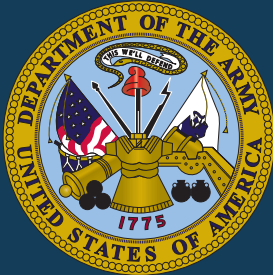


Joint Publication 4-0



Joint Logistics



20 July 2023



PREFACE

1. Scope

This publication is the keystone document of the joint logistics series. It provides fundamental principles and guidance for logistics planning, execution, and assessment in support of joint operations. It also discusses logistics responsibilities, authorities, and control options available to a joint force commander (JFC) and offers precepts to inform the commander's decision-making process.

2. Purpose

This publication has been prepared under the direction of the Chairman of the Joint Chiefs of Staff (CJCS). It sets forth joint doctrine to govern the activities and performance of the Armed Forces of the United States in joint operations, and it provides considerations for military interaction with governmental and nongovernmental agencies, multinational forces, and other interorganizational partners. It provides military guidance for the exercise of authority by combatant commanders and other joint force commanders, and prescribes joint doctrine for operations and training. It provides military guidance for use by the Armed Forces of the United States in preparing and executing their plans and orders. It is not the intent of this publication to restrict the authority of the JFC from organizing the force and executing the mission in a manner the JFC deems most appropriate to ensure unity of effort in the achievement of objectives.

3. Application

a. Joint doctrine established in this publication applies to the Joint Staff, combatant commands, subordinate unified commands, joint task forces, subordinate components of these commands, the Services, the National Guard Bureau, and combat support agencies.

b. This doctrine constitutes official advice concerning the enclosed subject matter; however, the judgment of the commander is paramount in all situations.

c. If conflicts arise between the contents of this publication and the contents of Service publications, this publication takes precedence unless the CJCS, normally in coordination with the other members of the Joint Chiefs of Staff, has provided more current and specific guidance, or the Secretary of Defense has directed otherwise. Commanders of forces operating as part of a multinational (alliance or coalition) military command should follow multinational doctrine and procedures ratified by the United States unless they conflict with this guidance. For doctrine and procedures not ratified by the United States, commanders should evaluate and follow the multinational command's doctrine and procedures, where applicable and consistent with United States law, regulations, and doctrine.

For the Chairman of the Joint Chiefs of Staff:



DAGVIN R.M. ANDERSON
Lieutenant General, US Air Force
Director for Joint Force Development

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**SUMMARY OF CHANGES
REVISION OF JOINT PUBLICATION 4-0
DATED 4 FEBRUARY 2019**

- **Clarifies the distinction between sustainment and logistics.**
- **Incorporates lessons learned from operating in globally integrated operations and articulates ongoing trends that threaten logistics in the global environment.**
- **Highlights the importance of building partnerships with allies and partners to enhance logistics capabilities.**
- **Adds content on integrating commercial capabilities in planning and operations (aligned with changes to Joint Publication 3-0, *Joint Campaigns and Operations*) and underscores the importance of managing commercial reliance to be threat-informed, balancing risk and opportunities, and promoting resilience.**
- **Incorporates an emphasized importance of joint logistics education.**
- **Updates the principles of logistics based upon lessons learned.**
- **Updates and clarifies joint logistics roles and responsibilities, including those belonging to the Department of Defense as well as interagency partners; enhances discussion of multinational cooperation in joint logistics.**
- **Refreshes and modernizes the discussion of technologies available for logisticians to leverage to enable joint logistics.**
- **Incorporates space operations—both logistics support to space operations and space operations that support logistics.**
- **Adds “Joint Logistics Assessments” as a standalone chapter (VI), rather than including assessments within Chapter V, “Joint Logistics Execution.”**
- **Deletes several appendices that have their own standalone publication, including Defense Transportation System, Sealift Support to Joint Operations, Joint Terminal Operations, Joint Logistics Over-the-Shore, Joint Health Services, Joint Bulk Petroleum and Water Doctrine, Joint Mobilization Planning, Distribution Operations, and Operational Contract Support.**
- **Reflects complete rewrite of “Mortuary Affairs” in Appendix D.**
- **Updates, adds, and removes terms and definitions from the various figures.**

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EXECUTIVE SUMMARY COMMANDER'S OVERVIEW

- **Presents an overview of joint logistics and sustainment.**
- **Discusses the core logistics functions.**
- **Provides an overview of joint logistics organizations.**
- **Discusses joint logistics planning.**
- **Presents essential elements for joint logistics execution.**
- **Discusses joint logistics assessments.**

Joint Logistics and Sustainment Overview

Logistics and Sustainment Sustainment is a critical joint function that provides commanders options to achieve military objectives. Joint logistics sometimes provides the first strategic national joint task: to deploy and redeploy forces globally at the time and place of choice.

Logistics includes planning, executing, and assessing the movement and support of forces. It concerns global efforts to enable continued military action while scheduling the mobilization and movement of forces and equipment to support the joint force commander's (JFC's) concept of operations (CONOPS).

When viewed together, the relationship between logistics and sustainment may be seen in an ends, ways, and means context. Sustainment frames both the objective (ends) and provides the means, in both capabilities and capacity, to achieve those ends. Logistics represents the activity of planning for and employing the capabilities within the capacity available to achieve the stated ends.

The Global Environment Military leaders conduct globally integrated logistics activities and operations in a complicated, interconnected, transregional environment. These operations involve the total force, which consists of the Active Component, the Reserve Component, Department of Defense (DoD) civilians, and contracted support personnel. Additional

capabilities in the area of responsibility or joint operations area could also include a variety of military forces, other governmental organizations, nongovernmental organizations (NGOs), commercial entities, and multinational forces. The framework of strategic, operational, and tactical levels of warfare helps commanders visualize the relationships and actions required to link strategic objectives to campaigns and major operations and link their objectives to tactical operations.

Joint Logistics Enterprise

The joint logistics enterprise (JLEnt) is a cooperative coalition of key global logistics providers within and beyond DoD. Key DoD organizations in the JLEnt include the Services' logistics elements, United States (US) Transportation Command, Defense Logistics Agency (DLA), the Joint Staff J-4 [Logistics Directorate], logistics directorates of a joint staff (J-4s) of the combatant commands (CCMDs), and the office of the Under Secretary of Defense for Acquisition and Sustainment (USD[A&S]).

Other US Government departments and agencies, NGOs, and commercial partners also play a vital role in virtually all aspects of the JLEnt and function on a global scale, providing comprehensive, end-to-end capabilities.

Joint Logistics Personnel

Joint logisticians are military personnel, civilians, and contractors who specialize in providing joint logistics extending from the defense industrial base to the end user. Joint logisticians plan, supervise, execute, synchronize, and coordinate core joint logistics functions.

Principles of Logistics

Principles of logistics apply primarily to JFC planning, orders, and execution and at echelon with subordinate commanders:

- **Resilience.** Resilience is the ability to recover from or adapt to change (e.g., contested environments, adversary interdiction, impacts of weather and other environmental factors, labor disputes, global pandemics).
- **Responsiveness.** Responsiveness is providing the right capability when and where it is needed.

- **Feasibility.** Feasibility is the criterion for assessing whether the assigned mission can be accomplished using available resources within the time contemplated.
- **Flexibility.** Flexibility is the ability to improvise and adapt logistics requirements and procedures to changing situations, missions, and operational requirements.
- **Simplicity.** Simplicity fosters efficiency in planning and execution and enables more effective control over logistics activities and operations.
- **Visibility.** JLEnt visibility is access to logistics processes, resources, and requirements data providing the information necessary to make effective decisions.
- **Cooperation.** Cooperation among staff across the JLEnt greatly enhances the effectiveness of the logistics and sustainment provided.
- **Economy.** Economy is the minimum number of resources required to achieve a specific objective.

Core Logistics Functions

Introduction

The core logistics functions are deployment and distribution, supply, maintenance, logistics services, operational contract support, engineering, and joint health services.

Deployment and Distribution

The global engagement of threats, coupled with the necessity to rapidly deploy, execute, and sustain operations worldwide, makes the deployment and distribution capability the cornerstone of joint logistics.

- **Move the Force.** The Joint Staff J-3 [Operations Directorate] is the DoD focal point to improve the joint deployment process by developing policy, procedures, and information technology in collaboration with other stakeholders.
- **Sustain the Force.** Sustaining the force consists of delivering cargo and personnel. United States Transportation Command plans and coordinates the DoD distribution system and collaborates with DLA and other logistics providers to move materiel through the distribution pipeline, from sourcing to the end user.
- **Operate the Joint Deployment and Distribution Enterprise.** The joint deployment and distribution enterprise includes DoD equipment, procedures,

doctrine, leaders, technical connectivity, information, shared knowledge, organizations, facilities, training, and materiel necessary to conduct joint deployment and distribution operations with mobility, transportation (including the Defense Transportation System), force projection, sustainment, redeployment, and retrograde operations.

Supply

The joint logistician requires an understanding of the complexities of supply operations, the functions and processes that define them, and the organizations and personnel responsible for executing tasks to meet the JFC's requirements. The Services and DLA are primarily responsible for DoD supply chain operations and manage the supply processes to provide common commodities and services to joint forces. Planning for supply operations requires a collaborative environment to fully consider all major components of the JLEnt, to include the return and retrograde of equipment and supplies.

Maintenance

Maintenance supports system readiness for the JFC. The Services, as part of their Title 10, US Code, responsibilities, execute maintenance as a core logistics function. The Services employ a maintenance structure of depot- and field-level maintenance to improve the JFC's freedom of action and sustain the readiness and capabilities of assigned units.

Logistics Services

Logistics services comprise the support capabilities that collectively enable the United States to rapidly provide global sustainment for military forces. Logistics services include many scalable and disparate capabilities. Included in this area are food service, water and ice service, contingency base services, hygiene services, and mortuary affairs.

Operational Contract Support

Operational contract support is the process of planning for and obtaining supplies, services, and construction from commercial sources in combatant commander (CCDR)-directed joint or single-Service activities and operations, regardless of their designation as formal contingency operations. Operational contract support provides DoD's doctrinal framework, capability, and process, through the CCMD, Service component, and subordinate levels, to harness potential commercial capability to produce unified action and integrate it into plans, orders, exercises, and multinational operations; make timely, risk-informed

decisions on the best sources for procuring supplies, services, and construction through a contract; and then manage and assess the resultant contracted support.

Engineering

Engineer capabilities enable joint operations by facilitating freedom of action necessary for the JFC to meet mission objectives. Engineer operations integrate combat, general, and geospatial engineering to meet national and JFC requirements. Joint engineer operations facilitate the mobility and survivability of friendly forces; counter the mobility of enemy forces; provide infrastructure to position, project, protect, and sustain the joint force; contribute to a clear understanding of the physical environment; and facilitate activities of civilian authorities and other nations.

Joint Health Services

Joint health services support is provided to personnel by applying Services' health support capabilities into a joint network of prevention, protection, and treatment, creating an integrated health support capability. The joint health services medical functions are organized under medical command and control, force health protection, and health service support.

Force health protection functions include preventive medicine, health surveillance and risk management, biosurveillance, combat and operational stress control, dental services, laboratory services, and veterinary services (including food protection, animal care, and veterinary preventive medicine).

Joint Logistics Organizations

Introduction

Logisticians across the total force operate in areas, physical or virtual, where adversarial actions, decisions, and lethal and nonlethal effects occur across physical domains, the information environment (which includes cyberspace), and the electromagnetic spectrum. This reality serves as a catalyst for force design and development evolutions and has implications on the authorities, organizations, and controls that synchronize logistics for the JFC.

Logistics Organizations

Understanding the roles and responsibilities of key stakeholders in the JLEnt is an important step in fully synchronized and coordinated joint logistics activities and operations.

The Secretary of Defense (SecDef) is the principal advisor to the President on defense matters and serves as the leader and chief executive officer of DoD. There are several offices of SecDef with logistics and sustainment interests:

- **USD (A&S).** USD(A&S) is the principal staff assistant and advisor to SecDef and Deputy Secretary of Defense for all matters relating to logistics.
- **Under Secretary of Defense for Policy.** The Under Secretary of Defense for Policy is the principal staff assistant and advisor to SecDef for all matters regarding the formulation of national security and defense strategy and policy and the integration and oversight of DoD policy, strategy, resourcing, posture, plans, execution, and capabilities to achieve national security objectives.
- **Assistant Secretary of Defense for Sustainment.** The Assistant Secretary of Defense for Sustainment is the principal advisor to USD(A&S), SecDef, and the Deputy Secretary of Defense on logistics and materiel readiness in DoD and is the principal logistics official within senior management.
- **Deputy Assistant Secretary of Defense for Logistics.** The Deputy Assistant Secretary of Defense for Logistics is the principal advisor for the department's logistics strategy and policy, supply, storage and distribution, property and equipment, transportation, and program support.
- **Deputy Assistant Secretary of Defense for Environment and Energy Resilience.** The Deputy Assistant Secretary of Defense for Environment and Energy Resilience provides policy and governance for programs and activities that enable resilience and cyberspace-secure energy for weapon systems and installations.
- **Under Secretary of Defense for Intelligence and Security.** The Under Secretary of Defense for Intelligence and Security is the principal staff assistant and advisor to SecDef and the Deputy Secretary of Defense regarding intelligence, counterintelligence, security, sensitive activities, and other intelligence-related matters.
- **Under Secretary of Defense for Research and Engineering.** The Under Secretary of Defense for Research and Engineering serves as the primary advisor

to DoD leadership on all matters pertaining to the DoD research and engineering enterprise, technology development and transition, developmental prototyping, experimentation, and administration of testing ranges and activities.

- **Assistant Secretary of Defense (Industrial Base Policy)** is the principal advisor to the USD(A&S) for developing DoD policies for the maintenance of the US defense industrial base.
- **Assistant Secretary of Defense for Space Policy.** The Assistant Secretary of Defense for Space Policy is the senior official responsible for the overall supervision of DoD policy for space warfighting.

Chairman of the Joint Chiefs of Staff (CJCS). The CJCS is the principal military advisor to the President and the National Security Staff (which consists of the National Security Council and the Homeland Security Council) and SecDef. The CJCS prepares joint logistics and mobility plans to enable strategic and contingency plans and recommends the assignment of logistics and mobility responsibilities to the Armed Forces of the United States.

- **The Joint Staff J-2 [Directorate of Intelligence].** The Joint Staff J-2 is under the authority, direction, and control of the CJCS and is resourced by the Defense Intelligence Agency.
- **The Joint Staff J-3.** The Joint Staff J-3 maintains the global capability for rapid and decisive military force power projection.
- **The Joint Staff J-4.** The Joint Staff J-4 leads the JLEnt by integrating logistics planning and execution in support of joint operations to drive joint force readiness, maximize the JFCs' freedom of action, and advise the CJCS on logistics matters. The Joint Staff J-4 coordinates across the myriad organizations in the logistics community of interest including the Office of the Secretary of Defense, the Services, CCMDs, the industrial base, and our multinational and interagency partners.
- **The Joint Staff J-5 [Strategic Plans and Policy].** The Joint Staff J-5 leads the development of strategies and plans for the joint force and proposes policy recommendations to the CJCS to support the provision of military advice to SecDef and the President.

- **The Joint Staff J-6 [Command, Control, Communications, and Computers/Cyber].** The Joint Staff J-6 supports the CJCS in providing best military advice while advancing cybersecurity policy implementation, joint/multinational interoperability, and command and control capabilities required by the joint force.
- **The Office of the Joint Staff Surgeon.** The Office of the Joint Staff Surgeon coordinates health service support and force health protection capabilities for the joint force.

Military Departments. The Military Departments exercise authority to conduct all affairs of their departments, including to recruit, organize, supply, equip, train, service, mobilize, demobilize, administer, and maintain forces; construct, outfit, and repair military equipment; adhere to environmental compliance; construct, maintain, and repair buildings, structures, and utilities; and acquire, manage, and dispose of real property or natural resources.

Components of Military Departments. In accordance with Title 10, US Code, the Services are responsible for preparing for employment of Service forces. They recruit, supply, organize, train, equip, service, mobilize, demobilize, provide administrative services, and maintain ready forces. Services are the center of a collaborative network, and their logistics organizations form the foundation of the JLEnt. The Services are the primary force providers and executors of joint logistics, as well as the primary providers of uniformed and contracted logistics to their own Service organizations supporting the CCDR. They are responsible for operational logistics systems and platforms and for maintaining systems' life-cycle readiness.

CCMDs. Unless otherwise directed by the President or SecDef, the CCDR exercises authority, direction, and control over the commands and forces assigned to that command through combatant command (command authority). CCDRs coordinate and approve the administration, logistics (including control of resources and equipment, internal organization, and training), and discipline necessary to carry out missions assigned to the command.

DLA. As the nation’s logistics combat support agency, DLA manages the global supply chain and in collaboration with JLEnt partners sustains the readiness and lethality of the Armed Forces of the United States. As a statutory combat support agency, DLA provides logistics advice, advocacy, and assistance to the Office of the Secretary of Defense, Joint Chiefs of Staff, the CCDRs, Military Departments, DoD components, and interagency partners.

Defense Health Agency. This agency is a joint, integrated combat support agency that enables the Army, Navy, and Air Force medical services to provide a medically ready force in both peacetime and wartime.

Defense Contract Management Agency. This agency provides contract administration service to the DoD acquisition enterprise and its partners to ensure delivery of quality products and services to the operating force.

Defense Security Cooperation Agency. This agency arranges DoD-funded and space-available transportation for NGOs for delivery of humanitarian goods to countries in need; coordinates foreign disaster relief missions; and, in concert with DLA, procures, manages, and arranges for delivery of humanitarian daily rations and other humanitarian materiel to achieve US policy objectives.

Logistics Authorities

The fundamental role of joint logistics is to integrate and coordinate logistics capabilities from department, Service, agency, and other providers of logistics and to facilitate execution of the Services’ Title 10, US Code, responsibilities while enabling the ever-changing needs of the JFC.

Executive Agent. At the strategic national level, SecDef or the Deputy Secretary of Defense may assign the head of a DoD component as a DoD executive agent with specific responsibilities, functions, and authorities to provide defined levels of logistics or sustainment for operational missions, or administrative or other designated activities that involve two or more of the DoD components.

Directive Authority for Logistics. At the strategic theater level, there are several tools available to a CCDR

to execute logistics activities and operations, including directive authority for logistics.

Lead Service. A lead Service or Service component is responsible for the programming and resourcing of common-user items, logistics functions, and/or service support. A CCDR may choose to assign specific common-user logistics functions, to include both planning and execution, to a lead Service. These assignments can be for single or multiple common logistics functions and may be based on phases or operational areas within the CCDR's area of responsibility.

Base Operating Support-Integrator. A sub-function of lead Service, the base operating support-integrator plans and synchronizes the effective and efficient application of resources and contract support to facilitate unity of effort in the coordination of sustainment functions at designated contingency locations. A CCDR may designate a Service component commander as the lead Service responsible for base operating support-integrator at initial and temporary contingency locations and propose to the CJCS the designation of lead Service at semi-permanent locations.

Logistics Control Options

The CCDR's logistics authority enables use of all logistics capabilities of the forces assigned as necessary for the accomplishment of the mission. The President or SecDef may extend this authority to attached forces when transferring those forces for a specific mission and should specify this authority in the establishing directive or order. The CCDR may elect to control logistics through the J-4 staff tailored and augmented, "CCMD's Logistics Directorate." The CCDR may also decide to control joint logistics by designating a subordinate logistics organization.

Technology to Enable Joint Logistics

The rapid advance of technology, if leveraged effectively, can enable the JFC to control logistics within the operational environment (OE). Automatic identification technology, in the form of information systems, decision-support tools, and communications capabilities, can illuminate information; improve visibility of logistics processes, resources, and requirements; and provide the information necessary to rapidly synthesize, visualize, and understand the environment to create an effective decision process that outpaces any adversary calculus. The ability to control, coordinate, synchronize, and manage joint logistics in the OE is dependent upon and challenged by a

landscape of legacy information systems, emerging digital modernization initiatives, and a portfolio of existing, but flawed and incomplete, tools and capabilities.

Intergovernmental and Interorganizational Cooperation

Interorganizational cooperation that results in operational arrangements for joint logistics is bound together by a web of relationships among global providers. These relationships are critical to joint logistics success because logistics capabilities, resources, and processes are vested in myriad organizations.

- **Multinational.** Logisticians work with multinational partners. While the United States maintains the capability to act unilaterally, it is likely that the requirement, and the desire, to operate with multinational partners continues to increase.
- **International Organizations and NGOs.** Integration and coordination among military forces, NGOs, and international organizations are different from the coordination requirements of a purely military operation. These differences present significant challenges to coordination.
- **Logistics Support of US Government Departments and Agencies.** Integrating logistics at lower echelons is complicated by the creation of more support relationships across Service lines. Likewise, multinational logistics operations and support to interagency partners can complicate logistics by introducing a wider variety of potential partners.

Space Sustainment Operations

Logistics Support to Space Operations. Space operations logistic requirements include support to all three segments of the space domain: terrestrial, link, and orbital. In addition to these three segments, human space flight logistics support is considered for crewed space launches and recoveries.

Space Operations Support to Logistics. Space access, mobility, and logistics enable movement and support of military equipment and personnel into, within, and from space. Enabling capabilities in space (e.g., satellite communications; positioning, navigation, and timing; intelligence, surveillance, and reconnaissance; environmental monitoring) support sustainment activities and operations.

Joint Logistics Planning

Introduction

Joint logistics planning is conducted under the construct of joint planning. Joint planning consists of planning activities associated with joint military operations by CCDRs and their subordinate commanders in response to directives, contingencies, and crises.

The theater logistics overview (TLO) segment of the CCMD campaign plan articulates the overarching logistic architecture of the CCDR's area of responsibility or functional area. It is the starting point of subsequent logistics planning for regional operation plan (OPLAN) development and other contingencies.

Planning Functions

Joint planning encompasses four planning functions: strategic guidance, concept development, plan development, and plan assessment.

Logistics planners at every level should set conditions for subordinate success. Timely, accurate, and responsive planning enables trade-offs, alternate courses of action, and, therefore, freedom of action for JFCs. Joint logistics planning links the mission and commander's intent to core logistics functions, procedures, and organizations. Effective logistics planning must be integrated with operational planning at all levels and throughout the planning process to create decision space, consider the impact of logistics requirements on operational decisions, leverage opportunities, and mitigate risks.

A means of anticipating future requirements is through the theater logistics analysis process supporting TLO development and codification, logistics estimate, and logistics planning process. Anticipating requirements is essential to ensuring responsiveness and determining adequacy of logistics capabilities. The purpose of the logistics planning process is to ensure the logistics facts, assumptions, information, and considerations are properly analyzed and effectively synthesized within an integrated plan that enables the CONOPS.

Joint Planning Process

Joint planning is the overarching process that guides CCDRs in developing plans for the employment of military power within the context of national strategic objectives and national military strategy to shape events, meet contingencies, and respond to unforeseen crises.

Logisticians provide key inputs, analysis, and assessments throughout the process. Logistics input is derived from mission analysis; course of action development, analysis, and selection; and plan development, to include preparation and submission of a logistics supportability analysis.

Planning Levels

Level 1 Planning Detail—Commander’s Estimate. This level of planning involves the least amount of detail and focuses on producing multiple courses of action to address a contingency.

Level 2 Planning Detail—Base Plan. A base plan describes the CONOPS, major forces, concepts of support, and anticipated timelines for completing the mission.

Level 3 Planning Detail—Concept Plan. This level is an abbreviated OPLAN with selected annexes and a CCDR’s estimate of the plan’s feasibility with respect to forces, logistics, and transportation.

Level 4 Planning Detail—OPLAN. This plan requires a full description of the CONOPS, a complete set of annexes, and a time-phased force and deployment data.

Theater Logistics Analysis

The theater logistics analysis is a supporting process facilitating development of the TLO through examination, assessment, and codification of an understanding of current conditions of the OE. Analysis determines infrastructure, logistics assets/resources, and environmental factors in the OE that optimize or adversely impact means for sustaining operations within the theater.

Theater Logistics Overview

The TLO is a segment of the iterative planning process that addresses identification, understanding, and framing the theater’s mission at the campaign level, not for a specific operation. The TLO uses theater logistics analysis information to inform decisions about the approaches to be used for sourcing and distribution of logistics for theater operations.

Logistics Estimate

The logistics estimate informs the commander’s estimate, concept of logistics support (COLS), operation order development, and execution.

Concept of Logistics Support

In support of the CCDR and preparation of plans/ operation orders, the logistics staff elements prepare a logistics estimate which is further refined and developed into a COLS. The COLS provides a foundational basis in

preparation of annex D (Logistics) for assigned contingency plans and/or operation order development tasks.

Transition to Execution

Planning is iterative and continues as actions and assessments evolve in a dynamic manner across echelons from the strategic national to operational to tactical levels.

Sustainment Distribution Planning and Management Process

Sustainment distribution planning and management provides the joint deployment and distribution enterprise with a suite of five capabilities—distribution lane validation, distribution workload forecast/demand planning, advanced air route planning, strategic surface route plan, and sustainment distribution plans.

Integrating Commercial Capabilities in Planning and Operations

Commercial capabilities—including infrastructure, services and supplies, and associated personnel—may enhance security, support achievement of objectives, and enable military operations when integrated into planning as a first resort. Corporations provide valuable capabilities relevant to military operations (e.g., global access and unique capabilities that do not exist in the organic force structure or inventory). However, access to commercial capabilities is not assured. The joint force competes for finite commercial capacity with partners, civil demand, and even adversaries.

Logistics Planning Documents

TLO, which consists of a detailed analysis by country throughout the CCMD's area of responsibility that identifies key logistics infrastructure by enduring and contingency locations listed on the respective master lists (enduring location master list and contingency location master list).

COLS, which explains how a CDR intends to support and integrate with a CONOPS (within annex C) for a particular contingency operation. A COLS is specific to an OPLAN, concept plan, or integrated contingency plan (integrated family of plans), as appropriate.

Theater distribution plan, a detailed description and analysis of theater distribution capabilities and capacity to ensure sufficient resources, policies, and procedures to satisfy requirements of the theater distribution network.

Logistics supportability analysis, an analysis by the logistics organizations of their ability to provide the critical capabilities required to execute and sustain the supported CCDR's priority concept plan/OPLANs that have a time-phased force and deployment data.

Logistics estimate.

Joint Logistics Execution

Introduction

JFCs adapt to evolving mission requirements to operate effectively across the competition continuum. These operations differ in complexity and duration, and to support them, the joint logistician should be aware of the characteristics and focus of these operations and tailor logistics appropriately. Military activities and operations extend from shaping activities to major operations and campaigns. US and multinational partners collaborate to expand mutual support and leverage capabilities to quickly respond to future contingencies.

Joint Logistics Execution

Military Engagement, Security Cooperation, and Deterrence. Development of CCMD campaign plans is focused on current operations, military engagement, security cooperation, deterrence, and other shaping or preventative activities. Specific issues that can be addressed in the CCMD campaigns include securing interagency approvals; addressing partner nation and regional sensitivities, changing politics, and overall stability; determining optimal presence and posture; building partnership capacity; and developing formal agreements/permissions between the United States and partner nations.

Limited Contingency Operations. Limited contingency operations have a unique and typically narrow scope, scale, and focus. Many of these operations involve a combination of military forces and private-sector capabilities in close cooperation with other US Government departments and agencies, international organizations, and NGOs. To effectively support crisis and contingency operations, logisticians should understand multinational, private-sector, and interagency logistics capabilities and coordinate mutual support, integrating them into the joint operation when appropriate.

*Essential Elements for
Joint Logistics Execution*

Campaigns and Major Operations. Campaigns and major operations in armed conflict place great demands on intertheater/intratheater logistics and sustainment systems, typically involving the deployment, sustainment, redeployment, and retrograde of large combat forces. Joint logistics can be executed by an appointed lead Service or agency for common-user logistics. Joint logisticians develop support plans for the duration of the operation, as well as the return of personnel and equipment to the continental United States or other locations.

Organizing for Execution. The CCMD J-4 monitors, assesses, plans, synchronizes, and directs logistics activities and operations throughout the theater. This transition may occur through the directed expansion of the joint logistics operations center and/or the CDR's joint deployment and distribution operations center.

Expeditionary Capabilities. Expeditionary theater opening capabilities provide CDRs critical initial actions for rapid insertion/expansion of force capabilities into an operational area that directly affects the JFC's ability to expand and adjust force flow to allow flexible, agile response to asymmetric and dynamic operational requirements.

Technology and Communications. Logisticians use a variety of automated tools to assist in planning and execution. Effective execution of logistics plans requires a robust data communications architecture.

Situational Awareness. A role of the joint logistician is to provide situational awareness of the current logistics posture to inform the JFC in making decisions and disseminating and executing directives. Maintaining situational awareness requires visibility of the status and location of resources.

Battle Rhythm. The JFC establishes a battle rhythm for the operation along with mechanisms to establish and maintain visibility for all functional areas, to include logistics. The joint logistician develops a logistics battle rhythm for the sustainment staff that informs the JFC's battle rhythm and is designed to provide proactive logistics options.

Joint Logistics Boards, Offices, Centers, Cells, and Groups. The joint logistician often uses boards, centers, or other organizations to assist the J-4 staff in executing joint logistics activities and operations, by prioritizing and/or allocating resources, controlling functions, or prioritizing requirements.

Execution Synchronization. A synchronization matrix or decision support tool/template can establish common reference points to help assess the progress of an operation. Joint logisticians may use a matrix to display progress against actual execution and recommend adjustments as needed.

Commander's Critical Information Requirements. Commander's critical information requirements are elements of friendly and enemy information the commander identifies as critical to timely decision making. Joint logisticians update the critical information requirements related to logistics.

Explosives Safety and Munitions Risk Management. Logistics planning must comply with DoD policy when planning for the storage of munitions. DoD policy requires an approved explosives safety site plan or a munitions-related risk decision for all locations and activities where DoD munitions are involved or are planned to be in the future.

Transitioning Joint Operations

Transitioning joint operations is an aspect of the CCDR's strategy that links to achievement of national strategic objectives. The supported CCDR can develop and propose specified conditions approved by the President or SecDef that must be met before a joint operation can be concluded.

Transitioning Joint Logistics Activities and Operations. Joint logisticians monitor transitional activities and ensure resources are fully utilized or redeployed. Withdrawal and redeployment from an operation are challenging and require a synchronized and holistic effort by joint logisticians.

Theater Closure. When it has been determined that joint operations should conclude, joint logistics activities and operations focus on tasks that include redeploying personnel and materiel from the joint operations area to a

new operational area or home station/demobilization station, departure of contractor personnel, disposal of equipment, transitioning materiel and facilities to the host nation, foreign military sales, or disposal of equipment and materiel.

Joint Sustainment to Special Operations

The joint force logistics planners should understand the unique characteristics of special operations forces activities that require nonstandard logistics. Nonstandard logistics involve the overt, covert (Presidential approval required), clandestine, or low-visibility provision of sustainment support, resources, supplies, and/or equipment to US or foreign personnel across a range of missions, particularly in denied areas.

Joint Sustainment to Partner or Proxy Forces

Joint forces support to partner or proxy forces requires additional considerations and is governed by different authorities and permissions. Political and legal considerations significantly limit the degree of support provided and the manner in which it can be provided.

Joint Logistics Assessments

Introduction

Assessments inform decision making by measuring the progress toward accomplishing a task, creating an effect, achieving an objective, or attaining a military end state. They are a continuous process that measure the overall effectiveness of employing capabilities during military operations.

Shortfalls

Shortfalls are the lack of forces, equipment, personnel, materiel, or capability to meet the plan requirement, which would adversely affect the command's ability to accomplish its mission. To overcome logistics capability and capacity shortfalls, they are first identified during the planning process. Unresolved shortfalls are reported and monitored over time and mitigations planned in the interim. Throughout execution, the Joint Staff, joint force providers, Services, CCDRs, and combat support agencies identify and resolve emerging shortfalls as necessary.

Readiness

Readiness reporting assesses the availability and status of organic (military and civilian) forces as well as the ability to perform joint functions. During planning, logistics tasks (based on the Universal Joint Tasks List) are

identified and assigned to organizations responsible for performing them.

It is essential that logistics assessments be integrated in readiness reporting to higher headquarters to inform decision processes at higher levels (e.g., resourcing). Service manning, training, and education reporting should track personnel proficiency and sufficiency to perform logistics tasks; inform global force management processes; and influence assignment, allocation, and apportionment of forces.

Risk

Risk is the probability and consequence of an event causing harm to something valued. Logistics planners assess, mitigate, and report risks. Risk is continuously managed to reduce probability or minimize negative consequences, including assessments of both military and strategic risk. Military risk assessment addresses the joint force's ability to achieve military objectives (risk-to-mission), while sustaining resources (risk-to-force). Strategic risk assesses impacts to US interests (e.g., citizens, territory, infrastructure).

Operations

Enabling effective operations requires assessments to develop measures and reporting of logistics metrics during planning. Logistics should be integrated in commander's critical information requirements with other essential elements of friendly information, and other situational awareness and command and control data. This information may also feed a sustainment or other joint function layer for the common operational picture.

Operation Assessment and Lessons Learned

The operation assessment activities of monitor, evaluate, recommend, and direct apply to logistics operations the same as any other operation. The monitor activity is observing and analyzing indicators of performance or effectiveness as well as the conditions in the OE that affect those indicators. Informed by monitoring, the evaluate activity seeks to ascertain what is working, what did not work, why, and how to inform decision making at appropriate levels.

There are various methods to gather logistics lessons learned. Internal assessments of logistics can be initiated at any time, but establishing a periodic review or

assessment provides consistency over time as circumstances, personnel, and processes change.

Audits

Audits and inspections are generally performed by external organizations for objectivity but may be requested by commanders. Whether requested or assigned, multiple echelons generally participate in, comment on, and respond to audits. Recognizing the existence of a problem, but unable to understand its cause, the organization may request a staff assistance visit.

Strategic Integration

The effectiveness of joint logistics can be measured by assessing the following key performance indicators:

- Velocity is at the core of responsiveness.
- Reliability is reflected in the dependability of the global providers and the development of a resilient distribution network able to deliver required capabilities when needed.
- Effectiveness is the ability of the JLEnt to fully meet the CDR's operational requirements within acceptable risk.
- Globalization, interconnectedness, growing competition for finite resources, and adversary activities during cooperation and competition below armed conflict all combine to require commanders and decision makers at all echelons to continuously assess, adjust plans and guidance, and report risk to inform appropriate, aggregated decisions at the strategic level of warfare.

CONCLUSION

This publication is the keystone document of the joint logistics series. It provides fundamental principles and guidance for logistics planning, execution, and assessment in support of joint operations. It also discusses logistics responsibilities, authorities, and control options available to a JFC and offers precepts to inform the commander's decision-making process.

CHAPTER I

JOINT LOGISTICS AND SUSTAINMENT OVERVIEW

“The line between disorder and order lies in logistics....”

Sun Tzu, *The Art of War*

1. Introduction

a. Joint Publication (JP) 4-0, *Joint Logistics*, is the keystone document in the joint logistics series and supports joint doctrine’s capstone JP 1, Volume 1, *Joint Warfighting*. It provides guidance to joint force commanders (JFCs) and their subordinates to plan, execute, and assess joint military logistics and sustainment activities and operations. It also informs interagency and multinational partners, international organizations, nongovernmental organizations (NGOs), and other civilian decision makers of fundamental principles, precepts, and philosophies that guide the employment and use of logistics and sustainment resources. This publication describes fundamental constructs such as the core logistics functions and joint logistics planning that apply regardless of the nature or circumstances of a specific joint operation. This publication provides context not only for the joint logistics series but also for other keystone doctrine publications that describe supporting functions and processes.

b. This publication provides logistics guidance essential to the operational capability and success of the joint force. It focuses on integrating the joint logistics enterprise (JLEnt) by leveraging global logistics to support JFCs’ objectives. Additionally, it provides guidance for joint logistics; describes core logistics functions essential to success; and offers a framework for combatant commanders (CCDRs) and subordinate commanders to integrate capabilities and provide properly equipped and trained forces, when and where required across the competition continuum.

2. Logistics and Sustainment

a. Sustainment is a critical joint function that provides commanders options to achieve military objectives. Joint logistics sometimes provides the first strategic national joint task: to deploy and redeploy forces globally at the time and place of choice. In uncertain or hostile environments, this task becomes even more challenging. But even before forces begin to move, joint logistics provides opportunities to achieve outcomes by assuring partners, deterring adversaries, and posturing for success in future operations.

b. Logistics includes planning, executing, and assessing the movement and support of forces. It concerns global efforts to enable continued military action while scheduling the mobilization and movement of forces and equipment to support the JFC’s concept of operations (CONOPS). The relative combat power that military forces can generate against an enemy is a function of the nation’s capability and capacity to plan for, gain access to, and deliver forces, equipment, and supplies to the point of application. Joint logistics

promotes sustained readiness for joint forces. The success or failure of all military operations has been foreshadowed by the corresponding preparation of logistics. General Dwight D. Eisenhower once described the importance of logistics: “You will not find it difficult to prove that battles, campaigns, and even wars have been won or lost primarily because of logistics.”

c. Sustainment is one of the seven joint functions (command and control [C2], information, intelligence, fires, movement and maneuver, protection, and sustainment) described in JP 3-0, *Joint Campaigns and Operations*, the provision of logistics and personnel services required to maintain and prolong operations until mission accomplishment.

d. Historically, JFCs are called upon to maintain persistent military engagement in an uncertain, complex, and rapidly changing environment to advance and defend United States (US) values and interests, achieve objectives consistent with national strategy, and conclude operations on terms favorable to the United States. In today’s environment, JFC engagements are even more complex, often engaging near-peer adversaries at a level just below armed conflict. This requires the JFC to consider and integrate military engagements within the full spectrum of diplomatic, informational, military, and economic pressures and powers. Effective logistics and sustainment provides the JFC the means to enable freedom of action and endurance and to extend operational reach. Logistics and sustainment determine the extent to which the joint force can conduct decisive operations, enabling the JFC to seize, retain, and exploit the initiative.

e. When viewed together, the relationship between logistics and sustainment may be seen in an ends, ways, and means context (Figure I-1). Sustainment frames both the objective (ends) and provides the means, in both capabilities and capacity, to achieve those ends. Logistics represents the activity of planning for and employing the capabilities within the capacity available to achieve the stated ends.

f. The JFC depends on sustainment capabilities provided by Congress, industry, and the Services in the form of resources (e.g., funding and materiel—both weapons systems and the additional material to maintain the readiness of the force), force generation (e.g., recruitment, training, and presentation of forces), and endurance (e.g., financial management, war reserves, defense industrial base production capabilities). Sustainment planning and resourcing is predominantly executed by the Services and the Office of the Secretary of Defense. Together, these sustainment elements provide the JFC a mission-capable joint force in accordance with Title 10, United States Code (USC), responsibilities. The JFC develops campaign and contingency plans to meet anticipated threats based on the resources and capabilities the Services make available. The JFC utilizes the generated combat power against identified campaigns through the logistics coordination and synchronization of the planning and execution of the movement of forces and materiel to the points of application.

g. The joint force should effectively allocate scarce resources to meet global priorities. Joint logisticians should access strategic logistics information and institute flexible processes that provide an accurate picture of the logistics environment to facilitate timely

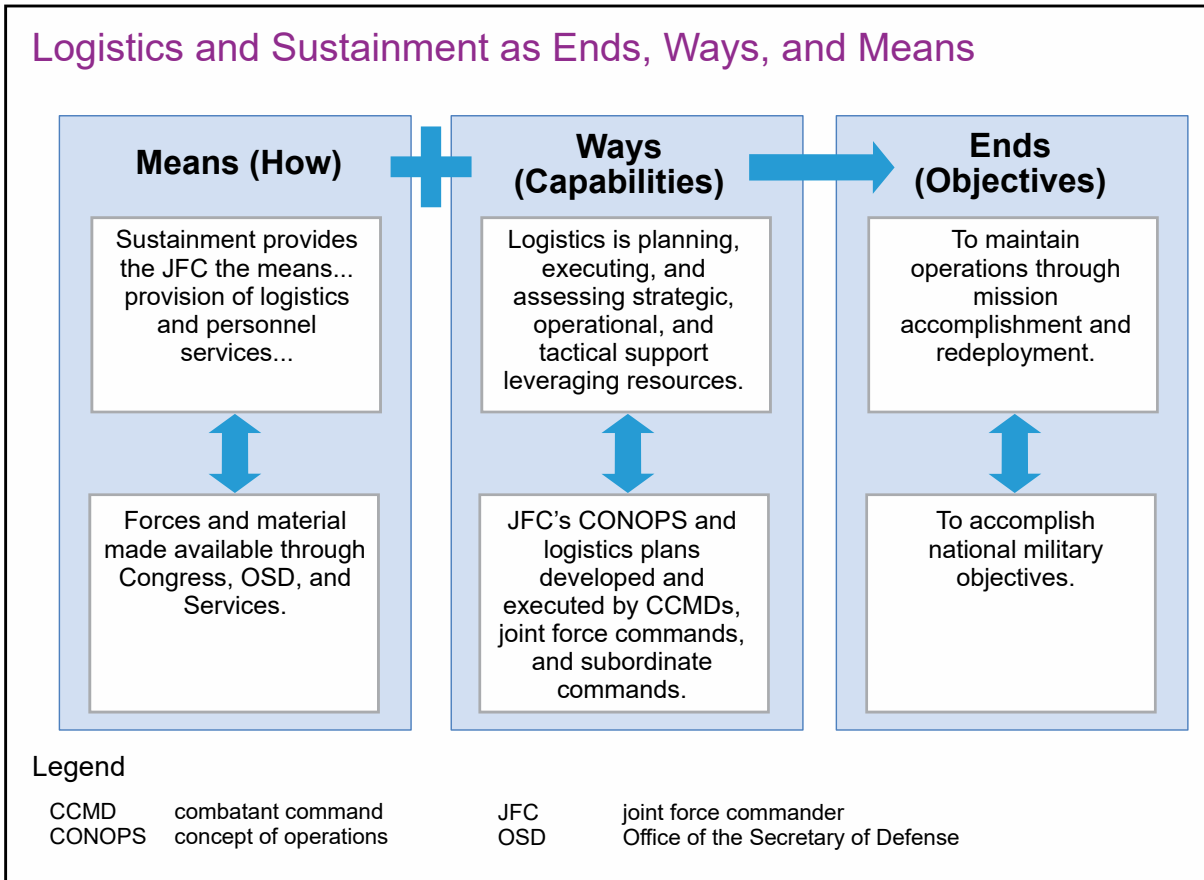


Figure I-1. Logistics and Sustainment as Ends, Ways, and Means

resource-informed decision making and enable operational success. This also requires lower echelons to consider the impacts on higher levels to ensure that collective actions are achieving strategic outcomes, beyond just the immediate level of warfare.

h. Joint logistics planning accounts for an adversary's threat to logistics and identifies and reduces logistics and operational risks. The challenge for future joint logistics is to adequately enable globally integrated operations, given the combination of ongoing trends:

- (1) Increasing logistics requirements caused by global demand for US joint forces and operations.
- (2) Constrained and degraded resources, both overall and within the logistics force structure, as well as the fragility of the defense industrial base.
- (3) The length of time to open a theater for combat operations may be longer when the establishment of a specific logistics service requires mobilization of a Reserve Component unit.
- (4) Contested environments continue to increase the complexity of executing logistics operations across the competition continuum. A contested environment is an area (physical or virtual) in which capabilities and mission effectiveness are threatened or

opposed by malicious activities; this may occur throughout the operational environment (OE). The JLEnt must be responsive and resilient to support operations in a contested environment.

