



CHOPPERS: HELICOPTERS AND THE VIETNAM WAR



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Helicopters and the War in Vietnam

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... “air mobility was born during the Korean War; received its baptism of fire in Algeria; and came of age in Vietnam”.

(John Everett-Heath, *Helicopters in Combat: The First Fifty Years*)

I congratulate the members of the associations of the Military History and Heritage of Victoria and the National Vietnam Veterans Museum for their conduct of this conference on a subject that is often either overlooked or misunderstood when considering the history of Australia’s participation in the Vietnam War.

The role of the helicopter in the Vietnam War was pivotal in the way operations were conducted. By the time it had withdrawn its armies in 1973, according to historian Mark W Woodruff, U.S. troops had totally eliminated the Viet Cong, the force it had first been sent to fight and along the way, U.S. forces had also defeated the armies of North Vietnam fighting in South Vietnam. Without the helicopter it would have been a very different war, with a very different outcome.

We tend to think of chopper warfare being the product of the Vietnam War – this is not the case. The Americans in Korea and the French in Algeria were using helicopters in combat well before then:

1950 – 53	Korean War	American Forces
1950 – 54	Indo China War	French Forces
1954 – 62	Algeria	French Forces
1961 – 73	Vietnam War	American Forces

I will briefly address the impact these conflicts had on the development of helicopters in combat and thus the conduct of the chopper war in Vietnam.

Korean War

Helicopters had little impact on the progress or outcome of WW II. There was some development of the helicopter following WW II, but it remained firmly in its infancy regarding carrying capacity and power plants.

With the start of the Korean War in 1950, U.S. Armed Forces deployed helicopters to the conflict, but they had limited capability. These capabilities were slowly improved as the war progressed and new roles and techniques were developed, particularly for casualty evacuation.

A month after the start of the Korean War, four helicopters were used by the United States Marine Corps to carry troops to resupply and later break out from the Pusan foothold held by the Allies after the surprise onslaught by the North Koreans.

By the end of 1950 all four U.S. Services were employing helicopters to support their combat forces in such varied roles as casualty evacuation; reconnaissance and battlefield surveillance; direction of artillery fire; resupply; the laying of telephone lines; the carriage of commanders and staff officers and the rescue of Allied pilots downed in MIG Alley .

The Marines also used the helicopters to airlift troops to the tops of hills to capture the high ground much more quickly than by conventional means. The first ever tactical resupply by helicopter was conducted on 12 September 1951 during *Operation Windmill* when ammunition was carried to Marines on the battlefield and the dead and wounded carried out.

Notwithstanding these achievements, the helicopter's involvement in the Korean War is best remembered for casualty evacuation, due in no small part to the television series *MASH*. The H-13, better known as the Bell 47 or Sioux, transported some 18 000 casualties during the war, from a total casualty transport list of 23 000. The positive effect this had on troop morale was immediate and invaluable in raising the fighting effectiveness of the force.

With the development of the helicopter, a new weapon of war was gradually forged, the first since the tank made its dramatic appearance on the battlefields some 35 years earlier.



Indo China

While the United Nations was fighting in Korea, the French were fighting a war in Indo-China – and losing it.

No helicopters were involved in combat operations, their primary role being limited to casualty evacuation. The subsequent introduction of the S-55 which could carry six wounded and a medical attendant bolstered the French casualty evacuation capability.

If casualty evacuation was promising to be an effective combat support service, the French defeat at Dien Bien Phu dashed that immediate thought. Four rescue helicopters bearing red crosses were shot down by Viet Minh artillery when they tried to evacuate casualties from the besieged stronghold.

By any standard, the employment of helicopters by the French in the Indo China war lacked an understanding of the operational environment while underestimating the enemy's ability to wage war.

Algerian War

On the other hand, in Algeria, French Commanders were more attuned to the demands and principles of war and applied them successfully. They applied a great deal of initiative which is noteworthy as at that time there was little, if any, recognised tactical doctrine for the conduct of chopper warfare.

The Algerian War occurred between 1954 and 1962 when the Liberation National Army comprising 30,000 – 40,000 Algerian Moslem guerrillas challenged French colonial rule.

Those who have been to Algeria will appreciate that Algeria has a long narrow coastal plain on which 90% of the population live, is four times larger than France, and has two rugged mountain ranges with peaks up to 2,300 metres (7,500 feet) which peter out on the Sahara desert.

While this conflict was predominantly an infantryman's war, the rugged terrain and tenacity of the enemy made mobility, good intelligence, and the provision of firepower essential.

