

CHAPTER 5

COMBAT SUPPORT AND COMBAT SERVICE SUPPORT

This chapter discusses the CS role in the success of ATS operations. It outlines the logistical support needed for ATS sustainment, regulation, coordination, planning, and maintenance. Successful ATS operations depend on the cooperative efforts of other Army, joint, combined, interagency, and host-nation forces. This chapter also provides an overview of the various CSS logical organizations, functions, and services required.

5-1. ENGINEER SUPPORT

Engineers alter terrain to multiply the effectiveness of fire and maneuver. They perform their role from the FLOT, back through the COMMZ, and out to aerial or sea ports of entry. In addition, engineers open routes for friendly maneuver forces and counter threat fires. They also repair critical areas damaged by threat fire.

a. By removing natural and man-made obstacles, engineers free the commander to maneuver tactical units into positions of advantage. The following paragraphs outline the areas of engineer support.

(1) Engineers perform the construction necessary to support Army Aviation and ground facility requirements (forward aviation combat engineering). The forward area combat element prepares or repairs LZs and landing strips. It also prepares or repairs low altitude parachute extraction system sites in the forward battle area.

(2) Engineers provide topographic engineering that defines the terrain for planning and operations. They also furnish precise data for the placement of modern weapon systems. Engineer topographic units have the personnel, special training, and equipment to provide terrain information and analysis from division through EAC. The Defense Mapping Agency produces standard topographical products and stores them in CONUS and OCONUS map depots.

b. Units that request engineer support for rear area combat operations in the COMMZ will route their requests from base or area commanders to the TAACOM and TA. The TAACOM or TA also may direct the ENCOM or senior engineer headquarters to provide support. Engineer units may be under OPCON of area commanders to perform this function. Using the same channels as US requests for host-nation support, the ASG and TAACOM receive host-nation requests for US engineer support. The ASG will develop requirements

for wartime host-nation engineer support to include contract construction. The ASG or TAACOM will request construction repair and maintenance using host-nation support procedures. Requests for new construction or work beyond the ability of the TAACOM are passed to the TA. However, the ASG or TAACOM will remain responsible for coordinating the requirements for host-nation support.

c. The broad spectrum of EAC engineer support includes, but is not limited, to the following:

(1) Planning, designing, supervising, and performing the construction, maintenance, repair, or rehabilitation of airfields, ports, pipelines, roads, railroads, and inland waterways.

(2) Constructing missile sites, AD emplacements, protective shelters, field defenses, and other works that support COMMZ AD and local ground security.

(3) Providing minor construction, repair, maintenance, fire protection, and utility operations support for all Army installations and facilities in the COMMZ.

(4) Providing topographic engineering support to the TA, supported corps and divisions, and other services throughout the theater. Topographic support includes terrain analysis, map distribution, and standard and special topographic map production (survey, cartography, and associated reproduction).

(5) providing engineering support for deception operations such as construction of dummies and decoys and the preparation of deceptive AD and missile positions.

5-2. SIGNAL SUPPORT

a. The TCC-A provides communications support for a theater army. Under command of the USAISC, the TCC-A is a major functional command of the TA. The TCC-A is under OPCON of the TA during peacetime and war. It provides frequency management services for the TA and ground and air messenger services for Army units at EAC. Used to deliver information to the TA commander, the TA communications system is one of the four subnets of the Army Automation Communications Network. The TACS permits communications flexibility and provides a traffic handling capacity that is adequate. Communications traffic includes critical, real-time CSS data transfers and RSP information exchanges. Communications traffic also includes intelligence and survivability information.

b. The corps signal brigade installs, operates, and maintains communications within corps C² facilities. It also is an extensive area communications network that connects all corps elements. The signal brigade uses radio and wire communications to send voice, digital data, and facsimile into an integrated tactical communication system. The corps signal brigade has three area signal battalions and one support battalion.

5-3. WEATHER SERVICE SUPPORT

a. Weather may be the most significant factor to consider when planning tactical operations. Weather-related conditions affect mobility, air-ground operations, every piece of equipment, and every person on the battlefield. Conversely, good weather often improves the accuracy and effectiveness of complex weapon and support systems.

b. The Air Force Global Weather Central provides atmospheric and space products to support Air Force and Army operations. This unit builds, maintains, and applies a dynamic, real-time environmental data base.