(5) The ability of near-peer adversaries to contest logistics in the homeland using lethal and nonlethal means and the impact such action may have on operations in the continental United States (CONUS), as well as continued sustainment of the theater. This ability generates additional defense support of civil authorities requirements, as well as creates challenges in globally integrating and prioritizing resources.

(6) The proliferation of advanced antiaccess/area denial capabilities and chemical, biological, radiological, and nuclear weapon capabilities by adversaries, which would degrade logistics capabilities and capacities or preclude US or partner nation (PN) access to commercial capabilities.

(7) The increase of cyberspace threats to joint and partner logistics networks and mission systems.

(8) Globally integrated operations, requiring faster logistics at the speed of relevance.

(9) Increased access to space, requiring consideration of space logistics and sustainment.

(10) The increasingly strategic nature of maneuver, causing logisticians to rethink traditional operational and strategic roles and responsibilities.

(11) Increasing reliance on commercial capabilities (by militaries, partners, and adversaries), putting pressure on limited logistics resources.

(12) Increasing stress on supply chains due to shortages and disruptions caused by the climate, pandemics, adversary influence, and other temporal/environmental crises. Enhancing partnerships with allies and/or developing NGO partnerships to leverage support from nontraditional supply chain and contract sources are a few methods to mitigate this issue.

(13) Heavy reliance on contracted capabilities, host-nation support (HNS), and multinational logistics (MNL) to overcome global force demand and Active Component/Reserve Component mix decisions. The reliance on contracted personnel for logistics support may increase to as much as 80 percent during long-term stabilization activities.

(14) Increased adversary capabilities enable them to hold joint forces at risk at greater distance and with less warning. This requires the joint force to distribute its forces and concentrate them only when needed. This distribution creates greater demands on the JLEnt.

i. Adversaries understand the importance of strategic logistics and may attempt to undermine the United States' ability to project/sustain military power. These supply chain structures, international demands, and threats cut across all instruments of national power and include infiltration of traditional business systems. The joint force should understand this competition space, and adversaries' capabilities and intentions in targeting the JLEnt, and pursue actions to protect mission assurance.

j. Logistics integrates capabilities to project and sustain military power across the globe at a chosen time and place. Relevant and resilient logistics partners remain essential to the pursuit of national interests through assurance, deterrence, and response to a full range of contingencies.

3. The Global Environment

a. Military leaders conduct globally integrated logistics activities and operations in a complicated, interconnected, transregional environment (see Figure I-2). These operations involve the total force, which consists of the Active Component, the Reserve Component, Department of Defense (DoD) civilians, and contracted support personnel. Additional capabilities in the area of responsibility (AOR) or joint operations area (JOA) could also include a variety of military forces, other governmental organizations, NGOs, commercial entities, and multinational forces (MNFs). The framework of strategic, operational, and tactical levels of warfare helps commanders visualize the relationships and actions required to link strategic objectives to campaigns and major operations and link their objectives to tactical operations. These levels help commanders visualize a logical arrangement of operations, allocate resources, and assign tasks to appropriate commands. Echelon of command, size of units, types of equipment, and types and location of forces or components may often relate to a particular level, but the strategic, operational, or tactical purpose of their employment depends on the nature of their task, mission, or objective.

b. The relative combat power that military forces can generate against a threat is constrained by their capability to plan for, gain access to, and deliver forces, materiel, and commercial capabilities to points of need. To meet the wide variety of global challenges, CCDRs, subordinate commanders, and their staffs must develop a clear understanding of joint logistics, to include the relationship among logistics organizations, personnel, core functions, principles, and the OE. The identification of established coordination frameworks, agreements, treaties, and theater distribution and posture plans creates an efficient and effective logistics network to support the JFC's intent. Network analysis tools and approaches can support understanding relationships within a network, as well as other aspects of a network such as resiliencies and vulnerabilities.

c. Logisticians who operate under fire should remain adaptable to overcome likely challenges and consider adversary fires and other capabilities that can create nonlethal effects. The COVID-19 [coronavirus disease 2019] global pandemic has revealed the fragile nature of globally integrated transportation, supply chain vulnerability, and availability of labor and services, among others. Environmental effects further alter availability of resources and access to lines of communications (LOCs). Availability of

Joint Logistics Environment Operating Framework

<u>Strategic Level</u>	<u>Operational Level</u>	<u>Tactical Level</u>
Campaign Quality	Coordinate, Integrate, and Synchronize	Effectiveness
<ul style="list-style-type: none"> Industrial base capacity enables sustained operations End-to-end processes drive efficiencies across Services, agencies, and industry Effectiveness dependent upon optimizing processes against required outcomes 	<ul style="list-style-type: none"> Combatant commander integrates joint requirements with national systems Must optimize component, agency, commercial, and other partner nation capabilities to meet requirements Most significant impact for joint logistics and the joint force 	<ul style="list-style-type: none"> Outcome is measured Operational readiness enables “freedom of action” Desired outcomes should drive optimization—from strategic to tactical

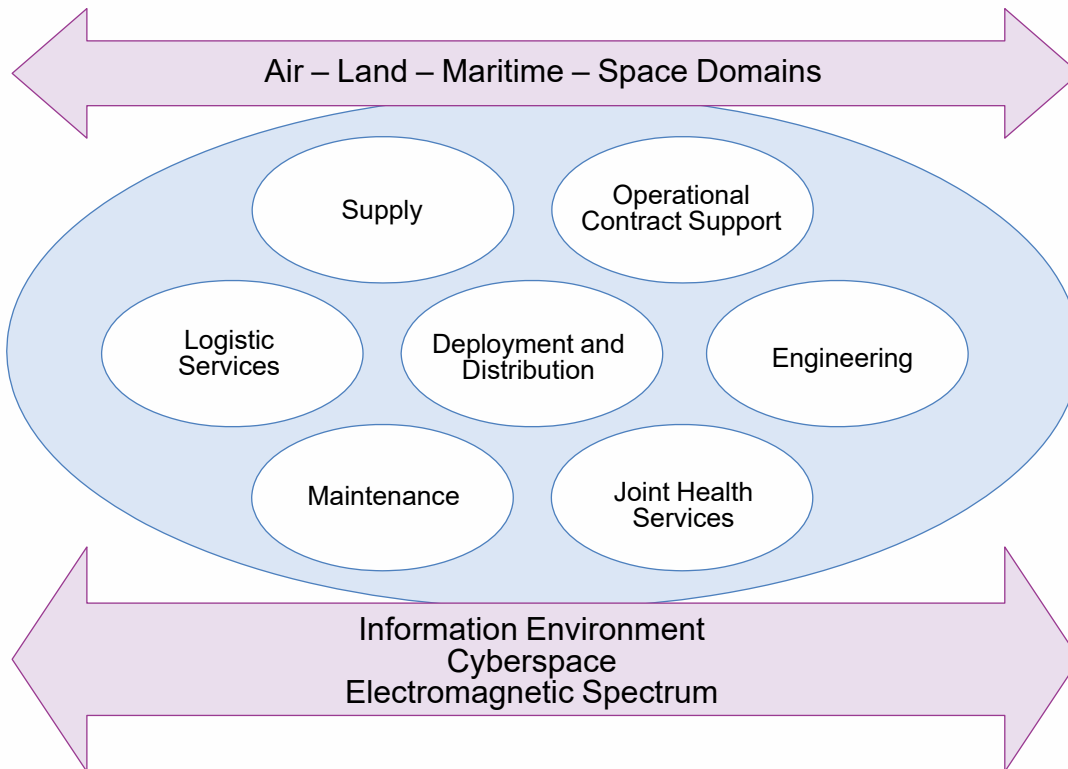


Figure I-2. Joint Logistics Environment Operating Framework

commercial capabilities is not assured. Reliability of partners cannot be assumed. Logistics planning begins long before the operation starts. Posture, planning, and investments not only set the conditions for future operations but may impact adversary and

partner decisions to influence when and where operations might occur. Logisticians rethink traditional methods of doing business to ensure that planning and execution decisions anticipate adversaries and that alternate courses of action (COAs) are always considered and available.

d. Looking beyond US forces for support, logisticians expand the competitive space and engage partners to set the conditions for success and deter adversaries. Logisticians prepare the future OEs by building relationships, processes, infrastructure, access, and options before they are required in conflict. Logisticians achieve adaptability and resilience with contractors, as well as partners by maturing processes and relationships during exercises in cooperation and competition.

e. Joint logistics takes place beyond the operational area (OA). Service components and combat support agencies (CSAs) provide the forces, materials, and capabilities while the JFC's staff focuses on integrating the capabilities with operations. Access to secure networks is necessary to sustain joint force readiness. Effective networks are used to find and access relevant information, facilitate collaboration, distribute data to forward-deployed areas, increase performance and reliability, ensure the enterprise infrastructure for evolving DoD systems is resilient, and leverage PNs' capabilities. Logisticians think strategically, leveraging global capabilities and partnerships beyond the OA. Network engagement can provide a framework for building effective networks of friendly partners and for leveraging neutral actors' capabilities.

For further information on network engagement and network analysis, see JP 3-25, Joint Countering Threat Networks.

f. Building partnerships is important for sharing costs and responsibilities, improving information flow, and establishing partner agreements that provide for mutual support and cooperation. Due to complicated supply lines, finite resources, the challenges of providing robust logistics in austere environments, and shared LOCs, logisticians should establish and foster nontraditional partnerships. For some operations, logistics forces may be employed in numbers disproportionate to their normal military roles and in nonstandard tasks. Further, logistics forces may precede other military forces or may be the only forces deployed. Logistics forces also may continue operations after the departure of combat forces. It includes coordination of resources with multinational partners, international organizations, and NGOs. Building partnerships improves unity of effort within the entire JLEnt. It is an ongoing, long-term relationship development process that may not yield immediate results. The earlier it begins, the better the chance of success for securing partner logistics capabilities when needed. By combining capabilities, commanders can provide maximum effectiveness and flexibility to the joint force, focused on objectives that deliver sustained logistics activities and operations. The US mission to the PN determines whether the partner possesses or can reasonably develop the institutional capacity to sustain the capability targeted for development. It is an ongoing, long-term relationship development process that may not yield immediate results. The earlier it begins, the better the chance of success for securing partner logistics capabilities when needed. Joint force campaigns and operations below the level of armed conflict should establish and maintain

resilient partner relationships and networks that enable continued JLEnt support to armed conflict and the transition back to a more stable competitive environment.

g. Some of our partners and allies already possess robust capacity that presents opportunities for the joint force to address critical gaps. The joint force seeks to leverage partners that possess capabilities such as developed transportation infrastructure, strategic ports, and industrial capacity to strengthen and provide resiliency to the combined logistics network. This connection, in turn, bolsters the partner's national capabilities, which further increases its value to the multinational community. Achieving this connection requires legislative support from Congress and close interagency coordination to engage the partner with a whole-of-government effort.

h. Commercial capabilities are a militarily necessary capability that exists in the private sector. As such, they must be planned for allies, partners, competitors, and adversaries also seek to leverage commercial capabilities. Corporations are both producers and consumers of logistics. Commercial capabilities comprise infrastructure like ports, satellites, and railways; services like translation, administration, training, logistics services, communications, private security, personnel evacuation, medical, construction, and others; and the contractor personnel associated with infrastructure and services. Planning must consider the use of commercial capabilities as a means to achieve outcomes and to satisfy military requirements, any support required by contractors, and unaffiliated commercial capabilities operating in the OA that may impact military operations.

(1) **Reliance.** Commercial capabilities enable all core logistics functions and may comprise half or more of the total logistics force deployed in operations. Contractors and equipment may be part of the total force as identified in law (Title 10, USC, Section 129a and Title 32, Code of Federal Regulations, Part 159.3) and policy (Department of Defense Directive [DoDD] 5124.11, *Assistant Secretary of Defense for Readiness (ASD/R)*).

(2) **Risks.** Use of commercial capabilities is not without risk and may have negative second- and third-order effects, if not properly integrated with the joint force. Access to commercial capabilities is not assured, as the joint force competes for finite capacity with allies, partners, competitors, and adversaries. Commercial capabilities are susceptible to factors that military forces are not (e.g., fluctuations in market demand, labor disputes, stockholder influence). Increasingly, adversaries are maximizing the use of commercial capabilities to gain strategic advantage and creating operational challenges such as antiaccess/area denial and strategic challenges such as competition for partners and access, egress, and overflight.

(3) **Opportunities.** Commercial capabilities have significant potential to augment military forces and support the achievement of military objectives. Leveraging commercial capabilities during competition can provide a means to influence partners and adversaries alike as well as posture for military operations, should they become necessary. In this manner, commercial capabilities provide a means to support achievement of strategic outcomes. Military leaders should align their efforts with nonmilitary partners to degrade an adversary's alliances, partnerships, and sources of support, while safeguarding

and strengthening those that enable the friendly campaign. The goal is to limit an adversary's freedom of action and resiliency, while increasing US and PN options and support.

(4) **Resilience.** Recently the low threat levels have enabled unprecedented contracted support in military operations; however, future contested operations may require reimagining use of commercial capabilities with a greater focus on resilience. It is essential for logisticians to integrate commercial capabilities in planning. Contracted support may require logistics and force protection from the joint force, particularly in hostile or uncertain environments where they cannot provide it for themselves or where doing so may consume limited commercial capacity. Private corporations may become partners with which the joint force should synchronize to maintain unity of effort, and, conversely, commercial entities may act as third parties competing for common capabilities or congesting the same portions of the OA as the deployed force.

i. Globalization, technology advancements, antiaccess/area denial, and flexible threats create a complex, ever-changing OE. The essential challenge is to enable unified action by meeting increasingly demanding logistics requirements with constrained resources in a potentially contested environment. Globally integrated logistics is the capability to adjudicate requirements for and allocate joint logistics capabilities on a global scale to maximize effectiveness and responsiveness, and to reconcile competing demands for limited logistics resources based on strategic priorities. Understanding the global environment is essential to plan, execute, synchronize, assess, and coordinate logistics activities and operations.

4. Joint Logistics Enterprise

a. The JLEnt is the collective community of logistics stakeholders that generate and/or fulfill logistics requirements of the joint force. Recognizing that planning and executing the movement and sustainment of forces is inherently global and interconnected, the JLEnt philosophically embodies the collaborative, shared actions necessary to succeed. Through collaborative agreements, contracts, policies, legislation, and treaties, the JLEnt projects and sustains military power across the globe and provides multiple options to US leadership and multiple dilemmas to potential adversaries. The JLEnt is a cooperative coalition of key global logistics providers within and beyond DoD. Key DoD organizations in the JLEnt include the Services' logistics elements, United States Transportation Command (USTRANSCOM), Defense Logistics Agency (DLA), the Joint Staff J-4 [Logistics Directorate], logistics directorates of a joint staff (J-4s) of the combatant commands (CCMDs), and the office of the Under Secretary of Defense for Acquisition and Sustainment (USD[A&S]). Other United States Government (USG) departments and agencies, NGOs, and commercial partners also play a vital role in virtually all aspects of the JLEnt and function on a global scale, providing comprehensive, end-to-end capabilities. The JLEnt may also include multinational partners and international organizations. Many of these capabilities are accessed through an assortment of collaborative agreements, contracts, policies, legislation, or treaties to meet JFC requirements.

b. The JLEnt is interconnected among global logistics providers, supporting and supported organizations and units, and other entities. Knowing the roles, responsibilities, relationships, and authorities of JLEnt partners is essential to planning, executing, controlling, and assessing logistics activities and operations. By collaborating, JLEnt partners ensure the coordinated employment and sharing of capabilities and resources. Global logistics providers manage end-to-end processes that provide capabilities to the supported CCDR to fulfill requirements. The transregional, all-domain, and multifunctional nature of future threats, combined with budgetary pressures, requires enterprise-wide tradeoffs; these tradeoffs can be mitigated through persistent responsiveness.

5. Joint Logistics Personnel

Joint logisticians are military personnel, civilians, and contractors who specialize in providing joint logistics extending from the defense industrial base to the end user. Joint logisticians plan, supervise, execute, synchronize, and coordinate core joint logistics functions. They synchronize efforts to effectively meet joint force requirements. Joint logisticians become proficient through a combination of training, education, and operational experience created by Service, joint, and multinational duty assignments. Joint logisticians are exposed to logistics activities and operations in a complex, diverse, and globally dispersed environment. Key attributes of a joint logistician include the ability to:

- a. Understand operational priorities to apply limited resources and improve joint force readiness.
- b. Plan and integrate logistics to execute the CCDR's plan.
- c. Assist commanders in defining requirements and translating the commander's intent into logistics-related tasks.
- d. Assess the operational situation to determine if joint logistics processes are established and working.
- e. Plan, execute, and assess sustainment and distribution for the joint force.
- f. Conduct logistics supportability analysis (LSA) as part of operation plan (OPLAN) development.
- g. Coordinate Service, CSA, interagency, commercial, and MNL capabilities.
- h. Assist JFCs as they exercise authority and provide direction for logistics and sustainment.
- i. Leverage commercial logistics best practices and processes.
- j. Understand and use current and emerging technologies.

JOINT LOGISTICS EDUCATION

The development of qualified joint logisticians at all levels is a challenging task that requires the continuous and consistent involvement of every commander, leader, supervisor, and commercial organization that provides or receives support across the joint logistics enterprise. All of the skills and expertise listed in the paragraphs above, when tailored to their jobs, are important for joint logisticians and are the foundation for future positions and greater responsibility. The development of our leaders takes place over the course of every logistician's entire career and consists of formal education, job experience, and many other activities. Each Service has its own career development path that aligns with its designations and Service needs. All Services should design and resource opportunities that give their logistics professionals the tools and acumen to design, plan, manage, and enable the joint force. Joint professional military education forms the baseline for joint logistics education; the Joint Chiefs of Staff Vision and Guidance for Professional Military Education and Talent Management: *Developing Today's Joint Officers for Tomorrow's Ways of War*, outlines the basic guidelines for requirements at every level. In addition to programmed education and training, exercises, deployments, professional conferences and symposia, civilian education, and professional reading are all key elements of the development process. In addition to the long list of areas of expertise that senior logisticians need to understand, there is the equally critical need to understand how logistics and sustainment align with operational requirements to make the joint force effective and to ensure that investments in the future are suited to both today's readiness and tomorrow's needs.

Various Sources

k. Leverage foundational data science principals and data analysis knowledge in decision making.

l. Identify risks that are assumed and actions required to mitigate those risks.

6. Principles of Logistics

Commanders and staffs apply basic principles, control resources, and manage capabilities to sustain operations. Logisticians can use the principles of logistics as a guideline to assess how effectively logistics are integrated into plans and execution. To achieve full integration, commanders and their logisticians coordinate, synchronize, plan, execute, and assess logistics during all phases of the operation. Principles of logistics apply primarily to JFC planning, orders, and execution and at echelon with subordinate commanders.

a. **Resilience.** Resilience is the ability to recover from or adapt to change (e.g., contested environments, adversary interdiction, impacts of weather and other

environmental factors, labor disputes, global pandemics). It requires anticipating potential scenarios, planning and posturing to facilitate access to capabilities, and sufficient capacity where required to enable continuity of service despite conditions (e.g., conflict with a near-peer adversary) that would otherwise preclude continuity of service. Resilience may involve actions to enable continuity of operations, backup sources, contingency plans, rapid recovery, use of alternate sites and infrastructure, resilient infrastructure, redundancy, survivability, consequence management, and portability of data.

b. **Responsiveness.** Responsiveness is providing the right capability when and where it is needed. Characterized by the reliability of capabilities and the speed of response to the needs of the total force, responsiveness is achieved through the determination of operational requirements and associated logistics requirements as early as possible in the planning process. Clearly understood processes and well-developed decision support tools are key elements enabling responsiveness to emerging requirements. By monitoring the battle rhythm and the execution of the operation, the joint logistician can anticipate logistics issues and adjust to emerging operational needs.

c. **Feasibility.** Feasibility is the criterion for assessing whether the assigned mission can be accomplished using available resources within the time contemplated. The point at which the CCDR or subordinate JFC judges that sufficient supplies, distribution capabilities, and LOC capacity exist to initiate operations at an acceptable level of risk is assessed as feasible. Some examples of minimal requirements are inventory on hand (days of supply), Service capabilities, theater distribution assets (surge capability), combat service support (CSS) sufficiency, and force reception throughput capabilities.

d. **Flexibility.** Flexibility is the ability to improvise and adapt logistics requirements and procedures to changing situations, missions, and operational requirements. Flexibility is not only how well logistics activities and operations can respond to unanticipated changes in a dynamic environment but also the diverse capability options that should be made available to commanders.

e. **Simplicity.** Simplicity fosters efficiency in planning and execution and enables more effective control over logistics activities and operations. Clarity of tasks, standardized and interoperable procedures, and clearly defined command relationships contribute to simplicity. Simplicity is a way to reduce the “fog of war” or the friction caused by combat. Clear objectives, relevant processes, and documented procedures assist unity of effort.

f. **Visibility.** JLEnt visibility is access to logistics processes, resources, and requirements data providing the information necessary to make effective decisions. JLEnt visibility is inclusive of the subcomponents: in-transit visibility and the Defense Transportation System (DTS). The OE is dynamic, subject to increasing complexity and rapidly changing conditions. JLEnt visibility is absolutely critical to inform responsive, resource-informed decisions in real time.

g. **Cooperation.** Cooperation among staff across the JLEnt greatly enhances the effectiveness of the logistics and sustainment provided. It is the responsibility of

commanders and staff at all levels to ensure that close cooperation is planned and coordinated. Cooperation and coordination with other governmental and civilian agencies (both national and international) are vital components to successful joint and multinational operations. Doctrinal similarities, interoperability, exchange programs, and participation in joint and/or multinational exercises are some methods to improve cooperation.

h. **Economy.** Economy is the minimum number of resources required to achieve a specific objective. Economy is achieved when logistics is provided using the fewest resources within acceptable levels of risk. At the tactical and operational levels, economy is reflected in the number of personnel, units, and equipment required to deliver logistics. Every individual or piece of equipment devoted to unneeded logistic capability is a direct drain on the resources needed by the joint force to complete its mission.

For more information, see Chapter II, “Core Logistics Functions.”

For more information, see Chapter III, “Joint Logistics Organizations.”

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CHAPTER II CORE LOGISTICS FUNCTIONS

“Gentlemen, the officer who doesn’t know his communications and supply as well as his tactics is totally useless.”

General George S. Patton, United States Army (1885-1945)

1. Introduction

Core logistics functions provide a framework to facilitate integrated decision making, enable effective synchronization and allocation of resources, and optimize joint logistics processes. Commercial capabilities and multinational partners augment core logistics functions and, in some cases, far exceed organic capabilities. The core logistics functions are deployment and distribution, supply, maintenance, logistics services, operational contract support (OCS), engineering, and joint health services. The core logistics functions are considered during the employment of US military forces in coordinated action toward a common objective and provide global force projection and sustainment (see Figure II-1).

2. Deployment and Distribution

The global engagement of threats, coupled with the necessity to rapidly deploy, execute, and sustain operations worldwide, makes the deployment and distribution capability the cornerstone of joint logistics. These operational factors required a shift in distribution to a globally integrated and visible end-to-end system that synchronizes global capabilities from DoD, commercial, multinational, and agency partners to meet requirements. Through sharing critical information, it can help create unity of effort among diverse distribution organizations to satisfy deployment, execution, and sustainment operations. Leveraging PN distribution capabilities as part of the network increases the capacity of the JLEnt and is critical to synchronizing joint reception, staging, onward movement, and integration (JRSOI) requirements with host nation (HN) operational requirements.

See JP 3-35, Joint Deployment and Redeployment Operations, and JP 4-09, Distribution Operations, for additional information.

a. **Move the Force.** The Joint Staff J-3 [Operations Directorate] is the DoD focal point to improve the joint deployment process by developing policy, procedures, and information technology in collaboration with other stakeholders. USTRANSCOM supports the planning and execution of the deployment process by identifying and recommending globally sourced solutions to the Chairman of the Joint Chiefs of Staff (CJCS), in coordination with the Services and other CCMDs. USTRANSCOM supports the global deployment, employment, sustainment, and redeployment of US forces, planning, allocating, routing, scheduling, and tracking assets to meet validated JFC deployment and distribution requirements. Commander, United States Transportation Command (CDRUSTRANSCOM), is responsible for joint deployment and distribution

Core Functions	Functional Capabilities
Deployment and Distribution	<ul style="list-style-type: none"> • Move the force • Sustain the force • Operate the joint deployment and distribution enterprise
Supply	<ul style="list-style-type: none"> • Manage supplies and equipment • Inventory management • Manage global supplier networks
Maintenance	<ul style="list-style-type: none"> • Depot maintenance operations • Field maintenance operations • Equipment reset
Logistics Services	<ul style="list-style-type: none"> • Food service • Water and ice service • Contingency base services • Hygiene services • Mortuary affairs
Operational Contract Support	<ul style="list-style-type: none"> • Contract support integration • Contracting support • Contractor management
Engineering	<ul style="list-style-type: none"> • General engineering • Combat engineering • Geospatial engineering
Joint Health Services	<ul style="list-style-type: none"> • Force health protection • Health service support

Figure II-1. Core Logistics Functions

enterprise (JDDE) planning and operations and collaborates with other CCMDs, the Services, and, as directed, other USG departments and agencies and commercial entities. USTRANSCOM maintains the global capability for military force power projection in the physical domains and to coordinate, sustain, and improve DoD distribution processes. This includes coordinating the capability to transport units, equipment, and initial sustainment from the multiple sources and points of origin to the point(s) of need and providing JDDE resources to augment or support operational movement requirements of the JFC.

b. **Sustain the Force.** Sustaining the force consists of delivering cargo and personnel. USTRANSCOM plans and coordinates the DoD distribution system and collaborates with DLA and other logistics providers to move materiel through the distribution pipeline, from sourcing to the end user. Distribution planning requires the continuous cycle of requirements collection, workload forecasting, assessment of network design and

performance, and development of actionable recommendations that achieve operational balance between readiness, efficiency, and effectiveness. Additionally, USTRANSCOM supports retrograde actions by moving equipment and materiel from the forward locations to an equipment reset program or another directed OA.

c. **Operate the JDDE.** The JDDE includes DoD equipment, procedures, doctrine, leaders, technical connectivity, information, shared knowledge, organizations, facilities, training, and materiel necessary to conduct joint deployment and distribution operations with mobility, transportation (including the DTS), force projection, sustainment, redeployment, and retrograde operations. The JDDE is a critical part of the JLEnt, and its governance is the primary responsibility of CDRUSTRANSCOM in coordination with the Joint Staff J-4 and other members of the JDDE.

3. Supply

The joint logistician requires an understanding of the complexities of supply operations, the functions and processes that define them, and the organizations and personnel responsible for executing tasks to meet the JFC's requirements. The Services and DLA are primarily responsible for DoD supply chain operations and manage the supply processes to provide common commodities and services to joint forces. Planning for supply operations requires a collaborative environment to fully consider all major components of the JLEnt, to include the return and retrograde of equipment and supplies.

a. **Supply Chain.** The DoD supply chain is a global network that provides materiel, services, and equipment to the joint force. The fundamental objective of the supply chain is to understand the requirements, maximize force readiness, and optimize the allocation of joint resources. The functional capabilities that contribute to the DoD supply chain include management of supplies and equipment; inventory management; management of global supplier networks; and assessment of global (forward-deployed and pre-positioned) requirements, resources, capabilities, and risks. DoD's supply chain responsiveness, access to contingency locations, and reliability affect the readiness and capabilities of US military forces and are critical to the overall success of globally integrated joint operations. The US military supply chain (to include the defense industrial base) represents a major critical vulnerability. In a major conflict, where usage rates could exceed replenishment rates, or when faced with a requirement to rapidly reconstitute the joint force, it is essential that mobilization planning and mobilization activities be able to surge to meet these additional needs. Operational planning is informed by limitations in logistics capabilities, to include lack of surge capacities, absence of visibility of materials and contractors, and malign vendors (as identified by vendor threat mitigation and similar efforts), ensuring that operational objectives are realistic and achievable.

VENDOR THREAT MITIGATION

Processes, procedures, and authorities to vet vendors to identify and mitigate risks associated with vendors providing commercial support to operations that oppose the interests of the United States, allies, or partners, or pose a threat to national security.

For more information on vendor threat mitigation, see DoDD 3000.16, Vendor Threat Mitigation.

For more information, see JP 4-05, Joint Mobilization Planning.

b. Supply Chain Management. Supply chain management is the design, planning, execution, control, and monitoring of supply-chain activities with the objective of supporting the JFC to enable operational maneuver while building a competitive infrastructure and synchronizing supply with demand. Supply chain management requires integrated planning and execution of processes to optimize the flow of materials, information, and capital in functions that broadly include demand planning, sourcing, production, inventory management, and transportation.

(1) At the strategic and theater level, joint logisticians design supply chains and form strategic partnerships. They analyze campaign plans (or OPLANs) and determine if current supply chains have the capability to support the plan. Joint logisticians at this level should visualize needs over a decade into the future and advocate for funding, garner support, and write policy.

(2) At the operational level, logisticians manage the flow of supplies throughout the supply chain, with a focus on capacity. Enough assets should be available for surges in demand, such as supporting main efforts of a battle plan. Logisticians should pursue required information and situational understanding to adjust the quantity and pace of supplies in the system.

(3) At the tactical level, each node concentrates on replenishment and meeting the demand of the next node down-stream, also known as the customer. The logistician needs to know how long replenishment of supplies will take to arrive once they submit an order. The inventory should be managed to ensure adequate stock is on hand to meet demands of the customer. Part of the demand signal from the customer includes a required delivery date. Nodes may have multiple supply chains providing different supplies and services; synchronization meetings are a best practice for managing the suppliers and customers.

c. Supply Chain Areas. Joint logisticians should integrate all three areas of the DoD supply chain: managing supplies and equipment, managing inventory, and managing global supplier networks to provide responsive supply operations.

(1) **Manage Supplies and Equipment.** Joint logisticians integrate supply operations and ensure that suppliers meet joint force demands. Logisticians collaborate with the Services to execute an effective interface between supply operations from acquisition to delivery. Figure II-2 lists the classes and subclasses of supply managed by joint logisticians and their common-user logistics (CUL) suitability.

Classes, Subclasses of Supply, and Common-User Logistics Suitability






Class	Symbols	Subclass	Common-User Logistics (CUL) Capability
I. Subsistence: Food		A - Nonperishable dehydrated subsistence that requires organized dining facilities C - Combat rations includes meals that require no organized dining facility; used in combat and in-flight environments. Includes gratuitous health and welfare items R - Refrigerated subsistence S - Non-refrigerated subsistence (less other subclasses) W - Water	Fully suited to CUL
II. General Support Items: Clothing, individual equipment, tentage, organizational tool sets and tool kits, hand tools, material, administrative, and housekeeping supplies		A - Air B - Ground support material E - General supplies F - Clothing and textiles G - Electronics M - Weapons T - Industrial supplies (e.g., bearings, block and tackle, cable, chain, wire, rope, screws, bolts, studs, steel rods, plates, and bars)	Limited CUL suitability
III. Petroleum, Oils, and Lubricants (POL): Petroleum (including packaged items), fuels, lubricants, hydraulic and insulating oils, preservatives, liquids and compressed gasses, coolants, deicing, and antifreeze compounds, plus components and additives of such products, including coal		A - Air W - Ground (surface) P - Packaged POL	Excellent CUL candidate (with some limitations)
IV. Construction/Barrier: Materials that support fortification, obstacle and barrier construction, and construction material for base development and general engineering		A - Construction B - Barrier materials	Fully suited for CUL
V. Ammunition: Ammunition of all types (including chemical, radiological, and special weapons), bombs, explosives, mines, fuses, detonators, pyrotechnics, missiles, rockets, propellants, and other associated items		A - Air W - Ground	Limited, primarily to small arms, selected larger munitions

Figure II-2. Classes, Subclasses of Supply, and Common-User Logistics Suitability

Classes, Subclasses of Supply, and Common-User Logistics Suitability (continued)






Class	Symbols	Subclass	Common-User Logistics (CUL) Capability
VI. Personal Demand Items: Nonmilitary sales items		A - Personal demand items not packaged as ration supplement sundry packs (RSSPs) M- Personal and official letter and packaged mail. Does not include items in other classes such as spare parts P - RSSPs	Fully suited for CUL
VII. Major End-Items: A final combination of end-products ready for intended use (e.g., launchers, tanks, racks, adapters, pylons, mobile machine shops, and administrative and tracked vehicles)		A - Air B - Ground support material (includes power generators, fire-fighting, and mapping equipment) D - Administrative and general purpose vehicles (commercial vehicles used in administrative motor pools) G - Electronics J - Tanks, racks, adapters, and pylons (US Air Force only) K - Tactical and special purpose vehicles (e.g., trucks, truck-tractors, trailers, semi-trailers) L - Missiles M - Weapons N - Special weapons X - Aircraft engines	Not suitable for CUL
VIII. Medical Material/ Medical Repair		A - Medical materiel (including repair parts special to medical devices) B - Blood and blood products	Fully suited for CUL
IX. Repair Parts (less medical special repair parts): All repair parts and components, including kits, assemblies, material power generators sub-assemblies (repairable and nonrepairable) required for all equipment; dry batteries		A - Air B - Ground support material, power generators, and bridging, fire-fighting, and mapping equipment D - Administrative vehicles (vehicles used in radio administrative motor pools) G - Electronics K - Tactical vehicles (e.g., trucks, truck-tractors, trailers, semi-trailers) L - Missiles M- Weapons N - Special weapons T - Industrial supplies (e.g., bearings, block and tackle, cable, chain, wire, rope, screws, bolts, studs, steel rods, plates, and bars) X - Aircraft engines	Not suitable for CUL except for common items; requires special coordination to ensure proper support
X. (code as zero '0'): Material to support military programs, not included in classes I through IX		None	Fully suited for CUL

Figure II-2. Classes, Subclasses of Supply, and Common-User Logistics Suitability (continued)

(2) **Inventory Management.** Inventory management is the process of managing, cataloging, determining requirements for, procuring, distributing, overhauling, and disposing of materiel. Logisticians use inventory management processes to balance materiel availability to meet the operational requirements of the end user. Managing inventory throughout the operation includes collaborating with the joint force and distribution providers to provide access to supplies. Materiel inventory management capitalizes on accurate, real-time, and widely visible information and performance trends to inform decisions about the materiel inventory throughout the supply chain.

For more information on inventory management, see Department of Defense Instruction (DoDI) 4140.01, DoD Supply Chain Materiel Management Policy.

(3) **Manage Global Supplier Networks.** A supply chain network is an engineered flow of information, funding, or materiel from its suppliers to customers. Deployment and distribution capabilities are linchpins in end-to-end supply chain management. Organizations provide data on the status of supplies and suppliers so logisticians can manage the JLEnt and adjust as necessary to the dynamics of operations.

For more information on managing global supplier networks, see JP 3-35, Joint Deployment and Redeployment Operations; JP 4-01, The Defense Transportation System; and JP 4-09, Distribution Operations.

4. Maintenance

Maintenance supports system readiness for the JFC. The Services, as part of their Title 10, USC, responsibilities, execute maintenance as a core logistics function. The Services employ a maintenance structure of depot- and field-level maintenance to improve the JFC's freedom of action and sustain the readiness and capabilities of assigned units. These levels of maintenance use various functional capabilities and processes to achieve objectives. Maintenance planning provides optimal availability of ready, reliable systems at best value.

a. **Level II Maintenance.** Level II maintenance is often referred to as depot-level maintenance. Level II maintenance entails materiel maintenance requiring the major overhaul or complete rebuilding of weapons systems, end items, parts, assemblies, subassemblies; manufacture of parts; technical assistance; testing; and reclamation as required; provides a source of serviceable equipment; and supports field maintenance by providing technical assistance or performing maintenance tasks beyond their responsibility. Depot maintenance is the most complex and extensive level of maintenance work and is a significant tie between the nation's industrial base and military operations. Depot maintenance may be performed by contractors; wartime clauses and oversight should be considered. Depot maintenance includes all aspects of software maintenance/sustainment, which are those activities after initial operating capability of fielding, necessary to:

(1) Correct defects and/or improve performance.

(2) Upgrade or modify to adapt and/or perfect the fielded software baseline to a changing/changed environment. Maintenance/sustainment can include the modifications or upgrades necessary to ensure safety and relevance in operations, interoperability with other systems, and security from cyberspace threats.

b. **Level I Maintenance.** Level I maintenance is often referred to as field- or organizational-level maintenance. The purpose of level I maintenance is to return systems rapidly to users in a ready status. Level I maintenance encompasses the organizational and on-system maintenance and repairs necessary for day-to-day operations, as well as the intermediate, off-system repair of components and end items for weapons systems and

supply chains. Field maintenance is less complex than depot-level maintenance and serves as the link between strategic capabilities and tactical requirements.

c. **Maintenance Functions.** Depot and field maintenance personnel should possess the training, technical skills, tools, equipment, facilities, and an established quality assurance program to maintain equipment readiness. Maintenance is a commander's responsibility and may be provided by military or contractor personnel; it may be assigned to the total force, commercial industry, or PN organizations. The following maintenance functions are performed at both depot and field locations:

(1) **Inspect.** Determines faults and verifies repairs required or determines conditions by comparing characteristics to serviceability standards.

(2) **Test.** Evaluates the operational condition of end items and subsystems against established performance parameters.

(3) **Service.** Includes preventive maintenance checks and services, monitoring equipment health and conditions, and predictive maintenance to anticipate failures and diagnose faults.

(4) **Repair.** Restores items to serviceable status.

(5) **Rebuild.** Returns items to standards as close as possible to original conditions in appearance, performance, and life expectancy. This is the highest degree of materiel maintenance applied to equipment.

(6) **Calibrate.** Compares, adjusts, and validates systems of unknown accuracy to standards of known accuracy. If necessary and possible, adjustments are made to bring systems back into compliance with established performance standards.

(7) **Modify.** Applies prescribed, permanent changes to the form or function of items to improve operation.

d. **Maintenance Responsibility.** Service maintenance capabilities are synchronized to provide the most effective materiel available to the joint force. Service components inform CCDRs of important maintenance actions and their plans to cover any resulting capability gaps. Where practical, facilities for joint or cross-Service maintenance should be established, and inter-Service use of capabilities should be emphasized over single Service support. Lead Service or agency support, or in some cases multinational support, options may also provide more effective maintenance capabilities to enable joint operations. These organizational options create greater synergy with systems common to two or more Services or multinational partners. Maintenance of ground systems, support equipment, communications electronics, and commercial systems can benefit from maintenance consolidation arrangements and can generate higher operational readiness while reducing logistics footprint and cost.

e. **Equipment Reset.** Equipment deployed to a theater of operations is periodically refurbished to meet current theater requirements. Equipment reset is a critical activity that

restores a unit to a desired level of combat capability commensurate with its future mission. Equipment reset encompasses maintenance and supply activities that restore, reconstitute, and enhance the combat capability of unit and prepositioned equipment that has been destroyed, damaged, stressed, or worn out beyond economic repair due to operations. Equipment reset repairs or rebuilds the equipment to specified standards. When appropriate, it enhances existing equipment by inserting new technologies, restoring selected equipment to meet current or future operational demands, and/or procuring replacement equipment. Equipment reset is accomplished by both depot-level and field-level maintenance activities that perform major repairs, overhauls, and recapitalization (rebuilds or upgrade). Equipment reset is normally initiated with the rotation/return of equipment from an AOR. It may also be performed in theater when practical. Equipment reset of systems common to two or more Services may be performed under inter-Service arrangements when advantageous in terms of cost, logistics footprint, or operational readiness.

f. Contractor Logistics Support (CLS) and Interim Contractor Support (ICS). CLS/ICS are other sources of maintenance and are integral to providing service and material solutions to the warfighter for sustained operations. CLS is a method of obtaining commercially contracted maintenance for a product or service for a specified period of time. ICS provides temporary contractor support in lieu of organic capability for a predetermined time allowing a Service to defer investment in all or part of required resources while an organic capability is phased in. CLS/ICS can also include maintenance services and materiel provided under equipment warranty programs. To be effective, CLS/ICS should be planned and coordinated so that usage requirements are tracked, accountability is maintained, and tactical distribution requirements are met.

See DoDD 4151.18, Maintenance of Military Materiel, for overall policy framework for the accomplishment of DoD maintenance.

g. Manufacturing. Manufacturing supports Service requirements by transforming maintenance operations and supply chains, increasing logistics resiliency, and improving self-sustainment and readiness. Manufacturing enhances the DoD's industrial base, including small businesses, to advance weapon system capabilities and sustainment. DoD depot maintenance activities employ manufacturing to overcome costs, testing, requalification, and the design and production of parts. Manufacturing may mitigate obsolescence issues due to supply chain production shortages. Manufacturing is a combination of fabrication (a sub-function of maintenance/repair) or the restoration by repairing parts or assemblies with techniques that include welding and subtractive and additive manufacturing. Manufacturing also includes the creation of parts by the military or DoD industrial base to augment traditional supply-chain requirements.

For more information on manufacturing, see DoDI 5000.93, Use of Additive Manufacturing in the DoD.

