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uccess in large-scale combat operations (LSCO) depends in part on the commander's ability to visualize the environment, organize and synchronize assigned forces, and apply combat power at decisive points on the battlefield to defeat the enemy. In warfighter exercises (WFX), division and corps training units are challenged to accomplish this, due in part to difficulty managing areas of operations (AO), and uncertainty in how best to apply components of the Army's operational framework. This paper will focus on how the operational framework improves the commander and staff's ability to understand and manage battlefield complexity and the commander's ability to apply combat power at decisive points on the battlefield. Using newly published doctrine in ADP 3-0, Operations, July 2019, and observations from past WFXs, this article will:

- Provide examples of effective use of the operational framework to organize the battlefield.
- Describe the role of the operational framework within the operations structure.
- Familiarize the reader with the operational framework, its components, and the importance of assigning and managing AOs.

The Operation Structure. The Army fights by employing combat power within assigned and supporting forces organized by the operational framework and applied through the operations process to achieve desired battlefield effects. This trinity is known as the Army's operations structure. Combat power is the commander's "total means of destructive, constructive, and information capabilities that a military unit or formation can apply at a given time." While combat power represents the whole of a commander's warfighting capabilities, the operations process is the commander-led activity that plans, prepares, executes, and continuously assesses the

employment of that combat power. The operational framework organizes assigned and supporting forces in which combat power resides for effective, efficient, and synchronized employment through the operations process.

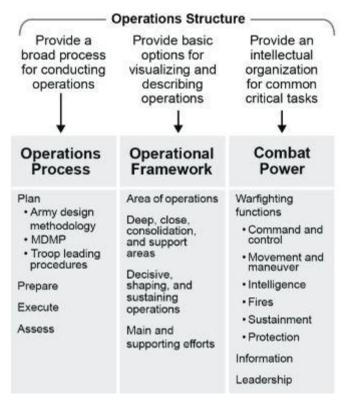


Figure 1. The Operations Structure. ADP 3-0, *Operations*, July 2019, page vi.

The Operational Framework. The operational framework "is a cognitive tool used to assist commanders and staffs in clearly visualizing and describing the application of combat power in time, space, purpose, and resources in the concept of operations." It allows the commander to describe operations by echelon geographically within the context of an AO. The Operational framework:

- Provides a means to organize friendly forces.
- "Illustrates the relationship between close operations, operations in depth, and other operations in time and space across domains."iii
- "Bridges the gap between a unit's conceptual understanding of the environment and its need to generate orders." iv

The operational framework also helps the commander determine subordinate responsibilities, permissions, and restrictions, which in turn enables unity of effort, synchronization, and initiative.

The four components of the Operational Framework are:

- AO: "Commanders are assigned an AO for the conduct of operations, from which they then assign AOs to subordinate units based on their visualization of the operation. Units should be assigned AOs commensurate with their ability to influence what happens within them."
- Arrangement of forces: "Within their assigned AO, commanders designate deep, close, support, and consolidation areas to describe the physical arrangement of forces in time, space, and purpose."vi
- Purpose: "Within an AO, commanders conduct decisive, shaping, and sustaining operations to articulate an operation in terms of purpose." vii
- Prioritization: "Commanders designate the main and supporting efforts to designate the shifting and prioritization of resources." viii

Area of Operations. An area of operation is "an operational area defined by a commander for land and maritime forces that should be large enough to accomplish their mission and protect their forces." ix The assignment of commanders' AOs and subordinate AOs is the most critical (and oftentimes overlooked) first component of building an operational framework. The other three components of the framework are discussed in relative terms to a commander's AO. AOs (including forward, rear, and lateral boundaries) are adjusted throughout the operations process based on mission variables and operational necessity. It is important to note that while an AO is part of the operational framework, it is also a graphic control

measure. This is not the case with the other components of the operational framework.

