

HISTORICAL EXPERIENCE OF EMPLOYMENT ARMY AVIATION IN THE CONFLICTS BETWEEN KOREA AND INDOCHINA AND ITS IMPACT ON THE EMERGENCE OF AIR ASSAULT ACTIONS

The actuality of the research paper is due to the fact that the role of active combat actions increases significantly as far as the success depends on both units and sections' capabilities to adjust course of action to certain conditions on a battlefield, to deliver surprise attack not only from the front as well as from the rear positions. Hence, abrupt, violent actions disorient the enemy, violate the control of the troops and provide favorable conditions for its defeat.

It is analyzed a development process of the Army aviation, its forms and methods, that were applied in military conflicts between Korea and Indochina at the beginning of the second half of the 20th century, its influence on both the origin and development of the airmobile actions as a form of air assault actions. The reasons of enhancing its role in the armed struggle which crucially impacts the employment of the Army Aviation. It is pointed out that the invention of helicopters along with its exploitation in the combat, fostered the emergence of new forms of actions, such as air assault actions.

Key words: Army Aviation, air assault detachments, air assault actions, airmobile actions.

Taking into account equipment modernization of the Army Aviation in military conflicts it is known, that employment of the Army Aviation (AA) in the local wars starts from the Korean war (1950-1953 years), when the helicopters, together with airplanes were exploited mainly for transportation, casualty evacuation, and later on for air reconnaissance, targeting aviation strikes at the ground aims, adjusting artillery fire, troops transportation, landing of the paratroopers and sabotage groups, carrying the ammunition, material resources, evacuation of units, signal support (*Vietnam, part 1, 1999a: 23*). Subsequently, it was exploited as a tool of fire support of the troop's helicopters.

French helicopters in the Indochina. The first helicopters in Indochina were French ones – two helicopters Hiller 360(H-23) from the public organization Service de Sanite de Indochina arrived in Saigon on May

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12th, 1950. In four days those aircraft accomplished the first combat mission. The «Normandie» operation was the first significant one with helicopters involvement, delivered by the 1st Foreign Legion Regiment in the Plain of Reeds in the Saigon area. The French headquarters highly evaluated the helicopters actions. In February 1952 in Indochina five more aircrafts Hiller UH-12A arrived, and in April the base was replenished with several Sikorsky HRS-1 (S- 51), provided by the British. In the middle of 1953, the Air Forces of France in Indochina had already been equipped with 23 helicopters. Consequently, the 65th helicopter's squadron was installed in Saigon.

Until the end of the war in Vietnam, the French increased the number of helicopters in the Indochina base. Severe tropical climate significantly reduced the capabilities of vehicles, moreover the conditions of high mountains restricted the abilities of helicopters. Accordingly, an important event took place, it was the arrival in October 1953 first 12 vehicles of Sikorsky H-19 (S-55). These helicopters could take on board up to 6 wounded people simultaneously. There is comparatively high power of engine H-19 which permits the helicopters to operate in mountainous terrain, which is prevailing in the north of Vietnam- a venue of main battles. The battle of Dien Bien Phu took place there, in which helicopters played significant role. They operated from the airfield in San Juan, helicopters of the 53rd squadron conducted a lot of flights, rescuing more than a dozen of lives (*Vietnam, part 1, 1999a: 3*)

Impact of helicopters on the emergence of air assault actions (AAA). Then the Americans came. To improve the mobility of Saigon troops in South Vietnam two helicopter companies were sent to Saigon, on December, 11, 1961. December, 22 forty helicopters CH-21C «Shawnee» conducted training of the airmobile landing. (Michael Green, 2017:19) All stages of operation: loading, flight, control points and disembark- were conducted according to the plan. The next day vehicles of both companies conducted the first combat flight. (*Siegfried Wache, 1990: 4*) The aim of the operation was to destroy partisan base and radio station in the village Duk-ho (15 km to the east of Saigon). In the operation 30 helicopters that were transporting 1000 paratroopers, took part. The goal of the task was obtained. The partisans were pushed out of the village and radio station was destroyed. 2d January in 1962 the airmobile paratroopers were disembarked in the jungles area again. (*Vietnam, part 1, 1999a: 6*)

Although the first operations with helicopters were mainly successful, there were a lot of problems. Despite the fact that those tasks were relatively simple - to transport people from objective A to objective B, very often the connection was lost in the air-ground area. In a while intensive preparation permitted to eliminate most of the issues. However, the short range of helicopters actions limited their sphere of operation to the closest areas of Saigon. On January 25th in 1962, the next helicopter unit arrived in Vietnam – 93d Transport Helicopter Company.

