

# Research on Logistics Support Issues of US Joint Operations

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## ABSTRACT

As the world's largest military power, the U.S. military has always maintained a leading position in the field of joint combat logistics support. It has put forward a series of new concepts and models of logistics support. This paper summarizes the successful practices and useful experience of the joint operation logistics support of the US Army through the research of the joint operation logistics support of the US Army, which is of great significance for the gradual improvement of the joint operation logistics support system with the characteristics of our army and the construction of a strong modern joint service support force.

**Keywords:** *joint operations, logistics support*

## 1. Construction and Development of US Army Joint Operations Logistics Support

### 1.1 The connotation of the US military joint operations

Since the establishment of the US Army, Navy, and Air Forces, its operational decision-making and command have been self-contained, and the views and interests of the armed forces have been fierce. In the war of aggression, the US aircraft that bombed Vietnam had to take orders simultaneously. Commanded by four independent headquarters, coordinated operations between services are very difficult. In the mid-1980s, the US military began to implement a series of major reforms and innovations in the troop establishment system while implementing and practicing the theory of joint operations.

In August 2011, the United States Senate issued a new version of the joint operations program[1]. The doctrine and the US armed forces program, also known as the two "top-level" publications of the US Joint doctrine, are programmatic documents of the US joint operations. They provide basic principles and comprehensive doctrine guidance for the commander of the US joint forces and their subordinates in planning, preparing, implementing and evaluating joint military operations.

The US military doctrine states that "joint operations are a collective term for military operations carried out by joint forces or units of various service forces operating in accordance with command relationships." [1] The term joint operations refers to the integrated operations jointly conducted by the United States armed forces and unified. The meaning of operations is more broad. "Joint operations refer to the unified military activities of two or more

services of the US Army-Army, Navy, Air Force, and Marine Corps." [1] The long-term joint operations of the US military are mainly based on its frequent operations. It is determined by the operation outside the homeland, because any service can not complete all the US combat missions overseas. The connotation of the United States military joint operations is mainly "joint" rather than "combat". The key to joint is coordination and command system issues.

### 1.2 Construction of the US Army Joint Operations Logistics System

#### 1.2.1 Responsibilities and requirements of US military joint logistics support

The combatant commander exercises operational command (with command authority) over his unit. The combatant command includes command over logistics, which gives the combatant commander the unique ability to mobilize logistic resources within the theater. For forces designated by the Secretary of Defense, the combatant command gives the guaranteed or subsequently supported combatant commander the statutory authority to direct all aspects of the logistics necessary to complete the task, usually through the joint force commander. And the commander of a subordinate service.

The exercise of power by a combatant commander does not reduce the responsibility of each service to provide support for its own forces. When the power of a combatant commander is generally limited to the theater, logistical support outside the theater is usually. Responsibilities of the service. In wartime, when circumstances require, the combatant commander can direct the deployment of equipment or equipment between the subordinate services.

This deployment is usually to be paid, but the payment process should not be delayed. The assigned command of the combatant commander emphasizes the need for accurate and well-coordinated pre-planning work among the supported command, the various services, support agencies, and the Allies.

### *1.2.2 Logistical characteristics of multinational joint operations*

The US Combatant Commander must not participate in multinational relations that are inconsistent with US policies without instructions from the national command authority. US participation in future multinational operations will include missions, leadership, command and control, mutual support, contracts, and funding arrangements. A big difference.

The issues of national sovereignty inherent in the partner countries involved in multinational operations will complicate the arrangements for command and control in the logistics support area. Command and control arrangements must be made and clearly defined in the combat and support plan. During any multinational operation Successful logistics support will be characterized by good planning, coordination, communication, and cooperation. The existing joint relationship between the services and allies will become the entry point for the United States to expand multinational logistics support relationships. In terms of regional alliances, existing Policies and practices will guide US participation. Even a long-established alliance such as NATO cannot guarantee that formal combat command and control relationships are clearly defined or accepted by all member states. In multinational operations, the commander must Recognize command, control, communications, computer and intelligence security issues that may hinder the integration of logistics with the Allies or Allies.

