement disciplinary guidelines.
- Monitor morale support programs.
- Assess postal services support.
- Report on combat health support.

- Monitor the processing of recovered, captured, or detained US and allied personnel.
- Coordinate casualty management, to include providing assistance, notification, and reporting.
- Provide records library services.
- Develop and coordinate training programs for directorate personnel.
- Control classified materials.

SECURITY, PLANS AND OPERATIONS DIRECTORATE

The SPO directorate provides advice to the ASG commander and staff and assists subordinate unit commanders on tactical plans and operations. It prepares planning guidance, policies, and programs for ASG organizations. It develops policies, plans, programs, and procedures on matters pertaining to security, intelligence, military operations, communications, and training.

Plans and Operations Branch

Branch personnel coordinate and integrate ASG operational plans and orders. They prepare planning guidance, policies, programs, estimates, orders, and directives pertaining to ASG organization, and mission operations. They prepare the SPO portion of the ASG SOR to include the intelligence estimate and annexes. They coordinate and control operations when ASG elements are task organized for special missions.

Plans and operations branch personnel perform the following tasks:

- Prepare an analysis of the AO by performing battlefield area evaluations, terrain and weather analysis, and logistics effects analysis of the tentative AOR.
- Develop IPB templates and associated map overlays.
- Develop, coordinate, and issue operation estimates, studies, policies, SOPs, service support plans and orders, and ASG OPLANs/OPORDs.
- Review and process unit status reports.
- Brief the EAC support command staff on the operational situation, to include unit readiness and problems requiring external assistance.
- Exercise staff supervision over OPSEC activities.
- Integrate intelligence and counterintelligence requirements into ASG operations, to include electronic warfare and deception.

- Plan and coordinate deception and denial activities.
- Develop ASG training policies and guidance.
- Coordinate and evaluate training programs executed by subordinate battalions.

Manpower and force development personnel identify tentative force structures and force sizes to be supported. They prepare the force development portion of OPLANs. They prepare, coordinate, and maintain the ASG troop list and authorization documents. They integrate new equipment. Manpower and force development personnel provide estimated times for deployment of CA teams, intermediate staging base elements, ASB task forces, functional battalions, and other elements attached to the ASG.

Intelligence personnel develop plans and policies for collecting, processing, and disseminating intelligence. They develop an intelligence estimate in the format prescribed by FM 101-5 or the TSOP. They pull intelligence from order of battle files containing evaluations of the threat's capabilities and weaknesses. As necessary, intelligence staffs update or create an order of battle file on probable threats. They disseminate tactical and intelligence information to subordinate units. This includes information on the threat, weather, and terrain.

Intelligence personnel initiate and maintain liaison with adjacent commands, CA teams, and psychological operations units operating in the ASG AO. They may request additional intelligence support from inter-agency staffs, joint agencies, and intelligence units in the local area. If required, they coordinate the intelligence activities of attached military intelligence and counterintelligence detachments.

Intelligence personnel develop IPB products described in FM 34-130. The type of IPB products developed and compiled will vary with the ASG commander's intent and the intensity of conflict. The types of overlays and the categories of subjects plotted vary according to mission needs. For example, intelligence personnel always prepare situation templates showing ASG units and the disposition of critical mission equipment. As required, they prepare a population status overlay depicting areas of high potential for civil unrest or areas with high concentrations of enemy sympathizers.

For ASG staff and ASG support mission, intelligence staffs need to apply a different focus in applying the IPB process. Support operations staffs may request a series of logistics sustainability overlays identifying the source

of food, water, and military supply cache sites. The proximity of a sanctuary nation simplifying military resupply could require development of an inclusive overlay depicting the availability of foodstuffs in the AO. Intelligence staffs also prepare an overlay depicting the LOC within the area of interest. They identify areas along the LOC that best lend themselves to ambushes.

Other IPB products identify population groups sympathetic, neutral, or hostile to support operations. Intelligence staffs identify individuals or population groups that might support insurgent or terrorist activities. They identify treaties, agreements, and legal restrictions that affect the relationship between ASG support operations and local businesses and organizations.

Intelligence staffs also focus on the effects of terrain and weather on accomplishing ASG support missions. For example, they might identify how rains will affect unimproved roads and hinder resupply operations or how temperature will affect rations in storage. FM 5-33 describes terrain analysis. FM 34-81-1 provides information on determining the weather's effects on operations.

NBC personnel conduct NBC vulnerability analysis. They identify potential targets in the ASG AO and prepare an NBC defense plan. They advise the commander on NBC contamination avoidance, NBC attack detection and NBC unit decontamination procedures. They coordinate with chemical units to obtain decontamination guidance and assistance. They also direct the internal ASG decontamination program and coordinate NBC training.

Engineer Branch

Engineer branch personnel coordinate ENCOM support. They develop the engineer estimate following the format in FM 101-5. In developing that estimate, they identify unusual engineer requirements of supported forces caused by the terrain and other factors in the AO that may affect the engineer support mission. They assess the impact of the AO and weather on the ability of attached engineer teams to support operations.

Since the ASG operates in the COMMZ, it often uses freed facilities for administrative and logistics support activities. The engineer branch is responsible for acquiring, constructing, operating, and maintaining the ASG's real property.

Engineer branch personnel also develop the base development plan. They coordinate the hardening of

storage, communications, and battle command facilities in the ASG's area with the ENCOM, EAC support command, and ROC (ASG). They also coordinate the construction of bunkers, shelters, and anti-aircraft defense facilities within the ASG's area.

Theater dependent, they coordinate with the engineer section of the attached BSB. If a base support battalion is not attached to the ASG, the engineer branch supervises engineer teams that provide dedicated support to the ASG. Engineer elements may be tasked to repair or harden facilities and to remove rubble. If the battalion is attached, the BSB manages organic civilian engineer activities or attached teams.

The engineer officer is responsible for developing and prioritizing the ASG's construction and RPMA requirements. He identifies overall facility requirements. He coordinates with the SPO directorate on threat situations that affect engineer activities. He coordinates battle damage restoration plans with the ENCOM, EAC support command, and ROC (ASG). If a BSB is attached to the ASG, he coordinates with the BSB in planning for destruction of military significant facilities, equipment, and supplies to prevent enemy capture or use. Engineer officer duties are described in AR 611-101.

The FCCME officer coordinates with other staff elements and subordinate units to determine ASG requirements for construction, maintenance, and utilities. He develops Class IV requirements.

Engineer branch personnel direct, manage, and coordinate ASG real property functions. They maintain current locations of all engineer elements in the ASG area. They maintain staff coordination with the ENCOM and EAC support command on the availability of additional assets. They monitor the status of all engineer projects and worksites in the ASG's area. They coordinate billeting and support facilities construction and repairs with the ENCOM, EAC support command, and engineer assets. For example, they coordinate with the ENCOM on subsurface water detection, location, well drilling, and other construction in support of water supply support. They also maintain status of current space availability for storage facilities. They calculate space availability for billeting.

Engineer branch personnel inspect ASG facilities. They monitor the current disposition of all logistics units supporting engineer activities in the AO. They provide instructions to units in the AO for requesting engineer

support. Branch personnel are also responsible for utilities, fire fighting services, and coordinating these services with ENCOM units.

Communications Branch

The communications branch is responsible for ASG-level planning for and operation of communications devices. Branch personnel perform communication appraisals to identify the current status of all ASG communication equipment and communications limitations. They determine and coordinate the communications-electronics requirements of the ASG headquarters and subordinate units. Branch personnel determine requirements for, and exercise staff supervision over, communications services related to ASG linkage to EAC support command.

Communications branch personnel coordinate area system support requirements with the signal corps area communications support unit. They provide advice and assistance to ASG staff elements and subordinate units on communications requirements and operating systems.

Branch personnel operate the AM and FM net control stations. (Single channel AM radio operators listed on the base TOE will be deleted when the HF radio AN/GRC-193A is fielded.) They also operate a telephone communications system for internal ASG use.

Rear Operations Branch

Because of the increased mission requirements for rear operations, the necessity for rear operations planning and the large geographical area security requirements of the ASG, an organic rear operations branch is required to assist the SPO in planning and developing the ASG security program. The rear operations branch is responsible for the ASG's rear operations and area damage control mission.

Branch personnel serve as the tactical planning cell and coordinating element for rear operations until the ROC (ASG) arrives. At that time, they coordinate rear operations, to include area damage control, with the ROC (ASG).

In the event of wartime mobilization, a ROC (ASG) from the reserve component will be assigned to the ASG to execute the group's rear operations plans. The ROC (ASG) will collocate with the rear operations branch and operate under the control and supervision of the SPO. It plans, coordinates and directs execution of OLS rear area operations that includes terrain management,

movement control, security, and area damage control within the ASG's AOR.

Rear operations branch personnel plan and coordinate rear operations in coordination with the ROC (ASG), engineer branch, chemical unit, and HN personnel. When required, they use the SPO and ROC (ASG) radio communications equipment. They perform the following tasks:

- Coordinate with supporting ROC (ASG) personnel on current threat information in the area.
- Plan, coordinate, and supervise security activities.
- Develop doctrinal templates on threat forces in the area.
- Identify ADC assets and prepare an ADC plan.
- Coordinate ADC activities.
- Determine the general geographic locations for tenant and subordinate units and displacements.
- Coordinate with the ROC (ASG) on priority for EOD support.
- Develop a destruction plan to deny the enemy use of ASG logistics facilities and materiel.
- Coordinate terrain requirements with the assigned ROC (ASG) and Corps Rear CP/RAOCs.

SUPPORT OPERATIONS DIRECTORATE

This directorate manages internal and external logistics support. It identifies internal logistics shortfalls in subordinate ASG organizations that affect external logistics mission operations. It plans, supervises, and coordinates the mission support activities of the ASG. It supervises the support missions of assigned or attached units, ensuring timely logistics support. The directorate staff develops and maintains logistics estimates, service support estimates, analyses, and summaries of mission support requirements. Applicable branch staff officers monitor and coordinate the GS and DS supply, field services, and maintenance work load placed on ASG subordinate units by the MMC.

