



# *III CORPS*



*III CORPS*

*COUNTEROFFENSIVE  
FORCE*

## *THE NATION'S COUNTEROFFENSIVE FORCE*

**Corps Movements  
Standing Operating Procedure**

Military Operations  
**Corps Movements**  
Standing Operating Procedures

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**History.** This is the first issue of III Corps and Fort Hood Regulation 525-30-1.

**Summary.** This regulation provides procedure on planning, commanding, and controlling large unit movements and tactical road marches. References to brand names or trademarks do not imply product endorsement by the government.

**Applicability.** This regulation applies to all III Corps Major Subordinate Commands (MSCs) and agencies involved

in III Corps and Fort Hood movements. Use of the masculine gender also implies use of the feminine gender.

**Supplementation.** Supplementation of this regulation is prohibited.

**Changes.** The proponent of this regulation is the ACofS, G3. Send comments and suggested improvements to: Commander, III Corps and Fort Hood, ATTN: AFZF-GT-PW, Fort Hood, Texas 76544-5000.

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## Chapter 1 Overview

**1-1. Purpose.** This document provides procedure on planning, commanding, and controlling large unit movements and tactical road marches.

**1-2. References.** Appendix A lists required and related references.

**1-3. Explanation of abbreviations and terms.** The glossary explains abbreviations and terms used in this pamphlet.

**1-4. Responsibilities.** All commanders are responsible for planning and executing large unit movements according to the guidance contained in this regulation.

## Chapter 2 Duties and Responsibilities

### 2-1. General

a. A corps combines the operational and tactical levels of war and conducts numerous types of movements. The principal types of movements are unit movements and sustainment. Unit movements entail marches by friendly convoys from a rear area forward to, and in many cases beyond, the line of departure (LD) or to establish a defense. A corps must also coordinate all concurrent movements to ensure a continuous flow of available transportation assets along lines of communication (LOCs) within its area of operation (AO). Movement planning involves not only the movement of assets along LOCs, but must also encompass the planning required to maintain and improve those LOCs.

b. While III Corps is responsible for planning and maintaining all LOCs within its AO, this pamphlet focuses primarily upon Corps movement along ground routes. Depending upon the theater, the terrain within the Corps AO may possess sufficient infrastructure to allow movement of only combat forces along specified routes and only logistics along main supply routes (MSRs) and alternate supply routes (ASRs). In theaters possessing limited routes, combat forces may be forced to move along primary routes, MSRs, and ASRs.

c. III Corps movement planning is conducted by the III Corps Assistant Chief of Staff (ACofS) G3 and G4 staffs, 49th Movement Control Battalion (49MCB), and by the 13th Corps Support Command (13COSCOM) Transportation Support Branch of the Distribution Management Center (DMC). On the Corps coordinating staff, the G3 plans and directs maneuver and recommends Corps priorities. The G4, in coordination with the Corps Transportation Officer (CTO) and 13COSCOM, recommends logistical support priorities. The CTO receives technical support from 49MCB and the 13COSCOM Transportation Support Branch. 13COSCOM provides logistical support to the Corps and an integrated distribution system in the Corps area. 13COSCOM does this through the coordinated planning of its staff, subordinate corps support groups (CSGs), and its distribution materiel and movement management functional centers. 49MCB centralizes movement control and highway regulation to support Corps operations. Subordinate divisions then develop movement plans that nest with the III Corps concept of operation and scheme of maneuver. Subordinate unit plans that do not

nest within the Corps movement plan could place the Corps' scheme of maneuver or sustainment at risk.

d. The Corps relies upon a combination of analog and digital means to plan and command and control movements. Digital planning tools include Microsoft® Excel, Mobility Control Program (MOBCON), Movement Tracking System (MTS), Automated Movement Flow Tracking (AMFT), Global Decision Support System (GDSS), and Operation Logistics (OPLOG) Planner software; manual calculations remain as a backup to these programs. (See Table 3-1 for sample manual calculations and Figure 7-1 for an example of a march table in Excel.) The Maneuver Control System (MCS) is the digital platform for maintaining the Corps' common operating procedure (COP) during movements. Reports from ground and aerial scouts, traffic control posts (TCPs) and other checkpoints, and liaison officers transmitted via radio and mobile subscriber equipment (MSE); unmanned aerial vehicle feeds; and satellite imagery all may assist in verifying the MCS COP.

## **2-2. Staff organizations and units**

a. The G3 plans and directs movement and maneuver of combat units through or within the Corps area. While the movement of combat forces will primarily occur along specified routes, some combat vehicles may travel over extended distances on MSR. The G3, coordinating with the G4, establishes priorities for using MSR for movements and maneuver. Maneuver will normally have priority over movements. However, planners must deconflict maneuver and movement requirements to prevent route congestion, enforce movement priorities, and provide continuous logistical support. Movement planners may also assist the G3 in planning the movement of combat forces. In short, for all Corps tactical movements, the G3 is the responsible agent for their planning and execution.

(1) The Fire Support Element (FSE) plans and coordinates fire support for the movement which may include obtaining or developing fire support coordinating measures for movement. The FSE also recommends the dedication and positioning of assets to provide responsive fires within Corps battlespace or in the case that divisional boundaries have not yet been activated.

(2) The Air Defense Element (ADE) coordinates air defense early warning and air and missile defense (AMD) protection with higher and adjacent units. The ADE also recommends the positioning of both high and medium altitude air defense (HIMAD) and short range air defense (SHORAD) assets along the routes and throughout the depth of the Corps' battlespace to address both the enemy air breathing threat (ABT) and tactical ballistic missile (TBM) threat according to the Corps' AMD priorities.

b. The G4 establishes logistics support plans. The G4 includes all available rail, water, and air transport capabilities in the logistics plan to reduce to the greatest extent possible the requirement for road movement of supplies. The G4, the CTO, and the DMC recommend sustainment and transportation plans, priorities, and programs to the G3.

c. The CTO is a special staff officer who works for the III Corps Chief of Staff (CofS) under the direction of the G4. The CTO coordinates with the G3 during unit movement, force tracking, and maneuver planning. He also assesses the impact for transportation requirements and highway regulation in the Corps area. He advises the G4 of logistics and unit movement requirements. This may include support of reception and onward movement of forces, replacement operations, and reconstitution. The CTO assesses the overall effectiveness of the movement programs and recommends the type of transportation units and assets required to accomplish the Corps mission. The CTO, in conjunction with the G4 and DMC, also prepares the transportation portion of Corps plans and orders and recommends road repair priorities and improvements for the road network in the Corps area in coordination with the Corps Engineer, Provost Marshal (PM), and 49MCB Highway Traffic Division.

d. The G5 coordinates with local civilian officials to minimize the amount of civilian traffic (both commercial and private) on the routes. The G5 also anticipates the flow of displaced civilians as the result of military operations and recommends how to mitigate the effects on Corps movements.

e. The Corps Engineer's input is crucial to Corps movement. He and his staff assist in the development of the MSR and ASR list. More crucial are his recommendations to maintain and improve routes to sustain Corps movements. He recommends to the G3 priorities of effort and those assets required to ensure the sustainability of movement along all routes. His recommendation of the location of the engineer work line (EWL), a control measure that defines the areas of responsibility for the Corps and divisional engineer units, impacts both the Corps' ability to sustain itself and the divisions' requirements to maintain and improve routes within their own battlespace. Placing Corps engineer assets along routes in divisional battlespace thus assists the division in maintaining and improving its routes; at the same time, however, those same engineer assets reduce the number of divisional vehicles able to transit the route.

f. The Theater Airlift Officer (TALO) is a United States Air Force (USAF) officer who advises the Corps Commander on airlift and coordinates the use of airlift resources. He keeps the commander apprised of the capabilities, limitations, and utilization of Air Force fixed-wing theater and strategic airlift assets. He also assists in planning and coordinating pre-planned, immediate, and emergency theater and strategic airlift in support of ground operations. Involvement of the TALO is key to any attempt by the Corps to reduce traffic on the Corps ground LOCs.

g. 13COSCOM serves as the multifunctional support headquarters for III Corps. Its support operations are the focal point for logistics support to the Corps. In coordination with the Corps staff, the 13COSCOM DMC is an integral part of movements planning. The DMC determines the Corps' movement control plans, sustainment movement plans, and movement programs for air, highway, rail, and inland waterway assets. The multifunctional planners within the DMC recommend the priorities for movement of the commodities and sustainment stocks to the division areas. They track the route status with the assistance of 49MCB and its subordinate teams. The DMC Operations Section conducts route assessments of the threat and the trafficability of MSRs and ASRs prior to assigning routes for sustainment movements. Based on the needs of the division, the DMC manages the movement of Corps supplies by tasking corps support groups (CSGs) and the functional transportation battalions to move bulk cargo within the Corps' battlespace.

h. 49MCB is the Corps movement control organization. It provides centralized movement control and highway regulation for moving personnel and materiel into, within, and out of the Corps area. It also ensures effective and efficient use of available transportation capability. 49MCB commands and supervises attached teams engaged in movement control and highway regulation. It plans, programs, coordinates, manages, and analyzes transportation and movement requirements and implements the Corps' priorities. 49MCB performs transportation planning, highway regulation, and liaison with Communications Zone (COMMZ) movement control organizations and military police (MP). 49MCB also hosts an MSR meeting at 1200 and 2400 daily at the Corps Rear CP to determine the status of trafficability and enemy incidents impacting the Corps rear area highway network. Attendees are the Corps Engineer; 142nd Rear Operations Center (142ROC) and all rear area operations centers (RAOCs); 89MP BDE; Corps G4 and G5; DMC Transportation; 13COSCOM G2, G3 Rear Battle, and CHEMO; and all CSG liaison officers (LNOs).

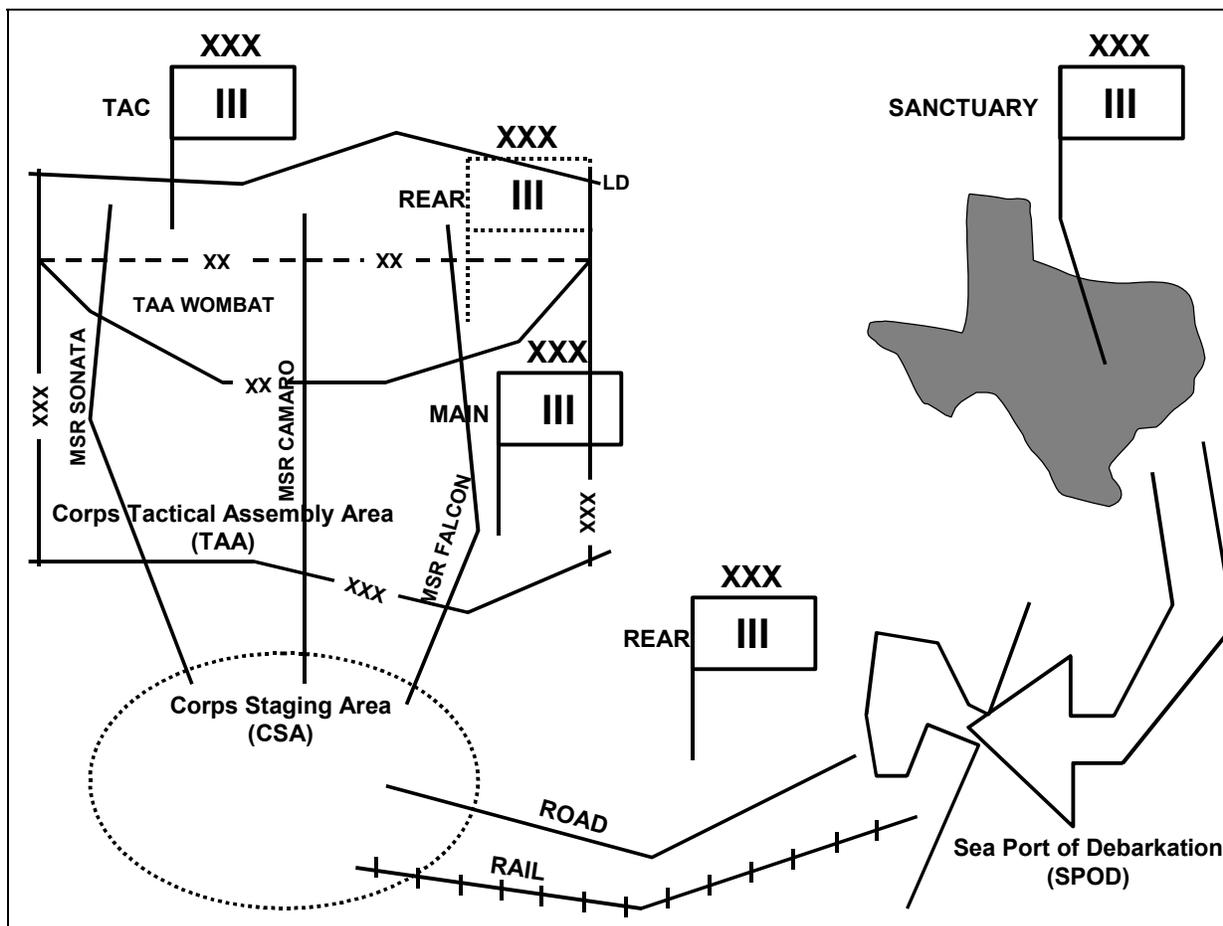
i. The III Corps PM and 89MP BDE provide maneuver and mobility support by integrating movement control and highway regulation plans into the MP battlefield circulation control plan. They provide traffic control on MSRs and enforce highway regulation plans. They reroute and divert traffic as required by the tactical situation or as directed by 49MCB. They also provide reports to 49MCB on the status of routes in terms of military traffic, civilian and commercial traffic, numbers and impacts of displaced civilians, and enemy incidents along the routes. For certain Corps operations that require the Corps Main CP to command and control Corps movements, 89MP BDE may establish an LNO team at the Corps Main CP to provide timely and accurate reports. 89MP BDE also resources specified TCPs according to the brigade's battlefield circulation control plan.

j. Division transportation officers (DTOs), through their respective supporting movement control teams (MCTs), coordinate with 49MCB and the CSGs to obtain transportation assets to meet division requirements beyond the division's organic capability. They also provide input to 49MCB to coordinate the Corps movement control and highway regulation plan. If required to support a Corps movement, they provide copies of their respective division's march tables to enable accurate tracking of units' movements.

