Chapter 14: Logistics

This page is a section of TC 7-100.2 Opposing Force Tactics.

Logistics is the process of planning and executing the sustainment of forces in support of military actions. At the tactical level, it focuses on the traditional combat service support functions of materiel support (supply), maintenance, transportation, personnel support, and medical support. These tasks present a challenge in modern combat, where there is not always a clearly defined front line or a relatively secure rear area. Combat can spread over a deep and wide area. Within such an area, combat actions and attrition may not occur evenly or predictably. There may be areas of intense battles and local destruction, while other secondary or defensive sectors have much lighter logistics demands. This requires a flexible logistics system designed to sustain forces throughout conflict, adapting as conditions change.

Strategic and Operational Logistics Support

The Stateâ sational-level logistics system is designed to provide continuous support to the civilian populace while simultaneously supporting military forces from the strategic level to the individual fighting unit. The OPFOR continues to make major improvements in all aspects of its logistics system. This includes an increased emphasis on support zone security and plans for stockpiling war materiel throughout the country.

Operational logistics links strategic-level logistics resources with the tactical level of logistics, thus creating the conditions for effective sustainment of a combat force. It covers the support activities required to sustain campaigns and major operations. A dependable logistics system helps commanders seize and maintain the initiative. Operational maneuver and the exploitation of operational or tactical success often hinge on the adequacy of logistics and the ability of the force to safeguard its critical lines of communications (LOCs), materiel, and infrastructure. Operational logisticians interface with tactical-level logisticians in order to determine shortfalls and communicate these shortfalls back to the strategic logistics complex to support operational priorities.

Tactical Staff Responsibilities

At all levels of command, down through division and brigade, the resources section of the primary staff is the principal office for the logistics integration of supply, maintenance, transportation, and services. The resources officer heads this section, with two subsections headed by secondary staff officers who support him: the chief of logistics and the chief of administration. The resources section establishes and controls the sustainment command post (CP) to supervise the execution of sustainment procedures and the movement of support troops. It contains staff officers for fuel supply, medical support, combat equipment repair, ammunition, clothing, and food supply. It is also designed to serve as an alternate CP or to provide multiple sustainment CPs. If an additional sustainment CP is required, the assistant resources officer will control it. The resources section is also structured to accommodate augmentation from the functional staff and liaison teams. See figure 14-1 on page 14-2 for the organization of the resources section.

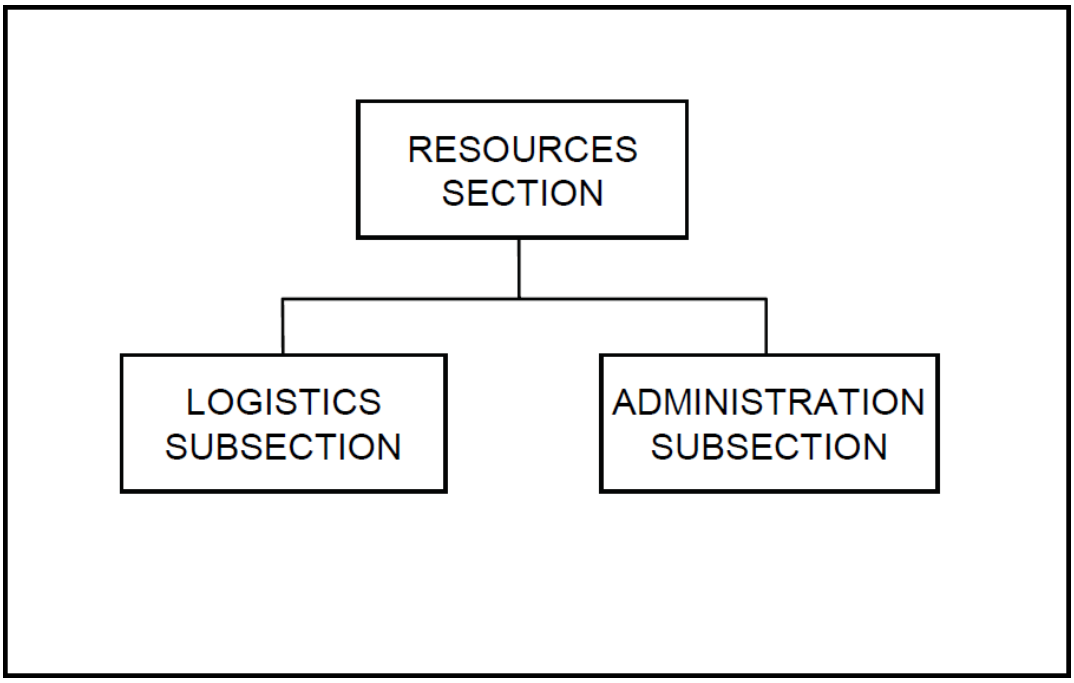

Figure 14-1. Resources section

Note. Throughout this chapter, references to division- and brigade-level logistics support may also apply to a division tactical group (DTG) and brigade tactical group (BTG), unless specifically stated otherwise. Likewise, reverences to a battalion also apply to a battalion-size detachment (BDET).

On a battalion-level staff, there is a resources officer, who also performs the functions of chief of administration. The battalionâ s materiel support platoon leader serves as the chief of logistics.

Resources Officer

The resources officer is responsible for the requisition, acquisition, distribution, and care of all of the commandâ s resources, both human and materiel. He executes staff supervision over procedures that ensure the commandâ s logistics and administrative requirements are met. One additional major task of the resources officer is to free the commander from the need to bring his influence to bear on priority logistics and administrative operations. He is also the officer in charge of the sustainment CP.