5. Logistics Services

Logistics services comprise the support capabilities that collectively enable the United States to rapidly provide global sustainment for military forces. Logistics services include

many scalable and disparate capabilities. Included in this area are food service, water and ice service, contingency base services, hygiene services, and mortuary affairs (MA).

a. **Food Service.** Includes all aspects of dining facility management, subsistence procurement and storage, food preparation, food sanitation protection (food defense and food safety), and delivery to supported personnel.

b. **Water and Ice Service.** Includes capability to purify, test, store, and distribute bulk or packaged water and ice in a deployed environment. Water and ice for human consumption is required to meet potable water standards.

c. **Contingency Base Services.** Provide the assets, programs, and services necessary to enable CCMD operations. This includes capabilities to operate, manage, transition, transfer, or close contingency locations for force application. Contingency locations provide shelter, billeting, utilities, common-user life support management, force protection, and facility management in a deployed environment. The base operating support (BOS) functions of the personnel, equipment, services, activities, operational energy, and resources required to sustain operations at forward installations and contingency bases are managed by a base operating support-integrator (BOS-I). A CCDR may designate a Service component commander as the lead Service responsible for BOS-I at initial and temporary contingency locations and propose to the CJCS the designation of lead Service for semi-permanent locations.

Refer to JP 4-04, Contingency Basing, for more information on how the CCDR can manage the various functions of BOS between Service components or PNs within a theater of operations from one base to another and within a single contingency location.

(1) **Real Property Life Cycle Management.** Real property life cycle management provides acquisition, support, sustainment, recapitalization, disposal, and economic adjustment activities for contingency location assets.

(2) **Support Services.** Support services deliver selected services to meet the requirements of the contingency location's population and mission, including security and emergency services, safety, base support vehicles and equipment, billeting services, airfield management, port services, range management, and space support services. These do not include services related to real property or personnel services.

d. **Hygiene Services.** Includes both personal hygiene and laundry services. Personal hygiene services provide adequate sinks, showers, and toilets to meet the needs of both men and women.

e. **MA.** Provides for the care and disposition of deceased personnel and the handling of their personal effects (PE) under the DoD Mortuary Affairs Program, which covers the return of human remains during all military operations.

For more information, see Appendix D, "Mortuary Affairs," and DoDD 1300.22, Mortuary Affairs Policy.

f. **Property and Waste Disposal Services.** Excess property and waste generated by military forces require disposal solutions, which include all aspects of collection, storage, removal, and management to ensure procedural, regulatory, and legal requirements are met.

(1) **Property Disposal Services.** Proactive disposal of excess property improves readiness, sustainability, and protection of military forces. Excess property includes serviceable and unserviceable equipment, supplies, and materials that are no longer required but still have utility or monetary value through reutilization, transfer, donations, or public sales, or that require demilitarization, but does not include real property.

(2) **Waste Disposal Services.** The proper and timely disposal of all waste is essential to protecting the health of military forces, local populaces, and the environment. Waste streams include solid (i.e., refuse or trash), human, medical, and hazardous waste. Services and DoD agencies are responsible for managing their respective waste streams to ensure proper disposal in accordance with regulatory and legal requirements, including during exercises and contingency operations.

6. Operational Contract Support

a. OCS is the process of planning for and obtaining supplies, services, and construction from commercial sources in CCDR-directed joint or single-Service activities and operations, regardless of their designation as formal contingency operations. OCS provides DoD's doctrinal framework, capability, and process, through the CCMD, Service component, and subordinate levels, to harness potential commercial capability to produce unified action and integrate it into plans, orders, exercises, and multinational operations; make timely, risk-informed decisions on the best sources for procuring supplies, services, and construction through a contract; and then manage and assess the resultant contracted support.

b. OCS supports all seven logistics core functions. DoD relies on contracted support and commercial capabilities to perform a multitude of essential tasks. OCS provides flexibility and options to employ commercial capabilities to deliver not only logistics and sustainment solutions, such as BOS, intertheater and intratheater transportation, logistics services, maintenance, storage, construction, and common-user support but also security services, translation, communications, medical, administration, and training. OCS is not simply a means to acquire logistics when organic logistics is not available or feasible but rather can be considered as a first option. When properly planned and executed, OCS mitigates inherent risks (e.g., frees up military forces for other missions, increases freedom of action to deploy uniformed forces where most needed while using contractors where best suited) and mitigates force flow constraints to augment global agility and facilitate joint operational access. OCS is comprised of contract support integration, contracting support, and contractor management.

(1) **Contract support integration** is the planning, coordination, and synchronization of contracted support requirements in integrated campaigning and joint operations. No single OCS-related organization or staff element is in direct control of all OCS actions in a joint operation; rather, multiple joint, Service, and CSA commands and

supporting acquisition and contracting organizations coordinate through designated cross-functional organizations such as boards, centers, cells, and working groups.

(a) OCS planning and integration are primarily operational, not contracting, functions. The CCDR, subordinate JFCs, and supporting component commanders' staff determine requirements and the appropriate source (i.e., organic, multinational, HN, or contracted support). Anticipation of contracted support requirements is enabled by early engagement in operational planning teams and joint planning groups. Staff identify options in contracted support and further develop requirements to meet end states. A skillset for all staff is to be able to derive second- and third-order commercial implications by assessing commodity and services requirements in the planning process. For example, field feeding plans may begin with an estimate of rations, but the derived contracted support requirements may include materials handling equipment, storage, refrigeration, power, potable water, food service workers, and facilities. A wide variety of OCS-related organizations advise, augment, and assist CCMD planning efforts but do not lead the OCS planning process. No matter how augmented or advised, the CCDR leads the OCS planning effort unless delegated to a subordinate JFC.

(b) A subcomponent of contract support integration is requirements management, which consists of three major subordinate functions: requirements development, requirements review and approval, and post-contract award oversight. Because requirements management is an operational function, not a contracting responsibility, the JFC, and more importantly component commanders, should ensure their subordinate units serving as requiring activities are trained in requirements management tasks. Most significantly, risk management involves ensuring contracted support is positively contributing to the mission. In the OE, requirements change, but the contractors only deliver on contractual requirements. The requiring activity may be the only entity with visibility of changes to operational requirements. The requiring activity communicates these changes through the contracting officer's representative to the contracting office to effect changes to the contract (e.g., mods, cancellations for convenience) and realign contractor performance with the new requirements.

(c) There are numerous other commercial capability planning and execution considerations that should be considered by the supported CCDR, subordinate JFC, and Service component commanders. These considerations range from establishing and maintaining the OCS aspects of the common operational picture (COP) to arranging common contracting support in multinational operations to determining the civil-military impact of OCS in stabilization activities.

(2) Contracting Support

(a) Contracting support is the planning, coordination, and execution of contracting authority to legally bind contractors in integrated campaigning and joint operations. Effective contracting support provides flexibility to the JFC. While not necessary for single-Service operations, the CCDR should normally designate a lead Service for contracting coordination (LSCC), a lead Service for contracting (LSC), or joint theater support contracting command to enable integrated campaigning and joint

operations, ensure effective and efficient use of the local commercial vendor base, and coordinate common contracting actions with designated contracting agencies.

(b) Contracting support planning is a contracting organizational function executed to some extent by all contracting agencies, not just by the designated LSCC, LSC, or joint theater support contracting command. An LSCC should be established early in the planning process to enable faster transition to contingencies or crisis response; synchronize contracting requirements among Service components, agencies, and other stakeholders; and facilitate the gathering of market research to enable future plans and operations. Contracting planning sets the conditions for effective contracted support (e.g., the LSCC, LSC, or joint theater support contracting command organizational option should be documented in plans)—involving allies and partners where appropriate. An LSCC should plan for accelerated and expanded contracting authorities; early in the operation, initiate indefinite-delivery/indefinite-quantity contracts that may be leveraged to achieve flexibility for contracted support during contingencies; analyze HNS agreements, as well as time-phased force and deployment data (TPFDD) to determine if back-up plans to source likely critical commodities and services are necessary; and lead and coordinate contracting support through the joint contracting support board (JCSB) and provide acquisition advice in cross-functional staff organizations.

(3) **Contractor management** is the oversight and integration of contractor personnel and associated equipment for integrated campaigning and joint operations. Contractor personnel may make up a part of almost any deployed joint force. In some operations, contractor personnel can even make up the majority of the deployed force. In any case, contractor personnel and their equipment impose unique challenges to the JFC and, therefore, are managed as a part of the total force. Contractor management is an expansive and complex process, comprised of predeployment preparation, deployment and reception, in-theater management, and redeployment.

(a) Visibility of contractor personnel is important to manage the capability they provide. Contracted capability is considered and documented in campaign and contingency plans. Then, use appropriate contract clauses, theater business clearance, and contractor visibility tools (e.g., SPOT-ES [Synchronized Predeployment and Operational Tracker-Enterprise Suite]) to enable visibility across all phases of operations, sustain that visibility while in the AOR, and finally document when the contracted capability (and associated personnel) have left the AOR. This requires the entire staff to understand their contracted support requirements and to manage those requirements from identification to cessation of need.

(b) Force protection and security of contractor personnel and equipment is a shared responsibility between the contractor and the USG. In a permissive environment, the supported CCDR and subordinate commander may have only limited special planning considerations, and this security responsibility would normally fall to the contractor. The CCDR may authorize the use of contractor personnel to provide specified security functions, consistent with applicable US, HN, and international law, and any status-of-forces agreement or other security agreement that may exist for the specified OA. In hostile environments, contractor-related force protection and security requirements can be a major

challenge, and the responsibility falls to the CDR to ensure that protection of contractors is considered and included in plans.

(c) Contingency contract administration services (CCAS) is an essential element of OCS. CCAS is a subset of contingency contracting that includes efforts to ensure that supplies, services, and construction are delivered in accordance with the terms and conditions of the contract. CCAS involves three key functions: contract administration, quality assurance, and property administration. CCAS ensures contractors meet contract requirements and that contracts meet operational needs. CCAS requirements are partially met by functions performed by the contracting officer representatives/contracting officer technical representatives but also require dedicated post award or CCAS elements, to include contract administrators/administrative contracting officers, quality assurance representatives/specialists, and property administrators. Effective CCAS improves readiness and results in reduced risks to missions, forces, and funds. Failure to plan for CCAS can lead to death, injury, or illness. CCAS is cost-effective at preventing fraud, waste, and abuse and reducing the risk of litigation.

c. **Other Considerations.** In the context of armed conflict, and some acts in competition, realistic assessments of risk to vulnerable commercial capabilities are necessary to inform senior leader decisions. Contractor oversight is planned for, as it is required, to perform contractor assessments. Assessments provide critical feedback from execution back to planning, enabling decisions that capitalize on opportunities and mitigate risk. Dynamic conditions, threats, performance, and operations require iterative assessments to maintain awareness and inform future planning. With global integration, lower-level decisions may have impact at higher levels of warfare. This requires reporting to strategic levels to inform future strategy, requirements, and resourcing.

For further guidance on OCS, refer to JP 4-10, Operational Contract Support, and DoDI 3020.41, Operational Contract Support (OCS).

7. Engineering

Engineer capabilities enable joint operations by facilitating freedom of action necessary for the JFC to meet mission objectives. Engineer operations integrate combat, general, and geospatial engineering to meet national and JFC requirements. Joint engineer operations facilitate the mobility and survivability of friendly forces; counter the mobility of enemy forces; provide infrastructure to position, project, protect, and sustain the joint force; contribute to a clear understanding of the physical environment; and facilitate activities of civilian authorities and other nations. The JFC ensures that engineering tasks are synchronized to maximize the effectiveness of military engineering—for example, tactical bridge replacement by more permanent, higher-capacity LOC bridges so that tactical bridging assets can be applied to total force requirements.

a. **General Engineering.** General engineering consists of those engineering capabilities and activities, other than combat engineering, that provide infrastructure and modify, maintain, or protect the physical environment. Examples include the planning, construction, repair, and maintenance of infrastructure; storage area requirements; LOCs

and bases; protection of natural and cultural resources; terrain modification and repair; disaster preparedness; and selected explosive hazard activities. The general engineering requirements for an operation are best determined by thorough theater infrastructure planning to determine what should be in place to set the theater for operations, how resilient it should be, and the technical expertise required to operate and maintain the infrastructure. Those requirements often exceed the capacity of available military engineers, so JFCs may need to employ a combination of military engineers, civilians, contractors, and multinational and HN support to fulfill these requirements.

b. **Combat Engineering.** Combat engineering consists of those engineer activities that directly enable the maneuver of land combat forces and require interaction with those forces. Combat engineering consists of three types of activities: mobility, countermobility, and survivability. Examples include combined arms breaching operations, assault gap crossing operations, and constructing and maintaining combat roads and trails; emplacing barriers and obstacles; and construction of fighting and protective positions. Combat engineering requires forces able to integrate their activities with the maneuver of land combat forces. Usually this requires combat engineers organic to most land combat forces at the brigade or regimental level or its equivalent. Only units characterized as combat engineer are organized, trained, and equipped to perform the range of combat engineering tasks required by land combat forces, to integrate their activities with the fires and maneuver of those forces, and to operate as part of a combined arms team in close combat. Because of this consideration, JFCs do not routinely assign combat engineering tasks to units trained and equipped to execute general engineering tasks. However, general engineer units can be employed to create combat engineer effects, such as digging tank ditches to enable countermobility. Similarly, combat engineer units have limited capability to execute construction tasks but can be employed as general labor for construction tasks.

c. **Geospatial Engineering.** Geospatial engineering consists of those engineer capabilities and activities that portray and refine data pertaining to the geographic location and characteristics of natural and constructed features and boundaries to provide engineering services to commanders and staffs. Examples include terrain analysis, terrain visualization, digitized terrain products, nonstandard tailored map products, precision survey, geospatial data management, baseline survey data, identification of significant cultural sites and natural resources, facility support, and force beddown analysis. It can be used for identification and analysis of civilian infrastructure such as roadways, railways, ports, distribution lines, hospitals, and storage facilities. Geospatial engineering tasks require highly technical and specialized capabilities. These may include processing data from disparate sources such as remotely sensed imagery, field reconnaissance, digital data, intelligence data, existing topographic products, and other collateral data. Geospatial engineers also perform digital manipulation of topographic, hydrographic, and aeronautical information by querying, viewing, evaluating, and downloading digital data. They satisfy operational needs such as the production of tactical decision aids or time and spatial analysis to inform the JFC's decision cycle. They can assist in predictive analysis of the impact that terrain and weather may have on transportation, communications, and intelligence systems. Geospatial engineers and intelligence personnel leverage data accessibility, exploitation, visualization, and distribution to create fused products.

For more information on joint engineering, refer to JP 3-34, Joint Engineer Operations, and JP 3-15, Barriers, Obstacles, and Mines in Joint Operations; for geospatial engineering, refer to JP 3-34, Joint Engineer Operations, and JP 2-0, Joint Intelligence.

8. Joint Health Services

a. Joint health services support is provided to personnel by applying Services' health support capabilities into a joint network of prevention, protection, and treatment, creating an integrated health support capability. The joint health services medical functions are organized under medical C2, force health protection (FHP), and health service support (HSS). FHP services promote, improve, or conserve the behavioral and physical well-being of personnel. These measures enable healthy and fit forces, prevent injury and illness, and protect the force from health hazards. FHP functions include preventive medicine, health surveillance and risk management, biosurveillance, combat and operational stress control, dental services, laboratory services, and veterinary services (including food protection, animal care, and veterinary preventive medicine). HSS promotes, improves, conserves, or restores the mental and physical well-being of personnel. This includes casualty care, which encompasses a number of HSS functions that occur at all levels of command: casualty management (including medical treatment, en route care, and optometry), patient movement (PM) (including medical regulating, medical evacuation, and en route care), hospitalization, and medical logistics (to include blood management, medical maintenance, and optical fabrication).

b. Joint health services are conducted as part of an interrelated health system that shares medical services, capabilities, and specialists among the Service components and partners with agencies and nations to implement a unified health care effort. The principles are conformity, proximity, flexibility, mobility, continuity, and control. The five overarching joint medical capabilities are first responder care, forward resuscitative care, en route care, theater hospitalization, and definitive care.

c. The joint force surgeon is the senior medical officer in the joint force and serves as the joint health services advisor to the JFC. The joint force surgeon coordinates HSS and FHP for the joint force through the joint force surgeon's office. These capabilities span the OA from point of injury/illness to definitive care, with an overall goal of treating all potentially survivable injuries and illnesses. To ensure efficient use of all available medical technologies and resources, the joint force surgeon may extend beyond the joint force's organic medical capabilities to identify and bring to bear resources not immediately available in the JOA. Due to the requirement for life-saving interventions for personnel suffering combat trauma within minutes of wounding or injury, medical resources are arrayed in close proximity to the forces supported. This array also permits the medical assets to rapidly clear the JOA of casualties. Reachback allows for medical infrastructure support services to sustain the forward-deployed medical force by transferring products and ideas as required in the JOA.

For further guidance on joint health services, refer to JP 4-02, Joint Health Services. For Service-specific guidance, refer to Army Techniques Publication 4-02.1, Army Medical Logistics; Air Force Manual 41-209, Medical Logistics Support; Air Force Tactics,

Techniques, and Procedures 3-42.8, Expeditionary Medical Logistics (EML) System; Marine Corps Order 4400.201, Management of Property in the Possession of the Marine Corps, Volume 12, Marine Corps Class VIII Management and Sustainment; Navy Tactical Techniques and Procedures 4-02.1, Medical Logistics; and Army Regulation 40-61, Medical Logistics Policies.

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CHAPTER III JOINT LOGISTICS ORGANIZATIONS

“We’re going to fight an enemy that can pretty much see the whole battlefield space [and electromagnetic signals] and has a magazine depth and range to hit anything he can see that’s not moving.

From your house to your armory, from your fort to your port, from your port to the next port or [aerial port of debarkation] onward from there, we’re going to be contested 100 percent of the time.

There’s no place you can relax, rest, or let your guard down.”

**Lieutenant General James Rainey
Deputy Chief of Staff, Army G-3/5/7, October 2021**

1. Introduction

a. Logisticians across the total force operate in areas, physical or virtual, where adversarial actions, decisions, and lethal and nonlethal effects occur across physical domains, the information environment (which includes cyberspace), and the electromagnetic spectrum. This reality serves as a catalyst for force design and development evolutions and has implications on the authorities, organizations, and controls that synchronize logistics for the JFC. JP 3-0, *Joint Campaigns and Operations*, identifies C2 as a joint function. Command includes both the authority and responsibility for effectively using available resources and the art of motivating and directing people and organizations to accomplish missions. Control is inherent in command. However, logistics assets rarely fall under one command, which makes control, coordination, collaboration, synchronization, integration, and management of joint logistics more challenging. To control joint logistics, commanders direct forces and functions consistent with their command authority. It involves organizing the joint logistics staff, operational-level logistics elements, CSAs, and their capabilities to assist in planning, executing, and assessing joint logistics, resulting in, at a minimum, unity of effort. Designating lead Service, assigning agency responsibilities, and developing procedures to execute the CCDR’s directive authority for logistics (DAFL) assists in planning, executing, and assessing joint logistics activities and operations. While logistics remains a Service responsibility, there are other logistics organizations, processes, and tasks to consider when developing a concept of logistics support (COLS) to optimize joint logistics objectives. The degree to which the OE is contested also informs decisions on organizing logistics forces for mission assurance in the context of reliance, risk, opportunities, and resilience.

b. Mostly permissive OEs enabled unprecedented levels of contracted support in recent military operations; however, future contested operations may require reimagining use of commercial capabilities with a greater focus on resilience. Increasingly, adversaries are maximizing the use of commercial capabilities to gain strategic advantage and creating operational challenges such as antiaccess/area denial and strategic challenges such as competition for partners and for access, egress, and overflight.

2. Logistics Organizations

Understanding the roles and responsibilities of key stakeholders in the JLEnt is an important step in fully synchronized and coordinated joint logistics activities and operations.

a. The Secretary of Defense (SecDef) is the principal advisor to the President on defense matters and serves as the leader and chief executive officer of DoD. There are several offices of SecDef with logistics and sustainment interests.

(1) **USD (A&S).** USD(A&S) is the principal staff assistant (PSA) and advisor to SecDef and Deputy Secretary of Defense for all matters relating to logistics; installation management; military construction; procurement; environment, safety, and occupational health management; utilities and energy management; and nuclear, chemical, and biological defense programs.

For more information on the roles and responsibilities of USD(A&S), see DoDD 5135.02, Under Secretary of Defense for Acquisition and Sustainment (USD[A&S]).

(2) **Under Secretary of Defense for Policy (USD[P]).** USD(P) is the PSA and advisor to SecDef for all matters regarding the formulation of national security and defense strategy and policy and the integration and oversight of DoD policy, strategy, resourcing, posture, plans, execution, and capabilities to achieve national security objectives. As USD(P) develops strategy, resourcing, and planning guidance, they seek the military advice and assistance of the CJCS, which may include consideration of contracted support and the supporting network of infrastructure, facilities, pre-positioned stocks, and war reserve materiel required for major contingency plans in posture planning.

For more information on USD(P), see DoDD 5111.01, Under Secretary of Defense for Policy (USD[P]), and Title 10, USC, Section 134.

(3) **Assistant Secretary of Defense for Sustainment.** The Assistant Secretary of Defense for Sustainment is the principal advisor to USD(A&S), SecDef, and the Deputy Secretary of Defense on logistics and materiel readiness in DoD and is the principal logistics official within senior management.

For more information on the Assistant Secretary of Defense for Sustainment, see DoDD 5134.12, Assistant Secretary of Defense for Logistics and Materiel Readiness (ASD[L&MR]).

(4) **Deputy Assistant Secretary of Defense for Logistics.** The Deputy Assistant Secretary of Defense for Logistics is the principal advisor for the department's logistics strategy and policy, supply, storage and distribution, property and equipment, transportation, and program support.

(5) **Deputy Assistant Secretary of Defense for Environment and Energy Resilience.** The Deputy Assistant Secretary of Defense for Environment and Energy Resilience provides policy and governance for programs and activities that enable

resilience and cyberspace-secure energy for weapon systems and installations. This includes budgetary, policy, and management oversight of programs related to climate change, compliance with environmental laws, prevention of pollution, management of natural and cultural resources, and cleanup of contaminated sites, as well as energy resilience, risk, and performance.

For more information, see DoDD 4180.01, DoD Energy Policy.

(6) **Under Secretary of Defense for Intelligence and Security.** The Under Secretary of Defense for Intelligence and Security is the PSA and advisor to SecDef and the Deputy Secretary of Defense regarding intelligence, counterintelligence, security, sensitive activities, and other intelligence-related matters.

(7) **Under Secretary of Defense for Research and Engineering.** The Under Secretary of Defense for Research and Engineering serves as the primary advisor to DoD leadership on all matters pertaining to the DoD research and engineering enterprise, technology development and transition, developmental prototyping, experimentation, and administration of testing ranges and activities. The Under Secretary of Defense for Research and Engineering also serves as DoD's Chief Technology Officer and is tasked with the imperative mission of ensuring continuous advancement of technology and innovation within the DoD enterprise.

(8) **Assistant Secretary of Defense (Industrial Base Policy)** is the principal advisor to the USD(A&S) for developing DoD policies for the maintenance of the US defense industrial base; executing small business programs and policy; conducting geo-economic analysis and assessments; providing recommendations on budget matters related to the defense industrial base; anticipating and closing gaps in manufacturing capabilities for defense systems; assessing impacts related to mergers, acquisitions, and divestitures; monitoring and assessing impact of foreign investments in the United States; and executing authorities under Title 10, USC, Sections 4811 and 4816.

(9) **Assistant Secretary of Defense for Space Policy.** The Assistant Secretary of Defense for Space Policy is the senior official responsible for the overall supervision of DoD policy for space warfighting. The Assistant Secretary of Defense for Space Policy is under the authority, direction, and control of USD(P). In addition, the Assistant Secretary of Defense for Space Policy is responsible for interagency coordination and international engagement on space policy and strategy.

For more information, see DoDD 3100.10, Space Policy.

b. **CJCS.** The CJCS is the principal military advisor to the President and the National Security Staff (which consists of the National Security Council and the Homeland Security Council) and SecDef. The CJCS prepares joint logistics and mobility plans to enable strategic and contingency plans and recommends the assignment of logistics and mobility responsibilities to the Armed Forces of the United States. The CJCS also advises SecDef on critical deficiencies in force capabilities (including manpower, logistics, intelligence, and mobility).

(1) **The Joint Staff J-2 [Directorate of Intelligence].** The Joint Staff J-2 is under the authority, direction, and control of the CJCS and is resourced by the Defense Intelligence Agency. It provides all-source intelligence and intelligence staff support to SecDef, the CJCS, other Joint Staff directorates, CCMDs, and the Services. It also serves as the single focal point for crisis intelligence support to national and theater decision makers, along with managing the worldwide defense warning system. Intelligence personnel use the joint intelligence preparation of the operational environment process to provide JFCs and their staffs with a detailed understanding of the threat and other relevant aspects of the OE. At the CCMD level and below, intelligence planners orchestrate the command's continuous joint intelligence preparation of the operational environment effort to provide a baseline assessment of the OE; enemy capabilities, objectives, and associated centers of gravity; critical capabilities; critical requirements; critical vulnerabilities; and COAs and related decisive points.

(2) **The Joint Staff J-3.** The Joint Staff J-3 maintains the global capability for rapid and decisive military force power projection. The Joint Staff J-3 leads collaborative efforts of the joint planning and execution community (JPEC) to improve the joint deployment and redeployment processes, while maintaining the overall effectiveness of these processes so that all supported JFCs and supporting DoD components can execute military force power projection more effectively and efficiently. Additionally, the Joint Staff J-3 serves as the joint force coordinator and coordinates the staffing of all force requirements among the joint force providers (JFPs), consolidates all execution and contingency sourcing recommendations, and performs the duties of a JFP for all conventional force requirements.

(3) **The Joint Staff J-4.** The Joint Staff J-4 leads the JLEnt by integrating logistics planning and execution in support of joint operations to drive joint force readiness, maximize the JFCs' freedom of action, and advise the CJCS on logistics matters. The Joint Staff J-4 coordinates across the myriad organizations in the logistics community of interest including the Office of the Secretary of Defense, the Services, CCMDs, the industrial base, and our multinational and interagency partners. Additionally, the Joint Staff J-4 coordinates policy, advises the CJCS on the readiness assessments of the CCMDs and Services, and makes recommendations to improve the preparedness of the DoD global logistics force. The Joint Staff J-4 leads global integration for logistics and should understand logistics capabilities across the joint force and help to prioritize limited resources to support competing requirements.

(4) **The Joint Staff J-5 [Strategic Plans and Policy].** The Joint Staff J-5 leads the development of strategies and plans for the joint force and proposes policy recommendations to the CJCS to support the provision of military advice to SecDef and the President. The Joint Staff J-5 prepares the planning guidance for the joint force; leads the risk assessments for the current OE and directed plans; and provides regional expertise in terms of access, basing, and overflight recommendations (to include acquisition and cross-servicing agreements [ACSAs] and logistics agreements to the CJCS). The Joint Staff J-5 collaborates with the Joint Staff J-4, as the coordinating authority for global logistics, to ensure strategic plans and policy are resource-informed.

(5) **The Joint Staff J-6 [Command, Control, Communications, and Computers/Cyber].** The Joint Staff J-6 supports the CJCS in providing best military advice while advancing cybersecurity policy implementation, joint/multinational interoperability, and C2 capabilities required by the joint force. The Joint Staff J-6 represents the joint warfighter in support of the command, control, communications and computers/cyberspace requirements validation and capability development processes while ensuring joint interoperability. Additionally, as the Joint Staff Chief Information Officer, the Joint Staff J-6 provides information technology services and support to the CJCS.

(6) **The Office of the Joint Staff Surgeon.** The Office of the Joint Staff Surgeon coordinates HSS and FHP capabilities for the joint force.

c. **Military Departments.** The Military Departments exercise authority to conduct all affairs of their departments, including to recruit, organize, supply, equip, train, service, mobilize, demobilize, administer, and maintain forces; construct, outfit, and repair military equipment; adhere to environmental compliance; construct, maintain, and repair buildings, structures, and utilities; and acquire, manage, and dispose of real property or natural resources.

d. **Components of Military Departments.** In accordance with Title 10, USC, the Services are responsible for preparing for employment of Service forces. They recruit, supply, organize, train, equip, service, mobilize, demobilize, provide administrative services, and maintain ready forces. Services are the center of a collaborative network, and their logistics organizations form the foundation of the JLEnt. The Services are the primary force providers and executors of joint logistics, as well as the primary providers of uniformed and contracted logistics to their own Service organizations supporting the CCDR. They are responsible for operational logistics systems and platforms and for maintaining systems' life-cycle readiness.

(1) **Army.** The theater Army is the Army Service component command to a CCMD and is the senior Army headquarters in a theater, which enables Army and other Service operations, assessments, and investments as directed. It is important for the Army Service component command and theater special operations command (TSOC) J-4 to enhance conventional forces and special operations forces (SOF) synchronization of sustainment. The theater sustainment command (TSC) is a theater enabling command that connects strategic enablers to tactical formations. The TSC integrates and synchronizes sustainment support to Army and mission partners during military operations. The TSC is a tailorable headquarters, task-organized to support joint operations and command subordinate sustainment organizations. It can be augmented as necessary with a combination of combat sustainment support units and functional logistics units based on the mission.

(a) The TSC executes port opening, theater opening, theater surface land distribution, and sustainment functions and provides lead Service and executive agent (EA) activities for designated CUL to other USG departments and agencies, MNFs, NGOs, and contractors as directed. The joint deployment and distribution operations center (JDDOC)

establishes and synchronizes the intratheater segment of the surface distribution system with the strategic-to-theater segment of the global distribution network through the TSC.

(b) The TSC establishes C2 of operational-level logistics in a specified area of operations by employing one or more expeditionary sustainment commands (ESCs), which provide a rapidly deployable, regionally focused, forward-based C2 capability until a TSC can assume that function. When the Army is the predominant land force operating within an OA, the TSC or ESC, at the discretion of the JFC, has the capability to become a joint command for logistics, when designated, providing logistics to all joint forces within the OA. This is contingent upon the other Services, DoD agencies, and CCMDs providing the appropriate augmentation of personnel and capabilities to this joint mission. Though the TSC can be sourced from any component of the Army, the preponderance of the Army's logistic capability is in the Reserve Component, either Army Reserve or Army National Guard.

(c) An ESC may be both attached to the TSC, or theater Army, and assigned to the corps within a subordinate OA within the theater. When attached to the TSC, the ESC typically executes the sustainment mission for the TSC throughout the AOR. When an ESC is attached to a field army or assigned to a corps, it focuses on sustaining the specific OA and has only a coordinating relationship with the TSC. During large-scale combat operations, multiple ESCs may operate in the same theater. One or more could be attached to the TSC or field army and one or more could be assigned to a corps. In such circumstances, the TSC sets the conditions for successful sustainment and distribution operations and advises the theater Army commander and strategic partners on potential conflicts between the wider AOR and a specific JOA, or between JOAs.

(d) The Secretary of the Army is the DoD EA for land-based water resources. This responsibility applies to all aspects of land-based water support for the Services during contingency operations, including water selection, pumping, purification, storage, distribution, cooling, consumption, water reuse, water source intelligence, research and development, acquisition of water support equipment, water support operations doctrine, human factor requirements, training, and water support force structure. To ensure adequate support, commanders and their staffs should address planning for tactical water support. Water may be supplied as either a packaged or bulk product.

For more information, see DoDD 4705.01E, Management of Land-Based Resources in Support of Contingency Operations.

(2) **Marine Corps.** The Marine expeditionary force is the principal warfighting organization in the Marine Corps, capable of conducting and sustaining expeditionary operations in any geographic environment. The Marine logistics group provides tactical logistics above the organic capability of supported units to all elements of the Marine expeditionary force. It is a permanently organized command structured with functional and multifunctional units that are organized to support a Marine expeditionary force possessing one Marine division and one Marine aircraft wing. Integration with strategic- and operational-level logistics organizations is coordinated through the Marine Corps component commander.

(3) **Navy.** The Commander, United States Fleet Forces Command, and Commander, United States Pacific Fleet, under the Navy's operational command have responsibility for fleet readiness and logistics. The Commander, United States Fleet Forces Command, and Commander, United States Pacific Fleet, ensure attainment of fleet readiness and logistics through their subordinate type commanders (i.e., Naval Air Forces, Naval Surface Forces, submarine force, and Navy Expeditionary Combat Command).

(a) The logistics forces of each numbered fleet are organized into standing task forces, and the commanders of these task forces are the principal logistics agents for the fleet commander. The logistics task force commander is responsible to the fleet commander for management of logistics forces for maritime sustainment of Navy, United States Coast Guard (USCG) (when assigned), and Marine Corps units. The logistics task force commander has tactical control of Military Sealift Command combat logistics force ships, plans resupply for all classes of supply, and plans and manages theater ship repairs in military and commercial yards outside the continental United States (OCONUS).

(b) Fleet operational forces are normally organized into task forces under the command of a task force commander. The task force commander exercises control of logistics through a fleet logistics coordinator, task force logistics coordinator, or task group logistics coordinator and coordinates the replenishment of forces at sea.

(4) **Air Force.** The air expeditionary task force is the organizational structure for deployed United States Air Force forces. The air expeditionary task force presents a scalable, tailorable organization with three elements: a single commander, embodied in the commander, Air Force forces; appropriate C2 mechanisms; and tailored and fully supported forces. The Air Force forces staff is the vehicle through which the commander, Air Force forces, fulfills operational and administrative responsibilities for assigned and attached forces and is responsible for long-range planning that occurs outside the air tasking cycle. The PSAs to the commander, Air Force forces, for JOA-wide integration of agile combat support capabilities and processes are the director of manpower, personnel, and services; the director of logistics, engineering, and force protection; and the surgeon general.

(a) The director of manpower, personnel, and services is responsible for the functions of billeting; MA assistance; and food service, to include bottled water for planned meals. Responsibility for planning daily consumable water outside of planned meals resides with the director of logistics, engineering, and force protection. The contracting officer is the responsible agent to procure bottled water (when the requirements have been established) from approved sources that are coordinated with bioenvironmental engineers and public health. The director of logistics, engineering, and force protection controls logistics planning; distribution; materiel management; fuels; maintenance; munitions; civil engineering; fire emergency services; explosive ordnance disposal; chemical, biological, radiological, and nuclear defense and response elements of emergency management; and force protection. The surgeon general advises on FHP and HSS.

(b) In general, these Air Force directorates formulate and implement policies and guidance to ensure effective sustainment to Air Force forces. It is important to

recognize that many joint logistics functions typically associated with the J-4 are divided among multiple Air Force directorates.

(5) **Space Force.** United States Space Force, in coordination with the United States Space Command and other DoD, interagency, commercial, and international partners, conducts space lift to deploy new capabilities, augment existing on-orbit capabilities, or replenish satellite constellations as part of planned sustainment activities or in response to adversary attack. Space ranges provide launch capabilities, pre-launch testing, launch traffic control, and scheduling services for space lift operations. The unique challenges and operational requirements of the space domain require an acquisition-heavy model of sustainment to stay ahead of obsolescence factors and concerns. Failure to adequately account and plan for the impact this has on replenishment timelines can affect operations. Also, infrastructure management has a significant operational impact because it is part of the weapon systems. Space Force Service components integrate space capabilities into the JFCs' joint force planning within the theater of operations and ensure integration with the CCMD staff, other Service component staffs, subordinate units, PNs, governmental agencies, and NGOs for all phases of military operations. The United States Space Force Chief Operations Officer is the principal on behalf of Space Force Service components for mission support, logistics, and communications and coordination with relevant host entities.

e. **CCMDs.** Unless otherwise directed by the President or SecDef, the CCDR exercises authority, direction, and control over the commands and forces assigned to that command through combatant command (command authority). CCDRs coordinate and approve the administration, logistics (including control of resources and equipment, internal organization, and training), and discipline necessary to carry out missions assigned to the command.

(1) **USTRANSCOM.** USTRANSCOM provides common-user and commercial transportation; terminal management; and aerial refueling to support global deployment, employment, sustainment, and redeployment of US forces. USTRANSCOM serves as DoD's mobility JFP, DoD's single manager for defense transportation, and DoD's single manager for PM. USTRANSCOM synchronizes distribution planning for global operations in coordination with other CCMDs, Services, and agencies as directed. Additionally, USTRANSCOM serves as DoD's Joint Deployment and Distribution Coordinator to coordinate and oversee the DoD distribution system to provide interoperability, synchronization, and alignment of DoD-wide end-to-end distribution.

(a) CDRUSTRANSCOM is responsible for JDDE operations and planning. Collaborates with other CCMDs, Services, and, as directed, USG departments and agencies in providing JDDE-wide analysis and assessment, developing and implementing process improvements, and advocating for global deployment and distribution capabilities. The Joint Deployment and Distribution Coordinator also provides military representation to government, commercial, and international entities as directed; integrates DoD strategies, plans, and intelligence priorities for global deployment and distribution operations; and makes priority recommendations to SecDef. USTRANSCOM, as the mobility JFP, plans, resources, and operates a worldwide DTS to conduct distribution operations that meet the requirements of the supported commander. This includes reviewing taskings and analyzing

supported CCDRs' requirements for transportation feasibility and recommending to CCMD planners how to maximize transportation capabilities while meeting those requirements. During the deployment, sustainment, and redeployment phases of a joint operation, CCDRs coordinate their movement requirements with USTRANSCOM and share responsibilities for deployment and distribution operations executed with assigned/attached forces in their respective AORs.

(b) USTRANSCOM is the DoD single manager for global bulk fuel management and delivery in support of CCDRs' requirements. As the single manager, USTRANSCOM synchronizes bulk fuel posture, planning, and execution, and advocates for resources, capabilities, and process improvements in coordination with the CCMDs, Services, and DLA. USTRANSCOM leads key bulk fuel governance processes and represents the joint petroleum enterprise on behalf of DoD. USTRANSCOM fuses a single view of DoD bulk petroleum military construction. USTRANSCOM improves bulk fuel planning processes, integration, and outputs across the joint petroleum enterprise through improved analytics and assessments and by incorporating fuel into CCMD OPLAN feasibility assessments. USTRANSCOM synchronizes global bulk fuel priorities and execution activities across the competition continuum.

(c) USTRANSCOM may also provide other distribution process enablers, to include JDDOC augmentation and a joint task force-port opening (JTF-PO) capability. Although all Services have the organic capability to execute theater opening functions, among other logistics tasks such as port opening and distribution, the JTF-PO provides a joint expeditionary capability to rapidly establish and initially operate and clear an aerial port of debarkation or seaport of debarkation and conduct cargo handling operations to a forward distribution node. JTF-PO is designed to be in place in advance of a deployed force, sustainment, or humanitarian/relief supplies. It provides the supported CCDR with a rapid assessment of potential aerial ports of debarkation/seaports of debarkation and their associated distribution infrastructures to facilitate crisis response in established or austere environments. While in direct support of the supported CCDR, CDRUSTRANSCOM retains operational control (OPCON) over JTF-PO forces in most cases while in theater.

For additional information on JTF-PO, see JP 4-09, Distribution Operations.

(d) As a supporting command, CDRUSTRANSCOM, through the Joint Enabling Capabilities Command, provides global, rapidly deployable, temporary joint expeditionary capabilities across the competition continuum to assist in the initial establishment, organization, and operation of joint force headquarters; fulfill global response force execution; and bridge joint operational requirements. Its joint capability packages are mission-tailored plans, operations, logistics, knowledge sharing, intelligence, communications, and public affairs capabilities. The Joint Enabling Capabilities Command's Joint Planning Support Element includes experienced logisticians with expertise in the integration, coordination, and implementation of joint logistics operations and planning to enable joint operations.

For additional information on the Joint Enabling Capabilities Command, see JP 3-33, Joint Force Headquarters.

(e) CDRUSTRANSCOM, though the United States Transportation Command, Office of the Command Surgeon (TCSG), serves as DoD's single manager for the development of policy and standardization of procedures and information systems for global PM. TCSG implements policy and standardized procedures for the regulation, clinical standards, and safe movement of patients. TCSG orchestrates and maintains global oversight of the United States Transportation Command patient movement requirements centers (TPMRCs) in coordination with the CCMDs and external intergovernmental organizations as required. TCSG synchronizes current and future operational PM plans to identify available assets and validate transport to bed plans through the supporting TPMRCs.

(f) **Deployment and Distribution Operations Center (DDOC).** The DDOC, located at USTRANSCOM, directs the global air, land, and sea transportation capabilities of the DTS to meet national security objectives provided by DoD. The DDOC fuses capabilities of multimodal deployment and distribution operations, intelligence, force protection, capacity acquisition, resource management, and other staff functions to collaboratively provide distribution options to the warfighter. C2 of the majority of intertheater lift forces and logistics infrastructure is accomplished through the DDOC, which tracks the movement requirement from lift allocation and initial execution through closure at final destination.

For additional information on the DDOC, refer to JP 3-35, Joint Deployment and Redeployment Operations.

(2) **United States Space Command.** United States Space Command operates facilities throughout the OEs and often in austere locations, requiring supplies, utilities, and personnel support. United States Space Command utilizes a supported, supporting, and mutual support relationship that enables other CCMDs to provide terrestrial sites with logistics support to allow United States Space Command to assist all military operations. Logistics support to space forces includes support to sites within the OEs, reconstitution/replenishment of orbital assets through space lift and satellite maneuvers, and various operations supporting crewed space flight.

(3) **United States Special Operations Command (USSOCOM).** Commander, United States Special Operations Command (CDRUSSOCOM), exercises combatant command (command authority) over all SOF and the TSOCs unless otherwise directed by SecDef. SOF are dependent on Service and joint logistics as the primary means of sustainment. As directed, CCDRs exercise OPCON over assigned TSOCs and SOF.

(a) When a CCDR establishes and employs subordinate joint task forces (JTFs) and task forces, the CCDR or commander, TSOC, may establish and employ a special operations JTF, joint force special operations component, special operations command-forward, or joint special operations air component to control SOF assets and accommodate special operations requirements. Accordingly, the CCDR establishes command relationships between SOF commanders and other JTF/task force commanders. CDRUSSOCOM can establish and employ a special operations JTF or a joint special operations task force as a JFC in coordination with CCDRs for special operations in their AOR.

For more information regarding special operations task organizations, see JP 3-05, Joint Doctrine for Special Operations.

(b) As a subordinate unified commander, the commander, TSOC, is the primary logistics control authority for SOF in a theater. Responsibilities include oversight of the core logistics functions. The TSOC J-4 coordinates with the CCMD, theater Service component commands, and CSAs to advocate for Service-common support to the SOF, which is required by Title 10, USC, Section 165. In OAs with limited resources, the TSOC J-4 recommends prioritization of common-user items and consolidated functions to the CCMD or JTF J-4 and/or the appropriate lead Service logistics organization. USSOCOM advocates for SOF Service-common support requirements with CCMDs and Services as needed and ensures provision of special operations-peculiar sustainment. Planners should be prepared to include the use of OCS for SOF requirements.