### **2-3. III Corps command posts**

a. Depending upon the circumstances surrounding a III Corps deployment, up to four separate CPs could be involved in commanding and controlling Corps movement into theater and then forward to the Corps AO (see Figure 1-1). In some situations, the Corps may control movement forward of the Corps' tactical assembly area (TAA) prior to the establishment of divisional battlespace, particularly in the case when 3rd Armored Cavalry Regiment (3ACR) conducts a security mission.

Figure 2-1. III Corps command posts during deployment.



b. The III Corps Tactical CP (TAC CP) commands and controls close battle. As the Corps deploys, the TAC CP positions itself forward to enable the commander’s visualization of his battlespace. When the Corps command and control movements forward of the TAA, the TAC CP positions itself where it can best influence the battle without interfering with divisional movement and/or maneuver. If 3ACR is conducting a security mission, the TAC CP shapes 3ACR’s close battle and allows the Main CP to focus on those activities behind the ACR’s rear boundary. Clearance of fires and terrain management forward of that rear boundary is the responsibility of the 3ACR commander.

c. The III Corps Rear CP, under the command of the Deputy Commanding General (US), follows the TAC CP and immediately establishes itself at the seaport of debarkation (SPOD) to track and account for the Corps’ assets arriving in theater. Since the Corps will most likely not control the routes and the terrain between the ports of debarkation (PODs) and the TAA, the Rear CP also coordinates with higher (joint task force, numbered army, unified command, or multinational headquarters) for access to routes, logistics, and wartime host nation support. Once the Commanding General, 13COSCOM, establishes his CP, and the Corps Main CP is established in the Corps TAA, the Deputy Commanding General (US) jumps forward to the Main CP with his assistant fire support coordinator (AFSCOORD) and aide to set the conditions for combat operations and to “pull” Corps assets forward. The Rear CP then falls under the command of the Commanding General, 13COSCOM, who continues to “push” Corps

assets and logistics forward. Once the Corps closes on its PODs, the Rear CP jumps forward into the TAA and positions itself where it can best continue to command the Corps' sustainment and rear battle.

d. Following the Rear CP, the III Corps Main CP deploys into theater and moves immediately to the Corps TAA. Because not all Corps forces have closed on the TAA as the Main CP sets, the Main CP positions itself in a secure location in the TAA to maximize its survivability. The Main CP's primary purpose is to shape the Corps battlespace and set the conditions to commence the Corps' operations. In most circumstances, once the Rear CP establishes its operations at a POD, the Deputy Commanding General (US) will position himself forward to "pull" the Corps into the TAA. While at the Main CP, the Deputy Commanding General (US) also commands the Corps tactical combat force (TCF) from that location. If required, the Main CP may control divisional movements forward of the Corps TAA prior to the establishment of divisional battlespace. In that situation, the Main CP may require additional liaison or command and control assets from the divisions and 89MP BDE to ensure timely and accurate reporting. The Main CP collects the divisions' march tables and tracks closely the status of all march units and serials. If necessary, the Main CP directs march units or serials to occupy holding areas to allow the movement forward of later march units or serials. In short, the Main CP "delivers" the divisions into their battlespace in a manner that allows them to immediately assume the close battle. At some point, either with the establishment of the Corps Rear CP in the TAA or the establishment of divisional battlespace, the Deputy Commanding General (US) moves back to the Rear CP to assume command of the rear battle. Once the Deputy Commanding General (US) assumes command of the rear battle at the Rear CP, command of the TCF also passes from the Main CP to the Rear CP. The Rear CP also once again controls movement in the Corps rear area to ensure flexible and timely logistics support.

e. The Sanctuary CP assists the Rear CP in the tracking and accounting for Corps assets as they deploy. In some circumstances, the Sanctuary CP may act as the Rear CP if the latter does not deploy. In that case, the Main CP maintains command of the Corps TCF. If the forward CPs rely on the Sanctuary CP as a "reach back" capability, then the Sanctuary CP may also assist in maintaining the COP, to include enemy, terrain, and logistics updates.

## **Chapter 3**

### **The Tactical Road March**

#### **3-1. General**

a. Movements are generally classified into two broad categories: tactical and administrative. An administrative movement is one in which troops and vehicles are arranged to expedite their movement and conserve time and energy when no enemy interference, except by air, is anticipated. The staff proponent for this type of movement is the G4. In a tactical movement, elements are organized to facilitate combat action and maximize combat potential while marching. The staff proponent for this type of movement is the G3.

b. Once reception and staging are complete, divisions do not conduct administrative movements. A deployed division must always anticipate contact with the enemy, and therefore division road marches are always tactical operations. Road marches, however, are not movements to contact. The purpose of a road march is rapid movement, and the rate of march

and vehicle interval are prescribed before departure. Like all offensive operations, a road march must be executed to preserve security and flexibility. When contact with the enemy is imminent, tactical road marches end and maneuver (fire and movement) begins.

c. The basic formation for tactical road marches is the column, or more specifically, the march column. March columns place all vehicles in a march unit on a single route or avenue. They provide excellent speed, control, and flexibility, albeit at the cost of flank security and the ability to deploy forces or mass fires quickly to the front. March columns are used for moving when speed is essential and enemy contact is unlikely.

d. Despite their use in the initial stages of an attack, march columns are not fighting formations. An essential element to planning movement is the development of march organizations that enhance the commander's ability to deploy forces rapidly if required. To maintain limited flexibility while marching, divisions require at least three routes, although four or more routes are preferable. It is possible, however, that the Corps may find itself operating in restricted terrain, and division commanders and staffs must maintain the ability to move a division along two routes. Usually within a division formation, brigade combat teams (BCTs) normally march over two routes. BCTs can march over a single route; however, this severely impacts their ability to deploy forces rapidly into fighting formations.

e. During a deployment into theater, the Corps may occupy a corps staging area (CSA) close by the POD. The Corps would establish a CSA to organize units for future combat operations. Staging activities occurring with the CSA might include staging and linking soldiers up with their equipment, issuing supplies, and performing pre-operations checks and maintenance. To maximize the available host nation transportation support, movement from a POD to the CSA could be administrative along rail, barge, and road routes. In some cases, however, the Corps may not have the terrain available to conduct staging in a CSA, requiring the Corps to move directly from the POD to the TAA, where the Corps would conduct those tasks required of staging and integration. While the following paragraphs describe the particulars of a CSA, they also apply to a Corps TAA, with the exception that because the TAA would be located closer to the LD, it would be less secure than a CSA.

f. By virtue of its position, a significant distance from enemy forces, a CSA provides a degree of security. Despite this security, divisions and separate brigades must be prepared to defend against deliberate enemy attacks: an airborne insertion, a breakthrough of the forward defense, direct action by special purpose forces (SPF) or commando forces (CDO), long-range artillery directed by SPF, or an air attack. A divisional portion of the CSA is normally organized by assigning AOs to the brigades and separate battalions.

g. Although the primary mission within the CSA is organization for the march, commanders must plan their occupation of the assembly areas as they would a defensive perimeter. Commanders must consider possible enemy avenues of air and ground approach and locations of SPF and CDO forces and integrate fire support and air defense planning into their quartering plan.

h. The intent of defensive preparations in the CSA is not to retain terrain but to facilitate unit reorganization and march preparations. Command and control, fire support, and combat service support (CSS) units should be centrally located within the assembly area for their protection and to preserve their ability to operate. The AOs must be mutually supportive and fire

support positioned to allow massing of indirect fires against an enemy assault. Unit defensive schemes, however, should not inhibit traffic flow on the designated routes of march.

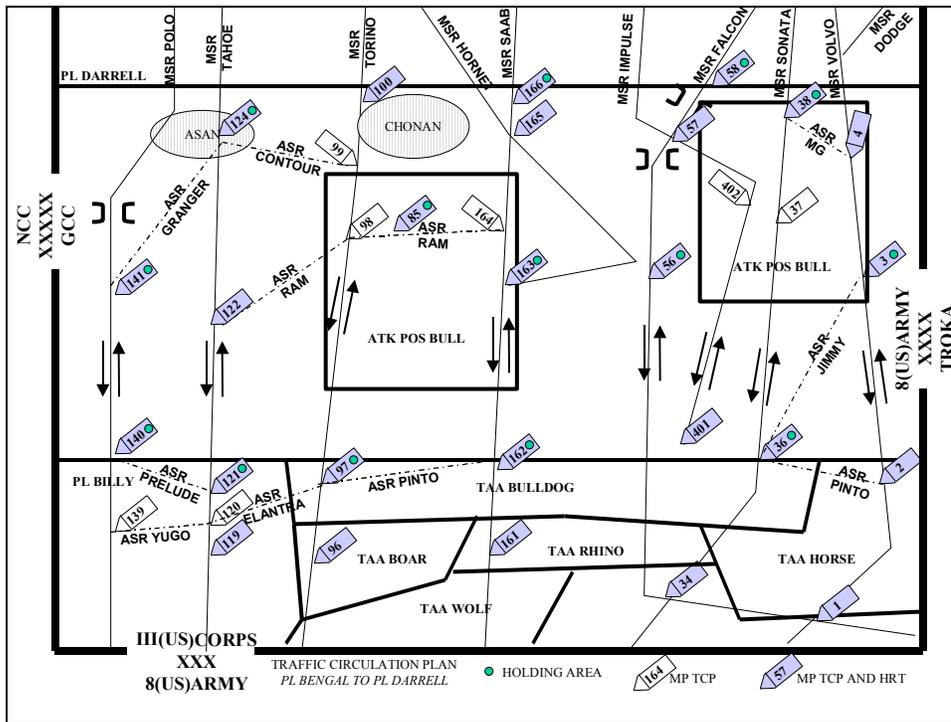
i. In organizing and assigning AOs in the CSA, planners must also consider the task organization and employment of forces forward of the TAA and LD. CSS assets, particularly those of 13COSCOM and 507th Corps Support Group (507CSG), must be positioned closest to the LD to enable their support of the Corps as far forward as possible before repositioning forward. When more than one option of employment for the Corps exists (Corps as the reserve or other employment possibilities forward of the CSA), the CSA organization must support all possible movements to maintain flexibility for the commander. For the divisions, once the march has started, major changes to task organization are not possible without severe disruption of movement. At the division level, the CSA layout must replicate the division order of march. For example, in a division attack to the north, a BCT that will fight in the eastern portion of the division's AO must march on the eastern routes and must occupy an eastern portion of the CSA.

j. A division controls the designated routes of march within its portion of the CSA. Ideally (and by design), division routes will run through or adjacent to the individual AOs of each unit that will march upon the route. Within their AOs, individual commanders identify and reconnoiter their own routes to the division controlled routes. If the designated route of march does not run through or adjacent to the unit's AO, then the division movement order must provide instructions that deconflict the move to the division controlled route.

### **3-2. Movements planning.**

a. Movement planning delivers correctly configured divisional combat formations into their AOs without disruption or loss. While movement planning may occur concurrently with maneuver planning, it cannot drive the scheme of maneuver. To the contrary, movements must support the Corps' scheme of maneuver and should be considered a shaping operation. In most circumstances, a Corps operations plan (OPLAN) or operations order (OPORD) will direct those tasks necessary to conduct Corps movements. While Appendix 3 (Movements) to ANNEX I (Service Support) of the Corps OPLAN or OPORD will usually describe the details of movements, the base OPLAN or OPORD may also direct movement tasks, engineering tasks, supporting security and fire support tasks, and the roles of the command posts. At a minimum, the Corps will establish movement priorities and designate and describe routes to allow subordinate units to plan their movements. If possible, the Corps will also publish a traffic circulation plan developed by 89MP BDE and 49MCB as an enclosure to TAB D (Highway Regulation Plan) to Appendix 3 (Movements) (see Figure 3-1). The traffic circulation plan should designate holding areas along the routes that are large enough to hold a battalion/task force (BN/TF). Terrain availability will dictate the frequency of holding areas along a given route.