The ASG support operations officer develops policies to execute ASG logistics support missions. He has staff supervisory responsibility over the support missions provided by the ASG. He advises the ASG commander on the status of mission support and support issues for current and proposed operations. He directs realignment of support missions in response to changes in ASG organizational structure and changes in units receiving ASG area support.

This directorate exercises staff supervision over subordinate units performing logistics support missions. Directorate staff officers plan, direct, coordinate and supervise support missions. They implement policies, priorities, and procedures throughout the ASG's AO. They perform the following tasks:

- Plan, coordinate, and supervise ASG mission support operations.
- Coordinate logistics mission support information requirements with the SPO.
- Operate the LOC.
- Develop estimates or summaries of support requirements.
- Develop the support operations portion of ASG OPLANs/OPRODs and SOP.
- Provide staff supervision to subordinate battalions.
- Monitor ASG operational readiness.
- Recommend changes to ASG unit authorizations.
- Monitor and direct the deployment of ASG units.
- Conduct staff visits to subordinate units and activities to provide assistance and evaluate operations.
- Resolve work load and performance issues raised by customer units, ASG units, MMC, and the EAC support command.
- Assess the current status of support capabilities and shortfalls that impact on ASG mission support operations.
- Maintain current customer listings.
- Keep the support operations officer advised on support capabilities, current work load, and support limitations.

Supply and Services Branch

S&S branch personnel provide advice and assistance to subordinate supply units work loaded by the EAC support command MMC. They ensure accomplishment of the ASG's supply and field services support missions.

Branch personnel conduct site visits and inspections at subordinate supply units and field services units. They review records of the support provided and the requirements of subordinate units. As necessary, they resolve support problems with customer units.

S&S branch personnel perform the following tasks:

- Project supply requirements using FM 101-10-1/2.
- Recommend the supply and field services units to deploy to the AO.

- Coordinate with the HNS logistics directorate on the use of HNS to supplement ASG supply and field services support.
- Coordinate the supply and field services missions performed by subordinate battalions.
- Calculate storage capabilities of the ASG.
- Ensure appropriate distribution of supplies to subordinate units.
- Monitor CSSCS reports of critical items of supply.
- Recommend supplies for local purchase and contingency contracting.
- Coordinate controlled exchange of selected items, collection and classification of materiel, and disposal of items.
- Integrate field services support provided by the ASG with other organizations or agencies located nearby and engaged in similar support.
- Supervise the collection and disposal of salvaged supplies and equipment.
- Assess the impact of rear operations on ASG supply and field services mission accomplishment.

Transportation Branch

Transportation branch personnel exercise staff supervision over transportation functions. They provide technical guidance on surface transportation request and airlift resupply procedures. They coordinate aerial resupply with the EAC support command MMC and TAMCA. They develop policies, plans, and procedures to ensure that transportation requirements are coordinated and fulfilled. Table 3-1, see page 3-12 and 3-13, provides a planning checklist to assess transportation resources and their impact on ASG mission accomplishment.

Transportation branch personnel determine and coordinate the ASG's transportation requirements. They coordinate projected HN transportation support with the ASG's HNS logistics directorate. They work closely with CA teams in coordinating the military use of civilian assets (railroads, highways, ports, airfields, and motor vehicles).

ASG transportation branch personnel maintain close coordination with supporting MCTs. They provide technical advice on transportation matters to ASG staff and subordinate units and customers. They also work closely with the SPO directorate in development of road movement orders.

Maintenance Branch

Although subordinate ASG maintenance units are work loaded by the MMC, accomplishment of the main-

Table 3-1. Transportation branch personnel planning checklist.

GENERAL

- What highway, rail, air, and waterway nets exist within the AO? What are their capabilities and limitations? What impact will the weather have on these?
- What will be the intratheater, intertheater, and in-country movement system for personnel and cargo?
- What type and number of truck and cargo transfer units will be required?
- Will refrigerated transportation be required?
- What transportation support will be provided by the HN, allies, or other Services?
- Have the sea or aerial ports of debarkation and embarkation been specified?
- Are procedures addressed for shipping supplies and equipment that arrive at the home station after the unit(s) has deployed?
- What preparations are required to transport fuel, ammunition, and other hazardous material?
- What transportation funding arrangements exist?

AIRFIELDS

- What airfields exist to support logistics missions?
- Has a coordinating headquarters been designated for all logistics airlift support?
- What airfield departure and arrival controls exist?
- What is the current usage of the airfield?
- What units or contract or HN personnel and equipment assets are available to assist in arrival and departure operations?
- Have transportation movement priority and account codes been provided?
- What are the characteristics and capabilities of the roads that access the airfields?

MAIN SUPPLY ROUTES AND ALTERNATE SUPPLY ROUTES

- What are the characteristics and capabilities of the routes available in the AO?
- What are convoy restrictions along routes?
- What are the dimensions of tunnels along the routes?
- What are the dimensions and classifications of bridges along the routes?
- What capability does the HN have to repair damaged segments of routes?
- What segments of the routes are heavily used by the civilian populace?
- What are the most likely routes fleeing refugees will use?

Table 3-1. Transportation branch personnel planning checklist. (continued)**RAIL NETWORK**

- What rail nets exist within the AO?
- What rail assets will be available? What are the capacities, dimensions, and age of typical rolling stock in service?
- What are the locations and capacities of the rail terminals, rail yards and marshaling yards within the AO?
- What are the number and length of track in each rail yard?
- Are loading ramps available at rail yards and terminals?
- What is the location and lifting capacity of railway cranes in the AO?

INLAND WATERWAYS

- What inland waterways exist within the AO?
- What are the capabilities and limitation of the inland waterways?
- What inland terminals exist along the waterways?
- What are the characteristics and capabilities of the inland terminals?
- What is the present usage of the inland waterways?
- What is the enemy's capability to interdict the waterways?
- How accessible are the inland waterways to roads and rail lines?
- What effect does weather have on waterway operations?

CONTAINERS

- What is the container policy?
- What is the capability of ports and subordinate units to handle container shipments?
- What HN personnel or civilian contract and equipment assets can assist in container operations?

tenance mission is the responsibility of the ASG. Maintenance branch personnel supervise the provision of DS maintenance support to units located in or passing through the ASG area. They also supervise the provision of GS maintenance for specified items or systems, as directed by the MMC.

Maintenance branch personnel provide staff supervision, technical advice, and coordination of the ASGs maintenance support mission. They perform the following tasks:

- Plan for the accomplishment of expected maintenance work load.
- Recommend maintenance units or teams to deploy to the AO.
- Plan for the modification or product improvement of materiel stored at ASG units.
- Ensure that adequate facilities are available for assigned or attached maintenance units.
- Develop and implement procedures for maintenance units to report maintenance mission information (work load and performance).
- Relate changes in maintenance priorities and repair time limits.
- Monitor maintenance efforts in to maintain replacement weapon systems.

CSS Automation Management Office

The ASG CSSAMO provides CSS STWIS system support (less SIDPERS) to all units located in or passing through the ASG support area. STAMIS system support includes CSS software receipt, distribution, implementation, retrieval and disposal. The ASG CSSAMO coordinates the installation and synchronization of STAMIS. It maintains data on CSS hardware and software use, regardless of its location. It coordinates signal support requirements with the theater signal office.

ASG CSSAMO personnel coordinate the installation and synchronization of system change packages. They provide user level STAMIS assistance, system trouble shooting, and software replacement. CSSAMO personnel submit engineering change proposals to the Information Systems Engineering Command and Theater Army. They assist units with CSS automation COOP planning and execution.

CSSAMO personnel also provide user level training and integrate data bases for new units. During peacetime, TDA augmentation to the CSSAMO, HNS, or contractor support may be required to support

STAMIS training requirements. This may result due to stationing locations, the distribution of forces, and support for STAMIS in TDA activities.

HOST-NATION SUPPORT LOGISTICS DIRECTORATE

The HNS logistics directorate develops plans, policies, and procedures for the efficient use of support from local HN sources. Table 3-2 can assist in determining HNS availability. This directorate serves as the central contact point between units in the ASG area and the CA teams normally attached to the ASG's CA battalion to obtain HNS in the area.

Directorate staff officers coordinate and interface with CA/CIMIC teams, HN government and military organizations, and EAC support command HNS activities to obtain and use HNS. They develop the CMO estimate. They integrate HNS obtained as a result of CA team negotiated agreements into the US support system. They monitor the execution of HNS agreements and assess post-agreement HNS administration, to include vendor performance. HNS logistics directorate personnel may be appointed to serve as contracting officer's representatives.

HNS logistics directorate personnel perform the following tasks:

- Assist units in the ASG area in documenting (format and justification) a formal requirement for HNS.
- Initiate and monitor the interface between HN elements and US units, when so stipulated in an agreement.
- Maintain records of the assistance obtained from the HN.
- Coordinate issue of US materiel to the HN, when the agreements so specify. This includes timely shipment of unserviceable reparable items to support HN maintenance agreements.
- Coordinate the receipt of materiel and services obtained from the HN. This includes preparing the documentation to update materiel records at the MMC.
- Manage inspection and quality control services to verify HN compliance with agreements.
- Compare HNS contract stipulations to the performance of HNS vendors.

The technical expertise to write specifications or to inspect HN products may not exist within the HNS logistics directorate. Specialists from the support operations directorate or from EAC support command

Table 3-2. Determining HNS availability.

GENERAL

- Is HNS available for military operations?
- Is HNS available for NEO?
- What are the location and nature of HN government facilities?