The Army fights as part of the Joint Force. A commander's authorities and responsibilities within an AO are derived from the assigning Geographic Combatant Commander (GCC) or Joint Force Commander (JFC). For land forces, the Joint Force Land Component Commander (JFLCC) establishes subordinate AOs "to delineate responsibilities, deconflict operations, and achieve unity of effort."x The JFLCC assigns Army, Corps, or Division AOs as appropriate to be further divided at each echelon down to the company level. The company is the lowest echelon an AO is assigned as only a commander is assigned an AO. FM 3-90-1, Offense and Defense, March 2013, explains that "assigning an AO to a subordinate headquarters maximizes decentralized execution by empowering subordinate commanders to use their own initiative to accomplish their missions Conversely, failure to designate subordinate AOs centralized execution and maximizes limits subordinates' tactical options."xi

The assignment of an AO organizes forces and assigns responsibilities to a commander for the integration and synchronization of combat power. "The commander uses graphic control measures to define the limits of an AO and, as such, establishes ground forces' responsibilities." An AO delineates command and control, maneuver, fires, planning, intelligence, and sustainment responsibilities over a geographic area. ADP 3-0, *Operations*, July 2019, states that a commander's AO responsibilities include:

- Terrain management
- Information collection, integration, and synchronization
- Civil affairs operations
- Movement control
- Clearance of fires
- Security
- Personnel recovery
- Airspace control
- Minimum-essential stability operation tasks

Because a commander's assigned AO influences all aspects of the unit's mission, AO boundaries must be clearly defined and accurate. *The example to the right*



(Figure 2) shows the level of detail commonly portrayed on maps and staff products used during division WFXs. Rarely is the division's forward and rear boundaries defined or that of the subordinate brigades. This begs the questions: Who clears fires? Who controls Airspace?

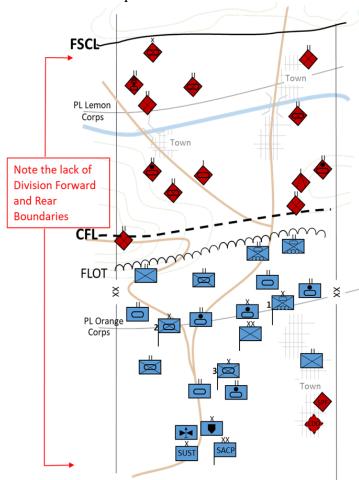


Figure 2. Division operational graphic without assigned subordinate AOs.

AO management during WFXs. In multiple WFXs, the lack of clear boundaries (especially forward and rear) contributed to planning, intelligence, collection, fires/targeting, and maneuver challenges. In some cases, the brigade AOs stopped at the coordinated fire line (CFL) and the brigades lacked sufficient depth to plan, collect, and shape for battalion maneuver operations. This lack of brigade boundary depth can also force large portions of the division staffs to focus on current operations, inhibiting the division's ability to plan and conduct effective shaping operations that set conditions for future operations. It is important to note that AO assignment alone will not solve the challenges listed below, but establishing subordinate AOs and assigning responsible commanders is an essential first step. Some of the most commonly

observed WFX challenges associated with AO management include:

- Minimal to no brigade bottom-up refinement of division plans due to ambiguity of assigned AOs in both time and space.
- Delayed fire missions due to confusion over which commander can clear fires and control airspace.
- Reactionary and insufficient brigade-level planning to drive collection, fires, and maneuver beyond the forward line of own troops (FLOT).
- Task saturation of division staff due to limited to no geographic delineation of responsibilities between echelons.
- Poor positioning of air defense artillery (ADA), planned position areas for artillery (PAA), and counter-battery radar assets to protect and enable fires and maneuver due to ill-defined AOs and limited brigade planning.
- Congested roads, lack of obstacle and minefield awareness, intermingling of units, and overcrowded assembly areas due to a lack of movement control, terrain management, and security operations in illdefined or unassigned portions of the division AO.

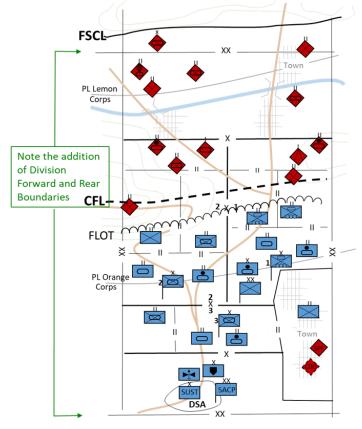


Figure 3. Division operational graphic with assigned brigade and battalion areas of operations.



The example to the right (Figure 3) provides a clear delineation of brigade and division AOs. This clarity enables the division commander to communicate a vision to the corps, division staff, and subordinate brigades that supports effective planning, mission orders production, and operations. Because assigned AOs play such a significant role in a unit's operations, boundary changes should be well-planned and warning orders issued early to afford subordinate units ample time to plan and prepare. Boundary changes must be communicated to a subordinate commander in a mission order.

