

The Future of Naval Logistics

“No matter who carries the load in any fight—soldiers, sailors, airmen, or marines—they need to be supported and supplied from the sea.”

—Admiral Arleigh A. Burke

Introduction

The basic nature of naval logistics has changed little over the years. The underlying principles of logistics are timeless and the process necessary to acquire and provide cruise missiles and gas turbines to the fleet are not different from those used to acquire and provide cannon balls and sails two hundred years ago. However, the complexity and impact of naval logistics have grown in response to changes in the complexity of supported forces and the expansion of roles and missions. This complexity and criticality is rooted in four ongoing patterns:

- ◆ **Complexity of the systems.** Intricate platforms and systems require specialized technical support. With operations dependent on fewer and more expensive deployed systems requiring more sophisticated support, the logistician is challenged to sustain each vital system on line via dependable and readily deployable resources.
- ◆ **Increased velocity of war.** New communications technologies have speeded the flow of information to the combatant commander. Advanced surveillance and weapons systems also contribute to the flow of information and the potential speed of reaction. The promise of this increase in velocity relies on the commander to be able to receive,

integrate, and evaluate information quickly and accurately, and to make sound, timely decisions based on the information. The urgency of this process stems from the need to achieve battlespace dominance, and to respond quickly to similar capabilities on the other side. This pattern of information acceleration compresses the time available for logistics planning and response and accelerates the decision process to be inside the enemy's decision cycle.

- ◆ **Expanded area of the battlespace.** Not only are operations conducted far from home, but the same technologies that shrink the world are expanding the battlespace. Just decades ago, decisive sea battles were fought in areas too small to contain a single battle group today. Targeting data that was once confined to line of sight is now generated globally. The naval logistician finds his customers dispersed and active over great areas, quickly and frequently shifting intentions, requirements, and locations in response to unfolding situations. Secure and accurate means of communication and transportation are a must.
- ◆ **Expanding mission requirements.** Additional types of missions and forces must be supported. The increased focus on military operations other than war signals a requirement for logistics support of varying customers and missions not traditionally military in nature. Simultaneously, new emphasis on joint, interagency, and multinational operations demands increasing cooperation, interoperability, and greater logistics flexibility in response to divergent requirements, sources, systems, and procedures.

These four patterns are not new; they have played a role in the evolution of naval logistics doctrine and practice for centuries. Naval planners, operators, and logisticians must continuously shape, anticipate, innovate, and lead the effort to improve doctrine, systems, and procedures. Operational commitments demand a focus on the effectiveness of force and the necessity of providing optimum readiness at the best overall value. Budgetary restrictions and other limitations on available assets demand a focus on the principles of economy and simplicity. Balancing these competing demands to produce leaner logistics systems delivering better support requires the attention of participants at all levels of the supported and supporting forces. Some of the most significant changes in logistics support requirements may come from change in the nature of the supported force. Reduced demand results from reducing the size and requirements of the supported force, and the size and requirements of the supporting force. If the supported force can be made smaller, if it can project its power to a greater

range, and if it can operate with less requirement for sustainment, reliable logistics support can be achieved more economically. Continuous improvement programs are bringing significant reductions in support requirements. Examples of areas subject to continuing improvement include the following:

- ◆ Increased force lethality allowing the combatant commander to deliver required combat capability from a smaller force level.
- ◆ Increased survivability achieved through active and passive defense and force protection allows the commander to reduce losses, reducing future sustainment requirements.
- ◆ Increased systems range may reduce force levels by permitting engagement at longer distances allowing smaller combat support and combat service support footprints ashore, with attendant savings in both force protection requirements and logistics support activity up the logistics pipeline. Challenges associated with sea-based fires time of flight and interruption of sea-based sustainment flow will continue to require a small presence ashore of combat support and combat service support, respectively.
- ◆ Weight and volume reductions permitting the same level of lethality, protection, detection, mobility, and communication from smaller, lighter systems.
- ◆ Improved maintenance cycles allow sustained operations with reduced requirements for repair parts, lubricants, maintenance supplies, etc.
- ◆ Increased reliance on not just U.S. naval resources as combined and joint operations become more and more common in our military engagement activities.
- ◆ Increased commonality and interoperability between the Services and combined force allows overall force levels to be reduced by eliminating redundancies in systems and support.
- ◆ Improved information access allows the commander the greater economy of force by permitting better and more timely command and control decisions.

- ◆ Use of effective force tailoring in deploying naval forces will reduce the traditional logistics footprint. Via containerized equipment, superfluous resources can be mitigated.

Reduced demand through these potential improvements and reductions of the supported force are made during the acquisition process and benefit both the supported and supporting forces. For example, extended maintenance cycles on vehicles used in both combat and support roles increase the efficiency and reduce the internal support requirements of logistics forces. Additional logistics system improvements are developed to foster increased efficiency, allowing a given level of logistics assets to sustain combat forces at higher optempo.

Every element of logistics, at every level and in every functional area, is a candidate for constant refinement. Improvements in preventive medicine and treatment may reduce the requirements to transport replacement personnel forward and casualties back. Streamlined and automated systems may reduce the number of personnel deployed forward to provide disbursing, legal, billeting, and other services; each such reduction lessens the number of personnel sustained forward. Advanced engineering products and systems can allow smaller engineering units to do construction and infrastructure maintenance faster and better. Improvements in diagnostic and repair systems and procedures allow fewer technicians to keep more systems online. In addition to the functional areas, continuing cooperative alignment and standardization of joint and allied logistics systems will facilitate improved logistics capabilities to be shared in combined operations. A variety of naval, joint, and allied initiatives recognize the opportunities inherent in doctrinal, procedural, and technical improvements; these initiatives set the focus and direction of Naval Logistics for the first part of the twenty-first century. Guiding many of these initiatives is Joint Vision 2010.