On February 1st, 1962 the helicopters of the 93d Company delivered the first combat flight. On August 2d of the same year, the 93 d Company with ten CH-34 from Helicopter's Squadron of the Air Forces of South Vietnam accomplished operation in the area of responsibility in the First Corps (north part of South Vietnam). Two battalions of elite Vietnamese 1st infantry division were dropped by helicopters and managed to capture and destroy headquarters of the 5th military district Viet-Cong in the region of Donh-Xia. (*Lennart Lundh, 1994*) The event induced preconditions to commence AAA.

In 1962 the war in Vietnam was called “the war of helicopters”, although full scale application of the aircrafts began few years later. A helicopter turned out to be a symbol of that war. Helicopters were used in each massive military operation of the American army. One of the principal flying machine in the Vietnam was helicopter UH- 1 "Huey". In addition to Army Aviation, in Vietnam there were aircrafts of the USA Navy, Marine Corps, and the USA Air Forces. (*Pawel Kłosiński, 1993: 6*)

The area of the helicopters' employment had been expanding steadily. Soon it became clear that transporting helicopters could be used for an escort. There the utility tactical transport helicopter company (UTTHCO), which was equipped with 15 helicopters Bell HU-1A «Huey» was established in Vietnam, in July 1961. The company conducted numerous trainings in Okinawa and in Thailand before the deployment to Vietnam, in order to prove efficiency of helicopters as assault aircrafts. On October 3d in 1962, upon arrival in Tan Son Nhat, the company was taken under command of the USA Air Forces Commander in Vietnam. In November of the same year, it was augmented with eleven new helicopters Bell HU-1B. The employment of assault helicopters decreased the losses almost in half in the transport companies. Fire support was extremely valued during

the landing. Besides, the helicopters UTTHCO escorted car columns, provided ground troops with fire support, and conducted reconnaissance in battles. (*Kłosiński, 1993: 14; Janda, 2007*)

Application of the airmobility principle. The warfare in Vietnam is characterized by considerable expansion of the helicopters exploitation in widening range of tasks; the most vital ones were to carry out air assault operations. On May 5th, 1965 in the base of Bien Ho near Saigon the first units of the USA Army the 173rd Airborne Brigade. The landing of this brigade was provided by helicopters of 145th Air Battalion. During first two weeks American paratroopers built fortifications around the base and also conducted joint exercises with helicopters. The emphasis was put upon the interaction with attack vehicles (*173rd Airborne Brigade Association, 2018*) The task of assault helicopter companies was to escort transport helicopters. In 1970 companies were disbanded and on its place were formed Air Cavalry Squadron. (*Vietnam, part 1, 1999a: 17*) Only 1st airmobile Cavalry Division was at that time the only division in the USA Army, which was fully-equipped with helicopters. The division was formed July 1st in 1965 on the basis of 11th Air Assault Division and 2 d Infantry division (*1st cavalry division association, 2018*).

Consequently, for successful conducting airmobile operations (beginning of AAA), which was main for war in Vietnam, the role of helicopters in fire support increased a lot. Effective actions UTTHCO caused in pilots the state of euphoria, therefore some of them began to question necessity of support of classical aviation, believing that helicopters are capable of acting on their own. However, it is proved, that helicopters and aircrafts must conduct their specific tasks. The scale of using helicopters steadily increased. In March 1963 to Pleiku came headquarters of 52 d Aviation Battalion, which was supposed to manage the actions of helicopters units in the zone of II Corps. At the same time gradual replacement of heavy and slowly moving “flying bananas” into modern UH-1B began. (*Janda, 2007: 9*) In June 1963 transport companies were disbanded, and on their place were formed airmobile light companies. Each such company consisted of two transport platoons and one assault helicopter platoon. Platoons have 8 helicopters UH-1B. Transporting modification UH-1B soldier called it «slicks» (“smooth”), and assault – «gunship». Transport helicopters looked indeed smooth to compare with fully equipped assault helicopters. The last CH-21 was taken out from Vietnam in August 1964 (*Mutza, 2004; Bishop, 1987*).

