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Research on Evaluation Index System of Equipment Support Capability

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Abstract:

Proceed from the equipment support capability evaluation, the paper hackles the prima-ry connotation of equipment support capability evaluation and illuminates object and content. Based on it, the paper conceives many objective evaluation index system particularly from equipment technical support capability, equipment adjustment and distribution support capability, equipment outlay sup-port capability and equipment management capability. It studies qualitative index, quantitative index, index consistency and weight disposal method.

Keywords: *Equipment support capability, Evaluation, Index system.*

I. INTRODUCTION

Document[1] believes that the composition factors of military equipment security ability can be divided into seven aspects: human, equipment, equipment, energy, technical support, management ability and comprehensive situation, but carefully consider its essence is the content of technical security. Document[2] divides the equipment guarantee capacity into the personnel index, the facility index and the management index, which is relatively general and can not fully express the connotation of the equipment guarantee. Document[3] and Document[4] are the research on equipment technical support and equipment.

II. RELEVANT CONCEPTS OF EQUIPMENT SUPPORT AND COMMAND EFFICIENCY EVALUATION

Efficiency is the ability of the system to achieve the specified use target under the specified conditions. "Prescribed Conditions" means environmental conditions, personnel, time, use methods, etc.; "prescribed use objectives" means the purpose to be achieved; "ability" means the quantitative or qualitative degree to achieve the target. Equipment guarantee command efficiency is a general term for the function, command quality and command effect of the equipment guarantee command system, the comprehensive ability reflected by the equipment guarantee command system in training and combat activities, and the comprehensive reflection of the main elements, structure mechanism, operation status and common activity results of the equipment guarantee command system[5].To be specific, the command efficiency of the equipment guarantee is the degree of impact that the equipment guarantee command system transforms the potential equipment support capability into the actual equipment support capability when the army completes the combat readiness, training, combat and other military tasks. Evaluation refers to the process of observing objective things according to certain standards and making value judgment. The evaluation of

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equipment support command efficiency is a kind of evaluation and estimation of the effective degree of the equipment guarantee command system in the implementation of command activities by using modern scientific methods. Its fundamental purpose is to make an objective and correct evaluation of the equipment security and command practice activities, and test the equipment protection The degree of the effectiveness of obstacle command, summarize the experience and lessons, so as to scientifically standardize the practice activities of equipment guarantee and command, improve the efficiency of equipment guarantee, improve the decision-making quality and command ability of equipment guarantee commanders, and improve the operation mechanism of equipment guarantee and command. To timely discover and eliminate the problems existing in the command system, we can optimize the command activities of each link, and improve the equipment guarantee command level and overall efficiency.

III. ESTABLISHMENT OF THE EVALUATION INDEX SYSTEM

3.1 Principles of the Establishment of the Evaluation Index System

Establish equipment guarantee ability evaluation index system, in addition to follow the scientific principle, completeness principle, independence principle, objectivity principle, the principle of comparability, measurement principle, simplicity principle and other basic principle, considering the equipment guarantee ability composition elements and the particularity of the formation process, in the establishment of its evaluation index system, should also follow the following principles.

1) Principle of peacetime combination. At ordinary times, the training and use of equipment are carried out according to the plan, and the equipment guarantee has certain rules to follow. The wartime security tasks are changeable, and the different tasks have different priorities on the equipment guarantee. Therefore, the indicators are evaluated Consider the assessment needs in peacetime and wartime.

2) Dynamics principle. Equipment guarantee work is a dynamic system of development and change, and the index system that reflects its work is not unchanged. In order to reduce the comparative difficulties caused by this change, when setting the indicators for some relatively stable phenomena during a macro period should be ignored as far as possible, so as to ensure the sensitivity of the indicators.

3) Normative principles. The evaluation indicators must be consistent with the requirements of the state laws, regulations, rules, regulations and regulations of the military. When selecting the indicators, try to choose the specification indicators within the scope of the research to make them universal for the data Collection of data and people's understanding of indicators.

3.2 The Content of the Evaluation Index System

Based on the above principle, closely follow the content system of equipment guarantee, through the German field method (Delphi) consulting experts, build a multi-objective evaluation index system, namely the total target level is equipment support ability, a single target level for equipment technical support

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ability, equipment deployment guarantee ability, equipment support ability and battlefield equipment management ability. The following is a detailed analysis of the indicators for 4 single target layers.

3.2.1 Equipment technical support ability

Equipment technical guarantee is a general term for various guarantee measures and corresponding activities taken to maintain and restore a good technical state of equipment. Equipment technical support capability is the degree of technical support for equipment. The main factors include internal factors such as equipment technology support personnel level, equipment technology guarantee equipment level, equipment technology guarantee equipment level, equipment technology guarantee equipment level, equipment technology guarantee equipment level, equipment technology guarantee system, as well as science and technology level, battlefield environmental impact degree and other external factors[6].

3.2.2 Equipment allocation and support ability

Equipment deployment and support is a series of equipment support activities to maintain the complete equipment of the army. Equipment allocation guarantee ability is the extent of the deployment guarantee of equipment. The main factors include the equipment raising capacity, reserve capacity, supplement capacity, replacement capacity, adjustment capacity, retirement treatment capacity, scrap disposal capacity, application, allocation, transfer capacity, etc.

3.2.3 Battlefield equipment management capacity

Battlefield equipment management is a general term for the information, use, storage and protection of the participating army equipment, as well as the management of scrapped equipment and the treatment of captured equipment. Battlefield equipment management ability is the level of wartime equipment management. The main factors include: equipment information management ability, equipment use management ability, equipment storage ability, equipment protection ability, equipment protection ability, scrap equipment management ability, captured equipment processing ability, etc.

3.2.4 Ability to guarantee the equipment funds

Equipment is military and economic activities needed to meet the military needs of peacetime training and wartime operations and provide the scientific research, purchase and maintenance management of military equipment. The ability to guarantee equipment funds is the degree that the implementation of equipment funds can achieve. The main factors affecting it are: fund access ability, allocation ability and management ability, etc.

IV. CONCLUSION

The evaluation index system is the basis of the evaluation of equipment guarantee capability. Based on the four main aspects of equipment support capability, the basic framework comprehensively explains the basic connotation of equipment guarantee capability, and studies the qualitative and quantitative processing methods involved in the index system, which provides theoretical support for the future quantitative

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evaluation of equipment guarantee capability.

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