



Soldiers assigned to the 1454th Transportation Company transport M105 load handling system compatible water tank racks from a logistics support area on June 12, 2016, during a National Training Center rotation at Fort Irwin, California. (Photo by Sgt. Leticia Samuels)

Setting Conditions to Achieve Effects for Sustainment Operations

By participating in the supported unit's targeting process, sustainment brigades and expeditionary sustainment commands can leverage all available assets to enable transportation.

■ By Maj. Peter C. Bakke

Army sustainment formations are responsible for ensuring freedom of maneuver, extending operational reach, and prolonging endurance for movement and maneuver forces. For ground operations, the ability to accomplish these sustainment tasks often depends on maintaining lines of communication (LOCs) that span hundreds of miles.

Maintaining open LOCs is a multifunctional problem set that the staffs of expeditionary sustainment commands (ESCs) and sustainment brigades often struggle to solve. Some of the challenges of keeping LOCs open include interference from civilian populations, host-nation leaders, and adversarial forces as well as restrictive terrain, negative public perceptions, contract

disputes, union confrontations, and cyber threats.

The Mission Command Training Program's (MCTP's) Operations Group Sierra has identified that ESC and sustainment brigade staffs do not leverage all available assets to protect LOCs because they do not participate in their supported unit's targeting process.

Sustainment brigades and ESCs

do not participate in the supported unit's targeting progress for the following reasons:

- They have an incomplete understanding of the operational environment's (OE's) impact on the geometry of distribution.
- They are unaware of all available assets at the division and corps levels.
- They generate inadequate inputs and outputs for battle rhythm events.
- They have difficulty describing how environmental challenges to sustainment will impact the supported maneuver commander's end state.

This article focuses on changes that sustainment staffs can make to mitigate these contributing factors during initial planning and integration with external units during execution.

Initial Planning

Many problems faced while executing sustainment operations come from a lack of planning during the first two steps of the military decisionmaking process (MDMP): receipt of mission and mission analysis. If the sustainment staff performs the first two steps of the MDMP in a way that creates shared understanding around a properly framed problem set, the rest of the planning process tends to produce a concept of sustainment consistent with supported unit needs and environmental considerations.

Receipt of mission. Typically when a unit receives its mission, the staff breaks up into staff elements or war-fighting functions (WfF) to read the orders from the higher headquarters and supported units. Then it regroups to brief and discuss the facts, assumptions, constraints, and limitations that it developed from each WfF perspective.

This regrouping creates the illusion that the staff is operating from a shared understanding of the problem set, mission requirements, and potential challenges. In reality, breaking into staff sections omits a key event for creating shared understanding.

The staff does not gather all the necessary tools, such as the operational graphics of their supported customer.

Additionally, staffs do not conduct the critical initial assessment that nests sustainment with maneuver and allows each WfF to discuss the implications of the mission, enemy, terrain and weather, troops and support available, time available, and

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civil considerations. Such a discussion would provide the staff with an appreciation of the problem set that it must solve in order to meet the supported unit's end state.

With this information, staff elements and functional cells would begin to understand what relevant information should be in their planning estimates and what information the commander needs during mission analysis and course of action development.

Mission analysis. As they move into mission analysis, the staff members often gather to write a problem statement without having a shared understanding of OE challenges. Most staffs understand that the problem statement is a cross-functional product to create shared understanding. As such, the planner typically leads a problem statement working group and seeks input from each WfF.

Unfortunately, WfF leaders often do not provide adequate input because they have not considered how environmental factors affect their LOCs. For example, the sustainment WfF leader might discuss general distribution challenges without considering the impacts of weather, displaced civilians, or terrain.

Effective units are able to write comprehensive problem statements by issuing guidance for each WfF immediately following the receipt of mission. Once the staff discusses the mission and supported unit operational graphics as a group, the chief of staff or planner should direct each WfF to develop a list of cross-functional challenges. Each WfF's

list or problem set serves as input for developing the problem statement.

As the staff conducts the working group, the plans officer-in-charge can list all of the challenges from each WfF on a white board. Often there are redundant challenges; this redundancy indicates that a particular challenge is important or at least holds cross-functional relevance. As the staff's list of cross-functional challenges is refined and condensed, it more accurately represents the systematic challenges that each WfF must overcome to meet the commander's end state.

This condensed list can then be translated directly into the problem statement. This more comprehensive problem statement helps to refine the staff's planning estimates and should highlight any shortfalls.

For instance, a problem statement that describes "providing direct support on an area basis over restricted terrain, while facing irregular forces and displaced persons during a high intensity conflict" covers rapid expenditure rates, environmental threats to the LOC, a large span of control, and a number of considerations that should drive each WfF to ask questions as the mission analysis progresses.