Arrangement of Forces. Close, deep, support, and consolidation areas are designated by the commander within his AO to "describe the physical arrangement of assigned forces in time, space, and focus."xiv The close and support areas are always designated, but the deep and consolidation areas are only established when required. xv The release of ADP 3-0 in July 2019 changed the definitions of the operational framework's deep, close, support, and consolidation areas. The most significant change is that the new definitions focus primarily on the actions taken within each operational area and less on their geographic area of assignment. The four operational areas are:

Deep. The deep area is "where the commander sets conditions for future success in close combat."xvi The new ADP 3-0 explains that a "commander's deep area generally extends beyond subordinate unit boundaries out to the limits of the commander's designated area of operations." The extent of the deep area should also account for the full depth of the enemy's AO. The idea of operations in the deep area is to separate the enemy's lead echelons from follow-on echelons: disintegrate the enemy's long range fires, C2, sustainment, and other key enablers from his close area maneuver; and exploit vulnerable targets. All of this sets conditions for success in the current and future close area fights. Within the deep area, commanders divide responsibility based on the range and capability of assigned intelligence, surveillance, and reconnaissance (ISR) and fires systems.

Close. The definition of the close area also changed in the new ADP 3-0. The close area is now defined as "the portion of the commander's AO where the majority of subordinate maneuver forces conduct

close combat." xvii Typically, the close area encompasses the entirety of subordinate AOs.

Support. "The portion of the commander's AO that is designated to facilitate the positioning, employment, and protection of base sustainment assets required to sustain, enable, and control operations." xviii

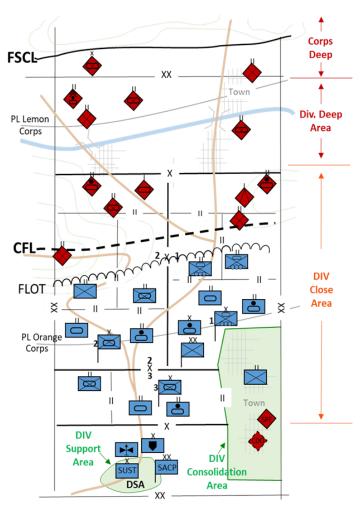


Figure 4. Designation of the deep, close, support, and consolidation areas.

Consolidation. The consolidation area is "the portion of the land commander's AO that may be designated to facilitate freedom of action, consolidate gains through decisive action, and set conditions to transition the AO to follow-on forces or other legitimate authorities." The consolidation area is still a relatively new part of the operational framework. Some have conflated the consolidation area to the area where stability operations are occurring. However, divisions initially establish consolidation areas in order to ensure sufficient combat power is allocated to defeating fixed or bypassed forces. When initially established, a consolidation area will reflect the nature



of the fighting in the close area and likely compete for fires, maneuver, and other close combat resources as the units in the close area.

Depending on the nature of the fighting and the proximity to the main command post, the forces in the consolidation area will likely report through the main command post (CP). As the balance of activity shifts towards stability, the forces in the consolidation area might transition to reporting through the support area command post. Regardless of conditions, commanders and staffs should consider the command and control relationships with forces in the consolidation area and how they might change over time.

It is worth noting that doctrine leaves units free to retain portions of their AO. Not every piece of terrain needs to be or even should be assigned to subordinate units. In addition to the deep area (which is not typically assigned to subordinate units), there are portions of the rear that are best retained by the commander. The commander assumes risk in those areas, but can take measures to mitigate that risk. The benefit to retaining land is that the commander does not unwittingly pass risk to a subordinate headquarters, where it might provide an even bigger opportunity for the enemy. This technique is particularly useful for the purpose of terrain management for the enormous volume of units, equipment, and other activities that need space to the rear of the close area. Neither the maneuver enhancement brigade (MEB), nor any other subordinate unit assigned in the rear, will always have the capability to fulfill the role of owning an AO, especially during offensive operations.