From a small helicopter force comprising 10 Bell 47G and 8 H-19s at the start of the war, the French forces grew to some 380 helicopters to support approximately 425,000 troops – a ratio of one helicopter to 1,100 troops.

These helicopters provided support that would not otherwise have been available to the ground forces:

Intelligence - constant patrolling and visual reconnaissance

Command & control - ground commanders with bird's eye view of the battlefield and an ability to communicate with his forces

Application of firepower - development of the concept of armed helicopters

Transportation of troops for mobility, speed and surprise

Logistic support

But of all the activities conducted by the helicopter forces, once again, casualty evacuation was considered the single greatest factor in maintaining the morale of the French force

Importantly, the French campaign in Algeria demonstrated that the helicopter had developed into a formidable weapon essential to the successful outcomes of guerrilla warfare being fought by a force far from home.



Introduction and employment of helicopters by U.S. forces in Vietnam

45 years ago, the road system across South Vietnam (SVN) was poor and ground transportation of troops was slow – too slow to be able to engage an enemy that had the ability to melt into the jungle or hide amongst the local population. The roads in existence often came under attack by the Viet Cong and/or North Vietnamese Army, which either precluded or increased the risk of their use.

Movement on the ground, even with armoured and artillery support, often was hazardous and time-consuming.

This was an important consideration given that the role of the insurgent VC was to keep the initiative and attack selected targets within their capability to ensure success while the Allied forces' role was to attack the insurgents and keep them off balance. To do this, once again helicopter operations were essential.

Like the French build-up of helicopter forces in Algeria, the U.S. build-up in South Vietnam was also initially quite modest and I would suggest that the lessons learned by the French in Algeria, while contemporary, had not been absorbed by the Americans. Notably, the first American helicopters deployed to Vietnam were not armed.

The first American helicopter units were deployed to South Vietnam in 1961 and supported ARVN forces. These were *Shawnees*, or H-21 Flying Bananas – the same type of choppers the French had used in Algeria. But there was never enough airlift capacity available to meet the demand and realisation of this challenge resulted in more helicopter units being deployed to South Vietnam to meet the varied roles required to combat insurgency. It was not until the turbine powered Huey made its entrance onto the battlefield that helicopter support was transformed.

Along with the B-52, the Huey became the signature aircraft of the Vietnam War. The sound of rotor blades slapping the air and the appearance of a Huey would become a welcome sight to many hard pressed troops on the ground.

But initially, only five Hueys were deployed in the Medevac role to SVN in 1962 and based at Nha Trang to support the ARVN forces. These forces were spread across SVN; however, the presence of the Medevac choppers did much to boost the morale of the troops.

Of all the roles performed by a wide variety of helicopter types and sizes, their major impact on the way operations in Vietnam were conducted can be best identified in the conduct of:

- Air mobility operations
- Gunship fire support
- Medical evacuation operations
- Logistic Support

These roles had been developed by the French in the harsh climate of Algeria and under combat conditions.



Air Mobility

The first American combat ground units arrived in South Vietnam in March 1965, until then the war had been fought by South Vietnamese forces and assisted by American “Advisors”. With U.S. land forces came a further increase in the number of helicopter units.

The Americans had realised the need for increased mobility of forces in 1962 and the development of the air mobile concept became a reality with the formation of the 1st Cavalry Division in 1965. The newly developed air mobility tactics called for battalion-sized forces to be delivered into, supplied, and extracted from an area of action using helicopters. Since heavy weapons of normal combined-arms forces could not follow, the infantry would be supported by coordinated air, artillery, and airborne rocket fire. These tactics had been practiced in the U.S.

When the 1st Cavalry Division was deployed to Vietnam in 1965 with 428 helicopters - or nearly five times the number allocated to an infantry division and with only 1600 ground vehicles (most of them Jeep size), - or about half the number normally found in an infantry division at that time. This was a remarkable turnaround for the U.S. Army and its infantry commanders.

By 1965, the VC forces and the North Vietnamese Army were in nominal control of most of the countryside and had set up a major military infrastructure in the Central Highlands, to the northeast of the Saigon region. Vietnamese communist forces had operated in this remote and distant area during the previous decade in their war against the French, winning a notable victory at the Battle of Mang Yang Pass in 1954.

Ia Drang Valley was in the heartland of this enemy province and there had been attacks against U.S. Special Forces strongholds, challenging the American presence.

