

Chapter 1

Fundamentals of Transportation Operations

Need lead in when this FM is updated.

TRANSPORTATION AND THE NATIONAL MILITARY STRATEGY

1-1. The foundations of the national military strategy derive from the national security strategy. This strategy places four fundamental demands on the US military. These demands are:

- Ensuring strategic deterrence and defense.
- Exercising forward presence in vital areas.
- Responding effectively to crisis.
- Retaining the national capacity to reconstitute forces.

1-2. As the principal land warfare component of the Armed Forces of the US, the Army plays a vital role in fulfilling these demands. In turn, an expansible and adaptable transportation system (see Figure 1-1, page 1-2) plays a key role in the Army's capabilities to fulfill each demand. A responsive and capable transportation system adds credibility to the US strategic deterrence capability and sustains the forward presence forces. The transportation system also plays a key role in projecting and supporting the reconstitution of the force.

1-3. The synchronized execution of the transportation functions reinforce the capability to conduct military operations. These functions are movement control (sometimes called traffic management), terminal operations, and mode operations. These functions are defined below.

MOVEMENT CONTROL

1-4. Movement control is the planning, routing, scheduling, controlling, coordinating, and ITV of personnel, units, equipment, and supplies moving over LOC. It involves the commitment of allocated transportation assets and the acquisition of HN transportation services to support military operations. Its goal is to optimize common-user transportation modes and terminals. This effort links common-user assets with the organic transportation capabilities of the supported units. Common-user transportation assets support the whole force. Movement control is the linchpin of a transportation system.

TERMINAL OPERATIONS

1-5. Terminal operations is the staging, loading, discharge, transfer handling, and documentation of cargo or personnel between various transport modes. The two major groups that exist are water terminal and inland terminal operations.

1-6. Water terminals consist of fixed ports, unimproved ports, or bare beaches. Inland terminals consist of air, inland water, rail, highway, or petroleum terminals. Logistic planners at all levels must provide for the adequate manning of terminals. They must also provide for suitable facilities to ease the handling of the scheduled mode(s) and types of cargo and personnel.

MODE OPERATIONS

1-7. Mode operations use transportation assets to link terminals into a continuous movements chain. The two major modes are surface and air. The surface mode is further subdivided into sea, inland waterway, highway, rail, and pipeline modes. The air mode is subdivided into fixed-wing and rotary-wing modes.

