

FACTORS INFLUENCING ASSAULT RIFLE SHOOTING¹

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ABSTRACT

In the current military-political environment, the widespread use of nuclear, chemical and bacteriological weapons in the development of military conflicts is unlikely, as this would lead to the self-destruction of civilization. Modern local wars and armed conflicts are an increasingly common form of armed conflict between warring parties within a country. In the context of armed struggle without weapons of mass destruction, the decisive role will belong to conventional means. These are types of weapons that do not use chemicals, biological agents or nuclear reactions to destroy the target or inflict damage on an object. These include both small arms and artillery systems for area fire, high-precision weapons, tanks, and anti-tank weapons. An important place among them is occupied by small arms.

KEYWORDS: assault rifle, shooting, training.

INTRODUCTION

For every serviceman, small arms are the main means for destroying the opposing forces, as well as for ensuring self-defense of the personnel in all military units. Small arms are weapons which are capable of firing a shot and include individual fire-fighting systems, collective weapons, and the armament of combat vehicles up to 23 mm caliber. In connection to this, the combat use of small arms is fundamental to solving the priority tasks in operations. For example, in local military conflicts and armed conflicts, despite the introduction of high-tech means of destruction, the role of small arms has increased, as evidenced by the findings of the conflicts in

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Afghanistan, Iraq, the Chechen Republic and Syria. In the following lines we will mention a few words about each of the listed conflicts.

The war in Afghanistan from December 1979 to February 1989 was a military conflict on the territory of Afghanistan, one of the stages of the country's civil war, involving the presence on the ground of a military contingent of Soviet troops. The civil war in Afghanistan between 1989 and 1992 was one of the stages of the military conflict in Afghanistan, in which the government forces of the Democratic Republic of Afghanistan (DRA), with the support of the Soviet Union, fought against the mujahideen, who were supported by Pakistan, USA and some other countries. The war in Afghanistan, as a military operation by the United States-led coalition of states against the Taliban regime in Afghanistan, began on October 7, 2001.

The Gulf War is a conflict between Iraq and the combined (coalition) forces of 34 US-led countries. The war began with the Iraqi invasion of Kuwait in August 1990.

The First Chechen War was a military conflict between the Russian Federation and the Chechen Republic of Ichkeria from December 1994 to August 1996. The Second Chechen War involved hostilities on the territory of the Chechen Republic and the border region of the North Caucasus. It began on April 26, 1999, after Russian forces invaded Chechnya following the takeover of Dagestan by the Islamic International Brigade. At the beginning of September 30, 1999, a counter-terrorist operation was officially announced. The active hostilities lasted until May 2000.

The Syrian civil war is a military conflict in the Syrian Arab Republic that began in March 2011.

Taking this into account, in order to adequately respond to the challenges and all the requirements for the units in the implementation of the full range of operations, they should be provided with modern small arms. It is necessary for the level of preparation of the Armed Forces for its combat use to retain its key importance, regardless of the change in the security environment and the new requirements for the capabilities and interoperability with the allied troops. Moreover, the training, which is a process of transfer and acquisition of knowledge, skills and habits for acquiring education, qualifications, competencies, appropriate motivation, optimal physical and mental qualities, corresponding to the needs of the Armed Forces to build the necessary operational capabilities and training. This in turn is a constant process of acquisition, maintenance and improvement of the capabilities of the personnel staffs and formations for conducting operations are one of the most important activities of the servicemen of the Bulgarian Army for participation in operations of various nature. The level of success or failure in their implementation largely

depends on the way in which the units plan and conduct their training and preparation. For this purpose, it is necessary to conduct purposeful, constant, continuous and as close as possible to the real situation training in the units for effective implementation of the tasks. The preparation of units must allow for effective training in the expected performance of the planned tasks, as well as maintaining and increasing the level of training of all categories of servicemen.

The concept of phased development of assault rifle shooting skills has been examined in a number of studies (1, 2). It provides a framework for interpretation on how to understand the development of shooting skills and how the various variables relate to each stage of development.

The approach to training should be for the formation of a skill, the implementation of which is a function of the variable military and environmental factors, and the emphasis should be placed on individual training. A wrong statement of the provided training will lead to the formation of wrong habits and skills, which in the future will be difficult to correct and will lead to an increase in training costs.

Accurate and consistent hitting of the target is a complex interaction of factors before, during and immediately after the shot. Effective shooting is the simultaneous coordination between breathing, control of gross motor skills in the shooting position, fine motor control of the fingers when working with the trigger, positioning of hands, elbows, legs and feet, as well as the process of perceptions related to the target and measuring instruments. The purpose of coordinating all these factors is to minimize the oscillation of the muzzle of the carbine by controlling the movements of the body.

The main variables can be grouped into four groups.

The first group of factors - sensory-motor. These variables relate to the physical aspects of shooting. They are related to the possibilities for shooting from different positions - stable and unstable, skills for correct aiming, application, breathing, work with the trigger. Well-trained shooters can position their body to achieve maximum carbine stability with minimal fatigue in various positions. The shooter's ability to hit the same target consistently with a high grouping of hits depends on the degree of control of these factors before, during and after the shot.

Second group of factors - cognitive variables. It is assumed that the basis of effective shooting is the acquired knowledge of:

- knowledge of the variable factors related to the different positions for shooting, controlling breathing, aiming, and working with the trigger.
- knowledge of the causal relationships - how the work with the trigger affects the stability of the muzzle section of the barrel, why the bone support system should be used instead of the muscular one, does the shooting

position lead to minimal body oscillations and from there to muzzle section stability on the barrel, etc.

Cognitive variables are essential for the development of the shooter. However, they have their impact exclusively in the first and partly in the second phase of training. It can be argued that underestimating the acquisition of knowledge at the expense of the physical aspects of shooting will not lead to progress in training. Lack of knowledge will lead to a delay in development and hence increase the cost of the training process.

Third group of factors - emotional variables. Emotional variables and their relationship to shooting efficiency have not been extensively studied. It is believed that the volume and type of mental load before the shot greatly affects the effectiveness of shooting. Given the impact of anxiety on the physiological state of the shooter and hence on the stability of the muzzle of the carbine, we can definitely say that emotional variables are an important aspect of the effectiveness of shooting.

Fourth group of factors - equipment and environment. The influence of the different characteristics of the weapon and the equipment is strictly individual. Observations from shooting and the results of qualified shooters show that the equipment significantly affects the speed of action. The physical characteristic of the shooter and the impossibility to adjust certain parameters of the weapon in relation to this characteristic leads to low shooting efficiency. The issue has not been sufficiently studied, but it can be assumed that the personalization of weapons and equipment will significantly increase the performance of the shooter. The environmental factor cannot be controlled. In all cases, it has the greatest impact during the first phase of training and the least during the third.

CONCLUSION

The development of weapons over time and the change in their technical characteristics have largely determined the changes in the perceptions of combat operations by the armies. Nevertheless, the success of any operation depends on the skills of the soldiers to effectively defeat the enemy. Shooting is a set of skills. These skills can be influenced by a number of factors. Knowing how to influence these factors will allow the training qualified servicemen who would be capable of successfully executing any fire task.

REFERENCE:

1. Ackerman P. L., Individual differences in skill learning: An integration of psychometric and information processing perspectives. Psychological Bulletin, br. 102, str 3–27, 1987. Ackerman P. L. Predicting

individual differences in complex skill acquisition: Dynamics of ability determinants. *Journal of Applied Psychology*, br. 77, str 598–614, 1992.

2. Fitts P. M. & Posner, M. I., *Human performance*. Belmont, CA. 1967 Brooks/Cole; Wrisberg C. A., *Levels of performance skill: From beginners to experts*. 2003. Singer H. A. Hausenblas & C. M. Janelle., (Eds.), *Handbook of sport psychology*, New York, str. 3–19.