The battle Ia Drang Valley was the first significant contact between U.S. and North Vietnamese forces. It provided an ideal opportunity for the Americans to engage the North Vietnamese Army and test their new developed concept for air mobility operations. Casualties for the battle were high on both sides, but the point of the example is that the battle could not have been waged without helicopter support. Indeed, it would probably have been lost had it not been for this support. The French had found that out some ten years earlier. Of note, fifty-nine helicopters were hit; only four were shot down, of which three were recovered. The Battle of Ia Drang Valley helped convinced doubters that the helicopter was nowhere near as vulnerable as first feared.

As an aside, a few years later, I also learned that that while the Huey wasn't immune from ground fire; it was able to withstand reasonable damage. I made this discovery while winching wounded members of Alpha Company 5RAR from the jungle during a fire fight in the Hat Dich area in the north-western border of Phuoc Tuy Province in 1969. The ability of the Huey to withstand a reasonable amount of battle-damage while supporting troops in the field saved many lives and supported the progress of the tactical situation. A lesson that once learned was not quickly forgotten.

Gunship Operations

The French in Algeria had already learned that protection of lightly armed transport helicopters was essential.

During early helicopter operations in SVN, in 1962-63, the VC had been quick to grasp the vulnerability of helicopters during approach and landing and showed that they were able to

fire on and hit them. This caused the Americans to review their policies and while fast heavy fixed-wing aircraft were able to provide close air support they were not readily suited for the support of helicopter operations. The need for autonomous fire support quickly became evident to commander on the ground.

Of interest, the U.S. Army was not allowed by American law to employ slow flying armed fixed wing aircraft in an attacking role – this was a role reserved for the Air Force. However, the troop carrying “slicks” were quickly armed and development of the gunship was inevitable.

Gunships were not initially allowed to fire on enemy positions unless they were fired on first. However, that policy was withdrawn in March 1963 and the effectiveness of the gunship was immediate.

The hits on slicks around Landing Zones were reduced by around 25 %.



Medevac Operations

As in Korea and Algeria, Medevac operations, or “Dust Off” sorties as they were known in-country, continued to provide a huge positive morale builder for troops on the ground, providing quick transportation to medical facilities, saving lives and limbs.

Not only did they have a humanitarian role, but the removal of wounded troops from the battlefield enabled commanders to continue to fight without the encumbrance of protecting the wounded and as a result the troops fought with greater effectiveness.

Of all the operations undertaken by helicopters, Medevac sorties were the most challenging as they were normally no-notice sorties with little or no pre-planning. Intelligence concerning the tactical situation was invariably incomplete and the situation was quite often time critical.

On my first sortie in country we were en-route from Vung-Tau to Nui Dat on a familiarisation flight for me when a crew member spotted tracer rising from Dat Do. At this stage while I was still trying to decipher the mysteries of the picto-map, the aircraft captain changed to the Vietnamese military frequency to investigate the situation. An urgent request for help was made by the U.S. Advisor and we promptly landed in a fairly spectacular manner in what I took to be the village square.

It was a confused situation and I recall the advisor asking us to evacuate wounded from what was quite an intense fire fight. During this conversation VC fire was directed in our general direction and was answered by the advisor.

We left shortly after that with half a dozen or so dead and wounded on board. It was a confusion of blood, bandages, and bodies in the back of the chopper. After off loading the wounded and dead at the Australian Field Hospital at Back Beach we returned to Vung Tau and cleaned out the aircraft.

There were only 10 U.S. Army Medevac Hueys in country in 1965 but this number grew to 140 by 1969. Of the U.S. Army's 120,000 personnel wounded in action, more than 100,000 were evacuated by helicopter. (The figure of 153,329 is quoted in some sources, and relates to those casualties requiring evacuation for medical attention. A figure of 390,000 is quoted when referring to all casualties.)



American helicopter forces in Vietnam

While the French did not have the resources to build and deploy a large helicopter force to Algeria to combat the rebels, the Americans did not suffer the same problem.

The French had deployed 380 helicopters to provide a ratio of one helicopter to about 1,125 troops. The U.S. deployed forces and helicopters numbers provided a ratio of one helicopter to 250 troops. Importantly, the helicopter force was integrated into the combat force.

According to historian John Everett-Heath, between 1966 and 1971 the U.S. flew over 36 million helicopter sorties. They lost 2,094 helicopters to hostile action and 2,209 to other operational causes. While the Vietnam Helicopter Pilots Association web page says a total of 5,086 helicopters were lost from a force of 11,827.