(c) The Services are the primary providers of Service-common support to SOF units in an OA, regardless of whether the SOF units are assigned or attached to the Service component, TSOC, or other special operations task organization. Service-common support is the equipment, materiel, supplies, and services including BOS adopted by a Service for use by its own forces and those assigned to the CCMDs; items and services defined as Service-common by one Service are not necessarily Service-common for all other Services.

(d) SOF presence as the sole or preponderance of forces at a location does not eliminate the responsibility of the theater Service component commander to provide Service-common support. The CCDR ensures appropriate Service logistics is available to SOF through one of the logistics control options described in paragraph 4, “Logistics Control Options.” When a theater Service component command cannot satisfy its Service support to SOF requirements, the CCDR determines if another Service component can satisfy the requirement through common or joint Service arrangements.

(e) For initial entry of SOF in support of theater campaign operations, USSOCOM component commands normally maintain the capability to sustain SOF elements for an initial period of 15 days. Services and/or supporting organizations should be prepared to sustain special operations as soon as possible but not later than 15 days after SOF are employed. Certain rapid deployment scenarios and crisis response operations require Service-common support to SOF within 72 hours of embarkation. USSOCOM component commands normally maintain the capability to support SOF elements for an initial period of 15 days, for limited contingency and crisis response operations. SOF units coordinate a statement of requirements with CCDRs to enable theater pre-planning and logistical synchronization.

(f) When time, geographic, or resource constraints make it impractical for the theater infrastructure to enable SOF activities, the CCDR may ask CDRUSSOCOM to deploy organic USSOCOM CSS assets. This may include nonstandard logistics (NSL) operations which adapt processes such as acquisition, storage, funding, and transportation using both conventional providers within DoD as well as other sources outside DoD.

(g) Special operations-peculiar capabilities are also considered. This includes equipment, materiel, supplies, and services required for special operations missions for which there is no Service-common requirement. These are limited to items and services initially designed for or used by SOF until adopted for Service-common use by one or more of the Services, modifications approved by CDRUSSOCOM for application to standard items and services used by the Services, and items and services approved by CDRUSSOCOM as critically urgent for the immediate accomplishment of a special operations mission. These capabilities are provided via USSOCOM Service component logistics infrastructures and in coordination with theater Service components.

(4) **CCDR's Logistics Directorate.** A CCMD's J-4 conducts logistics planning, execution, and assessment in integrated campaigning and joint operations. They integrate, coordinate, and synchronize Service component and CSA logistics capabilities to support the commanders' intent. The J-4 also advises the CCDR on logistics activities and operations to optimize available resources. Although the organizational considerations outlined below could apply to a CCDR's J-4 staff, they are most frequently applied to subordinate joint force J-4 organizations. The J-4 staff supports the operations directorate of a joint staff in the planning and executing of requirements for the JRSOI process, as well as contingency base planning and sustainment. The J-4 coordinates, synchronizes, plans, and executes core logistics functions in joint and multinational operations.

For more information on the CJCS, Military Departments, Services, and major components, see DoDD 5100.01, Functions of the Department of Defense and Its Major Components.

(5) **CCMD Roles and Responsibilities**

(a) **Supported CCDR.** The supported CCDRs lead integrated logistics planning for their problem sets, inclusive of all associated plans related to the logistics problem both intertheater and intratheater. As such, supported CCDRs have coordinating authority for logistics planning. They lead the logistics planning process with all supporting CCMDs to develop a common understanding of logistics requirements, synchronize logistics planning activities, identify problem set logistics resource requirements, and provide logistics supportability analyses (quantitative and qualitative), as well as risk and supportability assessments associated with the plans. The supported commander designates and prioritizes objectives, timing, and duration of the supporting action. The supported commander ensures supporting commanders understand the operational approach and the logistics requirements of the plan. If required, SecDef adjudicates competing demands for resources when there are overlapping requirements among multiple supported CCDRs.

(b) **Supporting Commander.** Supporting commanders ensure their logistics planning is sufficiently integrated and synchronized across the operation. They assist the supported commanders' efforts to develop a unified view of the logistics environment and synchronize resources, timelines, logistics C2, decision points, and authorities. The supporting commander determines the forces, tactics, methods, procedures, and communications to be employed in providing logistics. The supporting commander advises

and coordinates with the supported commander on matters concerning the logistics employment and limitations of required capabilities, assists in planning for the integration of logistics into the supported commander's effort, and ensures logistics requirements are appropriately communicated throughout the supporting commander's organization.

For additional information on planning, refer to JP 5-0, Joint Planning. For more information on supported commander/supporting commander, see JP 1, Volume 2, The Joint Force.

f. **CSAs.** CSAs designated under Title 10, USC, Section 193, fulfill combat support or CSS functions for joint operating forces during all military operations and for CCDRs executing military operations. CSAs perform functions or provide capabilities, consistent with their establishing directives and pertinent DoD planning guidance. USD(A&S) is the PSA for DLA, the Defense Contract Management Agency (DCMA), and the Defense Threat Reduction Agency.

For more information on CSAs, see DoDD 3000.06, Combat Support Agencies (CSAs).

(1) **DLA.** As the nation's logistics CSA, DLA manages the global supply chain and in collaboration with JLEnt partners sustains the readiness and lethality of the Armed Forces of the United States. As a statutory CSA, DLA provides logistics advice, advocacy, and assistance to the Office of the Secretary of Defense, Joint Chiefs of Staff, the CCDRs, Military Departments, DoD components, and interagency partners. DLA also provides nuclear weapon systems sustainment and modification activities to the DoD Nuclear Enterprise. DLA serves as DoD's EA for subsistence (Class I), construction and barrier materiel (Class IV), medical materiel (Class VIIIA), and Defense Logistics Management Standards. DLA directs a global network of distribution centers located throughout the United States, Europe, Africa, the Pacific, and South-West Asia, tailored and arrayed to supply the Armed Forces of the United States. DLA's global posture enables the agency to respond to all operations.

(a) DLA delivers global logistics solutions to DoD through its headquarters, major subordinate commands, regional commands, and liaison officers attached to the Joint Staff, Services, and CCMDs. DLA directs a global network of distribution centers that receive, store, care for, and issue a wide range of commodities owned by DLA, the Services, General Services Administration, and other whole-of-government partners. DLA also enhances mission support capabilities with joint reserve military component personnel assigned to the DLA Joint Reserve Force.

(b) DLA manages spares and reparable for weapons systems and executes reutilization, transfer, demilitarization of excess end items and repair parts, and disposal of hazardous property and waste. Additionally, DLA maintains robust expeditionary capabilities, including DLA support teams, DLA Distribution Expeditionary, DLA Disposition Services Expeditionary, and the Global Distribution Expeditionary Contract.

(2) **Defense Health Agency (DHA).** DHA is a joint, integrated CSA that enables the Army, Navy, and Air Force medical services to provide a medically ready force in both

peacetime and wartime. DHA uses the principles of Ready Reliable Care to advance high-reliability practices across the Military Health System by improving system operations, driving innovative solutions, and cultivating a culture of safety.

For more information, see DoDD 5136.13, Defense Health Agency.

(a) **Medical Logistics Division.** The Medical Logistics Division of DHA develops functional requirements to facilitate best business processes and promote medical materiel standardization.

(b) **Armed Services Blood Program (ASBP).** The Assistant Secretary of Defense for Health Affairs develops policy related to blood and blood products and the ASBP. The ASBP provides transfusion products when required to US forces worldwide. The Director, DHA, manages the ASBP in accordance with DoDI 6480.04, *Armed Services Blood Program*.

For additional information on Medical Logistics Division, PM, and ASBP, refer to JP 4-02, Joint Health Services.

(3) **DCMA.** DCMA provides contract administration service to the DoD acquisition enterprise and its partners to ensure delivery of quality products and services to the operating force. While not a core mission, DCMA may also serve as CCAS force provider in major contingency and expeditionary operations when requested by the supported CCDR through the global force management process and/or as directed by USD(A&S).

(4) **Defense Security Cooperation Agency.** This agency arranges DoD-funded and space-available transportation for NGOs for delivery of humanitarian goods to countries in need; coordinates foreign disaster relief missions; and, in concert with DLA, procures, manages, and arranges for delivery of humanitarian daily rations and other humanitarian materiel to achieve US policy objectives.

g. Other Logistics Supporting Organizations

(1) **Department of Health and Human Services.** The Department of Health and Human Services is the lead agency for the National Disaster Medical System, coordinating the partnership among the Department of Homeland Security, DoD, and the Department of Veterans Affairs for responding to the needs of casualties of domestic public health emergencies and is a partner in maintaining strategic reserves of medical material in the United States.

(2) **Department of Homeland Security.** The mission of the Department of Homeland Security is to safeguard the American people and homeland by securing the nation, including against threats from violent extremists, cyberspace threats, natural disasters, border violations, and violations of US trade laws.

(a) **USCG.** USCG maritime patrol and deployable specialized forces are capable of supporting joint military operations worldwide. To accomplish its many

missions, USCG deployable units and assets consist of high-endurance cutters, patrol boats, buoy tenders, aircraft, port security units, maritime safety and security teams, maritime security response teams, tactical law enforcement teams, and the National Strike Force. Logistics for the USCG is provided by the Deputy Commandant for Mission Support and its subordinate elements. When USCG forces operate as part of a JTF, they may draw upon the logistics infrastructure established by/for the JTF. These general sustainment functions normally include, but are not limited to, berthing, subsistence, ammunition, fuel, and accessibility to the naval supply systems.

(b) **Federal Emergency Management Agency.** The Federal Emergency Management Agency supports citizens and emergency personnel to build, sustain, and improve the nation's capability to prepare for, protect against, respond to, recover from, and mitigate all hazards.

(3) **General Services Administration.** The General Services Administration provides logistics for the functions and missions of the USG, including DoD. Services are provided primarily through the Public Building Service for building and real estate management and leasing and the Federal Acquisition Service for services, equipment, supplies, telecommunications, and information technology. Additionally, the General Services Administration provides services to state, tribal, and local governments via programs that include the Disaster Recovery Purchasing Program, National Wildland Fire Program, and the Cooperative Purchasing Program.

(4) **Department of Transportation.** The Department of Transportation serves the American people and economy through the safe, efficient, sustainable, and equitable movement of people and goods. The Department of Transportation oversees the operation of the nation's commercial transportation networks and systems upon which the DoD moves personnel and supplies.

3. Logistics Authorities

The fundamental role of joint logistics is to integrate and coordinate logistics capabilities from department, Service, agency, and other providers of logistics and to facilitate execution of the Services' Title 10, USC, responsibilities while enabling the ever-changing needs of the JFC. Logistics may also be called upon to enable the National Guard in Title 32, USC, status. It may also include special assignment airlift missions in addition to channel airlift, surface, and sealift movements. Joint logisticians should understand how each of the Services conducts logistics at the operational level.

a. **EA.** At the strategic national level, SecDef or the Deputy Secretary of Defense may assign the head of a DoD component as a DoD EA with specific responsibilities, functions, and authorities to provide defined levels of logistics or sustainment for operational missions or administrative or other designated activities that involve two or more of the DoD components. The DoD EA may delegate to a subordinate designee, within that official's component, the authority to act on that official's behalf for any or all of those DoD EA responsibilities, functions, and authorities assigned by SecDef or the Deputy Secretary of Defense. The nature and scope of the DoD EA responsibilities,

functions, and authorities are prescribed at the time of assignment and remain in effect until SecDef or the Deputy Secretary of Defense revokes or supersedes them. Only SecDef or the Deputy Secretary of Defense may designate a DoD EA and assign associated responsibilities, functions, and authorities.

See DoDD 5101.01, DoD Executive Agent, and Appendix C, “Logistics-Related Executive Agents,” for details.

b. **DAFL.** At the strategic theater level, there are several tools available to a CCDR to execute logistics activities and operations, including DAFL. DAFL is statutory authority contained in Title 10, USC, Section 164. The statute specifies that, included among the various authorities that comprise the command authority of CCDRs, “giving authoritative direction to subordinate commands and forces necessary to carry out missions assigned to the command, including authoritative direction over all aspects of military operations, joint training, and logistics,” are integral elements of that command authority. DAFL cannot be delegated or transferred except that the CCDR may delegate responsibility for the planning, execution, and/or management of common logistics and sustainment capabilities to a subordinate JFC or Service component commander to accomplish the subordinate JFC’s or Service component commander’s mission. The CCDR formally delineates this delegated authority by function and scope to the subordinate JFC or Service component commander.

(1) The DAFL of a CCDR applies to all assigned forces and affects all subordinate components, commands, and direct reporting units assigned to the CCMD. Some CCDR responsibilities include:

(a) Issuing directives to subordinate commanders, including peacetime measures necessary for the execution of military operations, for the following: execution of approved OPLANs, effectiveness and economy of operation, and prevention or elimination of unnecessary duplication of facilities and overlapping of functions among the Service component commands.

(b) Coordinating with USTRANSCOM to identify transportation-related requirements and initiatives (e.g., establishing the aerial port of debarkation/seaport of debarkation, determining transportation routes and required infrastructure).

(c) Coordinating with DLA to identify logistics requirements and initiatives (e.g., establishing storage locations, identifying pre-positioned material and equipment, determining fuel requirements, providing contingency contracting solutions).

(d) Establishing HNS (e.g., ACSAs/mutual logistics support agreements, status-of-forces agreements, cost-sharing agreements).

(2) Unless otherwise directed by SecDef, the Military Departments and Services continue to have responsibility for the logistics activities and operations of their forces assigned or attached to joint commands, subject to the following guidance:

(a) Under peacetime conditions, the scope of the logistics authority exercised by the CCDR is consistent with the peacetime limitations imposed by legislation, DoD policy or regulations, budgetary considerations, local conditions, and other specific conditions prescribed by SecDef or the CJCS. Where these factors preclude execution of a CCDR's directive by component commanders, the comments and recommendations of the CCDR, together with the comments of the component commander concerned, are normally referred to the appropriate Military Department for consideration. If the matter is not resolved in a timely manner with the appropriate Military Department, it is referred by the CCDR, through the CJCS, to SecDef for resolution.

(b) Under crisis, wartime conditions, or where critical situations make diversion of the normal logistics process necessary, the DAFL allows CCDRs to use all facilities and supplies of all forces assigned to their commands for the accomplishment of their missions. The President or SecDef may extend this authority to attached forces when transferring those forces for a specific mission and should specify this authority in the establishing directive or order. Joint logistics doctrine and policy developed by the CJCS establishes wartime logistics guidance to assist the CCDR in conducting successful joint operations.

(3) A CCDR's DAFL does not:

(a) Discontinue Service responsibility for logistics activities and operations.

(b) Discourage coordination by consultation and agreement.

(c) Disrupt effective procedures or efficient use of facilities or organizations.

(d) Include the ability to provide contracting authority or make binding contracts for the USG.

(4) In exercising DAFL, CCDRs have an inherent obligation to ensure accountability of resources. In that regard, CCDRs coordinate with appropriate Service components before exercising DAFL or delegating authority for subordinate commanders to exercise common logistics and sustainment capabilities to one of their components. In keeping with the Title 10, USC, roles of the Military Departments, CCDRs should maintain an accounting of resources taken from one Service component and provided to another. This accounting can be used to reimburse the losing Service component in kind over time within the AOR when possible or can be used to pass back a requirement to DoD for resource actions to rebalance Military Department resource accounts.

For more information on DAFL, refer to JP 1, Volume 2, The Joint Force.

c. **Lead Service.** A lead Service or Service component is responsible for the programming and resourcing of common-user items, logistics functions, and/or service support. A CCDR may choose to assign specific CUL functions, to include both planning and execution, to a lead Service. These assignments can be for single or multiple common logistics functions and may be based on phases or OAs within the CCDR's AOR. In circumstances where one Service is the predominant provider of forces, or the owner of the

preponderance of logistics capability, it may be prudent to designate that Service as the joint logistics lead for BOS-I. The CCDR may augment the lead Service logistics organization with capabilities from another component's logistics organizations, as appropriate. Key lead Service functions at operating areas typically include, but are not limited to, BOS-I, communications synchronization, and senior airfield authority synchronization; budget programming; real property management; and provision (provide and fund) of common-user items or service support. The lead Service may consider a commercially contracted solution to meet the requirements in addition to, or in place of, organic capabilities.

(1) It is imperative that a detailed analysis of the OCS aspects of the OE be prepared to help shape COA development and determine the possible intended and unintended outcomes of OCS. Understanding the OE is fundamental to identifying the conditions required to achieve stated objectives; avoiding the effects that may hinder mission accomplishment (undesired effects); and assessing the impact of friendly, adversarial, and other actors, such as the local populace, on the commander's CONOPS and progress toward achieving the JFC's objectives.

(2) The CCDR may designate a specific Service component as the LSC that coordinates external support and theater support contracting actions. Normally, this is the most capable Service with theater support contracting capabilities. When an LSC is appointed, normally the lead Service responsible for most CUL/BOS-I responsibilities, the designated Service component contracting activity is responsible for providing theater support contracting for CCDR-specified common commodities and services for a particular geographical region, normally a JOA or major expeditionary base. The LSC option is most appropriate for smaller-scale, long-duration operations when a single Service has a preponderance of forces.

d. **BOS-I.** BOS-I is a sub-function of lead Service. The BOS-I plans and synchronizes the effective and efficient application of resources and contract support to facilitate unity of effort in the coordination of sustainment functions at designated contingency locations. A CCDR may designate a Service component commander as the lead Service responsible for BOS-I at initial and temporary contingency locations and propose to the CJCS the designation of lead Service at semi-permanent locations. The CCDR, commensurate with SOFs' capability and capacity, may assign SOF the synchronization of BOS functions in specific instances where SOF and their enablers are the only forces at a contingency location. The assignment to synchronize BOS functions in these instances does not alleviate the lead Service responsibility to program and resource common-user items, logistics functions, and/or service support. The designated BOS-I is responsible for requirements management and a lifecycle approach to common user contract support, as well as the effective and efficient use of other resources, for all joint forces at the contingency location. Additional BOS-I responsibilities may include, but are not limited to, coordinating the issuance of war reserve materiel assets, collecting and prioritizing construction requirements, seeking infrastructure funding, environmental management, emergency management, emergency services, force protection, and hazardous waste management/disposal. The BOS-I closely coordinates with the senior

airfield authority or single port or terminal manager. If no senior airfield authority or single port or terminal manager is assigned, the BOS-I is responsible for their functions.

For more information on requirements management, see Chapter II, “Core Logistics Functions,” paragraph 6, “Operational Contract Support,” and JP 4-10, Operational Contract Support.

4. Logistics Control Options

The CCDR’s logistics authority enables use of all logistics capabilities of the forces assigned as necessary for the accomplishment of the mission. The President or SecDef may extend this authority to attached forces when transferring those forces for a specific mission and should specify this authority in the establishing directive or order. The CCDR may elect to control logistics through the J-4 staff tailored and augmented as discussed in subparagraph 2.e.(3), “CCMD’s Logistics Directorate.” The CCDR may also decide to control joint logistics by designating a subordinate logistics organization. In these instances, the CCDR delineates the authorities and command relationships that the subordinate commanders use to control logistics. In both cases, the CCDR exercises effective control of joint force logistics by fusing procedures and processes to provide visibility and control over the logistics environment and integrating joint logistics planning with operations planning. Control of joint logistics is enhanced by how effectively the logistician combines the capabilities of the global providers and the Services’ logistics elements with the JFC’s requirements in a way that achieves unity of effort.

a. **Staff Control.** The J-4 staff may coordinate and plan for a wide range of joint campaigns and operations, including major operations or complex operations involving multiple agencies, international organizations, NGOs, or MNFs, if properly augmented. For example, the staff may be sized and tasked to provide increased movement control or materiel management capabilities, it could be augmented with a robust OCS planning and integration capability, and the J-4 could receive augmented capability to coordinate MNL operations or execute JOA-wide infrastructure repair/restoration missions. J-4 staff augmentation can come from a combination of military, civilian emergency workforce, and contractor personnel. When exercising this option, the CCDR specifies the control authorities delegated to the J-4 over the components logistics elements. Tasking to Service component logistics elements in this case come from formal tasking orders issued through the CCDR’s operations directorate. The logistics tasking, which could come in the form of a fragmentary order, formalizes the authorities given the J-4 by the JFC and enables the rapid response to operational logistics requirements.

b. **Organizational Control.** As another alternative for controlling the major operations outlined above, the CCDR may assign responsibility to establish a joint command for logistics to a subordinate Service component. The senior logistics headquarters of the designated Service component normally serves as the basis for this command. When exercising this option, the CCDR retains DAFL and specifies the control and tasking authorities being bestowed upon the subordinate joint command for logistics, as well as the command relationships it has with the Service components. This command controls logistics tasking as directed by the CCDR and does not infringe on the authorities

and responsibilities as specified in subparagraph 2.e.(4), “CCMD Roles and Responsibilities.” This designation is required in time to enable the command to exercise capabilities during joint exercises. Waiting until crisis to operationalize an ad-hoc organization is not effective. The command should incorporate joint and agency billets staffed with subject matter experts across Services and agencies to integrate and control logistics requirements, processes, and systems. The recommended command relationship is OPCON to the CCDR.

c. CUL Control

(1) Planners should consider areas best suited to CUL organizational options. CCMD and subordinate logistics planners should keep in mind that while CUL can be very efficient, it may not always be the most effective method of sourcing requirements. By its very nature, CUL normally takes place outside routine logistics channels, which may lead to reduced responsiveness if not properly planned, coordinated, and executed. CCDRs, along with their subordinate commanders, review, coordinate, and direct CUL requirements with DLA; other CCDRs, which include their supporting contracting activities; and Service component commanders to provide an integrated joint logistics system from the strategic to tactical levels. All parties consider the advantages and disadvantages of each CUL-related COA are properly considered, to include the extent of reliance on commercially sourced, contracted support. However, the CCDR has overall responsibility for deciding the amount and type of CUL for a particular joint operation. The CCDR’s decision to use DAFL to direct CUL within a subordinate joint force should be deliberate and coordinated to ensure proper CUL execution. Key elements that CCDRs and subordinate JFCs consider when establishing CUL responsibility are:

- (a) Establish clear and deliberate assignment of CUL functions.
- (b) Include only common user items.
- (c) Establish item visibility requirements.
- (d) Delineate specific reimbursement procedures.
- (e) Consider contracting activities, capabilities, and capacities.

(2) **Cross-Leveling CUL Assets.** Only the CCDR has the authority to direct the cross-leveling of supplies within a joint force. Cross-leveling of a supply for one Service component is only for common items, should be accomplished in a prudent and deliberate manner, and considers reimbursement between Services. CUL commodities are displayed in Figure III-1, as well as other potential CUL areas that should be considered in reducing redundancy, risks, and costs.

(3) **Organizational Control Options.** Based on the operational situation, CCDRs can modify or mix two major control options: single-Service logistics support or lead Service/agency support.

Potential Common-User Logistics Areas and Sustainability

Type of Service	Common-User Logistics Sustainability	Potential Common-User Logistics Areas
Maintenance and Salvage	Very Limited	Common Ground Equipment Communications Electronics Salvage
Transportation	Good	Port Opening Material Handling Equipment Common Airlift Support Common Sealift Support Common Port Operation Support Common Land Transportation Movement Control Logistics Over-the-Shore Joint Reception, Staging, Onward Movement, and Integration Noncombatant Evacuation Operations
Develop and Maintain Facilities	Excellent	Base Development Environmental Services
Hazardous Material and Waste Management	Excellent	Inventory Management Disposal
Medical Logistics	Limited	Medical Materiel Management Life-Cycle Management of Medical Equipment and Assemblages Medical Equipment Maintenance and Repair Optical Fabrication and Repair Centralized Management of Patient Movement Items Health Facilities Planning and Management Medical Logistics or Environmental Services Medical Contracting Blood Storage and Distribution
Supply	Limited	Selected Supply Commodities with Standardization and/or Operability
Other Services	Excellent	Mortuary Affairs Reutilization and Disposal Water Services Food Services Laundry and Shower Services Clothing and Textile Repair Contingency Base Support Common Contracted Support and Contracting Post or Base Exchange Services

Figure III-1. Potential Common-User Logistics Areas and Sustainability

(a) **Single-Service Logistics Support.** In this organizational option, each Service retains primary responsibility for providing sustainment to their subordinate organizations, and CUL is limited to existing support relationships between Services as identified in inter-Service support agreements. If delegated by the CCDR, the J-4 may coordinate limited CUL to other Services or DoD agencies in certain situations. This method is most often used in major operations where the operational situation allows for,

and calls for, the deployment of the requisite Service component logistics assets in a timely manner and where logistics effectiveness is paramount.

(b) **Lead Service or Agency for CUL.** The CCDR may designate a lead Service or DoD agency to provide selected CUL to one or more Service components, governmental organizations, and/or NGOs in a joint or multinational operation. This CUL option is normally based on the dominant user and/or most capable Service concepts and may or may not involve OPCON or tactical control of one Service component logistics units to the lead Service.

d. **Control Option Selection Considerations.** After determining what commodities and functions will be joint, the CCDR decide how to control those logistics activities and operations. The selection of a control option should benefit from a careful analysis to include the following considerations. These considerations are not designed to stand alone. They should be considered comprehensively to properly inform the commander's decision.

(1) **Mission.** The mission is the foremost consideration of the commander when selecting the option used to control joint logistics. Mission analysis helps identify the complexity and scale of the joint logistics requirements the command may face during execution. Generally, the more complex operations have greater need for an organizational control option.

(2) **The Most Capable Service Component.** This consideration aligns with the most prevalent Service capabilities in the OA. It is one of the most important considerations to analyze because no Service component's logistics organization or supporting contracting activity is staffed or equipped to plan and execute joint logistics or joint contracting support. The most capable Service component organization may have to be augmented to provide CUL responsibilities. Without adequate Service component logistics C2 capability available, the staff control option is the most appropriate.

(3) **The Geographic and Physical Infrastructure in the OA.** This consideration is related to the most capable Service component consideration. The geographic and physical infrastructure in the OA usually dictates the nature of the LOCs needed to enable the joint force and the need for contingency basing. The LOCs influence the distribution system, to include the location of distribution points and the challenges brought on by the in-transit visibility technology need to enable the operation. Additionally, the condition of the LOCs may constrain CUL, common-user land transport, and intratheater plans. The CCDR should coordinate with USTRANSCOM, DoD agencies, and other stakeholders when analyzing the geography and physical infrastructure in the OA and when selecting the control option.

(4) **CCDR Option Selection and Design.** Figure III-2 details a logical sequence that can be used by CCDRs when evaluating, selecting, and designing the option they intend to use to control joint logistics.

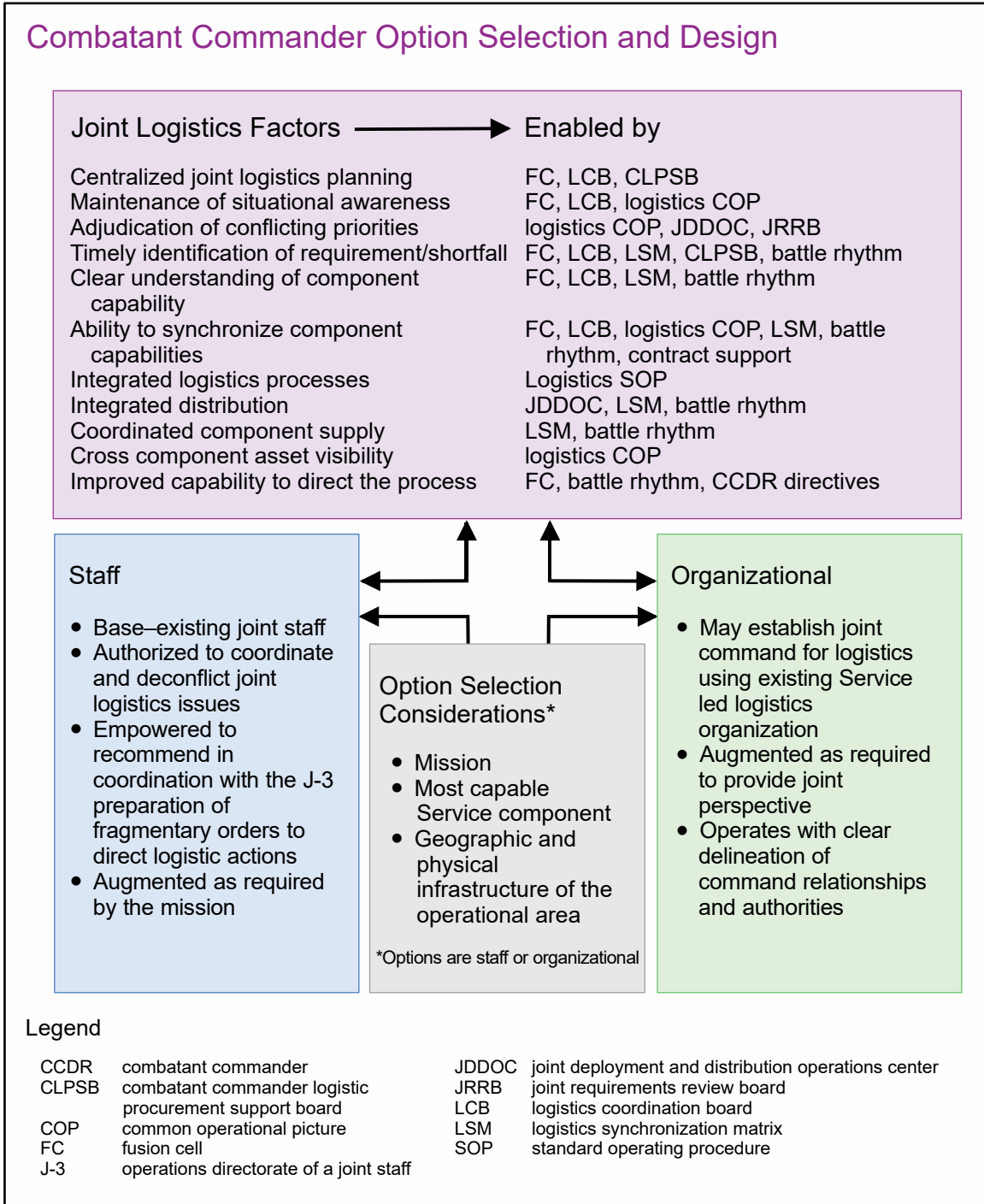


Figure III-2. Combatant Commander Option Selection and Design

5. Technology to Enable Joint Logistics

The rapid advance of technology, if leveraged effectively, can enable the JFC to control logistics within the OE. Automatic identification technology, in the form of information systems, decision-support tools, and communications capabilities, can illuminate information; improve visibility of logistics processes, resources, and

requirements; and provide the information necessary to rapidly synthesize, visualize, and understand the environment to create an effective decision process that outpaces any adversary calculus. The ability to control, coordinate, synchronize, and manage joint logistics in the OE is dependent upon and challenged by a landscape of legacy information systems, emerging digital modernization initiatives, and a portfolio of existing, but flawed and incomplete, tools and capabilities.

a. **Current Information Technology and Systems Environment**

(1) To control, coordinate, synchronize, and manage joint logistics requires a mixture of defense business and national security legacy systems. Title 10, USC, Section 2222, defines a defense business system as an information system that is operated by, for, or on behalf of DoD, including any of the following: a financial system, a financial data feeder system, a contracting system, a logistics system, a planning and budgeting system, an installations management system, a human resource management system, or a training and readiness system. There are more than 500 defense business systems documented in DoD's information technology registry. While the primary focus of these defense business systems is to support the day-to-day business management processes and activities of DoD, they are equally important to the sustainment of the joint force during operations and/or crises.

(2) Title 44, USC, Section 3552, defines a national security system as any information system (including any telecommunications system) used or operated by an agency or by a contractor of an agency or other organization on behalf of an agency; the function, operation, or use of which involves intelligence activities; involves cryptologic activities related to national security; involves C2 of military forces; involves equipment that is an integral part of a weapon or weapons system; or is critical to the direct fulfillment of military or intelligence missions but does not include a system that is to be used for routine administrative and business applications (including payroll, finance, logistics, and personnel management applications). Such systems are protected at all times by procedures established for information that have been specifically authorized under criteria established by an executive order or an Act of Congress to be kept classified in the interest of national defense or foreign policy. Most of these systems are legacy systems that are being modernized or replaced.

b. **Digital Modernization.** Logistics operations rely on Service and agency efforts, implementation, and valid data to gather information and develop the knowledge necessary for planning, decision making, and assessment. The DoD components contribute critical data, information, and knowledge that enable the CCDRs' logistics planning and COP by providing various logistics knowledge such as in-transit visibility. This valuable and timely information, fused with other inputs per the joint reporting structure, assists the CCMDs and Service components in development of LSA for those OPLANs with a TPFDD and annex D (Logistics), annex L (Environmental Considerations), annex P (Host-Nation Support), annex Q (Health Services), and annex W (Operational Contract Support) for supporting component plans. Historically, the JLEnt has struggled with the ability to rapidly gather and synthesize logistics information to meet senior leader needs for a global integration in support of operations.

DIGITAL MODERNIZATION

The Department of Defense (DoD) Digital Modernization Strategy, the DoD Data Strategy, and the Department of Defense Summary of the Joint All-Domain Command and Control Strategy, establish policies and guidelines that are driving modernization initiatives and capabilities that enable improved access to authoritative data and data-driven technologies, including artificial intelligence, machine learning, and automation, and should ultimately enable commanders and warfighters across DoD to rapidly translate decisions into action and to leverage capabilities across all domains and with mission partners to achieve operational advantage. The DoD Digital Modernization Strategy is guiding and informing DoD strategies, policies, and initiatives that address risks of cyberspace threats; information technology reform; command, control, and communications modernization; artificial intelligence implementation; and cloud migration

The *DoD Data Strategy* provides the overarching vision, focus areas, guiding principles, essential capabilities, and goals necessary to transform DoD into a data-centric enterprise. The management of information and sharing of knowledge are the foundations of shared awareness, and the Deputy Secretary of Defense has made exposing and employing data a priority for DoD. The *DoD Data Strategy* establishes seven goals that guide policies and initiatives that are beginning to expose the data the logistics community requires and make it more easily accessible, while highlighting gaps and impediments that are preventing future progress.

Various Sources

c. Current Tools and Capabilities

(1) **Advana [Advancing Analytics]**. Advana is DoD's multi-domain technology platform that provides military and business decision makers, analysts, and users with unprecedented access to authoritative enterprise data and structured analytics in a scalable, reliable, and secure environment. It is the single enterprise authoritative data management and analytics solution for SecDef, the Deputy Secretary of Defense, and PSAs. Through the Artificial Intelligence and Data Acceleration Initiative, the DoD Advana platform makes data widely accessible, understandable, and actionable across the DoD enterprise. Advana is available to CCMDs to assist warfighters by translating common enterprise data into actionable insights, decisions, and outcomes, making their data broadly visible, accessible, understandable, linked, trustworthy, interoperable, and secure, to serve authorized users across the enterprise. The Advana platform is available to enable CCMD efforts for coordination and synchronization of all joint logistics, to change decision-making behavior across DoD using data and analytics. Through accelerating its data cataloging efforts, DoD is quickly evolving from disconnected and disparate systems to a fully interconnected federated enterprise, utilizing a singular interface with the DoD federated data catalog to satisfy DoD requirements of Title 44, USC, Section 3511.

(2) **Logistics Common Operational Picture (LOGCOP).** The goal for any LOGCOP is to provide a tailored view in order to “achieve operational logistics visibility/decision advantage.” The Advana platform provides a data and analytical environment from which a LOGCOP can be developed to meet global and CCMD operational logistics information needs. The foundational basis for this Advana data environment stems from nine prioritized operational logistics key visibility questions, which, when answered in totality for each class of supply and logistics functionality, enable the development of a tailored LOGCOP (see Figure III-3). Many of the CCMDs have developed a tailored LOGCOP, leveraging the expanding data environment within the DoD Advana platform. Additionally, this effort has fostered an environment of joint collaboration involving the Joint Staff, Advana, the CCMDs, and various DoD support agencies, enabling visibility of CCMD logistics requirements, resources, and logistics supply chain readiness and constraints at an unprecedented speed. The subsequent tools, products, and applications generated are intended to globally integrate logistics

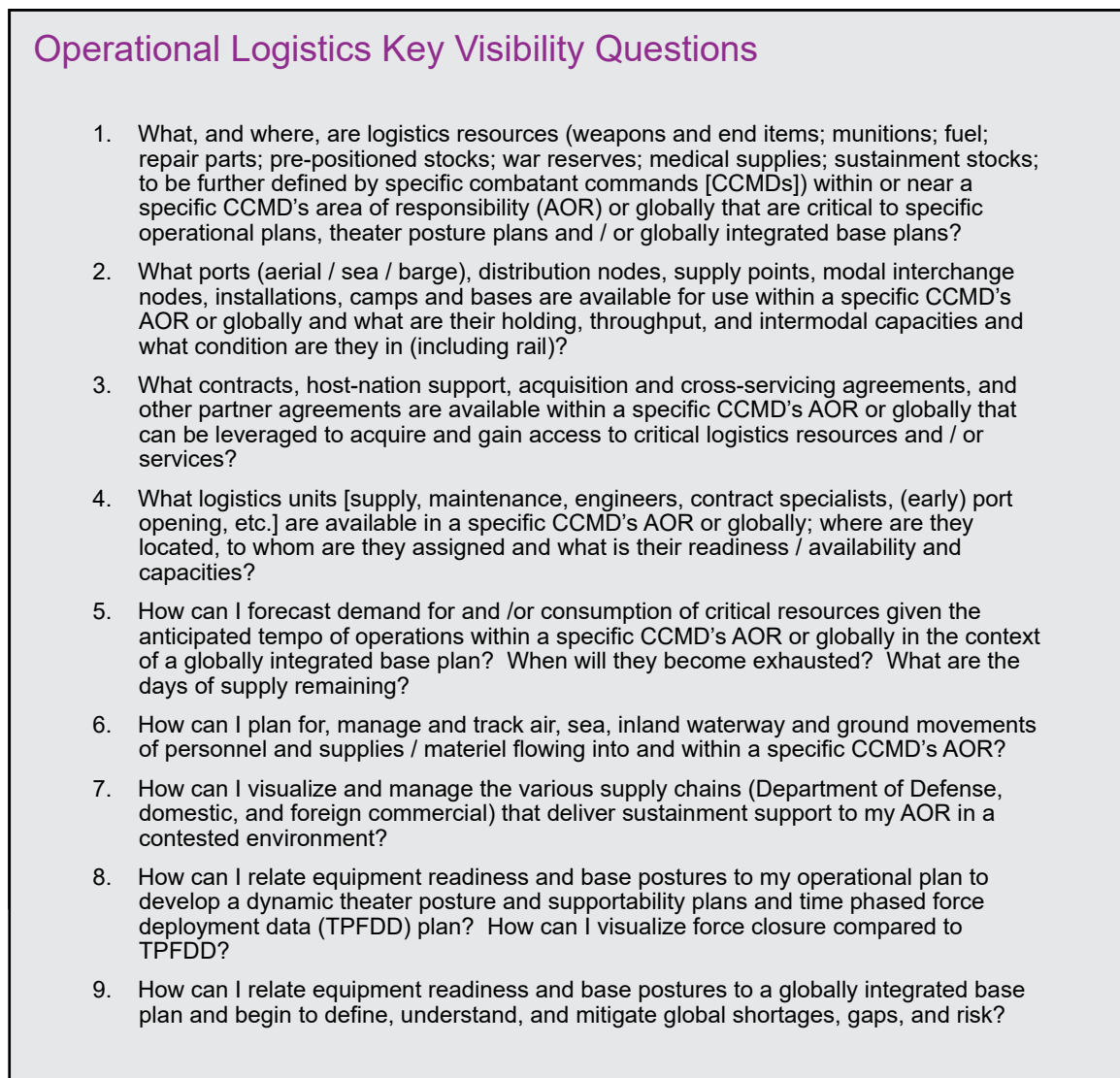


Figure III-3. Operational Logistics Key Visibility Questions

information and activities for operational logistics planning, execution, and decision making. These automated LOGCOPs not only improve accuracy, timeliness, and thoroughness of analysis but also rapidly transform perspectives to generate the best military advice to the CJCS, DoD senior leaders, and the President at a speed and manner that is relevant, accurate, and anticipatory.

d. **JLEnt Visibility.** JLEnt visibility is access to logistics processes, resources, and requirements data to provide the information necessary to make effective decisions. JLEnt visibility provides the means to share information and optimize logistics capabilities to achieve objectives, increase readiness, provide access to authoritative logistics information, and enable the user to respond quickly to the joint force's changing needs. Sharing data is essential to JLEnt visibility. Complete and timely information provides leaders and planners the ability to match available resources to operational demands. Visibility answers the commander's questions: What is it? Where is it? How and when should it arrive? To improve visibility and globally integrate operations, the JLEnt:

(1) Develops and enables common processes, methods, and language for JLEnt providers.

(2) Promotes policies that encourage transparency and the logistics community data owners to make their data accessible, interoperable, and secure.

(3) Cultivates global sourcing of resources among mission partners, across geographic boundaries, and among organizational affiliations through the development of operational requirements and the associated logistics requirements from the outset to meet mission requirements.

(4) Pursues technology investments offering cost-effective methods to advance logistics visibility in an effort to improve operational effectiveness.

e. Collectively, these capabilities can enhance mission and organizational performance, improve decision cycle effectiveness, facilitate shared understanding through collaboration and shared knowledge, and create agile learning organizations. Logistics organizations should be learning organizations and adapt to implement changes between innovations in business models, job roles, globalization impacts, and technology. How quickly logistics adapts to these changes affects the speed of service and implementation of logistics activities and operations.

f. Logistics activities and operations rely on Service and agency efforts, implementation, and valid data to gather information and develop the knowledge necessary for planning, decision making, and assessment. The management of information and sharing of knowledge are the foundations of shared awareness, and the Deputy Secretary of Defense has made exposing and employing data a priority for DoD. Contained in a secure environment, protected from cyberspace exploitation and attack, Advana mitigates vulnerabilities that would hinder operation during natural or manmade crisis. Leveraging the Advana platform to organize, and analyze data and information enables decision making.

g. Access to secure networks is necessary to sustain joint force readiness. Effective networks are used to find and access relevant information, facilitate collaboration, distribute data to forward-deployed areas, increase performance and reliability, ensure the enterprise infrastructure for evolving DoD systems is resilient, and leverage PNs' capabilities.