Figure 3-1. Traffic circulation plan



b. While the Corps sets the priorities of movement and assigns routes to its subordinate units, it cannot develop a complete movement plan without the input of the major subordinate commands (MSCs) and separate brigades. This input takes the form of movement tables and operations overlays that describe how the MSCs and separate brigades plan to move. Only after the MSCs have turned in their input can the Corps movements plan be considered complete. The Corps will then provide block times for divisions conducting movements within the Corps AO. Once the operation begins and circumstances require changes to the movement plan, the G3 section at the Main CP, in coordination with the G4, CTO, Corps Engineer, 49MCB representative, and the 89MP BDE representative, issues fragmentary orders (FRAGOs) to account for the changes and ensure that the Corps scheme of maneuver remains viable.

c. Corps may assign primary and alternate routes for uncommitted elements of divisions and/or separate brigades and stage their forward and lateral movements as the situation requires. Such movements may be timed by clearance of phase lines (PLs) as committed units advance. If units moving in depth must halt, the Corps Main CP will direct them to TAAs or holding areas. Activation of alternate routes to shift units in depth demands coordination, early warning orders, and precise route management.

d. Where possible, movement plans must designate alternate routes and bypasses to mitigate the effects of enemy action (ambushes, demolitions, obstacles, contaminated areas, etc.), accidents, weather, and displaced civilians on the routes. Bridging, obstacle clearing, construction, and decontamination assets may be pre-positioned in those areas expected to require action to enable the flow of traffic along the routes.

e. In certain instances, routes below Class 70 may be used solely for light wheeled vehicle traffic to allow units to maximize the number of tracked vehicles and other heavy equipment moving along the high grade routes. Along the same lines, if properly organized, multiple-lane routes (like interstates or autobahns) may offer the opportunity to move more than one march unit abreast, thus allowing two or more march units to move along the route simultaneously.

f. While certain Corps staff officers play a critical role in the development of a movement plan, all Corps Plans Team (CPT) members should provide input to the plan to cover battlefield operating systems-specific concerns.

(1) The G2 conducts an intelligence preparation of the battlefield (IPB) estimate for the movement and identifies templated enemy locations that could influence friendly routes and activities. The G2, with the Terrain Tech and Staff Weather Officer, also analyzes the effects of terrain, weather, visibility, and road conditions (route classification, gradient and obstacle information, bridge and tunnel data, and route restrictions in urban areas) on the planned rates of march.

(2) The G3 manages the allocation of road space and terrain, coordinates with higher and adjacent headquarters, and coordinates the reconnaissance efforts of the routes.

(a) The Corps Engineer analyzes the routes and coordinates mobility support for the affected routes. He also recommends the location of the EWL and the positioning of engineer units along the routes.

(b) The FSE plans and coordinates fire support for the movement which may include obtaining or developing fire support coordinating measures for movement. The FSE also recommends the dedication and positioning of assets to provide responsive fires within Corps battlespace or in the case that divisional boundaries have not yet been activated.

(c) The Air Defense Element (ADE) coordinates air defense early warning and AMD protection with higher and adjacent units. The ADE also recommends the positioning of both HIMAD and SHORAD assets along the routes and throughout the depth of the Corps' battlespace to address both the enemy ABT and TBM threat according to the Corps' AMD priorities.

(3) The G5 coordinates with local civilian officials to minimize the amount of civilian traffic (both commercial and private) on the routes. The G5 also anticipates the flow of displaced civilians as the result of military operations and recommends how to mitigate the effects on Corps movements.

(4) The G6 integrates communications and information systems to support the movements which may include pre-positioning command and control assets along the routes. The G6 also recommends march progress reporting procedures based upon the available communications assets and potential electronic signature.

(5) The Chemical Officer plans nuclear, biological, and chemical (NBC) support, including the use of smoke for deception or concealment and hasty and deliberate decontamination sites.

(6) The PM develops battlefield circulation control plans and recommends the positioning of TCPs.

### **3-3. Tactical road march planning**

a. The mission that follows the tactical road march drives much of the planning process. If a higher headquarters is directing the move, it also delineates and controls the routes of march. When routes are controlled by a higher headquarters, it is likely the access time to the routes will also be limited. Since a division and separate brigades move along multiple routes, the available time on each route must be considered as a limitation in the planning process.

b. Battle staffs frequently will plan tactical road marches as a phase of a larger operation. Staff officers cannot develop plans for tactical road marches in isolation from the mission following the march. Operations officers have staff responsibility to plan, synchronize, and conduct tactical road marches. They determine the order of march and movement priority and allocate routes and resources.

c. At division level, the battle staff in the Main CP develops the movement order for tactical road marches. Based upon the movement order, the TAC CP commands and controls the movement of the division and coordinates with III Corps and transited units. The Rear CP plans logistical support of the movement. In addition, the Rear CP augments the Main CP during the planning process and the TAC CP during the movement with transportation, military police, and CSS planners.

d. Division and separate brigade road march planning must not be restricted to only the lead units but must address the depth of the unit's columns. Reserves, follow and support units, and other uncommitted forces normally remain in march formations beyond the LD. To preserve the Corps and division and/or separate brigade commanders' flexibility, planners must designate alternate routes to enable the shifting of uncommitted forces.

e. All members of the battle staff have an important role in developing the movement order for a tactical road march. The division's battle staff considerations for a tactical road march mirrors concerns described in paragraph 3-2.

### **3-4. The movement order**

a. The division or separate brigade movement order provides basic direction for a division-level tactical road march. In addition to the information contained in the OPLAN or OPORD, the movement order will identify the routes of march and will specify the order of march, priority of movement, and first destination release point (FDRP). The movement order will designate the routes in both a map overlay and a written route description. Route descriptions will include route designations, city or town names, grid coordinates, checkpoints with cumulative road distances, and, if required, fuel point locations.

b. The actual timing and execution of the road march will be directed by the division march tables which accompany the movement order. Issued in a matrix format, a march table specifies the order of march and allocates road space by time to subordinate commanders. Chapter 7 outlines march tables.

c. A division order may task subordinate units to control the movement of divisional and non-divisional units. If not assigned or attached, these additional units may be placed “TACON (tactical control) for movement” to the tactical commander. Although it can complicate command and control, “TACON for movement” provides a necessary means of moving Corps and divisional units forward under supervision and in time to perform their missions.

d. Placing units “TACON for movement” can create additional burdens on the tactical commander. Movement plans must incorporate instructions for the new units, and vehicles must be integrated into march columns before the march begins. At the small unit level, leaders must review and align their road march procedures. In some cases, units that are “TACON for movement” may depart the controlled route prior to reaching the release point (RP). 31st Air Defense Brigade (31ADA BDE) PATRIOT batteries, for example, may stop and emplace to establish protection within a divisional AO. Commanders and staffs must plan these early departures carefully to avoid delaying movement on the controlled route.

e. Precise timing is the essence of a successful road movement. Division march tables orchestrate the movement of 5,000 to 7,000 vehicles. Compressed march planning provides little margin for deviation from the published schedule. The minimal interval between vehicles, which significantly reduces column pass time, also ensures that small disruptions in traffic flow can quickly become major congestion. March unit and serial commanders must arrive at and clear all checkpoints on schedule. Units arriving early at controlled checkpoints will be halted. Units that fail to clear a controlled checkpoint on time may have those elements that are late diverted into holding areas. Strong organization, thorough training, and iron discipline are essential to move a division efficiently in minimal time.

f. The most difficult portion of a tactical road march is the beginning. “Uncoiling” units from their positions in the TAA and forming into march columns must be done without disrupting the movement of other units toward the start point (SP). Once division movement begins, units may not enter or cross division routes except as directed by the published march tables. March unit and serial commanders must plan to arrive at the SP at the time, interval, and speed specified in the march table.

g. Timing of the arrival of units at the RP is also a key consideration for the development of the movement order. Each route of march is different, and the overall length and physical characteristics of each route will determine the time required for the road march. The mathematics of the march tables enable movement planners to designate one critical time upon which the march table is based. For example, in a division movement on four routes, the march tables can be structured so that all units start at the same time or the first vehicle on each route finishes at the same time. Since the march columns on each route occupy different road space, the march tables can also be calculated so that lead battalions close at their objectives at the same time.

h. A division’s movement plan must also direct the employment of its aviation assets and unmanned aerial vehicles (UAVs) during a tactical road march. Based upon the IPB, a division commander may direct his aviation brigade or division cavalry to conduct route reconnaissance or security operations along the routes of march. If enemy contact during the movement is not likely, aerial scouts or UAVs may be deployed well ahead of the march columns to determine the location and disposition of enemy forces. To maintain the division’s freedom of maneuver,

aerial scouts or UAVs can be employed to check key bridges, tunnels, or choke points along the routes prior to the arrival of friendly ground forces. If contact with enemy forces during the movement is possible, the commander may also employ aviation assets to provide an aerial screen ahead of the march columns or an air guard above specific march units.

i. Since the movement may be well behind the forward line of troops (FLOT) or through friendly units, a division may not control the airspace above the designated routes of march. The use of air routes may require close coordination with Corps, adjacent units, and possibly the host nation. Airspace control measures and weapons control status of friendly air defense systems may limit the flexibility of divisional aviation to guard or screen the movement. Specific fire support coordinating measures may also limit the employment of aerial weaponry against suspected enemy positions.

### **3-5. March parameters**

a. The standard parameters for tactical road marches are shown in Figure 3-2. Movements of 10 or more vehicles on Corps controlled routes require march credits. For planning purposes and in all cases except emergencies, the maximum range for a divisional road march is 250 km/day (155 mi/day). This limit is a function of crew endurance, maintenance readiness, and span of control. This limit is also based upon the operating range of the M1 tank traveling 25 kph (16 mph).

b. Standard march terms are defined in Chapter 6 and are graphically depicted in Figure 3-2; examples of march calculations are at Table 3-1. For planning, a march serial is roughly the equivalent of a ground maneuver BN/TF.

### **3-6. Advance support elements**

a. Depending upon the mission and the situation, tactical road marches may be supported by a Corps or divisional advance support element (ASE). ASEs are ad hoc units, structured to enable movement of divisions by positioning critical combat support and CSS support along the route and forward into the TAA. Units in an ASE typically include engineer, air defense, signal, military police, and combat service support units.

b. Corps or divisional assets (or a combination of both) may form an ASE. The decision to use an ASE is highly dependent upon the factors of mission, enemy, terrain, troops, time available, and civilians (METT-TC). Not all marches will be supported by an ASE.

c. A Corps supported ASE is composed of Corps troops and 13COSCOM assets to support the movement of the Corps. The capability of a Corps ASE is robust; however, divisions may also provide mobility and CSS assets. As described above, 89MP BDE will man TCPs along the routes of march to enforce the Corps' order of movement and movement priorities. In many cases, maintenance collection points and medical teams will co-locate with the MPs to enable the security of these assets. Other units, to include field artillery, engineers, and air defense may be located in the general vicinity of the manned TCPs. Planners must exercise caution, however, when massing of these assets along the routes. Overly large TCPs will invite direct action by SPF and/or CDO forces; at a minimum, poorly dispersed units will invite SPF-directed observed indirect fire.

Figure 3-2. Tactical road march parameters.