Providing or arranging the logistical support of national forces in multinational operations is the responsibility of each participating country. However, many countries do not have the capacity to adequately support their deployment forces with logistic assets. To assist such countries and save power and increase efficiency for the entire army, There are several options in terms of safeguards, including the signing of a cross-guarantee agreement, the identification of countries and leading countries that undertake special tasks, and the joint operation of the resources of all parties. The establishment of a general logistics support coordinator at the planning stage will help to make Such a logistic arrangement. In the absence of a corresponding agreement, the combatant commander has no right to provide or accept logistical support to the coalition or allied forces. The commander of the combatant command has the responsibility to actively seek approval from higher authorities, negotiate and conclude with the cooperation of the State Council Appropriate international safeguards agreements. There may be obstacles that hinder or prevent the provision of

safeguards to or obtain support from the Allies, and the combatant commander shall notify the Chairman of the Joint Chiefs of Staff about the mutual safeguards that can be implemented to the extent permitted by such barriers, And propose alternatives to provide the necessary guarantees.

### *1.2.3 United States Army Joint Operations Logistics Support System*

The logistical support system of the US military combined with its military system is integral and inseparable, which better reflects and adapts to the characteristics of the US military's establishment, use of troops, and support. Before the Second World War, the Army and the Navy had their own policies and provided their own support. In the procurement process, mutual competition and price hikes have occurred. The US military has seized the "Service Responsibility Responsibility System" support system designated by the Army to control the entire army supply and the Navy to control the entire army's fuel. In 1947, after the establishment of the Air Force Department, a three-arms self-contained system was established, and a small number of general supplies implemented a "service responsibility system" guarantee system.

The joint logistics support system at headquarters and some services. In 1961, the US Army established the Joint Logistics Agency directly under the leadership of the Ministry of National Defense, independent of the various military services, the National Defense Supply Agency (the predecessor of the National Defense Logistics Agency), which oversees general military supplies and common services. The project sounded the reform horn of the headquarters. Since then, the US Army has successively established the Defense Contract Audit Bureau, the Transportation Command, the Defense Commodity Bureau, the Defense Finance and Accounting Bureau, the Defense Contract Management Bureau, and the Defense Health Bureau. In general, the US military is currently seizing a zoned joint logistics support model combining headquarters logistics and service logistics. At the headquarters level, the logistics agency directly under the Ministry of Defense is responsible for implementing professional service support and guarantee for the theater, and the transportation commander. The Ministry is responsible for the unified organization of the strategic transportation of the three forces of the Army, Navy, and Air, and the logistics of each service is responsible for the dedicated support support of the service. The Theater Command Logistics Department is only an organizational planning link, not a support link, and there is no direct support and support force. The command is responsible for directing the use of the service forces and their logistical forces, and for communication and coordination with the service units. The logistics service support model of the military service is relatively flexible, and there are four main types: First, the Ministry of Defense designates a certain service to be responsible for some general service

support, such as general ammunition, veterinary service, and land. The water supply is supported by the Army. The second is the inter-service agreement method. Joint support is implemented in certain specific support areas or in special regions. For example, when different service units are stationed at the same base, a service unit is responsible for all units in the base. Third, in the theater, a logistics service unit designated by the theater commander in the theater assumes the task of joint logistics support in the theater, and the two establish a task-based command and control relationship. The fourth is the joint force logistics support. It is a special service joint logistics model. According to different combat tasks, commanders can draw troops from various services to form a joint task force, and organize the logistics services of different services to jointly implement logistics support.

