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Some thoughts about logistics intelligent construction

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Abstract: *Due to the rapid development of Internet of Things technology in recent years, the logistics management model has become more intelligent and intelligent. This article analyzes the current situation and future development trend of intelligent logistics construction from three aspects: the construction and management of intelligent logistics resource platforms, the transformation of logistics action mode in the process of intelligent logistics construction, and the improvement and development of intelligent logistics construction, and puts forward some suggestions and views.*

Keywords: *Military Logistics, Logistical Construction, Intelligent Logistics*

1. Introduction

In recent years, with the improvement of the level of information and communication technology, especially the proposal of the concept of the Internet of Things, the traditional service industry including logistics management will usher in a technical transformation, and the logistics asset management system will become more automated and intelligent under the new mode of the Internet of Things.

2. Construction and Management of Intelligent Logistics Resource Platform

Intelligent logistics support project is a new stage of military logistics modernization and an inevitable choice to realize high efficiency of logistics support asset management. So-called intelligent logistics management, that is, through the Internet technology and mobile communications, military logistics assets management work of the various business processes and management methods, and the military logistics management work such as a variety of computer software and hardware of system resources to achieve more efficient, so as to improve the management level of military logistics, and improve asset management level will also be able to obtain, thus effectively promote the department Team modernization.

In view of the construction and follow-up guarantee of intelligent resource platform, we have the following thoughts.

2.1. Actively Develop Logistics Resource Management Platform Based on Internet of Things.

In order to gradually promote the construction of "intelligent logistics" and Internet of Things asset management system platform, relevant government departments will also be committed to developing logistics asset management software based on the Internet of Things. Research and development, including logistics asset management and other aspects of intelligent service platform, relevant departments will actively promote the research process of intelligent logistics asset management, gradually complete the construction of logistics asset comprehensive management platform under the Internet of things and other information technology conditions. The so-called intelligent application oriented to logistics management refers to the use of modern management means by technical personnel to complete the unified planning of infrastructure construction and logistics asset management within the army, specifically involving personnel financial management, infrastructure construction, material facilities management and other aspects.

2.2. Improve Logistics Staff's Ability to Manage and Apply the Internet of Things

The strategic position of logistics support management personnel is particularly critical in the

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informatization of military logistics support management, and the comprehensive quality level of logistics support management personnel will be directly applied to the advantages and disadvantages of management technology. At the present stage, due to the development of Internet technology, military logistics support has put forward new technical requirements, managers must master the corresponding Internet technology expertise and be able to skillfully apply to intelligent logistics support and Internet of Things asset management work platform. The military logistics support management organs should also further improve the attention to the Internet of Things technology, and actively promote the organic integration of intelligent logistics support technology and the Internet of Things, so as to improve the scientific and rational management, so as to improve the military logistics support work. At the same time, the military administrative organs should also strengthen the training of military logistics asset management, and further improve the asset management ability, especially the application level and management ability of computer technology, through training and teaching, so as to provide a better guarantee for the intelligent logistics support of the army. With the booming development of Internet of Things technology, the intelligent logistics Internet of Things platform of asset management and its application skills become more critical.

2.3. Improve the Intelligent Resource Management Process of Military Logistics

Standardization management is a necessary condition for military intelligence logistics construction, such as the Internet of things under the condition of information technology application is not yet universal, relevant personnel should do a good job in the construction of military logistics management mechanism, in accordance with the specification of military logistics management system and process standards asset management behavior, effectively improve the management level of the military logistics, further promoted the military logistics Towards intelligent and scientific management, in the process of management for the construction of the standardization process, relevant personnel should also be in accordance with the PDCA management model, build a including restaurants, forces the standardization of the accommodation area and other related logistics management system, make important military logistics services and Internet of assets management platform to realize the efficient connection, thus effectively improve the military logistics assets Manage efficiency.

3. The Transformation of Logistics Action Mode in the Process of Intelligent Logistics Construction

With the continuous development and application of intelligent logistics, logistics support resources, command structure and other logistics action modes need to be adjusted accordingly to constantly improve the construction process of intelligent logistics. The following points are considered for the optimization of action mode.

3.1. Transformation of Logistics Support Resource Allocation Mode

With the improvement of the automatic technology level of command system and protection device, the distribution mode of logistics support resources in intelligent theater zones will be more decentralized and flexible in the future, and logistics personnel will realize scientific integration and deployment of various support resources scattered by great intelligence system. To meet the protection needs of higher divergence of combat capability. With the gradual expansion of war space in the future, all kinds of modern combat forces will be interconnected in different places, and new operational concepts such as "multi-domain warfare" and "distributed killing" will gradually be widely used in war, and the discrete deployment of combat forces will gradually become the main manifestation. If the method of centralized distribution of support resources is still adopted, it will increase the tasks of transportation and supply of logistics support, and its effectiveness will not be able to meet the needs of combat. Intelligent in the future war, the military logistics security goalkeeper with widely dispersed in different regions in flexibly various logistics network resources, collect around the guarantee need information quickly, in a highly fragmented logistics resources "dot" pledge each "point position", and effectively protect nearby on the surrounding forces, thus greatly enhance the effectiveness of the logistics.