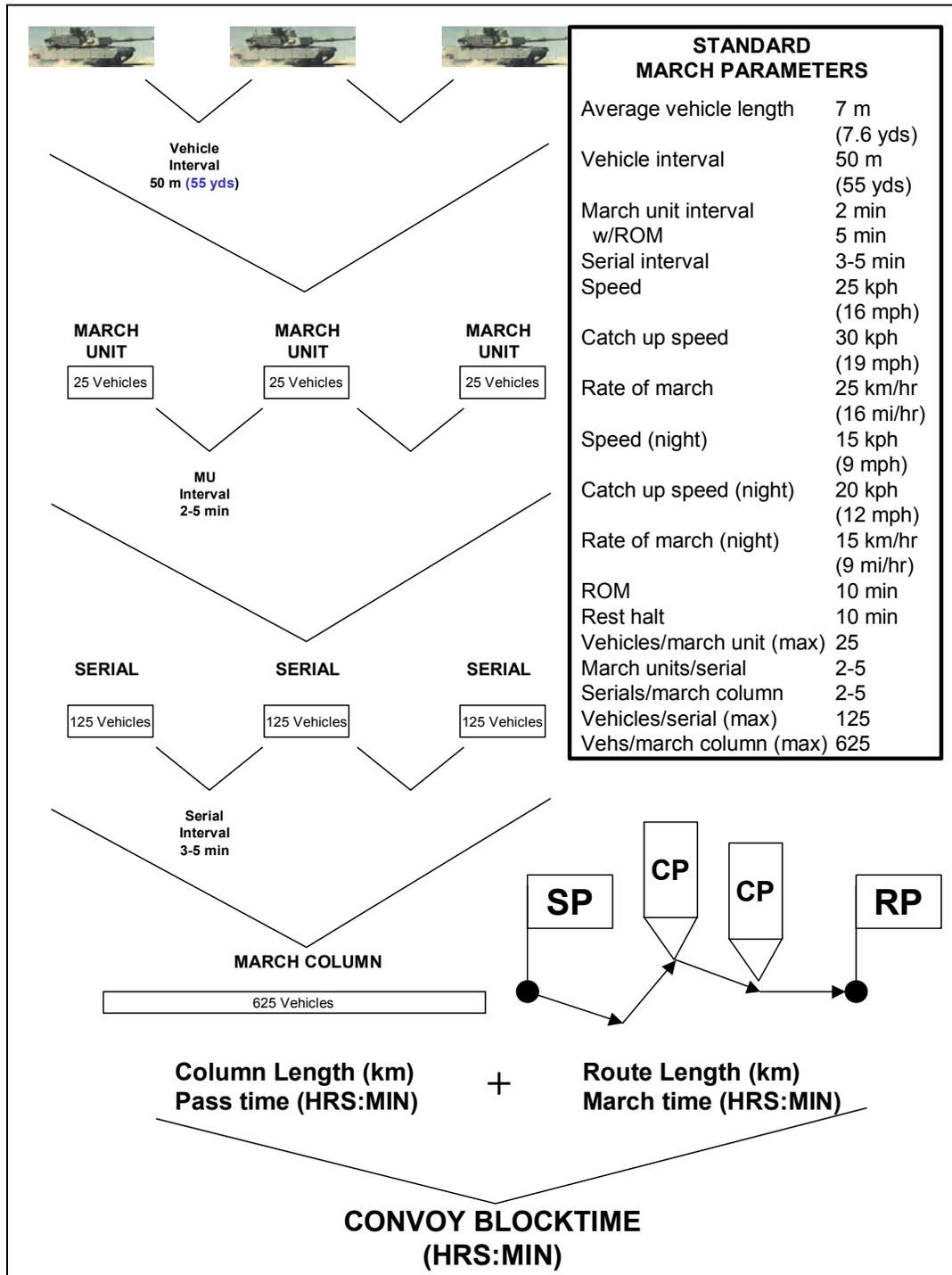


Table 3-1. March calculations

## March Calculations

### Single March Unit Lengths (7 m vehicle/50 m separation)

1 veh	7 m (7.6 yds)	9 veh	691 m (753 yds)	17 veh	919 m (1002 yds)
2 veh	64 m (70 yds)	10 veh	520 m (567 yds)	18 veh	976 m (1064 yds)
3 veh	121 m (132 yds)	11 veh	577 m (629 yds)	19 veh	1033 m (1126 yds)
4 veh	178 m (194 yds)	12 veh	634 m (691 yds)	20 veh	1090 m (1188 yds)
5 veh	235 m (256 yds)	13 veh	691 m (753 yds)	21 veh	1147 m (1250 yds)
6 veh	292 m (318 yds)	14 veh	748 m (815 yds)	22 veh	1204 m (1312 yds)
7 veh	349 m (380 yds)	15 veh	805 m (877 yds)	23 veh	1261 m (1374 yds)
8 veh	406 m (443 yds)	16 veh	862 m (940 yds)	24 veh	1318 m (1437 yds)
				25 veh	1375 m (1499 yds)

### Multiple March Unit Lengths (2 min/5 min march unit separation)

	<u>2 min</u>	<u>5 min</u>
1 march unit (25 veh)	1375 m (1499 yds)	1375 m (1499 yds)
2 march units (50 veh)	3583 m (2.2 mi)	4833 m (3.0 mi)
3 march units (75 veh)	5791 m (3.6 mi)	8291 m (5.1 mi)
4 march units (100 veh)	7999 m (5.0 mi)	11749 m (7.1 mi)
5 march units (125 veh)	10207 m (6.3 mi)	15207 m (9.4 mi)

### Sample Calculations

Column length and pass time of 20 vehicles:

Column length = (20 vehicles x 7 m/vehicle) + (19 spaces between vehicles x 50 m/space) = 1090 m (1188 yds)  
 Pass time = 1090 m x 0.0024 min/m = 2.6 min  $\cong$  3 min

Column length and pass time of 45 vehicles with 2 minute separation:

45 vehicles = 1 march unit of 25 vehicles + 2 minute separation + 1 march unit of 20 vehicles  
 Column length = 1375 m + 833 m + 1090 m = 3298 m (2.0 mi)  
 Pass time = 3298 m x 0.0024 min/m = 7.9 min  $\cong$  8 min

Column length and pass time of 155 vehicles with 5 minute separation between march units and serials:

155 vehicles = 1 serial of 5 march units (125 vehicles) + 5 minute separation + 1 march unit (25 vehicles) + 5 minutes + 1 march unit (5 vehicles)  
 Column length = 15207 m + 2083 m + 1375 m + 2083 m + 235 m = 20983 m (13.0 mi)  
 Pass time = 20983 m x 0.0024 min/m = 50.4 min  $\cong$  50 min

Conversion factors and constants:

At 25 km/hr, column length (in meters) to pass time (in minutes) = 0.0024 min/m  
 At 25 km/hr, pass time (in minutes) to column length (in meters) = 416.7 m/min  
 Distance traveled at 25 km/hr (16 mi/hr) in 2 min = 833 m (908 yds)  
 Distance traveled at 25 km/hr (16 mi/hr) in 3 min = 1250 m (1363 yds)  
 Distance traveled at 25 km/hr (16 mi/hr) in 5 min = 2083 m (1.3 mi)

d. If a tactical road march is not supported by the Corps, a division commander may form an ASE from organic assets. If organized, a divisional ASE should be intentionally austere to provide minimal support required and avoid major disruptions to the division's task organization. A division can provide advanced support by creating a separate ad hoc unit or by assigning the mission to an existing unit with the appropriate augmentation of combat support and CSS assets.

e. If a divisional ASE is formed, advance elements may precede the main body by as much as 24 hours to establish support locations along the route of march and within the TAA. Some units will directly facilitate and control the movement: MPs will emplace TCPs, signal units will establish communications links, the division support command (DISCOM) will establish refueling sites and maintenance collection points, and the engineers will perform limited bridge and route maintenance as required. Other advance elements will move early strictly for tactical reasons: the cavalry will reconnoiter the route and provide forward security; the general support artillery, air defense, and intelligence units may deploy early to facilitate the transition to the attack. The aviation brigade may deploy rearming and refueling points with advance elements to support deep attacks or other aviation operations such as aviation screens forward of the division. The brigade combat teams (BCTs) may deploy their tactical command posts, quartering parties, and liaison teams ahead of their march columns.

f. A division will most likely not employ an ASE unless the route of march is generally secure. ASEs are "soft targets" which comprise a significant portion of a division's high value assets (HVAs): tactical command posts, general support artillery, bridging assets, fuel tankers, and communication node centers. In all but the most secure environments, an enemy with intelligence gathering capability will easily discern friendly motives and intent from the deployment of an ASE. Additionally, the deployment of an ASE limits a commander's flexibility by committing a division into a specific direction of march. A shift in direction would be difficult and time consuming with a significant amount of the division's assets arrayed along different routes.

g. Operating an ASE places a significant burden on combat support and CSS units which will have a detrimental effect on the ability of these units to support combat operations immediately following the march. Combat support and CSS units will be arrayed along the entire route of march. Some ASE units may join the trail of the march column as the last vehicles to pass. Other units will require up to 24 hours to recover assets and rejoin a divisional main body. The time required for combat support and CSS units to rejoin a division may be exacerbated by the movement of other Corps units along the same routes behind the division.

h. An important mission of an ASE is providing fuel to marching units. If the tactical situation permits, 13COSCOM advance units (with respective DISCOM support) will establish a refuel on the move (ROM) site approximately 100 km (62 mi) or roughly halfway into the march. The ROM must occur prior to the RP to ensure centralized control of this difficult operation.

i. The purpose of the ROM is not to “top off” vehicles but to extend their operating range with a rapid addition of fuel. Fueling in a ROM is governed by time, not the quantity of fuel pumped. Standard march planning provides 10 minutes per march unit in the ROM: 3 minutes to move in, 5 minutes of fueling, and 2 minutes to move out. Depending upon the configuration of pumps (HEMTT tankers and/or 5,000 gallon [18,950 l] tankers), ROMs should provide 35-50 gallons (133-190 l) per minute or 175-250 gallons (663-948 l) of fuel. ROM will normally occur behind the forward line of troops; tactical refuel occurs forward of the forward line of troops (FLOT). Theater or the ASE will normally establish convoy support centers with maintenance (to include recovery and CL IX), emergency classes of supply (CL I/CL IW), refuel, and emergency medical support every 250 km (155 mi) along the route of march.

j. If the tactical situation does not allow the pre-positioning of a ROM, marching units must use organic tankers to refuel tracked vehicles. The time required to conduct tactical refueling operations must be programmed into the march table, and the support plan must include time for tactical fuelers to refuel. Congestion during tactical refueling is a concern as the backlog of vehicles waiting to refuel can adversely impact the ability of marching units to reach the RP. If not incorporated into the march table, then any refueling operations must be conducted well away from the RP to prevent congestion on the route.

## **Chapter 4**

### **March Organization**

#### **4-1. General**

a. The overarching principle of task organizing for movement is to “march as you intend to fight.” A secondary principle of nearly equal importance is to “retain the greatest possible tactical flexibility during movements.” A division must be prepared to meet enemy threats from any direction and, if necessary, to attack from the march. March columns must be organized to maintain unit integrity and must possess the task organization necessary to achieve the commander’s intent for the mission.

b. Within the march column, fire support and air defense units must be positioned to maintain all around and overhead security. In many situations, fire support and air defense units will march toward the front of the column (behind lead maneuver battalions) to allow them time to establish coverage for the attack across the LD. Scout and military intelligence units must be positioned to provide early warning and react to enemy threats. Depending upon the terrain, engineer units may also be positioned toward the front of the march to provide mobility support. The protection and employment of combat support and CSS units requires that they be integrated in the march columns. To be prepared to fight from the march as a combined arms force, the slower combat support and CSS vehicles must move with the more mobile combat forces.

#### 4-2. Brigade combat team (BCT)

a. The BCT's basic building blocks for developing march formations are armor and mechanized BN/TFs. The remaining units of the BCT, as well as those TACON for movement, are integrated into the BCT march columns to support the maneuver BN/TFs.

b. Divisions should standardize BCT march organization as much as possible to simplify planning and coordination. Standardized task organization at the battalion level enables the transfer of serial-sized maneuver units within and between BCTs.

c. BCTs and BN/TFs march in formations that allow for all around and overhead security. Artillery batteries are interspersed to provide indirect fire support throughout the entire BCT's formation. Air defense units are positioned to protect HVAs and are oriented along the enemy's most likely air avenues of approach. Engineers may be positioned to provide mobility support and may be pushed forward in the columns to clear obstacles or obstructions. Chemical assets may be positioned to enable rapid chemical reconnaissance or decontamination operations. Smoke vehicles located throughout the column may also assist in deception and/or force protection. CSS units are interspersed within the march columns to support without hindering movement and to allow for their own protection.

d. BCT march data follows at Tables 4-1 through 4-4. These tables offer a "bare bones" BCT task organization and portray the time and space required to move a BCT along the minimal number of routes. Although moving a BCT along more than one or two routes is clearly preferable, these figures offer a "worst case" example of a BCT's footprint. As a division main effort with an additional maneuver battalion, additional engineer assets, and a reinforcing III Corps Artillery field artillery brigade, a BCT could easily span twice the time and space depicted in tables 4-1 through 4-4.