6. Intergovernmental and Interorganizational Cooperation

Interorganizational cooperation that results in operational arrangements for joint logistics is bound together by a web of relationships among global providers. These relationships are critical to joint logistics success because logistics capabilities, resources, and processes are vested in myriad organizations.

a. **Multinational.** Logisticians work with multinational partners. While the United States maintains the capability to act unilaterally, it is likely that the requirement, and the desire, to operate with multinational partners continues to increase. MNL is a challenge. However, leveraging MNL capabilities increases the CCDR's freedom of action. Operations during competition require HN support to provide access, basing, overflight, and access to infrastructure. This access is critical during JRSOI, where the deployment of US forces may occur prior to crisis to achieve deterrence. Initial US forces may be deployed in limited numbers, embedded with PN forces, and may also need to draw supplies from partner inventories. The joint force leverages these capabilities through status-of-forces agreements, HNS agreements, and ACSAs. Additionally, many multinational challenges can be resolved or mitigated by having a thorough understanding of the capabilities and procedures of multinational partners before operations begin. Integrating and synchronizing logistics in multinational operations require multinational information sharing, developing interoperable logistics concepts and doctrine, as well as clearly identifying and integrating the appropriate logistics processes, organizations, and C2 options. For example, CCMD sponsorship of tabletop exercises with key MNL partners to identify key processes and products for reporting and information-sharing builds muscle memory, relationships, and trust. Careful consideration should be given to the broad range of MNL structures.

For further reference on MNL, refer to JP 3-16, Multinational Operations, and Appendix E, "Logistics in Multinational Operations."

b. **International Organizations and NGOs.** Integration and coordination among military forces, NGOs, and international organizations are different from the coordination requirements of a purely military operation. These differences present significant challenges to coordination. NGO and international organization culture is different from that of the military. Their operating procedures undoubtedly differ from one organization to another and with DoD. However, their similar needs (e.g., distribution, materials handling equipment, shelter, water, and power) in a contingency environment add another requirement for resources that should be addressed early in any operation. Ultimately, some NGOs and international organizations may even have policies not in harmony with those of DoD. In the absence of a formal command structure, the joint logistician needs to collaborate and elicit cooperation to accomplish the mission. NGOs and international

organizations possess unique skills and capabilities that can assist in providing the joint warfighter more robust logistics.

For additional information on logistics cooperation with international organizations and NGO coordination efforts, refer to JP 3-08, Interorganizational Cooperation. For additional information on civil-military operations, refer to JP 3-57, Civil-Military Operations.

c. Logistics Support of USG Departments and Agencies

(1) Integrating logistics at lower echelons is complicated by the creation of more support relationships across Service lines. Likewise, MNL operations and support to interagency partners can complicate logistics by introducing a wider variety of potential partners. This complication is both the challenge and the solution, as it demands working with partners with a variety of requirements while also providing access to external resources and expertise. Partner logistics capabilities vary, as do their specific materiel resources, procedures, and information systems. It is necessary to integrate all the various partners' capabilities and requirements into the broader logistics effort, and most likely the United States would do this integration. Given the variety of materiel, procedural, and information systems at work, logisticians should make every effort to collaborate. Information transfer and security become especially challenging given the variety of information systems, classifications, and organizational/national interface challenges.

(2) Joint logistics requires integration of elements at lower echelons with the option to detach from their parent headquarters and combine effectively with similar elements from other Services or organizations to form flexible groupings. Moreover, these flexible groupings need the ability to incrementally combine to create logistics organizations of practically any size and composition. This ability is essential to maintain unified action. The key to achieving this flexibility is creating interoperability between units from different Services, other agencies, and with multinational partners to the extent possible.

7. Space Sustainment Operations

a. Logistics Support to Space Operations. Space operations logistic requirements include support to all three segments of the space domain: terrestrial, link, and orbital. In addition to these three segments, human space flight logistics support is considered for crewed space launches and recoveries. The terrestrial locations are spread throughout and supported by the CCMDs but still work for United States Space Command. They are linked through cyberspace, with policies and required actions by sustainers to keep data integrity and prevent intrusion. Orbital logistics support includes reconstitution of orbital weapons systems through space lift and satellite maneuvers to save fuel and extend satellite life.

b. Space Operations Support to Logistics. Space access, mobility, and logistics enable movement and support of military equipment and personnel into, within, and from space. Enabling capabilities in space (e.g., satellite communications; positioning,

navigation, and timing; intelligence, surveillance, and reconnaissance; environmental monitoring) support sustainment activities and operations. Satellite communications support logistics by providing global communications and data transmission to forces dispersed throughout the OE. Satellite communications provide situational awareness and enable a COP. Positioning, navigation, and timing support the JLEnt by providing real-time location, timing, and navigation to friendly forces. Intelligence, surveillance, and reconnaissance and environmental monitoring enable logistics by providing the ability to observe areas of interest, understand the threat, and increase situational awareness. Space-based environmental monitoring provides information on meteorological and oceanographic factors that affect military operations in the land, maritime, and air domains.

For additional information on space operations, refer to JP 3-14, Joint Space Operations.

NEAR FUTURE LOGISTIC OPERATIONS

The publication of the Space Power Doctrine by United States Space Force (USSF) in 2020 formalized space mobility and logistics as a core competency necessary for space operations and the race is on for on-orbit servicing, assembly, and manufacturing (OSAM) technology. USSF is planning to conduct flight experiments and field prototypes as early as 2025 with vehicles that can accommodate cooperative refueling, and to have fuel depots in orbit around 2027. Commercial companies are signing contracts now that are exclusive of government inputs that will provide hydrazine refueling in geosynchronous Earth orbit (GEO) in the 2025 timeframe and xenon fuel services contracts in GEO around 2027. The ultimate goal of OSAM is to provide greater mobility, resiliency, and expanded life cycle of assets on orbit.

**Air Force Research Laboratory, Space Vehicles
Directorate, January 2022**

CHAPTER IV JOINT LOGISTICS PLANNING

“As we select our forces and plan our operations ... we must understand how logistics can impact on our concepts of operation.... Commanders must base all their concepts of operations on what they know they can do logistically.”

**General Alfred M. Gray, Jr. 29th Commandant
of the Marine Corps (July 1987-June 1991)**

1. Introduction

Logistics is more than support. It also provides commanders options, beyond forces support. To enable this, logistics planners participate in the planning process to inform operational planning decisions, not merely to support the commander’s operational objectives after they are developed. Logistics are required to integrate campaigning across the competition continuum. This chapter is applicable to combatant command campaign plans (CCPs), subordinate campaign plans, campaign support plans, and contingency plans tasked in Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3110.01, *(U) 2018 Joint Strategic Campaign Plan (JSCP)* [short title: JSCP], or as directed by the CCDR. This chapter also addresses planning considerations and input and output products used by joint logisticians to create OPLANs and operation orders (OPORDs) that enable transition from peacetime activities to execution of orders. Focus is leveraging globally integrated logistics opportunities to achieve strategic outcomes.

a. The requirement to perform joint logistics planning is derived from Title 10, USC, Section 153, the JSCP, and guidance provided in the JSCP-directed supplements and/or coordinating instructions.

b. Joint logistics planning is conducted under the construct of joint planning and is addressed in JP 5-0, *Joint Planning*. Joint planning consists of planning activities associated with joint military operations by CCDRs and their subordinate commanders in response to directives, contingencies, and crises. It transforms national strategic objectives into activities by development of operational products that include planning for the mobilization, deployment, employment, sustainment, redeployment, and demobilization of joint forces. Joint planning occurs at multiple strategic national and operation levels using process, procedures, tactics, techniques, and facilitating information technology tools/applications/systems aligned to the Joint Planning Execution Services.

c. The theater logistics overview (TLO) segment of the CCP articulates the overarching logistic architecture of the CCDR’s AOR or functional area. It is the starting point of subsequent logistics planning for regional OPLAN development and other contingencies.

2. Planning Functions

a. Joint planning encompasses four planning functions: strategic guidance, concept development, plan development, and plan assessment. Depending upon the type of planning and time available, these functions can be sequential or concurrent. Joint planning features detailed planning guidance and frequent dialogue between senior leaders and commanders to promote a common understanding of planning assumptions, considerations, risks, COA, implementing actions, and other key factors. Plans may be rapidly modified throughout their development and execution. This process involves expeditious plan reviews and feedback, which can occur at any time, from SecDef and the CJCS. The intent is to give SecDef and the CCDR a mechanism for adapting plans rapidly as the situation dictates.

b. Logistics planners at every level should set conditions for subordinate success. Timely, accurate, and responsive planning enables trade-offs, alternate COAs, and, therefore, freedom of action for JFCs. Joint logistics planning links the mission and commander's intent to core logistics functions, procedures, and organizations. Effective logistics planning must be integrated with operational planning at all levels and throughout the planning process to create decision space, consider the impact of logistics requirements on operational decisions, leverage opportunities, and mitigate risks. Defining concepts, COAs, and lines of effort devoid of logistics integration does not achieve success. Effective logistics planners are not required to adapt to operational requirements because they have proactively engaged operational planners to inform decisions throughout the planning process. Logistics provides commanders with opportunities to achieve strategic outcomes by increasing the ability to meet requirements in terms of forces, movement, projection, sustainment, duration of operations, redeployment, and retrograde. Joint logistics activities and operations overseas should be planned and conducted with appropriate consideration of their effect on the environment in accordance with applicable US and HN agreements, environmental laws, policies, and regulations. As an example, waste disposal (solid, human, medical, and hazardous) may present significant FHP, environmental, and legal challenges in overseas locations. These challenges can be very complex when hazardous waste requires export to another country for disposal, which should be addressed early in the planning process at the CCMD level with applicable nations to ensure hazardous waste removal occurs as required. Early planning is essential to ensure all appropriate environmental reviews have been completed in accordance with DoDI 4715.06, *Environmental Compliance in the United States*, and for installations OCONUS, see DoDI 4715.05, *Environmental Compliance at Installations Outside the United States*.

c. Integrated planning coordinates resources, timelines, decision points, and authorities across CCMD functional areas and AORs to achieve strategic objectives. Integrated planning produces a shared understanding of the OE, required decisions, resource prioritization, and risk across the CCMDs. JFCs and component commanders need to involve all associated commands and agencies within DoD in their plans and planning efforts. Logistics planning encompasses both uniformed (organic) as well as all other sources of support (civil augmentation programs, contracted support, inter-Service support agreements, HNS, and ACSAs). Moreover, planning efforts should be coordinated

with other USG department and agency stakeholders in the execution of the plan to assure unity of effort across the whole-of-government. The integrated planning process is the way the joint force addresses complex challenges that span multiple CCMD AORs and functional responsibilities. Integrated planning also synchronizes resources and integrates timelines, decision points, and authorities across multiple CCMDs to achieve JSCP-directed campaign objectives and attain contingency end states.

(1) **Strategic Guidance.** Some of the primary end products of the strategic guidance planning function are assumptions, identification of available/acceptable resources, conclusions about the strategic and operational environment (nature of the problem), strategic and military objectives, and the supported commander's mission.

(2) **COLS Development**

(a) During concept development, if an in-progress review is required, the CCDR outlines COAs and makes recommendations to higher authority for approval and further development. Products from concept development include an approved mission statement, preliminary COAs, and prepared staff estimates. The CCDR recommends a COA for SecDef approval in the commander's estimate. SecDef's approved COA from a concept development in-progress review is the basis for the CONOPS.

(b) Plan development solidifies the CONOPS, and then the OPLAN, concept plan (CONPLAN), or OPORD and required supporting documents are prepared.

(3) **Plan Development.** This function is used to develop a feasible plan or order that is ready to transition into execution. This function fully integrates mobilization, deployment, employment, sustainment, conflict cessation, redeployment, and demobilization activities through all phases of the plan. When the CCDR believes the plan is sufficiently developed, the CCDR briefs the final plan to SecDef (or a designated representative) for approval.

(4) **Plan Assessment.** The JPEC continually reviews and evaluates the plan; determines one of four possible outcomes: refines, adapts, terminates, or executes; and then acts accordingly. Commanders and the JPEC continue to evaluate the situation for any changes that would require changes in the plan. The CCDR briefs SecDef during routine plan update in-progress reviews of modifications and updates to the plan based on the CCDR's assessment of the situation, changes in resources or guidance, and the plan's ability to achieve the objectives and attain the end states.

For more information on planning functions, see JP 5-0, Joint Planning.

d. Using the framework for joint planning, Figure IV-1 reflects the cascading relationship from strategic guidance and tasking to planning and developing OPORDs with a focus on CCP and associated key logistics area products. These key logistics area products, TLO, logistics estimate, and COLS support the CCP and provide the basis for plan and OPORD development. These products are key to the CCDR's conduct of missions.

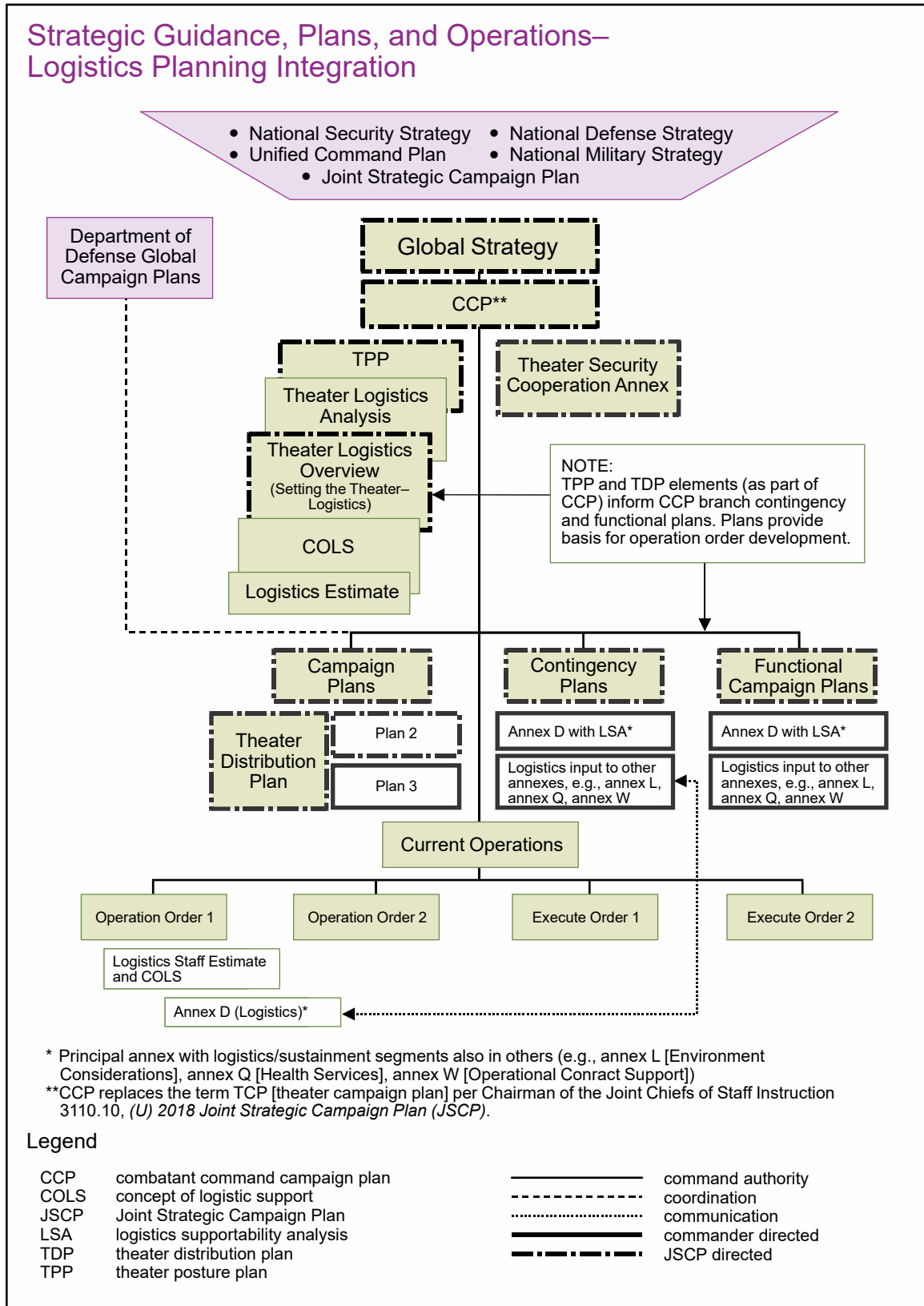


Figure IV-1. Strategic Guidance, Plans, and Operations—Logistics Planning Integration

e. A means of anticipating future requirements is through the theater logistics analysis (TLA) process supporting TLO development and codification, logistics estimate, and logistics planning process. Anticipating requirements is essential to ensuring responsiveness and determining adequacy of logistics capabilities. The purpose of the logistics planning process is to ensure the logistics facts, assumptions, information, and considerations are properly analyzed and effectively synthesized within an integrated plan that enables the CONOPS. To ensure that this integration occurs, include logistics planners in the planning process from the outset. The remaining sections of the chapter address process segments and outputs.

f. **Strategic Guidance.** At the CCMD level, planning begins with the receipt of strategic guidance or a planning directive and continues as the CCDR develops a mission statement. This planning function relates to the first two steps of the joint planning process: planning initiation and mission analysis. The staffs' planning activities initially focus on mission analysis and developing information to help the commander, staff, and subordinate commanders understand the situation and mission. Planning activities include identifying assumptions, planning forces, mission, and desired end state. Logisticians identify critical logistical assumptions. During mission analysis, they provide critical information to operation planners on the logistics guidance contained in strategic and theater documents. Such documents include the JSCP; CJCSI 3110.03, *(U) Logistics Supplement for the 2018 Joint Strategic Campaign Plan (JSCP)*; JFC planning guidance; TLA; and TLO. Additionally, detailed information on airfields, seaports, roads, rails, bridging capabilities, commercial capabilities, and other critical infrastructure captured in the theater posture plan and theater distribution plan (TDP) are validated and incorporated into the planning efforts.

g. **Concept Development**

(1) This planning function includes the following steps: COA development, COA analysis and wargaming, and COA comparison. The staff, in coordination with supporting commands, Services, and agencies, develops, analyzes, and compares valid COAs and prepares staff estimates. The output is an approved COA. Critical elements include a common understanding of the situation, interagency coordination requirements, multinational involvement (if applicable), and capability requirements. Operational and logistics planners integrate their planning efforts, as deployment, redeployment, distribution, contracted support requirements, and sustainment requirements are an integral part of COA development. Logistics planners analyze all COAs for supportability. During planning, the commander's staff develops several COAs, each containing an initial CONOPS that should identify threats to the JDDE, task organization of forces, authorities required, operational tasks to be accomplished by components, a concept for employment and sustainment, and complete OE modeling and simulation that informs the CCDR's risk assessment. Each COA may contain multiple embedded alternatives to achieve designated objectives as conditions change (e.g., OE, problem, strategic direction). In time-sensitive situations, a warning order may not be issued, and a planning order, alert order, or execute order might be the first directive the supported commander receives with which to initiate planning. Using the guidance included in the directive and the CCDR's mission statement,

planners solicit input from supporting and subordinate commands to develop COAs based upon the outputs of the strategic guidance planning function.

(2) The logistician also validates requirements, critical logistics assets, and services needed, while understanding the mission requirements, sustainment capabilities, and sustainment shortfalls. A critical logistics asset is a logistics asset (or critical contract) that is essential to completing key tasks that ensure mission accomplishment; if nonoperational or absent, it would have a seriously debilitating effect on the ability of a CCMD to execute their mission. The logistician takes into account force structure planning, TPFDD development, and all sources of support, including existing contracts and task orders, HNS, inter-Service support agreements, and ACSAs, as well as limitations of OCS and JRSOI requirements. The logistician also uses this planning data during concept of support development to meet sustainment requirements from theater entry and operations to redeployment and reset. Logistics planners address all the core joint logistics functions.

(3) During COA refinement, phasing of joint operations is done to ensure joint capabilities are available in the proper sequence to meet the operational requirements. Events drive phase changes, not time. Phasing helps the planning community visualize the entire operation to define requirements in terms of forces, resources, time, space, and purpose. The CDR determines the number and nature of the phases during the operational design. Transitions between phases are designed to be distinct shifts in joint force focus and may be accompanied by changes in command relationships. Phase transition often changes priorities, command relationships, and force allocation and impacts the OA, thereby creating new logistics challenges.

(4) CCMD campaigns focus on shaping the OE to achieve the CDR's overall objectives. Questions to ask when setting the theater can include:

- (a) Does the total force have the right C2 and communications systems?
- (b) Does the total force have timely and reliable access to critical infrastructure, contracted support, commercial capabilities, HNS, and ACSAs?
- (c) Does the total force have a good TDP?
- (d) Has the total force coordinated at the higher levels with the strategic partners (e.g., DLA and Army Materiel Command)?
- (e) Has the total force properly positioned logistics assets at the tactical level?

(5) Security cooperation and other military engagement activities occur across the competition continuum to improve cooperation with allies and partners, deter threats, prepare for crisis response and armed conflict, counter adversaries' competitive strategies, and support the efforts of interagency, multinational, and other interorganizational partners. These activities support broader USG efforts to protect and advance US national

interests. These activities occur within the context of globally integrated, persistent, and long-term campaigning. Joint logistics sustains these efforts as long as required.

(6) Joint logistics planners should be aware of SOF requirements during day-to-day operations. SOF logistics sustainment includes replenishment of all classes of supply, maintenance, transportation, joint health services, facilities, BOS, and services. Service-common logistics sustainment of SOF units is the responsibility of the parent Service, except where otherwise provided for by support agreements and/or directives. This may include Service support, joint in-theater support, and NSL. Special operations-peculiar logistics sustainment is the responsibility of USSOCOM.

(7) Day-to-day campaigning offers logisticians the opportunity to expand knowledge of and access to additional capabilities in anticipation of future events. During the campaign, and as a crisis develops, the logistician can begin preliminary actions, such as pre-positioning of materiel, preparing JLEnt partners to surge capabilities, coordinating award of contracts (e.g., external and theater), and readying the assets to move on short notice. Shaping is critical to identify potential risks in terms of access, capabilities, and capacities so alternatives and mitigating measures can be developed. Planners should identify and assess critical infrastructure and facility needs and compare the results to current and programmed military construction requirements and authorities. Planners should also update and refine market analysis (capability, capacity, and lead times) for known and/or anticipated contract support requirements. Analysis of required logistics for deployment and sustainment of flexible deterrent options may occur during this phase. This analysis should carefully balance joint logistics capabilities currently assigned, projected early joint deployers, and changes to OCS requirements. CCDRs use both military and nonmilitary flexible deterrent options—in which commercial capabilities may be used—to dissuade an adversary before an anticipated crisis arises or to deter further aggression during a contingency.

h. **Plan Development.** During plan development, the CCDR's staff creates a detailed OPLAN, OPORD, or CONPLAN, with required annexes. The supported CCDR, subordinate commanders, supporting commanders, CSAs, and staff conduct planning activities, to include force planning, logistics planning, deployment planning, redeployment or unit rotation planning, shortfall identification, feasibility analysis, refinement, documentation, plan review and approval, and supporting plan development. Planning activities culminate in training and wargaming exercises to provide feedback on the planned concept of support. The joint logistics concept of support specifies how capabilities are to be delivered over time, identifies who is responsible for delivering a capability, and defines the critical logistical tasks necessary to achieve objectives during all phases of the operation. Annex W (OCS) is closely tied to the COLS since contracted support may fill critical operational and logistics capability gaps. The COLS encompasses joint capabilities of the total force, to include multinational, HN, interagency partners, international organizations, NGOs, DoD OCS, plus Active Component and Reserve Component forces.

i. **Plan Assessment.** The supported commander extends and refines planning, while supporting and subordinate commanders and CSAs complete their logistics plans. Branch

plans and other options may be developed. The CCDR and staff continually evaluate the situation for changes which trigger plan refinement, adaptation, termination, or execution. Additional means of assessing joint logistics planning are LSAs completed as appendix 4 (Logistics Supportability Analysis) to annex D (Logistics) during plan development, Service component analysis, joint combat capability assessments-plans assessment, Global Logistics Readiness Dashboard, and Defense Readiness Reporting System assessments.

Guidance for development of an LSA is available in CJCSI 3110.03, (U) Logistics Supplement for the 2018 Joint Strategic Campaign Plan (JSCP), and Chairman of the Joint Chiefs of Staff Manual (CJCSM) 3130.03, Planning and Execution Formats and Guidance, provides the LSA format as appendix 4 (Logistics Supportability Analysis) to annex D (Logistics).

(1) **Preparation for Execution.** This consists of joint force activities to improve the ability to execute an operation. Preparation includes, but is not limited to, plan refinement; rehearsals; intelligence, surveillance, and reconnaissance; coordination; inspections; and movement.

(2) **Modeling, Simulations, and Exercises.** The planning process requires the CCDR to conduct modeling and simulations to test operational concepts. This activity may occur as early as COA development to identify potential risks or impediments to mission success. Conducting modeling/simulations by phase of operation can help identify key tasks, roles and responsibilities, and requirements.

(3) Rehearsals assess the effectiveness of the COLS, to familiarize supporting joint forces with the concept, and to provide confidence in the selected concept. Rehearsals help clarify roles and responsibilities that are essential to effectively prepare for execution of an operation. Rehearsals are usually part of step 4, COA analysis and wargaming activities. Coordination conducted with Service logistics components and supporting commands help identify, understand, and validate the correct measures of effectiveness and measures of performance for the CCMD.

3. Joint Planning Process

a. Joint planning is the overarching process that guides CCDRs in developing plans for the employment of military power within the context of national strategic objectives and national military strategy to shape events, meet contingencies, and respond to unforeseen crises. Logisticians provide key inputs, analysis, and assessments throughout the process. Logistics input is derived from mission analysis; COA development, analysis, and selection; and plan development, to include preparation and submission of an LSA. Previously completed TLA, TLO (setting the theater-logistics), and COLS prepared for the CCP provide a foundational basis for complementary sections for tasked contingency plans. This foundation can also assist with transition to OPORD preparation for crisis execution under a plan and/or no-plan scenario.

b. In common application, joint planning proceeds according to planning milestones and other requirements across various levels. The seven steps of the joint planning process are:

(1) **Planning Initiation.** Joint planning begins when an appropriate authority recognizes a potential to employ a military capability in response to a potential or actual crisis. The contingency planning guidance in the JSCP, with supplements such as logistics and mobilization supplements and related strategic guidance statements, serve as the primary guidance to begin contingency planning.

(2) **Mission Analysis.** The primary purpose of mission analysis as part of the joint planning process is to understand the problem and the purpose of the operation. This results in the issuance of appropriate guidance to drive the rest of the planning process. A key output is the logistics staff estimate that includes a TLA and TLO. The logistics staff estimate identifies factors that may influence the feasibility to provide logistics to the tentative COAs.

(3) **COA Development.** Logistics planners develop an initial sustainment concept for each tentative COA to be assessed. The sustainment concept identifies baseline levels of support required to execute a tentative COA. No COA is complete without a plan to sustain it properly. This requires identifying the requirements for operational energy, munitions, and other classes of supply to create distribution, transportation, and disposition plans. The plan ensures the right logistics is available at the designated time and place to conduct decisive operations. It identifies critical infrastructure, ACSAs, commercial capabilities, contracted support, civil augmentation programs, inter-Service support, HNS, or other JLEnt logistics providers that are to be used to conduct the tentative COA. The concept should be sufficient in detail to enable a feasibility assessment and should be sufficient in scope to enable robust wargaming or simulations against logistics during COA analysis. A COA consists of the following information:

- (a) What type of military action will occur?
- (b) Why is the action required (purpose)?
- (c) Who will lead and take the action as lead agent (e.g., CSA, HN, multinational partner)?
- (d) When will the action begin?
- (e) Where will the action occur?
- (f) How will the action occur (method of employment of forces)?
- (g) Is the COA supportable by personnel, intelligence, operations, logistics, and communications systems?
- (h) Who will deploy?

(i) What equipment/capabilities will deploy?

(4) **COA Analysis and Wargaming.** The commander and staff analyze each tentative COA separately according to the commander's guidance. Logistics planners develop a logistics feasibility analysis for the COA, which should result from wargames or simulations. This feasibility product assesses the degree to which each COA's sustainment concept provides the required logistics under threat.

(a) Were the necessary logistics capabilities able to deliver the right capabilities at the designated time and place?

(b) Was there sufficient operational energy and munitions to execute the COA?

(c) Did the wargame incorporate realistic logistics constraints?

(d) Did the wargame incorporate attrition to the logistics forces as well as the combat forces?

(e) Is a revised sustainment concept required to execute the COA?

(f) What are the advantages and disadvantages of each proposed friendly COA?

(5) **COA Comparison.** This is an objective process where COAs are considered independent from each other. Each COA is evaluated and compared against a commander-established set of criteria. The staff helps the commander identify and select the COA that best accomplishes the mission. The staff informs the commander's decision-making process by clearly portraying the commander's options and recording the results of the process. The staff compares feasible COAs to identify the one with the highest probability of success against the most likely enemy COA and the most dangerous enemy COA. The goal is to identify and recommend the COA that has the highest probability of success against the enemy COA that is of the most concern to the commander. Logistics planners may be asked to provide comparison in logistic supportability and the logistical risk associated with each COA to aid in the comparison.

(6) **COA Approval.** The staff determines the best COA to recommend to the commander, briefs the commander on the COA comparison and the analysis of wargaming results, and includes additional information. The logistics products (analysis) that are associated with the approved COA are the sustainment concept and the logistics feasibility analysis, which are used to develop the TLA, TLO, and logistics staff estimate as appropriate.

(7) **Plan or Order Development.** The CJCS, in coordination with the supported and supporting commanders and other members of the Joint Chiefs of Staff, monitors planning activities for plans and orders developed per the Joint Planning Execution Services policy guidance. Additionally, the CJCS resolves shortfalls when required and

reviews the supported commander's OPLAN for adequacy, feasibility, acceptability, completeness, and compliance with joint doctrine.

4. Planning Levels

JP 5-0, *Joint Planning*, identifies four levels of planning detail and establishes a minimum level of effort for each. The supported CCDR may increase the level of effort as necessary.

a. **Level 1 Planning Detail—Commander's Estimate.** This level of planning involves the least amount of detail and focuses on producing multiple COAs to address a contingency. The product for this level can be a COA briefing, command directive, a commander's estimate, or a memorandum with a required force list.

b. **Level 2 Planning Detail—Base Plan (BPLAN).** A BPLAN describes the CONOPS, major forces, concepts of support, and anticipated timelines for completing the mission. It does not normally contain annexes. Unless the CCDR opts to produce an annex D or the JSCP requires an annex D, paragraph 4 (Administrative and Logistics) only within the BPLAN summary, should be written. A BPLAN may contain alternatives, including flexible deterrent options and flexible response options, to provide flexibility in addressing a contingency as it develops or aid in developing the situation. Command logisticians should develop a logistics estimate (paragraph 4).

c. **Level 3 Planning Detail—CONPLAN.** This level is an abbreviated OPLAN with selected annexes and a CCDR's estimate of the plan's feasibility with respect to forces, logistics, and transportation. It produces, if applicable, a COLS to include a "gross-transportation-feasible" TPFDD, thus, the further delineation of a level 3T plan (i.e., a CONPLAN or TPFDD). The COLS for CONPLANs or 3T plans mirrors the level of detail contained in the supported annex D. Appendix 4 to annex D provides the LSA for the plan. Level 3T plans and above should include an annex E (Personnel) and annex W (OCS).

d. **Level 4 Planning Detail—OPLAN.** This plan requires a full description of the CONOPS, a complete set of annexes, and a TPFDD. Figure IV-2 depicts logistics planning products by level of plan. Within the joint planning process, key logistics outputs are OPORD TLO, logistics estimate informing development of the commander's estimate, and COLS. The COLS further supports annex D plans and OPORDs. Appendix 4 to annex D provides the LSA for the plan. In terms of operations execution, logistics supportability is addressed and status update reported in the JFC's situation report per CJCSM 3150.05, *Joint Reporting System Situation Monitoring Manual*. Logistics input to the situation report provides shared situational awareness and visibility within and across echelons of command to address the core logistics functions, force, and sustainment tracking; JRSOI supporting declaration of force closure for operational employment; and other conditions that increase, or materially detract from, the adaptability and readiness of forces. The following sections address key logistics planning process outputs supporting and/or included in CCP development and execution planning.

Likely Expected Logistics Outputs

Plan Level	Strategic Guidance	Concept Development	Plan Approval	Plan Review
Level 1 "Commander's Estimate"	TLO, ILE, and RLE (briefing)			Δs to TLO and RLE (briefing)
Level 2 Base Plan	TLO, ILE, and RLE (briefing)	Paragraph 4 (written and briefing)		Δs to TLO and RLE (briefing)
Level 3 Base Plan with Select Annexes	TLO, ILE, and RLE (briefing)	Paragraph 4, Annex D, logistics enablers, preparation tasks, COLS, and LSM (written and briefing) Annex Q		Δs to TLO and RLE (briefing)
Level 3 with TPFDD		Transportation feasible TPFDD, Annex W		
Level 4 Base Plan with Annexes and Detailed TPFDD	TLO, ILE, and RLE (briefing)	Paragraph 4, Annex D, Annex W, logistics enablers, preparation tasks, COLS, and LSM (written and briefing) Annex Q	Logistics portions of plan, draft supporting plans, logistics inputs to TPFDD, and LSA (written and briefing)	Δs to TLO, RLE, COLS, and LSA; status of supporting plans (briefing)

Legend

Δ	change	LSM	logistics synchronization matrix
COLS	concept of logistic support	RLE	refined logistics estimate
ILE	initial logistics estimate	TLO	theater logistics overview
LSA	logistics supportability analysis	TPFDD	time-phased force and deployment data

Figure IV-2. Likely Expected Logistics Outputs

5. Theater Logistics Analysis

a. The TLA is a supporting process facilitating development of the TLO through examination, assessment, and codification of an understanding of current conditions of the OE. Analysis determines infrastructure, logistics assets/resources, and environmental factors in the OE that optimize or adversely impact means for sustaining operations within the theater. To facilitate developing the TLA, logistics planners leverage all interactions with PN logistics professional counterparts (e.g., during multinational exercises logistics planning and execution) to capture insights into their capabilities, processes, and policies by writing and distributing detailed after-action reports.

b. The TLA provides a detailed country-by-country analysis of key infrastructure by location or installation (main operating base/forward operating site/cooperative security location); footprint projections (including contingency locations); HN agreements (e.g., HNS, access, transit, egress, and overflight); and available commercial capabilities, existing contracts, and task orders to set the theater during peacetime through contingency operations. Work completed informs TLO development as a segment of the CCP and development of directed plans and OPORDs. Information and data collected and codified during the TLA process are the basis for analysis that assists in identifying, resolving, and/or mitigating risk associated with theater shaping activities and operations.

c. Additionally, the TLA provides the framework for conceptual planning, which involves understanding the OE and the problem, determining the operation's end state, and visualizing an operational approach. Using the TLA, the operational approach is initially addressed in a logistics estimate and transitions to culminate in the TLO. Detailed planning works out the scheduling, coordination, or technical problems involved with moving, sustaining, and synchronizing the actions of force as a whole to achieve objectives. Effective planning requires the integration of both the conceptual and detailed components of planning. The TLA assists in improving the JFC's situational awareness and understanding of theater logistics capabilities and readiness to execute theater operations.

6. Theater Logistics Overview

a. The TLO is a segment of the iterative planning process that addresses identification, understanding, and framing the theater's mission at the campaign level, not for a specific operation. The TLO uses TLA information to inform decisions about the approaches to be used for sourcing and distribution of logistics for theater operations. Having captured influencing elements in the TLA as a framework, the JFC's logistics staff elements develop and codify an overarching approach to theater operations in the TLO. The TLO then serves as an important link between conceptual planning and the detailed planning tasked in the JSCP.

b. Additionally, the TLO helps the JFC and operations and logistics staff segments measure the overall effectiveness of employing forces, force sustainability, and logistics capability readiness to ensure that the operational approach remains feasible and acceptable. As such, the TLO is key to help identify and address capability gaps, risk mitigations, and residual risk. If risk cannot be resolved or mitigated to an acceptable level, then the operational concept may be reframed. Reframing involves revisiting earlier COAs, conclusions, and decisions that underpin the current CONOPS. Reframing can lead to a modification of the current CONOPS or result in preparation of a branch plan or entirely new plan.

c. In developing the TLO, logistics planners, in coordination with intelligence and operations staff segments, identify opportunities/initiatives by anticipating events. Thus, they can identify decision points to operate inside the threat's decision cycle or to react promptly to deteriorating situations advancing beyond shaping activities and operations. Time to complete the TLA and resulting TLO assists in optimizing available planning time for associated detailed plans. Based on their understanding and learning gained during

TLO development, the JFC and senior logistics staff representative issue logistics planning guidance to enable the operational approach expressed in the CONOPS and to guide more detailed planning.

d. The TLO is a key component to establish a common frame of reference to develop plans/OPORDs, and to prepare for, execute, and assess operations. See Appendix A, “(U) Theater Logistics Overview Format,” for an example of a TLO format.

7. Logistics Estimate

a. The logistics estimate informs the commander’s estimate, COLS, OPORD development, and execution. Execution planning may involve abbreviated and compressed timelines from situational awareness/initiating event and reporting to potential JFC planning guidance or CJCS planning order to OPORD and execution. The TLA and TLO provide a foundation for rapid review and response development. Due to accelerated timelines, availability, and incorporation of TLA information and TLO segments, preparation of the logistics estimate may be compressed supporting the commander’s estimate and initial work for COA development, analysis, and selection. Updating the TLA/TLO baseline, the logistics estimate supporting the commander’s estimate informs the COLS and OCS concept prepared for OPORD annex D and annex W development and iterative planning during operations execution.

b. The logistics estimate is an analysis of how CSS factors can affect mission accomplishment. It contains the logistics staff’s comparison of requirements and capabilities, conclusions, and recommendations about the feasibility of conducting a specified COA. This estimate includes how the core logistics functions affect various COAs. Preparation of the logistics estimate provides a coordinated and formalized means for the staff to identify and consider logistics shaping to realize the CONOPS. Planners should evaluate the feasibility of OPLANs in light of strategic lift capabilities and limitations.

c. The logistics effort and development of the logistics estimate refined as COLS for OPORD annex D are integrated into joint planning and OPORD development upfront. Using the TLA/TLO baseline, logistics staff segments identify if specific operational actions are required to augment or expand theater logistics capabilities. The previously developed TLA/TLO assists the logistics planners in providing logistics characteristics of the AOR and area of operations/area of interest for the specified operations. The TLA/TLO aids planners in identification of logistics infrastructure of the OE (what exists in the OA that may be put to use).

8. Concept of Logistics Support

In support of the CCDR and preparation of plans/OPORDs, the logistics staff elements prepare a logistics estimate which is further refined and developed into a COLS. The COLS provides a foundational basis in preparation of annex D (Logistics) for assigned contingency plans and/or OPORD development tasks. The COLS establishes priorities of support across all phases of operations to conduct the JFC’s CONOPS. Logistics staff

elements' active participation within and across joint planning activities at all echelons facilitates CONOPS and associated COLS development. A COLS addresses the sustainment of forces, to include identification and status of contingency basing. Through exercising DAFL, the CCDR may assign a component commander to conduct various theater logistics functions, as well as base support at designated theater locations. Logistics functions may include management of afloat assets; identification and status of theater sustainment elements, to include identification and/or forecast of required augmentation; priority of sustainment by class of supply with guidance on days of supply to be maintained (minimum and maximum); movement priorities for airlift and sealift aligned to JFC's CONOPS; guidance for employment of sea-air interfaces to facilitate JRSOI; controlling CUL; JFC's declaration of force closure; actions by phase; logistics assets required; and designation of contracting construct (e.g., LSCC, LSC, or joint theater support contracting command).

For more information on the COLS, see CJCSI 3110.03, (U) Logistics Supplement for the 2018 Joint Strategic Campaign Plan (JSCP).

9. Transition to Execution

Planning does not cease with development, submission, and approval of a plan or OPORD. Planning is iterative and continues as actions and assessments evolve in a dynamic manner across echelons from the strategic national to operational to tactical levels. Strategic guidance for plans, as well as plan segments and resulting OPORDs, is refined as situational awareness and understanding evolve. Through assessment, guidance and/or plans may be reframed. During planning, assessment focuses on understanding current conditions of an OE and assumptions to address mission, enemy, terrain and weather, troops and support available, time available, and civil considerations.

10. Sustainment Distribution Planning and Management Process

USTRANSCOM's sustainment distribution planning and management process enhances the JDDE's ability to ensure an agile, scalable, and resilient distribution network. Sustainment distribution planning and management provides the JDDE with a suite of five capabilities: distribution lane validation, distribution workload forecast/demand planning, advanced air route planning, strategic surface route plan, and sustainment distribution plans. The format for TDPs is codified in DoD's Functional Campaign Plan for Global Deployment and Distribution, developed on behalf of the CJCS by USTRANSCOM.

For more information on distribution planning, see JP 4-09, Distribution Operations.

11. Integrating Commercial Capabilities in Planning and Operations

National defense is inextricably linked to economic strength. Adversaries understand this and are targeting and leveraging commercial capability to **win without fighting**. Commercial capabilities—including infrastructure, services and supplies, and associated personnel—may enhance security, support achievement of objectives, and enable military operations when integrated into planning as a first resort. Corporations provide valuable capabilities relevant to military operations (e.g., global access and unique capabilities that

do not exist in the organic force structure or inventory). However, access to commercial capabilities is not assured. The joint force competes for finite commercial capacity with partners, civil demand, and even adversaries. To ensure that capabilities exist where and in sufficient capacity to meet military needs, the joint force promotes resilience. For example, if contractors cannot be ordered to perform under fire their use requires back-up plans. Policy (DoDI 3000.12, *Management of US Global Defense Posture [GDP]*) recognizes that posture (e.g., forces, footprints, and agreements) may be enabled and optimized by access to commercial capabilities (associated personnel, infrastructure, and services, respectively); further, it directs posture planning to include existing contracts and task orders. Collaboration with partners and industry in planning on collective requirements, threats, and vulnerabilities can facilitate mutually beneficial ends. On the other hand, the commercial sector is vulnerable to market factors that organic capabilities are not (e.g., corporate mergers and buyouts, stockholder influence, and labor strikes). Therefore, requiring activities must selectively choose when, for what, how much, and on whom to rely. Commercial reliance decisions are threat informed. Risks should be mitigated at echelon and reported to higher echelons, since risk aggregates at the strategic level. Policy (DoDI 5000.74, *Defense Acquisition of Services*) recognizes that acquisition of services is a command responsibility; contracted services, along with military and civilian manpower, are an element of DoD's total force; and each requirement for contracted services is reviewed and validated by the requiring activity. Generating operational requirements for commercial capabilities ad hoc and bottom up, at the time of need, limits accessibility (capacity may not satisfy demand spikes for military requirements), increases cost, and may lengthen lead times. Leveraging commercial capability as a last resort to supplement shortfalls in organic capability and capacity limits the potential value of commercial capabilities to forces support. Integrating commercial capabilities and contracted support in planning, execution, and assessments enables logistics beyond support. The goal is to balance the opportunities and risks associated with commercial capabilities to achieve strategic and operational objectives.