There were some 2,200 U.S. helicopter crew deaths U.S. helicopter crew deaths in Vietnam.

It is important to remember that most of the time the chopper war was conducted in a relatively permissive air environment. In 1971 against heavy anti-air defences during Operation *Lamson 719* into southern Laos to cut the Ho Chi Min Trail, the supporting helicopter forces suffered a loss rate of 15%. 107 helicopters were lost with more than 600 damaged during the operation.

Whichever way you look at the U.S. chopper war in Vietnam, it was a monumental operation.

The Australian Chopper War

When developing this address I became keenly aware of my focus on 9 Squadron RAAF. While not intending to ignore the other two Services' contributions to the Chopper War, as they both served with great distinction and effectiveness, it was 9SQN that provided the main support to the Australian Task Force.

Commentary on each of these other forces will be addressed by later Speakers.

But to put the picture into context, when the Government committed forces to Vietnam, the Air Force had two helicopter squadrons of UH-1B's, Nos 5 and 9 Squadrons, on its order of battle. No 5 Squadron was a small unit of only 4 aircraft with a skeleton crew and it had only a minor maintenance capability. Personnel were provided by 9 Sqn. Moreover, the helicopter force was short of qualified and experienced pilots, a situation that was to bedevil the force for a long time.

The helicopters had originally been purchased in 1962 for Search and Rescue (SAR), with battlefield support a secondary role. The support of the Army became the primary role of the Squadron during 1963. During the three years before deployment to South Vietnam 9SQN and Army had developed land/air warfare doctrine and tactics.

When the Government despatched 9SQN to South Vietnam, Phuoc Tuy Province was well and truly under the strong influence of the Viet Cong – not to mention the intrusion of the

North Vietnamese Army. The Battle of Long Tan occurred 5 kms East of Nui Dat only two months after the arrival of the Squadron in theatre.

No 9 Squadron achieved a high reputation and worked closely with the Army. It carried out a number of different types of missions: troop lift; inserting and extracting Special Air Service patrols; evacuating wounded troops; spraying herbicides and pesticides; dropping leaflets; and flying “olfactory reconnaissance”, or “people sniffer” missions; and resupply.

The squadron supported every major operation conducted by the Australians.

9SQN’s CO Ray Scott noted that during 1966 and 1967 9 SQN comprised only eight aircraft (with six on-line) and only enough pilots to man the eight aircraft, less when medical issues or other tasks were considered. This was to support two battalions. Aircrew averaged one day off every three weeks with 12 to 16 hour working days in between. As already mentioned, a lack of pilots dogged the Squadron for much of its early deployment to SVN.

As a result, when the Australian Government announced the deployment of a third battalion to Vietnam it doubled the size of the Squadron’s aircraft complement to 16 larger UH-1Hs. In effect, this quadrupled the Squadron’s airlift capacity, but the catch was that there were still insufficient pilots available to man the new aircraft.

Supplementary pilot manning was provided by the Royal New Zealand Air Force and by December 1971, 16 Kiwi pilots had served with distinction in 9 SQN. Squadron manning was also supplemented by the Navy. In 1968 the three Navy pilots, along with the RNZAF pilots, constituted nearly a quarter of the Squadron aircrew complement. In all, eight Navy pilots served with the Squadron and this was in addition to the navy’s commitment to provide aircrew and maintenance personnel that had been requested by the U.S Government. These Navy personnel were integrated into the 135th Assault Helicopter Company at Black Horse, just north of Phuoc Tuy Province.

Four of the UH-1Hs were converted to gunships armed with twin-fixed forward-firing 7.62-millimetre mini-guns and two seven-tube 2.75 inch rocket launchers, as well as the two twin door-mounted M60 machine-guns. The “Bushrangers” as they were known were able to cover troop-carrying helicopters during combat assaults, insertion and extraction of SAS patrols if the situation went hot, and provide fire support to troops in contact.

The fire power and flexibility of a gunship flight was significant.

I was co-pilot of Bushranger 71 during the Battle of Binh Ba the HFT was tasked to contain the NVA forces along the southern edge of the village and prevent them from moving into the rubber plantation to engage our land forces who moving into position. This was done by systematically destroying a line of some 15 houses.

It was during this operation that the windscreen of our helicopter was holed by a flying house tile.

The flexibility of the gunship was demonstrated when a Centurion tank was disabled during the battle. The HFT sprayed the area immediately surrounding the tank (and we were later informed – also on the tank) with mini-gun fire to keep enemy forces from reaching the vehicle.