**Table 4-1. Brigade combat team (BCT) on two routes, two-minute interval**

**Brigade Combat Team (2 MECH/1 TK) on 2 Routes**  
2 minute march unit interval

UNIT	VEH	MARCH UNITS	PASS TIME (HR:MIN)	LENGTH (km/mi)
<b>ROUTE 1</b>				
SCTS	5	1	00:01	0.2/0.1
MECH BN	104	5	00:22	9.0/5.6
FA	100	4	00:19	8.0/5.0
ENG	50	2	00:09	3.5/2.2
FSB	285	12	01:02	25.6/15.9
<b>ROUTE 2</b>				
SCTS	12	1	00:02	0.6/0.4
TANK BN	106	5	00:22	9.1/5.6
MECH BN	104	5	00:22	9.0/5.6
FA	59	3	00:12	4.9/3.0
ENG	98	4	00:19	7.9/5.0
FSB	150	6	00:31	12.8/8.0
HHC	28	2	00:06	2.3/1.4

<b>ROUTE 1</b>	
Total vehicles	544
Total serials	7
Column pass time (w/MU gap)	2:04 (HR:MIN)
Column length (w/MU gap)	51.4 km (31.9 mi)
<b>ROUTE 2</b>	
Total vehicles	557
Total serials	8
Column pass time (w/MU gap)	2:10 (HR:MIN)
Column length (w/MU gap)	54.2 km (33.6 mi)

March unit interval	2 minutes
Serial interval	3 minutes
Speed	25 kph (16 mph)
Avg vehicle length	7 m (7.6 yds)
Vehicle interval	50 m (54.5 yds)
Vehicles/march unit	max. 25

**Table 4-2. Brigade combat team (BCT) on two routes, five-minute interval**

**Brigade Combat Team (2 MECH/1 TK) on 2 Routes**  
5 minute march unit interval

UNIT	VEH	MARCH UNITS	PASS TIME (HR:MIN)	LENGTH (km/mi)
<b>ROUTE 1</b>				
SCTS	5	1	00:01	0.2/0.1
MECH BN	104	5	00:34	14.0/8.7
FA	100	4	00:29	11.7/7.3
ENG	50	2	00:12	4.8/3.0
FSB	285	12	01:32	38.3/23.7
<b>ROUTE 2</b>				
SCTS	12	1	00:02	0.6/0.4
TANK BN	106	5	00:34	14.1/8.7
MECH BN	104	5	00:34	14.0/8.7
FA	59	3	00:17	6.9/4.3
ENG	98	4	00:28	11.6/7.2
FSB	150	6	00:45	18.7/11.6
HHC	28	2	00:09	3.6/2.2

<b>ROUTE 1</b>	
Total vehicles	544
Total serials	7
Column pass time (w/MU gap)	3:06 (HR:MIN)
Column length (w/MU gap)	77.4 km (48.0 mi)
<b>ROUTE 2</b>	
Total vehicles	557
Total serials	8
Column pass time (w/MU gap)	3:17 (HR:MIN)
Column length (w/MU gap)	82.1 km (50.9 mi)

March unit interval	5 minutes
Serial interval	5 minutes
Speed	25 kph (16 mph)
Avg vehicle length	7 m (7.6 yds)
Vehicle interval	50 m (54.5 yds)
Vehicles/march unit	max. 25

**Table 4-3. Brigade Combat Team (BCT) on one route, two-minute interval**

**Brigade Combat Team (2 MECH/1 TK) on 1 Route**  
2 minute march unit interval

UNIT	VEH	MARCH UNITS	PASS TIME (HR:MIN)	LENGTH (km/mi)
SCTS	17	1	00:02	0.9/0.6
MECH BN	104	5	00:22	9.0/5.6
TANK BN	106	5	00:22	9.1/5.6
MECH BN	104	5	00:22	9.0/5.6
FA BN	159	7	00:34	14.1/8.7
ENG BN	148	6	00:31	12.7/7.9
FSB	435	18	01:34	39.3/24.4
HHC	28	2	00:06	2.3/1.4

ROUTE 1

Total vehicles	1101
Total serials	13
Column pass time (w/MU gap)	4:13 (HR:MIN)
Column length (w/MU gap)	105.3 km (65.3 mi)

March unit interval	2 minutes
Serial interval	3 minutes
Speed	25 kph (16 mph)
Avg vehicle length	7 m (7.6 yds)
Vehicle interval	50 m (54.5 yds)
Vehicles/march unit	max. 25

**Table 4-4. Brigade Combat Team (BCT) on one route, five- minute interval**

**Brigade Combat Team (2 MECH/1 TK) on 1 Route**  
5 minute march unit interval

UNIT	VEH	MARCH UNITS	PASS TIME (HR:MIN)	LENGTH (km/mi)
SCTS	17	1	00:02	0.9/0.6
MECH BN	104	5	00:34	14.0/8.7
TANK BN	106	5	00:34	14.1/8.7
MECH BN	104	5	00:34	14.0/8.7
FA BN	159	7	00:51	21.2/13.1
ENG BN	148	6	00:45	18.6/11.5
FSB	435	18	02:22	59.3/36.8
HHC	28	2	00:09	3.6/2.2

ROUTE 1

Total vehicles	1101
Total serials	13
Column pass time (w/MU gap)	6:25 (HRS:MIN)
Column length (w/MU gap)	160.3 km (99.4 mi)

March unit interval	5 minutes
Serial interval	5 minutes
Speed	25 kph (16 mph)
Avg vehicle length	7 m (7.6 yds)
Vehicle interval	50 m (54.5 yds)
Vehicles/march unit	max. 25

**4-3. Division**

a. In a division with three ground BCTs, usually two will march abreast with the third trailing. Each will normally use two routes, although there may be times when only one route per BCT is available.

b. To enable proper positioning of combat and combat support units, elements from the division troops as well as division headquarters may march within BCT formations. The

integration of division troops into the march organization of the BCTs is described in paragraphs 4-1 and 4-2.

c. Tables 4-5 through 4-8 describe the space and time required for sample division march columns. As described in paragraph 4-2, these figures offer a “bare bones” depiction of the time and space required to move a division. Although four or five routes are more suitable to moving a division, certain circumstances may require that a division receive only two routes. As the division receives more assets from the Corps, so too will it require additional time and space to move to the enemy.

**Table 4-5 Division on four routes.**

**Division Move on 4 Routes**  
2 minute march unit interval

ROUTE	TOTAL VEHs	MARCH UNITS	SERIALS	PASS TIME (HR:MIN)	LENGTH (km/mi)
1	1003	41	9	03:40	91.7/56.9
2	1149	46	10	04:11	104.4/64.7
3	1067	43	9	03:53	97.0/60.1
4	1065	43	9	03:53	96.9/60.1
	4284				

March unit interval	2 minutes
Serial interval	3 minutes
Speed	25 kph (16 mph)
Avg vehicle length	7 m (7.6 yds)
Vehicle interval	50 m (54.5 yds)
Vehicles/march unit	max. 25
March units/serial	5

**Division Move on 4 Routes**  
5 minute march unit interval

ROUTE	TOTAL VEHs	MARCH UNITS	SERIALS	PASS TIME (HR:MIN)	LENGTH (km/mi)
1	1003	41	9	05:32	138.4/85.8
2	1149	46	10	06:17	156.9/97.3
3	1067	43	9	05:51	146.1/90.6
4	1065	43	9	05:50	146.0/90.5
	4284				

March unit interval	5 minutes
Serial interval	5 minutes
Speed	25 kph (16 mph)
Avg vehicle length	7 m (7.6 yds)
Vehicle interval	50 m (54.5 yds)
Vehicles/march unit	max. 25
March units/serial	5

Table 4-6. Division (+) on four routes

**Division (+) Move on 4 Routes**  
2 minute march unit interval

ROUTE	TOTAL VEHs	MARCH UNITS	SERIALS	PASS TIME (HR:MIN)	LENGTH (km/mi)		
1	2218	89	18	08:06	202.4/125.5	Field Artillery Brigade	808 veh
2	2251	91	19	08:15	206.2/127.8	Engineer Group	1200 veh
3	2313	93	19	08:27	211.3/131.0	Additional BCT	1101 veh
4	2208	89	18	08:04	201.8/125.1	CSG (-)	300 veh
	8990					March unit interval	2 minutes
						Serial interval	3 minutes
						Speed	25 kph (16 mph)
						Avg vehicle length	7 m (7.6 yds)
						Vehicle interval	50 m (54.5 yds)
						Vehicles/march unit	max. 25
						March units/serial	5

**Division (+) Move on 4 Routes**  
5 minute march unit interval

ROUTE	TOTAL VEHs	MARCH UNITS	SERIALS	PASS TIME (HR:MIN)	LENGTH (km/mi)		
1	2218	89	18	12:13	305.3/189.3	Field Artillery Brigade	808 veh
2	2251	91	19	12:27	311.2/192.9	Engineer Group	1200 veh
3	2313	93	19	12:45	318.8/197.7	Additional BCT	1101 veh
4	2208	89	18	12:11	304.7/188.9	CSG (-)	300 veh
	8990					March unit interval	2 minutes
						Serial interval	5 minutes
						Speed	25 kph (16 mph)
						Avg vehicle length	7 m (7.6 yds)
						Vehicle interval	50 m (54.5 yds)
						Vehicles/march unit	max. 25
						March units/serial	5

Table 4-7. Division on two routes

**Division Move on 2 Routes**

2 minute march unit interval

ROUTE	TOTAL VEHs	MARCH UNITS	SERIALS	PASS TIME (HR:MIN)	LENGTH (km/mi)		
1	2070	83	17	07:33	188.8/117.1	March unit interval	2 minutes
2	2214	89	18	08:05	202.1/125.3	Serial interval	3 minutes
	4284					Speed	25 kph (16 mph)
						Avg vehicle length	7 m (7.6 yds)
						Vehicle interval	50 m (54.5 yds)
						Vehicles/march unit	max. 25
						March units/serial	5

**Division Move on 2 Routes**

5 minute march unit interval

ROUTE	TOTAL VEHs	MARCH UNITS	SERIALS	PASS TIME (HR:MIN)	LENGTH (km/mi)		
1	2070	83	17	11:23	284.6/176.5	March unit interval	5 minutes
2	2214	89	18	12:12	305.0/189.1	Serial interval	5 minutes
	4284					Speed	25 kph (16 mph)
						Avg vehicle length	7 m (7.6 yds)
						Vehicle interval	50 m (54.5 yds)
						Vehicles/march unit	max. 25
						March units/serial	5

**Table 4-8 . Division (+) on two routes.**

**Division (+) Move on 2 Routes**  
2 minute march unit interval

ROUTE	TOTAL VEHs	MARCH UNITS	SERIALS	PASS TIME (HR:MIN)	LENGTH (km/mi)
1	4531	182	37	16:36	415.0/257.3
2	4459	179	36	16:20	408.3/253.1
	8990				

Field Artillery Brigade	808 veh
Engineer Group	1200 veh
Additional BCT	1101 veh
CSG (-)	300 veh
March unit interval	2 minutes
Serial interval	3 minutes
Speed	25 kph (16 mph)
Avg vehicle length	7 m (7.6 yds)
Vehicle interval	50 m (54.5 yds)
Vehicles/march unit	max. 25
March units/serial	5

**Division (+) Move on 2 Routes**  
5 minute march unit interval

ROUTE	TOTAL VEHs	MARCH UNITS	SERIALS	PASS TIME (HR:MIN)	LENGTH (km/mi)
1	4531	182	37	25:03	626.2/388.2
2	4459	179	36	24:39	616.2/382.0
	8990				

Field Artillery Brigade	808 veh
Engineer Group	1200 veh
Additional BCT	1101 veh
CSG (-)	300 veh
March unit interval	2 minutes
Serial interval	5 minutes
Speed	25 kph (16 mph)
Avg vehicle length	7 m (7.6 yds)
Vehicle interval	50 m (54.5 yds)
Vehicles/march unit	max. 25
March units/serial	5

**Chapter 5**

**Ground Maneuver and Combat Support/Combat Service Support (CSS) Integration**

**5-1. General**

a. Integrating combat support and CSS units into march columns is an essential element of a division's movement planning. Rarely will a ground BCT or a cavalry squadron march with only its assigned or attached forces. Maneuver commanders should control the movement of their habitually assigned direct support (DS) units from within the division: artillery, engineer, air defense, signal, intelligence, chemical, MP, and CSS.

b. During the move, maneuver commanders should also control the movement of divisional and non-divisional units that march within their BCT or squadron serials. Large organizations that may march within a BCT serial typically will include Corps artillery, engineers, and air defense units.

c. The following sections discuss planning considerations for the placement of combat, combat support, and CSS assets in the march columns and along the routes. Although Corps units and assets will most likely not move as distinct serials, the accompanying figures serve as baseline templates to simplify movement planning by describing the number of vehicles associated with the appropriate unit size and their requisite time and space requirements. As always, METT-TC considerations may direct modifications to these planning figures.