12. Logistics Planning Documents

a. **TLO.** The TLO is a summary of logistics concepts applicable for the theater of operations. The TLO consists of a detailed analysis by country throughout the CCMD's AOR that identifies key logistics infrastructure by enduring and contingency locations listed on the respective master lists (enduring location master list and contingency location master list). The TLO includes main operating bases, forward operating sites, cooperative security locations, footprint projections, contract support, HN agreements required to conduct peacetime campaigning, and contracts/task orders to enable campaign execution through wartime contingency operations. The TLO provides a narrative and graphic overview of key findings and capabilities.

b. **COLS.** The COLS explains how a CDR intends to support and integrate with a CONOPS (within annex C) for a particular contingency operation. A COLS is specific to an OPLAN, CONPLAN, or integrated contingency plan (integrated family of plans), as appropriate. The COLS specifies delivery of logistics capabilities over time, identifies who is responsible for delivering a capability, and defines the critical logistics tasks necessary to achieve objectives during each phase of the operation. The COLS and command

assessments identify logistics requirements, potential shortfalls, and related mitigation options. The COLS is coordinated with other organizations operating in and through the AOR, while assisting organizations develop supporting plans.

c. **TDP.** The TDP is a detailed description and analysis of theater distribution capabilities and capacity to ensure sufficient resources, policies, and procedures to satisfy requirements of the theater distribution network. The objective of the analysis is to compare geographic and functional alignment, within global campaign plan objectives, of distribution network capabilities, as viewed through the lenses of agility, resiliency, and scalability. A TDP has three annexes: distribution network design, distribution network intelligence and information systems, and distribution network processes.

d. **LSA.** The LSA is an analysis by the logistics organizations of their ability to provide the critical capabilities required to execute and sustain the supported CCDR's priority CONPLAN/OPLANs that have a TPFDD. The LSA is the foundation for supporting organizations to plan their concepts of logistics support, quantifies logistics capabilities available, and documents gaps and shortfalls and associated impact upon the CONOPS. At the strategic level, aggregated LSAs inform development of an integrated joint logistics estimate. CCMDs tasked to produce a level-four plan or level-three plan (with TPFDD) develop an LSA. Initial LSA work should begin during COA selection to facilitate completion by the time the written plan is ready for initial JPEC review prior to any SecDef briefing. LSAs ensure logistics is phased to support the CONOPS; establishes logistics C2 authorities; and integrates support plans across the supporting commands, Service components, and agencies. LSAs are conducted by each supporting organization to the lowest level of detail needed to quantify the logistics requirements (national stock number level). These LSAs are then integrated by supporting organizations to coordinate roles, responsibilities, and capabilities to ensure understanding of the sourcing of support. The supported CCMD prepares an LSA by combining the Services', USTRANSCOM's, DLA's, and DCMA's assessments. The supported CCMD makes the notional TPFDD available to the JPEC prior to force flow, transportation feasibility, and logistics conferences, allowing time to use the notional TPFDD data for analysis and production of their specific assessments. The LSA addresses the sustainability for all logistics capability areas. To provide the basis for the commander's LSA, the Services, DLA, and DCMA evaluate overall plan resources, logistics, mobilization, and end-to-end transportation requirements (inclusive of forces and sustainment requirements in the notional TPFDD) and commercial reliance.

e. **Logistics Estimate.** See paragraph 7, "Logistics Estimate."

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CHAPTER V JOINT LOGISTICS EXECUTION

“We often like to talk about amateurs study tactics and professionals study logistics, and we see that play out right before our eyes. If you’re going to put an army on the move, if you’re going to conduct combat operations, if you don’t have logistics, if you don’t have gas, if you don’t have parts, if you don’t have all the ammunition, then those weapons systems become paperweights. They just sit on the side of the road, and you can’t fight [with] them.”

**General James McConville, Army Chief of Staff,
regarding Russian Invasion of Ukraine (March 2022)**

1. Introduction

The term “executing joint logistics” is used to describe activities and operations conducted by joint logistics forces to support the JFC’s intent. Force reception, theater distribution, and MA are examples of joint logistics operations. Since joint logistics activities and operations span the strategic, operational, and tactical levels, the transition from planning to execution is critical.

2. Joint Logistics Execution

JFCs adapt to evolving mission requirements to operate effectively across the competition continuum. These operations differ in complexity and duration, and to support them, the joint logistician should be aware of the characteristics and focus of these operations and tailor logistics appropriately. Military activities and operations extend from shaping activities to major operations and campaigns. US and multinational partners collaborate to expand mutual support and leverage capabilities to quickly respond to future contingencies.

a. **Military Engagement, Security Cooperation, and Deterrence.** Development of CCPs is focused on current operations, military engagement, security cooperation, deterrence, and other shaping or preventative activities. Specific issues that can be addressed in the CCMD campaigns include securing interagency approvals; addressing PN and regional sensitivities, changing politics, and overall stability; determining optimal presence and posture; building partnership capacity; and developing formal agreements/permissions between the United States and PNs. Effective joint logistics and MNL activities and operations in support of CCMD campaigns are essential in achieving theater and national objectives, as well as providing the foundation for an expanded role in later crises while providing additional capability. Developing mutually supportive relationships to enhance coordination is an important enabler for joint logistics activities and operations. ACSAs are bilateral international agreements that allow for the provision of cooperative logistics under the authority granted in Title 10, USC, Sections 2341-2350. They are governed by DoDD 2010.09, *Acquisition and Cross-Servicing Agreements*, and implemented by CJCSI 2120.01, *Acquisition and Cross-Servicing Agreements*. ACSAs are intended to provide an alternative acquisition option for logistics in exercises or

exigencies. OCS planning efforts establish the foundation for understanding what types of logistics is available locally through HN ACSAs, inter-Service support, and commercial contract. Staff identify and analyze critical commercial sources and capabilities provided by HNs and they develop alternatives to mitigate competition among allies and partners, and other restraints such as nationalization of resources. Each J-directorate has OCS-related responsibilities. See JP 4-10, *Operational Contract Support*.

For more information, see Appendix E, “Logistics in Multinational Operations.”

(1) **Determining Optimal Presence and Posture.** Persistent DoD presence in other nations is often not desired by country teams or HN governments. Maintaining a low visibility signature of DoD presence and activities often assists in obtaining future interagency and HN access. In some instances, interagency and HN mandates not only limit US military presence but also affect US civilians and contractors. In these instances, logistics activities or construction are executed through local nationals or third-country nationals. Contractor management is one of the three OCS functions. Field service representatives and other systems support contractors often deploy in operations. The footprint of contractors authorized to accompany the force, much like Service members, is tracked, managed, and planned for throughout the OA.

(2) Formal agreements and permissions between the United States and developing nations often involve long approval processes and restrictions on the types of funding and support authorized.

b. **Limited Contingency Operations.** Limited contingency operations have a unique and typically narrow scope, scale, and focus. Many of these operations involve a combination of military forces and private-sector capabilities in close cooperation with other USG departments and agencies, international organizations, and NGOs. To effectively support crisis and contingency operations, logisticians should understand multinational, private-sector, and interagency logistics capabilities and coordinate mutual support, integrating them into the joint operation when appropriate. Efforts during shaping activities and operations to develop partner capacities can pay dividends in these types of operations. Many crisis response missions, such as foreign humanitarian assistance operations, require time-sensitive sourcing of critical commodities and capabilities, and rapid delivery to the point of need. In these operations, joint logistics is often the main effort, often operating in support of the Department of State. DoD responds to domestic requests for assistance from civilian authorities for emergencies, law enforcement support, and other qualifying activities or special events. Logistics for defense support of civil authorities are conducted in CONUS, Alaska, Hawaii, and US territories to save lives, prevent human suffering, or mitigate great property damage.

For additional information, see JP 3-28, Defense Support of Civil Authorities.

c. **Campaigns and Major Operations.** Campaigns and major operations in armed conflict place great demands on intertheater/intratheater logistics and sustainment systems, typically involving the deployment, sustainment, redeployment, and retrograde of large combat forces. Joint logistics can be executed by an appointed lead Service or agency for

CUL. Joint logisticians develop support plans for the duration of the operation, as well as the return of personnel and equipment to CONUS or other locations. These plans often leverage contractor support to augment Service logistics capabilities. The primary challenges for logisticians during these types of operations are identifying the requirements, ensuring logistics issues are considered among competing priorities and adjusting to the situation to ensure sustained readiness and synchronized timelines as the operation transitions across phases. Logistics plans should account for and have the flexibility to mitigate the impact of chemical, biological, radiological, and nuclear-contaminated aerial ports of debarkation and seaports of debarkation on force flow, as well as force retrograde under uncertain or hostile conditions. This includes identifying locations for transload and exchange zone operations. A critical planning requirement during any operation is to plan for the transition to the final phase, where logisticians have competing requirements to enable stabilization activities, provide basic services while conducting contract closeout and changes to the contractor management plan, enable foreign humanitarian assistance, and assist with reconstruction efforts all while conducting movement of redeploying forces and equipment. The retrograde of contaminated materiel requires special handling to control contamination and protect the force and mission resources. Demilitarization and disposition of materiel and equipment also requires significant planning to ensure these missions are successfully conducted.

For more information on chemical, biological, radiological, and nuclear contaminated environments, see JP 3-11, Operations in Chemical, Biological, Radiological, and Nuclear Environments.

3. Essential Elements for Joint Logistics Execution

a. **Organizing for Execution.** The CCMD J-4 monitors, assesses, plans, synchronizes, and directs logistics activities and operations throughout the theater. This transition may occur through the directed expansion of the joint logistics operations center (JLOC) and/or the CCDR's JDDOC. The CCDR's or JFC's staff is augmented (either physically or virtually) with representatives from Service components, USTRANSCOM, other supporting CCDRs, CSAs, and other national partners or agencies outside the command's staff. For example, each CCDR with an assigned AOR has established a JDDOC to synchronize and optimize the flow of arriving forces and materiel between the intertheater and intratheater transportation. As the operating tempo increases during a contingency or crisis, additional joint logisticians and selected subject matter experts (e.g., maintenance, ordnance, supply) can augment JDDOCs and use established networks and command relationships instead of creating new staffs with inherent startup delays and inefficiencies. This expanded organization should be organized and situated to ensure increased coordination and synchronization of requirements in the deployment and distribution process. This organization should also have clear roles and responsibilities between the various elements and clearly understood relationships between the logistics elements and the CCMD staff.

b. **Expeditionary Capabilities.** The joint logistician should understand the expeditionary theater opening capability options available to the commander. Expeditionary theater opening capabilities provide CCDRs critical initial actions for rapid

insertion/expansion of force capabilities into an OA that directly affects the JFC's ability to expand and adjust force flow to allow flexible, agile response to asymmetric and dynamic operational requirements. Expeditionary theater opening capabilities enable the first critical OA entry missions with the eventual transition of theater port of debarkation operations to a JFC-designated Service component and establish conditions to facilitate the arrival of larger Service theater distribution and sustainment forces where and when appropriate.

c. **Technology and Communications.** Logisticians use a variety of automated tools to assist in planning and execution. Effective execution of logistics plans requires a robust data communications architecture. Planning should anticipate communications in denied, disconnected, intermittent, or limited condition at all levels and phases of operations and include considerations for alternate routing, redundant systems, and use of other protocols and message standards. These degradations may be imposed by the threat, the environmental conditions, availability, the JFC as part of operational security, or a combination of factors. Sustained impaired/inadequate information exchange capability should be anticipated and incorporated into risk management considerations during logistics activities and operations planning, execution, and assessment.

For additional information on communication systems, see JP 6-0, Joint Communications System, and for more information on technology, see Chapter III, "Joint Logistics Organizations."

d. **Situational Awareness.** A role of the joint logistician is to provide situational awareness of the current logistics posture to inform the JFC in making decisions and disseminating and executing directives. Maintaining situational awareness requires visibility of the status and location of resources. This includes status of existing contracts and task orders over the current and future requirements of the force and over the joint and component processes that deliver logistics. To provide this visibility, timely and accurate data and information are required for all equipment, sustaining supplies, repair parts, munitions, and fuel moving into, within, exiting, or being stored in the CDR's AOR, as appropriate. This kind of visibility is the key to continuously monitoring progress and is enabled by operational inputs which serve to inform joint logisticians about the current situation.

e. **Battle Rhythm.** The JFC establishes a battle rhythm for the operation along with mechanisms to establish and maintain visibility for all functional areas, to include logistics. The joint logistician develops a logistics battle rhythm for the sustainment staff that informs the JFC's battle rhythm and is designed to provide proactive logistics options. Synchronizing logistics reporting with operational updates, ensuring that the operational planning cycle is part of the logistics battle rhythm, and minimizing shift changes at critical points in the battle rhythm enable more effective execution. Additionally, tying the component logistics elements to the JFC's battle rhythm provides more accurate and timely situational awareness and promotes better integration of logistics with other functions.

f. **Joint Logistics Boards (JLBs), Offices, Centers, Cells, and Groups.** The joint logistician often uses boards, centers, or other organizations to assist the J-4 staff in

executing joint logistics activities and operations, by prioritizing and/or allocating resources, controlling functions, or prioritizing requirements.

More information about these organizations can be found in Appendix B, “Joint Logistics Staff Organizations and Boards.”

g. Execution Synchronization. A synchronization matrix or decision support tool/template can establish common reference points to help assess the progress of an operation. Joint logisticians may use a matrix to display progress against actual execution and recommend adjustments as needed. A logistics synchronization matrix is built around the concept of the operation and normally contains the phasing of the operation over time along the horizontal axis. The vertical axis normally contains the functions the joint logistician integrates into a COLS. The body of the matrix contains the critical tasks, arrayed in time and linked to responsible elements for execution. This decision support tool enables logisticians to graphically display the logistics concept of support, see potential gaps, develop options to mitigate those gaps, and respond to a changing OE.

h. Commander’s Critical Information Requirements. Commander’s critical information requirements are elements of friendly and enemy information the commander identifies as critical to timely decision making. Joint logisticians update the critical information requirements related to logistics. Joint logisticians most often use friendly forces information requirements to guide decision making. Those requirements are often a direct reflection of resources (force availability, unit readiness, or materiel availability).

i. Explosives Safety and Munitions Risk Management. Logistics planning must comply with DoD policy when planning for the storage of munitions. DoD policy requires an approved explosives safety site plan or a munitions-related risk decision for all locations and activities where DoD munitions are involved or are planned to be in the future. When strategic or compelling operational requirements prevent acquiring a DoD approved site plan, the requirements of CJCSI 4360.01, *Explosives Safety and Munitions Risk Management (ESMRM) for Joint Operations Planning, Training, and Execution*, apply. Commanders and their staffs should refer to CJCSI 4360.01 to integrate explosives safety and munitions risk management requirements into the planning, training, and execution processes and for details to develop a munitions risk assessment. CJCSI 4360.01 also clarifies appropriate levels of command for risk decisions when residual munitions risks exist.

4. Transitioning Joint Operations

Transitioning joint operations is an aspect of the CCDR’s strategy that links to achievement of national strategic objectives. The supported CCDR can develop and propose specified conditions approved by the President or SecDef that must be met before a joint operation can be concluded. These criteria help define the desired military end state, which normally represents a period in time or set of conditions beyond which the President does not require the military instrument of national power as the primary means to achieve remaining national objectives.

For additional information, see JP 3-0, Joint Campaigns and Operations.

a. **Transitioning Joint Logistics Activities and Operations.** Joint logistics activities and operations are always ongoing, but it is possible that some aspects of logistics activities and operations could be completed before the operation has concluded. For example, force reception activities and operations could be completed when forces have been placed under the control of the commander for integration and employment, and no other forces are flowing into the JOA. Joint logisticians monitor transitional activities and ensure resources are fully utilized or redeployed. Withdrawal and redeployment from an operation are challenging and require a synchronized and holistic effort by joint logisticians. Maintenance planning should address the process for determining equipment disposition and the requirements for preparing equipment for shipment. In addition, maintenance planning should ensure that equipment is available for movement when required while minimizing the impact on readiness. In accordance with DoD policies, logisticians plan for the disposition of materiel, such as retrograde and demilitarization, scrap removal, and disposal of hazardous materiel, hazardous waste, and, when required, clearance decontamination of supplies and equipment.

b. **Theater Closure.** When it has been determined that joint operations should conclude, joint logistics activities and operations focus on tasks that include redeploying personnel and materiel from the JOA to a new OA or home station/demobilization station, departure of contractor personnel, disposal of equipment, transitioning materiel and facilities to the HN, foreign military sales (FMS), or disposal of equipment and materiel. Joint logistics operations also play a major role in closing ports to military operations and discontinuing operational contracts and agreements. Plans should be developed to monitor or assist the retrograde of contractor equipment and personnel. DoD must receive back any government-furnished property loaned to contractors as part of their mission. Operational contracts and agreements are not considered closed out until the force has confirmation of receipt of all goods and services and full payment has been made. Contracting and payment officials should not redeploy until all contracts and agreements are closed out.

5. Joint Sustainment to Special Operations

a. The joint force logistics planners should understand the unique characteristics of SOF activities that require NSL. NSL involve the overt, covert (Presidential approval required), clandestine, or low-visibility provision of sustainment support, resources, supplies, and/or equipment to US or foreign personnel across a range of missions, particularly in denied areas. There are distinct differences between clandestine (concealing the action), covert (to hide the actor), and low visibility (acknowledged activity but not advertised) operations. See JP 3-05, *Joint Doctrine for Special Operations*, regarding these three terms. Generally, logisticians providing such sustainment remain cognizant of conventional logistics principles, such as supply chain management, but adapt existing tactics, techniques, and procedures, or develop new ones, to deal with unusual processes and requirements for acquisition (in compliance with the Federal Acquisition Regulation and approved authorities), storage, funding, and transportation. The scale and diversity of

support requirements, as well as the need to operate undetected in less-than-permissive environments, separates NSL from conventional logistics.

b. Logisticians involved in clandestine activities use conventional providers within DoD as available and appropriate for operations security but are not restricted to those providers. NSL networks are established to enable flows that generally cannot utilize conventional or overt means due to traceability, customs restrictions, or other compounding issues. USSOCOM may request Service contingency contracting officers to sustain clandestine activities. Compared with conventional logistics, NSL necessitates higher levels of operations security to protect the timing or location of special operations, sources, destinations, or other operational details. NSL supports missions representing the highest geo-political sensitivity, including tactical operations with strategic consequences, all conducted across the entire competition continuum. Effective protection of NSL concepts of support can mean the difference between success and failure.

c. Clandestine logistics are characterized by significant cost, long lead time to develop, and small capacity. The ability to obfuscate the movement and manage attribution of the clandestine logistics lifecycle requires deliberate planning. Its tailored characteristics prevent clandestine logistics mechanisms from scaling to support large groupings of troops.

Further information regarding NSL can be found in USSOCOM Pub 4-0, Logistics Support to Special Operations Forces. Specifically, this publication discusses how NSL is applied across the competition continuum, SOF's unique fiscal authorities, and acquisition techniques.

d. Parent Services address SOF logistics pre-positioning requirements using current defense planning guidance.

6. Joint Sustainment to Partner or Proxy Forces

Joint forces support to partner or proxy forces requires additional considerations and is governed by different authorities and permissions. Political and legal considerations significantly limit the degree of support provided and the manner in which it can be provided. In many cases, the JLEnt may have to work through a PN to get materiel or logistics/sustainment support to a partner or proxy force. Interoperability and partner force capabilities are major considerations when supporting and sustaining proxy forces.

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CHAPTER VI JOINT LOGISTICS ASSESSMENTS

“Victory smiles upon those who anticipate the changes in the character of war, not upon those who wait to adapt themselves after the changes occur.”

Italian Air Marshall Giulio Douhet, 1928

1. Introduction

a. Assessments inform decision making by measuring the progress toward accomplishing a task, creating an effect, achieving an objective, or attaining a military end state. They are a continuous process that measure the overall effectiveness of employing capabilities during military operations. Assessments are a critical activity on par with planning and execution. As such, they are conducted in parallel with each other, and these iterative processes intersect to enable success in integrated campaigning and joint operations. Assessments should be integrated during planning to evaluate the plan before it is executed and to determine what will be assessed and how it will be assessed to inform future planning cycles. Plans should be continually reviewed and evaluated to determine if changes are required. In planning, the goal of assessments is to measure the overall effectiveness of the plan to achieve military objectives. In execution, the goal of assessments is to measure the progress towards military objectives and whether ongoing actions are attaining desired end states. Logistics assessments should be integrated early in planning to inform situational understanding, concept development, COA development and selection; logistics can provide opportunities to achieve desired military objectives (e.g., as a flexible deterrent option, for assuring and expanding partners, and to deter the adversary) as well as create unique lines of effort to attain desired end states. Assessments during execution provide insights back to planning, enabling decision makers to capitalize on evolving opportunities and mitigate risk. Dynamic conditions, threats, performance, and operations require iterative assessments to maintain awareness and inform future planning at the speed of relevance. Assessments occur at every echelon; however, with global integration, lower echelon assessments, decisions, and reporting may have greater potential impact at higher levels.

b. Strategic-level reporting is required to inform future strategy, requirements, and resourcing as well as inform decision making, including best military advice to the President or SecDef. Assessments precede and inform operational logistics reporting in DoD processes for shortfalls, readiness, risk, operations, lessons learned, and audits. Reporting delivers critical signals to the JFC as well as Service channels to ensure consideration in decision processes and facilitate resolution of residual risk at echelons with greater span of control. Effective logistics assessments and integration improve plan realism and feasibility. Successful integration of logistics reporting into existing DoD processes ensures alignment and prioritization of logistics requirements.

For more information regarding assessments and reporting, see JP 5-0, Joint Planning, and CJCSI 3100.01, Joint Strategic Planning System.

2. Shortfalls

a. Shortfalls are the lack of forces, equipment, personnel, materiel, or capability to meet the plan requirement, which would adversely affect the command's ability to accomplish its mission. To overcome logistics capability and capacity shortfalls, they are first identified during the planning process. Unresolved shortfalls are reported and monitored over time and mitigations planned in the interim. Throughout execution, the Joint Staff, JFPs, Services, CCDRs, and CSAs identify and resolve emerging shortfalls as necessary.

b. If shortfalls cannot be reconciled or the resources provided are inadequate to perform the assigned task, the supported commander reports these limiting factors and assessment of the associated risk to the CJCS. The CJCS and other Joint Chiefs of Staff members consider shortfalls and limiting factors reported by the supported commander and coordinate resolution. Shortfall reporting informs strategic requirements and resourcing processes, to include the capability gap assessment and CJCS's program recommendation, respectively. Joint urgent operational needs reporting enables DoD to rapidly deliver capabilities (generally materiel solutions) to address immediate CCMD requirements during operations. Deficiencies, integrated priority lists, and top concerns are reported in the Defense Readiness Reporting System—Strategic to inform future development of doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy solutions and resourcing decisions; templates for reporting are identified in CJCSI 3401.01, *Joint Combat Capability Assessment*. Shortfalls can also be reported via the annual joint assessment.

c. Prior to and during an operation, an ally or partner may have shortfalls in logistics capability and capacity. When authorized, a CDR may operationally assist the partner by providing support, such as C2 and/or logistics functions/items (e.g., CUL), which includes advisor teams to facilitate the integration, reporting, and proper use by the partner. In other cases, a CDR may take a longer-term approach via security force assistance to develop the logistics capability and capacity of a partner to perform specific logistics tasks/functions in a CCMD plan. Multinational exercises provide opportunities for CCMDs to bilaterally monitor and evaluate a partner's logistics capability and capacity to inform readiness estimates.

For more information regarding shortfall reporting, see CJCSI 5123.01, Charter of the Joint Requirements Oversight Council (JROC) and Implementation of the Joint Capabilities Integration and Development System (JCIDS); CJCSM 3170.01, Operation of the Joint Capabilities Integration and Development System; and CJCSI 3100.01, Joint Strategic Planning System.

For more information on the development and integration of allies and partners into the logistics function, see JP 3-20, Security Cooperation.

3. Readiness

a. Readiness reporting assesses the availability and status of organic (military and civilian) forces as well as the ability to perform joint functions. During planning, logistics

tasks (based on the Universal Joint Tasks List) are identified and assigned to organizations responsible for performing them. For each joint mission-essential task, at least one standard describes what it means for the unit to successfully execute the task under specified conditions. Each standard consists of a performance measure and a criterion. The measure (often a question or other iteratively measurable factor) provides the basis for assessing performance, distinguishes among varying levels of task performance, and enables tracking of variations in performance over time. For each measure, the criterion specifies the target value or specific minimum level of success for metrics collected (e.g., number of hours or days, personnel, percentages). Criterion are normally influenced by conditions relevant to the existing plan or expected scenario. Conditions specify the type of environment an organization faces as it executes each task for each assigned mission. Conditions may specify the potential physical environment (e.g., sea state, terrain, or weather), military environment (e.g., forces assigned, threat, command relationships), and civil environment (e.g., political, cultural, and economic factors) while others describe the theater of operations (e.g., HNS), immediate OA (e.g., maritime superiority), or battlefield conditions (e.g., littoral composition). The goal of readiness assessments, when backed by accurately reported data, is to provide timely situational awareness of the operational and strategic risks of operations plan execution. Assessments of mission-essential tasks identify the forces' ability to perform the task to standard and conditions (yes, green); perform the task with certain limitations or under limited conditions (qualified yes, yellow); or cannot currently perform the task to standard (no, red). These assessments enable decision makers to select units for rapid deployment, identify requirements for remedial training, or facilitate reporting to obtain additional resources to meet mission requirements. If additional forces are required, requests for forces can be submitted for consideration to resolve shortfalls beyond the assigned, allocated and apportioned forces approved in the global force management process. Readiness assessments are reported at echelon to local decision makers to inform training, maintenance, planning, and execution decisions. Logistics functions frequently rely on commercial capabilities; however, contractors do not report readiness. In some cases, contracts reserve access to commercial capabilities; however, access is not assured. Until readiness reporting addresses the total force, access to, and readiness of, commercial capabilities are considered in risk assessments and reporting.

b. It is also essential that logistics assessments be integrated in readiness reporting to higher headquarters to inform decision processes at higher levels (e.g., resourcing). Service manning, training, and education reporting should track personnel proficiency and sufficiency to perform logistics tasks; inform global force management processes; and influence assignment, allocation, and apportionment of forces. These same joint mission-essential task and organizational assignments (subordinate and command-linked tasks) are reported in the Defense Readiness Reporting System. Military readiness reporting informs joint readiness assessments and reporting (e.g., the Joint Force Readiness Review) at the strategic level, which in turn informs readiness reporting in the semiannual readiness reporting to Congress.

c. Similar to US readiness estimates, a CDR may require estimates of the logistics readiness of a partner prior to an exercise and or an operation. These types of assessments typically occur through bilateral activities that monitor and evaluate the capability of a

partner to plan, execute, and assess specific logistics tasks, which may include national decisions/functions of the partner. In addition to the evaluation of a partner's mission-essential logistics tasks, readiness estimates of a partner typically use other information such as the extent to which logistics organizations are manned, trained, equipped, led, and resourced to carry out logistics tasks/functions. From these estimates a CCDR can recommend ways for the partner to mitigate any shortfalls and/or direct changes to a particular CCMD plan.

For more information regarding readiness reporting, see DoDD 7730.65, Department of Defense Readiness Reporting System (DRRS); DoDI 7730.66, Guidance for the Defense Readiness Reporting System (DRRS); CJCSI 3401.01, Joint Combat Capability Assessment; CJCSI 3401.02, Force Readiness Reporting; and CJCSI 3100.01, Joint Strategic Planning System.

For more information on the operation assessment activities of monitor, evaluate, recommend, and direct and its use within a foreign security force assessment, see JP 3-20, Security Cooperation.

4. Risk

a. Risk is the probability and consequence of an event causing harm to something valued. Logistics planners assess, mitigate, and report risks. Risk is continuously managed to reduce probability or minimize negative consequences, including assessments of both military and strategic risk. Military risk assessment addresses the joint force's ability to achieve military objectives (risk-to-mission), while sustaining resources (risk-to-force). Strategic risk assesses impacts to US interests (e.g., citizens, territory, infrastructure). Since readiness does not include the total force, risk assessments and reporting should include use of commercial capabilities. Iterative assessments quantify reliance on commercial capabilities and identify risk. Decisions to rely on commercial capabilities should be threat informed and balance the risks and opportunities associated with use of commercial capabilities. Promoting resilience can mitigate access and capacity risks associated with commercial capabilities. Mobility assessments of forces, and sourcing options (Active Component, Reserve Component, DoD civilian personnel, HNS, contracted support, commercial capabilities), may complicate force flow and identify risks when assessing TPFDDs for mature plans. Consideration of partner requirements and potential conflicts may also discover risks. Risks may be identified during operational planning assessments, to include development of the TLO, logistics estimate, and LSA. Commercial requirements and limitations are in the COLS and assessed in the LSA. Risks identified should be mitigated at echelon when possible and may require refinement or adaption of plans.

b. Unmitigated risks in campaign plans are assessed and reported to the strategic level via the annual joint assessment, which informs the joint logistics estimate and enables the CJCS's assessments and advice to satisfy legislative requirement for assessing logistics and external support in defense strategy (e.g., national military strategy) and strategic assessments (e.g., CJCS's risk assessment).

For more information regarding risk reporting, see CJCSM 3105.01, Joint Risk Analysis Methodology, and CJCSI 3100.01, Joint Strategic Planning System.

5. Operations

a. Enabling effective operations requires assessments to develop measures and reporting of logistics metrics during planning. Logistics should be integrated in the commander's critical information requirements with other essential elements of friendly information and other situational awareness and C2 data. This information may also feed a sustainment or other joint function layer for the COP. Properly defining and reporting the right measures can provide senior leaders proper insight to assess the OE and make better decisions. During planning, two types of measures should be developed. Measures of effectiveness assess whether the command is accomplishing its purpose or the "why" in the mission statement; measures of performance assess task accomplishment or the "what" in the mission statement. Plans provide a venue for reporting. Logistics assessments and reporting identify opportunities to capitalize on commercial capabilities to achieve mission outcomes in operations (Annex C), intelligence (Annex B), and logistics (Annex D), as well as the BPLAN (desired effects), and beyond use of contractors (e.g., deterrent options, centers of gravity, commander's intent). The TLA and TLO consider non-maneuver opportunities and risks to identify options for the commander and influence the commander's estimate. COLS capture core logistics function metrics by phase of the operation or campaign for measurement of projected operations capabilities versus requirements. Plan assessments measure the ability to execute contingency plans and analyze contingency sourcing, integrated TPFDDs, transportation feasibility, logistics supportability, and risk. Additionally, LSAs and logistics estimates provide venues for operation assessments. LSAs identify significant limiting factors, their impact on operations, and mitigation strategies. They also implement logistics support guidance identifying the source of support (e.g., organic, HN, or contract) by percent reliance. LSAs consider use of infrastructure (ports, warehouses), services (transportation, supplies), and associated personnel (security contractors) to assess reliance on and risk of commercial capabilities (excluded from readiness assessments). Findings in the LSA should highlight logistics gaps, shortfalls and associated risks in conducting theater operations. Annex N of plans provides a template for assessments in plans. Some operational reports are ad hoc and informal; others are standardized, or in automated systems. The JFC directs the use, format, and frequency of reporting. Logistics situation reports are designed to provide critical information to the CCDR. Logistics situation reports include information such as the status and update on all universal joint tasks. Operation assessments of plans may also include recommendations that can cause adjustments (refinement, adaptation, termination, or execution) to the plan or order.

b. Service reports, operational summaries, logistics situation reports, and HN reports all serve to expand the joint logistician's awareness of the JOA. Awareness is enhanced through automated systems and reports such as the munitions status report, bulk petroleum contingency report, and bulk petroleum capabilities report. JFCs can use this information to develop a logistics dimension to their overall situational awareness. This logistics information should be updated on a continuous basis through the use of information technology and available joint decision support and visualization tools. Collectively, this

information enables joint logisticians to assess planned versus actual consumption to detect possible shortfalls, predict requirements, and develop possible solutions to issues. This data should be used to anticipate requirements and capabilities near-term (10 days or less), mid-term (about 30 days), or long-term (beyond 30 days).

c. The JPEC reviews plans and provides feedback as required to ensure plans are suitable, feasible, acceptable, and complete. The CCDR briefs SecDef during plan update in-progress reviews on modifications and updates to the plan, based on the CCDR's assessment of the situation, changes in resources or guidance, and the plan's feasibility and suitability. During execution, assessments identify changes in the OE; if fundamental, changes in the OE could dictate review of national strategic, theater strategic, and military objectives and discussions with higher authority to determine whether the military objectives or national strategic end states are still viable. Ultimately, plan assessments and reporting can result in changes to strategic guidance, which impact planning for operations.

For more information regarding operations reporting, see JP 5-0, Joint Planning, and CJCSM 3130.03, Planning and Execution Formats and Guidance.

6. Operation Assessment and Lessons Learned

a. The operation assessment activities of monitor, evaluate, recommend, and direct apply to logistics operations the same as any other operation. The monitor activity is observing and analyzing indicators of performance or effectiveness as well as the conditions in the OE that affect those indicators. Informed by monitoring, the evaluate activity seeks to ascertain what is working, what did not work, why, and how to inform decision making at appropriate levels. After a thorough analysis, CCDRs integrate relevant information as part of recommendations they deem suitable to inform decision making. The direct activity is inherent to a CCDR to organize and employ joint forces as deemed necessary to accomplish assigned tasks and missions.

(1) When operating in a multinational setting, the operation assessment may be conducted bilaterally and or multilaterally.

(2) To carry out the operation assessment, organizations may request augmentation from higher headquarters or Joint Staff or coordinate with other organizations.

(3) Methods and forums to inform the operation assessment for logistics matters include:

(a) Staff assistance visits are typically performed during planning of an operation and enable higher headquarters or Joint Staff to facilitate identification and resolution of issues.

(b) After action reviews are typically performed after an exercise, training event, or operation. After action reviews summarize key observations, advise on benchmarks to correct deficiencies and sustain strengths, and focus on performance of specific mission-essential tasks.

(c) CSA review teams biennially assess their ability to perform missions or functions in support of CCDRs.

(d) Multinational exercise assessment reports.

b. The Joint Lessons Learned Program establishes guidance for gathering, developing, and disseminating joint lessons learned for the armed forces as required by Title 10, USC, Section 153.

(1) There are various methods to gather logistics lessons learned. Internal assessments of logistics can be initiated at any time, but establishing a periodic review or assessment provides consistency over time as circumstances, personnel, and processes change.

(2) To inform development of future logistics capabilities, the logistics community coordinates activities and collaboratively exchanges information to the maximum extent possible. Lessons learned may identify shortfalls for resolution as requirements for future capabilities and resourcing, or they may simply drive continuous improvement in existing processes and procedures.

For more information regarding lessons learned reporting, see CJCSI 3150.25, Joint Lessons Learned Program, and CJCSM 3150.25, Joint Lessons Learned Program.

7. Audits

a. Audits and inspections are generally performed by external organizations for objectivity but may be requested by commanders. Whether requested or assigned, multiple echelons generally participate in, comment on, and respond to audits. Recognizing the existence of a problem, but unable to understand its cause, the organization may request a staff assistance visit. Inspections may be initiated by a standing (e.g., DoD Inspector General) or ad hoc (e.g., congressional commissions) inspector general. Defense and Service science boards (e.g., Defense Science Board, Army Science Board) research topics on an ad hoc but frequent basis. Commissions are ad hoc, temporary organizations, often established by Congress, to audit a function or organization and report findings to facilitate improvement. Like commissions, the Government Accountability Office frequently conducts audits of logistics functions and activities, and it maintains a repository of its findings and reports online for historical reference.

b. Collectively, audits can be useful in identifying areas for improvement and often result in additional directives, guidance, and legislation. Resolution of audit findings and recommendations may facilitate reduced costs, management of risks, and improved management processes.

For more information regarding audits, see DoDI 7650.01, Government Accountability Office (GAO) and Comptroller General Requests for Access to Records; DoDI 7650.02, Engaging with the Government Accountability Office (GAO) on GAO Audits; and DoDI 7650.03, Follow-up on Inspector General of the Department of Defense (IG DoD) and Internal Audit Reports.

8. Strategic Integration

a. The effectiveness of joint logistics can be measured by assessing the following key performance indicators:

(1) Velocity is at the core of responsiveness. Velocity does not mean everything moves at the same rate or fastest rate, but everything moves according to priority at the rate that produces a balance between efficiency and effectiveness to fully meet the CCDR's operational needs. Logistics is a continuous activity and accelerates in response to crisis.

(2) Reliability is reflected in the dependability of the global providers and the development of a resilient distribution network able to deliver required capabilities when needed. Reliability is characterized by a high degree of predictability or time-definite delivery. Time-definite delivery is the consistent delivery of requested logistics capabilities at a time and destination specified by the requiring activity. The logistics strategy promotes resilience to ensure access to required capabilities when and where needed and despite enemy action.

(3) Effectiveness is the ability of the JLEnt to fully meet the CCDR's operational requirements within acceptable risk. Effectiveness is providing the right logistics solutions at the right time and place. Effectiveness is challenged by supply chain interruptions and rapidly changing requirements. Logisticians should reassess efficiency decisions of the past several decades to ensure they are threat informed and remain effective in the current strategic environment.

b. Globalization, interconnectedness, growing competition for finite resources, and adversary activities during cooperation and competition below armed conflict all combine to require commanders and decision makers at all echelons to continuously assess, adjust plans and guidance, and report risk to inform appropriate, aggregated decisions at the strategic level of warfare. Logistics reporting at the operational level provides critical feedback to future strategy, requirements, and resourcing. Logistics reporting is not limited to readiness assessment of joint mission-essential tasks but influences strategic DoD processes to provide future capabilities that overcome doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy shortfalls. As with defense strategy, requirements, and resourcing processes, logistics are integrated in DoD reporting processes. Logistics reporting provides value at multiple levels. Accurate, timely reporting is required in planning and during contingencies to assess both organic forces and external support. Logistics reporting is not a grade card of staff performance; rather, it is a necessary means of identifying risk, so it can be adequately addressed. Discipline and integrity in reporting are critical to inform senior leader decisions associated with planning, operations, force development, funding, and force allocation. Risk assessment reporting is raising awareness of all causes of risk to logistics, including those associated with reliance on commercial capabilities, and facilitating coordination across staffs. Developing a list of relevant national stock numbers and placing liaison officers at the TSC or similar logistics element helps expedite shipments or orders, especially when logistics chains are contested.

APPENDIX A THEATER LOGISTICS OVERVIEW FORMAT

1. Situation

Commander, USEXAMPLECOM has directed the development of a USEXAMPLECOM Campaign Plan to provide linkages between strategic/national level assets/enablers. This TLO identifies the theater logistics capabilities and shortfalls as they specifically affect the USEXAMPLECOM AOR.

2. Host-Nation Support and Logistics Support Agreements

Identify and address HNS and logistics support agreement with the HN of XXX that should be included in all logistics plans relating to AOR contingencies. Identify and address applicable agreements per format examples below.

a. **Access, Basing, and Overflight (ABO).** ABO is the permission to have a presence in foreign countries, accomplished through diplomatic processes. Determining ABO status often shapes the direction of possibilities regarding operating in and over HNs. An adequate overview includes whether the country is an ally or partner and if there is a permanent DoD presence in the country. List special ABO considerations for each country.

b. **Wartime Host-Nation Support (WHNS) Program with XXX.** This program is updated day/month/year. WHNS is defined as XXX-provided military or civilian resources and assistance for the reception, staging, onward movement, and sustainment of US forces in times of crisis, hostilities, or war. The WHNS program contains technical arrangements for support in the following areas: communications, engineering, field services, maintenance, medical, munitions, CBRN services, personnel and labor services, petroleum, security, supply, and transportation. Requirements are updated within the WHNS program every two years, and the approved WHNS assets are reflected in the provisional WHNS plan.

c. **Agreements.** Identify and address all individual agreements between the United States and XXX that are:

(1) Acquisition agreements, where a legal instrument is entered into to acquire logistics, supplies, or services, or

(2) A cross-servicing agreement, where a legal instrument is entered into that authorizes the reciprocal provision of logistics, supplies, or services (also referred to as a mutual support agreement), or

(3) Cooperative agreements, such as visiting force agreements or status-of-forces agreements.

d. **Shipping Airlift, or Spacelift Support Agreements.** Identify and address individual agreement.

- e. **Petroleum Agreement with XXX.** Identify and address individual agreement.

For more information, see Appendix E, “Logistics in Multinational Operations.”

3. Strategic Aerial Ports, Seaports, and Spaceports of Debarkation

This section discusses the current capability/capacity at these AOR air, sea, and space port locations and existing issues, to include ground lines of transportation that connect nodal APOD/SPODs that would support logistics operations. Identify the source of information as well as currently known long-term gaps. Identify and address air, sea, and space ports below:

- a. **Strategic APODs in the XXX**

- (1) Aaaa Airfield.
- (2) Bbbb Airfield.
- (3) Cccc Air Base.
- (4) Dddd Air Base.

- b. **Strategic SPODs in the XXX**

- (1) Aaaa Port.
- (2) Bbbb Port.
- (3) Cccc Port.
- (4) Dddd Ammo Port.

- c. **Strategic APODs in XXX**

- (1) Aaaa Airfield.
- (2) Bbbb Airfield.
- (3) Cccc international airport (IAP).