Challenges Managing Forward Boundaries during Warfighter Exercises. A challenge the Mission Command Training Program (MCTP) has observed during multiple WFXs is that some units rely on fire support coordination measures (FSCMs), like the fire support coordination line (FSCL) and the CFL, to delineate a unit's forward AO boundary and to separate the deep and close operational areas. Although FSCMs and boundaries can overlap other control measures based on mission requirements, they should not replace one another. Part of the confusion over boundaries and FSCMs is a misunderstanding of their purpose and the establishing authorities of these two types of control measures (see Figure 5 on the next page).

AO (Forward, Lateral, and Rear) Boundaries. During WFX exercises, forward and rear boundaries are often times not clearly defined, despite being the most significant portion of the operational framework. FM 3-0 explains that "the use of boundaries delineates responsibilities of subordinate units (the corps, divisions, and separate brigades), facilitates control, and enables freedom of action."xx Boundaries define the perimeter of an AO and delineate command authorities and maneuver, fires, planning, intelligence, and sustainment responsibilities over a geographic area. AOs and their boundaries are established by the next higher echelon (e.g., corps assigns division boundaries, divisions assign brigade boundaries, etc.).

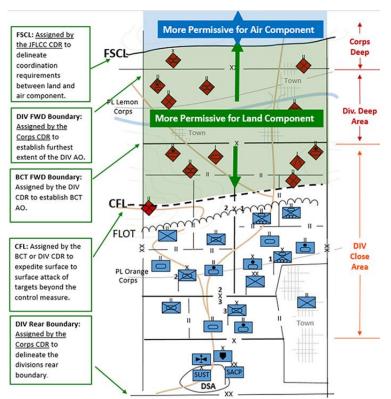


Figure 5. Relationship of FSCMs to unit boundaries and the Operational Framework.

FSCMs: "Fire support coordination measures are employed by commanders to facilitate the rapid engagement of targets and simultaneously provide safeguards for friendly forces." ^{xxi} They govern the employment of artillery, mortars, and aviation assets to engage targets, protect forces, and set the conditions for future operations.

CFL: "A coordinated fire line is a line beyond which conventional and indirect surface fire support may fire at any time within the boundaries of the establishing headquarters without additional coordination." The



CFL creates a more permissive environment for the rapid employment of surface fires. It is assigned by the BCT or division commander to expedite surface-to-surface attack of enemy forces beyond the control measure. Careful management is needed to ensure that the CFL is moved as friendly forces advance to mitigate the risk of fratricide. It is recommended that the CFL is established as close as possible to friendly maneuver forces with preplanned on-order CFLs that can rapidly shift as the force moves forward. This enables the maximum number of available assets to engage targets beyond the CFL.

FSCL: The FSCL is "a fire support coordination measure established by the land or amphibious force commander to support common objectives within an AO, beyond which all fires must be coordinated with affected commanders prior to engagement and, short of the line, all fires must be coordinated with the establishing commander prior to engagement."xxiii Designated and managed by the JFLCC, the FSCL delineates coordination requirements between the land and air component commanders. It creates a permissive environment for the air component long of the coordination measure and a permissive environment for the land component short of the control measure. The air component views the FSCL as a restrictive FSCM short of the coordination measure as airstrikes "both close air support and air interdiction, must be under positive or procedural control to ensure proper clearance of joint fires."xxiv additional coordination of the FSCL requirements create delays in the timely delivery of surface fires.xxv

In multiple WFXs, units using the FSCL as the division's forward boundary with the corps has created challenges due to increased clearance requirements inhibiting timely counterbattery fire or engagement of other fleeting high-payoff targets beyond the FSCL. xxvi Using the FSCL as the Divisions forward boundary requires the Air Component Command (ACC), not just the Corps or the JFLCC, to clear fires beyond the division's forward boundary.

Decisive, Shaping, and Sustaining Operations. Once AO's are assigned, the commander and staff assign broad tasks and purposes to subordinate forces by designating decisive, shaping, and sustaining operations (see Figure 6). Detailed refinement of these operations such as task organizations, command

support relationships, and assignment of missions, tactical tasks, and operational objectives occurs throughout the operations process. Determining the decisive, shaping, and sustaining operations are part of course of action (COA) development, Step 3 of the military decision making process (MDMP). xxviii

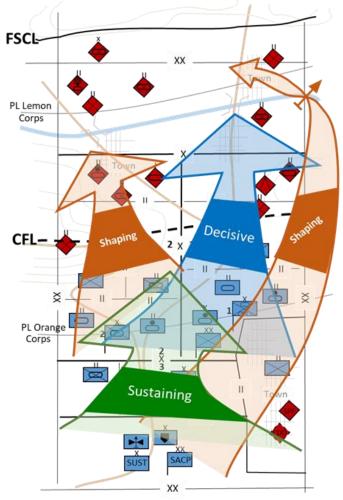


Figure 6. Decisive, Shaping, and Sustaining Operations.