## **2. MAIN CONTENTS AND CONSTRUCTION EXPERIENCE OF US MILITARY JOINT OPERATIONS LOGISTICS**

### ***2.1 Main contents of logistical support for US military joint operations***

#### ***2.1.1 Joint operations logistics command system***

In the joint operation of multiple forces and arms, the battle command is unified, so is the logistics command. For example, in the Gulf War, in order to be consistent with the joint operational command, the US military implemented centralized and unified command for logistics joint support. At the headquarters level, the logistics command of the US military is responsible for the Logistics Planning Division, Logistics Resources Division, and Strategic Mobility Division are under the unified responsibility for the mobilization of reserve logistics forces, the procurement of urgently needed equipment and supplies, and the strategic transportation forces. At the theater level, a centralized and unified logistics command mechanism has been established, with the Central Headquarters Logistics Department headed by Major General Pagonis, the chief logistics officer of the US Central Headquarters, responsible for commanding and coordinating the logistical work of the various services and arms of the theater. Each army and branch has its own logistics command organization, which is responsible for its own logistics work. The theater Army Logistics Command consists of several functional departments and three military logistics support departments, forming the Regional Logistics Department of the US theater army. The logistics support departments of the three armies provide logistics support to their respective subordinate units. The logistic support department of each division shall be responsible for the logistic support of each division, and the logistic units of each division shall be responsible for the specific implementation. This

centralized and unified logistics system facilitates joint support, prevents multiple orders from going out, is conducive to the unified planning, deployment and use of logistics forces, and provides reliable logistics support for the implementation of air-ground integrated operations and joint operations of multiple forces and arms.

#### ***2.1.2 Material security***

During the Iraq war, the US military's naval material support was organized and implemented by a support force consisting of comprehensive supply ships, support ships, etc. The air force tasked with air strikes mainly implemented ammunition from ships deployed on the Persian Gulf, the Red Sea and the Mediterranean Sea. Fuel and other supplies were supplied, and some aircraft were supplied from European and Gulf bases. The US forces operating on the ground mainly replenished all kinds of supplies from bases in Kuwait, Bahrain, Qatar and other countries. In this battle, the US military logistics supported a total of 800 More than 10,000 tons of equipment and materials.

#### ***2.1.3 Transportation guarantee***

Establishing and maintaining a large and advanced strategic transportation force is a key measure for the US military to maintain uninterrupted support for various battlefields. During World War II, the US military logistics needed to use its home base as a rear base against multiple battlefields in Europe, the Pacific, China, India, and Myanmar. The troops on the ground must implement safeguards, and in addition, they must deliver logistics assistance to allies in accordance with the lease law. In order to complete the above-mentioned arduous task, the US Army has established a large-scale three-dimensional transportation network covering the land, sea, and air transport forces, and organized the implementation The largest wartime transport in history [2].

#### ***2.1.4 Health support***

During the Gulf War, in order to meet the medical rescue needs of the joint operations forces and cope with the possible mass casualties and casualties caused by the use of biochemical agents by the Iraqi Army, the US Army first transferred the 7th Health Command of the European and American Army to Saudi Arabia and was responsible for the entire theater. The organization and command of health service support established a mobile medical system consisting of field hospitals, hospital ships, fleet hospitals, and air hospitals, forming a step configuration and joint support health service system. The Navy deployed the Fifth Fleet Hospital of land-based mobile hospital to Saudi Arabia, and designated a hospital ship for emergency treatment, which was specially used to receive the

wounded and sick from the front line; the Air Force has established a corresponding air evacuation system in the Gulf Theater to uniformly receive and evacuate wounded and sick of various services, generally Evacuate the wounded to air mobile hospitals, or directly to European and US mainland hospitals; the US Army is responsible for the management of the health services of the three armed forces. Functions.