## 5-2. Field artillery (FA)

a. When the Main CP commands and controls Corps movements, there should be sufficient indirect fire assets placed in general support (GS) to the Corps to enable responsive fires. If there are no indirect fire assets available from the tactical combat force (TCF), then additional Corps Artillery assets should be GS for fires. The Corps Rear CP assistant fire support coordinator (AFSCOORD) is located in the Corps Main CP to assist the Deputy Commanding General (US) in the planning, preparation, and execution of fires in support of Corps movement.

b. III Corps Artillery assets will march both as separate march units and serials and as part of the divisional march columns. Divisions should plan the movements of those field artillery brigades that are reinforcing their divisional artillery; ACRs and separate maneuver brigades/BCTs plan movement of field artillery brigades placed DS to them. During Corps movements, general support and general support, reinforcing, brigades will usually receive their own block times on the Corps-controlled routes.

c. In most instances, divisional DS artillery battalions will march with and support their habitual BCTs. The division's MLRS battalion may also move as a part of a BCT to provide long range fires forward in support of the division commander's scheme of maneuver.

d. III Corps Artillery conducts IPB of the AO in which Corps-controlled movement takes place to determine the assets required. Urban and wooded terrain should be covered by mortars and howitzers rather than MLRS; the presence of enemy mortars will require counterfire radar coverage. The Rear CP AFSCOORD advises the TCF commander and Deputy Commanding General (US) on positioning of all fire support assets in the Corps' AO to ensure coverage is well integrated. Positioning of the Corps artillery assets should be directed by the III Corps Artillery G3. The TCF commander, advised by the TCF fire support officer (if assigned) or the Corps Rear CP AFSCOORD, positions TCF fire support assets.

e. Communications are critical to the success of fires. The Corps staff must plan the physical communications architecture throughout the entire Corps AO, taking into account the limited communications assets of CSS convoys and other elements operating in the Corps AO. This plan may require the use of TCPs and other existing command and control nodes to relay calls for fire. It is imperative that all convoy commanders understand the procedures for requesting fires in Corps-controlled battlespace.

f. The Corps Rear CP AFSCOORD, located at the Corps Main CP during Corps movements, is responsible for coordinating to clear fires in the AO controlled by the Corps Main CP. As described above, all convoy commanders must know how to request fires through the AFSCOORD who, in turn, coordinates with units operating near the requested target location to ensure that the target area is clear of friendly units.

g. After the activation of divisional battlespace, and the requirement for GS fires in the Corps-controlled area no longer exists, those indirect fire assets should revert to the TCF or be used for other missions. If these units have on order missions to reinforce divisional artillery, then the positioning of these units and the timing for their mission changes should be carefully planned to minimize the impact on the divisional march columns.

Figure 5-1. Fires clearance responsibilities during Corps movements

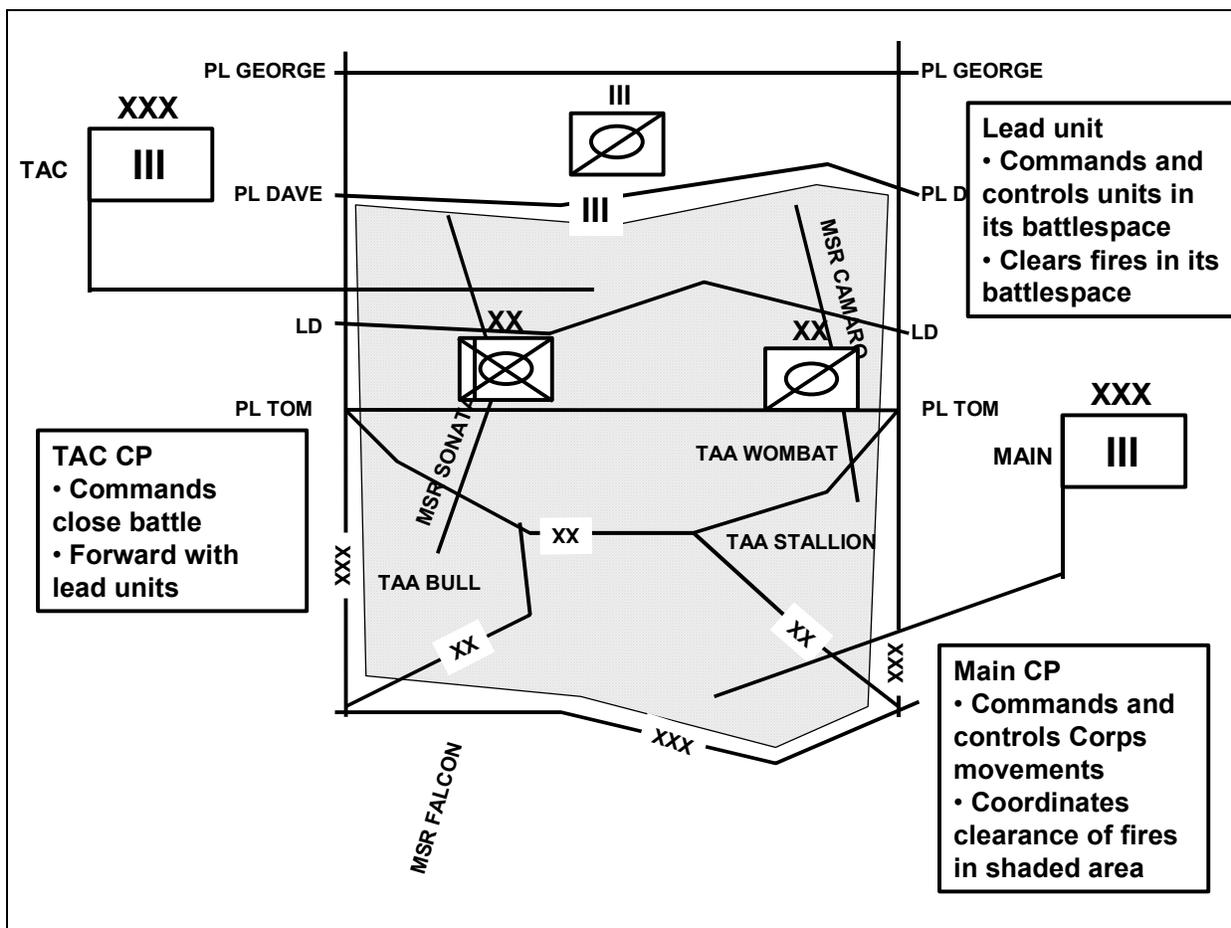


Table 5-1. Field artillery (FA) vehicle and march data

FA UNITS	WHEELED	TRACKED	TOTAL	2 MIN MU INTERVAL		5 MIN MU INTERVAL	
				PASS TIME (HR:MIN)	COLUMN (km/mi)	PASS TIME (HR:MIN)	COLUMN (km/mi)
HHB DIVARTY	43	1	44	00:08	3.2/2.0	00:11	4.4/2.7
FA BN (M)	100	59	159	00:34	14.1/8.7	00:51	21.2/13.1
MLRS BN	121	28	149	00:31	12.8/7.9	00:45	18.6/11.5
TAB BTRY	32		32	00:06	2.6/1.6	00:09	3.8/2.4
CORPS FA BDE							
FA BDE HQ	34		34	00:06	2.7/1.7	00:09	3.9/2.4
ARTY BN (M)	97	64	161	00:34	14.2/8.8	00:51	21.3/13.2
MLRS BN	110	45	155	00:33	13.9/8.6	00:48	20.2/12.5
ARTY BN (T)	131		131	00:28	11.7/7.3	00:42	17.6/10.9
TA DET	22		22	00:03	1.2/0.7	00:03	1.2/0.7
FA BDE FLE	148		148	00:31	12.7/7.9	00:45	18.6/11.5

5-3. Engineer

a. Combat engineer units normally march with the units they support. Other engineer units supporting the division (either under division control, 420th Engineer Brigade [420ENG BDE] control, or as force protection for other supporting assets) will be interspersed throughout the march columns. Depending upon the tactical situation, bridging assets may move with the BCTs to speed their employment or farther back in the columns to reduce combat losses.

b. Maintenance of routes during movement, particularly at the Corps level, is critical to success. Engineer assets must be available to maintain those movement routes to ensure that vehicle flow does not decrease as the total number of vehicles that have passed along a route increases. In some instances, echelons above corps (EAC) may provide the assets to maintain the routes. In others, 420ENG BDE may either maintain the routes, or it may provide assets to the divisions and task them to maintain the routes that they use. When 420ENG BDE maintains the routes, Corps must ensure that sufficient protection is available for those assets, whether by co-locating the engineers with MP-manned TCPs or providing assets OPCON to the brigade to protect its assets.

**Table 5-2. Engineer vehicle and march data**

ENG UNITS	WHEELED	TRACKED	TOTAL	2 MIN MU INTERVAL		5 MIN MU INTERVAL	
				PASS TIME (HR:MIN)	COLUMN (km/mi)	PASS TIME (HR:MIN)	COLUMN (km/mi)
ENG BN (M)	66	78	144	00:30	12.5/7.8	00:44	18.3/11.3
ENG BDE HHC	28		28	00:06	2.3/1.4	00:09	3.6/2.2
CORPS ENG GP							
ENG GP CP	27		27	00:06	2.3/1.4	00:08	3.5/2.2
ENG BN (H)	198		198	00:41	17.1/10.6	01:01	25.5/15.8
ENG BN (M)	93	90	183	00:39	16.3/10.1	00:59	24.6/15.3
ENG BN (W)	199		199	00:41	17.2/10.6	01:01	25.5/15.8
MRBC	76		76	00:16	6.6/4.1	00:25	10.4/6.4
CSE	106		106	00:22	9.1/5.6	00:34	14.1/8.7
ENG CO (CSC)	52		52	00:11	4.5/2.8	00:17	7.0/4.3
ENG CO (DT)	38		38	00:07	2.9/1.8	00:10	4.1/2.5
ENG DET (UTIL)	10		10	00:01	0.5/0.3	00:01	0.5/0.3
ENG TM (FF)	3		3	00:01	0.1/0.1	00:01	0.1/0.1

5-4. Aviation

a. If properly employed, aviation assets can significantly impact the security of march columns during Corps movement. While divisions will most likely be using their attack assets to shape their battlespace, there may be circumstances in which the Corps can make use of divisional assets to protect moving forces in the Corps' battlespace. Reconnaissance aviation assets can be used to reconnoiter routes, bridges, and tunnels, and suspected SPF/CDO locations. In most situations, the Corps TCF will possess attack aviation assets, and those assets, under the command of the Main CP during Corps movements, can be employed in a route security role. Depending upon the threat from SPF and CDO forces, the Corps air reserve may also be used to destroy enemy forces in Corps battlespace during a Corps movement.

b. Use of aviation assets (attack, scout, or lift) should not be restricted to only focusing on the terrain and enemy. In many instances, friendly units may become disoriented or entangled. Timely reporting of friendly units' progress (or lack thereof) from sources other than the units themselves will serve to maintain an accurate COP within the CPs.

**Table 5-3. Aviation vehicle and march data**

AVN UNITS	WHEELED	TRACKED	TOTAL	2 MIN MU INTERVAL		5 MIN MU INTERVAL	
				PASS TIME (HR:MIN)	COLUMN (km/mi)	PASS TIME (HR:MIN)	COLUMN (km/mi)
6CAV BDE	30		30	00:06	2.4/1.5	00:09	3.7/2.3
HHC/385ATK GP	30		30	00:06	2.4/1.5	00:09	3.7/2.3
ATK BN (x3)	61		183	00:39	16.3/10.1	00:59	24.6/15.3
63AVN GP	22		22	00:03	1.2/0.7	00:03	1.2/0.7
ASSLT BN	60		60	00:12	4.9/3.0	00:18	7.4/4.6
CSAB	61		61	00:12	4.9/3.0	00:18	7.5/4.7
CAB	56		56	00:11	4.7/2.9	00:17	7.2/4.5
HHB	192		192	00:40	16.8/10.4	01:00	25.1/15.6
ATS BN	37		37	00:07	2.8/1.7	00:10	4.1/2.5
LTF VIPER	300		300	01:04	26.5/16.4	01:35	39.4/24.4

**5-5. Combat service support (CSS)**

a. As described in paragraph 3-6, extended movements require sufficient CSS assets forward to sustain the march rate. Depending upon the distances and the subsequent tactical mission, 13COSCOM may increase the number of CSG vehicles moving with the divisions. In that case, DTOs must plan for the additional time and space requirements in order to request sufficient march credits.

b. 13COSCOM units will not move all their vehicles at one time, but the column lengths and pass times listed below offer a perspective on the scope of 13COSCOM movements. In most cases, 13COSCOM will use the same vehicles in several lifts to bring forward the required logistics. Consequently, planners must ensure the availability of return routes for those vehicles to prevent congestion on routes moving forward from the Corps rear area.

c. Corps and division planners must account for the forward positioning of Class III(B) and V to sustain the tempo of operations. In some instances, such as conducting a penetration, priority of supply will be to Class V; in others, such as conducting an exploitation, Class III(B), and not Class V, will be the priority. These vehicle numbers will be over and above the normal quantity of logistics vehicles that accompany BCTs forward.

d. As discussed in paragraph 3-6, movement plans must address recovery plans and maintenance collection points. Besides accounting for logistics, units must also provide space and time on routes to bring forward maintenance returns either from the TAA or other collection points. Maintenance return vehicles may move forward by themselves with their crews and commit directly into combat; others may come forward on heavy equipment transports (HETs), thus requiring additional space to link up with crews, download, marshal, and move forward.