Chief of Logistics

The chief of logistics is responsible forâ

- Managing the order, receipt, and distribution of supplies to sustain the command.
- Maintaining the condition and combat readiness of armaments and related combat equipment.
- Ensuring the supply, proper utilization, repair, and evacuation or armaments and equipment.
- Overseeing the supply and maintenance of the commandâ s combat and technical equipment.

These responsibilities encompass the essential wartime tasks of organizing and controlling the commandâ s recovery, repair, and replacement system. During combat, he keeps the commander informed on the status of the commandâ s equipment.

Chief of Administration

The chief of administration supervises all personnel actions and transactions in the command. His subsectionâ

- Maintains daily strength reports.
- Records changes in table of organization and equipment of units in the administrative force structure (AFS).
- Assigns personnel.
- Requests replacements.
- Records losses.
- Administers awards and decorations.
- Collects, records, and disposes of war booty.

Tactical Logistics Concepts

Logistics support must complement the force structure and sustain combat actions. The logistics elements must be ready to provide full support at the start of combat and be capable of rapid movement to keep pace with maneuver forces. A greater quantity of logistics support is concentrated on the combat force assigned the principal mission in a given battle. The OPFOR relies on the following three concepts:

Centralized Planning and Decentralized Execution

To ensure both priority of effort and efficiency in the logistics process, logistics plans are developed at higher levels and executed by units and organizations at lower levels. At division and brigade level, the resources officer has overall responsibility for logistics planning. Centralized planning requires a focal point for logistics planning and resource allocation at all levels. Regardless of whether the focal point is an individual (the resources officer or his secondary staff) or a unit, it must be constantly aware of requirements and capabilities. Decentralized execution enhances the flexibility of lower-level commanders to meet local requirements and to rapidly reprioritize support.

A careful study of the missions of the total force allows planners to program and measure logistics requirements. This requires concurrent operational, tactical, and logistics planning. Each level of command is responsible for the timely and complete provision of logistics support to subordinate units from available assets. The commanderâ

- Allocates these assets to support the mission of his units.
- Shifts resources according to the combat situation.
- Retains some emergency reserves to meet unexpected contingencies.

The bulk of supplies and transport resources are concentrated at the strategic and operational levels. This centralization of logistics resources contributes to operational and tactical flexibility. It enables operational-level commanders to concentrate support where it is needed most, if necessary switching axes rapidly to take advantage of unexpected opportunities. They can quickly strip resources from stalled divisions or brigades and reallocate them to units making better progress. Centralization of resources at the operational level frees divisions or brigades and their subordinates of an unnecessarily large logistics tail, making it easier for them to engage in high-speed maneuver battles.

Support Forward

Logistics units are organized and deployed to support forward. The guiding principle is that a combat force should retain its organic support resources (such as trucks, recovery equipment, and ambulances) to support its subordinate units. It should not have to use its own resources to go to support areas to pick up supplies or to evacuate resources that can no longer contribute to combat power.

Sustainment From Other Sources

Finally, the logistics system may have to rely on sustainment from other than military sources.

Supplies may be procured or obtained from social groups, consumer cooperatives, farms, or individual citizens, and by coercion or foraging in the area of responsibility (AOR). Captured enemy supplies and equipment are another source of outside sustainment.

Logistics Missions

In operational and tactical logistics, three terms describe how the OPFOR provides support to the field. These terms are primary support, area support, and depot support.

Primary support is a mission given to supply, services, transportation, and maintenance units that normally provide support directly to other units. This allows the primary support unit to respond directly to the supported unitâ request for assistance or supplies.

Area support is a mission given to supply, services, transportation, and maintenance units that normally provide support to primary support units and other area support units. Lower-priority units may have to rely on area support, rather than receiving supplies and services directly from the next-higher echelon.

Depot support is a mission given to national-level or strategic units that normally provide support to area support units. Depot support missions include the receipt, storage, and issue of war stocks and domestically produced armaments and materiel, and the overhaul and rebuilding of major end items.

Tailored Logistics Units

The OPFOR concentrates the bulk of logistics units at two levelsâ theater and operational-strategic command (OSC). This concentration supports the OPFOR philosophy of streamlined, highly mobile combat elements at the tactical level. These higher levels maintain the responsibility and the primary means for logistics support.

Tailoring allows allocation of logistics resources to the combat elements most essential to mission success. It also allows the OPFOR to assign priorities for logistics support. Subordinate units receive assets according toâ

- The importance of their mission.
- The nature of the terrain.
- The level of fighting anticipated.

Commanders can reallocate their own resources in line with changes in the situation. They can also take away a subordinateâ organic resources and assign them to another subordinate if the situation warrants.

Administrative and Fighting Force Structure

The AFS is the aggregate of military headquarters, facilities, and installations that are designed to man, train, and equip the OPFOR. In wartime, the normal role of an operational-level administrative headquarters is to provide forces for the creation of fighting commands, such as OSCs and DTGs. After transferring control of its major fighting forces to one or more task-organized fighting commands, an administrative headquarters, facility, or installation continues to provide depot and area support-level administrative, supply, and maintenance functions.

Tailoring of the OPFORâ fighting force structure affects both the number and type of subordinate combat elements and the number and type of assigned logistics units. Divisions and brigades augmented to become DTGs or BTGs in the wartime force structure have increased requirements for logistics support.

Integrated Support Command

The integrated support command (ISC) is the aggregate of combat service support units (and perhaps some combat support units) constituent to a division and additional assets allocated from the AFS to a DTG. It contains such units that the division or DTG does not suballocate to lower levels of command in a constituent or dedicated relationship.