SUPPLIES AND SERVICES

- What is the Class I status for the local population?
- What type of agriculture products does this country produce (dairy, fish, crops, and lumber)?
- What sundry items can be obtained from the HN?
- What is the local source of gravel, sand, concrete, and steel?
- What are the number, type, and capabilities of local police, fire fighting, and military organizations?
- Are local laborers available to work? What are the prevailing wages?
- What is the water situation in the AO? Where are the sources of water?
- What are the local sources of fuel?
- Do local fuel testing capabilities exist?

COMMUNICATIONS

- What in-country communications are available?
- What military and civilian C-E facilities exist?
- What communications problems can be expected?

ELECTRICAL POWER

- Where are power plants located?
- What fuel is produced by power plants?
- What are the capabilities of the power plants?

REAL PROPERTY/HOLDING AREAS

- Is real property available?
- Are there significant maintenance facilities in the AO?
- Where are major hotels located? What are their capacities?
- Where are restaurants located? What are their capacities?
- What are the type, size, and status of civilian and military schools in the AO?
- What are the location and size of military and civilian detention centers?

functional units may be needed to ensure HNS compliance with guidance.

STAFF JUDGE ADVOCATE SECTION

The SJA of the ASG serves on the special staff of the commander. He advises the ASG commander, staff, and subordinate commanders on the legal implications of decisions or courses of action. FM 101-5 describes the functions and activities of the SJA.

SJA section personnel prepare the legal annex to the ASG OPLAN. They review the entire OPLAN to ensure that it conforms to legal requirements imposed by domestic and international laws (including environmental). They also determine whether constraints mandated by law are contained in the OPLAN.

SJA staff personnel perform the following tasks:

- Advise the ASG commander and staff on contracting and civil affairs operations.
- Provide legal assistance to soldiers and their families to ensure that their personal affairs are in order.
- Advise the staff on the legal status of US personnel deployed overseas.
- Process claims arising from operations.
- Assist in the negotiation of international agreements.
- Investigate and prosecute violations of the laws of armed conflict.

The SJA provides advice and assistance relative to military and civilian relationships during domestic support operations, to include Army authority, soldier liability, claims, and contingency contracting. He assists the ASG commander and staff with understanding the laws, policies, and directives that govern employing the military in domestic emergencies. For example, laws limit requests for information during a domestic emergency.

AR 27-1 describes judge advocate legal service. Courts-martial are convened at the ASG when necessary. The ASG SJA advises the convening authority on the disposition of criminal charges and trial prosecution by courts-martial.

The ASG depends on judge advocate general legal support organizations for trial defense, contract law, and military judge teams. Trial defense counsel is detailed to defend those accused of offenses. Military judges are detailed for all special and general courts-martial. See TRADOC Pamphlet 525-52 for a discussion of legal services in theater operations.

UNIT MINISTRY TEAM

The UMT advises the commander on matters of religion, morals, and morale as affected by religion. It monitors activities in the ASG area to ensure that religious services are available to all personnel. It also explains HN religious beliefs and local mores to ASG staff and personnel to minimize conflicts with local customs.

The ASG chaplain plans and manages pastoral ministry and related activities in the ASG area. He provides technical supervision to the chaplains in units subordinate to the ASG. Chaplain duties are described in AR 165-20, FMs 16-1 and 101-5.

HEADQUARTERS COMPANY

The headquarters company supports the ASG headquarters. It relocates the ASG headquarters to a new operating site and establishes the headquarters CP and LOC. It provides unit-level support to the ASG headquarters staff and the attached ROC (ASG). Areas of support include —

- Unit administration and personnel functions.
- Unit supply.
- Unit maintenance.
- Field feeding support.
- Physical security.
- Billeting.
- Training.
- Discipline.

As applicable, headquarters company personnel perform the following tasks:

- Provide SIDPERS inputs.
- Develop SOP with the MEDCOM to establish relationship between the ASG commander and the senior medical unit commander to provide combat health support.
- Establish and operate a unit supply activity.
- Manage a PLL using ULLS.
- Request, receive, and issue basic load ammunition.
- Account for items of property at the headquarters using SPBS-R.
- Coordinate unit medical support.
- Establish and operate a motor pool.
- Provide unit maintenance on organic equipment and on the equipment belonging to the ROC (ASG).

- Establish and operate a field kitchen.
 - Supervise field sanitation operations.
 - Relocate the headquarters.
 - Supervise the establishment of a perimeter defense.
 - Supervise camouflage activities.
 - Supervise response to ground or air attacks.
 - Monitor physical security measures.
 - Defend the assigned area.
- Assist MPs in processing captured or abandoned enemy equipment.
 - Coordinate and conduct training for HHC personnel.
 - Monitor NBC situation and advise the commander on NBC matters.

Use ARTEP 63-622-30-MTP to train in those critical tasks that support the headquarters company mission.

COMMUNICATIONS

Communications are essential for gathering data, planning operations, supervising subordinate unit performance, and commanding and controlling subordinate units. Mission accomplishment depends on adequate communications to keep abreast of changing situations and related changing requirements.

The ASG transmits and receives information and orders by a combination of radio nets, area communication, and data communication. Communications resources must be tailored to meet wide operational dispersion and the limitations of FM radio and wire lines. ASG units may need to establish communications with civilian agencies, a host country, and paramilitary units.

COMMUNICATION PRIORITY

Communications resources are limited. Existing in-theater communications must be used to the maximum extent possible to support wartime requirements.

The ASG commander sets the communication priority for his command based on political and METT-T factors. Priority needs to be assigned to cover the exchange of –

- Orders or guidance to subordinate commanders.
- Information between staff levels and elements of command.
- Logistics information between staff levels and elements of command.
- Intelligence information on threat forces, terrain, and weather between levels and elements of command.

COMMUNICATIONS PLANNING

A HN commercial communications system may be available. The area common user network interfaces with existing combined communications systems and any existing local telephone and telegraph systems.

This is accomplished in accordance with STANAGs and HNS agreements. However, military, civilian agency, and civilian law enforcement communications systems are often not compatible. Extensive communications planning is required for joint military-civilian domestic support operations. Early planning and coordination are critical for reliable communications within joint or combined areas. HN and allied forces' requirements must be considered in the communications plan. Interoperability with equipment from other Services, allies, and HNs must be planned in advance. The choice of communications means depends on the available means that interconnect locations, the urgency of the message, and the risk involved.

Communications resources and usage should be planned for each phase of a military operation – predeployment, deployment, and sustainment operations. The C-E officer needs to plan frequency management, SOI, and COMSEC for each phase. For example, during sustainment operations, ASG units may use communication windows or report by exception. A formal plan for communications interoperability must be developed. This plan needs to be retined as additional units are attached to the ASG. FM 11-23 can assist in planning signal support at the theater level.

Predeployment Communications

Deploying ASG units use existing CONUS TDA and commercial in-place systems. To protect the security of planned operations and free tactical communications systems for deployment, communications staffs emphasize the use of –

- Locally secured commercial telephones.
- Secure TDA radios and telephones.
- Secure teletypewriter and AUTODIN.
- Couriers.

The communications branch determines the communications requirements of the ASG. The C-E officer needs to assess the requirements for communications support when mission and lift constraints result in deployment by increments. He needs to determine the answer to the following questions:

- Have communications frequencies been cleared with the HN?
- Have details been worked out for transmission of documents to higher echelons?
- Have arrangements been made for telephonic assistance after deployment?
- Are phone books for the country or local area available?

Deployment Communications

The ASG and subordinate battalions deploy communications equipment forward. This ensures essential battle command and intelligence upon arrival in the AO. The ASG C-E officer arranges for access into the defense communications system and data transfer system. Secure en route communications packages aboard MAC aircraft allow commanders to receive updates while aircraft is enroute to the AO.

To free communications systems to coordinate logistics propositioning and disposition of stocks, the existing communications networks should be used as much as possible. For example, the embassy or consulate can assist with access to the local telephone system in the AO.

Sustainment Communications

The ASG C-E officer should plan to use the existing commercial communication infrastructure and HN military assets. If long-range communications support is required by the mission, TACSAT teams may be attached to the initial task force or battalion element operating an intermediate staging base.

AREA COMMON-USER SYSTEM

The ACUS is the primary means of communications. The interface between TRI-TAC at OLS and MSE at corps and division areas provides an integrated communications network that stretches from strategic headquarters to forward tactical headquarters. These systems provide voice and digital data transmission capabilities for battle command, operations and intelligence, and administration and logistics information.

Communications support is provided via a grid network extending from CONUS through the worldwide