**Table 5-4. Combat service support vehicle and march data**

CSS UNITS	WHEELED	TRACKED	TOTAL	2 MIN MU INTERVAL		5 MIN MU INTERVAL	
				PASS TIME (HR:MIN)	COLUMN (km/mi)	PASS TIME (HR:MIN)	COLUMN (km/mi)
DISCOM CP	51		51	00:11	4.4/2.7	00:17	6.9/4.3
FSB	386	49	435	01:34	39.3/24.4	02:22	59.3/36.8
AVIATION SPT BN	162	2	164	00:35	14.4/8.9	00:52	21.5/13.3
DIVISION SPT BN	324		324	01:09	28.6/17.7	01:43	42.8/26.5
13(US)COSCOM CP	223		223	00:46	19.3/12.0	01:09	28.9/17.9
CSG(FWD)	1262		1262	04:36	115.2/71.4	06:56	173.5/107.6
507CSG (REAR)	3139		3139	11:29	287.2/178.1	17:19	433.0/268.5
MED BDE	458		458	01:34	39.1/24.2	02:22	59.2/36.7

**5-6. Cavalry.**

a. In most instances, 3ACR will move under Corps control short of the LD. Once the operation begins and the Corps moves out of its TAA, 3ACR will move and/or maneuver in its own battlespace, forward of the Corps' divisions and separate brigades. If 3ACR is placed OPCON or attached to a division, it becomes that division's responsibility to plan for and request march credits for 3ACR's movement.

b. Division cavalry will normally lead a division's movement. If a division ASE is formed, the division cavalry may provide protection for critical assets such as ROM sites. In addition, the division cavalry squadron may control the movement of the division and brigade CPs. Consequently, quartering parties from those CPs may move with the division cavalry, and the respective movement tables should reflect these additional vehicles.

**Table 5-5. Cavalry vehicle and march data**

CAVALRY UNITS	WHEELED	TRACKED	TOTAL	2 MIN MU INTERVAL		5 MIN MU INTERVAL	
				PASS TIME (HR:MIN)	COLUMN (km/mi)	PASS TIME (HR:MIN)	COLUMN (km/mi)
DIV CAV	104	91	195	00:41	17.0/10.5	01:01	25.3/15.7
ACR CP	53	10	63	00:12	5.1/3.2	00:18	7.6/4.7
ACR SQDN	188	160	348	01:19	33.0/20.5	01:51	46.2/28.6
REGT AIR SQDN	149		149	00:31	12.8/7.9	00:53	22.1/13.7
RSS	398	44	442	01:35	39.7/24.6	02:23	59.7/37.0
LTF BRAVE RIFLES	193		193	00:40	16.8/10.4	00:57	23.9/14.8

**5-7. Signal**

a. The Corps' ability to communicate during movement is critical to success. Signal planners must be an integral part of the planning process, as forward placement of signal assets may mean the difference between maintaining and losing control of the Corps' movements. While signal considerations are not the only factors in route selection, planners must balance them equally with other battlefield operating systems (BOS) considerations. As with other ASE assets, the Corps must provide security for these assets to ensure their survivability.

b. As combat formations move forward, signal units normally move as small elements integrated into Corps or division/BCT march formations to enable forward extension of the communications network. If nodes must be "leap-frogged" during movement, planners should consider air movement or dedicated routes for key nodes.

**Table 5-6 Signal vehicle and march data**

SIGNAL UNITS	WHEELED	TRACKED	TOTAL	2 MIN MU INTERVAL		5 MIN MU INTERVAL	
				PASS TIME (HR:MIN)	COLUMN (km/mi)	PASS TIME (HR:MIN)	COLUMN (km/mi)
SIG BN (MSE)	360		360	01: 17	32. 3/20.0	01: 57	48. 9/30.3
SIG BDE HHC	51		51	00: 11	4.4/2. 7	00: 17	6.9/4. 3
SIG BN	312		312	01: 07	28. 0/17.4	01: 41	42. 1/26.1
SIG CO	65		65	00: 13	5.2/3. 2	00: 19	7.7/4. 8

**5-8. Air Defense Artillery (ADA)**

a. During Corps movements, air defense assets, both SHORAD and HIMAD, will be positioned throughout the depth of the Corps battlespace. Planners must determine those critical locations, the loss of which would unhinge the Corps’ movement plan (bridge, tunnel, causeway, etc.), and dedicate air defense assets to their protection. 31ADA BDE will provide assets to the divisions in a manner which best supports Corps movement and the subsequent scheme of maneuver. In most cases, SHORAD assets will move as subordinates to the divisions; HIMAD assets may move either as separate units or be placed TACON for movement to the divisions. In order to provide ABT/TBM protection deep, planners should consider moving minimum engagement packages (MEPs) early in the march order to enable their positioning and emplacement. If pushed forward early, MEPs will require dedicated force protection assets (chemical, engineer, and MP) to ensure their survival.

**Table 5-7. Air Defense Artillery (ADA) vehicle and march data**

ADA UNITS	WHEELED	TRACKED	TOTAL	2 MIN MU INTERVAL		5 MIN MU INTERVAL	
				PASS TIME (HR:MIN)	COLUMN (km/mi)	PASS TIME (HR:MIN)	COLUMN (km/mi)
BSFV/S BTRY	33	14	47	00:08	3.4/2.1	00:11	4.7/2.9
BSFV PLT (x2)	1	6	14	00:02	0.7/0.4	00:02	0.7/0.4
STINGER PLT	16		16	00:02	0.9/0.6	00:02	0.9/0.6
COCP	15	2	17	00:02	0.9/0.6	00:02	0.9/0.6
AVENGER BTRY	64		64	00:12	5.2/3.2	00:18	7.7/4.8
BN CP/HHB	33	2	35	00:07	2.7/1.8	00:10	4.0/2.4
PATRIOT BTRY	35		35	00:07	2.7/1.8	00:10	4.0/2.4
MIN ENG PACKAGE	7		7	00:01	0.3/0.2	00:01	0.3/0.2

**5-9. Military Intelligence.**

a. Intelligence gathering assets, if properly employed, can contribute immensely to the delivering of divisional combat power at the decisive place and time with a minimum of disruption. Planners must make maximum use of UAVs as collection platforms to verify not only suspected enemy locations but also the status of routes, bridges, and tunnels. While divisions move under Corps control, the Corps should task the division UAVs to collect in support of the Corps movement. Although most movements will occur too shallow to make use of special operating forces (SOF) or long range surveillance (LRS) teams, planners must not overlook their potential contributions if they are positioned in a way to observe the routes.

**Table 5-8. Military intelligence vehicle and march data**

MI UNITS	WHEELED	TRACKED	TOTAL	2 MIN MU INTERVAL		5 MIN MU INTERVAL	
				PASS TIME (HR:MIN)	COLUMN (km/mi)	PASS TIME (HR:MIN)	COLUMN (km/mi)
MI BN	138	25	163	00:34	14.4/8.9	00:51	21.4/13.3

**5-10. Military Police (MP)**

a. As described in paragraph 2-2, 89 MP BDE will enforce the Corps order of march and movement priorities. Although 89MP BDE’s focus is traffic circulation control operations, the brigade is also prepared to conduct area security operations and provide protection for BOS and/or ASE assets positioned to support the Corps movement.

**Table 5-9. Military Police (MP) vehicle and march data**

MP UNITS	WHEELED	TRACKED	TOTAL	2 MIN MU INTERVAL		5 MIN MU INTERVAL	
				PASS TIME (HR:MIN)	COLUMN (km/mi)	PASS TIME (HR:MIN)	COLUMN (km/mi)
DIVISIONAL MP CO			47	00:08	3.4/2.1	00:11	4.7/2.9
CO CP	6		6	00:01	0.3/0.2	00:01	0.3/0.2
DS PLT (x3)	7		21	00:03	1.1/0.7	00:03	1.1/0.7
GS PLT (x2)	10		20	00:03	1.1/0.7	00:03	1.1/0.7
MP BDE HHC	22		22	00:03	1.2/0.7	00:03	1.2/0.7
MP BN HHD	18		18	00:02	1.0/0.6	00:02	1.0/0.6
CORPS MP CO			52	00:11	4.5/2.8	00:17	7.0/4.3
CO CP	12		12	00:02	0.6/0.4	00:02	0.6/0.4
CS PLT (x4)	10		40	00:07	3.0/1.8	00:10	4.3/2.7

5-11. Chemical

a. Depending upon the threat, 460th Chemical Brigade (460CML BDE) may position assets forward along Corps routes to provide additional reconnaissance, decontamination, and smoke capabilities. While these assets may be operating in the vicinity of the divisions, the chemical assets will remain under Corps control. If possible, chemical assets should be co-located with TCPs manned by MPs for additional security.

**Table 5-10. Chemical vehicle and march data**

CHEMICAL UNITS	WHEELED	TRACKED	TOTAL	2 MIN MU INTERVAL		5 MIN MU INTERVAL	
				PASS TIME (HR:MIN)	COLUMN (km/mi)	PASS TIME (HR:MIN)	COLUMN (km/mi)
CHEM BN							
HHD	14		14	00:02	0.7/0.4	00:02	0.7/0.4
MECH SMK CO	12	22	34	00:06	2.7/1.7	00:09	3.9/2.4
DUAL PURPOSE CO	30	30	60	00:12	4.9/3.0	00:18	7.4/4.6
BIDS CO	89		89	00:18	7.4/4.6	00:27	11.1/6.9
RECON CO	46		46	00:08	3.4/2.1	00:11	4.6/2.9
CHEM BDE HHD	12		12	00:02	0.6/0.4	00:02	0.6/0.4

**Chapter 6  
March Terminology**

**6-1. General.**

a. **Administrative:** Movement in which troops and vehicles are arranged to expedite their movement and conserve time and energy when no enemy interference, except by air, is anticipated.

b. **Alternate supply route (ASR):** A route or routes designated within an area of operations to provide for the movement of traffic when main supply routes (MSRs) become disabled or congested.

c. **Lines of communication (LOCs):** All the routes, land, water, and air, which connect an operating military force with a base of operations and along which supplies and military forces move.

d. **Main supply route (MSR):** The route or routes designated within an area of operations upon which the bulk of traffic flows in support of military operations.

e. **Non-tactical:** Movement in the communications zone (COMMZ) to reposition laterally or to facilitate future operations.

f. **Route:** The prescribed course to be traveled from a specific point of origin to a specific destination.

g. **Tactical:** Relocation within the combat zone in the corps or division rear areas before hostilities begin or when a forward defense has been established. Units move by tactical road march to rear tactical assembly areas where they prepare to conduct combat operations. Speed is essential, but security requirements are greater than required for a non-tactical movement, even though contact with the enemy is not expected. During tactical road marches, the commander is always prepared to maneuver.

## 6-2. Convoy composition

a. **March column:** All vehicles in a convoy marching on the same route for a single movement under the control of a single commander. Large columns may be composed of subdivisions under the control of subordinate commanders.

b. **Serial:** A major sub-division of a march column, organized under one commander for planning, regulating, and control.

c. **March unit:** A subdivision of a serial, normally company-, platoon-, or squad-sized. A march unit moves and halts under the control of a single commander using voice and visual signals.

d. **Vehicle interval:** The distance between two consecutive vehicles of an organized element of a column.

e. **March unit interval:** The space between two consecutive march units. It can be calculated in terms of distance (road gap) or time (time gap). Since it is more significant when vehicles are moving, interval is normally measured in terms of time.

f. **Serial interval:** The space between two consecutive serials. It can be calculated in terms of distance (road gap) or time (time gap). Since it is more significant when vehicles are moving, interval is normally measured in terms of time.

g. **Infiltration:** Vehicles move individually or in small groups at irregular intervals to reduce traffic density and prevent undue massing of vehicles. Infiltration is best suited when sufficient time and road space are available and maximum security, deception, and dispersion are desired.

## 6-3. Convoy control

a. **Strip map:** A sketch of the route of march which is normally included as an annex to the movement order. As a minimum, it contains start and release points; check points; route designations, if applicable; and distances between checkpoints.