5-4. COMBAT SERVICE SUPPORT

The Army provides CSS based on the needs of the force and affordability. While the transportation system (surface and air) is heavily depended on, the soldier provides the most important support--self-sustainment. This support includes "buddy aid" for fellow soldiers and crew preventive maintenance. It also includes care of equipment, personal health, and a 30-day supply of rations and ammunition. The CSS base for all theaters is CONUS.

a. The planning required to provide CSS depends on the operational factors of METT-T. Threat doctrine recognizes the importance of logistics to aviation units. Threat forces know that destroying aviation support units renders aviation assets combat-ineffective.

b. Task-organizing the CSS base requires more planning time during LIC. Planning for storage facilities and the transport of personnel and equipment takes time as does developing a workable logistics system. Logistical requirements and CSS become more standardized as the intensity of the conflict increases. As support requirements become standardized, CSS mission planners need less time. However, each mission always will require a certain amount of planning time.

c. The logistics estimate that the S4 prepares shows the logistical factors that affect mission completion. Based on this estimate, the commander can draw conclusions and make recommendations concerning the logistical feasibility of various courses of action. He can also determine the effects of each course of action on logistical operations.

d. In a single corps or multicorps theater, a TA headquarters manages CSS operations. It establishes priorities, assigns missions, and allocates resources according to the TA commander's concept of operations. The MMC manages supply and maintenance; the MCC provides TA-level movement and management services.

e. The COSCOM performs normal corps support and selected base services that the TA usually provides when operating as part of a larger Army force. The logistics wholesale systems (USAMC, GSA DLA, MTMC, AMC, and MSC) provide resupply and support services. They also deal directly with the COSCOM. The Army corps works directly with DA agencies and MACOMS in matters involving support for ATS forces in the theater.

f. The DISCOM is the major service support organization that provides division-level CSS to all ATS organic and attached elements of the division. The DISCOM plans, directs, and supervises CSS for the division. It does not provide COMSEC, logistical, construction, legal services, and public affairs support. The DISCOM has six major functions. These functions include supply, maintenance, transportation, health services, personnel services, and field services.

5-5. LOGISTICAL SUPPORT

Logistics involves planning and carrying out the movement and maintenance of forces. Combat service support includes administrative and logistical support for combat forces. For this paragraph, however, logistics relates to CSS logistics (organic or nonorganic to ATS units) that deals with supply, maintenance, transportation, and field services.

a. Commanders must prioritize logistical support, giving the highest priority to critical operating systems affecting the mission. They also must conserve resources and place only the essential requirements on the logistical system.

b. Air traffic service commanders must be conscious of their staying power. They must be sure that their units can sustain operations from the beginning to the end of the mission. Commanders and their staffs must know their logistical requirements and capabilities.

c. The TAACOM is the key logistics operator in the COMMZ. It functions as a major subordinate command under the TA. The TAACOM is assigned on a geographical basis. Therefore, it is an area command not a functional command of PERSCOM, ENCOM, TRANSCOM, or MEDCOM. The number of TAACOMs in a theater depends on the size of the force in the theater, the workload, and the geographic area.

(1) Through its ASGs, the TMCOM provides GS-level logistical support (less movement control and line-haul transportation) to units in or passing through its assigned area. The TA commander may establish one or more TAACOMs in the COMMZ to provide--

- Backup DS maintenance to the corps.
- GS component maintenance and overhaul of major items for return to the supply system.
- Supply support to the corps for all supplies except those supplied directly from the CONUS by DSS ALOC.
- General support and special repair activity to ATS navigational assets using ATS GS/SRA Composition 1 and 2 units.
- Logistical and personnel service support to Army units located in or passing through the COMMZ to include reception, staging, and reconstitution.

(2) Depending on the geographic area and the number of subordinate units, each TACOM usually has one or more TASGs (GS). Under command of the TAACOM, the TASG is the GS supply, maintenance, and field service operator in the COMMZ.

d. The COSCOM is the principal logistical organization in the corps. It provides supply, field services, and transportation (mode operations and movement control) support to corp division and nondivisional units. It also provides maintenance and medical support to those units. The COSCOM is not a fixed organization. It contains a mix of subordinate units as required by the size and configuration of the corps. Within the COSCOM, corps support groups provide supplies (except Classes V and VIII), maintenance, and field services to divisions and nondivisional units. Functional commands provide transportation, ammunition, supply, and medical support.

e. The DISCOM provides division-level logistical and medical support to all organic and attached elements of the division. The DSA is that portion of the division rear occupied by the DISCOM CP and organic and attached units. This area also may contain CS units (signal, MP, and engineer) and COSCOM elements supporting divisional and nondivisional CS and CSS units. Normally, the DSA is close to landing facilities and main supply routes in the division rear area. Its precise location depends on tactical plans and the factors of METT-T.

(1) The DISCOM provides unit, area, and task support. The DISCOM provides unit support to a designated unit or group of units. (The command relationships for these units normally include OPCON, DS, and GS.) All units in a designated geographical area receive area support. Task support is a type or amount of support that an area or a designated unit receives. The DISCOM provides task support so an area or unit can accomplish a specific mission.

(2) Maintenance, supply, transportation, and medical assets form three forward support battalions and one main support battalion. The HHC and the division MMC form one element. The aviation maintenance company is organic to the aviation brigade and provides AVIM support to division aviation units.

(3) The FSB consists of an HHC and a coordinating, a technical, and a medical company. The FSB supports a brigade-size force. With augmentation, each FSB can support other divisional units operating in the area such as signal, cavalry, reconnaissance, MI, and aviation brigade elements. Assault and airborne divisions use the same concept; however, tailored support assets are called forward service support elements. Forward area support coordinators serve the same function in a forward service support element as the HHC in the FSB.

5-6. SUPPLY

Supply is the acquisition, distribution, salvage, and care of stored material. It also includes determining the kind and quantity of supplies. Supplies consist of all items necessary for equipping, maintaining, and operating a command.

a. Combat service support elements normally provide supply support on an area basis. They use a combination of unit distribution and supply point distribution. For unit distribution, the supporting unit arranges for the transportation and delivery of supplies to the supported unit. For supply point distribution, the supporting unit issues the supported unit supplies from a supply point. The supported unit uses its own transportation to move the supplies.

NOTE: Throughput is a form of unit distribution in which shipments bypass intermediate supply organizations or installations.

b. Grouping supplies in major categories makes identifying items of a particular class easier. This system establishes a common supply terminology and provides a good management tool for logistical planning and operations.

c. The MSB supply and service company provides supply support for units in the division rear area. As a backup for the FSB forward supply companies, the MSB supply and service company manages division reserve supplies (Classes I, II, III, and IV). With augmentation, this company can provide clothing exchange, personal hygiene, and graves registration services. The MSB supply and service company also provides salvage collection services.

5-7. MAINTENANCE

Maintenance is a combat multiplier in wartime as well as peacetime. When the equipment of opposing forces is basically the same, the force that combines skillful use with a good maintenance system has the advantage. That force enters the battle with equipment that works and is likely to remain that way longer. The ability to repair and turn battle-damaged equipment around quickly is another advantage.

a. The Army maintenance system is evolving into a four-level system (unit, DS, GS, and depot). This system will accommodate new battlefield environments, new equipment, and new methods of employment. It will provide more responsive maintenance, improved operational readiness, and increased battlefield mobility and flexibility. It also will provide a direct link from DA down through the maintenance management chain to the user. However, using one or two levels may provide the necessary support at the best life-cycle cost. Nevertheless, the maintenance allocation chart remains the primary tool for assigning tasks.

b. Unit or DS maintenance provides quick turnaround based on replacement and minor repair (adjust, clean, lubricate, or tighten). DS or GS maintenance units should support the theater supply system through component repair and DX. Maintenance at this level will be job- or production-line oriented and performed by modular units composed of commodity-oriented platoons. These units will be able to organize mobile maintenance control teams to perform an area support role. Depot maintenance should support the supply system. It will be production-line oriented and performed by separate repair activities; for example, AMC depots and contract personnel.

c. Theater Army provides DS and GS maintenance to units in and passing through the COMMZ. TA also provides backup DS and GS maintenance support for one or more corps. It provides GS maintenance support to the theater supply system by repairing items, modules, assemblies, and components.

d. An integrated battlefield will discourage the formation of large, consolidated maintenance facilities that are vulnerable to attack. To reduce their vulnerability, commanders disperse COMMZ maintenance activities and use warning devices to protect equipment. Commanders may need to cluster some facilities to counter threats from rear area ground attackers.

e. Theater Army observes several principles when providing maintenance support. These principles are shown below.

- Conserve resources within the scope of mission accomplishment.
- Concentrate on the rapid return of equipment to the user and the supply system.
- Provide for channels to obtain the needed support from host-nation maintenance organizations.
- Ensure that forward elements are mobile enough to provide adequate support with minimal resources.
- Be balanced to ensure that total system support requirements are considered when allocating resources.
- Allocate critical maintenance skills to support ATS requirements that contribute the most to operational availability.
- Reduce the maintenance burden on forward elements. (Combat ASLs require a 90-day supply PLLs require a 30-day supply.)
- Have the survivability, mobility, and communications to support forward-deployed combat forces. (Maintenance units must provide forward maintenance support; therefore, they must be trained to survive and accomplish their mission during conventional warfire and under NBC conditions.)

f. Air traffic services GS/SRA provides general support and limited depot activities to organic units. It also deploys forward mobile maintenance contact teams to ATS elements from the COSCOM at COMMZ, corps, and division levels. Under control of the senior ATS headquarters, the GS/SRA establishes an SRA with the existing area maintenance supply facility. The GS/SRA company functions as an area maintenance supply facility in a theater where one does not exist.

(1) Units concentrate their repair efforts on materiel identified by the appropriate MMC. Support units provide evacuation of materiel beyond the repair capability or capacity of the supported unit. Maintenance units try to repair the equipment in 3 to 6 hours. If they cannot, GS maintenance support teams perform forward support maintenance or evacuate the item to the GS/SRA base. If the equipment cannot be repaired in 48 to 72 hours, it is sent to a CONUS GS/SRA according to instructions from the ATS group. Although the user recovers GS/SRA equipment in the COMMZ, the supporting maintenance unit may help with recovery.

(2) Current and future ATS equipment will be modular in design and contain more built-in test equipment. With these features, maintainers can diagnose component failures and repair line-replaceable units more rapidly. ATS systems support personnel must perform unit- or DS-level maintenance in the fluid battlefield. They must recover battle-damaged equipment, repair it as far forward as possible, and return it to service.

(3) Air traffic system repairers (MOS 93D) perform unit DS maintenance repair on ATS-specific systems and NAVAIDs. They diagnose, troubleshoot, and repair critical components in all ATS systems and NAVAIDs.

5-8. AUTOMOTIVE MAINTENANCE

The DISCOM MSB heavy maintenance company provides DS maintenance support for automotive equipment, artillery equipment, and tank turrets. It also provides DS maintenance support for fire-control systems, engineer equipment, and small arms. In addition, maintenance support teams provide on-site and combat system maintenance support.

a. Laboratory personnel from the Army Oil Analysis Program test oil samples to detect impending equipment failures. They also determine the condition of lubricants used in the equipment. The Army Materiel Command is the executive agent for the AOAP. AMC provides the equipment, establishes procedures, and provides workload direction for the centralized Army laboratories in the COMMZ. Operating from fixed locations, laboratory personnel receive oil samples, perform analytical tests, and provide recommendations to the user. ATS commanders at the lowest level should designate an AOAP monitor and ensure that unit SOPs contain procedures for executing the program.

b. The TA Deputy Chief of Staff for Logistics establishes wartime policies regarding the AOAP. He ensures that regulations are followed and operational plans contain provisions for the continued operation of the laboratories. During the transition and sustainment phases of operations, AMC performs these functions.

5-9. COMMUNICATIONS SECURITY EQUIPMENT MAINTENANCE

Because of the intelligence significance of COMSEC equipment, units do not process some COMSEC items through routine supply and maintenance channels. A COMSEC logistics

support company performs supply and maintenance tasks on COMSEC equipment in the theater.

a. Responsibility for maintaining nonclassified COMSEC items (controlled cryptographic items) may move to nondivisional intermediate DS maintenance companies. Eventually, electronics technicians in DS or GS maintenance units may maintain all COMSEC items.

b. The division signal battalion provides DS COMSEC logistical support to the division. The HHC and division communications-electronics elements of the signal battalion provide DS COMSEC logistical support relating to maintenance.

5-10. TEST, MEASUREMENT, AND DIAGNOSTIC EQUIPMENT MAINTENANCE

The Army Materiel Command provides and controls theater TMDE maintenance and calibration support. Operational control of in-theater TMDE calibration and repair support may pass to the TA. However, command of TMDE support activities remains with AMC. This service provides for one-step calibration and repair of general purpose TMDE to ensure materiel readiness. Units calibrate equipment on a scheduled basis and repair it as needed.

a. Mobile teams perform calibration and TMDE general-purpose repairs using the necessary tools, calibration standards, and repair parts. Normally, these teams are attached to DS or GS maintenance units. Housed in expandable vans, mobile teams are located in heavy workload areas and move with the units to which they are attached. Using units act as collection and distribution points for the teams.

b. General-purpose support for TMDE includes DS and GS maintenance and calibration. The using unit performs organizational maintenance. Specialized teams from a calibration and repair-support company perform TMDE special-purpose DS and GS calibration. If these teams cannot perform TMDE maintenance on a particular item, they send it to the parent TMDE calibration and repair support company.

c. The size of the CRSC depends on the density of TMDE in the area of responsibility. The basic company has three mobile teams. Additional mobile teams are added on the basis of 1 per 3,200 additional items of TMDE. The CRSC is authorized 21 mobile teams and 1 base mobile team. The parent company also provides technical supply support to the mobile teams. It provides an area calibration laboratory for secondary reference calibration of team equipment. The CRSC provides a base mobile team that supports using units in the immediate vicinity. It also provides backup support for the forward mobile teams. Normally, the CRSC has one forward mobile team per corps and one per EAC.

d. Each theater of operations has one TMDE support battalion. The TMDE support battalion controls all CRSCs in the theater and normally collocates with the CRSC. The ACL interfaces with the CONUS-based US Army Standards Laboratory for closed-loop calibration support.

5-11. TRANSPORTATION

Transportation is the means by which personnel, equipment, and supplies are moved by air, rail, ship, or vehicle to sustain combat operations. Transportation elements deliver the required personnel and supplies where and when they are needed.

a. Planners should develop a contingency movement program as soon as practical during the contingency planning process. ATS commanders should be aware of this plan and assist as necessary. Program execution provides for the forward movement of ATS supplies, personnel and equipment from support areas directly to the forward area. Using rotary-wing aircraft that fly short-range, tactical transport missions, the commander does not have to contend with en route terrain obstacles or damaged roads or railroads.

b. Commonly, movement control applies to the movement of materiel (mainly supplies) and personnel. From a broader viewpoint, movement control implies the total movement effort. This includes moving maneuvering elements throughout the battlefield. As a result, movement maneuvering management becomes a major concern of the S3 and S4.

(1) The S3 must plan tactical movement as the S4 plans CSS movement. If not planned concurrently, circumstances, such as road congestion, can thwart the best battle plans. If tactical movement is not planned concurrently, the transportation unit also may not be able to evacuate casualties and inoperable equipment or deliver supplies and replacements to maneuver forces. Maneuver elements almost always have priority even though their success depends on CSS traffic. Movement planning and management require close coordination between the commanders and staffs of many different organizations.

(2) The TADSCLOG operates the Theater Army Movement Control Agency. During both peace and war, the TAMCA provides theaterwide movement management and control of transportation assets in coordination with its host-nation counterparts. It also is the primary link between TA and CONUS transportation agencies. A wartime movement program developed by the TAMCA will provide for the orderly transition from a peacetime to a wartime posture. Program execution provides for the movement of supplies and equipment from support areas forward to deployed forces. It also provides for retrograde of materiel from these forces.

(3) The COSCOM movement control center is a subordinate element of COSCOM. It balances and coordinates shipping, transporting, and receiving activities. The MMC has corps highway regulatory responsibilities and coordinates movements within, into, and out of the corps area. Often, movements in the corps area are an integral part of the corps deception plan. Movement control includes planning, coordinating, and executing movements internal to the corps. It also includes those movements external to the corps (US and host-nation forces). Movement planning is conducted both within US channels at the corps rear CP and with host-nation movement planners. The CSS cell also coordinates with the corps provost marshal and the appropriate host-nation authorities. Together they establish US straggler and host-nation population control measures.

(4) The DISCOM movement control officer shares in movement control in the division area and tasks division transportation assets. The division transportation officer is the staff transportation planner and coordinates with external transportation agencies.

(a) The DTO coordinates with the division G3 on tactical troop moves. He also coordinates with the division G4 on logistical and administrative transport. The DTO is the division's staff communications link for transportation between the division and corps MCC. The DTO gives the DISCOM MCO broad policy guidance and staff supervision. He also provides basic plans and policies and assists with surface and aircraft transportation matters.

(b) As an agent of the DISCOM commander, the MCO controls the employment of motor transportation assets for division CSS. The MCO also coordinates priorities with the DTO. All transportation users send division transportation requirements to the MCO. The MSB or FSB may consolidate some requirements generated in a brigade support area for submission to the MCO. When requirements exceed capabilities, the MCO coordinates with the DTO who may request support from the supporting corps MCC.

(c) The MSB is the main transportation asset of the DISCOM. The TMT company transports Class I, II, III (packaged), IV, and VII supplies. It also transports division reserve supplies and furnishes vehicles to help division elements with other transportation requirements. These additional requirements include emergency unit distribution of Class V supplies. The TMT company also provides heavy equipment transportation for movement or evacuation operations.