### *2.1.5 Funding guarantee*

"Economic power is the material basis for conducting war" [3], the strong economic strength of the United States and the correct wartime economic policy, it is the US military in Europe at the same time A solid foundation for logistics support activities with the two major battlefields in the Pacific. During World War II, the United States invested more than 16 million troops and a large number of new weapons and equipment, and continued to fight on multiple battlefields for years. The war consumption was unprecedented. During the Iraq War, US President Bush A total of \$ 74.7 billion in war budgets was presented to Congress, and the Appropriations Committee of the Senate and the House of Representatives quickly passed an interim war funding plan totaling nearly \$ 80 billion, laying a solid financial foundation for combating Iran.

## **2.2 Experience of the United States Army's Joint Operations Logistics System Construction**

### *2.2.1 Theoretical innovation guides the reform of joint operations logistics system*

Military theory and innovation in combat theory are the salient features of the US military revolution, and its doctrine is continuously updated every 3-5 years. In 1991, the US military issued the first joint publication "Joint Operations of the United States Armed Forces" for joint operations. In 1993, the US military formulated the first Army's "Outline of Operations" after the Cold War, which initially proposed related theories of joint operations, determined the joint relationship between the various services and the structure of joint operations in the theater, as well as the specifics of offense and defense. Principles of combat operations. In 1997, the US military formulated the "2010 Joint Operations Concept", which further explored the relevant theories of joint operations, and clarified the four basic principles of US military joint operations: precision strike, full-dimensional defense , Maneuver control, and focused logistics.

In order to adapt to new operational concepts and new equipment, the US military has passed the experience and lessons learned from the high-tech wars in the Gulf, Kosovo, Afghanistan, and Iraq, continuously summarized joint operations logistics support experience, and implemented a series of brand-new changes in logistics

support. The concept of logistics support has formed a logistics support theory featuring precise support, which has been supplemented and improved in practice, and a new joint operational logistics support system and method has been constructed.

### *2.2.2 Taking improving military economic benefits as the basic principle*

The US military believes that under high-tech conditions, whether it is raising or using troops, it is very costly. To this end, in the reform of the logistics system, it will always improve military economic efficiency and maximize the cost-effectiveness ratio of logistics personnel and logistics output. One of the basic principles followed in the reform is the ultimate goal pursued by the reform of the US military's logistics system.

### *2.2.3 Provide powerful support for combat troops with high-tech new-generation logistics equipment*

The US military attaches great importance to the use of high-tech science and technology in logistics equipment. The logistics equipment has passed actual inspection and evaluation. According to the actual use of the battlefield, the battlefield performance of various types of logistics equipment is timely reported to the rear supply command center, and the equipment is used through the center. The situation and improvement opinions were transmitted to the supplier in a timely manner, which provided a powerful guarantee for the combat troops to better complete the combat mission. The contents, quantity, and delivery destination of the goods in the container were recorded on the container loaded with the above equipment and supplies. Radio frequency identification tag for information. A radio frequency identification tag is a small radio wave that can automatically send digital information about the materials in a container to send and identify tags. Depending on this information, you can accurately grasp the container in transit no matter where you move. Where you are now, when you arrive at your destination, and more.

### *2.2.4 Implementing the integration of support to improve the comprehensive support capability of logistics*

The integration of safeguards refers to the integration of the logistics forces of the various services and the army's strategic, campaign, and tactical logistics support elements into a unified organic whole. Based on the scientific and optimized combination, it appropriately and effectively surpasses certain links and levels. The best combination of similar factors to form an all-in-one and all-in-one logistics

support structure to maximize the overall support effectiveness of the logistics system. In order to meet the objective requirements of high-tech local war joint operations and optimize logistics resources, the US military special Focus on building an integrated logistics support system.