defense communications to the theater and into OLS area. It provides —

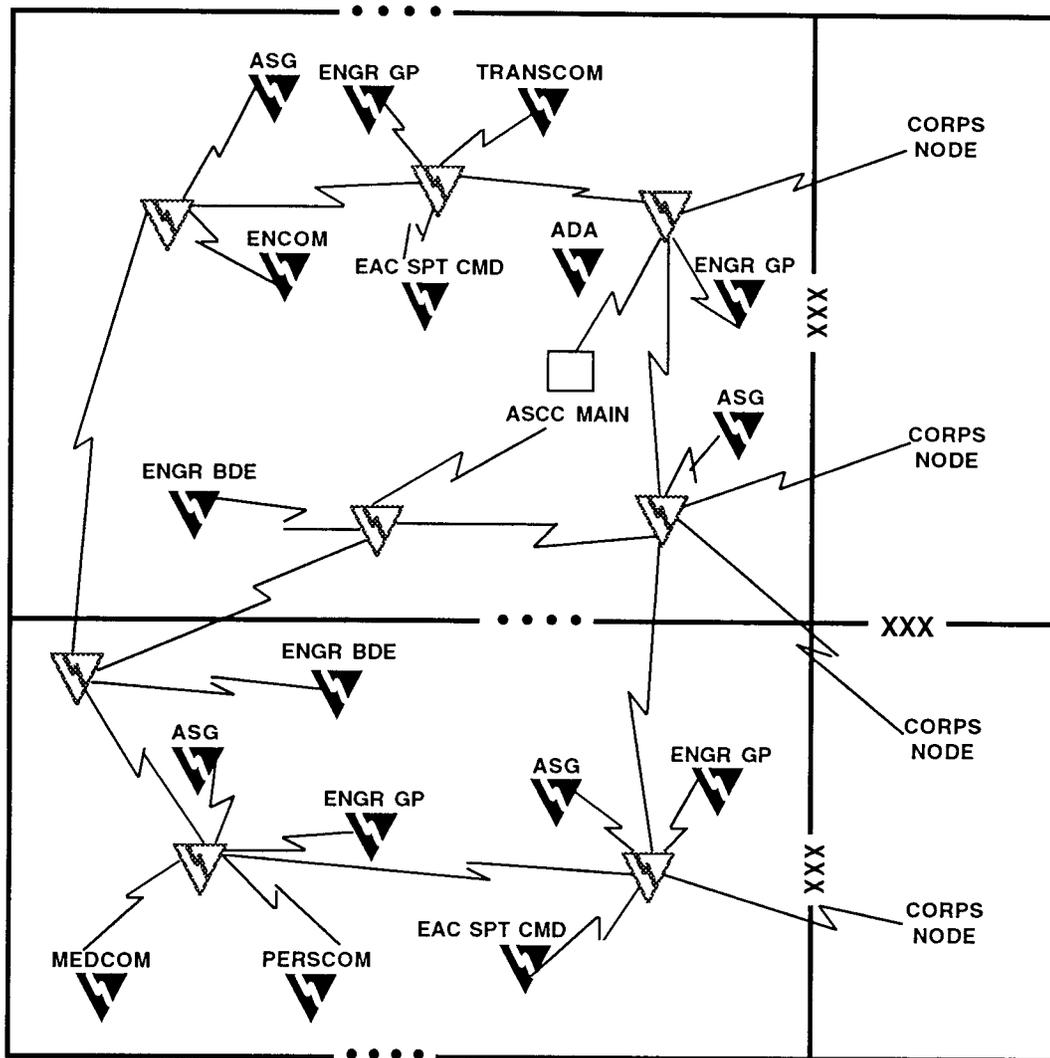
- Secure precedence telephone service.
- Secure facsimile.
- Secure mobile radiotelephone service.
- Secure data transmission.
- Access to the combat net radio system.

ASGs have geographical access to the ACUS. Area links provide service on a common-user, geographic area basis via the area nodal system. As shown by Figure 3-3, the ACUS is composed of a network of interconnecting communications points called nodes. Area links interconnect the area nodes. This permits alternate routing of communications in the event one or more nodes become inoperative. This system facilitates communications among the EAC support command and the ASGs ACUS finds and connects subscribers, regardless of their location, using automatic routing.

Each MSE corps network includes at least two gateway connections to the OLS TRI-TAC network and adjacent corps. Calls to OLS are routed via flood search until a gateway node switch is found that has a digital transmission group that interfaces with TRI-TAC. Direct dialing is possible using area codes. Appendix F of FM 11-30 covers MSE interoperability with OLS.

Subscribers share the common switchboard and transmission system provided by an area signal battalion. ASG user units install the devices by laying field wire to a local distribution point to connect to the local extension switchboard. Selected ASG units may access the area system via subscriber radiotelephones. Radio operators interface voice traffic into the area system through net radio interface. User-owned single subscriber terminals allow for secure message traffic service. Table 3-3, see page 3-20, lists ASG HHC freed subscriber terminal assignment and peripheral devices. The user must install, operate, and maintain organic terminal devices such as telephones and facsimiles.

- DNVT are digital non-secure voice telephone devices that interface with both MSE at corps and TRI-TAC switches at OLS. DNVTs provide a data port for interfacing facsimile devices for informal record traffic and the AN/UGC-144 terminal for formal record traffic. They also interface with TACCS computers for CSS STAMISs and ULC computers for unit-level logistics STAMIS.



LEGEND:

 Area node

 Extension node

Figure 3-3. Sample area common-user system access at EAC via switching nodes.

Table 3-3. ASG HHC fixed subscriber terminal assignment.

<u>USER/ACTIVITY</u>	<u>DEVICE</u>	<u>DATA TERMINAL</u>	<u>STAMIS</u>
CMD SEC	3 DNVT		
SJA SEC	3 DNVT		
CHAPLAIN	1 DNVT		
P&A DIR	2 DNVT, SST	TACCS	SIDPERS
SPT OPS DIR	1 DNVT, FAX		
SUP & SVCS BR	2 DNVT		
TRANS BR	1 DNVT		
MAINT BR	1 DNVT		
CSSAMO	1 DNVT	4 TACCS 2 ULC	All CSS STAMIS (less SIDPERS) ULLS
HNS LOG DIR	1 DNVT		
SPO DIR	1 DNVT		
PLANS & OPS BR	2 DNVT, FAX/SST		
ENGR BR	1 DNVT		
COMM BR	1 DNVT		
HQS CO CDR	1 DNVT		
UNIT SUPPLY		1 ULC 2 LOGMARS	ULLS

- FAX devices enable transmission and receipt of typed or hand-written record traffic, maps, overlays, and drawings up to 8 1/2 X 11 inches in 8 shades of gray. Facsimile devices operate on standard voice radios and wire circuits, digital and voice COMSEC, and wide band wire and radio circuits. SINCGARS radios can be used to transmit facsimiles to several addresses at the same time.
- SST AN/UGC-144 is an information processing terminal and printer device that provides access into and out of AUTODIN and the defense special security communications system.
- TACCS devices provide a communications capability with a standard output for interface with tactical and commercial telephone systems. They can be used to transmit data to other computers via radio, telephone, and direct wire hookup. Although intended for command traffic, ASGs may also use multichannel high-frequency radios to access the network.
- ULC devices run ULLS programs used to process company headquarters PLL and maintenance reporting requirements. ULLS programs also enable commanders to assess materiel readiness, report unit status, and perform supply accountability.
- LOGMARS devices enable unit supply and PLL personnel to perform receipt processing, issue confirmation, inventory, location survey, requisition, work order registration, and property accountability inventory applications.

SIGNAL SUPPORT

FM 24-1 prescribes doctrine for signal support. The theater signal command (Army) provides the telecommunications network to support the EAC support command and its forces. It provides gateways into joint, strategic, and sustaining base networks, as needed. Depending upon signal requirements, indigenous signal infrastructure, and support agreements with the HN and allied forces, a theater signal brigade may be the highest level signal unit in a theater.

A supporting signal unit provides over-the-counter record traffic service. This service is available until individual units gain this capability. The communications branch coordinates area system support requirements with the signal corps area communications support unit. The supporting signal company may install a junction box at the ASG headquarters for wire communications. This unit provides —

- Dial central office service with access to the area system.
- Local telephone service (to include installation, operation and maintenance).
- Record traffic terminals.
- High-frequency radio teletypewriter.
- Facsimile terminals.
- Data transmission facilities.
- Message center service.
- Motor messenger service within the supported headquarters and to the nearest area node.
- Net radio interface.

COMMUNICATIONS LINKAGES

Wide operational dispersion of ASG units may necessitate FM retransmission and HF radio. The group C-E officer may also need to consider using TAC-SAT to supplement organic communications resources, particularly if ASG elements are operating an intermediate staging base.

The C-E officer exercises staff supervision relative to linkage to parent headquarters and subordinate units. The ASG must have communications linkages established with —

- EAC support command.
- Other Service components.
- Allied organizations.
- Installations.
- Corps Rear Command Post/RAOCs.

Typical ASG communications links are depicted in Figure 3-4 on page 3-22. Communications with other Services, allies, and host country forces and agencies can be established by exchanging communications equipment, SOI, and liaison personnel.

The ROC (ASG) requires a secure FM, reliable high-frequency radio, and redundant communication system. It operates in the rear operations command FM network. Though the rear battle network depends on the actual units that form base clusters, key communications links for the ROC (ASG) include —

- Base defense forces.
- MP companies.
- HN territorial forces.
- CA teams.
- Fire support assets.

