

A Study on the Personnel Training Mode of U. S. Military Equipment Test

Chao Song*, Jianwu Sun, Yizhuo Jia, Hongtian Liu, Jianwei Zhang

Department of Arms and Control, Army Academy of Armored Forces, Beijing, China

**Corresponding Author*

Abstract: The U. S. government has always attached importance to the comprehensive training and improvement of the scientific and technological level, tactical skills and leadership of personnel for equipment test, all of which are considered to be essential to ensure the quality and reliability of military equipment. Through the research and analysis of relevant literature and documents, this paper makes in-depth studies on the training mode, training method, training content and relevant strategies of U. S. military personnel for equipment test. In this research, it's found that the main methods and strategies of training U. S. military personnel for equipment testing include four aspects, i. e. focus on the accumulation of practical experience, cultivation of innovative thinking and analyzing ability of military personnel for equipment test, and adoption of regular evaluation and examination to improve training effect.

Keywords: U. S. Army, Equipment Test, Personnel Training, Methods and Strategies

1. Introduction

In modern warfare, the performance and quality of equipment directly affect the combat capability and effectiveness of a force. To ensure the quality and reliability of equipment, the U. S. military has always attached importance to the test and evaluation of weapons and equipment, so that the personnel training for equipment test is carried out to ensure the normal operation of test and evaluation of military equipment and meet the military requirements [1]. This process involves training relevant personnel to master the use of various equipment, maintenance skills, as well as the test and evaluation criteria. The training aims to ensure that these personnel have enough skills and knowledge in actual

operation to improve the performance and reliability of military equipment. In addition, the training of these personnel can also help to find out the problems and hidden dangers of the equipment for provision of targeted improvement plans and suggestions [2]. Therefore, the U. S. military has attached great importance to the personnel training for equipment test, and continuously strengthened the training system and method to meet the needs of modern warfare.

Based on the study and analysis of relevant literature, this paper makes a deep study on the personnel training mode and the related strategies of U. S. military equipment test. Firstly, the basic methods of the U.S. military are introduced, and the training objectives, training contents, training modes and training strategies are analyzed in detail in the next. It is believed that the main methods and strategies of the U. S. military in the personnel training for equipment test include: focuses on the accumulation of practical experience of the personnel, cultivation of innovative thinking and analyzing ability of the personnel and adoption of regular evaluation and examination to improve the training effect.

2. The Basic Personnel Training Mode of U. S. Army Equipment Test

The U.S. personnel training for military equipment test is multi-level, multi-faceted, comprehensive, professional and forward-looking, which aims to ensure its more important role in modern warfare [3].

2.1 Training Objectives

The U. S. government focuses on the comprehensive personnel training for equipment test, including the improvement of scientific and technological level, tactical skills and leadership of the personnel, with the training objectives to enable the personnel capable of undertaking the test task

independently, and accurately evaluating and verifying the performance of the equipment. At the same time, they should have good team spirit and communication skills to work closely with other relevant personnel for completion of the test tasks, and to respond to high pressure environment [4]. Besides, the training also aims to improve the efficiency and quality of equipment test by providing reliable data and advice for equipment improvement and development. The training can make the personnel for equipment test become experts with professional quality and practical ability, contributing to the equipment development and combat effectiveness improvement of the U. S. military.

2.2 Training Method

The training method mainly includes the combination of theory study and practice training, which enables the personnel for U. S. military equipment test to build a comprehensive technical foundation.

In the aspect of theoretical study, the personnel for equipment test will take professional courses, including the principle, structure, performance and other knowledge of various equipment, as well as the skills of test method and data analysis. A complete training system ensures that the personnel for equipment test have the necessary expertise and skills to provide them with the ability to accurately evaluate and verify the test during the task.

In the aspect of practical training, the personnel for equipment test will carry out specific practical operation and get familiar with the use methods and operation skills of various equipment. They will participate in real-world test tasks to verify equipment performance through actual operations and conduct data collection and analysis. In this way, the personnel can master the skills and experience in practical application and provide valuable feedback for equipment improvement and optimization.