In September 1965 according to the experience of combats conducting in the “Area of combat operations D”, more known as “Iron triangle”, where 173th Airborne Brigade conducted the most significant at that time helicopter air drop, in which participated 144 helicopters (including 77 transport vehicles), it has been decided to leave with brigade only one helicopter company. This significantly permitted to increase the effectiveness of using the vehicles. In a short period the number of flights increased by 24%, and the number of combat flights increased by 165%. The cargo weight increased by 50%. At the same time for pilots it became less hard by 24%, and for helicopters for 23%. In September 1965 1st Aviation Battalion came to Vietnam, which was the part of the 1st infantry division. It comprised of Transport Helicopter Company (22 UH-1D) and Assault Helicopter Company (20 UH-1B). First operations revealed the best combat skills of the most modern UH-1D, that was able to transport up to ten people simultaneously over the terrain of Saigon. (*Vietnam, part 1, 1999a: 14*)

Subsequently, Americans initiated experiment with the helicopters for fire support. The concept of flying fortress was launched. Vietnam turned into an arena of actions for the most massive helicopters at that moment, true “flying fortresses”- ACH-47A «Chinook». Their history dated back to 1964, when the military commanding staff decided to substitute the equipped UH-1A/B. Out of numerous aircrafts there were elected the helicopters Bell Model 209 (that later were known as AH-1 «Cobra») and helicopter of the Boeing production – CH-47, the one with weighty cargo capacity that allowed to install diverse armament systems as well as reliable armour. Official contract regarding the supply of CH-47 was signed on June 30th, 1965.

Maintaining the aircraft for the complicated theatre of combat actions, that was Vietnam, more powerful engines T-55L-7 were mounted on the helicopters. The unnecessary equipment such as a hook, a winch, seats were taken off: . Instead of the helicopters were equipped with more than a ton of armour in order to protect crew and the most essential nodes. The armour was to withstand the 12, 7 mm bullets. The of helicopter armament was: two 20mm guns M-24 with the ammunition for 800 shots and two launchers XM-159 for 19 missiles FFAR. An automatic grenade launcher M-5, caliber 40 mm with ammunition of 600 shots. The grenade launcher loaded with five hand-held units for machine guns M-2, caliber 12,7mm (700 shots) or

M-60D, caliber 7,62mm (3000 shots), was installed in the nose of fuselage. The armament of the helicopter provided a roundabout. The total weight of armament and ammunition was one and a half ton. (*Mutza, 1989: 31-32*)

The new aircrafts were tactically tested while the first operations were being carried out in June- July 1966. They were used to protect the landing zones. When «Chinook» was operating at high altitudes, it fired large caliber machineguns positions of the enemy, actually, soon the inefficiency of the actions was proved when it being under the fire of the enemy, was unable to fire from main weapon – guns and grenade launcher. Other type of tasks was a direct support of infantry units. In August 1966 ACH-47 supported actions of infantry units in the delta of Mekong. However, in the future ACH-47 was banned for reconnaissance or passive security of landing zones, instead, the helicopters were employed for individual or group raids along with UH-1B. CH-47s were as bombers, barrels with napalm and gaze CS. (*Vietnam, part 2, 1999b: 2-4*)

Since 1967 the special type of helicopters was applied to provide fire support AH-1G Huey Cobra, the main purpose of it was to fire the enemy in the landing zones. In Laos in the conditions of well-prepared air defense, the survivability of AH-1G was compared to UH-1C. Several times “Cobras” returned to the base shot by the bullets of the machine guns. (*Bernstein, 2003; Peacock, 1987: 9-10*)

For this reason, the loss of that very vehicle ACH-47 on February 22d, 1968, in fact meant the employment of heavy helicopters for fire support. At that time the army was equipped with helicopters AH-1G «Cobra», which could accomplish the same tasks as heavy ACH-47, but more quickly and for less price. (*Vietnam, part 2, 1999b: 2-4*)

The origin of air assault helicopters. Soon after the army attention was drawn to the helicopter by the Commanding Marine Corps. The main advantage of it, from the point of view of Marines, was the opportunity of taking off and landing from the deck of the ship and unequipped ground. Consequently, there was available the area of maneuvering transports for 10 km far from the coast, as a result the “Vertical Assault Doctrine” appeared, which was presented on December 16th in 1946. (*Wache, 1990: 169*)

In 1950 the helicopter companies were given a technical task to project “air assault” helicopter. In the early 1950’s in American helicopter construction sphere there was a competitive struggle between

supporters of two schemes – single-rotor scheme, which was developed by Ihor Sikorsky, and longitudinal two-rotor scheme, apologist of which was Frank Piasecki. The Sikorsky project became in favor. It was the vehicle with 5 bladed fully articulated main rotor and a 4 bladed tail rotor and two engines in nacelle, made on the separate pylons along the fuselage. Due to this construction the access to the engines is more convenient to repair and for maintenance works, and almost all capacity of the fuselage was released for cargo cabin, the same measurement of aircraft C-47. The unusual was the decision to place cargo hatch in the nose of fuselage. This decision was not appropriate and soon in the helicopters it was not used –such placement of cargo hatch did not allow to open it during the flight, or to conduct a flight with open valves. Among other innovations it should be pointed out the firstly used helicopter landing gear that included both hydraulic systems assembling of blades of bearing screw.

The prototype S-56 carried out the first flight on December 12th in 1953. After taking it into armament it got the designation HR2S-1. Calculation showed that aviation group (3 squadrons) Marine Corps with the helicopters HR2S-1 could for 15 hours land all division of Marine Corps. (*Green, 2017: 22*) At the same time range of flight was 2/3 of requirements of the technical task. One of the unsuccessful things was swash plate. Besides, construction of cargo hatch did not permit it to open in the air. As a result, reputation HR2S-1 was greatly shaken and it was recommended to limit purchasing of these vehicles and to increase the pace of delivery with more light helicopters HUS (S-58). (*Kharuk, 2007: 22-33*) Squadron HMR (M)-461, on the armament of which was HR2S-1, it was named combat ready on February 12th in 1957, and the second squadron became HMR (M)-462, formed 1st November 1957. Being based on the decks of aircraft carriers, helicopters actively participated in landing and provided support to the airborne forces day and night. (*Johnson & Doll, 2018: 536*)

The success of helicopter attracted attention of the USA army, which “borrowed” from Marine Corps one XHR2S-1 to conduct testing, according to the results of which it was decided to accept S- 56 for armament with number H-37A. (*Green, 2017: 23*) The supplies to the army began in the summer 1956. According to military tradition, the helicopter was named after one of Indian tribes– «Mohawk». Military helicopters obtain quite simplified construction. In particular, there was no hydraulic mechanism, hydraulic system assembling of blades

of bearing screw (although there was opportunity to put it manually). It was not possible to install equipment, which was necessary to land on the deck and fly over sea, in particular – system of automatic stabilization. The personnel capacity was up to 26 fully equipped Marines or 24 wounded on the stretchers. The size of cargo cabin allowed to transport two jeeps or 105mm howitzer. (*Kharuk, 2007: 22-33*)

H-37A was modernized into the model of H-37B, that differed by a powerful main landing gear, improved construction of a front cargo door, that allowed to open it when the helicopter is in the hang mode and to use explosive fuel tanks. The system of automatic stabilization was returned. First H-37B was given to the customer in June 1961. Ninety helicopters were H-37. (*Mutza, 1989: 12*) Since 1962 as a part of unification system of signing of aircrafts helicopters H-37A i H-37B were renamed CH-37A and CH-37B, accordingly.

HR2S-1 were renamed as CH-37C. (*Green, 2017: 23*) But under the new designation helicopters did not serve. Since 1966 in change of CH-37C came more perfect CH-53A – as well from the company «Sikorskyi». (*Johnson, Doll, 2018: 453, 536*) Consequently, S-56 demonstrated main fitness of heavy helicopters for using according to the “Doctrine of vertical assault”, and became typical transition machine, that became the basis for much further design (*Kharuk, 2007: 22-33*).

It was for the first time in Vietnam; on a large scale helicopters were used for transporting cargo and troops from the naval ships in to the coast. February 1968 during the battle for the city Hue military helicopters CH-47 «Chinook» for the first time started to transfer the cargo on the battle field from the ships, from the bases of support and ports of unloading (*Johnson & Doll, 2018: 10*). Even having the least opportunity in the large scales it started to conduct air reconnaissance, during which was chosen landing point, the route of arrival and departure were clarified and as well were determined control points (*Vietnam, part 1, 1999a: 12*).

Formation and principles of the air cavalry using. One of a serious problem, especially for observation helicopters were to adapt to the conditions of Vietnam. Very quickly they started to operate over the ground and over the tops of the trees. Firstly they were practicing flights in the twilights when the fire and smoke gave away the location of the enemy. In addition the task of the observation

helicopters was to identify the areas suitable for landing of paratroops and managing of the actions of tanks and infantry, determining the routes and aims, detection of the ambushes, evaluation of situation and effectiveness of bombing (*Vietnam, part 1, 1999a: 32*). Therefore was formed Air Cavalry, which solved these tasks. The first attempt to equip Cavalry with helicopters was conducted in autumn 1955 when was formed experimental Sky Cavalry Platoon. (*Mutza, 2002: 4*) In 1962 the command decided to form in the Cavalry Squadron the Air Cavalry Troop. But the first period of service of Air Cavalry was unsuccessful. The concept of using it has not been fully defined. Therefore some of the companies were used as transport units or units of support (*Clancy, 1994: 18*).

The conduction of combat actions in Vietnam required steady and continuous commanding, so helicopters began to provide management due to the air commanding posts, intermediate communication nodes (retranslators). Such helicopter was equipped with several sets of radio stations. (*Vietnam, part 1, 1999a: 7*) All of the commanders of the 1st Air Cavalry airmobile division from the battalion commander and higher position have their commander helicopters (serial UH-1D, which was equipped with additional radio stations, which permitted to keep contact with the ground, aviation and commander of high level). Mobile commanding posts of brigade commanders and division commanders were equipped in the hanging containers, which were suitable for transportation with helicopters CH-54. In the same containers were equipped posts of medical assistance, equipped with air conditioners, X-rays and operating tables. For evacuation of wounded were involved fifteen ambulance helicopters «Huey». All of these peculiarities changed 1st Cavalry Division into a formidable combat unit. (*Vietnam, part 1, 1999a: 17*)

Under the conditions of war in Vietnam the best and practically the only means of evacuation of wounded from the battle field were helicopters. During the combat actions in Korea, the small OH-13 acquired the fame. (*Mutza, 1995*) Due to helicopters, wounded were quickly transported to the hospital that allowed reducing mortality among them. For medical evacuation of wounded were used helicopters of different types, however since the beginning of war specialized units of ambulance helicopters started to operate. The first unit was 57th Medical Detachment of the Air Ambulance which arrived to the Vietnam 26th April in 1962. At first it was not very popular. The

detachment was not given the nicknames in the radio procedure. Only in the middle of 1963 when in combat with Viet Cong became fiercer, and the number of wounded increased day by day, noticeably increased the amount of combat flights, and it was necessary to flight at night. Then the reputation of the 57th Medical Detachment rapidly increased and it acquired first radio nickname «Dustoff», which later became synonym of the term “ambulance helicopter”. Since then the main rule appeared in the ambulance aviation “You NEVER refuse the task and NEVER flight without the wounded on board”. (*Dorland & Nanney, 2008*)

Also, in Vietnam Air Battalion was created of 2/20 Aerial Rocket Artillery Battalion, that consists of three batteries of the assault helicopters UH-1B (12 vehicles in each) and headquarters battery (four UH-1B). Battalion was part of division artillery and performed specific artillery functions. Helicopters carried out direct support of army units, destroyed targets, which were found by ground and air observers. (*Vietnam, part 1, 1999a: 16*)

The necessity of combat with armored objects set new demands and challenges. The opportunity of helicopters as antitank means increased with the appearance of anti-tank guided missile “TOW”, which for the first time was used in February 1972 in the Southern Laos. There American helicopters for the first time encountered with North Vietnamese tanks. At the beginning pilots could not oppose anything to the thick armor. The missiles with incendiary and high explosive warheads did not damage the tanks. Besides, for target hit helicopter must approach to the objective, therefore to approach the aim for anti-aircraft machine guns. For fighting with light amphibious tank PT-76 there proved to be effective 20mm guns XM-35. Only after the units immediately delivered missiles with cumulative warhead, American helicopters could hit tanks. In spring 1972 the area of Kon Tum was a military area, where the helicopters NUH-1B equipped with missiles TOW, were delivered to Vietnam. Helicopters arrived on April 28th in 1972, and soon on May 2d was shot down. Since then NUH-1B conducted combat flights, hunting for North Vietnamese armored vehicles everyday. On May 26th 1972 North Vietnamese again intensified pressure on the Kon Tum. American helicopters till the noon did three flights, fired 21 missiles and hit 9 tanks in attack. By the end of June pilots had fired 81 missiles TOW and declared about 24 destroyed tanks and a dozen of armored personnel carriers.

Concurrently they continued to operate UH-1M, equipped with old missiles SS-11. (*Vietnam, part 1, 1999a: 29*) The ambush tactics proved to be most effective for antitank helicopters, when helicopters arrived in the area on the extremely low altitude and on the background of location and waited for the moment of attack. When the target approached the launch range, a jump was made to altitude, which provided the capturing of target and its escorting and then from the hover mode there was conducted firing of antitank guided missiles. (*Towe, 2014: 52,54*)

More determined attacks of partisans on small bases of Saigon army made Americans to form rapid reaction forces, which could quickly arrive at the places of battles. Forces were named «Eagle Flights», first troops appeared in 1963. They for the first time implemented in practice the principle of “air mobility”. The next year headquarters of American units in Vietnam gave the troops of the rapid reaction forces single structure. Each detachment of «Eagle Flights» consisted of one UH-1B, which has the role of flying commanding post, seven transporting «Huey» and five assault machines. (*Vietnam, part 1, 1999a: 12*) If necessary to the detachment was included ambulance helicopter. The detachments «Eagle Flights» always were in the state of combat readiness and sometimes even were patrolling threatening terrain. The results of paratroopers depended on how quickly it was possible to arrive in the place of battle. (*Vietnam, part 1, 1999a: 13*)

New opportunities of helicopters. Having analyzed the conducting of combat actions in Vietnam we can claim that here for the first time was:

using of the helicopters at night. On the night of November 2-3 in 1965 one of the platoons of the 1st Air Cavalry division, situated in the area of runway «Mary», was attacked by the 8th Battalion of the 66th Regiment North Vietnam. To save the platoon Americans for the first time used assault helicopters at night. (*Vietnam, part 1, 1999a: 18*)

transferring of the artillery by the transport helicopters. Battle at Yandrang (1965) became the first in the combat career of new transport CH-47. Helicopters transferred thirty two 105mm howitzers. At the beginning howitzers were transported inside of the cargo compartment together with ammunition and gun crew. However this requested equipment of comfortable landing field. In addition, the unloading of the guns took a lot of time. Later howitzers and

ammunition were transported on the cargo hook under the fuselage of the helicopter. Use of helicopters CH-47 for transporting the artillery has changed rapidly the managing of the forces on the battlefield. Americans got the opportunity to use artillery where it could not be employed before. Guns could provide the fire support infantry from the peaks of the mountains. (*Green, 2017: 69*)

Soon positions of the artillery on the prevailing peaks became important detail of the scheme of action of American troops in Vietnam. Since 1969 helicopters CH-47 started to be exploited in the artillery assaults. Certain batteries together with infantry were sent to the rear of the enemy, where artillery fired. After few hours guns and artillery were sent back (to permit air assault detachments to use artillery at the rear of the enemy). Sending the artillery and cargo was the main task of CH-47 in Vietnam. (*Vietnam, part 1, 1999a: 19*) And soon in January 1966 during the operation «Masher/White Wing» firstly in the air were sent howitzers 155 mm with the help of “flying cranes” CH-54 (*Thompson, 2003: 24*).

Providing engineering and construction works. After adopting of helicopters for transportation of artillery, the miners of the 1st Cavalry Division had developed special kit which was transported on board of CH-47, with the help of which artillery position could be equipped in few hours (*Thompson, 2003: 19*).

Providing the units and troops with fuel and lubricants. Since 1969 for transportation of the fuel there were developed simple rubber suspension cylinder with the capacity of 500 gallons, which were transported by CH-47 (*Thompson, 2003; Anderton & Miller, 1989: 7*).

Using of transport helicopters for evacuation of weapon and military equipment. 24th April in 1962 during the operation «Nightingale» helicopter CH-34 conducted forced landing. In an hour near them landed four helicopters with mechanics and the cover squad, which in two hours removed the damage which gave opportunity to the helicopter to go back to the base. (*Vietnam, part 1, 1999a: 11*) There appeared a need of evacuation of shot down helicopters and damaged equipment, which in Vietnam must be sent only in the air according to the peculiarities of physical and geographical conditions and peculiarities of conduction of combat actions. This task started to accomplish heavy helicopters CH-37. And from 1965 evacuation of shot down helicopters and aircrafts was also the task of CH-47. (*Reed, 2000; Green, 2017: 70, 97*). In January 1967 to the Vietnam came first

heavy transport helicopters CH-53, the main task of which was the evacuation of shot down aircrafts. (*Vietnam, part 2, 1999b: 10*)

Equipment of helicopters with winches. In 1967 helicopters were equipped with winches that could lift wounded on the ropes from the dense thickets. (*Thompson, 2003*)

Use of smoke screens for covering their actions. Paratroopers on the area of delta of Mekong in September in 1969 often conducted under cover using the smoke screens. For this were used helicopters with smoke generators in the Trang Bang district, where before the landing of paratroopers the bridgehead was shaded for covering with smoke screen of helicopters that were landing (*Vietnam, part 1, 1999a: 28*).

The heat transfer system was tested, which prevented the precise penetration of heat-seeking missile guidance. In 1972 over the city An Loc "Cobras" for the first time met with new missiles SA-7 «Grail». May 12th North troops with the help of «Grails» shot down five AH-1G for less than half an hour. To lessen the losses, "Cobras" started to be equipped with system of conducting hot exhaust. Later such system installed on all helicopters. (*Wayne Mutza, 1997: 14; 2002: 23*)

Appeared the notion of field airfields, which was the ground for jump.

This shortened the time for refueling and rearmament and as well it allowed to keep vehicles constantly in contact with the enemy. (*Vietnam, part 1, 1999a: 33*)

- First Air Assault Detachments (AAD) - Aero Rifle Platoon (ARP), which was the part of Air Cavalry. This platoons acted according to requirements that were put to the AAD, starting from the landing of the helicopters in the areas of loading, flying by strip, divergence, disembarkation in the landing area, conducting of assault actions with the fire support of helicopters, loading in the helicopters after performing the task in the gathering area and subsequently coming back to the base. This allows asserting that AAA formed as well in the helicopter units and were actively involved in actions of Army Aviation.

The company of Air Cavalry consisted of headquarters, material and technical support platoon, and as well from three combat platoons: observer helicopters platoon (Scouts), platoon of assault helicopters (Guns) and Air Rifle Platoon (ARP), which has its transport helicopters. Later began formation of battalions of Air Cavalry Squadron. The

battalion consisted of headquarters and five companies: Headquarter company, three companies of Air Cavalry (A, B i C), and as well the company of ground reconnaissance (D), that was called “rat patrol”, because firstly it was used for reconnaissance, road patrolling, protection of the convoys and bases, and as well for quality of the rapid reaction forces. This company often acted with helicopter companies and consisted of headquarters, supply section and three cavalry platoons on jeeps. Later the task of company (D) changed. On its basis there were formed additional Air Rifle Platoons that acted with ARP (*Clancy, 1994; Drendel, 1979: 16*).

Changed the tactics of actions of helicopters of one troop and the tasks were divided among them. This was the basis for development of tactics AAA. Air Cavalry began to act with detachments which were marked in different colors. “White” detachment consisted of two observers, “red” - of two assault helicopters. Helicopters of ARP were part of “blue” detachments. At first “white” and “red” acted together. In the middle of 1968 the main detachment of Air Cavalry was “pink” - «Pink Team» or «Hunter-Killer Team». As you can guess from the name, the detachment consisted of observer (“hunter”) and assault (“killer”). Observer flew over the ground while assault helicopter was high in the sky, and was in the role of relay station. If “pink” was given the helicopter ARP than the team “changed” their color into “violet”. In highly dangerous districts were formed in such «Cavalry Packs» that consisted of three OH-6, three AH-1G and two UH-1H (*Drendel, 1979: 16, 17*).

In September 1967 tasks began to change gradually, which were decided by Air Cavalry. From reconnaissance units they changed into combat units, their aim was to inflict the enemy the maximum loses. Further changes were in the period of 1968-1969 (*Drendel, 1979: 19, 20*).

Conclusion. Therefore, it can be argued that particularly in Vietnam were the beginning and formation of AAA, and the main and significant role in this process played helicopters. And further development and improvement of forms and methods of AAA were later and during further armed conflicts. In the same time helicopters of Army Aviation is the main and reliable mean of transferring airmobile (air assault) troops and their parachute landing and paratroopers. They are also capable of highly effective support to combat actions of paratroopers, provide with all-round assistance, deliver airstrikes on the enemy, and destroy armored targets, artillery, live forces and reserves. The analyses

of using Army Aviation in the conflicts in Korea and Indochina counting on its combat capabilities, suggests that Army Aviation turned out to be the most convenient way for providing actions of air borne troops, it showed the ability to transport quickly the troops on the necessary route. Accordingly, using the helicopters, air borne troops were able to move faster than with the help of other land transport. In addition the speed of their movement did not depend on their passability of terrain. Combat action of Army Aviation in Korea and Indochina also confirmed the improvement of tactics of usage Army Aviation in the first place depends on increasing its combat capabilities. During AAA the air component is assigned to be the main shock force. In this case military units and troops of Army Aviation must be capable of promptly provide aviation support of combat action of land component. The experience of using Army Aviation shows that the success of actions of land forces in the battle field is largely determined by how reliable and operationally and covertly conducted the helicopters are managed, how clearly organized their interaction between other branches. Therefore now again appeared the question about the presence in the air assault units the helicopter units that permits them to be air assault, where the airborne and helicopter troops during joint missions form AAD. Without it air assault brigades will remain changed mechanized units, without their “cavalry”, which turn them into the powerful and highly maneuverable strength. The purpose of creating it to provide them with more modern character of conducting operation will not be achieved. The problematic question of operational planning will remain of using the troops in the operation during training, the level of effectiveness of interaction between troops “land echelon” and “air echelon”, and mainly its readiness to perform tasks together.

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Таранець С.В.

ІСТОРИЧНИЙ ДОСВІД ЗАСТОСУВАННЯ АРМІЙСЬКОЇ АВІАЦІЇ У КОНФЛІКТАХ В КОРЕЇ І ІНДОКИТАЇ ТА ЇЇ ВПЛИВ НА ЗАРОДЖЕННЯ ДЕСАНТНО-ШТУРМОВИХ ДІЙ

Актуальність статті обумовлюється тим, що у сучасній війні роль активних бойових дій незмірно зростає, і успіх буде залежати від здатності частин і з'єднань швидко переносити зусилля з одного напрямку на інший, завдавати несподіваних ударів по противнику не тільки з фронту, а й в його тилу, мати спроможності

для вертикального охопту противника. Такі раптові, стрімкі дії десантно-штурмових загонів дезорганізують противника, порушують управління військами і створюють сприятливі умови для його розгрому.

У статті розглянуто і проаналізовано процес розвитку армійської авіації як повітряного компоненту десантно-штурмових загонів, форм та способів її застосування у воєнних конфліктах в Кореї та Індокитаї на початку другої половини ХХ століття; вплив історичного розвитку армійської авіації на зародження та розвиток (еволюцію) аеромобільних дій (десантно-штурмових дій). Розкриваються причини зростання ролі армійської авіації в збройній боротьбі, що істотно вплинуло на характер її бойового застосування. Результатом такого впливу, в свою чергу, став вплив технічного розвитку та розвитку тактики застосування вертольотів на зародження аеромобільних дій (десантно-штурмових дій). Відзначено, що поява вертольотів та їх використання у збройній боротьбі привела до появи нових форм дій – аеромобільних дій (десантно-штурмових дій). І саме тому зараз знову гостро постає питання про наявність в десантно-штурмових частинах вертолітних підрозділів, що саме і дозволяє їм фактично бути десантно-штурмовими, де десантний і вертолітний підрозділи під час спільного виконання завдань утворюють десантно-штурмовий загін. Без цього десантно-штурмові частини залишаться видозміненими механізованими частинами, без власної «кавалерії», яка і перетворює їх на потужні та високоманеврені. Мета, що обумовлювала їх створення для надання більш сучасного характеру ведення операцій, так і не буде досягнута. Проблемними так і залишаться питання оперативного планування застосування військ в операціях та у ході навчань, рівень ефективності взаємодії між підрозділами «наземного ешелону» і «повітряного», а головне – їх готовність до виконання спільних завдань.

Ключові слова: армійська авіація, десантно-штурмові загоны, десантно-штурмові дії, аеромобільні дії.