The division (or DTG) further allocates part of its ISC units as an integrated support group (ISG) to support its integrated fires command (IFC). It uses the remainder to support the rest of the division, as a second ISG. For organizational efficiency, combat service support units may be grouped in this ISC and its ISGs, although they may support only one of the major units of the division or IFC. Sometimes, an ISC or ISG might also include units performing combat support tasks that support the division and its IFC. Such tasks may include engineer, chemical warfare; information warfare (INFOWAR); reconnaissance, intelligence, surveillance, and target acquisition (RISTA); or law enforcement. (See chapters 2 and 9 for more detail on the IFC.)

The ISCâ s mission is to provide command and control (C2), administrative, operations, and support personnel and equipment required for forming the nucleus of the two ISGs. The division resources officer (in consultation with his chiefs of logistics and administration and the ISC commander) task- organizes the ISGs based upon support mission requirements.

The ISC commander and his staff are the division logisticians. The ISC commander advises the division commander, resources officer, and the rest of the division staff on those logistics matters pertaining to ISG functions. The ISC commander normally receives guidance and direction from the division commander. The overall responsibility for logistics planning belongs to the division resources officer. The division commander tasks the ISC commander to evaluate the logistics supportability of future battle plans or courses of action. The ISC commander tasks and provides guidance to the ISC staff. The ISC staff gives the alternatives and preferred solutions to the commander for a decision. See figure 14-2 for an organizational breakout of the ISC headquarters.

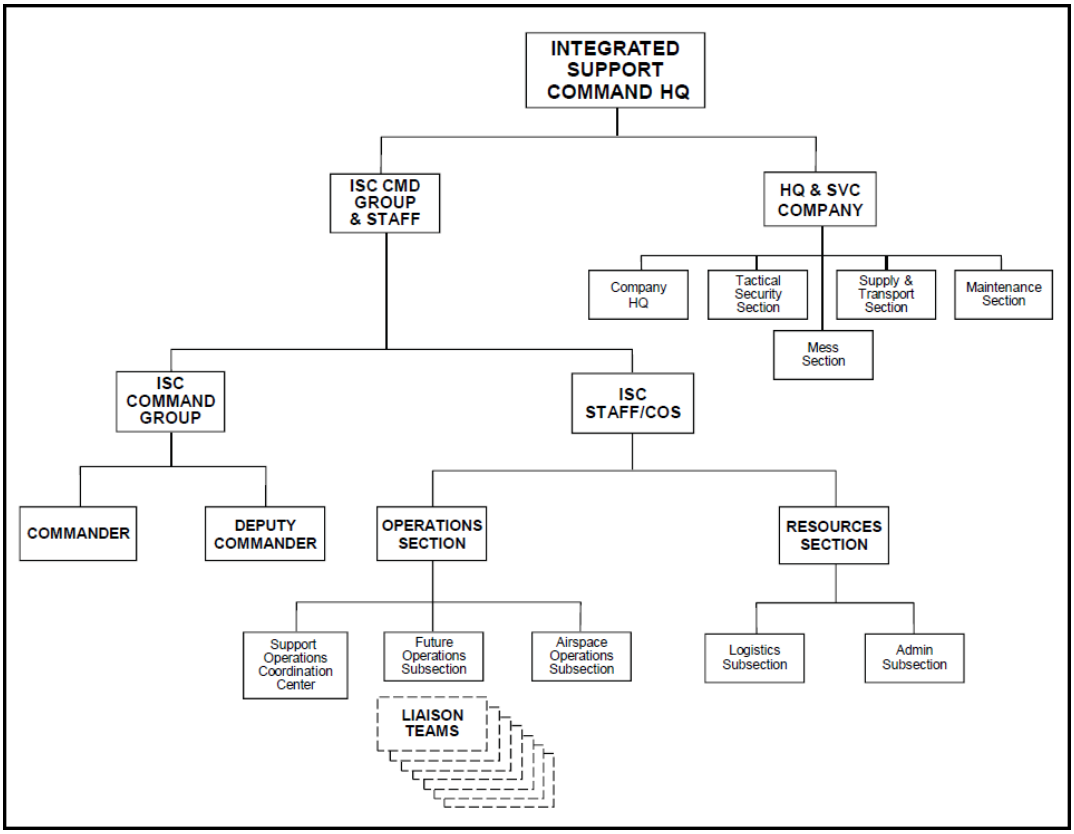

Figure 14-2. Integrated support command headquarters

The ISC headquarters is composed of the ISC command group and staff and the headquarters and service company. The ISC command group contains the ISC commander and deputy

commander. The ISC staff, headed by the chief of staff, is composed of the operations section and resources section. Located within the operations section is the support operations coordination center (SOCC). The SOCC is the staff element responsible for the planning and coordination of support for the division and the IFC. The RISTA and INFOWAR officer resides in the SOCC to ensure all ISC intelligence and INFOWAR requirements are met. The SOCC relies principally on direct liaison among all the ISC subordinate units to ensure the necessary coordination of logistics support for combat actions. Other major components of the operations section are the future operations subsection and airspace operations subsection. For additional details on the organization of the ISC, see FM 7-100.4.

Liaison teams are not a permanent part of the ISC staff structure. They support the ISC staff with detailed expertise in the mission areas of their own particular branch or service. They also provide direct communications to subordinate and supporting units executing missions in those areas. All liaison teams are under the direct control of the operations section. The operations officer is responsible for ensuring proper placement and utilization of the teams. The ISC staff will also receive liaison teams from multinational and interagency subordinates and from affiliated forces. The number and types of liaison teams is fluid and is determined by many factors. Liaison teams augmenting the ISC staff provide their own equipment.

The headquarters and service company provides administrative, logistics, and security support to the ISC staff, including general security for the sustainment CP(s). The operations section provides the control, coordination, and communications for the headquarters.

Integrated Support Group

The ISG is a compilation of units performing various support tasks (primarily logistics,) that support the division and its IFC. Normally, separate ISGs are organized to support the division and the IFC. The ISG has six major functions:

- Supply.
- Maintenance.
- Transportation.
- Medical support.
- Personnel services.
- Field services.