The U. S. military also encourages the personnel for equipment test to actively participate in academic research and technological innovation to promote development in related fields. They are encouraged to join academic conferences, paper publications and other activities, as well as exchange and cooperate with experts and scholars in the academic circle [5]. This culture

of active participation in scientific research and innovation enables the personnel for U. S. military equipment test to continuously update their technical knowledge and maintain a leading position in the field of equipment test.

2.3 Training Content

The personnel training for U. S. military equipment test involves equipment, test methods and evaluation standards, data analysis and processing skills, etc., which can be summarized as follows:

Firstly, the personnel need to master basic military theoretical knowledge, including strategy and tactics, principles of military equipment, battle command, etc., and understand the roles and functions of different types of military equipment on the battlefield.

Secondly, the personnel need to understand the structure and function of the equipment system, and be familiar with the principle, performance characteristics, use method and operation process of various military equipment [6] pertaining to the knowledge of mechanics, electronics, communication, etc. Only by mastering the complete structure of the equipment system and the relationship of each component can the personnel carry out the accurate test and evaluation.

In addition, the personnel need to be capable of conducting scientific experiments and data analysis, mastering the methods and skills of scientific research, as well as designing and performing equipment tests to accurately collect and analyze test data. Only through scientific experiments and data analysis can they draw accurate conclusions and provide powerful basis for equipment improvement and optimization.

Finally, the personnel also need the skills of teamwork, communication and coordination. The completion of equipment test often requires several people, and the test personnel need to cooperate closely with other team members to complete the task together. In addition, the test personnel need to communicate effectively with military commanders at all levels and report to them on the progress and results of the test in a timely manner so that the military can make decisions promptly.

In general, the personnel training for U. S. military equipment test includes the study of basic military theoretical knowledge, the

comprehensive understanding of equipment system, the ability improvement of scientific experiment and data analysis, and the training of ability for team cooperation, communication and coordination. Through learning and training of these training contents, the personnel for U. S. military equipment test will be competent for various equipment test tasks and provide reliable and effective equipment support for the military.

2.4 Training Institutions

The training institution plays a key component in cultivating the personnel for U. S. military equipment test. These institutions include the U. S. Department of Defense, the Strategic Studies Institute, and the Naval War College, which provide a wealth of training and educational resources to help develop test personnel with specialized knowledge and skills. In these institutions, trainees will take theoretical courses and practical training to understand the features and functions of various equipment and learn how to conduct experiments scientifically and effectively [7]. These institutions also provide state-of-the-art teaching facilities and laboratories that provide practice opportunities for students to better understand and apply what they have learned. The training and education of these training institutions cultivate a high-quality personnel team for equipment test for the U. S. Army, providing important support for national security and military strength. The trainees will also learn leadership and management skills in these institutions, in order to effectively organize and guide the team during the test process. They will learn how to plan the test, allocate resources, and manage time to ensure that the test runs smoothly. Furthermore, the training institutions also focus on developing the innovative and problem-solving abilities of trainees to meet the complex test environment and technical challenges of equipment. This training method not only enables the test personnel to operate and test the equipment skillfully, but also can make suggestions for improvement and innovation, promoting the continuous development and upgrading of the equipment. In addition to receiving the in-house training in these institutions, the personnel for U. S. military equipment test regularly participate in joint tests and exercises at home and abroad,

which will not only exercise their ability to respond to tasks in a real-world battlefield, but also allow them to communicate and collaborate with test personnel from other countries to improve their test performance. Additionally, these tests and exercises help to verify equipment performance and reliability and provide valuable practical experience for equipment improvements.

3. Training Strategy of the Personnel for U. S. Army Equipment Test

The personnel training for U. S. military equipment test is comprehensive, professional and development-oriented. The comprehensive training of personnel's scientific and technological level, tactical skills, team cooperation ability and leadership quality makes the U. S. military ensure that the personnel can play the best role in modern warfare and constantly adapt to the test requirements of new equipment.

Firstly, the accumulation of practical experience is paid attention to. The personnel can accumulate experience by participating in actual equipment tests to have a deep understanding of equipment characteristics and test requirements [8]. At the same time, the training also pays attention to recording and summarizing experience and lessons, and timely summarizing the response methods and techniques under various circumstances, so as to cope with the increasingly complex and diversified equipment test.