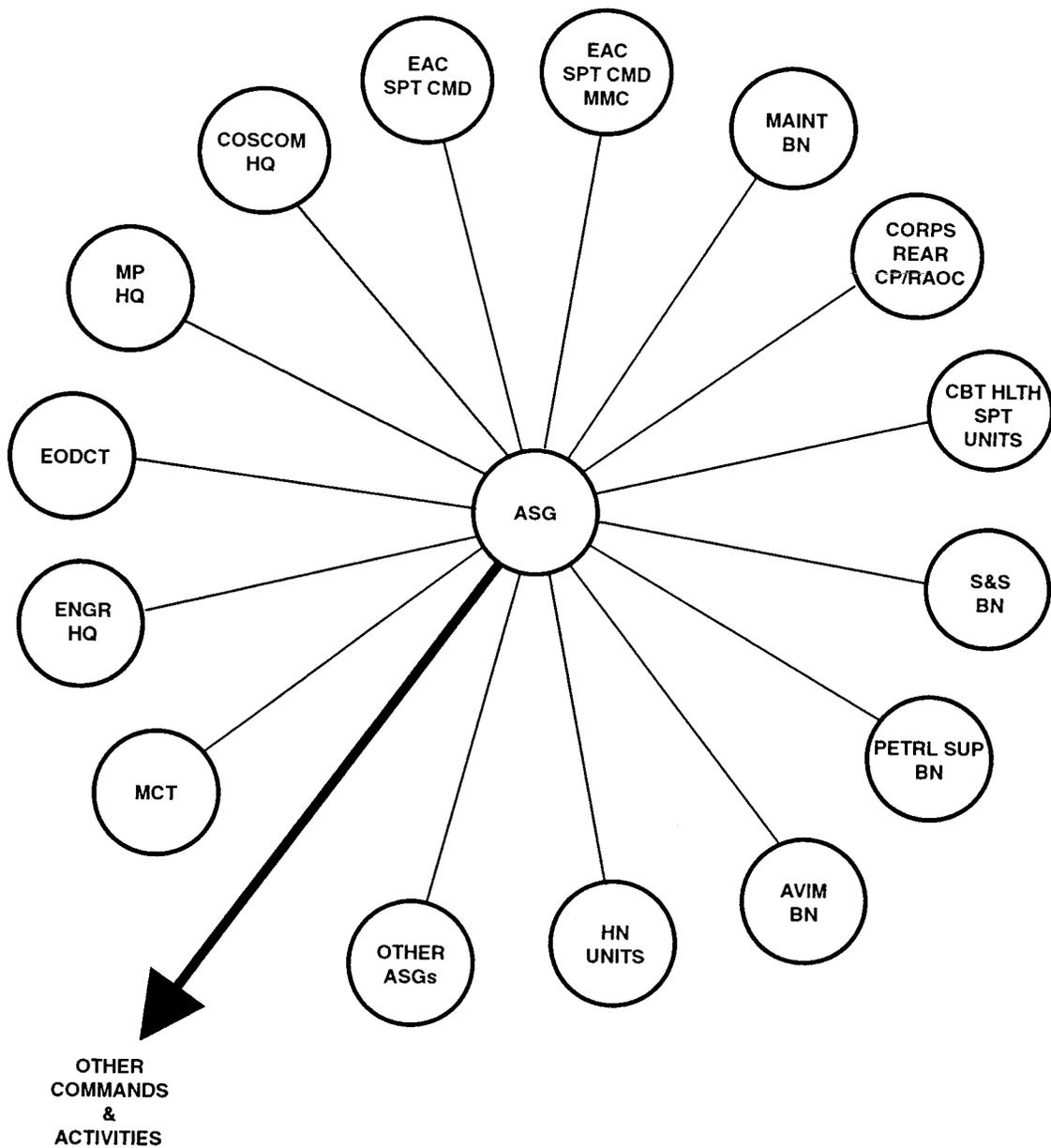


Figure 3-4. Typical ASG communication links.

- Tactical combat force.
- Air bases.
- Combat health support units.

FREQUENCY ASSIGNMENT

ASG units employed in a HN require frequency support. The HN assigns and controls frequencies. ASG units submit requests for frequencies through the signal chain. The senior US military signal officer in a foreign country obtains a frequency assignment list from the HN.

Frequency assignments authorize as well as limit. ASG units in a HN have no rights to any part of the frequency spectrum other than to those authorized by HN assignments.

INFORMATION SECURITY

INFOSEC consists of measures taken to control and protect classified and unclassified information from unauthorized disclosure, interruption, and analysis. It includes physical security, transmission security, and emission security.

Physical Security

Physical security includes the proper control, safeguarding, and accountability of information. For example, the signal officer must establish policies and procedures to ensure signal software use and security. He controls distribution of signal software updates. He also develops backup and recovery plans.

Transmission Security

Transmission security includes measures designed to protect transmission from unauthorized interception, traffic analysis, and imitative deception. When possible, all electronically transmitted messages and conversations should be encrypted. Authentication codes, passwords, brevity lists, and the SOI help to ensure transmission security.

Emission Security

Emission security protects against interception and electronic analysis of compromising emanations.

COMBAT NET RADIOS

SINCGARS FM radios and improved high frequency AM radios provide the primary means for voice transmission of immediate battle command information. They provide a secondary means for transmission of administrative and logistics data not met by using the TRI-TAC system. The ASG HHC establishes a battle command network and an administrative and logistics

network. This prevents logistics support information from overwhelming the command operations network during crisis. FM 11-32 describes combat net radio operations.

SINCGARS Radio Interface and Compatibility

SINCGARS radios are replacing the AN/VRC-12 series radio sets. They provide access to the area common user network through the net radio interface system. SINCGARS radios can interface with both MSE at corps and TRI-TAC equipment in the COMMZ. Though each interface device is peculiar to the area common-user system, a SINCGARS user can access the entire common-user network.

All US forces use SINCGARS compatible radios. SINCGARS radios are compatible with all current US and allied VHF radio in the single-channel mode on 50 kHz channels. However, for compatibility, allied forces may need to be augmented with US equipment. In the FH mode, they are compatible with other Air Force, Marine, or Navy SINCGARS radios.

FM 11-32 covers planning and operating techniques and considerations to ensure interoperability of new generation frequency-hopping radios with allied nation single-channel radios. Equipment capability, frequency compatibility, and channel spacing of the equipment in the network must be considered. For example, when required to communicate with allied nations limited to single-channel operation, the entire network must operate single-channel. The preferred alternative is to cross-attach a SINCGARS radio to the allied unit concerned.

SINCGARS Radio Transmission Range

SINCGARS radios are the primary means for short range (less than 35 kilometers/22 miles) secure voice transmissions. The transmission range of from 300 meters (990 feet) to 8 kilometers (5 miles) can be increased to 35 kilometers (22 miles) or line of sight by adding a power amplifier. Range can also be increased by retransmission. However, using lower power levels lessens the signature of the radio set at major CPs operating in multiple networks.

Frequency Assignment

Frequency allocations are area dependent. They are available from the HN for the AO. They change when units change their AO. The electronic notebook AN/CYZ-7 stores and transfers frequency assignments for radio equipment. This hand-held computer device displays SOI and SINCGARS-V frequency hopping information. Information can be transferred

electronically via secure communication links from electronic notebook to electronic notebook and basic generation units.

AM Administrative/Logistics Net

Figure 3-5 depicts the AM administrative/logistics net. The ASG HHC uses the high frequency AN/GRC-193 radio for battle command and internal coordination. This improved high frequency radio is required because the dispersal of ASG units exceeds the planning range for the FM radio net. The plans and operations branch operates both the AM and FM net control stations.

An incremental change package replaces the AN/GRC-106 and AN/GRA-6 with the high frequency radio set AN/GRC-193. The AN/GRC 193 radio is composed of a basic receiver and transmitter with automatic antenna coupling, power amplifier, and antenna. System components are described in FM 11-32. This radio is capable of receiving and transmitting from 0 to 320 kilometers. The radio has remoting capabilities of 6 kilometers. Since the AN/GRC-193 does not require dedicated AM radio operation, the three single channel radio operators authorized in the base TOE will be deleted.

FM Command Operating Net

The ASG commander, support operations officer, SPO and plans and operations branch officers are each authorized a vehicular-mounted, long-range VRC-90 radio. Refer to Figure 3-6 on page 3-26. The net control stations provide network management and control.

The VHF/FM radio is constrained by distance. The control receiver transmitter provides the vehicular mounted receiver-transmitters a remoting capability of up to 4 kilometers. A power amplifier has been added to the VRC-90 radios for long-range capability. A retransmission unit can overcome terrain masks and extend the radio net operating range. Data and facsimile transmissions are available through connections with different data terminal equipment. The AN/GRA-39 can be used to remote SINCGARS radios from the main site location.

Radio Security

SINCGARS radios have a securable transceiver. Remaining in the frequency hopping mode counters threat electronic countermeasures.

Incremental change packages to the TOE authorize VINSON tactical wide band communications security

devices, such as speech security equipment TSEC/KY-57 and electronic transfer keying device KYK-13. They provide secure voice or data transmission over VHF/FM radios. The basic generation unit provides the capability of generating, displaying, printing, storing, and electronically transferring SOI information.

The ECCM fill device is used to program the radios with assigned frequencies over which the radios can hop for ECCM protection. The electronic notebook authorized in an incremental change package to the TOE replaces the ECCM fill device. The electronic notebook can be loaded with complete or partial SOI and variables for operation of SINCGARS radios. It allows the operator to locate call signs and frequencies for use in multiple networks.

These devices allow the radio operator to put a secure radio into a network. Nevertheless, security is ensured only if every wire line and terminal instrument using the multichannel system are physically safeguarded via controlled access to the area.

WIRE NET

Wire interconnects staff elements within the CR. Local wire networks are required to interconnect telephones and facsimiles in local CP areas. The communications branch establishes internal wire net communications. Branch personnel lay the wire and install the switchboard and telephones. Because wire is not secure and vulnerable, wire communications are normally used only for internal staff communications within a secure base.

MESSENGERS

Using messengers provide an alternative to lengthy communications and lessen the security risk of substantial radio use. While motor messengers are subject to snipers, mines, and roadblocks, they can deliver messages between ASG elements in relatively secure areas. The signal officer determines routes and schedules. Messages can also be delivered via the use of aircraft resupply missions, medical evacuations, and resupply missions.

COMMUNICATIONS SECURITY

Radios are subject to jamming, interception, and deception. Wire is subject to intercept through wire tap and damage from electro-magnetic pulse.