3.2. Transformation of Logistics Command and Organization Structure

In general, the information wartime logistics commander is a tree-like hierarchy structure, but due

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to the expansion of the command object and the increasing demand for time, the main problems such as multiple levels of commander, long command process and difficulty in coordinating with the same level are gradually highlighted. In the future intelligent war, with the help of wireless data, cloud computing technology, block chain and other new information technologies, the logistics command system will gradually transition to the network topology architecture, thus forming the network connection of each command node, so as to achieve the reduction of command level and optimization of command process. It facilitates the synchronization of command tasks. Mesh topology type command of each command and nodes in the operational architecture, can through the wireless network share relevant data, to understand the status of the combat protection together, according to the characteristics of all kinds of logistics tasks, to differentiate instruction task to realize reasonable, flexible allocation, by individual instructions nodes together to complete the corresponding parallel task, completed the task instructions from the "order" to" "Synchronous deployment" transition, so as to effectively improve the logistics command combat efficiency. The widely distributed command nodes can detect and capture all kinds of small changes in support data in time, and realize resource sharing with important data, thus effectively providing a basis for logistics command decision-making. In case of emergency, commanding personnel can connect any command node at any time for command, or directly share relevant data with frontline support forces, and make effective scheduling of support actions timely by quickly analyzing the data of intelligent logistics support force command system.

In the future, the intelligent battlefield will realize the unified control of logistics support capability at all levels of military and civilian with the help of intelligent system, and gradually complete the "liquid integration" of basic units of various support capability, or a certain kind of concrete and practical guarantee materials and instruments, forming a highly integrated guarantee system as a whole. To ensure efficiency. In the future, intelligent logistics guarantee capability grouping will break through the traditional guarantee capability boundary, level boundary and discipline boundary, through the overall guarantee state and the corresponding task general guarantee capability "liquid integration ", constitute intelligent and efficient logistics guarantee capability organic integration, maximize the guarantee efficiency. Played an intelligent information system resources classification and processing ability strong, the ability to allocate the advantages of scientific and reasonable, in real time to understand all kinds of support capability location, total quantity of personnel quality, material, technology, equipment performance, etc, on the basis of detailed information, support capability tasks and characteristics in scale, make all kinds of support capability between unit has realized the flexible combination, deep into, across nationalities has been established The integration of the support capability of the subordinate relationship and the discipline boundary effectively improves the overall logistics support capability. Convenient to guarantee the ability of the last-minute scheduling.

3.3. Logistics Support Formulation and Operation Mode Transformation

In the future wisdom struggle, the opposing parties will pay more and more attention to the significant economic value of "time factor", and any party with "time resource advantage" can obtain more resource advantage in the battle. Just as the brookings Institution of the United States proposed in the research report, intelligent commander system will effectively improve the collection and management of combat information and precision strike force, greatly reduce the time limit of decision-making and behavior, the future of modern combat will be "extremely fast". Modern combat will no longer according to weeks, days, according to the minutes, and even the minutes and seconds, "kill" the fighting method will also gradually incline to conventional, fighting for the rear service will greatly reduce the preparation time needed in order to solve the logistics of all the units within short time, rapid simultaneous implementation to ensure that the action immediately. In a war fought under the conditions of mechanization and informationization, the logistics support department will know or determine the key directions and areas of the war in time conditionally, and make pre-deployment measures. From the perspective of the change of modern logistics management mode, from cold weapon and hot weapon war to mechanization and information war, logistics management is gradually transformed from personalized "active guarantee" to "international standard supply" management mode. In the future, modern logistics support mode will follow the spiral development trajectory, from "standard supply" gradually to a higher level of "flexible customization" transition.

The gap between guarantee requirements has widened significantly. Since the traditional combat mode is widely used by armies, there is not much difference between the participating armies in major aspects such as atmospheric environment and the degree of enemy intimidation, so the guarantee model provided by the standard can basically adapt to the needs of war. And intelligence in the future war, the

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battle units because the war into the airspace, to combat missions and in the actual combat environment difference is very big, the requirement of logistics is differ in thousands ways, so we must according to the reality of the combat unit protection needs and other protected resources of the actual situation of "flexible customization" guarantee for scientific and reasonable. Especially in the war staff loading, supply, rescue and other work, through flexible customized design guarantee can more accurately adapt to the personalized needs of different staff in different environments, so as to achieve the effect of greatly improving morale, for winning the intelligent campaign laid a good foundation.