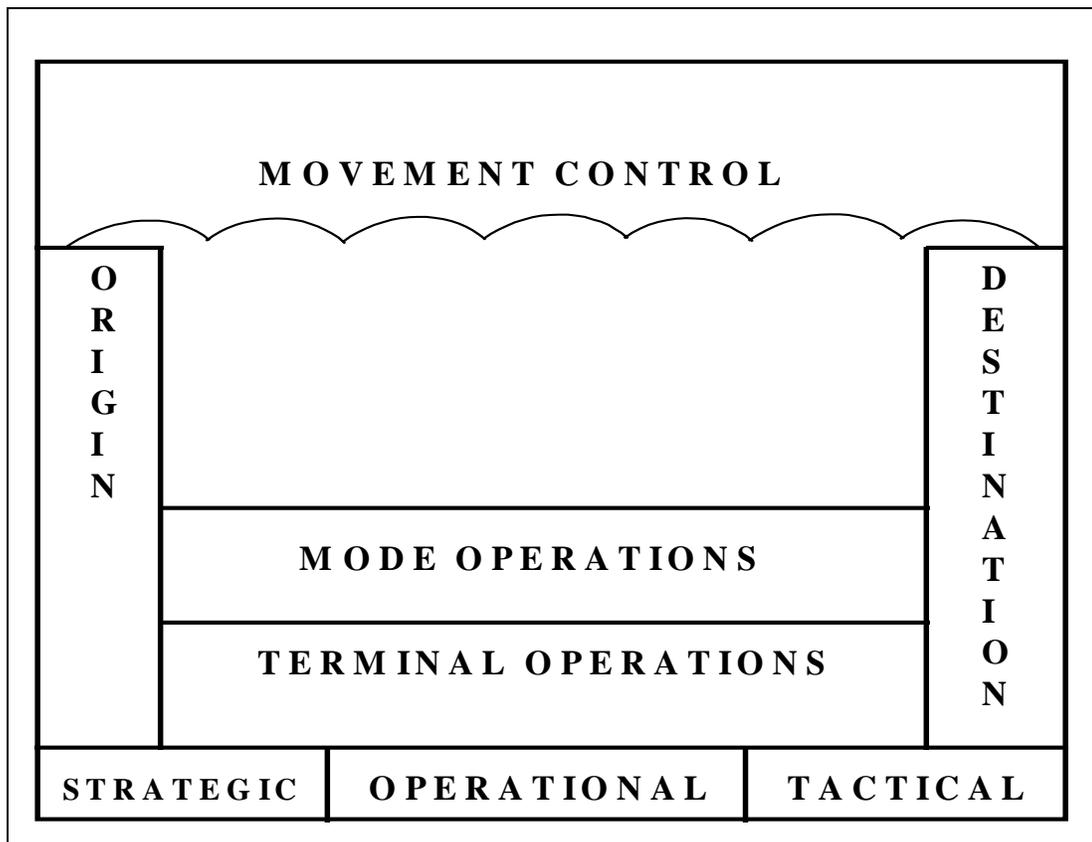


Figure 1-1. The Transportation System

MAJOR INFLUENCES ON MILITARY OPERATIONS

1-8. Three major factors influence how military planners structure a transportation system to support a military operation. These factors are the levels of war, the range of military operations, and the political nature of the US involvement. Army planners, working in a joint environment or in an Army component command, must understand the relationships between these factors. The planners must identify the transportation function and determine at which level of war to place the function. The planners must also identify the type of military operation and the nature of the US involvement. Considering these factors and their relationships will clarify requirements and help establish the transportation system needed to support the operation.

THE LEVELS OF WAR

1-9. FM 100-5 defines the three levels of war as strategic, operational, and tactical. These levels exist in every military operation regardless of the size of the committed force. Commanders at each of the levels can also be readily identified for each operation. FM 100-5 also defines the levels of war more by the consequences of their outcome than by the echelon of involvement. This means, it is not always easy to distinguish between a strategic, operational, or tactical action. At times, strategic organizations conduct activities within the operational commander's AOR. The opposite can also occur. Often defining the type of military action properly will be more helpful in determining where to conduct the activity within the AO. However, as a general rule, the higher the echelon of command, the higher the level of war. The levels of war influence how the military approaches the range of military operations and the links to establish between tactical actions and strategic objectives.

THE RANGE OF MILITARY OPERATIONS

1-10. The Army is required to function through a range of military operations. The range spans three states (from peacetime, through conflict, to war). The Army calls its activities during peacetime and conflict OOTW. Like the levels of war, the dividing lines between the components of the range of military operations are not discrete and are difficult to define. For example, the Army may find itself operating in all three states at the same time and in one or more regions of the world. Also, during the conduct of a military operation, changes between the states may occur. The range of military operations requires a well planned and organized robust transportation force structure.

1-11. Military planners must identify and tailor transportation organizations to fit the type of military operation. It is also important for military planners to integrate and coordinate all plans so they mutually support strategic objectives. This is not an easy undertaking. Often the US involvement requires the military to work with forces and private organizations from other nations, adding complexity to the tasks. Figure 1-2, page 1-4, portrays the range of military operations in a theater strategic environment.

STATES OF THE ENVIRONMENTS	GOAL	MILITARY OPERATIONS	EXAMPLES
WAR	Fight and Win	War	Large-scale combat operations Attack Defend
CONFLICT	Deter War and Resolve Conflict	Other Than War	Strikes and raids Peace enforcement Support to insurgency Antiterrorism Peacekeeping NEO
PEACETIME	Promote Peace	Other Than War	Counterdrug Disaster relief Civil support Peace building Nation assistance
The states of peacetime, conflict, and war could all exist at once in the theater commander's strategic environment. He can respond to requirements with a wide range of military operations. Noncombat operations might occur during war, just as some OOTW might require combat.			

Figure 1-2. Range of Military Operations in the Theater Strategic Environment

THE POLITICAL NATURE OF THE US INVOLVEMENT

1-12. Political conditions will influence the nature of any US involvement. The three possible conditions consist of the following:

- The US acting alone.
- The US acting with one or more allies.
- The US acting as a part of an international organization, such as the UN and NATO.

Each of the political conditions has implications for the transportation system. Each operation will require the tailoring of transportation forces and, if required, the melding of support received from other nations and organizations. Knowledge of the system and force structure tailoring will provide the capability to meet the US commitment.

THE DEFENSE TRANSPORTATION SYSTEM

1-13. The DTS supports all military operations. It is that portion of the nation's transportation infrastructure which supports DOD transportation needs through the range of military operations. The DTS, in turn, operates as an integral part of the national transportation system.

1-14. The DTS consists of military and commercial assets, services, and systems that are organic, contracted, or controlled by DOD. Operating the DTS involves the management of a complex number of interrelationships within the DOD and among diverse federal and commercial activities. All military transportation activities, regardless of the function they execute, must follow the programs and policies of the DTS.

1-15. When planning support for military operations, military transportation planners and operators at the joint and Service level must consider the diversity of the DTS and its accompanying coordinating challenges. Planners must also understand that DOD policy allows government intervention into the private sector only to the degree necessary to ensure the civil transportation system is responsive to military needs. This means DOD activates private sector assets to augment DTS capabilities only to meet the shortfalls of the defense transportation capacity. Figure 1-3, page 1-6, shows the organizations that form the DTS. Chapter 2 contains the roles and responsibilities of the agencies that make up the DTS. Joint Publication 4-01 contains a thorough discussion of the DTS.

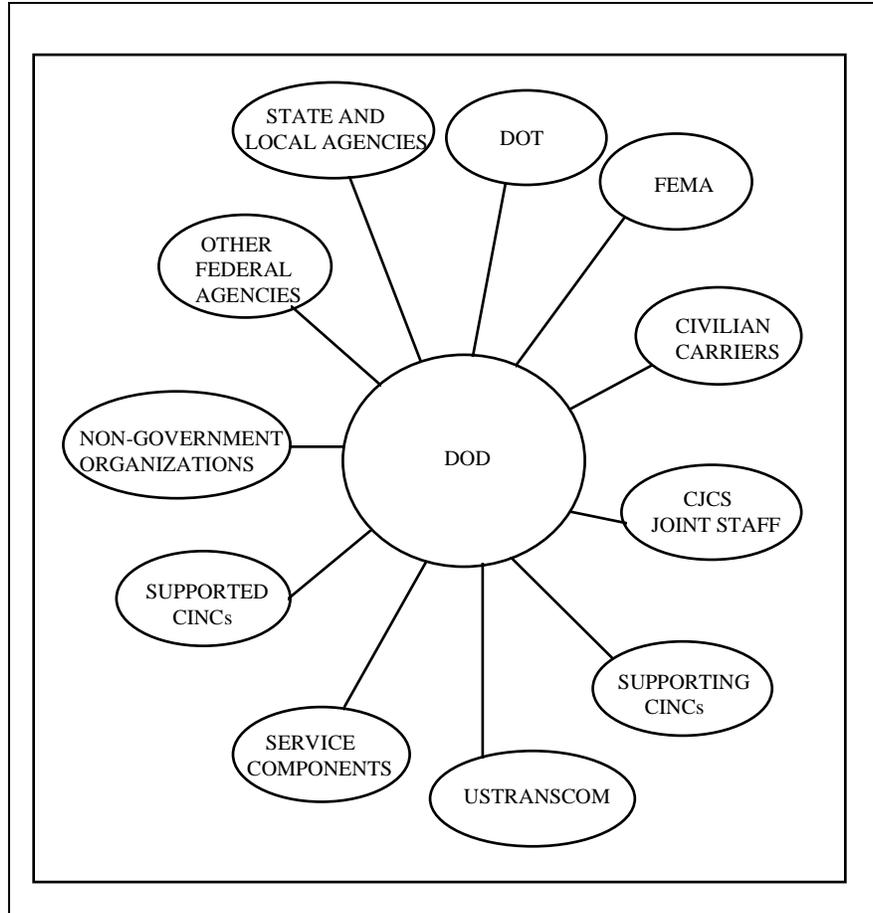


Figure 1-3. Defense Transportation System Supporting Organizations

THE ARMY TRANSPORTATION SYSTEM

1-16. To comply with its Title 10 US Code responsibilities, the Army organizes, trains, and equips organizations to execute the Army transportation mission. These organizations consist of military units that provide movement control and operate terminals and modes. The Army designs, trains, and equips its transportation organizations to fit into the levels of war, range of military operations, and the political nature of US involvement. These organizations form a transportation system that spans the levels of war and operates on a daily peacetime basis. The system is designed to integrate its activities with the larger DTS. It is also expandable and tailorable to meet the increased surge requirements of a contingency. It relies on active duty and RC units and may use multinational, HN, or contract support.

ARMY TRANSPORTATION AT THE STRATEGIC LEVEL OF WAR

1-17. Because of the nature of the strategic level of war, a joint environment dominates the execution of the transportation functions. At this level, DOD provides the programs and policies the USTRANSCOM executes. USTRANSCOM provides strategic movement control and operates strategic airlift and sealift. USTRANSCOM also operates terminals designated as POE when the deployment or sustainment starts in CONUS. USTRANSCOM may also operate terminals within the AO of combatant commands through negotiated agreements. Combatant commands and USTRANSCOM manage the strategic deployment of forward deployed units. In executing the functions of the transportation system at the strategic level, USTRANSCOM works with the Joint Staff, the Service departments, and the combatant commands and their Service components.

1-18. At the strategic level, Army transportation personnel man movement control staff positions in joint and Service component HQ. Army transportation organizations also operate or help operate terminals designated as POEs, and operate or administer contracted or HN acquired assets. The main Army organizations responsible for these functions within CONUS are the MTMC and the FORSCOM. MTMC is the Army component of USTRANSCOM. FORSCOM is the Army component for the USACOM. For forward deployed forces, the main Army organization responsible for transportation functions is the ASCC. The focus of Army transportation personnel and organizations at the strategic level is to assist the Army in meeting the joint force requirements in the following areas:

- Mobilization.
- Requirements Determination.
- Acquisition.
- Stockpiling.
- Army Reserve Stocks.
- Deployment/Redeployment.
- Reconstitution.
- Demobilization.
- Doctrine and Force Design and Development.

ARMY TRANSPORTATION AT THE OPERATIONAL LEVEL OF WAR

1-19. At the operational level of war, transportation functions remain joint; but to a lesser degree than at the strategic level. The execution of operational level transportation functions is the responsibility of operational level commanders, who are usually JFCs. The JFC normally retains overall movement control responsibilities through the creation of a JTB, a JMC, or both. However, the JFC usually delegates the operation of terminals and modes to the Service components, while retaining authority to establish priorities and ensuring unity of effort among the Service components. JFCs also perform duties at the strategic level of war when they are tasked to deploy forces outside their AOR.

1-20. At the operational level of war, the ASCC assumes responsibility for transportation and establishes an operational level of war transportation system. The system includes staff personnel, movement control organizations, and a capability to operate Army terminals and modes. It also acquires and oversees the operation of HN or contracted assets, as required. It also supports other Services or allies, as necessary, or as directed by the JFC. Army transportation personnel at this level direct their focus to assist the ASCC in meeting responsibilities in the following areas:

- Deployment/Repositioning of Forces.
- Reception and Onward Movement of the Force.
- Positioning of Facilities.
- Movements Control.
- Distribution.
- Reconstitution.
- Redeployment.

ARMY TRANSPORTATION AT THE TACTICAL LEVEL OF WAR

1-21. At the tactical level of war, the responsibility for transportation operations belongs to the tactical commander. At this level, Army transportation support normally directs its efforts to the committed Army forces. However, as directed by the tactical commander, the system may provide support to other Services and allies.

1-22. At the tactical level of war the Army may field a corps, a division, or a brigade. Each of these organizations has organic elements that provide for staff transportation support, movement control operations, and terminal and mode operations. The Army Corps, Division, and the Brigade commanders, using assigned resources, establish the tactical level Army transportation system. At this level, the Army may also field a task force tailored to meet the specific requirements of the operation. An example is a task force made up of logistic units designed to provide humanitarian assistance. Movements control, terminal operations, and mode operations organizations would be assigned to the task force to meet the specific requirements. Regardless of its organization, the Army tactical transportation system provides final distribution of personnel and materiel. The focus of this support is in the following areas:

- Arming.
- Fueling.
- Fixing.
- Moving.
- Manning.
- Sustaining the Soldier.