Secondly, the focus is also on training innovative thinking and analysis ability of the personnel for equipment test. The personnel is required to be capable of thinking and solving problems independently, as well as systematically analyzing and evaluating the equipment test process to make recommendations for improvement and innovation [9]. Therefore, in the process of training, attention should be paid to the training of their scientific research and analysis ability, so that they can continuously improve and innovate the methods and technologies of equipment test.

Finally, the attention is paid to the regular evaluation and examination to improve the training effect. Evaluating actual performance of the personnel helps to timely find out the problems and make improvement to ensure the continuous improvement of the training effect.

During the training process, personnel are provided with professional instructors and mentors who can impart experience and skills to instruct personnel in test and operation [10]. Through the exchange and learning with experienced professionals, the personnel can better understand and master the key points and technologies of equipment test, and improve their own ability and level.

To sum up, the training methods of personnel training for U. S. military equipment test consist of theoretical knowledge training, field operation and practice training, simulation training, professional guidance and counseling, team cooperation and coordination training, and accumulation of practical experience, etc. The comprehensive application of these methods contributes to the cultivation of excellent personnel for equipment test, who are equipped with rich knowledge and skills, team cooperation ability and practical experience.

4. Conclusions

The personnel training of equipment test provides powerful support for science and technology innovation and modernization construction of the military, and provides important reference for the research and development and improvement of military equipment. With the development of military science and technology and the change of equipment requirements, the U. S. military will continue to strengthen the personnel training for equipment test to maintain their competitive advantage in the global military force.

The personnel training for U. S. military equipment test is an important link to ensure the technical performance and combat capability of equipment. Through systematic training and practical operation, the trained personnel for equipment test can master various test means and methods, and be capable of accurately analyzing and evaluating. At the same time, they also ensure the scientificity and accuracy of equipment test work through continuous improvement of practical ability and the upgrading of their knowledge. In the future, as science and

technology continue to advance and war patterns change, the U. S. military will continue to strengthen the personnel training for equipment test to meet new challenges and maintain their competitive advantage in global military forces.

References

- [1] Cui Kan, Cao Yuhua, Li Qiaoli. Equipment Capability Test of U.S. Forces and Relevant Enlightenments. *Journal of Equipment Insitute*, 2015(2): 115-118.
- [2] Li Yongzhe & Li Dawei. Analysis of equipment tests and evaluations by the US military. *National Defense Science & Technology*, 2021(2): 47-54.
- [3] Luo Gang, Kang Lihua & Fang Shun. U. S. Talent Training Mode of US Military Equipment Test and Its Experiences for PLA. *Journal of Equipment Insitute*, 2014, 25(2): 85-90.
- [4] Yan Yaodong, Guo Qisheng & Qin Baozhan. Study of Basic Problems of Weapon Equipment System Integral Performance Test. *Journal of Equipment Insitute*, 2012, 23(6): 111-114.
- [5] Wu Xiaoyue & Liu Qi. ZHUANGBEI SHIYAN YU PINGJIA. Beijing: National Defense Industry Press, 2008.
- [6] Luo Gang, Shan na & Hu Xiaofeng. Research on the Equipment Operation Test of National Range. *Journal of Equipment Insitute*, 2013, 24(1): 114-118.
- [7] Wang Baoshun, Luo Gang & Kang Lihua. Thoughts on the Construction of PLA's Equipment Test System. *Journal of Equipment Insitute*, 2012, 23(6): 106-110.
- [8] Luo Gang, Wang Guosheng & Nie Jing. Construction Thought on Information Equipment Test. *Journal of Equipment Command College*, 2010, 21(6): 106-109.
- [9] Yang Banglin & Yue Quanfa. *Military Equipment Testing*. Beijing: National Defense Industry Press, 2002: 430.
- [10] Zhang Qiang. Enlightenment of U. S. Enlightenments from Equipment Testing and Evaluation of US Army to Chinese Army. *Journal of Academy of Army Military Transportation University*, 2011 (12): 1-6.