COMSEC refers to those procedures followed or to the precautions taken to prevent unauthorized persons

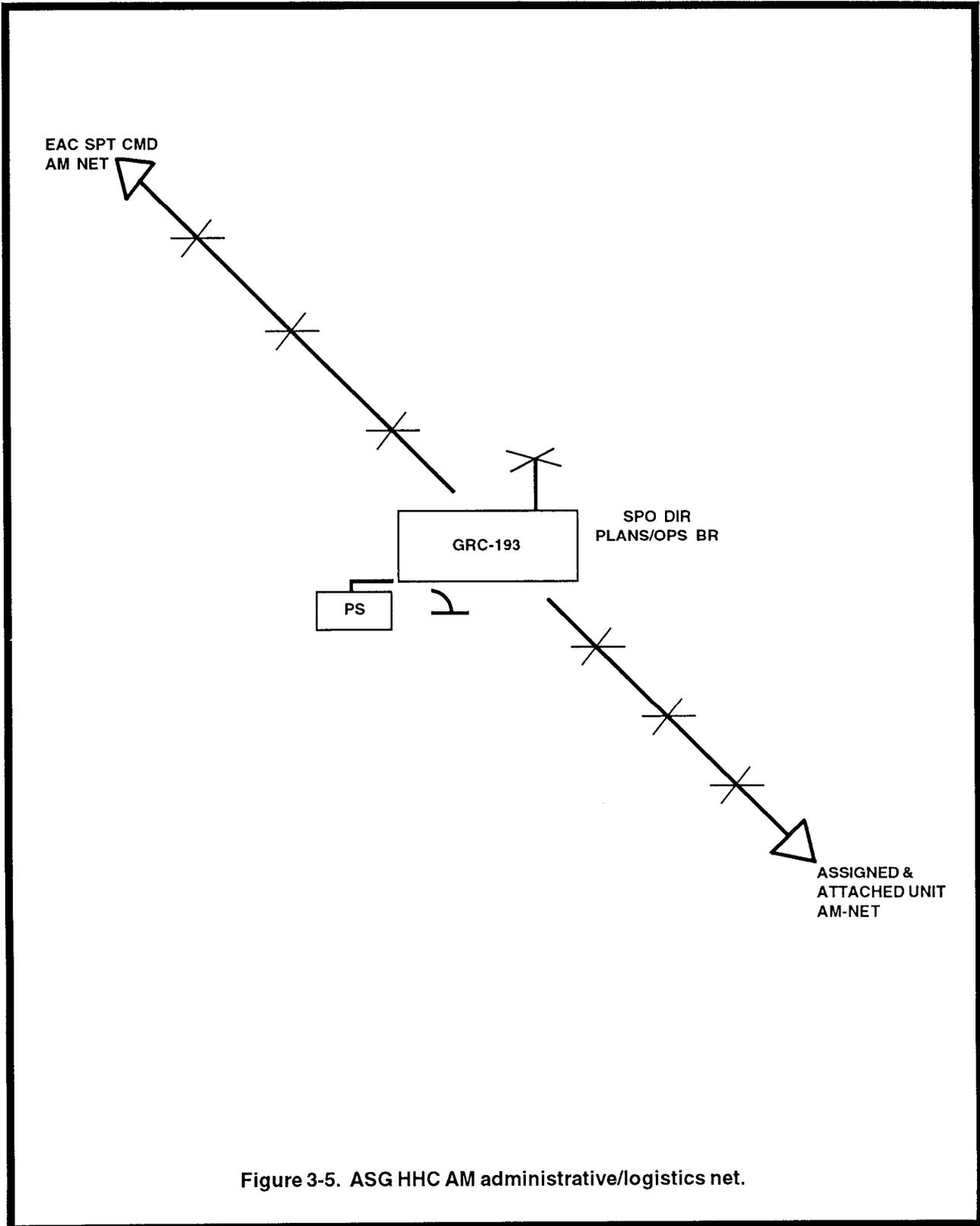


Figure 3-5. ASG HHC AM administrative/logistics net.

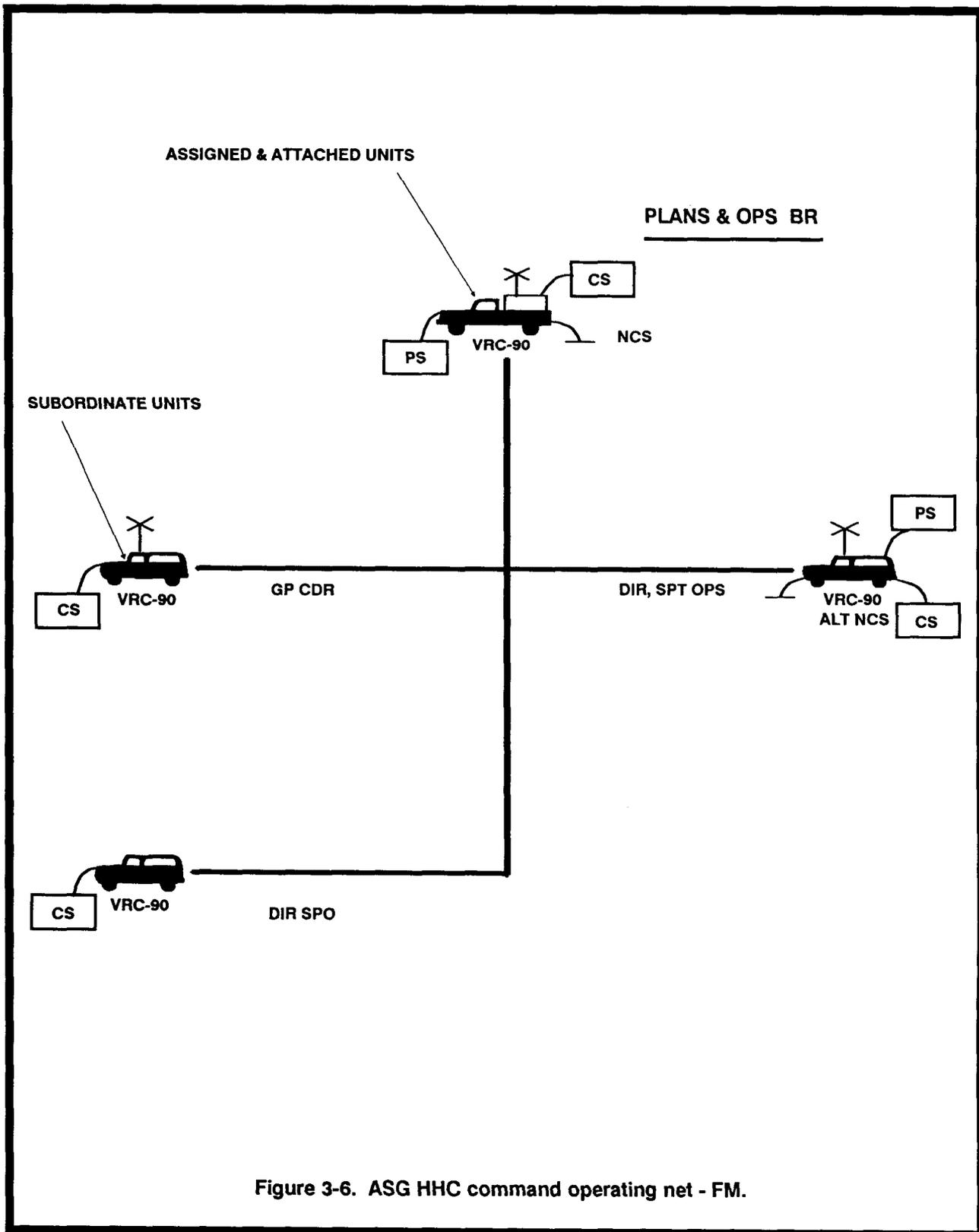


Figure 3-6. ASG HHC command operating net - FM.

from obtaining information of value from friendly communications. It includes crypto-security, physical security, transmission security, and emission security. Local phone systems may be used when secured with STU-III telephones, VINSON, or Minterm. COMSEC is the responsibility of everyone involved in theater communications activities. Even ordinary ASG communications transmissions can be of value to the enemy.

Supervisors must prescribe policies and procedures for safeguarding classified COMSEC information. Communications experts are available to assist in establishing effective COMSEC procedures. The sensitivity of COMSEC information dictates that it be available only to those personnel who have a need to know. The communications branch chief establishes physical security control of COMSEC material and documents containing EEFI. A COMSEC custodian must be informed at least 24 hours prior to the pickup of COMSEC materiel.

Prompt reporting of physical and cryptographic security violations and compromise is essential to the maintenance of adequate COMSEC. A compromise may result from two types of insecurities —

- Physical insecurities occur when classified information

is lost or possibly exposed to an unauthorized person. This includes information subject to compromise through personnel insecurities.

- Personnel insecurities include detection, unauthorized absence, deliberate or inadvertent disclosure to an unauthorized person, and the removal of a security clearance for cause.

NBC CONCERNS

Communications and automation devices cannot handle the voltage and current surges that result from EMP. EMP is produced by a nuclear burst. To provide backup equipment and components to reinstall affected systems, disconnect all equipment not absolutely required and store it within a sealed shelter or shielded enclosure. Disconnect antennas and connecting cables from radio sets when not in use.

Commercial power facilities are extremely susceptible to EMP. Their use provides a direct path to vulnerable communications and automation components. Disconnect power cables which are not needed for equipment operation. To reduce collected energy, reduce excess lengths of cables and shield and ground all wires and cables.

INFORMATION MANAGEMENT

Timely information enhances decision making and increases the responsiveness of logistics support. The quality of decisions made by the ASG commander is directly related to the quality and timeliness of the information on which the decisions were based. Total Army asset visibility improves management of critical logistics resources. ASG mission accomplishment is impacted by numerous automation STAMIS. ASG headquarters staff supervision of subordinate units is computer assisted.

CSS AUTOMATION MANAGEMENT OFFICE

The CSSAMO focuses on management of CSS software and user support of CSS software. It serves as the area CSS STAMIS software manager. It provides CSS STAMIS support on an area basis for all units located in or passing through the ASG area. The CSSAMO is not staffed or equipped to support command systems unique to TDA organizations. A TDA augmentation may be required as a result of stationing locations and supporting STAMIS in TDA activities.

CSSAMO personnel receive, distribute, and implement software change packages. They also ensure that the change packages are applied in the proper order. They integrate data bases for new units. They provide user level assistance, system troubleshooting, and software replacement. They receive system problem reports and assist user units in turning in computers for contractor repair. CSSAMO personnel work with computer operators in resolving technical and operator induced software operating problems. They refer software problems that cannot be corrected to the EAC support command CSSAMO. They also assist units with CSS automation COOP planning and execution. Table 3-4, see page 3-28, lists planning concerns.