Joint Vision 2010

Joint Vision 2010 (JV 2010) establishes Focused Logistics as one of four principal operational concepts of future warfighting, as shown in Figure 5-1. Focused Logistics was established as an equal partner with Dominant Maneuver, Precision Engagement, and Full Dimensional Protection in establishing Full Spectrum Dominance of the battlespace. The realities of Dominant Maneuver, Precision Engagement, and Full Dimensional

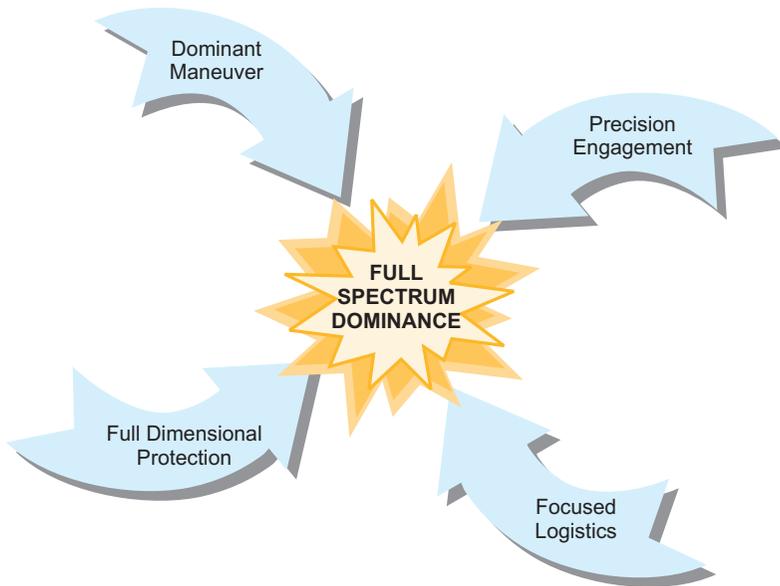


Figure 5-1. Establishing Dominance of the Battlespace

Protection offer both opportunities and challenges for the logistician. Each will require new standards of information availability and processing; much of this information will enable Focused Logistics.

Dominant Maneuver calls for synchronization of dispersed forces in sustained operations. Logistics customers will be spread out over broader areas, and may move more often and more rapidly. The logistician must seek ways to disperse functional capabilities and increase transportation capabilities. This ability may also result in more forces being based at greater distances, from the sea base to the objective. **Precision Engagement** will marry systems designed to locate, target, attack, and assess with greater accuracy and certainty. Precision Engagement will substitute knowledge for ammunition. Logistics efforts will focus on smaller quantities of smarter ordnance delivered to dispersed forces precisely where and when needed. However, savings garnered from lower expenditure rates may be offset due to increased cost of advanced munitions and systems, and the complexity of systems and sensors. Precision Engagement will rely heavily on advances in information technology. **Full-Dimensional Protection** will control the battlespace to ensure freedom of action and provide multi-layered defense of forces and facilities. Information superiority and interoperability will allow joint contributions to active and passive defenses. Reductions in support force and infrastructure attrition will enable

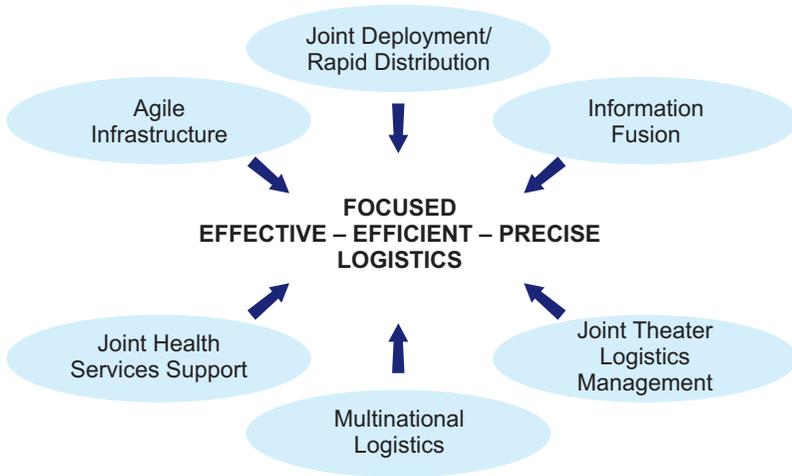


Figure 5-2. Focused Logistics

confidence in the survivability of the logistics pipeline, allowing less redundancy and excess stocks. **Focused Logistics** will integrate information, logistics, and transportation technologies to provide efficient logistics support and effective crisis response. It will provide tailored logistics at all levels of operations. By tracking and shifting assets as required, Focused Logistics will put the right support at the right place and time. This vision mirrors the traditional Navy and Marine Corps logistics operations.

Focused Logistics

Focused Logistics includes six tenets, as depicted in Figure 5-2. These are Joint Theater Logistics Management, Joint Deployment/Rapid Distribution, Information Fusion, Multinational Logistics, Joint Health Services Support, and Agile Infrastructure. These tenets combine to provide responsive support at any level and in any type of military operation, with reduced logistics response times, inventories, costs, infrastructure, and shortfalls.

◆ Joint Theater Logistics Management

Synchronization and sharing of Service logistics capabilities can reduce the logistics presence required to support joint operations. Joint Theater Logistics C2 is one alternative offered to provide clear lines of authority by assigning responsibility for logistics support in joint operations to a single entity. It would utilize common information to prioritize and allocate

scarce resources, eliminate redundant capabilities and stocks, and coordinate common-user and cross-Service support. Implicit in this management approach is a requirement for extensive integration of Service support systems and processes; full implementation of this concept will require changes in Service systems, and major advances in commonality and interoperability.

◆ **Joint Deployment/Rapid Distribution**

Joint Deployment/Rapid Distribution is the process of moving forces to the operational area and providing them with accelerated delivery of logistics support. This requires improved transportation and information networks; visibility and accessibility will squeeze maximum support from limited assets. Navy and Marine Corps doctrine will continue to emphasize the unique characteristics and contributions of operations on and from the sea, and Navy and Marine forces may sometimes forego specific process steps, but the steps and claimants in the Service deployment processes are recognizable and definable in joint terms. It will focus at the strategic level on continuing improvements in core sealift and airlift capabilities, en route infrastructure agreements and upgrades, and increased utilization of commercial delivery.

Among rapid distribution initiatives affecting naval logistics are the ongoing procurement LMSR ships for the Strategic Sealift Fleet and expansion of commercial sealift mobilization programs. Also, JLOTS initiatives will improve logistics support of shore-based forces in the absence of adequate port capacity. Advanced causeway and crane systems, lighterage, and other improvements, are currently programmed and being developed to increase throughput in rougher seas.

