Study on Logistics Support of PAP in Key Mission Areas of Maintaining Stability and Rights

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Abstract: On the basis of analyzing the situation in the key mission areas of the plateau, this paper combs the existing problems in the field of logistics support, such as the lack of timely change of concept of logistics support, unscientific organization and low professional quality of personnel. Combining with the new requirements of logistics support development at this stage, we propose countermeasures from the aspects of innovating logistics support theory, promoting logistics support informatization construction and promoting military-civilian integration in the logistics field.

1. Introduction

Our army has made it clear many times that future logistical forces should serve to win the war, reform and innovate actively, and we should strive to build a logistical force capable of adapting to the harsh conditions of the battlefield. This also points out the direction for the Armed Police Force to build a war-type rear armor support force and is an important driving force for the development of rear armor support force. At present, due to the limitations of the physical geography of the strategic mission areas, such as the highlands and alpine areas, the armed police forces have problems such as heavy equipment and support tasks, insufficient resources and support forces. At the same time, focusing on actual combat, difficult to be strict, fast and fast, also put forward new objectives and requirements for the armed police force to ensure definite combat equipment. In recent years, some scholars have discussed the relationship between the force equipment support capability and the combat environment and combat area in depth. For example, Gao Xuan put forward measures to improve the desert adaptability of authentic combat equipment from the direction of improving the power and reliability of diesel engines in desert environment [1]. Wang Baogui and others started with the influence of the plateau climate on actual combat equipment and put forward the countermeasures and suggestions for adapting weapons and equipment to plateau environment [2]. This paper focuses on the armed police force as the research object, analyzes the task situation of the plateau high cold and other key areas, sort out the problems in its equipment support, and put forward countermeasures and suggestions, so as to improve the construction of equipment support force in the same type of mission area and promote the development of equipment support field.

2. Analysis of Situation in Key Mission Areas

2.1. Harsh Natural Conditions

The plateau area represented by Qinghai, Tibet and other places has an average altitude of more than 4000 m. The most obvious features are thin perennial air, low oxygen content, low air pressure, long average sunshine time, strong ultraviolet radiation and large diurnal temperature difference [3]. For example, in the high cold environment of Tibetan areas, the equipment itself is prone to irreversible damage under the action of alternating low temperatures, such as easy brittleness of plastic equipment, easy aging of rubber equipment or components, easy cracking of metal materials

causing equipment damage; Camp equipment, vehicle equipment, communication equipment, engineering equipment, etc. which are in high altitude low pressure environment for a long time, will cause some equipment to cause adverse effects during start-up and operation, increase equipment fuel consumption, reduce equipment operating performance, and thus malfunction.

2.2. Complex Ethno-Religious Relations

Ethnic and religious relations in Qinghai, Tibet and other places are complex. The level of economic and cultural development is relatively lagging behind, especially in border areas, Most people have no systematic modern education, Belief in Tibetan Buddhism, coupled with the penetration and destruction of separatist forces abroad, The security and stability of these areas are affected and the possibility of emergencies exists [4]. For example, on 14 March 2008, ethnic separatist forces conspired to launch a massive smash-and-burn campaign centred on the city of Lhasa.

2.3. Transport Conditions are not Convenient

The highlands of Qinghai and Tibet have rugged roads and frequent natural disasters such as earthquakes, landslides and mudslides. Road traffic and information communications are vulnerable to destruction and cannot be repaired immediately. For example, the Wenchuan earthquake in Sichuan in 2008, the Yushu earthquake in Qinghai in 2010, and the Ya'an earthquake in Sichuan in 2013, in which the PAP detachment joined the rescue team as soon as possible, but the rescue was affected by equipment and security supplies.

3. Problems in the Field of Logistical Support

3.1. There is no Change in the Concept of Logistical Support

With the deepening of the army reform, renewal speed of the technical equipment of the army is accelerating, and the overall combat effectiveness is obviously improved. However, in the light of the current reality, when there is a sudden emergency task, there is still a bad habit of step-by-step, unruly, copying the previous guarantee scheme. In the final analysis, the commander's thought is not completely changed, and there is still a certain gap between the thinking ability and the standard of carrying out the task.

3.2. The Organization of Logistical Support is not Scientific Enough

Although the commander is well aware of the reserve, carrying and carrying of logistical support materials. However, in the course of organizational implementation, "moving" material preparation is still used. Without scientific co-ordination and planning, a great deal of time and manpower is wasted. There is often a shortage of resources in the early stages and a proliferation of resources in the later stages. This does not meet the precise and efficient requirements of modern logistical support forces.

3.3. Information on Logistical Support Materials is not Accurate Enough

Logistical support materials have a wide variety and a large number of characteristics. But in terms of day-to-day management and maintenance, it is vested in different business units [5]. They usually work relatively independently and will only come together to sort out the specifics of the equipment when organizing a comprehensive exercise or strong review. This increases the risk of mission implementation and affects overall combat operations.