The decisive operation "is the operation that directly accomplishes the mission." It "is designed to determine the outcome of a major operation, battle, or engagement." **There is only one decisive operation, but multiple subordinate units may play a role in this operation. The decisive operation will be the focal point around which the commander and staff designs the entire operation.

The shaping operation "is an operation at any echelon that creates and preserves conditions for success of the decisive operation through effects on the enemy, other actors, and the terrain." Shaping operations set the conditions for success of the decisive operation by synchronizing the effects of surface fires, air support,



attack aviation, non-lethal fires, obscurants, and obstacles that delay, degrade, disrupt, or destroy enemy forces. One or more shaping operations can be designated by the commander across the commander's AO to enable the decisive operation.

The sustaining operation "is an operation at any echelon that enables the decisive operation or shaping operations by generating and maintaining combat power." While the decisive and shaping operations focus externally on the operational environment and the enemy, sustaining operations focus internally on friendly forces. Logistical support, movement control, infrastructure development, terrain management, and support area security are all examples of sustainment operations. How quickly Army forces can reconstitute and how far they can exploit success depends on sustaining operations occurring throughout the AO, not just in the support area.

Main and Supporting Efforts. To establish clear priorities of support and resources, the commander designates the main and supporting efforts. As with determining the decisive, shaping, and sustaining operations, the establishment of the main and supporting efforts are initially defined during Step 3, COA development, of the MDMP.

The main effort "is a designated subordinate unit whose mission at a given point in time is most critical to overall mission success." Resources are prioritized to support the main effort and it usually contains the bulk of the unit's combat power. However, the unit's main effort can shift between the unit's decisive and shaping operations multiple times based on the sequencing and execution of the operation. For example, the commander could designate the shaping operation as the main effort to wear down enemy forces and set conditions for future successful decisive operations. Additionally, the main effort could shift to the supporting operation to rapidly rebuild combat power in preparation for future shaping or decisive operations.

A supporting effort "is a designated subordinate unit with a mission that supports the success of the main effort." It enables the success of the main effort and is resourced with the minimum assets necessary to accomplish the mission. Success of the main effort is oftentimes a result of multiple effective supporting efforts.

The example COA to the right (Figure 7) depicts the shifting of the division main effort. Initially, 2nd Brigade Combat Team (BCT) (the shaping operation in the west) is the division's main effort, supported by attack aviation and artillery. During the next phase of the operation, 1st BCT (the decisive operation in the east) becomes the main effort supported by division artillery assets and 1st BCT operations in the west. This shifting of main and supporting efforts between the shaping and decisive operations sets the conditions for future successful operations.

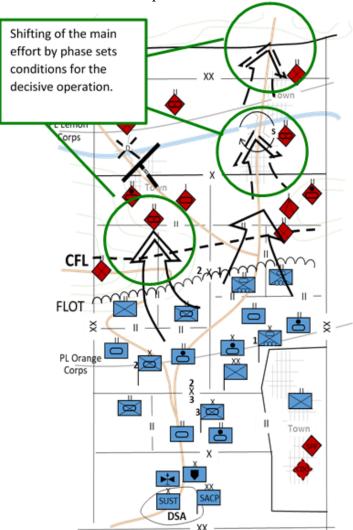


Figure 7. Example Course of Action depicting shifting Main and Supporting Efforts.

Conclusion. The Army's operational framework is an effective tool for the commander to visualize the operational environment, communicate that vision to the staff, and organize assigned and supporting forces. When used in conjunction with the operations process (plan, prepare, execute, assess), the operational



framework is the means in which the commander's vision and intent organizes and synchronizes forces to facilitate effective application of combat power on the battlefield. Clearly defined AO boundaries (forward, lateral, and rear) improves both planning and operational execution. Control measures and orders, both written and graphical, are the method by which the operational framework is communicated to subordinate and supporting units (see Figure 8). The clarity of operational graphics using the principles and components of the operational framework enables effective division and brigade planning, initiative, and operations.

Success on the battlefield depends on the commander's ability to clearly communicate a vision and intent to organize forces and direct the application of combat power through the operational framework and operations process. Leaders at all levels should continue to study the newly released ADP 3-0, *Operations*, July 2019, as well as ADP 1-02, *Terms and Military Symbols*; JP 3-0, *Joint Operations*; FM 3-0, *Operations*; FM 3-90.1, *Offense and Defense*; FM 3-09, *Field Artillery Operations and Fire Support*; and ADP 6-0, *Commander and Staff Organization and Operations*, to improve their mastery of the Army's operational framework to effectively organize the force and set conditions for battlefield success.

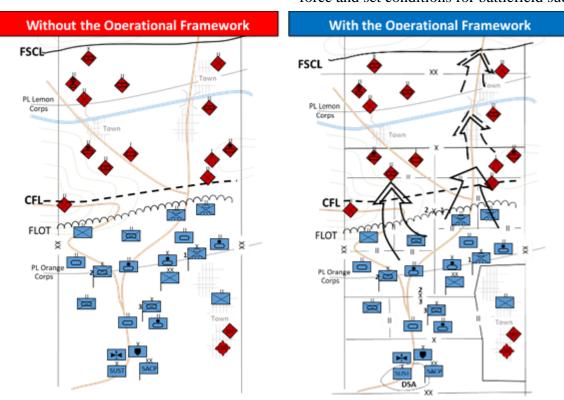


Figure 8. Comparison of Operational Graphics with and without the use of the Operational Framework.



¹ ADP 3-0, Operations, 31 JUL 19, pg 5-1, para 5-1.

[&]quot;FM 3-0, Operations, Change 1, 6 DEC 17, pg 1-25, para 1-120

iii ADP 3-0, 31 JUL 19, pg 4-3, para 4-14.

iv ADP 3-0, 31 JUL 19, pg 4-3, para 4-13.

^v FM 3-0, pg 1-25, para 1-121.

vi FM 3-0, pg 1-25, para 1-121.

vii FM 3-0, pg 1-25, para 1-121.

viii FM 3-0, pg 1-25, para 1-121.

ix JP 3-0, Joint Operations, Change 1, 22 OCT 18, pg GL-6.

^x JP 3-0, para 5.c.(5), pg IV-12.

xi FM 3-90-1, Offense and Defense, Volume 1, March 2013, pg A-3, para A-9.

xii FM 3-90-1, , March 2013, pg A-5, para A-16.

xiii Setting the Conditions for Shifting Division Rear Boundaries, 28 OCT 18, CALL WFX 19-2 JLLIS Observation #208116.

xiv FM 3-0, pg 1-26, para 1-121.

xv FM 3-0, pg 1-30, para 1-141.

xvi ADP 3-0, pg 4-4, para 4-20.

xvii ADP 3-0, pg 4-4, para 4-22.

xviii FM 3-0, pg 1-34, para 1-155.

xix CALL Bulletin 19-13, FY 18 Key Trends and Observations, March 2019. MCTP Observation # 3.6.4-4, Improper use of Coordinated Fire Line (CFL) and Fire Support Coordination Line (FSCL) within the operational framework, pg 45.

xx FM 3-0, Ch 1, 6 DEC 17, pg 1-30, para 1-43.

xxi JP 3-0, 22 OCT 18, Joint Operations, pg GL-9.

xxviii ADP 3-0, pg 4-5, para 4-26. xxix ADP 3-0, pg 4-5, para 4-26 xxx ADP 3-0, pg 4-5, para 4-27. xxxi ADP 3-0, pg 4-5, para 4-28. xxxii ADP 3-0, pg 4-6, para 4-38. xxxiii ADP 3-0, pg 4-6, para 4-39.



xxii FM 3-09, Field Artillery Operations and Fire Support, April 2014, para 4-4, pg 4-2.

xxiii JP 3-09, Joint Fire Support, pg GL-7.

xxiv FM 3-09, pg 4-4, para 4-11.

xxv JP 3-09, Joint Fire Support, pg A-5.

xxvi CALL Bulletin 19-13, MCTP Observation # 3.6.4-4, pg 45.

xxvii FM 6-0, Commander and Staff Organization and Operations, pg 9-19.