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### **BRIGADE COMBAT TEAMS OF THE US ARMY**

*The article analyzes the general organization, the armament of the motorized infantry and tank units of brigade combat teams of the US Army.*

**Keywords:** *brigade combat team, USA, Army, reform, agile, versatile*

#### **Statement of the problem**

In modern terms, as before, each state is forced to pay constant attention to its defense, to maintain a high level of combat readiness of the armed forces, equip them with modern military equipment; prepare proactive, competent broad-minded military personnel that should have profound knowledge of modern forms and methods of warfare, strong practical skills for managing troops in battle, reliably defend the independence and territorial integrity of their country. So qualitatively new situation in the world, especially in recent events, requires from our country flexibility and persistence in achieving and assertion of their national interests.

Today, when Ukraine's Armed Forces are taking part in the hostilities in the East of the country, the experience of reforms of leading countries armies of the world is actively studied, the search lasts for different optimization of the existing organizational structure of the Land Forces compounds, ways and directions of modernization of the existing park of arms and military technology and the creation of modern armament, so the experience of reform combat brigades of the Army of the United States of America (USA) we will be interested and useful for us.

#### **Analysis of recent achievements and publications**

According to many military experts [1-3] and analysts among the main reasons for reforming the land forces of most armies of the world new threats to national security are called that emerged after the "Cold War", including terrorism, and the requirement of time for fundamental change of forms and methods of using the armed forces. But the most important is the appearance of modern information technology, which allowed to create more mobile and viable military units.

In the building of the armed forces, Americans tend to have the army that superiors the military capabilities of any potential adversaries.

Today, when in the brigades of the Land Forces of Armed Forces of Ukraine the creating of battalion tactical groups is introduced, more than ever is useful to study the structure and arms of the Brigade Combat Teams (BCT) of US Army and the structure of their headquarters.

#### **Statement of the task and its solution**

In my research I try to systematize recent publications of military experts on reforming the American land forces, especially that concerns the transformation of the organizational and staff structure of combat brigades.

The government of United States considers the armed forces as an important means of achieving their political goals in the international arena. Since 1996, the command of the US Army implements the transition of formations, units and US authorities of land forces to the brigade structure by equipping them with new types of weapons and military equipment, which was developed according to the «Future combat equipment» (Future Combat System – FCS).

The program was developed under the concept of «The new model of army» which includes a comprehensive reform of US Army. The concept was published in «Army perspective-2010» (Army Vision

2010), which was published in 1996. It aims to increase combat effectiveness as separate units and land forces as a whole. For over 10 years the program «Future Combat System» was the largest, the most complex and the most valuable new program of development of armed forces in the history of the US Army, which was spent by some estimates about 300 billions of US dollars.

### **The main material of research with full substantiation of scientific results**

The US Army of new type should be organized, staffed by trained personnel, promising weapons and equipment and are able to operate effectively during major combat operations (from fighting with terrorism to the internal security of the USA). The basis of their action is the principle of «The first saw, the first decided, the first acted and strongly go to victory» [4,5].

Within the concept of «The new model of army» the command of the Army of the United States made the transition from divisional to brigade structure. All compounds were transferred to the organizational and staff structure of forwarding focus (in US military terminology – «modular» type), by equipping them with modern specimens of weapons and military equipment. According to these measures brigade of module type are formed.

The experience of combat in Iraq and Afghanistan and the reducing of appropriations for the military budget, forced the leadership of the Ministry of Defense of the United States to review their programs to reform the land forces combat brigades. Thus, in 2009, a new document was adopted – «Brigade combat team Modernization» (Brigade combat team Modernization), realization and practical implementation of which is underway in the US military.

The US military leadership rarely uses the term «brigade» instead it uses the term «brigade combat team» (Brigade combat team – BCT) it clearly emphasizes the difference between the new structure of brigades to previous brigade structure.

According to plan of Command of the Army «Brigade combat team Modernization» provides building of flexible organizational and staff structure of combat brigades that allows organizational changes and association on by basis of brigade tactical groups, which will operate on a rotation principle and rational use of mobility, security, information and precision strikes for effective action to achieve success both now and in the full spectrum of military operations in the future.

The main purpose of reorganization measures of the US Army is to create «Objective Forces» with high mobility and combat effectiveness, promising armored vehicles equipment and able to transport to areas of combat usage of aircraft of military transport aviation, and in particular by aircraft C-130 «Hercules» that carries about 20 tons.

According to the norms the brigade must be overturned in the area of future hostilities within 96 hours, the division in 120 hours and five divisions in 30 days in terms it provides the possibility of immediate deployment and autonomous action to perform for a long time «wide range of tasks to ensure the national interests of the United States in various regions of the world» [5].

In the US Army from 2012 to the present the optimization of troop's quantity and National Guard and Reserve has place.

Thus, according to a statement [6] of US Army Chief (January 2012), in terms of the program to reduce the defense spending and restructuring the army, the land forces can reduce the number of combat brigades of regular army from the current 45 to 32, which will reduce its personnel to 60 thousand of soldiers.

Command military experts [2] of Army Training and Doctrine Command (TRADOC) is considered an option to enter the third battalion to organizational and staff structure of light and heavy brigade combat teams.

Over the opinion of US Army Command, increasing the number of battalions in BCT will achieve significant flexibility of combat use, and considering the opportunity to increase the engineering units as part of brigade combat teams.

Until recently, under the governing documents of the United States Army the main tactical connections were division, types and organizational and staff structures of which with development of ways and means of armed struggle periodically changed, but, at present, in view of American military experts, the main tactical connections, which is composed of parts and units of the armed forces and services and able to conduct modern combined arms combat, both independently and as part of divisions, operational and tactical formations and independently, is a combat brigade group.

Under the provisions of the field manuals [7] the brigade combat team (BCT) is the basic deployable unit of maneuver in the US Army.

In the course of reforming the Army the organizational and staff structure of BCT (individual and as part of divisions) was reduced to common standards: Heavy (equipped with armored techniques); Light and «Striker» (equipped with wheel armored combat vehicles of the type «Striker»).

According to the classification the US Army the type of light brigades includes: infantry, airborne and air-assault brigade, ie formation that incorporates no armored techniques.

Table 1

**The quantity of brigade combat teams of US Army**

Type of BCT	Regular Army	National Guard	Total
Heavy	18	7	25
Light	20	20	40
«Striker»	7	1	8
Total	45	28	73

Heavy Brigade Combat Team (HBCT) includes: headquarters with headquarters company; brigade special troops battalion; two combined-arms maneuver battalions; armed reconnaissance squadron, fires battalion and support battalion.

The main purpose of HBCT is to conduct of heavy decisive offensive operations against any opponent on any terrain. Besides, as defined in the American sources, Heavy Brigade Combat Team is able to lead as positional defense, hostilities in city and mobile security operations (covering of border, security, protection of objects).

Infantry Brigade Combat Team (IBCT) organizational consists of a headquarters and brigade special troops battalion; two infantry battalions and reconnaissance battalion; fires battalion and support battalion.

The main objective of this type of BCT is warfare in populated areas and in areas where the usage of heavy military equipment is complicated. Each infantry brigade is capable of air assault operations, whether or not it is officially designated as an air assault brigade. Also, most units typically maneuver in HMMWVs when deployed and operate as «motorized infantry» to facilitate speed of movement.

The Striker Brigade Combat Team (SBCT) of the US Army organizationally includes: headquarters with headquarters company; three mechanized infantry battalions; reconnaissance battalion; fires battalion; support battalion and four companies: Anti-tank, military intelligence, engineering and signal.

The main feature of the combat brigade group is that it is armed with wheeled armored combat vehicles «Striker» of different modifications, which are created in a single database. ACV «Striker» was named in honor of US Army soldiers Striker Stewart and Robert Striker, who distinguished themselves during the World War II and Vietnam, respectively (there comes the name of the team).

Management of Light and Heavy Brigade Combat Teams includes with staff and headquarters company and the special troops battalion.

Management of BCT «Striker» consists only of headquarters and headquarters company. During the combat missions activities of headquarters provides some personnel of separate company formation.

Headquarters Brigade [7] with headquarters company includes a group of management and two command points: tactical (TCP), basic (BCP) and the headquarters company (which includes machinery and NBCs of headquarters brigade).

Management group of brigade combat teams [8], usually consists of the commander and his first deputy, the chief of artillery and officers, operational department, reconnaissance, fire destruction and sergeants (signaler and two officers assistant of operational department), and the crews of combat vehicles (depending on the type of team) and drivers of vehicles HMMWV (High Mobility Multipurpose Wheeled Vehicle) [11].

Tactical and basic command organizational divisions consist of: G1 – personnel and ideological work; G2 – reconnaissance, G3 – operative; G4 – logistics; G6 – communication; fire support planning; group of chaplains, in addition, each of the CP is attached by Tactical Air Control Party (TACP) of three soldiers of the Air Force (officer, sergeant and specialist).

Tactical Command Post [7] deploys in corps (divisions, brigade) and applies to the advanced control points, by the size and number of personnel it is less than basic command post. Basic requirements: mobility and continuous communication with other control points. Also it can be used as an alternate command post when it is necessary to move the main command post; to provide it with information from forefront; combat and technical support, synchronization of combat and tracking current information.

The main command post is set in corps (division, brigade and battalion), has a wide range of problems and are more focused on future operations. Its composition manages the unit's operations in the deep, manages the resources and plans the future operations, in addition, it manages the operations at the forefront when the TCP is not deployed, orders the task to reconnaissance and inform the headquarters .

TCP is headed by Deputy Brigade Commander, MCP- Brigade Chief of Staff.

Special Troops Battalion [9] is a new formation of a structure of combat brigades in the US Army and is designed for combat support of units and companies management of military reconnaissance, engineering and communications.

Among the most notable changes in the structure of new compounds – very significant increase in reconnaissance and related functions, as, apart from brigade battalion reconnaissance (reconnaissance, surveillance and target designation), also the military reconnaissance in special troops battalion leading electronic reconnaissance and engages in processing, decoding and analysis of intelligence .

Combat units of all types of combat brigade teams are infantry (airborne, air assault) and combined-arms maneuver battalions.

Infantry Battalion [10] includes a headquarters with headquarters company; three infantry companies; weapons company.

Infantry Battalion of SBCT organizationally includes a headquarters with headquarters company and three infantry companies.

Combined-arms maneuver battalion in its organizational structure has a headquarters with headquarters company; two mechanized infantry companies; two tank companies and an Anti-mine group.

An American soldier today, according to the command of the Army, is the most prepared and has better gear in US history. In addition, the American soldier is considered [10] as a «weapon system» and particular importance is attached to his individual combat gear. It currently consists of small arms and knives, body armor, Kevlar helmet with night vision goggles, negotiation radio device, camouflaged uniforms, boots, knee and elbow pads, personal protection equipment (damaging factors of NBC), personal medical kit, rain suit, modular gear, sleeping bag and Meal-Ready-to-Eat (MRE).

Members of all types of BCT armed with following examples of small arms: 5.56 mm automatic carbines M4 (5.56 mm automatic rifles M16 of various modifications); 40 mm grenade launcher M203 grenade launchers and M320; 5.56-mm machine-gun M249 SAW; 7.62-mm machine-gun M240B; 7.62-mm machine guns M240S; 9mm M9 pistols; 12.7-mm machine guns M2HB; and 40-mm automatic grenade launchers Mk19 mod. III [10,11].

The total weight of the payload (small arms, ammunition, equipment and other items) that soldier always bears – more than 35 kg, sometimes reaching up to 45 kg. The cost of modern weapons and equipment of US soldiers is about 17,500 dollars.

Over the last two decades to the US Army received a significant number of new models of weapons; actively measures of modernize technology park are carried out, which was adopted at the 80 years of the last century.

Arms and military equipment of mechanized (infantry) units of Brigade Combat Teams are upgraded towards integration into the promising military tactical communications systems of battlefield management, personnel defense, increase firepower, maneuverability and the ability to transport by aircraft of military and transport aircraft.

In recent years brigade combat teams of US Army have in service the following new standards of weapons:

a family of armored combat vehicles "Striker» (M1126 - Infantry Carrier Vehicle (ICV); M1127 - combat reconnaissance vehicle (CRV); M1128 - Mobile Gun System (MGS) armed with 105 mm (cannon M68) overhead gun for direct fire; M1129 - Mortar Carrier armed with 120 mm or 81 mm Mortar; M1130 - Command Vehicle; M1131 Fire Support Vehicle (FSV) with targeting and surveillance sensors; M1132 - Engineer Support Vehicle (ESV); M1133 - Medical Evacuation Vehicle (MEV); M1134 - Anti-Tank Guided Missile Vehicle (ATGM) armed with TOW missile; M1135 Nuclear, Biological, Chemical, Reconnaissance Vehicle (NBC RV)).

High Mobility Artillery Rocket System (HIMARS);

Portable Anti-Tank Missile FGM-148 «Javelin»;

Unmanned Aerial Vehicle (UAV) RQ-7 Shadow 200 (Shadow 400, Shadow 600);

UAV RQ-11 «Raven» and RQ-11B «Raven B».

For experience in special operations in Iraq and Afghanistan, it became clear that the chosen concept of creating a light, weakly armored, but mobile vehicles of HMMWV type or ACV «Striker» is not quite correct. Therefore, US Army initiated a program of creating wheeled armored vehicles with enhanced mine protected MRAP (Mine Resistant Ambush Protected). So, were adopted and successfully used in Iraq and Afghanistan armored combat vehicles of «Max pro» type, «Cougar» and engineering reconnaissance machine «Buffalo» [10,11].

Main battle tank (MBT) M1 «Abrams» was modernized to level M1A2; infantry fighting vehicle (IFV) M2 «Bradley» - to M2A3; was developed and adopted several armored versions road of vehicle HMMWV - M1114 and M1151A1; ACV «Striker» is planned to improve - its Anti-mine strengthen defense.

Artillery divisions of heavy compounds and brigades «Striker» got modernized 155-mm howitzers, M109A6 self-propelled «Paladin» and M777 that are towed.

### Conclusions

Thus, Ukrainian military experts, including Y. Barash [2] believe that modern American Brigade Combat Teams have the advantages over teams from the previous organization:

typical organizational and staff structure,

the increasing of combat potential which is associated with a change in the number of combat companies from 10 to 11-12 (the conditions of entry the Third Battalion - up to 14-16),

the possibility of submission to headquarters of the various divisions and corps;

the improving of the technical capabilities of reconnaissance - the usage of standard UAV (eg there is a complex UAV RQ-11 «Raven» in every infantry company of HBCT),

the availability of technical means for deploying many radio networks and satellite communications,

the ability to stand-alone solution for a long time of wide spectrum problems from different regions of the world.

The new structure of brigades, according to US military professionals allows effectively perform different tasks by nature (from classic combatants to participate in peacekeeping operations and actions to combat terrorism) as a part of divisions or operational-tactical formations and independently.

## Prospects of further researches

Today in our country measures are implemented to further reform and development of the Armed Forces of Ukraine, creating of modern organizational and staff structure of unions (parts, units), effective management system, modernization and upgrading of weapons and military equipment.

Therefore, the study of typical organizational and staff structure brigade combat teams that are created to solve a variety of combat missions is important and allows to implement this experience in reforming the Armed Forces of Ukraine especially during the formation of the battalion tactical groups and their headquarters.

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## БОЕВЫЕ БРИГАДНЫЕ ГРУППЫ СУХОПУТНЫХ ВОЙСК США

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*В статье рассматривается общая организация, вооружение мотопехотных и танковых подразделений боевых бригадных групп сухопутных войск США.*

**Ключевые слова:** боевая бригадная группа, США, сухопутные войска, реформа, высокая маневренность, универсальность применения

## БОЙОВІ БРИГАДНІ ГРУПИ СУХОПУТНИХ ВІЙСЬК США

О.В. Лупаленко

*У статті розглядається загальна організація, озброєння мотопіхотних і танкових підрозділів бойових бригадних груп сухопутних військ Сполучених Штатів Америки.*

**Ключові слова:** бойова бригадна група, США, сухопутні війська, висока маневреність, універсальність застосування.