3.4. Low Professionalism of Logistics Support Personnel

Technicians in charge of logistical support work must be trained accordingly and, having acquired basic operational knowledge and skills, are often able to do so independently for simple tasks. However, as technology continues to update and new equipment is deployed, existing knowledge is no longer fully qualified for the job. On the one hand, the limited number of training places organized by collective forces and the inability of individuals to study proactively has led to

this problem.

4. New Requirements for Logistics Support Development

Logistical support refers to activities undertaken to ensure the completion of troop operations, training and other military tasks. Logistical support refers to the activities carried out by the support forces under the organizational leadership of the superior in order to ensure the smooth completion of the operational, training and other military tasks of the force, including the organization of command, warehousing and logistics, health services, transport and delivery, management and maintenance, and munitions energy, etc [1-2]. First, the force carrying out the mission should accurately analyse possible combat operations. Secondly, it is necessary to highlight the four characteristics of all elements, adaptability, accuracy and actual combat in the field environment analysis, support program formulation, etc., to finally achieve the goal of regional support, precise support and efficient support, and to complete the logistical support tasks in combat operations [6].

4.1. Adaptation to the Requirements of Joint Safeguards

Through continuous reform, our army has built a new joint combat command system, effectively improved the joint combat command capability, joint operations need joint support. We must make full use of the military force of PAP, adapt to the new requirements of the new system of joint service support for the construction of logistical support force, and implement a combination of establishment security and regional security, autonomous support and support, army support and local security [7]. Specifically, the logistics support department should be responsible for the command and coordination of the mission area. Assist soldiers in their diet, camp, water supply, power supply, heating, fuel, medical care and high altitude hygiene and disease prevention. Coordinate the relevant resources required by railway, transportation, civil aviation, public security, telecommunications and other departments to provide tasks. Timely adjustment of supplies and equipment for supplementary consumption, coordination with the PLA's support forces, establishment of a solid and smooth guarantee system.

4.2. Forward Deployment of Logistical Resources to Specific Regions

Operational command needs to integrate logistics support command, establish a capable command structure, optimize the allocation of resources, clarify the division of responsibilities, and improve the degree of coordination between logistics support operations and overall combat operations[8]. Local forces should establish operational duty duties, implement enhanced deployments and establish basic command posts, in accordance with trends in incident development, according to the classification of normal, general and major emergencies. In the command system, logistical support elements are mainly responsible for programming, concept of operations, the support force formation, staffing and equipment allocation, and assurance information collection and analysis. Logistical support, as an independent component, can play its professional role to the full, releasing better effectiveness and effectively supporting combat operations.

4.3. Implement the Logistics Support Operational Readiness System

The troops in this area, starting from the actual performance of the mission, on the basis of the full consideration of the impact of the plateau battlefield environment on the logistics support material reserve, strengthen the implementation of the logistics support operational readiness system, carry out regular tactics research, actual combat drills, improve personnel equipment adaptability, and always maintain operational readiness. Standardize and optimize the management of various types of war storage materials according to operational readiness standards. Combined with the force practice, the storage of materials in the form of "vehicles for storage" enhances the mobility and flexibility of logistical support. At the same time, the Task Force has appropriately increased the standards for carrying and supplying supplies, ensuring that sufficient supplies are available in the early stages of the mission and that sufficient time is reserved for subsequent replenishment.

4.4. Enhancing the Effectiveness of Practical Training in Logistics Support

We should accelerate the transformation and development of the logistics force of PAP and strive to build a logistics force system suitable for the functional positioning of PAP. In accordance with the Logistics Support Unit training syllabus, active professional training is carried out and soldiers are encouraged to master a number of other skills and strive to develop an all-round pool of talents in the logistics profession. At the same time, units themselves should regularly organize emergency support force training, seize opportunities such as training tasks, camp training and drills, and organize training by means of single modules, combined modules and integrated drills.

4.5. Establishing Rule of Law Thinking and Strengthening Logistics Support Management

Establish the thinking on the rule of law, implement the concept of strict law, and ensure that logistical support work always runs on the track of the rule of law. Mainly embodied in the political review of important positions personnel, the regular organization of the assessment to ensure that the political quality of personnel is good and the professional level is excellent. Strictly implement the regulations of equipment management, strengthen equipment control, build equipment storage sites, improve corresponding protective measures, ensure equipment technical performance and safety of storage room. Carefully check the quantity of equipment, check whether the equipment is in good condition, match the physical and accounting accounts, strengthen daily supervision, and regularly organize personnel to carry out inspections. In some cases where the loss of equipment is caused by mismanagement, penalties are imposed in accordance with the provision; some people with good professional skills and dedication should be commended in time.

5. Countermeasures and Suggestions

5.1. Innovative Logistical Support Theory

The report of the 19th National Congress of the Communist Party of China clearly proposes promoting the modernization of military theory in an all-round way. In the field of logistical support, commanders need to have a thorough understanding of the future pattern of warfare and the pattern of operations. We should study the logistical support theory that matches the new war from, pay attention to the law of guarantee activities and decision-making mechanism under normal conditions and wartime conditions, and lead the direction of construction with the standards of actual combat. In the process of theoretical innovation, we must closely integrate the characteristics of the region and examine the local customs, religious customs and social situation.