Figure 3-7, see page 3-29, shows the interaction of the ASG CSSAMO with the EAC support command CSSAMOs. The EAC support command CSSAMO insures that all system change packages are applied in the proper order. It reviews system problem reports submitted through ASG CSSAMOs and the COS-COM CSSAMO. It then routes the system change request to the appropriate activity.

Table 3-4. Automation support checklist.

- **Will automated or manual procedures be used?**
- **Is the communications transceiving capability provided compatible with the automated systems being deployed?**
- **Do subordinate and supported units possess the same version of software change packages?**
- **Have backup master files been established and prepared for shipment separate from primary master files?**
- **Are sufficient copies of user manuals on hand and current?**
- **Are sufficient disks available to provide software updates or change packages to arriving units or units within the AO?**
- **Has a backup courier system been established to carry disks between subordinate units and the EAC MMC?**
- **Have subordinate units removed nonessential files to avoid system abort due to overfill disks?**
- **Have appropriate parameter changes been made in the automated systems (for example, signal and overseas deployment codes)?**
- **Are security procedures in place to prevent introduction of software viruses?**
- **Has coordination been made with the EAC MMC for catalog update, reconciliation schedule, and loading of supported unit DODAACs?**
- **Automated equipment is very susceptible to EMP. Equipment not in use should be disconnected.**

COMBAT SERVICE SUPPORT CONTROL SYSTEM

CSSCS provides CSS and force-level commander's information required to support future operations. As the capstone of CSS automation architecture, CSSCS integrates the CSS system with combat and CS systems and with national and allied command and control systems. ASG, EAC support command, commanders and staffs use CSSCS output to plan and synchronize CSS support of operations.

CSSCS automates the collection, analysis, and distribution of key elements of information from logistics, personnel, and medical functional STAMIS. It processes selected critical CSS resource data from functional STAMIS in subordinate organizations as shown in Figure 3-8. CSSCS produces summary information on the current and projected capabilities of CSS units. As such, it provides support operations staff officers a decision-making tool useful in analyzing the CSS supportability of several courses of action being considered.

SIDPERS

SIDPERS provides numbers only, strength accounting data and by-name personnel accounting information. It automates assignments, personnel record keeping and S1 personnel operations. The ASG and all subordinate battalions use SIDPERS programs to process unit personnel status data and prepare daily personnel status reports for transmission to the supporting personnel support unit. P&A directorate personnel use SIDPERS reports to coordinate group strength accounting data and replacement requirements. DA Pamphlets 600-8-1 and 600-8-2 list codes used in SIDPERS input forms.

STANDARD ARMY MAINTENANCE SYSTEM - LEVEL 2

SAMS-2 provides the means to oversee actual performance of maintenance units. ASG maintenance branch personnel review maintenance performance reports, equipment performance reports, and readiness management reports provided by SAMS-2. SAMS-2 provides —

- Maintenance evaluation capabilities.
- Inoperative equipment processing.
- Work load management ability.
- Work order cost tracking.
- Materiel status reporting.
- Man-hour accounting.

DEPARTMENT OF THE ARMY MOVEMENTS MANAGEMENT SYSTEM- REDESIGN

DAMMS-R is used to schedule movement missions, account for mode assets, and maintain management information about fleet operations. MCTs use the MCT operations subsystem of DAMMS-R to coordinate transportation services for all modes. The TAMCA Highway Traffic Division uses the highway regulation subsystem to plan, route, schedule, and deconflict convoy movements in support of unit deployments, maneuver force displacements, and logistics support operations. The TAMCA uses operational movement programming to allocate transport capacity in accordance with command priorities.

For ASG transportation branch staff, applicable subsystems include the —

- Convoy Planning Subsystem. ASG transportation branch staff can use this subsystem to build unit convoy march tables to support unit movements and convoy operations. It generates convoy march tables and convoy march credits.
- Shipment Management Module. This module provides forecast of inbound cargo to the MMC and shipment receivers. It supports shipment visibility, work load projection, and management decisions to alter delivery. It also helps keep account of SEAVAN containers in the AO.

STANDARD PROPERTY BOOK SYSTEM-REDESIGN

SPBS-R performs property accountability functions. It automates hand receipts for supported units. It also produces a variety of unit readiness data and equipment management reports. SPBS-R outputs include —

- Unit hand receipts.
- Equipment roll-ups.
- Excess/shortage reports.
- Unit readiness feeder reports.
- Sensitive item inventory reports.
- CBS-X reports.
- Automated document register.

UNIT LEVEL LOGISTICS SYSTEM S-4

ULLS S-4 provides management and planning data. It automates battalion S4 unit supply processes, to include —

- Subhand receipts.
- Components lists.

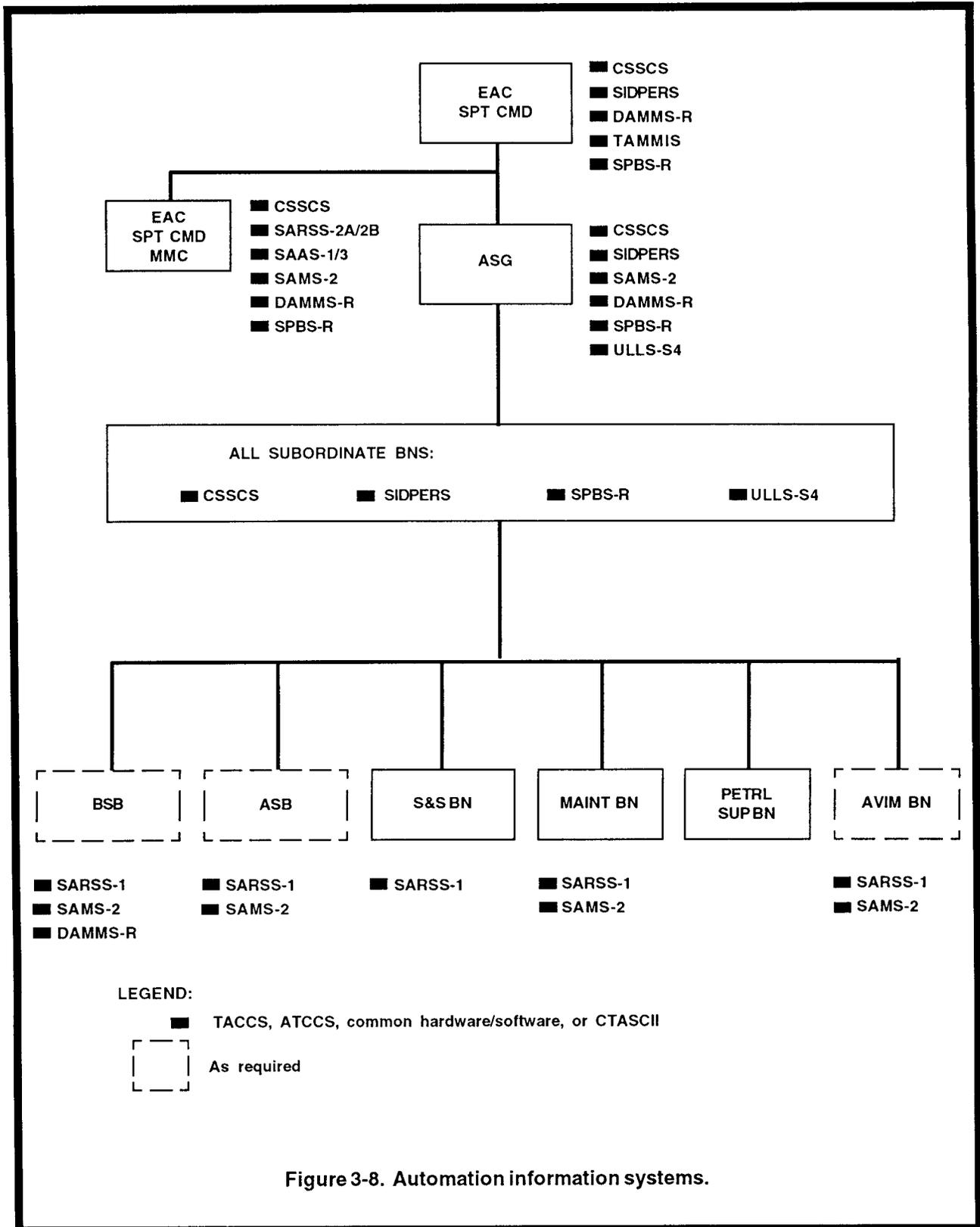


Figure 3-8. Automation information systems.

- Shortage annexes.
- Basic and operational loads.
- Movement planning.
- Materiel readiness reporting.
- Asset visibility.
- Battle losses.

US MESSAGE TEXT FORMATTING

CSS message text formats have been developed to provide a standard for exchange of information. Standard message text formats ensure interoperability among tactical command and control elements of unified and specified commands, Services, and defense agencies. CSSCS message formats are compatible with US message text format messages.

CONTINUITY OF OPERATIONS

The ASG and the activities it interacts with must be capable of continuing to function during interruptions in battlefield automation systems support. For example, ASG units receive their work load from EAC support command MMC. The ASG headquarters may have to assume a greater degree of materiel management responsibility if work loading is degraded due to loss of computer support at the MMC.

Scheduled interruptions may result from procedures such as equipment maintenance, replacement, or movement. Unscheduled interruptions may be due to equipment or power failure or damage caused by the enemy. The ASG CSSAMO must develop COOP plans to minimize the impact of interruptions in automated systems support or offset reductions in computer hardware.

While limited manual backup procedures may be feasible for selected systems, a manual backup system equivalent to the automated one is usually not practical. Hardware and software redundancy is the best way to compensate for computer interruptions or losses due to enemy activities. A compatible computer device from a low priority system or unit may be made available to replace a nonfunctioning computer device. CSSAMO staff may also arrange to time-share another command's equipment.

AUTOMATION SYSTEMS SECURITY

Automation systems are vulnerable to destruction, sabotage, and compromise. They are also susceptible to EMP, power fluctuations, induced viruses, and magnetic disturbances. Therefore, automation systems security

includes not only physical security of hardware devices but security of software programs and procedures.