However, the ISG may also perform engineer, chemical warfare, law enforcement, RISTA, or INFOWAR tasks.

There is no standard ISG organizational structure. The number, type, and mix of subordinate elements vary based on the tactical support situation. For example, an ISG supporting a division composed mainly of tank and mechanized infantry units will differ from an ISG supporting a division composed mainly of infantry or motorized infantry units. Even within a division that receives no augmentation, there can be variations as to which division subordinates may belong to either of the ISGs and which ones are in which ISG.

In essence, the ISG is tailored to the mission. In the case of a DTG, it is also tailored to the task organization of the DTG. Figure 14-3 is one example of a rather robust ISG that might be appropriate for a DTG not relying on extensive support from a parent OSC. As the number and type of supported units change, the ISGs change the way in which subordinate units are organized to provide support. When the logistics units allocated from the operational level are no longer required for ISG functions, the primary or area support units will do one of the following:

- Revert to control of their original parent units in the AFS.
- Be assigned to other DTGs, as appropriate.

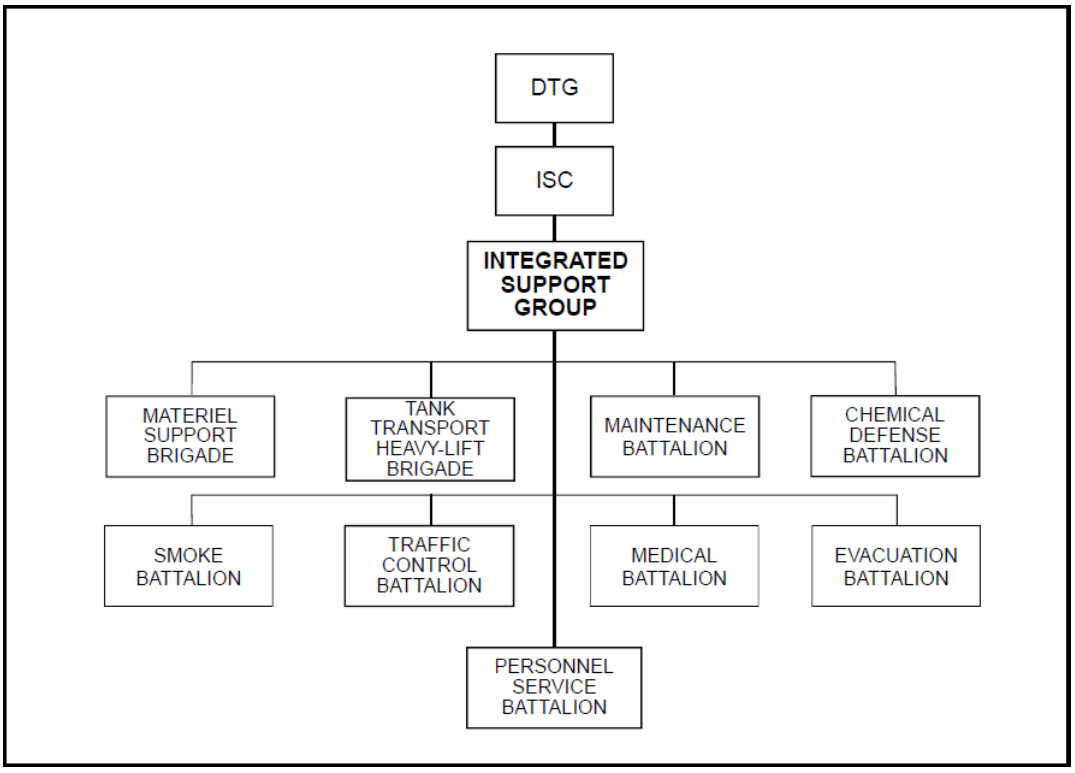

Figure 14-3. DTG ISG (example)

Materiel Support

The OPFOR materiel support system comprises a mix of very modern and less modern capabilities that vary depending on the priority of the supported units. Generally, high-priority or elite units enjoy the benefits of a robust materiel support system that affords a higher degree of flexibility and responsiveness to rapid changes in plans. For such units, the system may be fully automated to track requirements and control the issue of supplies. Less capable units (including reserve and militia forces) typically have little or no automation support. Both types of materiel support system are based on allocating supplies and services to units in order to accomplish mission objectives. However, the aim is to continue the upgrade of less capable units to a robust supply system capable of sustaining the force in all environments.

Supply includes actions to acquire, manage, receive, store, and issue the materiel required to equip and sustain the force. These actions occur from deployment through combat operations and recovery into OPFOR-controlled territory. The allocation of supplies is based onâ

- Unit mission.
- Supply reports,
- Availability of supplies.

The OPFOR concept of services includes all troops, installations, and duty positions that perform logistics support for combat arms units. Such services are not specific to the ground forces, but support other Armed Forces components as well.

During peacetime, the OPFOR operates under the â pullâ system of supply. For example, units in the field may request materiel from a depot where they must pick it up and deliver it to the field.

During wartime, the OPFOR operates under the forward distribution or â pushâ system principle, in which the higher echelon directly supplies and services the next-lower echelon. Supplies and services are delivered directly to subordinate elements using the transportation assets of the higher headquarters. Lower-priority units may have to rely on area support or even supply point distribution.

Methods of Distribution

The three methods by which supplying units distribute supplies to using units areâ

- Supply point distribution, in which the supplying unit issues supplies from a supply point to a receiving unit. The receiving unit must go to the supply point and use its own transportation to move supplies to where they are needed.
- Unit distribution, in which the supplying unit issue supplies and delivers supplies to the receiving unitâ area in transportation assets the supplying unit has arranged.
- Throughput, in which shipments bypass intermediate supply points or logistics sites. Throughput eliminates the need for double handling, uses transportation assets more efficiently, and is more responsive to the userâ needs.