For the first time the Australian Task Force had complete autonomous support, although American Medevac helicopters continued to provide support on call during the day time.

An especially close relationship was forged between Special Air Service Regiment (SASR) and the Squadron. Insertion and recovery operations were a particular activity where an all Australian force was a significant advantage and enabled detailed planning procedures to be undertaken. In the early days, provision of gunship support from the U.S. was not always available

Insertion of SAS patrols required a light fire team of two Bushranger gunships, a mission leader in Albatross 01 flying at around 1,500 feet and two miles astern and depending upon the size of the patrol to be inserted - directing one or two slicks (Albatross 02 & 03) flying at tree top level to the Landing Zone. An airborne spare would hold off at some distance to assist with the evacuation of any aircrew and patrol members from helicopters downed during the operation. After the introduction of the Bushrangers, gunship support was always available.

The amount of time needed for planning and briefing was significant and demanded the attention and intellect of the aircrews involved and the leaders of the SAS patrols being supported.

I have never seen more heavily armed troops who now and then tested the lifting capacity of the Huey when being inserted or bigger smiles when we recovered them at the end of a patrol.

We learned to recognise that when a whispered call from a patrol that the pad was secure and that we were clear to come in, on occasions probably meant just the opposite.

Nevertheless, these operations forged very strong bonds of trust and mutual respect between 9SQN aircrew and the SAS Squadrons deployed to SVN.

9 SQN inserted over 1,100 SAS patrols during its tour of duty.

Of interest, while the NVA were prepared to take on helicopters in other areas, most likely because of the availability of heavy weapons, in Phuoc Tuy Province during my exposure to operations, the enemy was reluctant to engage choppers and then only when it critical for them to do so.

No 9 Squadron flew its last mission in Vietnam on 19 November 1971. In December the squadron's 16 Iroquois took off from Vung Tau for the last time and landed on the deck of HMAS *Sydney* for the return trip back to Australia.

By then, the Squadron had flown over 237 000 sorties; carried 414 000 passengers; conducted 4 000 CASEVACS and MEDEVACS; and transported almost 12 000 tons of freight.

Seven aircraft were destroyed or written off; 37 damaged – 23 by ground fire.

Four members of the Squadron were killed, and two others had been killed while attached to the Squadron. Eight aircrew were WIA.

Importantly, helicopter support made the difference.

The challenges that faced 9SQN should not be dismissed lightly. The Squadron was tasked with troop transport, aerial resupply, ground attack, medical and casualty evacuation, observation and reconnaissance, insertion and extraction of SAS patrols - and other duties as required.

No other squadron commander and team of relatively junior officers can have faced such a complex range of missions with a relatively new weapon in a very new battlefield environment and with minimal support and training.

There was an expectation of multiple and complex tasks conducted within a single squadron when the Americans would have designated individual squadrons to each of the specific tasks.



Concluding Remarks

Lessons for chopper operations were learned and relearned during the conduct of the three wars addressed today.

While Australia entered the Vietnam War quite late in the game, and like the experiences of our Allies, notably the U.S., its helicopter force was in the main, initially ill prepared and poorly equipped.

But it had a significant advantage – it could learn from the early experience of our American allies who were more than willing to lend a hand.

The experience of the battle of Ia Drang Valley was to my mind the epiphany for chopper warfare in Vietnam. The battle would not have been won, in fact it is highly likely that it would not have been fought at all – at least in the way it was – if it had not been for helicopter support.

If I may quote a comment contained on the U.S. Army Aviation Museum web site:

Though an imperfect, and seemingly ungainly, aircraft, the ubiquitous helicopter touched the everyday lives of the young men who fought in the harsh climes and terrain of South Vietnam. The helicopter took them into battle, provided CAS (close air support), supplied and resupplied them, and evacuated the wounded and the dead.

From an Australian perspective, the outcome of the Battle of Long Tan would not have been the same if it hadn't been for chopper support and the critical resupply of ammunition at a crucial time of the battle.

I would venture to say that given the high number of successful Medevac sorties conducted by 9SQN during the Australian deployment to Vietnam, it is not unreasonable to consider that without this support there would be more Australian flags at the head of our ANZAC Day marches.

In an environment of poor infrastructure across Phuoc Tuy, a Province geographically suited to guerrilla warfare, helicopter support provided the land force with increased mobility, the element of surprise, the provision of effective command and control over the battlefield, and importantly – the high morale factor provided with the availability of near immediate Medevac support.



Choppers not only made a difference to operations, they transformed the way the war was fought.

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