### **3. ENLIGHTENMENT TO THE CONSTRUCTION AND REFORM OF OUR ARMY'S LOGISTICS SYSTEM**

#### ***3.1 Carry out theoretical innovations and promote socialization of military logistical support with theoretical breakthroughs***

The socialization of military logistical support is an inevitable choice to comply with the new military transformation and development of the world. It is a major measure for the logistical reform of our military[4]. Our military must rely on social forces for logistics and must realize the socialization of military logistics from "self-support" to "socialization." The transformation of "guaranteeing" is based on the implementation of social security for everything that can rely on social security resources, and a path of integration between the military and civilians with Chinese characteristics has been developed. To this end, the entire army has carried out extensive academic research on the issue of logistical security socialization reform. It has achieved fruitful results and played a certain guiding role in the smooth start of the logistics system reform of our army. However, looking at the existing research results, the overall research level is still relatively low, and it lacks the overall and systematic deepening of deepening reform. Hierarchical research is of little significance for practical work to deepen the reform of the logistics system. The low level and lag of theoretical research restrict the in-depth development of the logistics system reform of our army.

To deepen the socialization reform of the army's logistical support, it is necessary to innovate theoretically around real problems and promote deepening reforms with theoretical breakthroughs. Different departments and institutions should focus on specific theoretical issues arising from the reform process and strengthen strategic theoretical innovation. In terms of the overall situation, the headquarters organization should focus on the basic theoretical issues such as the connotation, extension, development direction, development goals, operation mode, and supporting policies of the deepened reform to provide a scientific basis for the State, the Military Commission, and the headquarters to formulate relevant policies and regulations; Various arms and services must focus on the regional environment and its own characteristics, strengthen the research on the operation mode, organization form, implementation steps and supporting measures of social security, and provide theoretical support for expanding the scope of reform and improving the degree of social security; Proceeding from the actual

situation, strengthen research on specific implementation plans, and enhance the pertinence, operability and effectiveness of implementation plans.

#### ***3.2 Construction of an integrated logistics support system***

That is, strategic, campaign, tactical logistics, and logistics of various arms and services are integrated to the end. General support is closely combined with dedicated support, and regional support is closely connected with organizational support, forming an integrated logistics support system with multidimensional integration, vertical and horizontal integration, and comprehensive integration. The model makes the logistics command system and the combat system fully adapted, and the logistics command system and the logistics support system are fully integrated. It not only achieves strategic, campaign, tactical logistics, and even surpasses the command of individual soldiers, it also realizes the logistics between the various services and arms. The sharing of information resources between vertical and horizontal directions; not only achieves flexibility and efficiency in the use of logistics forces, but also realizes the true integration of the three armed forces, military-civilian compatibility, and the combination of peace and war.

#### ***3.3 Strengthening the construction of logistics support information***

First, we should strive to realize the networking of logistics support. Through the unified interface form, establish the logistics support network including logistics support command organization, maintenance personnel, battle command personnel, logistics warehouse, manufacturer, etc. to improve the efficiency of logistics support. Second, we should strive to realize the informatization of logistics support. Establish a general logistics support information system. It will effectively improve the level of logistics support. In order to make full use of information resources and give full play to the role of information system, the system software and application software with advanced design, complete functions and high efficiency are developed while establishing and improving database.

#### ***3.4 Strengthening logistic support contract support and legal aid construction***

Logistics support needs are often met by signing supply contracts with companies inside and outside the combat area. Most joint operations require a certain level of supply contract support, and certain contract items and services are essential for the effective deployment, maintenance, and redeployment of joint forces to combat contract support generally includes three types of contracts: theater support, external support, and system support. In all joint

operations, contract support must be properly planned, integrated, coordinated, and managed to ensure that it can be deployed to the deployed joint forces to provide accurate, timely, and effective support.

Legal aid is important to all joint functions. Many decisions and actions have potential legal influence. Establish a special joint operations legal department to make recommendations on laws, regulations, policies, treaties and agreements that affect joint operations. In a complex operational environment, the basic function of legal counsel is to actively participate in the entire planning process from task analysis to execution. Legal counsel provides legal assistance on financial activities, restrictions on operations, international law, and many other factors that can affect operations.

In the logistics support of information, socialization and integration, effective and timely legal support is of great significance to the smooth implementation of logistics support.

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