◆ **Information Fusion**

Information fusion will accomplish universal access to appropriate information through GCSS. GCSS will provide near-real-time logistics C2 and a common support picture through shared data and applications. The situational awareness and access to assets implied by network-centricity will extend to the logistics arena and ensure that reload and repair are as responsive and flexible as the operational maneuver they support. Eventually, third-party logistics will be integrated into GCSS. Such enablers as Automated Identification Technology (AIT), Joint Total Asset Visibility (JTAV), In-Transit Visibility (ITV), and Joint Decision Support Tools

(JDST) are in varying stages of deployment and development, and already impact logistics operations. Future Joint Decision Support Tools must accurately and rapidly track and update consumption rates to communicate precise requirements thus reducing the amount of unnecessary sustainment in the logistics pipeline.

◆ **Multinational Logistics**

Continuing evolution of support relationships between the U.S. and allies and coalition partners will yield stronger regional contacts, more effective multinational operations, and equitable distribution of logistics tasking and responsibility. Through multinational logistics initiatives, Focused Logistics will extend to combined operations many of the benefits currently derived from jointness. Efforts toward increased logistics cooperation amongst our allies are concentrated in four areas—common operational framework, expansion of bilateral agreements, interoperability through technology sharing, and leveraging the capabilities of multinational partnerships.

◆ **Joint Health Services Support**

Focused Logistics directs a joint health service support strategy (JHSS) supporting Force Projection with essential care in theater, robust aeromedical evacuation, and definitive care in CONUS. This care is oriented to ensure a healthy and fit force, to prevent casualties, and to administer effective casualty care and management. This enhances the warfighter's capability by providing and sustaining a healthy, mission-ready force on line, and by reducing lift requirements for deployment of replacements and disposition of casualties.

◆ **Agile Infrastructure**

Agile infrastructure will improve joint logistics policies, structures, and functional processes to permit maximum economical application of these options. The result will be reduced logistics forces, equipment, supplies, and facilities—all achieved with the overriding objective of maintaining effective support. The actions necessary to reengineer infrastructure and achieve more economical logistics support will rely on outsourcing requirements where practical and effective, instituting commercial business practices, improved engineering and maintenance support, enhanced inventory management, and increased prepositioning and war reserves. While

Contractor Logistics Support may be more economical, it may generate serious coordination or force protection problems in a wartime AOR.

Naval Logistics Concepts

The Navy and Marine Corps have developed concepts designed to support military operations through a wide range of options. These will be increasingly expeditionary, forward positioned, sustainable, maneuverable, and streamlined. Many components of Focused Logistics are already impacting naval logistics operations. Current and projected initiatives are expanding electronic connectivity, real time access to the common operating picture, and a current global inventory of logistics assets and activity. High Yield Logistics (HYL) charts this course for the Navy's logistics strategy in the new millennium.

High Yield Logistics

The Navy's vision of logistics transformation is captured in its HYL strategy. The strategy seeks to deliver the highest quality of service to our expeditionary forces throughout the world, while reducing the Navy's total ownership costs. High Yield Logistics achieves this transformation by fundamentally changing the way weapons systems are supported.

The plan's broad initiative is the reduction of the operating and support costs for fielded systems through technology insertion. By making funds available to purchase repair parts that are engineered for longer life and optimal performance through technology, the Navy is freeing up funds for modernizing weapon systems while maintaining readiness and sustainability.

The "High Yield Logistics" strategy attacks all aspects of logistics. It focuses on three primary objectives, which describe how the vision will be achieved.

1. Supporting the warfighter
2. Outsourcing
3. Optimizing.

The Navy plans to focus its logistics support dollars to achieve the high levels of readiness and sustainment that the warfighters demand.

The inventory and logistics support will be outsourced where industry is willing and capable of providing support. Finally, the Navy will aggressively pursue reducing redundancy within its remaining infrastructure to ensure that the funding will maximize readiness. The concepts of precision, information, transformation, and partnership focus naval logistics development within the framework of Focused Logistics.

◆ Precision

Precision is the watchword in the theater environment of the future. The right support must reach the customer when and where needed. Inventories must carry the needed items only. Logistics response time will decrease as inventories become more visible and management systems become more responsive. Depots must be sized and located to support the naval force without waste. Regionalization and consolidation process for depot and intermediate maintenance is already underway, and contractors and manufacturers will contribute through initiatives such as Life Cycle Support. Precision requires emphasis on joint operations and integration, with additional focus on the deliberate planning process to accurately determine and represent naval requirements and theater capabilities. Management of stocks, including WRM, must address sourcing, transportation, and positioning to maximize availability to naval or other supported forces.

Extensive and flexible sealift support must be available to place precise support where and when it is required. A distribution system relying on velocity to replace depth of stocks cannot afford a less-than-responsive transportation element. Strategic sealift enhancement through continuing addition of LMSR ships, and initiatives to ensure a successful National Defense Features program for the U.S. merchant fleet will support joint strategic sealift requirements. A follow-on CLF and naval integration into joint theater distribution will provide more efficient and faster distribution to the afloat forces. Enhanced logistics support of Marine Corps forces in the seabase will address improved support of operations from the sea.

Munitions management, including inventory reduction, revised positioning and storage, enhanced visibility, and uniform environmental protection will bring increased precision, economy, and efficiency. Modular organization of Fleet Hospitals, Naval Mobile Construction Battalions,

Navy Cargo Handling Battalions, Navy Air Cargo Companies, and other expeditionary shore-based forces will allow precision responses to support requirements in the theater. The initiative for Fleet Hospital detachments responds directly to the JHSS for mobile distribution of essential care delivery.

Marine Corps Precision Logistics initiatives will measure logistics response times and repair cycle times for analysis and reduction, adapt commercial business practices to logistics operations, and improve Marine Corps logistics distribution and information systems. The Marine Corps Materiel Command will address Marine Corps connectivity to theater distribution systems, improving access to precise support through joint, common-user, and cross-Service capabilities.

◆ Information

No single aspect of logistics has received more attention in the joint and multinational arenas than information. It is almost impossible to discuss any aspect of current or future operations without addressing the enabling power of information technology. Information will help identify and locate inventory, but it does not substitute for availability, delivery, or decision-making. The Naval Logistics Information Strategic Plan has been promulgated to streamline logistics processes, reduce life cycle costs, and create synergy of data.

Naval logistics information systems will be reengineered and reorganized to reduce costs and cycle times. Outdated processes will be changed or eliminated to increase efficiency. Enhanced asset visibility programs will join with regionalization and inventory-sharing programs to minimize inventory requirements. New programs, such as Initial Requirements Determination/Readiness Based Sparing, will revolutionize parts planning and management. Advanced diagnostic and training systems will be employed to ensure the system and the operators or maintainers are at peak performance. New concepts like the Configuration Management Information System will provide more current and accurate systems data for each major systems installation.