- d. **Strategic SPODs in XXX**

- (1) Aaaa Port.
- (2) Bbbb Pier.
- (3) Cccc Dock.
- (4) Dddd Port.

e. **Strategic APODs in XXX**

- (1) Aaaa IAP.
- (2) Bbbb IAP.

f. **Strategic SPODs in XXX**

- (1) Aaaa Port.
- (2) Bbbb Harbor.

g. **Other Strategic Distribution Nodes Required to Conduct Contingencies in the AOR**

- (1) Aaaa Space Terminal.
- (2) Bbbb Space Port.
- (3) Cccc Space Terminal.

4. Pre-Positioned and Theater Reserve Stocks

Address afloat pre-positioned war reserve materiel (PWRM) and/or shore-based PWRM within the USEXAMPLECOM AOR. Address apportioned assets and use.

- a. Aaaa.
- b. Bbbb.
- c. Cccc.

5. Joint Logistics Functions

Address CSS capabilities within and across the AOR which may vary by location and command. Provide a CSS capabilities overview within the AOR by logistics capability area. Description of core logistics functions should be addressed as a minimum, per guideline description below:

a. **Deployment and Distribution.** Provide an overview of current theater capabilities that addresses control segments of the CCDR's methodology for distribution. This includes pipeline control; assessment of deployment and distribution networks (and capacity aligned to data about the theater distribution infrastructure provided in paragraph 3); unique assumptions about deployment and distribution operations; and peacetime and contingency distribution partners and specification of tasks each provides, in terms of peacetime and contingency administration, logistics, communications, and funding. Any assumptions made should consider threats and possible attrition of strategic mobility assets and infrastructure enabling deployment and distribution operations.

b. **Supply.** Provide theater country assessments that identify supply and service installations and supply stocks available in theater. Address operating stockage objectives and safety levels. Indicate apportioned PWRM to enable deployments pending resupply. Specify source and location of starter and swing stocks that would be drawn until normal resupply rates return. Specify significant special arrangements required for materiel support beyond the normal supply procedure. Indicate shortfalls/overages resulting from comparison of requirements and assets estimated to be available.

c. **Maintenance.** Identify current theater facility capabilities and requirements for maintenance and modification facilities existing and/or needed to conduct the plan. Indicate the level of maintenance to be performed and where it is to occur, including HN or contractor facilities, if applicable. Address theater capabilities for inspection, test, service, repair, rebuild, calibration, and modification.

d. **Logistics Services.** Aligned to paragraph 2 above, address major support arrangements and contracts with industry or third-party logistics providers that are presently in effect or that will be executed in executing the plan. Include significant inter-Service support arrangements and refer to appropriate annexes or appendices within the agreements. Services to be addressed include food service, water and ice services; contingency base services, hygiene services, and MA. Additionally, water management, waste management, and container and 463L pallet management should be addressed as required.

e. **OCS.** Identify aspects of missions that require potential commercial capabilities and sustainment requirements for contractor personnel (e.g., sustainment, lodging, HSS). Plan for and identify OCS theater civil augmentation programs capabilities and the policies guiding the activities such as oversight requirements and civil augmentation program activation processes. Other areas of consideration include existing in-theater contracting capability; control and supporting constructs; contracting arrangements; SPOT-ES employment; vendor threat mitigation; vendors' ability to accept electronic funds transfers; and locations of key contracting organizations, offices, critical contracts, emergency/essential contractors, execution, and commercial capabilities.

f. **Engineering.** Identify and address engineering capabilities and activities applicable to the theater and the policies for providing these services. Identify and address HN capability to provide infrastructure and facility assets and services necessary to support US military forces through real property life-cycle management and services. Assess installation and base support capability in terms of accessing/gaining control of an installation or base, maintaining facilities support, and sustaining facilities operations and services within the theater.

g. **Joint Health Services.** Identify and provide Services' health support capabilities into a joint network of prevention, protection, and treatment, thus creating an integrated health support capability. The five overarching joint medical capabilities for joint health services are first responder care, forward resuscitative care, en route care, theater hospitalization, and definitive care.

6. Logistics Capability Shortfalls

Identify and address capability shortfalls and inherit risk(s) and means to resolve or mitigate.

- a. Deployment and Distribution.
- b. Supply.
- c. Maintenance.
- d. Logistics Services.
- e. OCS.
- f. Engineering.
- g. Joint Health Services.

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APPENDIX B JOINT LOGISTICS STAFF ORGANIZATIONS AND BOARDS

1. General

There are a number of logistics organizations and cross-functional organizations at the strategic and operational levels that can resolve joint logistics issues during operations. These organizations may be enduring, staffed on a permanent or full-time basis, such as the JLOC at the Joint Staff J-4, or temporary, staffed only to resolve specific strategic and operational gaps, shortfalls, or the impact of competition with another supported commander's concurrent operations, such as a subarea petroleum office (SAPO) at a JTF. These organizations have specified responsibilities and relationships identified in DoD or CJCS issuances and memoranda or CCMD planning documents.

2. Strategic-Level Joint Logistics Staff Boards, Centers, Cells, and Working Groups

Strategic-level joint logistics staff organizations provide advice or allocation recommendations to the CJCS concerning prioritizations, allocations, policy modifications, or procedural changes.

a. **JLB.** The JLB provides oversight and forges unity of effort across the logistics community to most effectively meet the JFC's operational requirements. The JLB drives integration and optimization of logistics processes and advocates for logistics capabilities by ensuring a systematic approach and senior leadership review and approval of joint logistics requirements. The JLB is chaired by the J-4 and includes representatives from the Services, USTRANSCOM, and DLA. The JLB may include senior representatives from component contracting organizations when discussing contracting policies and issues.

b. **Joint Materiel Priorities and Allocation Board.** The Joint Materiel Priorities and Allocation Board is the organization representing the CJCS in matters that establish materiel priorities or allocate resources. The CJCS, through the Joint Materiel Priorities and Allocation Board, establishes, modifies, or recommends policies for allocating materiel assets in the DoD system when competing requirements among DoD components cannot be resolved by those components. The Joint Materiel Priorities and Allocation Board supervises the assignment of force activity designators to US forces, units, activities, projects, or programs, as well as to PNs, their forces, units, or activities. The board, when convened, is chaired by the Joint Staff J-4 and includes Joint Staff representatives of the following: Joint Staff J-3, Joint Staff J-5, Joint Staff J-6, Joint Staff J-8 [Force Structure, Resources, and Assessment], Service logisticians, DLA, USTRANSCOM, USSOCOM (when required), and Defense Security Cooperation Agency (for issues concerning use of a force activity designator, project code, or force module subsystem).

c. **Joint Transportation Board.** If convened, ensures the CJCS can maintain cognizance over transportation requirements and capabilities, as well as ensure information is available for determining and adjusting allocations of common-user resources and priorities during wartime or contingencies.

For additional information on the joint transportation board, refer to JP 4-01, The Defense Transportation System.

d. **JLOC.** The JLOC is a current operations directorate within the Joint Staff J-4. The JLOC receives reports from supporting commands, Service components, and external sources; distills information for decision/briefings; and responds to questions. The JLOC coordinates and synchronizes the planning and execution of ongoing CCMD logistics operations and interagency logistics requirements and validates priority movement for selected senior officials.

e. **DDOC.** The DDOC, located at USTRANSCOM, directs the global air, land, and sea transportation capabilities of the DTS to meet national security objectives. The DDOC fuses capabilities of multimodal deployment and distribution operations, intelligence, force protection, capacity acquisition, resource management, and other staff functions to collaboratively provide distribution options to the warfighter. C2 of the majority of intertheater lift forces and logistics infrastructure is accomplished through the DDOC, which tracks the movement requirement from lift allocation and initial execution through closure at final destination.

For additional information concerning the DDOC, refer to JP 3-35, Joint Deployment and Redeployment Operations.

f. **Global Posture Executive Council.** The Global Posture Executive Council is DoD's senior posture governance body. The Global Posture Executive Council facilitates senior leader posture decision making; enables the CCMDs, Military Departments, and DoD agencies to collaborate in DoD's global defense posture planning; and oversees the implementation and assessment of DoD's posture plans. The Joint Staff J-5, in coordination with Office of the USD(P), annually provides Global Posture Executive Council-endorsed posture guidance for the development of posture plans.

g. **Medical Logistics Division.** The Medical Logistics Division of DHA develops functional requirements to facilitate best business processes for medical logistics and promote medical materiel standardization.

h. **TCSG.** A joint activity reporting directly to CDRUSTRANSCOM that serves as the DoD single manager for the development of policy and standardization of procedures and information systems for global PM. TCSG implements policy and standardized procedures for the regulation, clinical standards, and safe movement of patients. TCSG orchestrates and maintains global oversight of the TPMRCs in coordination with the CCMDs and external intergovernmental organizations as required. TCSG synchronizes current and future operational PM plans to identify available assets and validate transport to bed plans through the supporting TPMRCs.

i. **ASBP.** The Assistant Secretary of Defense for Health Affairs develops policy related to blood and blood products and the ASBP. The ASBP provides transfusion products when required to US forces worldwide. The Director, DHA, manages the ASBP in accordance with DoDI 6480.04, *Armed Services Blood Program*.

For additional information concerning the Medical Logistics Division, PM, and ASBP, refer to JP 4-02, Joint Health Services.

3. Operational-Level Joint Logistics Staff Organizations and Boards, Centers, Cells, and Working Groups

Operational-level joint logisticians provide advice and recommendations to the supported CCDR concerning prioritizations, allocations, or procedural changes based upon the constantly changing OE. These boards, centers, cells, and other organizations are defined in terms of roles, responsibilities, locations, and relationships in planning or execution documents.

a. **JLOC.** The JLOC may be established at the CCMD or joint subordinate commands at the discretion of the JFC and operated by the logistics staff. The JLOC is tailored to the mission or operation to coordinate and synchronize logistics planning and operations. The JLOC coordinates closely with the CCMD JDDOC and joint sustainment command (if established) or Service(s) theater logistics organization(s) and Army TSC concerning transportation and distribution of supplies. In all cases, the roles and authority of the JLOC, in relation to the JDDOC and the Service(s) theater logistics organization(s), must be clear to effectively synchronize logistics.

b. **JDDOC.** JDDOC is a CCMD movement control organization designed to synchronize and optimize national and theater multimodal resources for deployment, distribution, and sustainment. The JDDOC is an integrated operations and fusion center (movement control organization), acting in consonance with the CCDR's overall requirements and priorities, and on behalf of the CCDR, that may direct common user and intratheater distribution operations. The JDDOC is a standing operations center, normally under the direction of the CCMD J-4 but may be placed under other command or staff organizations. The JDDOC may move to a forward-deployed location or be collocated with a subordinate logistics command, unit, or task force. Regardless of location, the JDDOC retains its direct organizational relationship to the CCMD and does not become a subordinate activity of the host organization to which it may be attached. The JDDOC relies on liaison and collaboration to conduct reachback to access national logistics capabilities.

For additional information concerning a JDDOC, refer to JP 3-35, Deployment and Redeployment Operations, and JP 4-09, Distribution Operations.

c. **CCDR Logistics Procurement Support Board.** A CCDR logistics procurement support board is established by the CCDR to coordinate OCS and related logistics efforts across the entire AOR. This board is normally chaired by a CCMD J-4 and includes representatives from each Service component command and CSA, as well as other military and USG departments and agencies or organizations concerned with general logistics to include OCS-related matters. The CCDR logistics procurement support board is normally established as a permanent CCMD-level board and is convened, as necessary, as directed by the CCMD J-4.

d. **Joint Requirements Review Board (JRRB).** The JRRB is the CCDR's or the subordinate JFC's formal mechanism to review, validate, prioritize, and approve selected Service component contract support requests. The JRRB should be established at the subordinate JFC's level during any sustained operation that includes significant levels of contracted support. It may also be used as a venue to assess possible operational impacts of specific contract support requests and, when appropriate, is used to provide guidance on recommended contract support request consolidation actions, as well as acquisition strategy to the JCSB (e.g., the required service is a potential high-security threat, so guidance is to not use a local national company to satisfy this requirement). It also serves as a mechanism to enforce the subordinate JFC's cost control guidance. The JRRB is normally chaired by the subordinate deputy commander for support or J-4 and made up of subordinate staff and command representatives. Designated operational contract support integration cell (OCSIC) members are normally responsible for JRRB secretariat functions. The JRRB also includes nonvoting theater support contracting activity, CSA, and Service civil augmentation program representatives, as appropriate.

See JP 4-10, Operational Contract Support, for more details related to the JRRB.

e. **JCSB.** The JCSB is the CCDR's or the subordinate JFC's primary mechanism to coordinate and deconflict common contracting actions between theater support contracting and external support contracting activities executing or delivering contracted support within the OA. It is also the major mechanism to implement JRRB guidance to coordinate the appropriate contracting mechanism (theater support, civil augmentation program task orders, and other common external contract) for common services. The JCSB ensures that contracting actions align with the JFC's OCS-related command guidance (e.g., maximize the use of local national firms, reduce costs) and maximize contracting capabilities of the JOA while minimizing the competition among requiring activities for limited vendor capabilities.

For more information on the CCDR logistics procurement support board, JRRB, and JCSB, see JP 4-10, Operational Contract Support.

f. **Joint Civil-Military Engineering Board (JCMEB).** The JCMEB provides overall direction for civil-military construction and engineering requirements in the theater or JOA. The JCMEB is a temporary board, activated by the CCDR or subordinate JFC and staffed by personnel from the components and agencies or activities. It recommends policies, procedures, priorities, and overall direction for civil-military construction and engineering requirements in the theater or JOA.

g. **Joint Environmental Management Board (JEMB).** The CCDR or subordinate JFC may establish a JEMB to assist in managing environmental requirements. The JEMB is a temporary board with members from the joint force staff, components, and any other required special activities (e.g., legal, preventive medicine, and civil affairs). The board establishes policies, procedures, priorities, and the overall direction for environmental management requirements in a JOA, including management and disposal of all waste streams (solid, human, medical, and hazardous). The JEMB coordinates its activities with the CCMD or subordinate joint force engineering staff.

h. **Joint Facilities Utilization Board (JFUB).** A JFUB is a joint board that evaluates and reconciles component requests for real estate, use of existing facilities, inter-Service support, and construction to ensure compliance with JFC priorities. The JFC may establish a JFUB to assist in managing Service component use of real estate and existing facilities. The JFUB is a temporary board chaired by the CCMD or subordinate joint force engineer, with members from the joint force staff, components, and any other required special activities (e.g., legal, force protection, comptroller, contracting, and civil affairs). If the JFC decides that all engineer-related decisions are made at the JCMEB, then the JFUB functions as a working group to forward recommendations for decision to the JCMEB. The JFUB serves as the primary coordination body within the JTF for approving construction projects to satisfy facility and mission requirements.

For additional information concerning a JCMEB, JEMB, and JFUB, refer to JP 3-34, Joint Engineer Operations.

i. **Logistics Coordination Board.** A logistics coordination board may be formed by the JFC to accomplish broad logistics oversight functions that may include, but are not limited to, coordinating logistics information, providing logistics guidance, and reviewing logistics policies and priorities. The board is normally composed of representatives from the joint force staff, all components, and if required, component subordinate units.

j. **Joint Movement Center (JMC).** The JMC may be established at a subordinate unified or JTF level to coordinate the employment of all means of transportation (including that provided by allies, PNs, or HNs) to conduct the CONOPS. This coordination is accomplished through establishment of theater and JTF transportation policies within the assigned OA, consistent with relative urgency of need, port and terminal capabilities, transportation asset availability, and priorities set by a JFC. The JTF JMC works closely with the JDDOC.

For additional information concerning a JMC, refer to JP 4-01, The Defense Transportation System.

k. **TPMRCs.** Three permanent PM requirements centers report to TCSG and are associated with a specified JOA. These standing, joint activities manage, validate, and coordinate USTRANSCOM PM missions using global PM assets. TPMRC-Americas manages PM to, from, and within the North and South American continents; TPMRC-East manages capabilities for the European and African continents, as well as Western Asia; and TPMRC-West manages the Pacific Ocean region, to include Antarctica. TPMRCs are responsible for theater-wide PM and coordinate with medical treatment facilities to identify the proper treatment/transportation assets required. The TPMRCs communicate the “transport to bed” plan to the theater Service transportation component or other agencies responsible for executing the mission.

l. **Joint Patient Movement Requirements Center.** A joint patient movement requirements center is a joint activity established to coordinate the joint PM requirements function for a JTF operating within a CDR’s AOR. The joint patient movement requirements center coordinates with the appropriate TPMRC to integrate medical

regulation responsibilities, transportation movement requirements (best mode of transportation, such as aircraft/ships/ground vehicles), mission requirements determination (the right medical crew members and medical equipment), coordination, and related activities supporting DoD PM requirements.

For additional information on PM, see JP 3-36, Joint Air Mobility and Sealift Operations.

m. **Joint Blood Program Office.** The joint blood program office is under the staff supervision of the CCMD surgeon. This office is responsible for the joint blood program management in the JOA. The joint blood program office advises the CCMD surgeon on all matters pertaining to theater blood management activities; evaluates blood product depots, blood transshipment centers, and blood supply units; and coordinates with the DHA ASBP Office to ensure that personnel, equipment, and resource requirements are addressed in the CCDR's OPLANs.

For additional information concerning a TPMRC, joint patient movement requirements center, and joint blood program office, refer to JP 4-02, Joint Health Services.

n. **Joint Petroleum Office (JPO).** The JPO, established by the CCDR, works in conjunction with its Service components, SAPOs, and USTRANSCOM to plan, coordinate, and oversee all phases of bulk petroleum capabilities for US forces employed or planned for possible employment in the AOR. JPOs typically have a mix of Service representatives.

o. **SAPO.** When tactical operations warrant extensive management of wholesale bulk petroleum in a JOA, the CCDR's JPO may establish a SAPO. Staff augmentation may be provided by Service components. The primary function of the SAPO is to discharge the staff petroleum logistics responsibilities of the JTF. Through the SAPO, the JFC establishes policies, procedures, priorities, and oversight to optimize critical bulk petroleum capabilities for the JTF. The SAPO is responsible for bulk petroleum operations planning and execution within the JOA. This level of planning focuses on support for each Service component. Its products are the inland petroleum distribution plan and base support plans. The SAPO conforms to the administrative and technical procedures established by the CCDR, USTRANSCOM, and DLA Energy.

For additional information concerning a JPO or SAPO, refer to JP 4-03, Joint Bulk Petroleum and Water Doctrine.

p. **Joint Mortuary Affairs Office (JMAO).** A CCDR establishes a JMAO to provide oversight of MA capabilities within their AOR. The CCDR is authorized to establish a theater mortuary affairs office (TMAO) when the JMAO has an extended area of operation and a centralized office within a theater is needed for overseeing MA operations. The JMAO and/or TMAO is responsible for detailed MA planning and the execution of the MA mission, guidance, and policy within the OA. The JTF JMAO/TMAO is established and organized to plan, coordinate, and execute all MA programs in the JOA. The JMAO maintains data and records on temporary interment or cold storage of all deceased personnel and the recovery status of all missing personnel. The joint MA officer coordinates programs for search, recovery, tentative identification, temporary disposition,

and evacuation of human remains and serves as the clearing point for MA information. At the discretion of the CCDR, the commander, JTF, may direct a JMAO be established in the JOA. The JTF J-4 has staff supervision responsibility for the JMAO.

q. **Explosive Hazards Coordination Cell (EHCC).** The JFC may establish the EHCC to predict, track, distribute information on, and mitigate explosive hazards within the theater that affect force application, focused logistics, protection, and awareness of the OE. The EHCC should establish and maintain an explosive hazard database, conduct pattern analysis, investigate mine and improvised explosive device strikes in conjunction with explosive ordnance disposal, and track unexploded explosive ordnance hazard areas. The cell provides technical advice on the mitigation of explosive hazards, including the development of tactics, techniques, and procedures, and provides training updates to field units. The EHCC coordinates explosive hazards teams. The cell coordinates with JLEnt elements for the processing and retrograde of technical, biometric, and forensic materials and evidence.

For additional information concerning an EHCC, refer to JP 3-42, Joint Explosive Ordnance Disposal, and JP 3-34, Joint Engineer Operations.

r. **Joint Munitions Office.** The joint munitions office, established by the CCDR, works in conjunction with the Service components, functional components, subordinate commands, Service acquisition commands, force providers, materiel commands, and USD(A&S) to plan, coordinate, and oversee all phases of ammunition and ordnance support for forces employed or planned for possible employment in the AOR. Joint munitions offices typically have a mix of munitions and logistics planners from each Service and ensure proper reporting of readiness status based upon the Joint Munitions Requirement Process and the CJCS's readiness system. Of particular importance to the CCDR's joint munitions office's munitions readiness reporting are joint critical munitions, which are the set of precision guided munitions and other ordnance with limited inventories essential to prosecute targets outlined in the OPLAN phased threat distribution and for which there may be no suitable secondary standard munitions alternatives.

s. **OCSIC.** The primary purpose of this cell is to plan, coordinate, and integrate OCS actions across all applicable joint directorates and special staffs, subordinate components, supporting CSAs, and any designated lead theater support contracting activity in the OA. The OCSIC is a permanent, full-time cell at the CCMD level and is normally stood up as a full-time cell at the subordinate joint force command level for the duration of the command's existence. The OCSIC can be subordinate to a joint staff or, in major operations, may serve as a separate staff element. There is no set structure or size for an OCSIC at either level; size and configuration are mission-dependent. This cell should be made up of a mixture of specially trained and certified personnel with operational-level logistics and contingency contracting experience. In some operations, this cell could be as small as two individuals, while in other operations it could be significantly larger. Higher-level OCSICs also coordinate with lower-level OCSICs (if established).

See JP 4-10, Operational Contract Support, for more information.

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APPENDIX C LOGISTICS-RELATED EXECUTIVE AGENTS

Figure C-1 lists the EAs for a specific area as designated by the reference listed. Consult the DoD Directives Division website for the latest changes: <https://dod-executiveagent.osd.mil>.

Department of Defense Logistics-Related Executive Agents			
Reference	Subject	Executive Agent	
DoDD 2310.01E	DoD Detainee Program	SECARMY	
DoDD 3235.02E	DoD Combat Feeding Research and Engineering Program	SECARMY	
DoDD 4705.01E	Management of Land-Based Water Resources in Support of Contingency Operations	SECARMY	
DoDD 5101.09E	Class VIIIA Medical Materiel Supply Management	Director, DLA	
DoDD 5101.10E	DoD Executive Agent (EA) for Subsistence	Director, DLA	
DoDD 5101.11E	DoD Executive Agent for the Military Postal Service and Official Mail Program	SECARMY	
DoDD 5101.12E	DoD Executive Agent (EA) for Construction and Barrier Materiel	Director, DLA	
DoDD 5101.13E	DOD Executive Agent for the Unexploded Ordnance Center of Excellence (UXOCOE)	SECARMY	
DoDD 5160.41E	Defense Language, Regional Expertise, and Culture (LREC) Program	SECARMY for Contract Linguist Program	
DoDD 6055.09E	Explosives Safety Management (ESM)	SECARMY for emergency response to transportation mishaps involving DoD military munitions	
DoDD 6400.04E	DoD Veterinary Public and Animal Health Services	SECARMY	
DoDD 6490.02E	Comprehensive Health Surveillance	SECARMY, Armed Forces Health Surveillance Center	
DoDD 8190.01E	Defense Logistics Management Standards (DLMS)	Director, DLA	
For a listing of DoD Issuances, please visit http://www.esd.whs.mil/DD/ .			
Legend			
DLA	Defense Logistics Agency	DoDD	Department of Defense directive
DoD	Department of Defense	SECARMY	Secretary of the Army

Figure C-1. Department of Defense Logistics-Related Executive Agents

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APPENDIX D MORTUARY AFFAIRS

1. General

This appendix provides doctrinal guidance for the execution of MA within joint operations. Doctrine established in this publication applies to the Joint Staff, commanders of CCMDs, subordinate unified commands, JTFs, subordinate components of these commands, the Services, and CSAs. Additional guidance on planning can be found in JP 5-0, *Joint Planning*; CJCSM 3130.03, *Planning and Execution Formats and Guidance*; and Army Techniques Publication 4-46/Marine Corps Reference Publication 3-40G.3/Navy Tactics, Techniques, and Procedures 4-06/Air Force Tactics, Techniques, and Procedures 3-2.51, *Multi-Service Tactics, Techniques and Procedures for Mortuary Affairs in Theaters of Operations*. Key MA principles include:

a. **Bring the fallen home.** The clear overarching goal is to uphold DoD's responsibility to return remains to the family in accordance with current statutes whenever possible.

b. **Give precedence to the living over deceased personnel.** In keeping with DoD MA policy, procedures should not compromise the safety of the living while taking care of deceased personnel to the maximum extent possible.

c. **Manage risk.** Imposing operational risk management to reduce or mitigate hazards is an acceptable COA.

d. **Manage by exception only.** Designing a process that closely aligns with existing processes and procedures is better than implementing a new management process.

e. **Dynamically increase postmortem hazard persistency knowledge.** New information that identifies the risk associated with safely executing tasks is dynamic but always considered throughout the process.

f. **Comply with all requirements.** Ensure that DoD practices do not conflict with HN or US federal, state, and local government practices, regulations, or interests. Any practices that may not comply with all requirements should be reviewed by legal advisors prior to implementation.

g. **Preserve decedent viewability.** Preserving the viewability of decedents postmortem is always taken into consideration; however, when there is a high risk associated with cross-contamination of infected blood and body fluids, safety of personnel and the public take precedence.

2. Mortuary Affairs Support to Joint Operations

The DoD Mortuary Affairs Program provides for the care, management, and disposition of deceased Service members, DoD civilians, and covered contractor personnel and the handling of their PE. It covers fatality management and the return of human

remains. The three phases of MA are current death (peacetime), concurrent return (theater-level operations during conflict), and temporary interment (formerly graves registration). The CCMDs and Services conduct MA to:

- a. Conduct search, recovery, evacuation, temporary storage, temporary interment, disinterment, and contamination mitigation of deceased persons. Note: The recovery of human remains from past conflicts is not addressed in the publication.
- b. Operate MA processing points, including mortuary affairs collection points (MACPs), theater mortuary evacuation points, mortuary affairs contaminated remains mitigation sites, temporary storage sites, temporary interment sites, and PE depots.
- c. Prepare and coordinate evacuation of human remains to the place authorized by the person authorized to direct disposition of human remains.
- d. Operate DoD mortuaries and preparation points worldwide for the preparation of human remains and coordination of final disposition and establishment of other port mortuaries, if so directed. Note: The Armed Forces Medical Examiner System may, for logistical or operational purposes, designate the use of a specific DoD mortuary.
- e. Collect, inventory, store, and process PE of deceased and missing DoD-affiliated or -covered persons; upon the request of the Department of State, when approved by SecDef, the PE of US citizens and others; and when directed, the effects of multinational partners, third-country, local national, and adversary personnel. The term PE is overarching and includes, for example, the effects found on the human remains, in the vicinity of an incident, in individual's billeting area, in the laundry, or in the vehicle in which the human remains were located.

3. Defense Support of Civil Authorities

DoD primarily organizes, trains, and equips forces to conduct combat operations. It also has the capability to respond to domestic emergencies and disasters. DoDD 3025.18, *Defense Support of Civil Authorities (DSCA)*, refers to DoD support provided as directed by SecDef as discussed in JP 3-28, *Defense Support of Civil Authorities*. There are numerous mass fatality scenarios (natural/manmade/terrorist incidents) that DoD may be asked to support. These events can overwhelm and exceed capabilities of local, tribal, state, and federal authorities. Responding to disasters and emergencies rests with local and state authorities. The local and state medical examiner/coroner have jurisdictional responsibility for MA. During mass fatality incidents, local resources are used first, then state or neighboring states if necessary. The state (governors or representatives) requests federal assistance through the National Response Framework. Limited MA assets are available through Emergency Support Function #8, "Public Health and Medical Services Annex." If DoD support is requested, SecDef can approve the mission assignment of military MA to assist.

4. Humanitarian Assistance

Unlike defense support of civil authorities operations that are conducted within CONUS, DoD also supports humanitarian assistance operations, which may be OCONUS. Humanitarian assistance operations are DoD activities, normally in support of the United States Agency for International Development or the Department of State, conducted outside the United States and its territories to relieve or reduce human suffering, disease, hunger, or privation. See JP 3-29, *Foreign Humanitarian Assistance*, for further guidance and information on foreign humanitarian assistance.

5. Personnel Estimates and Mortuary Affairs Processing Throughput

During conflict, the manpower and personnel directorate of a joint staff prepares a personnel estimate that should contain a casualty estimate. In addition, each CCMD and Service formulates casualty estimates in accordance with its directives to enable operations planning and assessment, future force planning, and training. During peacetime, these estimates are not calculated. Planners should review past losses within their OA to support the personnel estimate and should include plans for a mass casualty event that could require additional, short-term support to augment the MA capability resident in the region. The exact number of fatalities US military forces and contractors authorized to accompany the force will suffer can never be accurately predicted; therefore, planning for MA support should be continuous and flexible to adjust to unanticipated situations. Plans and orders should be reviewed and amended as new facts become available, resources change, and other variables become apparent. Additionally, staff planners should forecast support and throughput for high fatality numbers during combat operations, using the experience and training of MA personnel and staffs. Staff planners need to be able to visualize and identify necessary resources and capabilities providing MA support to the theaters. These deciding factors establish each theater MA COP for commanders.

6. Mortuary Affairs Concept of Operations

During peacetime, OCONUS CCDRs support the Military Departments in coordinating for the recovery, preparation, and evacuation of human remains to a DoD mortuary and ultimately for release to a civilian funeral home for final disposition. This process may be supported by a DoD regional mortuary located in, or designated in support of, the CCDR's AOR. The MA CONOPS is based on the Service's MA program; how and when to employ the program is driven by operational requirements and logistics considerations. The MA CONOPS for a given operation is designed to satisfy the operational requirements of the forces and agencies involved. Therefore, CONOPS may differ in scope, detail, objectives, and available resources for specific operations and require updates during the operation's phases to reflect changes in commander's intent and mission requirements. Planners prepare an appendix 3 (Mortuary Affairs) to annex D (Logistics) for their OA.

a. During the transition from peacetime to conflict, the CCDR makes the decision to move from current death (peacetime) to concurrent return establishing theater-level MA operations and placing the responsibility of fatality management on the tactical level units

to establish theater mortuary facilities (i.e., MACPs, theater mortuary evacuation points, mortuary affairs contaminated remains mitigation site, and a theater PE depot) that meet the anticipated fatality management requirement. When these theater MA assets are required, the CCMD MA planner considers the manning and location of facilities for the receipt, preparation, processing, and evacuation of human remains.

b. The transition from Service responsibility to overseas CCMD responsibility occurs when, in a designated OA, the overall logistics capabilities and required MA support are unable to manage the flow of human remains from forward areas to the rear areas for evacuation. The transition decision point may be when the number of human remains exceeds the ability to return via current MA capabilities, or it may be established earlier to affect the smooth flow of human remains from the theater. CCDRs may also designate a subordinate component command as the lead Service for the MA program and coordinate transition criteria based on contingency operational criteria. Based on the overall size of the AOR, both types of responsibilities may be in effect within the AOR differentiated by the countries involved in a specific contingency operation. During the latter phases of an operation, the transition from combat MA operations back to peacetime MA operations should also be driven by operational criteria.

c. **MA Planning at the Strategic, Operational, and Tactical Levels.** To achieve readiness, planners should address the unique challenges of their AOR. Some unique AOR challenges include:

(1) Creating a COP from which an MA planner simultaneously makes risk-based decisions and allocates limited resources for a large geographically dispersed environment, each presenting different working constraints.

(2) Establishing logistic overviews identifying throughput (e.g., flat rack transfer points, aerial delivery locations), and utilization of uncommon sustainment resources to increase evacuation processes for both human remains and associated PE.

(3) Designating distribution and retrograde channels using different transportation nodes (e.g., air, sea, road, rail) that support multiple sites and support transportation across oceans and continents for human remains, PE, and contaminated human remains for large fatality numbers during offensive operations.

(4) Prepositioning stocks and division sustainment brigade warehouse assets to sustain, reconstitute, and resupply MA personnel and materiel during large-scale contingency operations.

(5) Anticipating unique material requirements and submit requests for forces to safely handle contaminated human remains.

(6) Continually synchronizing C2 across multi-Service MA operations.

(7) Synchronizing strategic, operational, and tactical MA aspects throughout the AOR, while addressing the tasks in Figure D-1.

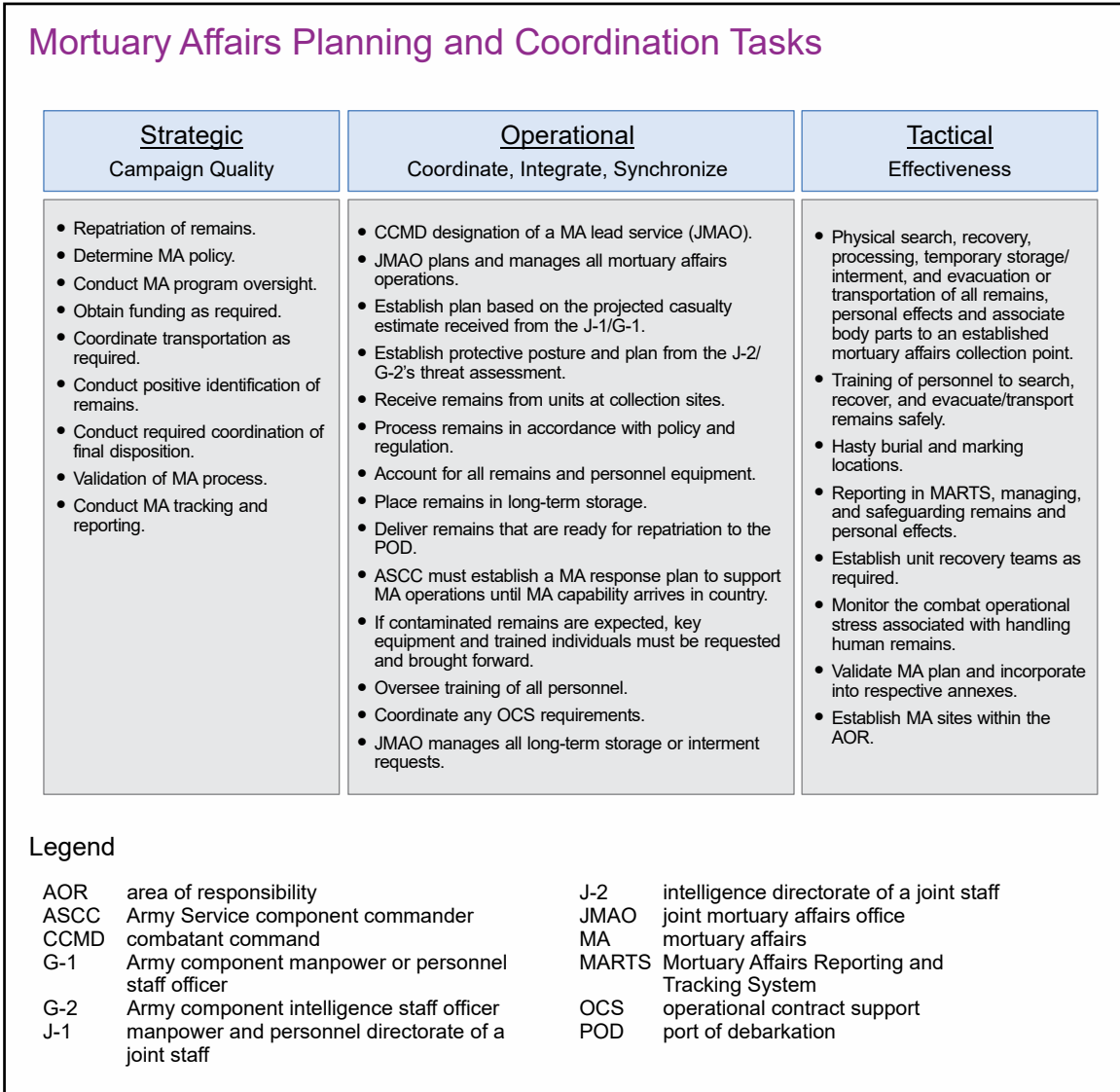


Figure D-1. Mortuary Affairs Planning and Coordination Tasks

7. Roles and Responsibilities

a. **CJCS.** The CJCS coordinates the operational implementation of the DoD Mortuary Affairs Program. This includes the review and assessment of the CCMD and Service-level MA response plans and provides for the preparation and review of contingency plans to recover remains, to include chemically, biologically, or radiologically contaminated remains, of DoD-affiliated or -covered persons. The CJCS designates a lead office on the Joint Staff for all MA matters within the Joint Staff and CCMDs.

b. **CCDR.** The CCDR assumes MA responsibility and designates the lead Service to provide geographical MA general support to the AOR. Unit commanders recover their deceased personnel to the nearest MACP where the CCMD MA system coordinates further evacuation. This type of coordinated theater-level MA support is referred to as the concurrent return program. The CCMD JMAO, in consultation with component command

MA office and the TMAO, establishes theater MA policy and procedures. The transition from CCDR MA support responsibilities back to Service component peacetime operation responsibility is made by the CCMD when operational considerations warrant transition. This type of MA support is referred to as the current death program. The decision to return to the current death program is published through an official CCMD order. This CCMD regulation establishes concurrent return program policy and procedures. A secondary mission of CCMD MA facilities is the evacuation of PE to the joint PE depot under the authorities of the concurrent return program. All human remains entitled to mortuary services are transported by the unit to the nearest MACP.

c. **Component Commands.** The component command establishes a TMAO to coordinate MA area support and enforce policies and procedures to ensure dignity, honor, and respect for all decedents. The unit commander (or civilian equivalent for nonmilitary organizations) is responsible for the casualty reporting, recovery, and transport of deceased military member, civilians, or contractors assigned to their organization to the nearest MACP. The TMAO then coordinates and tracks continued evacuation operations from the MACP through arrival at the final destination serviced by military airlift. MA facilities across the AOR have the capabilities to prepare remains for evacuation, generate required documentation, provide refrigerated storage to aid in preservation while awaiting transportation, and evacuate decedents authorized mortuary services to required destinations.

d. **USTRANSCOM.** USTRANSCOM provides strategic air and sea lift to evacuate human remains from overseas to the port-of-entry mortuary within CONUS.

e. **United States Army.** The United States Army capability is task-oriented and designed to provide MA support to all Army units as well as general support to all Services. The capability is resident in both the Active Component and Reserve Component. The Army MA companies are intended to provide theater-level support in a multi-Service theater of operation.

f. **United States Air Force.** Air Force Mortuary Affairs Operations is responsible for oversight of the execution of the United States Air Force MA program, operating and maintaining a port-of-entry mortuary within CONUS, an OCONUS mortuary in the Pacific, and as required, establishing other CONUS port-of-entry or OCONUS mortuaries in support of all the Services. Air Force Mortuary Affairs Operations is a field operating agency under the Deputy Chief of Staff, Manpower, Personnel and Services, Headquarters Air Force. Air Force Mortuary Affairs Operations provides procedural guidance for the dignified transfer process. The United States Air Force and United States Space Force maintain force support squadron personnel on every installation capable of supporting the current death program, establishing MACPs during contingency operations, providing augmentation support to Army-operated theater mortuary evacuation points and TMAOs, and conducting search and recovery operations.

g. **United States Navy.** The United States Navy does not maintain a formal MA capability. The United States Navy has a limited number of licensed morticians (sailors

and civilians) assigned to the Navy Casualty Branch staffed to support current death (peacetime) response.

h. **United States Marine Corps.** The United States Marine Corps MA capability resides in the personnel retrieval and processing company within the United States Marine Corps Reserve Component, which provides MA services for the Fleet Marine Force in support of combat or contingency operations to expedite recovery, processing, and evacuation of human remains to designated facilities. Personnel retrieval and processing can task-organize to form scalable units as required and capable of deploying in support of combat maneuver units.

i. **USCG.** USCG does not have an MA force structure capability to provide support to units overseas during joint operations and relies upon the CDR to provide support. The Army provides ground force collection point support and general support to Coast Guard units as needed. However, in the United States, the Coast Guard provides or arranges MA support for its own personnel.

j. **DHA/Armed Forces Medical Examiner System.** The Armed Forces Medical Examiner System provides DoD comprehensive forensic investigative services, to include forensic pathology, DNA [deoxyribonucleic acid] forensics, forensic toxicology, and medical mortality surveillance. It also:

(1) Serves as DoD's scientific authority for the identification of remains of DoD-affiliated personnel in current deaths and of other deceased individuals for whom a death certificate has not been issued when DoD is providing mortuary services.

(2) Serves as DoD's scientific authority for the identification of remains of DoD-affiliated personnel in deaths from past conflicts and other designated conflicts.

(3) Prescribes forensic medical procedures to recover and identify remains from past conflicts and other designated conflicts.

(4) Conducts or reviews forensic pathology investigations, which may include autopsy examinations, of the deaths of active-duty Service members or other DoD-affiliated personnel.

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APPENDIX E LOGISTICS IN MULTINATIONAL OPERATIONS

1. General

a. **When participating in multinational operations, US forces comply with international agreements signed by the United States.** MNL operations differ from unilateral joint operations in that the participating nations represent different national and military objectives, cultures, and approaches to logistics. This impacts how the United States organizes, prepares, and executes logistics during multinational operations. A significant challenge in MNL involves establishing effective C2 processes that are acceptable to all troop contributing nations. Logistics is a Service and national responsibility, and under a North Atlantic Treaty Organization (NATO) operation, it is deemed a collective responsibility.

b. **MNL.** MNL is any coordinated logistic activity involving two or more nations supporting an MNF under the auspices of an alliance or coalition. This includes operations conducted under a United Nations mandate. MNL includes activities involving both logistic units provided by participating nations designated for use by the multinational force commander (MNFC), as well as a variety of MNL support arrangements that may be developed and used by participating forces. CCDRs may not enter into MNL support arrangements without specific legal authority and prior negotiation of appropriate agreements. These legal authorities differ significantly in terms of required conditions, type of permitted support, and implementation procedures. CCDRs should consult their staff judge advocate regarding applicable legal authorities.

c. **MNL Principles.** The principles of logistics for US joint operations also apply to the logistics of multinational operations. However, because participating forces represent sovereign nations, the following principles apply to MNL operations: collective responsibility, authority, primacy of operational requirements, cooperation, coordination, assured provision, sufficiency, efficiency, flexibility, visibility and transparency, synergy, simplicity, and timeliness.

d. **Special Considerations in Organizing and Conducting Multinational Logistic Operations.** The planning and conduct of logistics in operations involving multiple sovereign nations characteristically differs from that in unilateral operations. Special considerations include the impact of national sovereignty; the United States as provider and recipient of logistics; differences in MNL based on organizational structure; impact on MNL by type of operation; stabilization activities; force protection; MNL in a chemical, biological, radiological, and nuclear environment; limits to using MNL; and interoperability of cyberspace capabilities used to support logistic operations.