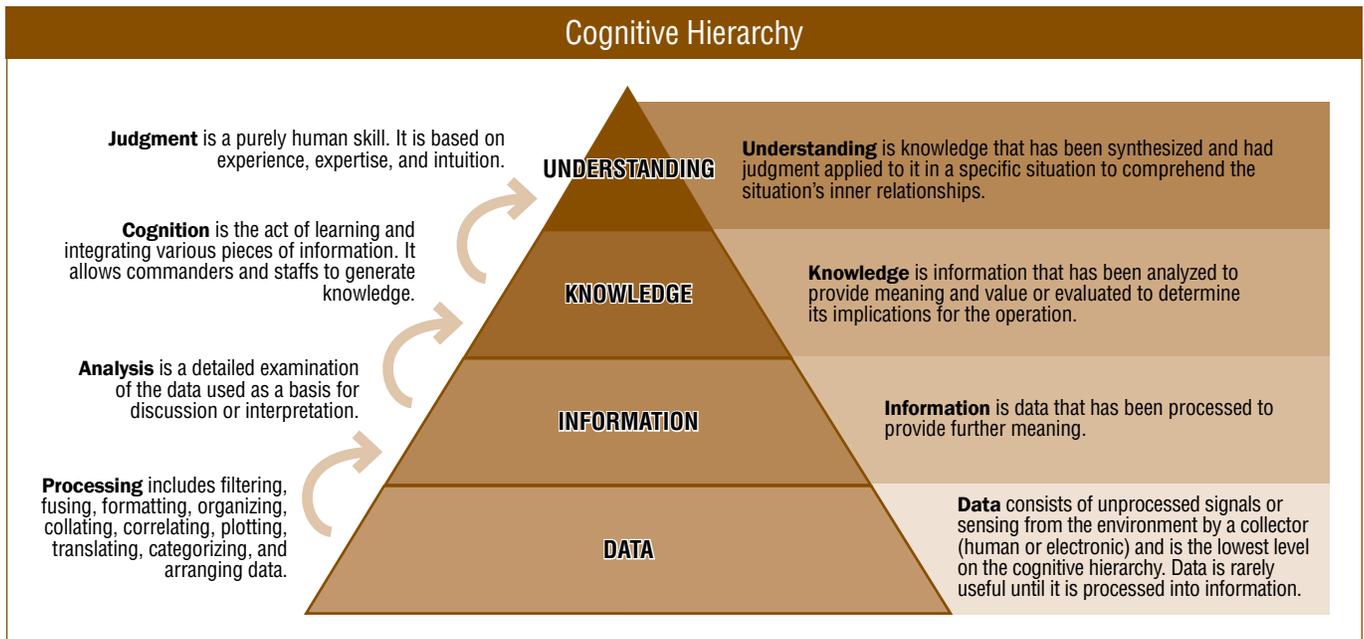


Figure 1. This cognitive hierarchy is used in mission command training. A version of it is available in Army Doctrine Reference Publication 6-0, Mission Command.

The movement and maneuver (M2) or protection WfF leader might ask, “What assets do I need to mitigate the possibility of civilians interdicting the LOC?” Such a question should make its way into the estimate as a shortfall. The shortfall might drive further questions, such as, “Where do I get an asset to deal with this challenge, and what processes should I participate in to leverage it?”

Army doctrine and the cognitive theories of learning reinforce the value of spending time on the problem. Army Doctrine Reference Publication 6-0, Mission Command, describes how staffs translate unprocessed data into knowledge through the application of analysis and judgment. (See figure 1.)

The cognitive hierarchy depicts the process of turning data into usable knowledge to generate understanding for the commander. During mission analysis, the staff begins at the bottom of the pyramid with the data received from a higher order or external coordination.

Each WfF and staff element uses expertise and experience as tools to aid in this process. However, the staff must merge perspectives to create

shared understanding.

Educational psychologist Benjamin Bloom described how knowledge combines with group interaction to create higher levels of individual cognition (synthesis and evaluation). In the case of the problem statement, syntheses and evaluation occur when individual perspectives are measured against the current conditions, desired end state, and specific commander’s guidance. This synthesis and evaluation allow the staff to move up the cognitive hierarchy toward understanding—ultimately enabling effective decisions by the commander as mission analysis progresses.

Execution

Having a concept of sustainment consistent with supported unit’s needs and environmental considerations does not mean the sustainment staff will solve all challenges that will arise during execution. The staff must still maintain relevant and accurate running estimates, effectively use the critical path within the battle rhythm to solve OE challenges as they arise, and understand how to gain access to external assets that are capable of achieving effects within the OE.

Maintaining relevant running estimates. Let’s go back to the two questions that an M2 or protection planner might ask during mission analysis: what assets are needed to mitigate the threat of civilians or irregular forces interdicting the LOC, and how can these enablers be accessed?

The first step in answering these questions is understanding when the problem set is beginning to affect sustainment operations. Intelligence estimates and subordinate unit reports help paint the picture of what is happening in the OE.

For example, combining intelligence and protection estimates might reveal that displaced civilians are routinely interdicting the LOC and preventing the movement of fuel and ammunition to supported units. The intelligence WfF may know why this is happening. The protection WfF knows how this affects trafficability.

The support operations officer’s running estimate might highlight how much the problem affects mission accomplishment, and the M2 running estimate describes the impact of supply shortages on the supported unit’s scheme of maneuver. When all of the WfFs coalesce around the

problem, they can accurately understand and visualize the problem and develop solutions.

Using the critical path to solve OE challenges. Unfortunately, sustainment staffs often do not have a venue within their battle rhythm to discuss environmental challenges that are not directly linked to kinetic enemy actions. One solution is to add another working group to the battle rhythm (for example, an information operations or civil affairs working group). However, the battle rhythm often is filled to capacity.

Another option is for sustainment staffs to use existing battle rhythm events to address OE challenges beyond the conventional threat. For example, Operations Group Sierra has observed several brigades modifying their protection working group to include civilian, information, cyber, and irregular threats to LOCs.

These staffs go beyond discussing convoy escorts and consider how assets at the division, maneuver enhancement brigade, corps, and other supported units might help solve OE challenges. The division or corps working groups, subordinate unit reporting, and running estimates serve as inputs for the staff as it identifies problems and desired effects and assesses the impact of previous coordination.

Keeping with the example of displaced civilians interdicting a LOC, the M2 lead might consider civil affairs and leader engagements to mitigate the root problem or the engagement of host-nation forces to lead civilians to a safe area. Thus, a retooled working group can determine different avenues for achieving desired effects in the OE.

Accessing external assets. Identifying desired effects is essential in shaping the OE for sustainment operations. It enables the staff to coordinate limited external assets in order to achieve those effects. Sustainment staffs that identify desired effects often do not understand the process to obtain enablers.

This shortfall is further exacerbated by the belief that they will not receive

support from the OE's owning units. However, understanding the targeting process and the owning unit's battle rhythm can prevent this problem.

Joint Publication 3-0, Joint Operations, defines targeting as "the process of selecting and prioritizing targets and matching the appropriate response to them considering operational requirements and capabilities."

OE owning units routinely execute the targeting process to allocate field artillery and capabilities in order to set favorable conditions. The targeting working group and board serve as the battle rhythm venues for discussing and deciding where the unit will allocate limited assets.

Sustainment staffs must find a way to inject their needs into the OE owning unit's targeting cycle to achieve favorable effects. Therefore, they must make strong cases in terms that the targeting working group understands.

Sustainers must be able to describe the effect they need to occur and the impact to the maneuver end state if the effect is not achieved. For example, a sustainment planner might argue that a local population should be persuaded to vacate a LOC or else fuel and ammunition will not be moved along the main supply route at the rate needed to continue offensive operations.

If the sustainment staff has worked with its supported and adjacent units, identified desired effects, participated in the proper forum for allocation of external assets, and articulated its needs in relation to the supported unit's operational end state, it is now in a position to advise the commander on residual risks within the OE based upon the resources it receives. Continuous participation in the targeting process also feeds WfFs' running estimates and the common operational picture.

Over the past year, the MCTP has seen sustainment brigades and ESCs use this method to achieve their desired effects. They achieved these effects in ways they had not envisioned at the outset of the planning process. These units enabled their command-

ers to make effective decisions regarding the timing of missions and engagements with other commanders.

Sustainment brigades and ESCs must develop a comprehensive understanding of complex problem sets throughout the OE and coordinate to enable distribution. The MCTP has developed a process to achieve these ends based on a combination of sustainment brigade and ESC best practices.

Sustainment planners should consider adding synchronization mechanisms during steps one and two of the MDMP to improve problem statement development. This planning recommendation is soundly based in doctrine.

During execution, the content and critical path of the unit battle rhythm should facilitate the following:

- Integration of the WfFs' running estimates.
- Efficient use of existing battle rhythm events.
- Identification of desired effects in the OE.
- Integration with the targeting processes of supported and adjacent units
- Articulation of sustainment needs in terms of the OE owning unit's operational end state.

As described throughout this article, the way ahead does not require more meetings. It requires existing forums to be framed by the right problem and focused on the OE.

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