The high degree of reliance on data processing systems adds an obligation to safeguard computer hardware and software from enemy action. Fire, heat, radiation, electromagnetic pulse, and electronic countermeasures can render computer devices inoperable. Viruses embedded in software can sabotage computer systems and networks.

Enemy personnel must be prevented from monitoring or accessing computerized records. ASG computer assets should be located in concealed, secure locations. Redundant data storage is a simple, effective way to facilitate re-establishment of records. Master files should be periodically duplicated and stored in a safe, remote location. Table 3-5 lists procedures to increase the security of automation software and TACCS or other microcomputers.

OPERATIONS SECURITY

The enemy must be prevented from obtaining information that could improve its knowledge of friendly operations. A common mistake is underestimating the value of information. The enemy would profit from awareness of ASG support operations. It could combine this information with other data and use it to predict US strategies or intentions. For example, increased movement of equipment and supplies to an area could alert them to future combat operations. Actions that can be observed or intercepted by the enemy must be minimized.

Operations Security Defined

OPSEC is the process of denying the enemy information about the capabilities and intentions of friendly forces. It is achieved by identifying, controlling, and concealing essential elements of friendly information. This helps stop the enemy from learning how, when, where, and why US forces do something. Its objectives are to ensure command security and preserve the element of surprise.

Command's Security Objectives and EEFI

Initially, the ASG commander identifies the operation~ activities, and projects that must not be compromised in order to ensure accomplishment of ASG missions. These become the command's security objectives. They are used as a basis for developing EEFI. EEFI are specific, critical, and sensitive items of information, such as dates, times, locations, capabilities, and intentions.

Table 3-5. Automation systems security practices.

ACCESS RESTRICTIONS

- Secure all electrical facilities that support the system.
- Restrict access to the CSSAMO area.
- Restrict access to the computer site by the use of classified passwords.
- Rotate unique operator passwords every 30 days or less.
- Control all log-ons and file access by unique operator passwords.

HARDWARE SECURITY

- Locate computers within an enclosure that provides controlled access.
- Require that authorized operators have at least an interim confidential security clearance.
- Monitor device usage.
- Monitor repairs by contractor personnel.

SOFTWARE SECURITY

- Store magnetic media storage containers at least 20 inches from an exterior wall to protect against the potential effects of magnetic fields or radiation.
- Restrict physical access to magnetic diskettes.
- Dump selected files on a disk at the end of each day and store these disks away from the processing site.

PRINTOUTS/REPORTS

- Monitor report distribution plans.
- Reduce the number of copies of each report.
- Destroy all printouts of reports and lists as new ones are printed.

They may include both classified and sensitive unclassified information.

Unit Profile

The OPSEC officer determines what information a foreign intelligence service might collect. He develops a unit profile that allows the unit to see itself as the enemy sees it. The profile lists patterns and signatures.

- Patterns are stereotyped actions that habitually occur in a given set of circumstances. They can cue a foreign intelligence service to the type operation, its capabilities, or its intent.
- Signatures provide the identification of the operation or activity. Signatures result from unique visual, electromagnetic, olfactory, or sonic displays.

Risk Assessment

Once the unit profile is developed, SPO staffs develop a risk assessment to determine where, how, and why an operation or activity is vulnerable to collection by a foreign intelligence service. All EEFI are considered. The risk assessment leads to recommendations on how to reduce vulnerabilities.

OPSEC Measures

OPSEC measures described in AR 530-1 are actions taken to eliminate or reduce vulnerability to enemy intelligence collection operations. They may consist of passive protection measures or active measures to eliminate the enemy's opportunity to obtain information. ASG operations can be concealed by incorporating the following OPSEC measures in SOPs:

- **Physical Security.** As described in FM 19-30, physical security measures prevent espionage, sabotage, and theft and safeguard personnel. They may include a badge and pass system, security guards, and perimeter fencing to deny unauthorized access to equipment, logistics facilities, and documents. Other physical security measures include the use of —
 - Random perimeter patrols.
 - Early warning devices.
 - Perimeter barriers, to include hasty mine minefield.
 - LPs and OPs.

- Sign and countersign procedures.
- Access or clearance rosters.
- Night observation devices.

- **Information Security.** Information security measures described in AR 380-5 must be in place to protect classified and sensitive unclassified information. A foreign intelligence service can gain information from something as commonplace as requisitions and shipping documents. Subordinate units need to be trained to deny the threat the possibility to collect any data on the logistics status of ASG units that could reveal the status, location, and tactical operations of supported units. Without an awareness of the need for information security on the part of all personnel, other security measures, such as fences, guards, and alarms, are reduced in effectiveness.
- **Signal Security.** SIGSEC includes measures taken to deny the threat information from telecommunications and from interception of electromagnetic radiation. Table 3-6 lists SIGSEC guidelines.
- **Countersurveillance.** Countersurveillance measures include measures to prevent threat surveillance by visual and electronic means. Natural opportunities for concealment should be used. Camouflage netting, smoke, and other concealment techniques can be used to deny enemy observations. Typical countersurveillance measures include the use of —
 - Dispersal of major items of equipment.
 - Smoke to screen logistics support activities.
 - Battlefield deception measures.
 - Night resupply operations.
 - Noise, light, and litter discipline.
 - Visual shadow disrupters to blur supply point patterns.
 - Traffic control procedures.
- **Electronic Counter-countermeasures.** Technical advances in intelligence collection, sensors, processors, communications, and data processing provide increase opportunity for military forces to see and hear an enemy. Threat forces will attempt to deprive adversaries of control of the electromagnetic spectrum. They could gain information on ASG operations by analyzing the patterns,

Table 3-6. Signal security guidelines.

ANTENNAS

- Remote antennas away from CPs by at least 1 kilometer.
- Construct and use directional antennas.

RADIOS

- Maintain radio or radio listening silence.
- Use radio only when absolutely necessary.
- Use wire and messengers whenever feasible.
- Use secure devices.
- Maintain net discipline and control.

TRANSMISSIONS

- Use terrain features, such as hills, vegetation, and buildings, to mask transmissions.
- Keep transmissions short (less than 20 seconds).
- Transmit at random times.
- Use lowest transmitter power output consistent with good communications.
- Avoid significant surges in traffic on single-channel radio nets.

CODES/CALL SIGNS

- Distribute codes on a need-to-know basis.
- Use only authorized call signs and brevity codes.
- Use authentication and encryption codes specified in the current SOI.
- Report all COMSEC discrepancies to the net control station.

volume, and content of communications on the ASG command operations net. They could jam a frequency or frequency band. Threat forces could also enter radio nets to deceive suppliers and customers and cause confusion and delays in support operations.

ASG unit personnel need to be trained to counter equipment such as infrared scanners, radar, television, night vision devices, and radio intercept direction-finding devices. To prevent imitative communications deception, all communications operators need to use correct authentication procedures, call signs, and frequencies. Other measures include authorized brevity lists, prosigns, passwords, and operation codes.

Intelligence and electronic warfare units provide OPSEC assistance to ASG units. Counterintelligence personnel support OPSEC by monitoring threat intelligence gathering efforts. They perform vulnerability analyses and recommend countermeasures to friendly

units. Refer to FMs 34-1 and 34-60 for additional intelligence and electronic warfare information.

- **Deception.** Deception measures distort, conceal, or falsify unit depositions and mission support capabilities. Deception misleads the enemy and causes the enemy to take actions that are contrary to its goals.

Deception planning needs to be an integral part of SPO and support operations directorate staff plans. ASG intelligence staff identifies CSS intelligence collection threats. FM 90-2 provides information on staff responsibilities in support of battlefield deception plans. ASG units can use the deception techniques listed in Table 3-7 on page 3-38 to conceal logistics operations or lead the enemy to believe that logistics activities operate where in reality none exist. Counterintelligence teams can help ASG staff create effective deception measures.

Table 3-7. Deception techniques.

RADIO	<p>ELECTRONIC DECEPTION</p> <ul style="list-style-type: none"> • Transmit false information on support capabilities. • Report or track false supply movements on supply routes. • Observe periods of radio silence to create the impression of forthcoming unit movements. • Project unit signatures from a false location, while suppressing signatures from actual locations. • Reroute message traffic on another net frequency to mislead the threat into thinking it has the wrong frequency.
MESSAGE	<ul style="list-style-type: none"> • Use dummy codes in valid LOGSIT messages • Change the length of formatted messages. • Route messages to other stations in the command operations net to create the impression that all units in the net appear equally committed.
RECEIPT	<p>SUPPLY OPERATIONS</p> <ul style="list-style-type: none"> • Set up supply points in unorthodox patterns or positions. • Use noise tapes to simulate the presence of reception activities.
STORAGE	<ul style="list-style-type: none"> • Disguise containers and boxes to look like those used by local civilians. • Use fuel drums and empty boxes to represent dummy supply points. • Spray surplus fuel around a dummy Class III point to imply the presence of fuel storage.
ISSUE	<ul style="list-style-type: none"> • Use civilian trucks, converted buses, and civilian cars to transport supplies. • Use civilian gas stations to hide Class III issue operations. • Use tapes made while on training exercises to simulate the noises associated with vehicular movements during issue operations.

Table 3-7. Deception techniques. (continued)

<p>PROTECTION</p>	<p>SUPPLY OPERATIONS (continued)</p> <ul style="list-style-type: none"> • Create an impression of unusual unit activity. • Use night or periods of limited darkness to hide logistics operations. • Simulate the evacuation, abandonment, or destruction of supplies and equipment (less medical).
<p>DS/GS MAINT</p>	<p>MAINTENANCE OPERATIONS</p> <ul style="list-style-type: none"> • Use houses and factory buildings to hide maintenance operations.
<p>EVACUATION</p>	<ul style="list-style-type: none"> • Use civilian trucks and buses