2. Multinational Logistic Capabilities

a. **Developing mutually supportive relationships to enhance coordination is an important enabler for MNL operations.** The core MNL functions are supply, maintenance, deployment and distribution, joint health services, engineering, logistic

services, and OCS. The MNL capabilities delivered by these functions, when combined with multinational personnel service support, provide the ability to globally project and sustain US forces operating as part of an MNF.

b. **Supply.** Logisticians integrate the four functional components of managing supplies and equipment; managing inventory; managing supplier networks; and assessing global requirements, resources, capabilities, and risks within the supply core logistic function. Under the premise that nations and MNFCs share a collective responsibility for MNL, the MNFC has control of the use of commonly funded supplies and services.

c. **Maintenance Operations.** Each member nation executes maintenance as a core logistic function to maintain the fleet readiness of units and capabilities. In crisis or conflict, an efficient maintenance organization, composed of MNF and national repair facilities, is an essential component of the MNF's capability. Therefore, nations should be encouraged to make bilateral and multilateral agreements in peace to cover use of national repair facilities in both peacetime and wartime.

d. **Deployment and Distribution.** The deployment and distribution function enables the movement of forces and unit equipment during the deployment and redeployment processes and supports materiel movement during the sustainment of operations. In a NATO operation, for example, strategic movement is managed by the allied movement coordination center, which combines and deconflicts separate, national, detailed deployment plans into a single multinational deployment plan to ensure smooth flow of forces in accordance with the MNFC's deployment priorities. To effectively synchronize and manage multinational movements, the JMC (or equivalent) requires detailed, timely information on an individual nation's deployment plans.

e. **Joint Health Services.** Opportunities to conduct interoperable health services with PNs exist within multinational operations, ranging from medical evacuation, treatment, and FHP. Multilateral, interoperable health services require careful planning, contextual considerations (for example, differences in norms and customs), and conducting services. Contributing nations bear ultimate responsibility for ensuring the provision of health services to their forces allocated to multinational operations. Discharge of responsibility may occur in several ways, including agreements with other nations or the appropriate multinational planning staffs and MNFCs. Supporting medical logistics is essential for ensuring the health of both the joint force and coalition forces.

f. **Engineering.** Engineering lends itself to multinational coordination and management arrangements. Nations participating in a multinational operation may place assigned engineer units under the OPCON or the tactical control of the engineer task force commander. As an alternative, engineer units may simply coordinate engineer activities with the MNFC and the force engineer.

g. **Logistics Services.** In addition to MNL coordination centers at the MNF headquarters level, nations participating in a multinational operation may determine the need for operational-level support organizations to provide common support for the MNF. Such organizations include naval advanced logistic support sites and naval forward logistic

sites for supporting multinational maritime forces and intermediate staging bases for supporting ground and air units. MNL support elements serve as critical transshipment nodes, supply storage and distribution points, refueling stations, staging bases for onward movement into tactical operational zones, medical support centers, and providers of other CUL.

h. **OCS.** If identified and funded in NATO-led operations, the head of contracting in the joint logistic support group is responsible for consolidating common funded requirements to prioritize their fulfillment. Proper and timely OCS planning and coordination of contracting efforts are essential to the management of limited resources to ensure the MNFC's operational priorities are effectively and efficiently supported. To effectively coordinate MNF contracting activities, the MNFC may:

(1) In coordination with NATO, establish a lead nation for contracting coordination. Given the United States' robust Army and Air Force deployable contracting capabilities, both Services should be considered.

(2) Establish a regional approach to contract sourcing that identifies likely sources of commercial capabilities. This should include all efforts to share vendor lists as early as possible in planning.

(3) Establish a combined contract coordination working group, akin to the JCSB of US OCS doctrine, to enable coordination of national expeditionary contracting capabilities with the lead nation and all allies and partners.

(4) Develop and publish a critical contracted items list that identifies scarce or MNFC-designated supplies and services within the OA, the procurement of which should be coordinated with the joint logistics support group and lead nation for contracting coordination.

(5) Integrate OCS equities into combined battle rhythm events.

3. Planning

a. When functioning as the MNFC, US commanders have the responsibility to develop a CONOPS and initial concept of support, in coordination with participating nations. Upon approval of participating nations, US and other MNL planners iteratively develop the support plan during a series of planning conferences, as time allows. National support elements serve as the intermediary between national logistics at the strategic level to tactical-level forces. National support elements also coordinate and consolidate CUL functions. Centralized coordination of contracted support and HNS planning and execution ensures limited HNS resources are allocated most effectively to support the MNFC's priorities. In general, nations are expected to fund their participation in MNL support arrangements and reimburse providers for any support received from other nations. Funding and reimbursement requirements for US participation in these arrangements are generally a function of the applicable US legal authority.

b. **Executing MNL Introduction.** Differences in military organization, security procedures, language, doctrine, and equipment can pose potential risks to the successful implementation of operations. The risks can be mitigated through adhering to the MNF chain of command, the use of liaisons, and the establishment of a central node or lead nation for MNL coordination.

c. **HNS**

(1) **General Description.** HNS is the civil and military assistance rendered in peace, crisis, and conflict by a HN to allied forces and organizations located on, operating in, or transiting through the HN's territory. Arrangements concluded between appropriate authorities of HNs and sending nations form the basis of such assistance.

(2) Logistics principles, established in Allied Joint Publication 4.5, *Allied Joint Doctrine for Host-Nation Support*, and NATO MC [Military Committee] 334/2, *NATO Principles and Policies for Host-Nation Support (HNS)*, reflect the experience gained in NATO-led operations and exercises to execute responsibilities for HNS efficiently:

(a) Responsibility. Commander has collective responsibility to identify, plan, coordinate, and prioritize HNS.

(b) Provision. HNS may be a significant source of support for deployed forces and reflects HN capabilities and capacities.

(c) Authority. MC 334/2 provides NATO commanders authority for HNS planning, development, and execution. Diplomatic note or other authority may apply outside NATO.

(d) Cooperation. Eliminate competition and optimize use of finite resources.

(e) Coordination. Strive for effectiveness, efficiency, and cohesion in operations.

(f) Economy. Achieve economies of scale and improve the overall availability of support.

(g) Visibility. Provide the commander with a clear and accurate picture of HNS available.

(h) Reimbursement. Required to apply costs fairly across nations.

(3) **Implementation.** Executed successfully, careful coordination can achieve:

(a) Harmonization of efforts and visibility during the planning process.

(b) Maximum economy in terms of time and resources required.

(c) Strong unity of effort within the planning process and among associated staffs.

4. Execution

Effective execution of logistics in MNF operations is contingent upon implementing the CONOPS and understanding the degree of authority the supported commander has, understanding the responsibilities of the supporting commander, understanding national agreements and arrangements, and understanding the roles and responsibilities of multinational partners. Multinational coordination centers can be used to integrate PNs into the execution of MNF operations. Using coordination centers during execution aids in the deconfliction and maximization of the fulfillment of transportation requirements, control of contract personnel, and exchange of mutual logistic support of goods and services, as well as determining which element in the MNF provides which pieces of the logistics system, health services, and logistics reporting.

a. Operational Support

(1) **General Description.** Title 10, USC, Section 331 and Chapter 16, authorize support to foreign security forces for the conduct of operations. Types of support include logistics, supplies, and services. Other programs also exist as prescribed by law.

(2) The scope of operational support under Section 331 includes:

(a) Foreign security forces solely for the purpose of enhancing interoperability in the operation.

(b) Nonmilitary logistics, security, or similar agency of a friendly foreign government.

(c) Procurement of equipment for loan purposes.

(d) Provision of training for foreign security forces prior to the conduct of the operation.

(e) Small-scale construction.

For more information on the development and integration of foreign security forces within operations, see JP 3-20, Security Cooperation.

b. ACSA Authority

(1) **General Description.** The ACSA authority, Title 10, USC, Sections 2341-2350, originally enacted as the North Atlantic Treaty Organization Mutual Support Act of 1979, and DoDD 2010.09, *Acquisition and Cross-Servicing Agreements*, authorize the acquisition and reciprocal provision of logistics support, supplies, and services (LSSS) to facilitate reciprocal logistic support. The ACSA legislation provides authority for US forces to perform the following two distinct, although not entirely separate, functions:

(a) Acquire LSSS from foreign sources.

(b) Reciprocal exchange of LSSS with multinational partners through cross-servicing agreements.

(2) **Waivers.** Among other things, the ACSA authority waives selected provisions of US contracting law and prescribes ordering and reimbursement procedures that are more flexible than those permitted under other authorities, such as the Arms Export Control Act (AECA), as amended. The type of LSSS that may be acquired or transferred under the ACSA is broadly defined; it includes food; billeting; transportation (including airlift); petroleum, oils, and lubricants; clothing, medical, and communications services; ammunition; base operations support (and construction incident to base operations support); storage services; use of facilities; training services; spare parts and components; repair and maintenance services; calibration services; air and sea port services; disposal services for solid, medical, and hazardous waste and material; furnishing or receiving health care services; emergency provision of medical supplies; use of medical facilities of another country during exercises, operations, or for mass casualties; and medical evacuation of authorized injured personnel by US military or DoD contracted commercial transportation assets. It also includes the temporary use of general-purpose vehicles and other nonlethal items of military equipment, where such lease or loan is permitted under national laws and regulations.

(3) **Items that may not be acquired or transferred** under ACSA authority include weapon systems (except for temporary use of general-purpose vehicles and other items of military equipment not designated as significant military equipment on the United States Munitions List promulgated pursuant to Title 22, USC, Section 2778); guided missiles; naval mines and torpedoes; nuclear ammunition and included items such as warheads, warhead sections, and projectiles; guidance kits for bombs or other ammunition; and chemical ammunition (other than riot control agents).

(4) **Implementation.** Acquisition-only authority does not require the existence of a cross-servicing agreement or an implementing arrangement but should only be used when no applicable ACSA exists. US MNFCs or other elements of Armed Forces of the United States supporting the US MNFC obtain approval from Joint Staff J-4 through the appropriate CCMD. Acquisition-only transactions document the terms and conditions of the specific acquisition transaction. Exchanges of logistics (which include both acquisition and provision of support) require the prior negotiation of a bilateral ACSA and implementing arrangement in the form of an ACSA between DoD and the foreign nation's armed forces. An implementing arrangement may contain specific procedures for the execution of transfers under the ACSA, especially Service-specific or geographic-specific procedures. In consultation with SecDef, DoD has the authority to negotiate ACSAs and acquisition-only agreements. For approved countries and organizations, this negotiating authority may be delegated to the CJCS, who may further delegate it to CCDRs. ACSAs (current and proposed) that support the CCDR's CONOPS across the competition continuum should be reflected in the CCMD's theater posture plan. Countries or international organizations that are not pre-approved as ACSA-eligible require consultation with the Secretary of State and congressional notification prior to negotiation

of an ACSA. Further, prior to concluding an agreement that has been negotiated, further consultation with the Department of State is necessary.

(5) **Financial Requirements.** A key ACSA provision is the range of reimbursement options permitted for logistic exchanges: monetary payment, replacement in kind, or replacement by supplies or services of equal value. Furthermore, the terms of reimbursement may be negotiated by the United States and foreign parties on a transaction-by-transaction basis. That is, the providing party (which determines the form of reimbursement) may require cash reimbursement in one exchange transaction but accept replacement in kind or replacement of equal value in another.

For further information, refer to CJCSI 2120.01, Acquisition and Cross-Servicing Agreements.

c. Cooperative Military Airlift Agreements (CMAAs)

(1) **General Requirements.** CMAAs, Title 10, USC, Section 2350c, provides authority for US forces to acquire or exchange airlift from allied countries and NATO subsidiary bodies for the transportation of personnel and cargo of the military forces on aircraft operated by and for each other's military forces. SecDef has delegated to CDRUSTRANSCOM the authority to negotiate and conclude CMAAs.

(2) **Implementation.** The CMAA itself normally sets forth the terms, conditions, and procedures to be followed by the United States and the allied country or NATO subsidiary body involved. Title 10, USC, Section 2350c, however, limits the type of military airlift capacity that may be used to provide transportation during peacetime. Operational, financial, and other detailed procedures may be included in a technical annex or appendix to the CMAA. No additional agreements are required.

(3) **Financial Requirements.** Title 10, USC, Section 2350c, states that the rate of reimbursement for transportation shall be the same for each party and not less than the rate charged to military forces of the United States. Credits and liabilities may be liquidated as agreed upon between the parties, either by in-kind transportation services or by direct payment. The liquidation occurs on a regular basis but not less often than once every 12 months. CMAAs are not used by allied countries to transport defense articles purchased under the AECA at less than the full rate of reimbursement that is equal to the cost of transportation.

d. AECA

(1) General Description

(a) The AECA of 1976 (Title 22, USC, Sections 2751–2756, 2761–2767, 2769, 2770, 2770a–2781, 2785, 2791–2795b, 2796–2796d, 2797–2797c, 2798, 2799–2799d, 2799aa, 2799aa-1, and 2799aa-2) was developed primarily to manage and regulate the sales of major weapons systems and associated support and training to foreign countries or international organizations, but it can be and has been used as the authority for transfers of logistics. Among other things, the AECA provides authority for the following:

1. Sale of defense articles or services from existing DoD stocks.
2. Sale of defense articles or services from new procurement managed by DoD.
3. Sale of DoD design or construction services.
4. Collectively, these government-to-government sales of defense articles or services are known as FMS. **The AECA imposes restrictions on the type of articles and services that can be transferred** and contains specific provisions regarding purchaser eligibility, third-country retransfers, congressional notification/certification, and reporting. However, most of these restrictions apply to sales of high-cost, high-technology weapons systems; few apply to FMS made in support of US MNL obligations.

(b) **Implementation.** All sales under the AECA are documented in formal government-to-government agreements, known as letters of offer and acceptance. Letters of offer and acceptance are generally initiated, negotiated, and implemented by the materiel and logistic commands of the Military Departments and reviewed and approved by Defense Security Cooperation Agency; the CCMDs (and their components) have little formal role in these processes. The negotiation of letters of offer and acceptance required to fulfill US MNL responsibilities can be time-consuming, particularly when many nations expect to receive support through FMS at the same time. In some cases, this process may take 60 to 90 days.

(2) **Financial Requirements.** The AECA requires advance payment in US dollars for all FMS transactions. For US and multinational commanders, this requirement means US logistics authorized in an FMS case cannot be provided until the recipient provides and processes adequate funding to the USG. The advance payment requirement means no appropriated DoD funds are involved in the transfer of support under the AECA. Thus, such transfers would not be affected by any DoD authorization or appropriation act provisions regulating logistic transfers involving the use of appropriated funds, such as those under the ACSA.

5. Foreign Assistance Act

a. **General Description.** The Foreign Assistance Act of 1961 (Title 22, USC, Sections 2151–2431k) contains a broad range of authorities to provide financial aid or sell/transfer free of charge military goods or services to foreign countries or international organizations. Although less important for MNL operations than the ACSA and AECA, two provisions of the Foreign Assistance Act are important: Section 506 (Title 22, USC, Section 2318) drawdowns and Section 607 (Title 22, USC, Section 2357) reimbursable sales. Section 506(a)(1) (Title 22, USC, Section 2318) provides authority to the President on determining that an unforeseen emergency requiring immediate military assistance to a country or international organization exists and which cannot be met under the authority of the AECA or any other law, to direct the drawdown of existing DoD articles and services for transfer to a foreign country or international organization. The value of DoD articles and services provided under this authority is limited in the drawdown determination, and

the drawdown equipment or supplies come from existing stocks; no new procurement is authorized. Additionally, Section 506 authorizes drawdowns from DoD inventory or resources specifically for support of counterdrug, disaster relief, nonproliferation, and migrant and refugee assistance. The second authority, Section 607 of the Foreign Assistance Act, allows any USG department (including DoD) to provide commodities and services to friendly foreign nations or international organizations, among others, on an advance-of-funds or reimbursable basis. The agency providing support under Section 607 may also contract with nongovernmental personnel to assist in providing that support.

b. **Implementation.** Section 506 drawdowns and Section 607 advance-of-funds and reimbursable sales are issued by a presidential determination. However, support under Section 607 is usually also provided under an agreement (known as a Section 607 agreement) negotiated between the intended foreign recipient of logistics and the Department of State. The agreement defines the general terms and conditions for any USG support for an individual country or specific United Nations mission. A signed Section 607 agreement expresses the Department of State's policy approval for providing US support to a country or United Nations mission but does not commit DoD to honor every United Nations support request. It does, however, eliminate the requirement for Department of State review of individual support requests. Within DoD, any Section 607 support that is to be managed through security assistance channels (generally equipment leases and repair parts provided by Service materiel commands, such as Army Materiel Command or Air Force Materiel Command) is implemented through a letter of offer and acceptance.

c. **Financial Requirements.** Section 506 does not require reimbursement for the provided equipment, supplies, or services, but it does require DoD to closely monitor the value of stocks and training drawdown to ensure that the annual cap is not exceeded. The act authorizes supplemental appropriations to reimburse the providing DoD component for drawdowns, but such appropriations require separate congressional action. By contrast, Section 607 requires the foreign country or international organization to pay for US support but imposes no specific deadline for reimbursement. If reimbursement is not completed within 180 days after the close of the fiscal year in which such services and commodities are delivered, then payment of interest is required at the current rate established pursuant to Title 12, USC, Section 635. Repayment of such principal and interest cannot exceed a period of three years from the date of signing of the agreement to provide the service: funds available for this paragraph in any fiscal year cannot exceed \$1,000,000 of the total funds authorized for use in such fiscal year and are available only to the extent provided in appropriation acts. Interest accrues as of the date of disbursement to the agency or organization providing such services.

6. Federal Property and Administrative Services Act

a. **General Description.** The Federal Property and Administrative Services Act, contained in Subtitle I of Title 40, USC, Sections 701-705, permits any USG department or agency, including DoD, to transfer foreign excess property to foreign countries for foreign currency, substantial benefits, or the discharge of claims. Within DoD, per Title 40, USC, Section 102, foreign excess property is defined as any DoD property, excluding

DoD records and major naval vessels, defined as aircraft carriers, cruisers, destroyers, or submarines) that is both not required for discharge of DoD responsibilities and not located in the United States. Property that may be transferred under this authority includes such logistic items as accommodations, construction material, food, and medical equipment that are both excess to DoD requirements and costly to remove from a foreign country. This process should be included in the logistics planning and coordination of any contingency operation and include supply accountability process and legal review prior to action being taken.

b. **Implementation.** Transfers of logistic items under the Federal Property and Administrative Services Act are approved by Assistant Secretary of Defense for Sustainment in accordance with procedures outlined in DoDM [Department of Defense Manual] 4160.21, Volume 2, *Defense Materiel Disposition: Property Disposal and Reclamation*. Among other things, the foreign excess property transfer request to the Assistant Secretary of Defense for Sustainment identifies items to be transferred, the fair market value of the items, the tangible nonmonetary benefits, and other substantial benefits to be received by the USG in exchange for the foreign excess property. All foreign excess property transfer requests require legal verification and coordination through the applicable CCDRs.

c. **Financial Requirements.** The Federal Property and Administrative Services Act and the implementing DoD regulations allow the Military Departments and DLA a broad degree of latitude in determining the financial terms of the transfer. DoD requires that transfers of foreign excess property for substantial benefits must be in the overall interests of the United States and be tangible and appreciable in relation to the value of the property being transferred.

7. Transportation Preference Laws

a. Title 49, USC, Section 41106, and Fly America Act (Title 49, USC, Section 40118) require DoD to use air carriers that are members of the Civil Reserve Air Fleet to meet DoD's air transportation needs when such carriers are available. These laws apply even if a foreign carrier is available, more convenient, or less expensive than a US carrier.

b. The Cargo Preference Act of 1904 (Title 10, USC, Section 2631) requires supplies bought for or owned by DoD entities be transported on US-flag vessels when available and the cost is not excessive or otherwise unreasonable.

c. Transportation preference laws may impact a commander's ability to transport DoD goods and DoD personnel on foreign air carriers and foreign flag vessels, even if such transportation is provided by an ally as reimbursement for other LSSS received from the United States under an ACSA transaction. Operational commanders should consult their staff judge advocate or other legal counsel to determine whether the transportation preference laws apply in a particular situation.

For more information, see JP 3-16, Multinational Operations.

APPENDIX F REFERENCES

The development of JP 4-0, *Joint Logistics*, is based upon the following primary references:

1. General

- a. Title 10, USC.
- b. Title 14, USC.
- c. Title 22, USC.
- d. Title 32, USC.
- e. *2022 National Security Strategy*.
- f. *(U) National Military Strategy of the United States of America, 2018*.
- g. *National Strategy for Homeland Security*.
- h. *National Response Framework*.
- i. *Defense Strategy Review*.
- j. *Unified Command Plan*.

2. Department of Defense Publications

- a. DoDD 1300.22, *Mortuary Affairs Policy*.
- b. DoDD 2010.09, *Acquisition and Cross-Servicing Agreements*.
- c. DoDD 2310.01E, *DoD Detainee Program*.
- d. DoDD 3000.06, *Combat Support Agencies (CSAs)*.
- e. DoDD 3000.10, *Contingency Basing Outside the United States*.
- f. DoDD 3000.16, *Vendor Threat Mitigation*.
- g. DoDD 3025.18, *Defense Support of Civil Authorities (DSCA)*.
- h. DoDD 3235.02E, *DoD Combat Feeding Research and Engineering Program*.
- i. DoDD 4151.18, *Maintenance of Military Materiel*.
- j. DoDD 4180.01, *DoD Energy Policy*.

- k. DoDD 4270.05, *Military Construction*.
- l. DoDD 4500.09, *Transportation and Traffic Management*.
- m. DoDD 4705.01E, *Management of Land-Based Water Resources in Support of Contingency Operations*.
- n. DoDD 4715.21, *Climate Change Adaptation and Resilience*.
- o. DoDD 5100.01, *Functions of the Department of Defense and Its Major Components*.
- p. DoDD 5101.1, *DoD Executive Agent*.
- q. DoDD 5101.08E, *DoD Executive Agent (DoD EA) for Bulk Petroleum*.
- r. DoDD 5101.09E, *Class VIIIA Medical Materiel Supply Management*.
- s. DoDD 5101.10E, *DoD Executive Agent (EA) for Subsistence*.
- t. DoDD 5101.11E, *DoD Executive Agent for the Military Postal Service and Official Mail Program*.
- u. DoDD 5101.12E, *DoD Executive Agent (EA) for Construction and Barrier Materiel*.
- v. DoDD 5101.13E, *DoD Executive Agent for the Unexploded Ordnance Center of Excellence (UXOCOE)*.
- w. DoDD 5105.22, *Defense Logistics Agency (DLA)*.
- x. DoDD 5111.01, *Under Secretary of Defense for Policy (USD[P])*.
- y. DoDD 5124.11, *Assistant Secretary of Defense for Readiness (ASD[R])*.
- z. DoDD 5134.12, *Assistant Secretary of Defense for Logistics and Materiel Readiness (ASD[L&MR])*.
- aa. DoDD 5135.02, *Under Secretary of Defense for Acquisition and Sustainment (USD[A&S])*.
- bb. DoDD 5136.13, *Defense Health Agency*.
- cc. DoDD 6055.09E, *Explosives Safety Management (ESM)*.
- dd. DoDD 6200.04, *Force Health Protection (FHP)*.
- ee. DoDD 6400.04E, *DoD Veterinary Public and Animal Health Services*.

- ff. DoDD 6490.02E, *Comprehensive Health Surveillance*.
- gg. DoDD 7730.65, *Department of Defense Readiness Reporting System (DRRS)*.
- hh. DoDD 8190.01E, *Defense Logistics Management Standards (DLMS)*.
- ii. DoDI 1100.22, *Policy and Procedures for Determining Workforce Mix*.
- jj. DoDI 3000.12, *Management of US Global Defense Posture (GDP)*.
- kk. DoDI 3020.41, *Operational Contract Support (OCS)*.
- ll. DoDI 3110.06, *War Reserve Materiel (WRM)*.
- mm. DoDI 3216.01, *Use of Animals in DoD Conducted and Supported Research and Training*.
- nn. DoDI 4140.01, *DoD Supply Chain Materiel Management Policy*.
- oo. DoDI 4140.25, *DoD Management Policy for Energy Commodities and Related Services*.
- pp. DoDI 4140.63, *Management of DoD Clothing and Textiles (Class II)*.
- qq. DoDI 4715.05, *Environmental Compliance at Installations Outside the United States*.
- rr. DoDI 4715.06, *Environmental Compliance in the United States*.
- ss. DoDI 5000.74, *Defense Acquisition of Services*.
- tt. DoDI 5000.93, *Use of Additive Manufacturing in the DoD*.
- uu. DoDI 5154.30, *Armed Forces Medical Examiner System (AFMES) Operations*.
- vv. DoDI 5158.06, *Joint Deployment and Distribution Enterprise (JDDE) Planning and Operations*.
- ww. DoDI 5160.68, *Single Manager for Conventional Ammunition*.
- xx. DoDI 6000.11, *Patient Movement (PM)*.
- yy. DoDI 6200.02, *Application of Food and Drug Administration (FDA) Rules to Department of Defense Force Health Protection Programs*.
- zz. DoDI 6205.02, *DoD Immunization Program*.
- aaa. DoDI 6430.02, *Defense Medical Logistics Program*.

bbb. DoDI 6480.04, *Armed Services Blood Program*.

ccc. DoDI 6490.03, *Deployment Health*.

ddd. DoDI 7650.02, *Engaging with the Government Accountability Office (GAO) on GAO Audits*.

eee. DoDI 7650.03, *Follow-up on Inspector General of the Department of Defense (IG DoD) and Internal Audit Reports*.

fff. DoDI 7730.66, *Guidance for the Defense Readiness Reporting System (DRRS)*.

ggg. DoDM 1338.10, *DoD Food Service Program*.

hhh. DoDM 4140.01, *DoD Supply Chain Materiel Management Procedures, Volumes 1-12*.

iii. DoDM 4160.21, Volume 2, *Defense Materiel Disposition: Property Disposal and Reclamation*.

jjj. *Department of Defense Foreign Clearance Guide*.

3. Chairman of the Joint Chiefs of Staff Publications

a. CJCSI 2120.01D, *Acquisition and Cross-Servicing Agreements*.

b. CJCSI 3100.01E, *Joint Strategic Planning System*.

c. CJCSI 3110.01K, *(U) 2018 Joint Strategic Campaign Plan (JSCP)*.

d. CJCSI 3110.03F, *(U) Logistics Supplement for the 2018 Joint Strategic Campaign Plan (JSCP)*.

e. CJCSI 3110.06D, *(U) Special Operations Supplement to the Joint Strategic Capabilities Plan FY 2010*.

f. CJCSI 3150.25H, *Joint Lessons Learned Program*.

g. CJCSI 3401.01E, *Joint Combat Capability Assessment*.

h. CJCSI 4360.01, *Explosives Safety and Munitions Risk Management (ESMRM) for Joint Operations Planning, Training, and Execution*.

i. CJCSI 5123.01I, *Charter of the Joint Requirements Oversight Council (JROC) and Implementation of the Joint Capabilities Integration and Development System (JCIDS)*.

j. CJCSI 6723.01B, *Global Combat Support Family of Systems Requirements Management and Governance Structure*.

- k. CJCSM 3105.01A, *Joint Risk Analysis Methodology*.
- l. CJCSM 3122.01A, *Joint Operation Planning and Execution System (JOPES), Volume I, Planning Policies and Procedures*.
- m. CJCSM 3122.02F, *Joint Operation Planning and Execution System (JOPES), Volume III, Time-Phased Force and Deployment Data Development and Deployment Execution*.
- n. CJCSM 3130.03A, *Planning and Execution Formats and Guidance*.
- o. CJCSM 3150.05E, *Joint Reporting System Situation Monitoring Manual*.
- p. CJCSM 3150.14C, *Joint Reporting Structure—Logistics*.
- q. CJCSM 3150.25B, *Joint Lessons Learned Program*.
- r. CJCSM 3170.01, *Operation of the Joint Capabilities Integration and Development System*.
- s. JP 1, Volume 1, *Joint Warfighting*.
- t. JP 1, Volume 2, *The Joint Force*.
- u. JP 1-0, *Joint Personnel Support*.
- v. JP 2-0, *Joint Intelligence*.
- w. JP 3-0, *Joint Campaigns and Operations*.
- x. JP 3-05, *Joint Doctrine for Special Operations*.
- y. JP 3-08, *Interorganizational Cooperation*.
- z. JP 3-10, *Joint Security Operations in Theater*.
- aa. JP 3-11, *Operations in Chemical, Biological, Radiological, and Nuclear Environments*.
- bb. JP 3-12, *Joint Cyberspace Operations*.
- cc. JP 3-14, *Joint Space Operations*.
- dd. JP 3-15, *Barriers, Obstacles, and Mines in Joint Operations*.
- ee. JP 3-25, *Joint Countering Threat Networks*.
- ff. JP 3-28, *Defense Support of Civil Authorities*.

- gg. JP 3-29, *Foreign Humanitarian Assistance*.
- hh. JP 3-33, *Joint Force Headquarters*.
- ii. JP 3-34, *Joint Engineer Operations*.
- jj. JP 3-35, *Joint Deployment and Redeployment Operations*.
- kk. JP 3-57, *Civil-Military Operations*.
- ll. JP 4-01, *The Defense Transportation System*.
- mm. JP 4-02, *Joint Health Services*.
- nn. JP 4-03, *Joint Bulk Petroleum and Water Doctrine*.
- oo. JP 4-04, *Contingency Basing*.
- pp. JP 4-05, *Joint Mobilization Planning*.
- qq. JP 4-09, *Distribution Operations*.
- rr. JP 4-10, *Operational Contract Support*.
- ss. JP 4-18, *Joint Terminal and Joint Logistics Over-the-Shore Operations*.
- tt. JP 5-0, *Joint Planning*.
- uu. JP 6-0, *Joint Communications System*.

APPENDIX G ADMINISTRATIVE INSTRUCTIONS

1. User Comments

Users in the field are highly encouraged to submit comments on this publication using the Joint Doctrine Feedback Form located at: https://jdeis.js.mil/jdeis/jel/jp_feedback_form.pdf and e-mail it to: js.pentagon.j7.mbx.jedd-support@mail.mil. These comments should address content (accuracy, usefulness, consistency, and organization), writing, and appearance.

2. Authorship

a. The Director of Logistics (J-4) is the lead agent and Joint Staff doctrine sponsor for this publication.

b. The following staff, in conjunction with the joint doctrine development community, made a valuable contribution to the revision of this joint publication: Lead Agent and Joint Staff Doctrine Sponsor, COL Donald Santillo and Lt Col Patrick Carpizo; and Lt Col Kevin Eley and LTC Travis Hacker, Joint Staff J-7, Joint Doctrine Branch.

3. Supersession

This publication supersedes JP 4-0, *Joint Logistics*, 4 February 2019.

4. Change Recommendations

a. To provide recommendations for urgent and/or routine changes to this publication, please complete the Joint Doctrine Feedback Form located at: https://jdeis.js.mil/jdeis/jel/jp_feedback_form.pdf and e-mail it to: js.pentagon.j7.mbx.jedd-support@mail.mil.

b. When a Joint Staff directorate submits a proposal to the CJCS that would change source document information reflected in this publication, that directorate will include a proposed change to this publication as an enclosure to its proposal. The Services and other organizations are requested to notify the Joint Staff J-7 when changes to source documents reflected in this publication are initiated.

5. Lessons Learned

The Joint Lessons Learned Program (JLLP) primary objective is to enhance joint force readiness and effectiveness by contributing to improvements in doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy. JLLIS is the DoD system of record for lessons learned and facilitates the collection, tracking, management, sharing, collaborative resolution, and dissemination of lessons learned to improve the development and readiness of the joint force. The JLLP integrates with joint doctrine through the joint doctrine development process by providing lessons and lessons

learned derived from operations, events, and exercises. As these inputs are incorporated into joint doctrine, they become institutionalized for future use, a major goal of the JLLP. Lessons and lessons learned are routinely sought and incorporated into draft JPs throughout formal staffing of the development process. The JLLIS Website can be found at <https://www.jllis.mil> (NIPRNET) or <http://www.jllis.smil.mil> (SIPRNET).

6. Releasability

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GLOSSARY
PART I—SHORTENED WORD FORMS
(ABBREVIATIONS, ACRONYMS, AND INITIALISMS)

ACSA	acquisition and cross-servicing agreement
AECA	Arms Export Control Act
AOR	area of responsibility
ASBP	Armed Services Blood Program
BOS	base operating support
BOS-I	base operating support-integrator
BPLAN	base plan
C2	command and control
CCAS	contingency contract administration services
CCDR	combatant commander
CCMD	combatant command
CCP	combatant command campaign plan
CDRUSSOCOM	Commander, United States Special Operations Command
CDRUSTRANSCOM	Commander, United States Transportation Command
CJCS	Chairman of the Joint Chiefs of Staff
CJCSI	Chairman of the Joint Chiefs of Staff instruction
CJCSM	Chairman of the Joint Chiefs of Staff manual
CLS	contractor logistics support
CMAA	cooperative military airlift agreement
COA	course of action
COLS	concept of logistics support
CONOPS	concept of operations
CONPLAN	concept plan
CONUS	continental United States
COP	common operational picture
CSA	combat support agency
CSS	combat service support
CUL	common-user logistics
DAFL	directive authority for logistics
DCMA	Defense Contract Management Agency
DDOC	Deployment and Distribution Operations Center (USTRANSCOM)
DHA	Defense Health Agency
DLA	Defense Logistics Agency
DoD	Department of Defense
DoDD	Department of Defense directive
DoDI	Department of Defense instruction
DTS	Defense Transportation System

EA	executive agent
EHCC	explosive hazards coordination cell
ESC	expeditionary sustainment command
FHP	force health protection
FMS	foreign military sales
HN	host nation
HNS	host-nation support
HSS	health service support
ICS	interim contractor support
J-4	logistics directorate of a joint staff
JCMEB	joint civil-military engineering board
JCSB	joint contracting support board
JDDE	joint deployment and distribution enterprise
JDDOC	joint deployment and distribution operations center
JEMB	joint environmental management board
JFC	joint force commander
JFP	joint force provider
JFUB	joint facilities utilization board
JLB	joint logistics board
JLEnt	joint logistics enterprise
JLOC	joint logistics operations center
JMAO	joint mortuary affairs office
JMC	joint movement center
JOA	joint operations area
JP	joint publication
JPEC	joint planning and execution community
JPO	joint petroleum office
JRRB	joint requirements review board
JRSOI	joint reception, staging, onward movement, and integration
JTF	joint task force
JTF-PO	joint task force-port opening
LOC	line of communications
LOGCOP	logistics common operational picture
LSA	logistics supportability analysis
LSC	lead Service for contracting
LSCC	lead Service for contracting coordination
LSSS	logistics support, supplies, and services
MA	mortuary affairs
MACP	mortuary affairs collection point
MNF	multinational force

MNFC	multinational force commander
MNL	multinational logistics
NATO	North Atlantic Treaty Organization
NGO	nongovernmental organization
NSL	nonstandard logistics
OA	operational area
OCONUS	outside the continental United States
OCS	operational contract support
OCSIC	operational contract support integration cell
OE	operational environment
OPCON	operational control
OPLAN	operation plan
OPORD	operation order
PE	personal effects
PM	patient movement
PN	partner nation
PSA	principal staff assistant
SAPO	subarea petroleum office
SecDef	Secretary of Defense
SOF	special operations forces
TCSG	United States Transportation Command, Office of the Command Surgeon
TDP	theater distribution plan
TLA	theater logistics analysis
TLO	theater logistics overview
TMAO	theater mortuary affairs office
TPFDD	time-phased force and deployment data
TPMRC	United States Transportation Command patient movement requirements center
TSC	theater sustainment command (USA)
TSOC	theater special operations command
US	United States
USC	United States Code
USCG	United States Coast Guard
USD(A&S)	Under Secretary of Defense for Acquisition and Sustainment
USD(P)	Under Secretary of Defense for Policy
USG	United States Government
USSOCOM	United States Special Operations Command
USTRANSCOM	United States Transportation Command

PART II—TERMS AND DEFINITIONS

1. Joint Publication 4-0, *Joint Logistics*, 20 July 2023, Active Terms and Definitions

base operating support. Directly assisting, maintaining, supplying, and distributing support of forces at the operating location. Also called **BOS**. (DoD Dictionary. Source: JP 4-0)

base operating support-integrator. The designated Service component or joint force commander assigned to synchronize all sustainment functions for a contingency base. Also called **BOS-I**. (Approved for incorporation into the DoD Dictionary.)

combat service support. The essential capabilities, functions, activities, and tasks necessary to sustain operating forces in theater at all levels of warfare. Also called **CSS**. (Approved for incorporation into the DoD Dictionary.)

common-user item. An item of an interchangeable nature that is in common use by two or more nations or Services of a nation. (DoD Dictionary. Source: JP 4-0)

contaminated human remains. Remains of personnel that have absorbed or have on them radioactive material, or biological or chemical agents. (Approved for incorporation into the DoD Dictionary.)

cross-leveling. At the theater strategic and operational levels, the process of diverting en route or in-theater materiel from one military element to meet the higher priority of another. (Approved for incorporation into the DoD Dictionary.)

dominant user. The principal consumer of a particular common-user logistics supply or service within a joint or multinational operation and who normally act as the lead Service to provide this particular common-user logistics supply or service. (Approved for incorporation into the DoD Dictionary.)

equipment. In logistics, all nonexpendable items needed to outfit or equip an individual or organization. (DoD Dictionary. Source: JP 4-0)

Global Combat Support System-Joint. The primary information technology application used to provide automation support to the joint logistician. Also called **GCSS-J**. (DoD Dictionary. Source: JP 4-0)

joint deployment and distribution enterprise. The activities, equipment, and organizations necessary to conduct joint distribution operations. Also called **JDDE**. (Approved for incorporation into the DoD Dictionary.)

joint logistics enterprise. A multitiered matrix of key global logistics providers structured to achieve unity of effort during joint missions. Also called **JLEnt**. (Approved for incorporation into the DoD Dictionary.)

joint mortuary affairs office. Plans and executes all mortuary affairs programs within a theater. Also called **JMAO**. (DoD Dictionary. Source: JP 4-0)

lead Service or agency for common-user logistics. A Service component or Department of Defense agency that is responsible for execution of common-user item and service support in a specific combatant command or multinational operation as defined in the combatant or subordinate joint force commander's operation plan, operation order, and/or directives. (Approved for incorporation into the DoD Dictionary.)

logistics. Planning and executing the movement and support of forces. (DoD Dictionary. Source: JP 4-0)

logistics supportability analysis. Combatant command internal assessment for the Joint Strategic Campaign Plan on key logistic capabilities required and validated national stock number level logistics requirements to execute and sustain the concept of support based on time phased force deployment data. Also called **LSA**. (Approved for incorporation into the DoD Dictionary.)

materiel. All items necessary to equip, operate, maintain, and support military activities without distinction as to its application for administrative or combat purposes. (DoD Dictionary. Source: JP 4-0)

mortuary affairs. Provides for the search, recovery, identification, preparation, and disposition of human remains of persons for whom the Services are responsible. Also called **MA**. (Approved for incorporation into the DoD Dictionary.)

operational energy. The energy required for training, moving, and sustaining military forces and weapons platforms for military operations. (DoD Dictionary. Source: JP 4-0)

personal effects. All privately owned moveable, personal property of an individual. Also called **PE**. (DoD Dictionary. Source: JP 4-0)

personal property. Property of any kind or any interest therein, except real property; military-issued equipment/gear; records of the United States Government; and naval vessels of the following categories: aircraft carriers, surface combatants, and submarines. (DoD Dictionary. Source: JP 4-0)

process owner. The head of a Department of Defense component assigned a responsibility by the Secretary of Defense when process improvement involves more than one Service or Department of Defense component. (DoD Dictionary. Source: JP 4-0)

reset. A set of actions to restore equipment to a desired level of combat capability commensurate with a unit's future mission. (DoD Dictionary. Source: JP 4-0)

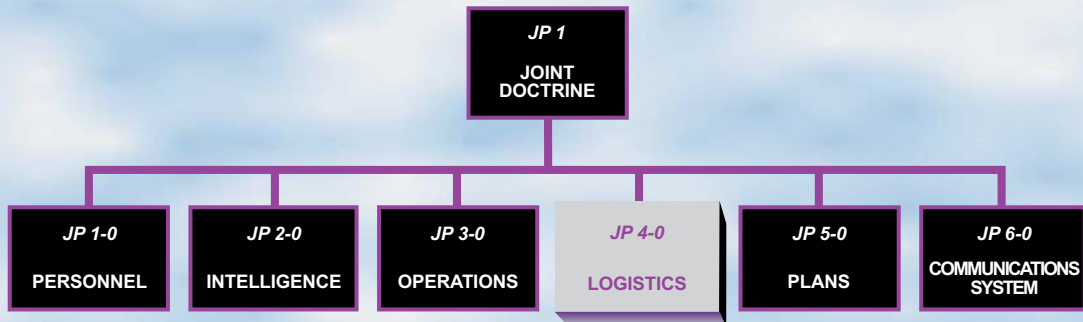
supplies. In logistics, all materiel and items used in the equipping, support, and maintenance of military forces. (Approved for incorporation into the DoD Dictionary.)

supply. The procurement, distribution, maintenance while in storage, and salvage of supplies, including the determination of kind and quantity of supplies. (Approved for incorporation into the DoD Dictionary.)

2. Terms Removed from the DoD Dictionary

- **Supersession of JP 4-0, *Joint Logistics*, 4 February 2019:** base; combat support; concept of logistics support; decedent effects; depot; distribution; host-nation support; hygiene services; inter-Service support; joint logistics; maintenance; person authorized to direct disposition of human remains; port of debarkation; pre-position; salvage; temporary interment

JOINT DOCTRINE PUBLICATIONS HIERARCHY



All joint publications are organized into a comprehensive hierarchy as shown in the chart above. **Joint Publication (JP) 4-0** is in the **Logistics** series of joint doctrine publications. The diagram below illustrates an overview of the development process:

