

PERSPECTIVES IN SECURITY ASSISTANCE MANAGEMENT

a focus on special topics of interest

MILITARY LOGISTICS AND THE NEED FOR UNDERSTANDING

BY

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Major increases in defense spending are not the solution for all of the problems facing the "present day" military forces. Added spending can eliminate the more obvious problems caused by "physical shortages," but there are other serious problems on which expenditure of additional funds will have little impact. Although increased defense spending can provide more advanced weapons, a greater range and depth of "spares," and even increased retention of skilled personnel (all of which are valid needs), it cannot provide the Department of Defense (DoD) leadership with added wisdom, greater insight, keener perception, or clearer understanding of the nature of military forces. Problems caused by "shortages" in these areas cannot be eliminated by simple "throwing more monies into the pot."

A case in point is the DoD's continued failure to comprehend the real concept, contribution, and significance of military logistics to its "present day" forces. This failing has not only severely handicapped the performance of military logistics, but has added significantly to its cost. The idea that "logistics supports the weapon" or, in fact, that logistics provides "support" at all should be considered archaic in this day and age. It is this kind of antiquated thinking, which having gone unchallenged, has kept military logistics from entering the twentieth century. Because of this failure to fully understand military logistics, the perception of need rather than logic and reason has set the rules and pattern for the current military logistics operation. It was the Navy's in-depth study of military logistics, at the end of World War II, which provided the last significant increase in logistics understanding. Since that time, while technology has made tremendous advances in weaponry, military logistics has remained stagnant in the "vintage World War II" mode. As such, military logistics has not kept pace with the needs of "present day" combat forces. Its current operation has rightly been termed "a Toonerville Trolley in a Jet Age."

In today's military environment, "vintage World War II logistics" can provide only "suboptimization," for it lacks: (1) a total concept of military logistics for the needs of the "present day" forces; (2) a complete and accurate definition; (3) stated parameters of the logistics environment; (4) identification of its true objectives; (5) a valid method of measuring/computing the accomplishment of those objectives; (6) an effective management concept and implementing organization structure; and (7) a more realistic relationship with the operational segment of the military forces. The resulting impact of all the above has been to increase the cost of military forces, reduce the effectiveness of its operation, and "suboptimize" military capability.

Before you are quick to challenge the above assertions, let me pose the following questions which may expose to view a few of the poor practices and problems stemming from the DoD's failure to understand "modern" military logistics:

1. How can we have an effective and efficient military logistics operation when we have not correctly defined the term "military logistics," stated the parameters of the logistics environment, described the "logistics system," or correctly identified the logistics objectives?

2. How can we write logistics doctrine (as has been done) when we have not yet created a concept of logistics?

3. How can we take a total system (having a single objective), break it into segments, organize these segments into functional activities, "fractionate" those functional activities into specialties -- all of this while providing no organizational element (at any level) to integrate and control the effort of the total system, its segments, or functional activities -- and then expect this total operation to effectively and efficiently achieve that single objective?

4. How can we measure productivity and effectiveness, or perform valid trade-off analysis anywhere within the total logistics environment, when we have not identified the correct logistics objective, nor do we understand the quantitative impact of any facet of the environment upon the accomplishment of that objective?

5. How can we spend over 100 billion dollars a year to create and sustain some required level of "capability to wage war," when we have no valid method of either measuring or computing "capability to wage war?"

6. How can we determine, with any degree of assurance, the extent of war that can be waged by the "threat," when we have no valid method of determining the extent of war that can be waged by our own forces?

7. How can we have a national policy of "rough equivalency" or even one of "military supremacy," when we have no valid method of determining either?

Major increases in defense spending are not the solution for the problems implied in these questions. While these problems are unknown to many in DoD, they still have serious implications, for they directly impact the cost of military forces, the creation of military capability, and subsequent decisions on the application of military power. The solution to these problems requires not only "logistics awareness," but a basic understanding of military logistics which is both clear and correct.

Our nation can no longer afford to treat military logistics with the "level of ignorance" demonstrated over the last three decades. The importance of strategies and tactics notwithstanding, "modern" military logistics is the basis of military power (the level and duration of war that can be waged by combat forces). Therefore, the effective and efficient operation of "modern" military

logistics is critical to the safety and survival of this nation. "Modern" military logistics must provide the assurance that concept, structure, focus, and management of military logistics are present and effectively aligned to provide for the needs of today's military forces in general and its combat forces in particular.

While the need to transition from "vintage World War II logistics" to a "modern" military logistics operation is immediate, successful implementation cannot occur until the necessary knowledge and understanding of "modern" military logistics are provided to the "field." Implementation requires that: (1) senior DoD officials must fully understand the true role, objective, and importance of military logistics in the "present day" forces; and (2) from this newly-found understanding there must originate a single DoD-approved "concept of modern military logistics" which will provide to the "field," along with other information and guidance, a total overview of military logistics within the DoD (what it is, what it does, and what it seeks to achieve). After these requirements are met, either the individual services or the Joint Logistics Commanders (JLC) can begin to shape and then to initiate the required transition to a "modern" military logistics operation. The "keys" to this effort are knowledge and understanding.

In general, the differences between "vintage World War II logistics" and "modern" military logistics are not in the manner of performance of the many functional activities, but rather in organization structure, management concept, objectives, organizational relationships and responsibilities, and the clear need for common understanding. Today, too few within the DoD are aware that the objective of military logistics is to create and sustain some required level of military capability; too few are aware that research and development and the acquisition of weapons are part of the total logistics system; too few are aware that the product of the total logistics system provides the capability which enables military forces to wage war. While many in the DoD are aware of the high cost of logistics, too few are aware of its true role and significance. This, in part, is why a high level of effectiveness and the full range of benefits it can provide to the military forces have yet to be achieved.

To understand the true role and significance of military logistics, it must be viewed in at least two dimensions. These are: (1) Military Logistics as a major segment of the Military Forces; and (2) Military Logistics as one of three branches of military science (the others being strategy and tactics). Viewing the entity of Military Logistics in the context of these two dimensions, understanding its role and significance can be logically developed as follows:

1. Whatever the purposes for which nations may create military forces (deterrence, defense, gaining or supporting national objectives, etc.), the primary function of military forces is to wage some level of war (armed conflict), when called upon.
2. Therefore, in order to accomplish their primary function, military forces must always have a capability to wage some required level of war.
3. In today's military environment, wars (armed conflict) are waged by sophisticated weapons. It is the "weapon" which has inherent

in its design those capability characteristics which have been determined as necessary to achieve a range of military objectives. Therefore, the capability of military forces to wage war is vested in the "weapon."

4. That capability to wage war is provided to the combat forces by the logistics environment (system) in the form of sustained operational weapons. The "amount of war" that can be waged by these weapons, stated in quantitative terms, is called military capability. It is defined as the intensity (power) and duration of war that can be waged by operational weapons possessed by combat forces. Military capability is a function of: (1) the number of operational weapons; (2) the power of these weapons (the sum of their capability characteristics); and (3) the duration of use of that power (the maximum number of times that the weapon can be "exercised" in combat until it no longer can be kept operational).

5. Based on the above, the product of the DoD Logistics System (total military logistics environment) is not operational weapons per se but rather it is military capability (the "amount" of war that can be waged by those weapons). The difference between operational weapons and military capability can be seen in paragraph 4 above.

6. The logic of the statement that "the product of the DoD logistics system is military capability" can be reaffirmed by the use of the second dimension (military logistics as a branch of military science). This is shown in Figure 1, entitled The Logistics Connection. It portrays a very simplistic view of the relationship between the three branches of military science from a logistics perspective. Strategy determines the required level of military capability through the statement of need (SON) or the mission essential need statement (MENS). The objective of military logistics is to create and sustain that required level of military capability for the utilization of tactics, if and when required. Therefore, if military capability is the product of military logistics, then any activity, organization, or agency within the DoD which contributes (directly or indirectly) to the creation and sustaining of military capability is in fact a part of the Military Logistics System (Environment).

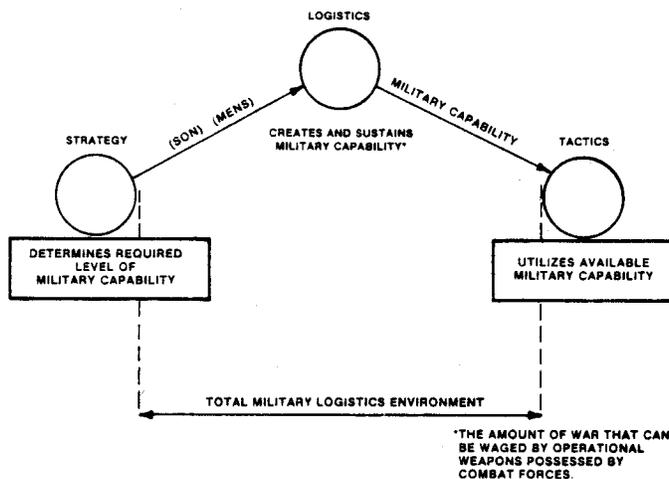


FIGURE 1. THE LOGISTICS CONNECTION

7. In creating and sustaining military capability there is a natural order to the major operations (segments) of the military logistics system. This sequence is shown in Figure 2 entitled The Logistics Flow. Most major weapon systems which are "brought into the inventory" go through an iteration of this logistics flow. Each of these major operations (which are composed of a variety of subsystems, processes, and activities) provides a unique and required contribution to the accomplishment of the end logistics objective, and as such each is an integral part of the DoD Logistics System.

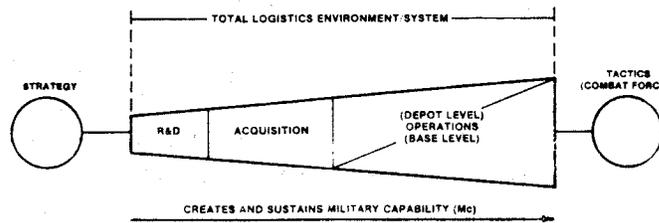


FIGURE 2. THE LOGISTICS FLOW

8. A different view of that same spectrum of logistics, as shown in Figure 2, is provided in Figure 3, The Logistics Systems, in its upper segment entitled, "Weapons Oriented Logistics." It breaks this logistics environment into two major subsystems, which in total create and sustain military capability. System 1, composed of the R&D and acquisition operations, provides the potential for military capability through the acquisition of initial resources. At this point it must be stressed that the Acquisition of Resources (including weapons) in itself provides no additional military capability to the forces. System 2 includes the base and depot level operations and assimilates those resources and creates military capability through its various functional activities and processes. Figure 3a provides some further detail in the operation of these two systems. It lists some of the resources (potential for military capability) acquired by System 1 and those functional systems (activities) within System 2 which assimilate those resources, thereby creating military capability. System 2 also insures the procurement of follow-on spares, consumables, etc., in order to sustain that capability it initially created.

9. Included in Figure 3 is a segment entitled, "Personnel Oriented Logistics." It is contained in Figure 3 in recognition of the fact that it is part of the total logistics system. Although in the last several decades it has lost much of its visibility to "weapons oriented logistics," it remains an essential ingredient in both the accomplishment of the logistics objective and primary function of the military forces.

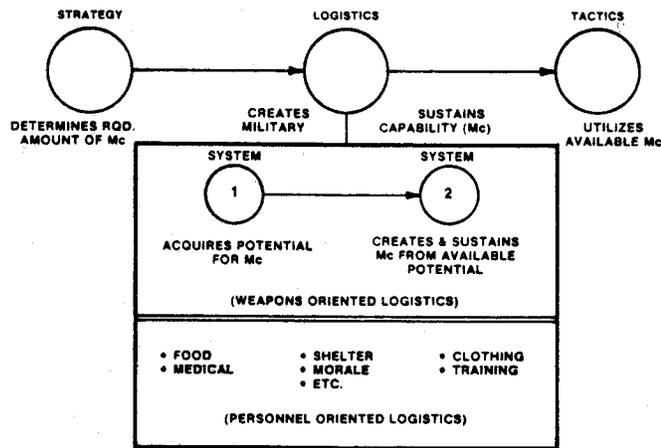


FIGURE 3. MAJOR LOGISTICS SUBSYSTEMS

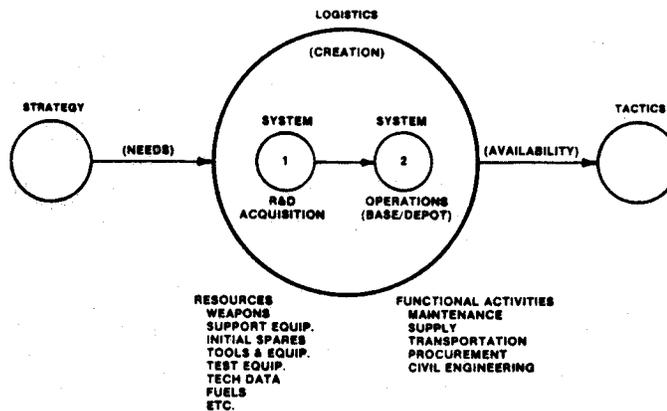


FIGURE 3a

10. Although it has not been discussed as such, the significance of Military Logistics is that it provides the military forces with the capability to wage war. This capability, when utilized to implement tactical decisions, results in the application of military power. Therefore, military logistics, which creates that capability, provides in fact the basis for the military power of forces. This is shown in Figure 4. It is important to note, when viewing this figure (which indicates that military logistics has provided a level of military capability which allows for the implementation of tactical decisions) that it is also possible for military logistics to restrict the implementation of tactical decisions because of a reduced level of military capability.

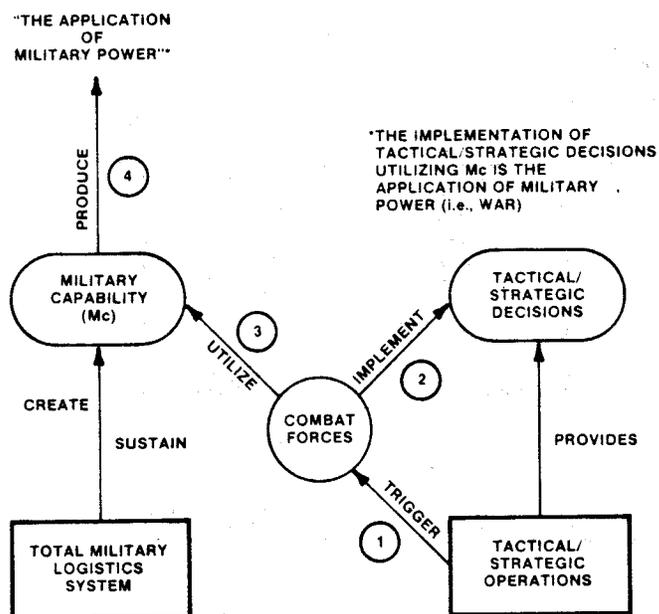


FIGURE 4. THE LOGISTICS BASE

The preceding paragraphs delineate a few items of information necessary in understanding the role, objective, and significance of military logistics. In the space available it was necessary to limit the explanations and to simplify the existing complexity. Yet, even these brief, partial, and simplified explanations raise certain questions relative to the current system which need to be asked:

1. If the objective/product of military logistics is to create and sustain some required level of military capability, why do the Joint Chiefs of Staff define logistics as "the maintenance and movement of forces"?

2. If the product of the logistics system is military capability, why aren't we measuring or computing military capability?

3. If all the organizations, activities, etc., that contribute to creating and sustaining military capability are part of the logistics system (environment), why aren't they all organizationally aligned in that manner?

4. If there is a total military logistics system which is broken into major operations (segments), and each in turn is further reduced to functional activities, etc., what organizational entities provide the required integration and control for the total system and the major operations? (The question is not one of "Who is in charge?", but rather, "Who is in control?")

5. If the implementation of all operational plans and tactical decisions rests on the ability of military logistics to provide the necessary level of military capability, shouldn't there be a closer relationship between operations and logistics (even in the operational planning area)?

Through gaining full understanding of "modern" military logistics, senior DoD officials will be able not only to discern many of the inconsistencies and inefficiencies in the present system, but also to deal more knowledgeably with correctly defining the term logistics, generally stating its parameters, and creating a DoD "concept of military logistics," all of which are sorely needed.

Although the term military logistics has been defined in the Joint Chiefs of Staff Publication 1 (JCS, Pub 1), it, too, is a product of vintage World War II thinking. It is neither complete, correct, nor cognizant of the true logistics objective. Today the term is generally used as an "umbrella" to cover (denote) that portion of the Military Forces which deal with what is commonly, but incorrectly, called "support." As such, it contributes very little since it merely serves as an identifier. The term which more correctly denotes all of the activities, agencies, etc., within the logistics sphere (those that contribute to the accomplishment of the logistics objective) is logistics environment. It is within this environment where all contribute to the operation of a very "loose-knit" and ill-defined logistics system. The term military logistics is of a higher order than the term logistics environment, for military logistics deals with the management of the logistics environment. Therefore, in that: (1) the total logistics environment is "organizationally fractionated" (i.e., broken into many small specialized pieces) while having a single end product, the most effective form of management is "integrative" rather than the present "coordinative;" (2) the identity of those activities, agencies, etc., which compose the logistics environment can be determined by virtue of their contribution to the end logistics objective; and (3) the task/objective of the logistics environment is to create and sustain military capability, -- then, an acceptable definition of military logistics might be: "The integrated management of those activities and resources necessary to create and sustain some required level of military capability." While some might charge that this is more of a description than a definition, it does provide concisely the required management concept, a general idea of its parameters, and the objective which it seeks to achieve (in terms that relate to the function of the military forces).

The failure of the DoD to understand the role, objective, and significance of military logistics in its "present day" forces ("modern" military logistics), and, therefore, their continued use of "vintage World War II" logistics operations, has in the past negatively impacted the attainment of proposed capabilities planned by the services through the acquisition of more modern weapons. Today our government is proposing a major growth in the military capability of its forces through the acquisition of great numbers of sophisticated, complex and very expensive weapons. In order to create and sustain the maximum military capability, based on the investment of those resources, requires a mode more effective than "vintage World War II Logistics." It requires the implementation of a "modern" military logistics operation which is based on knowledge and understanding. It is time for military logistics to enter the twentieth century.

ABOUT THE AUTHOR

Fred Gluck, USAF (Col. Ret.), presently a logistics consultant, has worked in military logistics for over 25 years, with assignments in the areas of materiel management, maintenance management, weapon systems management, procurement, international logistics, management analysis, and logistics plans. He was Assistant Professor of Logistics Management and head of the Department of Management Studies in the Graduate Logistics Management Program at the School of Systems and Logistics, Air Force Institute of Technology (AFIT). One of his published works is the original "Compendium of Logistics Terms and Definitions." A charter member of the Society of Logistics Engineers (SOLE), he has served as Chairman of the Dayton, Ohio Chapter, and as a member of SOLE's National Education Committee. He is a recipient of SOLE's Founders Award, and an award for Best Technical Paper (Spectrum). He has a B.S. in Business from New York University and an MBA from the University of Texas.