4. Improvement and Development of Intelligent Logistics Construction

4.1 Strengthen the Research on Intelligent Guarantee Theory

Military thought and military science and technology are the two basic elements of military reform. Military thought originates from and is higher than military reality, which guides and decides the development trend of military reality. To some extent, military thinking is the soul of military change, determining not only how weapons and hardware are used for specific purposes, but also how they interact to achieve greater effect. In more money to support military technological innovation and support the development and production of weapons at the same time, must also enlarge to the intelligent basic theory research and technology innovation in the field of logistics, discusses the basic characteristics and principle of intelligent logistics, further found that the existence of the intelligent logistics mechanism, and with an eye to future demand for modern battlefield security, with artificial intelligence technology in the military Innovation and application in the field of logistics support as the core, continue to build and improve the theory of intelligent logistics construction.

4.2. Strengthen Innovation and Breakthrough in Key Technologies of Intelligent Logistics Construction

To promote the innovative breakthrough of intelligence key technology is to better realize the application in military logistics support and further increase its role in military logistics support capability. Intelligence is an important basis of modern military equipment, directly related to the level of military logistics support ability, is the focus of support. Therefore, with the penetration and application of artificial intelligence technology in the field of military logistics support as a breakthrough, we should focus on the research of integrated control technology, navigation key technology, data link networking key technology, electronic power core technology, sensor key technology, bearing capacity and other issues in the command system and application platform. Furthermore, deep learning is constantly utilized to strengthen the independent memory and logical judgment function of professional system. Faced with a large amount of logistics information, commanders are often at a loss. Therefore, according to the requirements of eliminating the false and preserving the true, from the outside to the inside, and from the shallow to the deep, information information should be screened and integrated to form a large information data pool, so as to understand the information trend of the support system. At the same time, through training, the rationality and scientificity of command and decision factors can be deduced from the logistics military chess system, so as to form the decision-making mode, and make great efforts to expand the communication channels of decision-making management, so as to improve the directivity and accuracy of decision-making. The self-adaptability to environment and combat survival function of intelligent equipment is also a topic that needs attention, which is easy to affect information transmission and command. In particular, a large number of electronic components are expensive, have poor regenerative function, and are prone to common mode electromagnetic interference. Therefore, these new materials and new technologies should be developed towards high miniaturization, high strength and durability, high integration and anti-interference, so as to ensure computer security and data security.

4.3. We will carry out Comprehensive and In-Depth Military-Civilian Integration and Develop Smart Programs in a Scientific Way

The construction of intelligent engineering under the background of military integration development must break through the previous viewpoint of self-development and self-development. Civil-military cooperation starts to comprehensively and deeply develop cross-border cooperation in various fields, including infrastructure construction, energy logistics, artificial intelligence technology

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and specialized capacity building. First, an innovative research environment. To meet the common needs of talent guarantee, artificial intelligence empowerment and network economic development, actively build a bridge of military connectivity, and promote cooperation in intelligent technology research and development, sharing of information resources, and collaborative and open talent development. At the same time, we will actively explore the pilot construction of high-tech industrial parks for integrated military development, formulate policies at the national level to regulate military-civilian coordination, overall planning of problems, supply-demand connection, and coping mechanisms, so as to improve the overall level of intelligent engineering construction. Second, collaborative innovation. Make good use of the comparative advantages of the development of intelligent technology in various regions, find the fitting point of the booming development of quasi-military application technology and civilian technology, share military and civilian information resources in a scientific and reasonable way, carry out all-round coordination, and gradually form a new pattern of intelligent construction under the background of technology integration innovation, service capacity transformation and improvement, and collusion. The third is to strengthen the establishment of norms and independent research efforts. For technical standard and basis, has always been to standardize the relationship with normal human society "common language", so as soon as possible to realize the intelligent network interface technical support platform of information between language standardization, service process is consistent, effectively promoting the transformation of achievements size, the specification for a more complete system into the orbit standardization, to realize the seamless connection.

5. Conclusion

The construction of intelligent logistics is the development direction of The Times. In the face of the wave of intelligent logistics construction, the management of intelligent logistics resource platform development and management personnel training should be strengthened. Aiming at the optimization of intelligent logistics application process, the transformation of logistics department structure and logistics behavior is carried out from the optimization of application process. For the follow-up optimization and development of intelligent logistics, for the basic theory research and innovative breakthrough research to strengthen the training of personnel, at the same time to strengthen the military-civilian integration, from the perspective of software and hardware double development and optimization of intelligent logistics construction.

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