5.2. Promoting the Construction of Information System

In the future information war, information is crucial to the development of logistics support. It can be said that the correct access to information directly determines the success and failure of logistics support tasks. Network information is virtual, but can accurately link the battlefield elements together to provide a powerful reference for command decision-making. The networked information system has adaptive and collaborative function and can quickly transfer security resources to any place. Transportation is inconvenient and local economic development is relatively backward. Some township network signals have not been fully covered. It is therefore necessary to conduct pre-reconnaissance of key townships and to establish long-term information contact points. Effective disposal can be implemented when there is a burst task.

5.3. Promoting Intelligent Development in the Field of Logistics Support

Human factors alone are difficult to maximize the effectiveness of logistical support resources, so science and technology can be used to reform logistical support models, such as the application of big data processing technology to enhance the computational accuracy of logistical support requirements; Intelligent logistics algorithms can be used to accurately regulate material flow and flow. 3D printing technology can print equipment accessories on the battlefield and reduce the burden of military logistics transportation [9]. By using dehumanizing and intelligent equipment,

we can open up the supply chain and the search and rescue chain in high-risk battlefield environment, and effectively reduce casualties. The development of these intelligent technologies will be an important factor in determining the outcome of the war.

5.4. Cultivating Innovative Talent Teams

The key to the strength of the army is whether there is a sufficient pool of talent. The field of logistical support involves many aspects of the military, and professional characteristics of personnel engaged in logistical support are strong professionalism and long training cycles. Therefore, we should start from the source and use scientific research institutes and schools as the main places for theoretical technological innovation to encourage research and development of innovative results; Key task forces should strengthen the retention of logistics professionals, strengthen the exchange and interaction of professional and technical personnel, and improve the technical level of personnel. At the same time, there is a need to increase recognition efforts so that officers and soldiers remain enthusiastic and contribute to the development of logistical support.

5.5. Promoting the Development of Civil-Military Integration

Changes in the pattern of war place higher demands on logistical support. On the one hand, we need to adapt to the changes brought about by the reform, on the other hand, to stimulate the potential of local units to participate in logistical support, to appropriately reduce force support and to concentrate our forces more on the enhancement of combat effectiveness [10]. The troops in the key areas should actively explore the introduction of mature local resources and give policy preference to financial security; Formulate corresponding action plans and rapid response mechanisms in advance with the township governments and village committees of the mission areas, and organize revisions and updates in a timely manner in accordance with the development of the situation and tasks; In the event of an emergency, a green channel will be opened, giving priority to personnel, technical and equipment support.

6. Conclusion

The role of logistical support in modern warfare has changed and, as a key factor enough to influence and change the course of war, its future development path has become very clear. In the face of opportunities and challenges, the key is to act proactively, to meet difficulties, to promote theoretical and technological innovation, to train professionals, to develop equipment that the force really needs, and to make the innovative development of logistics support a solid foundation for the army's combat effectiveness.

References

[1] Xuan, G., Zekun, L., Surong, D. (2016) Influence of Desert Environment on Performance and Countermeasures of Vehicle Diesel Engine. Internal Combustion Engine and Accessories, 3, 31-34.

[2] Baogui, W., Jian, W. (2014) Analysis of High Altitude Environmental Adaptability and Protective Measures of Artillery System. Equipment Environmental Engineering, 3, 56-50.

[3] Lin, Z., Dayong, J. (2021) Analysis of Equipment Support Mode of Armed Police Forces in Tibetan Area. Equipment Management and Maintenance, 18, 7-8.

[4] Xiaolin, Y., Siyuan, L. (2019) Study on Camping Security of Armed Police Forces in Tibetan Areas. China Storage and Transportation. 9, 149-150.

[5] Yunfeng, L., Dongsheng, L. (2020) Appraisal of Rear Armament Support Capability Based on Fuzzy Comprehensive Evaluation. Armament Automation, 11, 5-9.

[6] Weihong, W., Tongxi, Z. (2015) Study on Training Content of Combat Support in Alpine Mountain Area. Journal of Equipment College. 6, 48-51.

[7] Ying, Z. (2018) Research on Construction of Support Information System for Joint Operations in Theater. Military Operations and Systems Engineering, 3, 55-59.

[8] Xiaogang, Q., Kui, F. (2022) Equipment Maintenance Support Resource Allocation Review. Intelligent Systems Journal, 2, 221-232.

[9] Peng, Z., Dongge, Z. (2021) A Research on Intelligent Construction of Rear Installation Guarantee. China Equipment Engineering, 19, 36-39.

[10] Qixiang, L., Yongjie, Z. (2017) Risk Analysis and Control of Military - civilian Integration Equipment Support of Armed Police Forces. Science and Technology Vision, 2,115-119.