Supply Priorities

The OPFOR places primary emphasis on maintaining the supply of ammunition, fuel, and weapons. Its logistics system typically operates on the following sequence of priorities:

- Ammunition of all types.
- Petroleum, oils, and lubricants (POL).
- Spare parts and technical supplies (for equipment maintenance and repair).
- Rations, clothing, and medical supplies.

These priorities can change with the combat situation. For example, during an attack, the principal demand may be for ammunition. On the other hand, a unit advancing rapidly with no opposition might have a greater need for POL than for ammunition. Nonessential supplies may not be delivered if it reduces the ability to provide essential combat supplies. Ammunition and fuel resupply can comprise 80 percent or more of total transportation requirements. Rations may be considered nonessential, for instance, when units can obtain them by foraging.

Planning Factors

Essentially, all materiel support assets, from battalion level to the Ministry of Defense, are part of one system. When planning and coordinating division or brigade logistics allocations, the division or brigade resources officer requisitions and allocates supplies according to guidance from the division or brigade commander and pre-established planning factors. Standard tables of logistics planning factors, based on experience and estimated expenditure rates, indicate the amount and type of supplies required by a division or brigade to perform a particular type of combat action. Like his counterparts at higher and lower levels, the division or brigade resources officer refers to these tables when planning for a combat action. Then he must ensure that centralized planning provides adequate amounts of supplies, properly distributed to support the action. Thus, resources officers at all levels coordinate requirements from a common point of reference.

Standard Units of Issue

To simplify logistics planning and to standardize ordering and issuing procedures, the OPFOR divides the major classes of materiel supplies into specific quantities or distribution lots. These quantities are called basic load for ammunition, refills for fuel, daily rations for food, and sets for spare parts and accessories. Once a standardized planning factor has prescribed a specific quantity as the unit of issue, planners no longer need to refer the quantity itself, and all future references are given in multiples of the unit of issue.

Logistics calculations with these standard units of issue normally involve the weight of the unit of issue in metric tons, since this is a key parameter for transport planning. For certain computations, volume is also computed. These figures can then be used for planning transport and storage in connection with similar lots of weights and volumes of standardized units of

issue of ammunition, POL, rations, and other lots of combat equipment.

Maintenance

Maintenance includes actions taken toâ

- Keep materiel and equipment in a serviceable condition.
- Return it to service.
- Update and upgrade its capability.

Since supplies are limited, the OPFOR stresses preventive maintenance, technical inspections, and proper operating methods to extend the life cycle of equipment. The maintenance system is designed to repair vehicles and equipment in the battle zone or as close to it as possible. Repair facilities and units move near the scene of combat rather than waiting for damaged equipment to be evacuated to them. Fixed and mobile repair units extend repair capabilities into the battle zone and provide service to the customer unit. During wartime, the types of repair performed at each level depend on the situation. Generally, they are of a lesser degree than in peacetime. The OPFOR classifies three categories of repair:

- Routine repairsâ ¯suchas replacements, adjustments, or repair of individual componentsâ ¯requirea short time to fix. Generally, maintenance personnel do not disassemble major components as part of routine repair.
- Medium repairs include the minor overhaul of equipment and the repair of individual components requiring a short time to fix.
- Capital repairs are conducted at depot level and involve the major overhaul and/or assembly of equipment.

Transportation

Transportation is a critical function that cannot be viewed in isolation. It is the one element that ties sustainment and all other battlefield activities together. The OPFOR envisions an environment characterized byâ

- A rapid tempo of nonlinear operations.
- Wide dispersion of forces.
- The need to concentrate rapidly for battle and disperse quickly.
- The need to conduct a wide range of actions simultaneously.

The mobility of logistics units must match that of the supported force. If the logistics support units fail to achieve this, they may jeopardize the overall success of the combat action.

Movement Principles

The principles of movement apply to all military transportation services and remain constant throughout peace and war. They apply regardless of the planning level.

Use of All Available Movement Resources

Military logistics planners base their estimates on the use of all movement resources available. These estimates include tactical combat vehicles as well as civilian transportation assets mobilized to move supplies, equipment, and personnel. For example, during mobilization, civilian trucking and bus companies may be organized as militia truck units to provide transportation of cargo and personnel within friendly or occupied territory. During wartime, civilian personnel, transportation assets (including farm animals, vehicles, aircraft, and water vessels), and materiel-handling equipment are mobilized or commandeered to support the war effort.

Centralized Planning and Decentralized Execution

Movement control is centralized at the highest level at which commanders charged with

providing total logistics support and monitoring the transportation system and infrastructure can exercise it. However, decentralized execution enhances the flexibility of lower-level commanders to meet local requirements and to rapidly reprioritize support.

Regulated Movement

All movement is regulated according to command priorities. Movements are not validated, approved, or initiated if any part of the transportation system cannot meet the requirement. Regulating transportation assets and LOCs is required to prevent congestion, confusion, and conflict of movements. Unregulated use of the transportation system can severely hamper the movement of critical cargo and personnel supporting the battle or the overall operation or strategic campaign. Therefore, traffic in the AOR is programmed to provide fluid movement throughout the transportation network.

OPFOR traffic control units employ a system of measures organized and executed toâ

- Ensure convoy and traffic regulation.
- Maintain general order in areas where troops are deployed.

Traffic control units or personnel are responsible for traffic control and law enforcement at the operational and tactical levels. They are responsible for directing military traffic along convoy routes and ensuring that the proper convoy speed and spacing are maintained. Internal Security Forces support movement control through protection of supply routes of movement in the homeland and of key transportation nodes and centers.

A movement program is a directive that allocates the available transport mode capability to satisfy the movement requirements according to the commanderâ priorities. The program normally contains detailed information concerningâ

- Origins.
- Destinations.
- Weights and volumes of cargo.
- Types and number of personnel to be moved.

Fluid and Flexible Movement

The transportation system is designed to provide an uninterrupted flow of traffic that adjusts rapidly to changing situations. It is flexible enough to meet the changing priorities of a fluid battlefield and reallocate resources as necessary. Adjustments must be made to meet the variations in combat intensity. For example, when units are in the offense, the transportation system expands to maintain the tempo of the battle. Conversely, when units are in the defense, the system is contracted, the modes change, and differing cargo priorities may be necessary. Changes in the operational environment necessitate adjustments to operate in varying conditions and tactical situations that may dictate the types of convoys and controls established for movement.

The availability and use of road and rail networks, airfields, inland waterways, ports, and beaches increases flexibility. They not only allow the transportation system to respond to tactical changes, but also provide redundancy within the overall transportation network. For example, if a portion of a road network is destroyed or rendered unusable, the mode could change to rail or inland waterway.

Maximum Use of Carrying Capacity

The principle of making maximum use of carrying capacity involves more than just loading each transportation asset to its optimum carrying capacity. Transport capability that is not used in one day cannot be stored to provide an increase in capability for subsequent days. Similarly, a situation allowing fully loaded transport to sit idle is just as much a loss of carrying capacity as is

a partially loaded vehicle moving through the system. While allowing for sufficient equipment maintenance and personnel rest, planners should keep transportation assets loaded and moving as much as the situation permits.

Transportation Modes

Transportation operations may include motor vehicles, rail, aircraft, and waterway transport vessels. The OPFOR generally uses motor vehicles to move large quantities of general cargo, POL, and personnel throughout the AOR. However, waterway transport vessels may be used to move large quantities of supplies and personnel along coastal or inland waterways to remote areas that are not accessible to motor vehicles.

As requirements for transportation fluctuate, each mode must be properly used to accomplish the commanderâ s objective. For example, air transport is employed if reaction speed is the priority. Motor transport is considered the most flexible surface mode. It provides door-to-door delivery service and an interface with all other transportation modes.

Motor transport becomes essential as supplies are moved forward from railheads, field depots, or supply points to combat units. After the relocation of supplies from national-level supply bases, the OPFOR distributes them within OSCs and divisions primarily by truck. Within an OSC, the heaviest truck transport requirements are primarily above the division level.

Under the control of the resources officer at each level, motor transport resources are centralized for operational and tactical employment. This centralized control is especially important in the pre- offensive buildup period and for resupply of advancing columns. It also facilitates the diversion of motor transport assets of reserve forces to support those units engaged in the main effort when necessary.

Supply and Evacuation Routes

Within their AORs, divisions and brigades establish and improve supply and evacuation routes, using the network of military roads. Routes are usually as follows:

- Division routes: from the ISG deployment area to the deployment areas of the brigadesâ materiel support units, IFC firing positions, and the brigadesâ medical points.
- Brigade routes: from the deployment area of the brigadeâ s materiel support unit(s) to the deployment areas of battalion-level materiel support units, indirect fire support unit areas (or firing positions), and battalion medical points.

The division or brigade resources officer, together with the chief of infrastructure management at that level, is responsible for improving supply and evacuation routes and maintaining them in passable condition. At division and brigade levels, subordinate engineer elements perform road maintenance. Engineer units at OSC or division level may form road and bridge construction and repair groups to prepare and maintain these and other movement routes.

At national level, the Strategic Integration Department (SID) also organizes civil engineering and construction efforts required to sustain military actions. During wartime, civil engineering units from the Ministry of the Interior, as directed by the SID, may be employed at the national, OSC, and division levels. Employed on an area basis, these units are responsible for the upkeep of supply and evacuation routes and for repair of battle-damaged roads and bridges. The chief of infrastructure management at the OSC or division level must coordinate and prioritize the route construction and maintenance functions of both civil and combat engineers within his AOR.

Personnel Support

The OPFOR considers people as one of the assets most critical to the success of any military action. Thorough planning and efficient personnel management directly influence mission readiness. During the course of battles, timely personnel replacements are essential.

Personnel Management

The division or brigade chief of administration is responsible for all personnel actions and transactions in the command. At DTG level, a personnel service company or battalion provides the personnel to operate the personnel operations center. That centerâ s major functions include providing personnel and administrative support, finance support, and legal support.

Replacement

Units may maintain strength by piecemeal replacement of casualties during combat, particularly when lightly wounded personnel and damaged equipment can return to parent units quickly. Once casualties are sufficient to threaten total loss of combat effectiveness, the unit withdraws from contact and reconstitutes. Timely replacement of ineffective units is vital to maintaining momentum. The commander may choose to withdraw heavily attrited units and consolidate them to form a smaller number of combat- effective units.

Personnel replacement is based on unit strength reports and includes the coordinated support and delivery of replacements and soldiers returning from medical facilities. The unit strength report is used to assess a unitâ s combat power, plan for future battles, and assign replacements on the battlefield.

Individual Replacements

The OPFOR can use the system of individual replacements in both peacetime and wartime. The sources of replacement personnel are school graduates, reserve assignments, medical returnees, and normal assignments.

Incremental Replacements

The OPFOR may incrementally replace entire small units such as weapons crews, squads, and platoons. Replacements can be obtained from training units or reserve forces.

Composite Unit Formation

Composite units may be formed from other units reduced by combat operations. Composite units may be constituted up to division and even OSC level.

Whole-Unit Replacement

The OPFOR uses whole-unit replacement when massive losses occur as a result of a combat action. Company-level and above units are brought forward from reserve forces to replace combat forces rendered ineffective.

Replacement Training

OPFOR planners realize that personnel replacement requirements may necessitate any of the aforementioned procedures. Individual and unit replacement exercises are held semiannually to maintain established proficiency standards for personnel units. During these and other training exercises, troops are moved by various modes of transportation such as motor vehicles, waterway, aircraft, or rail.

Medical Support

The basic principle of combat medical support is multistage evacuation with minimum treatment by medical personnel at each unit level. They treat the lightly wounded who can return to combat and those casualties who would not survive further evacuation without immediate medical

attention. See table 14-1 for the levels of medical care.

Table 14-1. Levels of medical care

Level	Available Care
Platoon	Platoon medic (corpsman) provides basic first aid.
Company	Company medic (paramedic) provides advanced first aid, pain relief, intravenous fluids, and treatment of most common illnesses.
Battalion	Medical assistant (physicianâ assistant) provides limited medical intervention, minor surgery, and treatment of most common illnesses; limited inpatient capability.
Brigade, BTG, and Division	Medical officers (physicians) provide trauma stabilization and minor surgical intervention.
DTG and Higher	A field hospital provides major surgery and extended care.
OSC or Theater Support Zone	The Central Military Hospital and major civilian hospitals provide definitive care in fixed facilities.

The OPFOR divides the range of medical treatment into three categories. The first category of procedures includes only mandatory lifesaving measures. The second category includes procedures to prevent severe complications of wounds or injuries. The final category of treatment includes procedures accomplished only when there is a low casualty load and reduced enemy activity.

In anticipation of an overtaxed combat medical support system, OPFOR doctrine emphasizes the importance of self-help and mutual aid among individual soldiers. This concept extends beyond the battlefield to casualty collection points and unit aid stations. Self-help and mutual aid reduces the demands made on medical personnel, particularly when there is a sudden and massive influx of casualties. Each soldier receives first-aid training.

Medical Logistics

Medical logistics operates on a â pushystem.â Personnel in the field request medical materiel (including repair parts for medical equipment) from a medical depot where it must be picked up and delivered to the field. Normally, medical supplies are transported from the support zone to the battle zone on cargo-carrying transport vehicles, water vessels, or aircraft. However, ground ambulances returning to the battle zone may assist in transporting medical supplies. A medical equipment maintenance unit at the medical depot provides all medical equipment maintenance.

Casualty Handling

The OPFOR has shown success in handling combat casualties. This success stems from emphasis placed on trauma training and close coordination with the civilian medical sector. Evacuation is based on a higher-to-lower method. The next-higher echelon provides transportation for casualties. Each level has specific responsibilities for the care of the sick and wounded. Besides treating the wounded, medical personnel handle virtually all of their own administration, especially at lower levels. As casualties move through the combat evacuation system, medical personnel at each level make effective use of medical facilities by repeated sorting of the wounded (triage). Helicopters are used for military and civilian search and rescue missions, medical evacuations, and domestic disaster relief flights. During wartime, most casualties arrive at a hospital within 6 to 12 hours after being wounded. The evacuation time is reduced to 2 hours during peacetime.

Medical Facilities

A field hospital is the first level in the evacuation system capable of conducting major surgery and giving extended care. It is mobile and capable of deployment near the battle zone. It constitutes the largest and most extensive military facility with this capability.

The best medical facilities are permanent (long-term) Army hospitals. During peacetime, military personnel receive treatment at these hospitals, which may also serve as an emergency medical care facilities for foreign diplomats, their families, and tourists.

During wartime, military personnel are treated at all of the major civilian hospitals and local clinics in addition to field hospitals and Army hospitals. Major university hospitals will also be directed to serve as emergency medical care facilities for the OPFOR. This ensures consistent high-quality medical staffing, care and treatment. A majority of medical facilities or clinics in the outlying areas have sufficient numbers of trained personnel, supplies, and reliable electric power and water. The facilities also contain high-quality, sophisticated medical equipment. The pharmacies are stocked with high-quality domestic and foreign-produced pharmaceuticals.

CBRN Treatment

Treating chemical, biological, radiological, and nuclear (CBRN) casualties is a standard OPFOR trauma protocol. The CBRN medical plan is based on three assumptions:

- Mass casualties will occur.
- Casualties will be similar to those that medical personnel have been trained to treat.
- Medical personnel are able to treat the casualties in a decontaminated environment.

An Army hospital can be converted into a chemical decontamination center within 2 to 6 hours. Most of the remaining major hospitals require up to 30 days to convert to a decontamination center.

Support of Combat Actions

During both offense and defense, OPFOR logistics units operate from locations that are protected, concealed, and serviced by good road networks. Commanders emphasize that logistics units make maximum use of urban areas to conduct logistics activities. The dispersion of logistics sites is consistent with support requirements, control, and local security.

Logisticians must be continuously informed of battle plans and probable changes to those plans. They coordinate logistics preparations with deception plans to avoid giving away the element of surprise. Commanders emphasize passive security measures during the sustainment of combat actions. Logistics unit commanders anticipate that at least 50 percent or more of their work will be done in darkness or under other limited visibility conditions. Therefore, noise and light discipline is a necessity when operating under these conditions.

Offense

The logistics objective in supporting offensive actions is to maintain the momentum of the attack by supporting in the battle zone or as close to it as possible. Both the battle zone and the support zone can move as the offensive battle progresses.

Planners must consider the nature of the offensive action as it affects logistics activities. For example, high fuel consumption may dictate making provisions to position substantial quantities in or near the battle zone without signaling the OPFORâ intention to attack to the enemy. Responsive support is made more difficult by lengthening of supply lines and by critical requirements for user resupply vehicles to stay close to their respective units. Planning, coordination, communication, and above all flexibility are key elements to consider. Therefore, planners develop logistics plans flexible enough to meet the changing priorities of a fluid battlefield.

In considering the attack, materiel support units ensure that all support equipment is ready and that supplies are best located for support. They also ensure that sufficient transportation is available to support maneuver and logistics plans. Normally, ammunition and fuel are the most important supplies in the offense. However, consideration must be given to all supplies, as well

as other support procedures, specifically medical and maintenance.

The following are examples of some specific considerations for planners to use during the development of logistics plans supporting offensive actions:

- Maintenance units should pre-plan maintenance collection points along movement routes, in order to reduce recovery requirements.
- Fuel and ammunition supply points are positioned in the battle zone or as close to it as possible.
- Arrangements are made in advance for aerial resupply of critical items in order to maintain the tempo of combat.
- Planners arrange to throughput obstacle-breaching and bridging material if required.
- Planners must consider potential bypassed enemy units; they must have the latest intelligence on the enemy situation.

Defense

The logistics objective in supporting defensive actions is to sustain the attrition of enemy attacking forces through support from dispersed sites located in the support zone. A division support zone may be dispersed within the support zones of subordinate brigades, or the division may have a separate support zone site of its own.

During the defense, supply activity is greatest in the preparation stage. Supplies generally are stockpiled or pre-positioned in initial and subsequent defensive positions. Critical supplies such as ammunition and barrier material should be as mobile as possible to ensure continuous support as combat power is shifted in response to enemy attacks.

To support stay-behind forces, supply stockage levels may be two to three times higher than normal amounts. This ensures a redundancy of caches and needed equipment that cannot be readily resupplied. Stay-behind forces may require unique maintenance support arrangements to ensure that equipment remains operational.

Logistics units position themselves in relatively secure positions far enough from maneuver and fire support units to be out of the flow of the battle. However, they should not be so far removed as to render the logistics effort less effective.

The following are examples of some specific considerations for planners to use during the development of logistics plans supporting defensive actions:

- Maintenance units should position maintenance teams in the battle zone to return the maximum number of weapons systems to the battle as soon as possible.
- Emphasis is on keeping supply and evacuation routes open.
- Nonessential logistics units and operations move into the depth of the support zone as early as possible.
- In a maneuver defense, fuel and ammunition supply points are positioned as far forward as possible and in successive battle positions.

Support Zone Security

The OPFOR expects any enemy to make an effort to conduct reconnaissance, espionage, and diversionary action in its tactical and operational support zones. These enemy actions can be particularly effective in areas where the local population is not sympathetic to the OPFORâ s cause. In addition to these threats, the OPFOR anticipates attacks on its support zone by airborne and heliborne forces as well as larger-scale attacks by enemy maneuver forces.

The OPFOR uses a security force or element to counter any threats in its support zones. Each division or DTG deploys a considerable counterintelligence effort. It can assign up to an entire BTG for security tasks. The security force or element is equipped and trained for conventional as well as unconventional warfare. As airborne and amphibious threats grow, there is increasing

stress on deploying antilanding reserves, including, or even based on, heliborne units to provide a rapid reaction.

All logistics and communications units are capable of self-defense. The convalescent sick and wounded provide a reserve of manpower for elements near medical locations or reserve forces.

Mission Support Sites

A mission support site (MSS) is a temporary base used by units that are operating at a considerable distance from their support zone, during an extended mission. The MSS may provide food, shelter, medical support, ammunition, or demolitions. The use of an MSS eliminates unnecessary movement of supplies and allows a force to move more rapidly to and from attack sites or objectives. When selecting an MSS, consideration is given toâ

- Cover and concealment.
- Proximity to the objective.
- Proximity to supply routes.
- The presence of enemy security forces in the area.

Security dictates that drop zones or landing zones be a considerable distance from an MSS, cache, or support zoneâ although this may increase transportation problems.

Post-Combat Support

OPFOR logisticians are not only focused on supporting units in combat. They are also focused on other post-combat support requirements such asâ

- Personnel replacement (see the Personnel Support portion of this chapter).
- Weapon systems replacement.
- Reconstitution.
- Receiving and preparing reinforcements.

Weapons Systems Replacement

Weapon systems replacement is simply a procedure for providing a weapon system to a combat unit. It involves processing the vehicle or equipment from a storage or transportation configuration to a ready-to-fight condition. It also involves the integration of a completely trained crew with the weapon system.

Reconstitution

Reconstitution is performed in support of all combat actions, in order to restore combat effectiveness. Although it is mainly a command and operations function, the actual refitting, supply, personnel fill, and medical actions are conducted by logistics units. There are two methods for conducting reconstitution: reorganization and regeneration.

Reorganization

Reorganization is action taken to shift resources internally within a degraded unit to increase its level of combat effectiveness. Reorganization is normally done at unit level and requires only limited external support such as supply replenishment, maintenance assistance, and limited personnel replacement. When continuity of the mission is of paramount importance, composite units may be formed from other units reduced by combat actions.

Regeneration

Regeneration is action taken to rebuild a unit through large-scale replacement of personnel, equipment, and supplies. Additionally, it is action taken to restore C2 and conduct mission-

essential training. Overall, the effort is directed at restoring the unitâ cohesion, discipline, and fighting effectiveness.

Receiving and Preparing Reinforcements

OPFOR strategic and operational logisticians prepare contingency plans for the mobilization and reception of reserve forces. Once the unit personnel and equipment are mobilized, they are sustained, configured, and transported to their respective OSC. Normally, strategic-level logistics units provide this type of support. Once the units arrive at the OSC, the OSC assumes responsibility for their further sustainment and transport, and they are available for assignment to appropriate tactical-level missions.