- b. **Start point (SP):** Designated location on the route where the marching elements fall under control of the designated commander. All routes must have designated SPs which are the basis for developing the march timeline. SPs must be easily recognizable on the map and on the ground (for example, a road intersection) and must be far enough from assembly areas to allow units to be organized and moving at the prescribed speed and interval when the SP is reached.
- c. **Check point (CP):** Designated points along the route which are the basis for the creation of march tables and maintaining the prescribed rate of march. CPs are normally designated every 20 to 25 kilometers and numbered sequentially from the SP. CPs must be easily recognizable on the map and on the ground in order to provide a reference for march unit commanders to judge their adherence to the march tables.
- d. **Traffic control post (TCP):** Manned positions along the route where assistance from a ground guide is necessary to prevent congestion or confusion. TCPs may be manned by military police or unit ground guides. Instructions from ground guides take priority over times specified in march tables.
- e. **Release point (RP):** Designated location along the route where units revert to the control of their parent organizations. RPs must be easily recognizable on the map and on the ground. March elements do not stop at the RP but are met by unit guides and led to assembly areas.
- f. **First destination release point (FDRP):** Divisions establish FDRPs at the division rear boundary along MSRs. Convoys halt at the FDRPs, and before they proceed, the DISCOM support operations officer or his representative verifies their destinations.
- g. **Speed:** The travel rate of a vehicle at a given moment as measured on the speedometer (in kilometers or miles per hour).
- h. **Pace rate:** The regulated speed, by the lead vehicle or individual in the lead element, of a column set to maintain the prescribed average speed.
- i. **Rate of march:** The average number of kilometers or miles traveled in a given period, including rest or fuel stops. It is expressed as kilometers or miles in an hour (kmih or mih).
- j. **Arrival time:** The moment when the lead vehicle of the column reaches a designated point on the route.
- k. **Clearance time:** The moment when the tail of a column passes a designated point on the route.
- l. **March time or time distance:** The length of the route expressed in terms of time. It is the time required for the lead vehicle to travel from the SP to the RP at the prescribed rate of march.
- m. **Column length or road space:** The length of the column expressed in kilometers or miles. It is measured from the first to last vehicle, including all march units and serial gaps.

n. **Pass time:** The length of a column expressed in terms of time. It is the time between the moment the first vehicle of a column and last vehicle of a column pass a specific point.

o. **Road clearance or block time:** The total time a column requires to travel over and clear a section of road. Road clearance time equals the time distance of the route plus the column pass time.

p. **Road movement table:** An annex to the movement order which provides a convenient method to identify the time schedule of the march. In a tabular or matrix format, march tables include march parameters, a listing of the march units or serials, and critical times for marching elements to arrive at and clear the SP, CPs, and the RP.

q. **Holding area:** An area designated along a route that a headquarters can place march units or serials to allow the bypass of subsequent march units or serials. They should be easily identifiable and large enough to hold a battalion/task force-sized element.

r. **March credit:** A planning quantity designated by the headquarters controlling the movement along routes. Subordinate units use march credits to submit transportation requests for the use of that echelon's controlled routes.

## Chapter 7 March Tables

**General.** As described in paragraph 3-2, the Corps OPLAN or OPORD will direct order of march and movement priorities. It will also describe those routes used by the subordinate commands. Once divisions develop their movement tables, they not only publish them to their own subordinates, but they also provide them to Corps as well. These tables take the form of an Excel workbook, with each worksheet describing the respective march columns. The Main CP (or the CP commanding and controlling the move) uses these movement tables to track the movements of the divisions.

Figure 7-1. Division march table

UNIT	MARCH COLUMN	SERIAL	RTE	VEHs	DISTANCE (in km)	RATE OF MARCH (in kph)	SP (DTG)	PASS TIME (HR:MIN)	MARCH TIME (HR:MIN)	RP (DTG)	CUMULATIVE TIME (HR:MIN)
1-5 CAV	1	1	FALCON	250	120	10	250100	13:45	21:25	252225	35:05

sample

- a. Unit. This column describes the designation of the unit for the specified serial.
- b. March Column. Self-explanatory.
- c. Serial. Self-explanatory.
- d. Rte. This column describes the route upon which the serial will move.
- e. Vehs. This column describes the total number of vehicles in the specified serial.
- f. Distance. This column describes the total distance traveled between the SP and RP along the route.
- g. Rate of March. This column designates the directed rate of march for that serial.
- h. SP. This column designated the date/time group of when that serial’s first vehicle passes the SP.
- i. Pass Time. This column describes the pass time of that serial at the SP.
- j. Time of travel. This column describes the time required for the lead vehicle to travel from the SP to the RP.
- k. RP. This column designates the date/time group of when that serial’s lead vehicle passes the RP.
- l. Cumulative Time. This column describes the cumulative time that the march column or unit requires to pass along and off the route.

**Appendix A  
References**

**Section I  
Required references**

**Fort Hood Regulation 525-20**  
Phantom Landing

**Fort Hood Regulation 525-30**  
Phantom Fury

**FM 3-19.1**  
Military Police Operations, CH 1

**FM 55-1**  
Transportation Operations

**FM 55-10**  
Movement Control

**FM 55-15**  
Transportation Reference Data

**FM 55-30**  
Army Motor Transport Units and Operations, CH 1

**FM 71-100**  
Division Operations

**FM 71-100-2**  
Infantry Division Operations, Tactics, Techniques, and Procedures

**FM 71-123**  
Tactics and Techniques for Combined Heavy Forces: Armored Brigade, Battalion/Task Force, and Company/Team

**FM 100-15**  
Corps Operations

**FM 100-10-1**  
Theater Distribution

**FM 100-17-3**  
Reception, Staging, Onward Movement, and Integration

**Section II**

**Related References**

This section not used

**Section III**

**Referenced Forms**

This section not used

## Glossary

### Section I. Abbreviations

**ABT**

air breathing threat

**ADE**

Air Defense Element

**AF**

Air Force

**AFSCOORD**

assistant fire support coordination

**AMD**

air and missile defense

**AMFT**

Automated Movement Flow Tracking

**AO**

area of operation

**ASE**

advanced support element

**ASR**

alternate supply route

**BCT**

brigade combat team

**BN**

battalion

**BOS**

battlefield operating system

**BTRY**

battery

**CDO**

commando forces

**COMMZ**

communications zone

**COP**

common operating procedure

**CofS**

chief of staff

**CPT**

Corps plans team

**CSA**

corps staging area

**CSG**

corps support group

**CSS**

combat service support

**CTO**

corps transportation officer

**DISCOM**

Division Support Command

**DMC**

distribution management center

**DTO**

division transportation officer

**EAC**

echelons above corps

**ENG**

engineer

**EWL**

engineer work line

**FA**

field artillery

**FDRP**

first destination release point

**FLOT**

forward line of troops

**FM**

field manual

**FRAGO**

fragmentary order

**FSB**

forward support battalion

**FSE**

fire support element

**GCC**

Ground Component Command

**GDSS**

Global Decision Support System

**GS**

general support

**HET**

heavy equipment transport

**HHC**

headquarters and headquarters company

**HIMAD**

high and medium altitude air defense

**HRS**

hours

**HVA**

high value assets

**IPB**

intelligence preparation of the battlefield

**km**

kilometer

**LD**

line of departure

**LNO**

liaison officer

**LOC**

line of communication

**LRS**

long range surveillance

**MCT**

movement control team

**m**

meter

**max**

maximum

**MECH**

mechanized

**MEP**

minimum engagement package

**min**

minutes

**METT-TC**

mission, enemy, terrain, troops, time available, and civilians

**MOBCON**

Mobility Control Program

**MP**

military police

**MSC**

major subordinate command

**MSE**

mobile subscriber equipment

**MSR**

main supply route

**MTS**

Movement Tracking System

**NBC**

nuclear, biological, and chemical

**NCC**

Naval Component Command

**OPCON**

operational control

**OPLAN**

operations plan

**OPLOG**

Operation Logistics

**OPORD**

operations order

**PL**

phase line

**PLT**

platoon

**PM**

provost marshal

**POD**

port of debarkation

**RAOC**

rear area operations center

**ROM**

refuel on the move

**RP**

release point

**SCTS**

scouts

**SHORAD**

short range air defense

**SIG BN**

signal battalion

**SIG BDE**

signal brigade

**SIG CO**

signal company

**SOF**

special operating forces

**SP**

start point

**SPF**

special purpose forces

**SPOD**

sea port of debarkation

**TAA**

tactical assembly area

**TAC CP**

tactical command post

**TACON**

tactical control

**TALO**

theater airlift officer

**TBM**

tactical ballistic missile

**TCF**

tactical combat force

**TCP**

traffic control post

**TF**

task force

**TK**

tank

**TROKA**

Third Republic of Korea Army

**UAV**

unmanned aerial vehicle

**US**

United States

**USA**

United States of America

**USAF**

United States Air Force

**veh**

vehicle

**3ACR**

3d Armored Cavalry Regiment

**3ID**

3rd Infantry Division

**13COSCOM**

13th Corps Support Command

**49MCB**

49th Movement Control Battalion

**420ENG BDE**

420th Engineer Brigade

**460CML BDE**

460th Chemical Brigade

**507CSG**

507th Corps Support Group

**Section II. Terms**

**Administrative:** Movement in which troops and vehicles are arranged to expedite their movement and conserve time and energy when no enemy interference, except by air, is anticipated.

**Alternate supply route (ASR):** A route or routes designated within an area of operations to provide for the movement of traffic when main supply routes (MSRs) become disabled or congested.

**Arrival time:** The moment when the lead vehicle of the column reaches a designated point on the route.

**Check point (CP):** Designated points along the route which are the basis for the creation of march tables and maintaining the prescribed rate of march. CPs are normally designated every 20 to 25 kilometers and numbered sequentially from the SP. CPs must be easily recognizable

on the map and on the ground in order to provide a reference for march unit commanders to judge their adherence to the march tables.

**Clearance time:** The moment when the tail of a column passes a designated point on the route.

**Column length or road space:** The length of the column expressed in kilometers or miles. It is measured from the first to last vehicle, including all march units and serial gaps.

**First destination release point (FDRP):** Divisions establish FDRPs at the division rear boundary along MSRs. Convoys halt at the FDRPs, and before they proceed, the DISCOM support operations officer or his representative verifies their destinations.

**Holding area:** An area designated along a route that a headquarters can place march units or serials to allow the bypass of subsequent march units or serials. They should be easily identifiable and large enough to hold a battalion/task force-sized element.

**Infiltration:** Vehicles move individually or in small groups at irregular intervals to reduce traffic density and prevent undue massing of vehicles. Infiltration is best suited when sufficient time and road space are available and maximum security, deception, and dispersion are desired.

**Lines of communication (LOCs):** All the routes, land, water, and air, which connect an operating military force with a base of operations and along which supplies and military forces move.

**Main supply route (MSR):** The route or routes designated within an area of operations upon which the bulk of traffic flows in support of military operations.

**March column:** All vehicles in a convoy marching on the same route for a single movement under the control of a single commander. Large columns may be composed of sub-divisions under the control of subordinate commanders.

**March credit:** A planning quantity designated by the headquarters controlling the movement along routes. Subordinate units use march credits to submit transportation requests for the use of that echelon's controlled routes.

**March time or time distance:** The length of the route expressed in terms of time. It is the time required for the lead vehicle to travel from the SP to the RP at the prescribed rate of march.

**March unit:** A subdivision of a serial, normally company-, platoon-, or squad-sized. A march unit moves and halts under the control of a single commander using voice and visual signals.

**March unit interval:** The space between two consecutive march units. It can be calculated in terms of distance (road gap) or time (time gap). Since it is significant when vehicles are moving, interval is normally measured in terms of time.

**Non-tactical:** Movement in the communications zone (COMMZ) to reposition laterally or to facilitate future operations.

**Pace rate:** The regulated speed, by the lead vehicle or individual in the lead element, of a column set to maintain the prescribed average speed.

**Pass time:** The length of a column expressed in terms of time. It is the time between the moment the first vehicle of a column and last vehicle of a column pass a specific point.

**Rate of march:** The average number of kilometers or miles traveled in a given period, including rest or fuel stops. It is expressed as kilometers or miles in an hour (kmih or mih).

**Release point (RP):** Designated location along the route where units revert to the control of their parent organizations. RPs must be easily recognizable on the map and on the ground. March elements do not stop at the RP but are met by unit guides and led to assembly areas.

**Road clearance or block time:** The total time a column requires to travel over and clear a section of road. Road clearance time equals the time distance of the route plus the column pass time.

**Road movement table:** An annex to the movement order which provides a convenient method to identify the time schedule of the march. In a tabular or matrix format, march tables include march parameters, a listing of the march units or serials, and critical times for marching elements to arrive at and clear the SP, CPs, and the RP.

**Route:** The prescribed course to be traveled from a specific point of origin to a specific destination.

**Serial:** A major sub-division of a march column, organized under one commander for planning, regulating, and control.

**Serial interval:** The space between two consecutive serials. It can be calculated in terms of distance (road gap) or time (time gap). Since it is more significant when vehicles are moving, interval is normally measured in terms of time.

**Speed:** The travel rate of a vehicle at a given moment as measured on the speedometer (in kilometers or miles per hour).

**Start point (SP):** Designated location on the route where the marching elements fall under control of the designated commander. All routes must have designated SPs which are the basis for developing the march timeline. SPs must be easily recognizable on the map and on the ground (for example, a road intersection) and must be far enough from assembly areas to allow units to be organized and moving at the prescribed speed and interval when the SP is reached.

**Strip map:** A sketch of the route of march which is normally included as an annex to the movement order. As a minimum, it contains start and release points; check points; route designations, if applicable; and distances between checkpoints.

**Tactical:** Relocation within the combat zone in the corps or division rear areas before hostilities begin or when a forward defense has been established. Units move by tactical road march to rear tactical assembly areas where they prepare to conduct combat operations. Speed is

essential, but security requirements are greater than required for a non-tactical movement, even though contact with the enemy is not expected. During tactical road marches, the commander is always prepared to maneuver.

**Traffic control post (TCP):** Manned positions along the route where assistance from a ground guide is necessary to prevent congestion or confusion. TCPs may be manned by military police or unit ground guides. Instructions from ground guides take priority over times specified in march tables.

**Vehicle interval:** The distance between two consecutive vehicles of an organized element of a column.