Information technologies of several types will be integrated toward an objective of seamless logistics. Proven “Smart Ship” enhancements will be incorporated in new construction and refit, and “Smart Ship” initiatives will be applied to new areas. Systems such as Continuous Acquisition and Life Cycle Support System (CALC) and Integrated Condition Assessment

System (ICAS) will be tied to acquisition and maintenance to explore opportunities for reduced life cycle costs. Naval distribution systems will be integrated with GCCS and GCSS to bring the Navy and Marine Corps into full partnership in joint force deployments.

◆ Transformation

To effect change, the Navy and Marine Corps will reevaluate materiel, maintenance, and facilities management with the specific goal of identifying additional opportunities for outsourcing, consolidation, or regionalization. Express delivery services, Prime Vendor and Direct Vendor Delivery, common-user and cross-Service logistics, multinational support, and contingency contracting reflect the ongoing transformation of naval logistics. Tomorrow's naval logistics distribution system will be characterized by a concentration of expeditionary military logistics capabilities in theater, and a concentration of economical, capable private sector capabilities in support.

◆ Partnership

Partnership focuses on integration of naval forces as good citizens. The global partnerships required to achieve theater success address both military and non-military issues. Key objectives of these partnerships include effective stewardship of our environment and human resources. Partnership involves every logistics function in timely environmental cleanup and comprehensive pollution prevention programs. It requires engineer support of environmental protection in facility and systems planning, integrated plans to protect the natural and cultural resources of naval installations, implementation of hazardous material control and management (HMC&M) at major bases, and inclusion of energy and environmental conservation factors in facility planning.

Seabased Logistics Concept

Navy and Marine Corps operational concepts such as “Forward...from the Sea” and “Operational Maneuver from the Sea” require bold departures in sustainment options. “Seabased Logistics” is a conceptual framework envisioning support of expeditionary Navy and Marine Corps shore-based forces from the seabase. The five primary tenets characterizing Seabased Logistics Concept are:

- ◆ **Primacy of the sea base** — over the horizon, reduced or eliminated footprint.
- ◆ **Reduced demand** — seabased support, technology improvement, lighter force ashore.
- ◆ **In-stride sustainment** — network-based, automated logistics for maneuver units.
- ◆ **Adaptive response & joint operations** — expanded missions, joint support.
- ◆ **Force closure & reconstitution at sea** — building and restoring combat power.

The full promise of Seabased Logistics is subject to development of new platforms and equipment, and solution of various problems in ship-to-objective logistics, selective offload, strategic logistics interface, seabased intermediate maintenance, and joint interoperability. While near-term realization of limited seabasing may be feasible, full implementation is many years away.

Concept Development

The benefit inherent in the above initiatives will be developed and verified through a process of concept development, experimentation and wargaming, and implementation. As an example, joint logistics developments are pursued through the logistics wargames. The Navy Warfare Development Command (NWDC) supports logistics initiatives through concept development, experimentation in its Fleet Battle Experiment series, and promulgation of validated doctrine through the Naval Doctrine and Navy Warfare Publication series. The Marine Corps Combat Development Command (MCCDC) performs a similar role through the Marine Corps Warfighting Lab (MCWL), leading to the Marine Corps Doctrine and Warfare Publication series. These and other joint and Service efforts direct development and implementation of capable, feasible, and doctrinally sound advances in logistics systems and practices.

Conclusion

The way forward for naval logistics will proceed through many concepts, evaluations, experiments, and changes to tactics, techniques, procedures, and doctrine. HYL's precision, information, transformation, and partnership will support implementation of Focused Logistics. U.S. naval forces will go on doing what they have always done—go anywhere, at any time, against any odds to provide certain, flexible, responsive, seabased execution of our national will. Through all of this, the principles of logistics will guide the planning, command and control, and execution of logistics support.

As new technology races ahead, the naval logistics forces are challenged to capture the benefits of technology, embrace it, tie into concepts and experiments, and, if it makes sense, put it into our doctrinal publications. As the world order continues to shift, our military missions will change. Through all of this and more, professionals of our naval services will continue to search for the next new way to make naval logistics more responsive, simple, flexible, economical, attainable, sustainable, and survivable.



GLOSSARY

The following term definitions are provided for use with this publication. For terms not listed here, the reader is directed to refer to either Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms or Navy Warfare Publication 1-02, Naval Supplement to the DOD Dictionary of Military and Associated Terms.

A

Advanced Base Functional Component (ABFC). A grouping of personnel, equipment, material, and facilities designed to perform a specific function at an advanced base. Where components contain material only, the operating personnel are supplied by other components. Housing and messing facilities, medical facilities, defensive ordnance, communication equipment, and, in many cases, power plants and water supply are not supplied with each component and are themselves service components to be integrated into an overall base plan. The functional components are given names to indicate their functions and unclassified code numbers, consisting of a letter and number combinations, for use in easy reference.

Automatic Identification Technology (AIT). AIT is the family of technologies that allow the collection and entry of data into computers without manual keyboard entry.

Aviation Combat Element (ACE). The MAGTF element that is task organized to provide all or a portion of the functions of Marine Corps aviation in varying degrees based on the tactical situation and the MAGTF mission and size. These functions are air reconnaissance, antiair warfare, assault support, offensive air support, electronic warfare, and control of aircraft and missiles. The ACE is organized around an aviation headquarters and varies in size from a reinforced helicopter squadron to one or more Marine aircraft wings. It includes those aviation command (including air control agencies), combat, combat support, and combat service support units required by the situation. Normally, there is only one ACE in a MAGTF.

B

Battle Force Intermediate Maintenance Activity (BFIMA). Consists of maintenance beyond that of the capability of the using unit, but not so extensive to require major industrial facilities or equipment. It is normally provided by a tender or a larger combatant ship such as aircraft carriers (CV/CVNs) or amphibious assault ships (LHA/LHDs) within the battle force.

Battle Force Logistics Coordinator (BFLC). Person designated by the battle force commander to coordinate all logistics within the battle force.

Battle Group Logistics Coordinator (BGLC). Person designated by the battle group commander to coordinate all logistics within the battle group.

C

Combat Logistics Force (CLF). Includes both active Navy ships and those operated by the Military Sealift Command within the Naval Fleet Auxiliary Force that carry a broad range of stores, including fuel, food, repair parts, ammunition, and other essential materiel to keep naval forces operating at sea for extended periods.

Connected Replenishment (CONREP). A method used by ships to replenish from other ships via high line. Cargo, personnel, and fuel hoses are transferred by use of high-tension wires.

Construction Capability (CONCAP). CONCAP is an extension of the Naval Construction Force. It is a civilian contractor that is used to provide augmentation in the theater of operations. The services can vary from providing a variety of professional civil engineering functions and oversight to that of actual construction activities. Contracts are usually established prior to a contingency and allow for a smaller military footprint in-theater.

D

Defense Logistics Agency (DLA). A supply support organization assigned management responsibility and control of items in common use by all military services. About 60 percent of the line items in the integrated

Navy Supply System are managed by DLA. These items are identified by a 9 in the first position of the cognizance symbol.

F

Fleet and Industrial Supply Center (FISC). Command organizations that furnish supply support to fleet units, shore activities, and overseas bases established in their mission. They are under the management of the Commander, Naval Supply Systems Command (NAVSUP).

Fleet Issue Load List (FILL). Consolidated listing of material to be carried onboard combat stores ships for the support of operating afloat forces to ensure maximum fleet readiness. It is based on actual past demands of those items most commonly requested by the fleet units.

Fleet Logistics Coordinator (FLC). Person designated by the fleet commander to coordinate all logistics within the fleet.

Fleet Material Support Office (FMSO). Located in Mechanicsburg, Pennsylvania, FMSO is responsible for maintaining demand data and load list changes, performing Inventory Control Point (ICP) functions, and designing shore-based inventory control systems.

Forward Logistics Site (FLS). An overseas location, with port and airfield facilities nearby, that provides logistics support to naval forces within the theater of operations during major contingency and wartime periods. FLSs may be located in close proximity to main battle areas to permit forward staging of services, throughput of high priority cargo, advanced maintenance, and battle damage repair. FLSs are linked to in-theater Advanced Logistics Support Sites (ALSSs) by theater airlift and sealift, but may also serve as transshipment points for inter-theater movement of high-priority cargo into areas of direct combat. In providing logistics support, FLS capabilities may range from very austere to near those of an Advanced Logistics Support Site. Also called FLS. See also Naval Advanced Logistics Support Site.

G

General Services Administration (GSA). Responsible for the cataloging and inventory control of 9Q cognizance material or nonmilitary items in general use by both military and civilian agencies within the U.S.

Government. Examples of 9Q items include general use office supplies, hand tools, and cleaning supplies.

Global Combat Support System (GCSS). Under development, GCSS promises universal secure access to logistics information, with interoperability across combat support and C2 functions. Designed to reliably provide the warfighter with one picture of combat support available across one net to any authorized user on any computer, GCSS will make possible near real time C2 of the logistics pipeline. GCSS will rely on many sources of logistics information to paint an accurate picture of logistics flow.

L

Logistics Civilian Augmentation Program (LOGCAP). Army contract program that allows for substitution or supplementation of military logistics forces by commercial service support.

Logistics Coordinator (LC). Person designated with the fleet, battle force, or battle group to coordinate all logistics for the respective units.

Logistics Readiness Center (LRC). This organization is the logistics staff that supports the combatant commander with command and control of logistics support. This staff will manage common-user and cross-Service logistics, monitor and report logistics operations and capabilities, advise the combatant commander on logistics matters, and represent the command to external logistics organizations.

Logistics Replenishment (LOGREP)

a. Logistics replenishment is the resupply of units within the battle group or battle force. The schedule is determined by the operational commander in response to operational requirements, unit locations, elapsed time since last replenishment, and urgency of requirements. Ships submit requirements in advance to allow for proper planning and effective utilization of logistics ships.

b. NATO information system, Logistics Reporting System (LOGREP) that supports information exchange in NATO logistics reporting. Provides peacetime updates to LOGBASE, and supports ADAMS and ACROSS.

M

Memoranda of Understanding (MOU). A MOU is a document that specifies actions and responsibilities to be performed by the provider and receiver but only in general terms. A MOU should be backed by an ISSA.

Multinational Joint Logistics Center or Commander (MJLC). In the NATO military structure, this organization assumes the responsibility for detailed logistics planning and execution. The MJLC will contain internal coordination centers for the major logistics functions.

Multinational Logistics Centre or Commander (MNLC). MNLCs are established by component forces within the NATO military structure if there is limited existing support. Land and air MNLCs are established as centers, and are limited to coordinating authority. However, maritime MNLCs are established as commands.

N

Naval Advanced Logistics Support Site (ALSS). An overseas location used as the primary transshipment point in the theater of operations for logistics support. An advanced logistics support site possesses full capabilities for storage, consolidation, and transfer of supplies and for support of forward-deployed units (including replacement units) during major contingency and wartime periods. Advanced logistics support sites, with port and airfield facilities in close proximity, are located within the theater of operations but not near the main battle areas, and must possess the throughput capacity required to accommodate incoming and outgoing inter-theater airlift and sealift. When fully activated, the advanced logistics support site should consist of facilities and services provided by the host nation, augmented by support personnel located in the theater of operations, or both.

Naval Construction Force (NCF). The NCF, otherwise known as the Seabees, are deployable naval military construction engineering units whose primary mission is to provide responsive contingency construction support for U.S. military forces in a given theater of operations.

Naval Mobile Construction Battalion (NMCB). An established naval construction unit, trained and equipped for general construction of an advanced base, including buildings, airfields, roads, waterfront structures, utilities, and fuel installations. It is an integral unit in personnel, housing,

subsistence, administration, and equipment and is infantry equipped for defensive warfare.

Naval Supply Systems Command (NAVSUP). Provides for and meets those material support requirements of the Department of the Navy within the assigned material support responsibility of the Naval Supply Systems Command. They provide supply management with policies, methods, and staff assistance to the Secretary of the Navy.

Naval Transportation Support Center (NAVTRANSSUPCEN or NAVTRANS). Provides worldwide transportation and physical distribution services for U.S. Navy afloat and ashore activities and manages the Service-wide Transportation (SWT) accounts for Navy transportation.

Navy Air Cargo Company (NACC). A Navy unit tasked with establishing and operating an overseas air cargo terminal in an expeditionary environment.

Navy Cargo Handling Battalions (NCHB). Naval reserve commissioned units tasked with loading and unloading all classes of cargo (except bulk petroleum) carried in Military Sealift Command controlled and chartered ships, in Air Mobility Command controlled aircraft, and operating limited ocean terminal and expeditionary air terminals.

Navy Cargo Handling and Port Group (NAVCHAPGRU). Navy's active duty, rapidly deployable cargo handling unit tasked with loading and unloading all classes of cargo (except bulk petroleum) carried in Military Sealift Command controlled and chartered ships, loading and unloading all classes of cargo carried in Air Mobility Command controlled aircraft, and operating limited ocean terminal and expeditionary air terminals.

Naval Expeditionary Logistics Support Force (NELSF). A Naval Reserve command organized and staffed to provide a wide range of supply and transportation support critical for peacetime support, crisis response, humanitarian, and combat service support missions.

O

Operational General Message (OPGEN). Maritime unique formatted messages used by both the U.S. Navy and NATO to promulgate general

matters of policy, instructions, and common aspects of operations, but also may include detailed instructions for warfare responsibilities.

Operational Task (OPTASK). Maritime unique formatted messages used by both the U.S. Navy and NATO to provide detailed information for specific aspects within individual areas of warfare and for tasking of resources. This includes logistics and may be issued at all levels above the unit and may be Navy-wide, focused on a particular theater or battle group.

T

Task Force Logistics Coordinator (TFLC). Person designated by the task force commander to coordinate all logistics within the task force.

U

Underway Replenishment Coordinator (URC). The URC monitors commodity levels within the battle group and on board CLF ships in company or en route. When potential problems are identified, the URC notifies the BFLC/BGLC with recommended solutions. In the event commodity shortages are anticipated, the URC is responsible for allocation of available inventories. The URC coordinates loading and prioritization of products with the ALSS and recommends replenishment at sea (RAS) schedules to the BFLC/BGLC. While the supply officer is generally tasked with hazardous material and waste management on board, the URC coordinates the transfer of these materials to designated shuttle ships. It should be noted that the URC does not control actual UNREP operations; the Commanding Officer of the replenishment ship is the Officer in Tactical Command (OTC) during transfer.

Unit Identification Code (UIC). A six-character, alphanumeric code that uniquely identifies each Active, Reserve, and National Guard unit of the Armed Forces. Also called UIC. Unit identification codes and related information are listed in the Navy Comptroller Manual, Volume 2, Chapter 5. The unit identification code is normally preceded by a one-digit service designator code N, R, or V, as appropriate.

LIST OF ACRONYMS/ABBREVIATIONS

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A

ABFC. Advanced Base Functional Component.

ACCIS. Allied Command and Control Information System.

ACE. Aviation Combat Element.

ADAMS. Allied Deployment and Movement system (NATO).

AIT. Automatic identification technology.

ALSS. Naval advanced logistics support site.

APOD. Aerial Port of Debarkation.

APOE. Aerial Port of Embarkation.

B

BFIMA. Battle force intermediate maintenance activity.

BFLC. Battle force logistics coordinator.

C

CHOP. Change of operational control.

CHRIMP. Consolidated hazardous material reutilization and inventory management program.

- CINCROKUS.** Commander in Chief, Republic of Korea/U.S. Forces.
- CINCUNC.** Commander in Chief, United Nations Command.
- CLF.** Combat logistics force.
- CMC.** Commandant of the Marine Corps.
- CNFJ.** Commander, U.S. Naval Forces Japan.
- CNFK.** Commander, U.S. Naval Forces Korea.
- CNO.** Chief of Naval Operations.
- COA.** Course of action.
- COCOM.** Combatant command.
- COMMARCORLOGBASES.** Commander, Marine Corps Logistics Bases.
- COMNAVAIRLANT.** Commander, Naval Air Force, Atlantic.
- COMNAVAIRPAC.** Commander, Naval Air Force, Pacific.
- COMNAVRESFOR.** Commander, Naval Reserve Force.
- COMNAVSURFLANT.** Commander, Naval Surface Force, Atlantic.
- COMNAVSURFPAC.** Commander, Naval Surface Force, Pacific.
- COMSC.** Commander, Military Sealift Command.
- COMSUBLANT.** Commander, Submarine Force, Atlantic.
- COMSUBPAC.** Commander, Submarine Force, Pacific.
- COMUSNAVCENT.** Commander in Chief, Naval Forces Central Command.
- CONCAP.** Construction capability.

CONPLAN. Operation plan in concept format.

CONUS. Continental United States.

CSS. Combat service support.

CSSE. Combat service support element.

D

DESP. Defense Energy Supply Points.

DLA. Defense Logistics Agency.

DLR. Depot-level repairable.

DOD. Department of Defense.

DOT. Department of Transportation.

DPG. Defense Planning Guidance.

DSC. Defense supply center.

DTS. Defense transportation system.

F

FILL. Fleet issue load list.

FLS. Naval forward logistics site.

FLSR. Forward logistics support representative.

FMC. Field mail center.

FMSO. Fleet Material Support Office.

FSSG. Force service support group.

G

GCE. Ground combat element.

GCSS. Global Combat Support System.

GSA. General Services Administration.

H

HN. Host nation.

I

ICP. Inventory control point.

ILS. Integrated logistics support.

IMM. Integrated materiel management/manager.

ITV. In-transit visibility.

J

JCS. Joint Chiefs of Staff.

JEL. Joint Electronic Library.

JFC. Joint force commander.

JFLCC. Joint force land component commander.

JLOTS. Joint logistics over-the-shore.

JOPEs. Joint Operation Planning and Execution System.

JPEC. Joint Planning and Execution Community.

JSCP. Joint Strategic Capabilities Plan.

JTAV. Joint total asset visibility (proposed).

JTF. Joint task force.

L

LC. Logistics coordinator.

LFSP. Landing force support party.

LMSR. Large, medium speed roll-on/roll-off.

LOC. Line of communications.

LOG. Logistics.

LOGBASE. NATO logistics database program.

LOGCAP. Logistics capability; Logistics Civilian Augmentation Program.

LOGREP. Logistics replenishment; Logistics Reporting System.

LOTS. Logistics over-the-shore.

LRC. Logistics readiness center.

M

MAGTF. Marine air-ground task force.

MARAD. Maritime Administration.

MARCORLOGBASES. Marine Corps Logistics Bases.

MARCORMATCOM. Marine Corps Materiel Command.

MARCORSYSCOM. Marine Corps Systems Command.

MARDIV. Marine Division.

MARFOR. Marine Corps forces.

MAT. Medical analysis tool.

MATCONOFF. Material control office.

MAW. Marine Aircraft Wing.

MC. Military committee.

MEF. Marine Expeditionary Force.

METT-T. Mission, enemy, terrain and weather, troops and support available, time available.

MEU(SOC). Marine Expeditionary Unit (Special Operations Capable).

MJLC. Multinational Joint Logistics Centre.

MNC. Major NATO commander.

MNFC. Multinational Force Commander.

MNMF. Multinational maritime force.

MOOTW. Military operations other than war.

MPF. Maritime prepositioning force.

MPS. Maritime prepositioning ship.

MRE. Meal, ready to eat.

MRI. Message routing instruction.

MSC. Military Sealift Command.

MSR. Main supply route.

MTMC. Military Traffic Management Command.

MWR. Morale, welfare, and recreation.

N

NAC. North Atlantic Council.

NACC. Navy Air Cargo Company.

NATO. North Atlantic Treaty Organization.

NAVAIRSYSCOM. Naval Air Systems Command (Also called NAVAIR).

NAVFA. Naval Facilities Engineering Command (Also called NAVFACENCOM).

NAVFOR. Navy Forces.

NAVMASSO. Navy Management Systems Support Office.

NAVMEDLOGCOM. Naval Medical Logistics Command.

NAVPETOFF. Navy Petroleum Office.

NAVSEA. Naval Sea Systems Command (Also called NAVSEASYSYSCOM).

NAVSUP. Naval Supply Systems Command (Also called NAVSUPSYSCOM).

NAVTRANSSUPCEN. Naval Transportation Support Center.

NBG. Naval beach group.

NCA. National Command Authorities.

NCC. Navy component commander.

NCCP. Navy Contingency Contracting Program.

NCF. Naval Construction Force.

NCHB. Navy Cargo Handling Battalion.

NELSF. Naval expeditionary logistics support force.

NEO. Non-combatant evacuation operation.

NFCS. Navy field contracting system.

NGO. Non-governmental organization.

NMCB. Naval mobile construction battalion.

NRCC. Navy regional contracting center.

NSE. Navy support element.

NSN. National stock number.

O

OCONUS. Outside the continental United States.

OPCON. Operational control.

OPGEN. Operational general message.

OPLAN. Operation plan.

OPORD. Operational order.

OPTAR. Operating target.

OPTASK. Operational task.

OPTEMPO. Operating tempo.

P

PHIBCB. Amphibious construction battalion.

PMC. Passenger/mail/cargo.

POD. Point of debarkation/discharge or proof of delivery

POE. Point of embarkation; point of entry.

POL. Petroleum, oils and lubricants.

PVO. Private voluntary organization.

R

RC. Repair coordinator.

RDD. Required delivery date (at destination).

RFI. Request for information.

RRF. Ready reserve force.

RSOI. Reception, staging, onward movement, and integration.

S

SACEUR. Supreme Allied Command, Europe.

SACLANT. Supreme Allied Command, Atlantic.

SALTS. Streamlined automated logistics transmission system.

SECDEF. Secretary of Defense.

SECNAV. Secretary of the Navy.

SFM. Supply and financial management.

SIGMA. Shore intermediate maintenance activity.

SLOC. Sea line of communication.

SOF. Special operation forces.

SOFA. Status-of-forces agreement.

SOP. Standing operating procedure.

SPAWAR. Space and Naval Warfare Systems Command.

SPMAGTF. Special Purpose Marine Air Ground Task Force.

SPOD. Sea port of debarkation.

SPOE. Sea port of embarkation.

SSB. Supply Support Battalion.

SYSCOM. Systems command.

T

T-AFS. Combat stores ship (MSC).

T-AH. Hospital ship (MSC).

T-AOE. Fast combat support ship (MSC).

T-ATF. Fleet ocean tug (MSC).

T-AVB. Aviation logistics support ship (MSC).

TAMS. Transportation Analysis, Modeling and Simulation.

TAV. Total asset visibility.

TC-AIMS II. Transportation Coordinator's Automated Information for Movement System II.

TF. Task force.

TFLC. Task Force Logistics Coordinator.

TG. Task group.

TPFDD. Time-phased force and deployment data.

TPFDL. Time-phased force and deployment list.

TYCOM. Type commander.

U

UMMIPS. Uniform material movement and issue priority system.

UN. United Nations.

UNREP. Underway replenishment.

URC. Underway Replenishment Coordinator.

URG. Underway replenishment group.

USCENTCOM. United States Central Command.

USCG. United States Coast Guard.

USCINCTRANS. Commander in Chief, United States Transportation Command.

USEUCOM. United States European Command.

USJFCOM. United States Joint Forces Command.

USPACOM. United States Pacific Command.

USSOCOM. United States Special Operations Command.

USSOUTHCOM. United States Southern Command.

USSPACECOM. United States Space Command.

USSTRATCOM. United States Strategic Command.

USTRANSCOM. United States Transportation Command.

V

V/STOL. Vertical/short takeoff and landing.

VC. Fleet Composite Squadron.

VERTREP. Vertical replenishment.

VISA. Voluntary Intermodal Sealift Agreement.

VOD. Vertical onboard delivery.

VR. Fleet Logistics Support Squadron.

VRC. Fleet Logistics Support Squadron, Carrier Onboard Delivery (COD).

W

WRM. War reserve materiel.

SUGGESTED FOLLOW-ON READING

The naval professional wanting additional information on logistics operations and related topics may have interests varying from a direct requirement for assistance conducting this day's operations, to an esoteric interest in the foundations of logistics theory. This section is organized to simplify the search by separating the listings into general areas. The most important areas for direct application of logistics doctrine is the extensive Navy Warfare Publication (NWP) and United States Marine Corps Warfighting Publication (MCWP) libraries. These resources offer one or more substantive volumes in each of the functional areas of logistics, and expand on doctrine with more detailed discussions of organizational, technical, and procedural matters. Of most direct concern here is the NWP-4 and MCWP-4 series of logistics publications, which provide excellent guidance for the conduct of naval logistics operations, and include substantial information common to naval logistics operations. Readers are reminded that these libraries are a living resource; various publications within the library will be under development or revision at any point. This process is necessary to maintain currency of the information presented. In addition, the numbering and naming of some publications may change. The simplest way to view these publications is via the respective websites of the Navy Warfare Development Command (www.nwdc.navy.smil.mil) and the Marine Corps Combat Development Command (www.mccdc.usmc.mil).

Also listed in the suggested reading are representative Joint, and Allied publications rich in doctrinal or operational information. The NATO publications are particularly interesting to anyone involved in naval logistics. The list offered is not comprehensive, but is intended to indicate the scope of available information on doctrine and practices governing naval, joint, and combined logistics operations. Joint and combined operations constitute such a major portion of all military operations today that every naval professional will find a direct need to understand and operate in the joint and combined environments. The current joint publications listed here, and some service publications, may be accessed online from the Joint Electronic Library at <http://www.dtic.mil/doctrine>. This library is also available from the Joint Warfighting Center on CD-ROM.

Finally, for those naval professionals wanting to further their understanding of logistics history and theory, a brief selection of relevant titles is

offered. These include topics on military and naval theory and operations, logistics theory and history, developing doctrine, and command and control. They are not expected to assist the operational commander, planner, or logistician in the daily discharge of duty; they offer a few of the many possible opportunities to broaden the perspectives from which we approach our duties.

Navy Publications

Naval Doctrine Publication 1, Naval Warfare

Navy Warfare Publication 3-02.14, The Naval Beach Group

Navy Warfare Publication 3-02.21, MSC Support of Amphibious OPS

Navy Warfare Publication 3-02.3, Maritime Positioning Force (MPF) Operations

Navy Warfare Publication 4-01, Naval Transportation

Navy Warfare Publication 4-01.1, Navy Expeditionary Shore-Based Logistics Support and RSOI

Navy Warfare Publication 4-01.4, Underway Replenishment

Navy Warfare Publication 4-02, Naval Force Medical Protection

Navy Warfare Publication 4-02.2, Patient Movement

Navy Warfare Publication 4-02.4, Fleet Hospitals

Navy Warfare Publication 4-02.5, USMC Health Service Support Operations

Navy Warfare Publication 4-04, Naval Civil Engineering Operations

Navy Warfare Publication 4-04.1, Seabee Operations in the MAGTF

Navy Warfare Publication 4-04.2, Navy Civil Engineer Operations for Component Commanders

Navy Warfare Publication 4-07, Naval Maintenance

Navy Warfare Publication 4-08, Naval Supply Operations

Navy Warfare Publication 4-09, Other Logistics Services, Part I – VIII

Navy Warfare Publication 4-10, Naval Conventional Ordnance Management

Navy Warfare Publication 4-11, Environmental Protection

Naval Doctrine Publication 5, Naval Planning

Navy Warfare Publication 5-01, Navy Operational Plans

Naval Doctrine Publication 6, Naval Command and Control

Navy Warfare Publication 6-00.1, Command and Control

Marine Corps Publications

Marine Corps Doctrine Publication 4, Logistics

Marine Corps Warfighting Publication 3-17, Engineer Operations

Marine Corps Warfighting Publication 4-1, Logistics Operations

Marine Corps Warfighting Publication 4-11, Tactical Level Logistics

Marine Corps Warfighting Publication 4-11.1, Health Services Support Operations

Marine Corps Warfighting Publication 4-11.2, Patient Movement

Marine Corps Warfighting Publication 4-11.3, Transportation Operations

Marine Corps Warfighting Publication 4-11.4, Maintenance Operations

Marine Corps Warfighting Publication 4-11.6, Bulk Liquids

Marine Corps Warfighting Publication 4-11.7, MAGTF Supply Operations

Marine Corps Warfighting Publication 4-11.8, Services

Marine Corps Warfighting Publication 4-12, Operational Level Logistics

Marine Corps Doctrine Publication 5, Planning

Marine Corps Doctrine Publication 6, Command and Control

Joint Publications

Joint Publication 3-07, Joint Doctrine for Military Operations Other Than War

Joint Publication 3-08, Interagency Coordination During Joint Operations

Joint Publication 3-17, Joint Tactics, Techniques, and Procedures for Theater Airlift Operations

Joint Publication 3-34, Joint Engineer Doctrine

Joint Publication 3-35, Joint Deployment and Redeployment Doctrine

Joint Publication 4-0, Joint Doctrine for Logistics Support of Joint Operations

Joint Publication 4-01, Joint Doctrine for the Defense Transportation System

Joint Publication 4-01.1, Joint Tactics, Techniques, and Procedures for Airlift Support to Joint Operations

Joint Publication 4-01.2, Joint Tactics, Techniques, and Procedures for Sealift Support to Joint Operations

Joint Publication 4-01.3, Joint Tactics, Techniques, and Procedures for Movement Control

Joint Publication 4.01.4, Joint Theater Distribution

Joint Publication 4-01.5, Joint Tactics, Techniques, and Procedures for Water Terminal Operations

Joint Publication 4-01.6, Joint Tactics, Techniques, and Procedures for Joint Logistics Over the Shore

Joint Publication 4-01.7, Joint Tactics, Techniques, and Procedures for Use of Intermodal Containers in Joint Operations

Joint Publication 4-01.8, Joint Reception, Staging, Onward Movement, and Integration (JRSOI)

Joint Publication 4-01.9, Global Distribution

Joint Publication 4-02, Joint Doctrine for Health Service Support in Joint Operations

Joint Publication 4-02.1, Joint Tactics, Techniques, and Procedures for Health Service Logistics Support in Joint Operations

Joint Publication 4-02.2, Joint Tactics, Techniques, and Procedures for Patient Movement in Joint Operations

Joint Publication 4-03, Joint Bulk Petroleum Doctrine

Joint Publication 4-04, Joint Doctrine for Civil Engineering Support

Joint Publication 4-05, Joint Mobilization Planning Doctrine

Joint Publication 4-05.1, Joint Tactics, Techniques, and Procedures for Manpower Mobilization and Demobilization Operations: Reserve Component Callup

Joint Publication 4-06, Joint Tactics, Techniques, and Procedures for Mortuary Affairs in Joint Operations

Joint Publication 4-07, Joint Tactics, Techniques, and Procedures for Common User Logistics during Joint Operations

Joint Publication 4-08, Joint Doctrine for Logistic Support of Multinational Operations

Joint Publication 5-0, Joint Doctrine for Planning Joint Operations

Joint Publication 5-00.2, Joint Task Force (JTF) Planning Guidance and Procedures

Allied Publications

Allied Joint Publication – 4, Allied Joint Logistic Doctrine

Allied Logistics Publication – 11, Multinational Maritime Force Logistics

Allied Tactical Publication – 16, Replenishment At Sea

Professional Interest

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