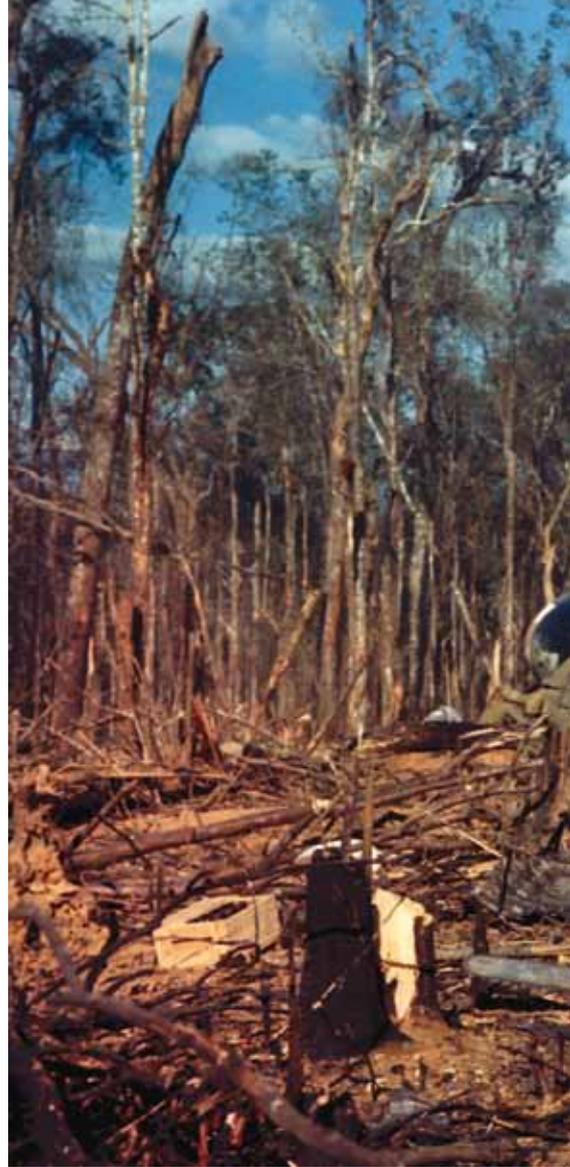


HUEY

The Huey helicopter shaped the Vietnam War, argues **Matt Leonard**, allowing the US to carry the war to the guerrillas, but also driving a strategy that brought eventual defeat.



Above Choppers were originally used in Vietnam for medical evacuation, and this remained a primary role, helping to double the survival chances of wounded men compared with the Second World War. But it soon became clear that choppers had huge potential as troop-carriers and ground-attack aircraft.

Objects define wars. They differentiate a conflict from the one that preceded it and show how the nature of combat evolves from one war to the next.

The First World War was defined by the machine gun and the artillery piece – industrially mass-produced weaponry that changed the face of conflict and heralded a new century of war. The U-boat, tank, and aircraft-carrier characterised the Second World War – a multi-dimensional war of movement that rendered trench-war tactics obsolete. In the same way, the helicopter, and more specifically the Huey helicopter, epitomised the Vietnam War.

This iconic weapon once more changed the way that warfare was conducted. The pitched battles of the first half of the 20th century had little

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The extra power of turbine engines enabled helicopters to lift more weight, travel faster, and crucially, become larger in size.

that it had begun sending advisers to Vietnam as early as 1950, in order to help the French as they desperately tried to cling onto their former colony after the eviction of the Japanese in 1945. After the catastrophic French defeat at Dien Bien Phu in 1954, the US slowly began to ramp up its involvement. It was a road that would lead to over 58,000 American deaths, more than 10 years of war, and monumental social change at home. The Huey helicopter, in its various forms and guises, would be at the forefront of the conflict.

The Korean War had shown the importance of the helicopter in modern warfare, and as early as 1952 the US Army had recognised the need for a fast, powerful, troop-carrying helicopter. The helicopters of the Korean War were mainly used for the transportation of men, wounded or killed on the battlefield, to medical stations and field hospitals. They were, in general, not big enough or powerful enough to be effective as troop-carriers.

But in the early 1950s, a revolution in engine technology was taking place. For the first time, turbine engines were being used in fixed-wing aircraft, and it was ▶

relevance in the claustrophobic jungles of South-East Asia. The enemy would not stand and fight as the Germans and Japanese had done 25 years before; the battle had to be taken to the enemy.

The troop-carrying helicopter gave birth to a new brand of counter-insurgency warfare. Men could be shipped straight into localised battlefields with lightning speed and efficiency, mimicking the enemy's ability to appear suddenly, fight, and then fade away, back from whence they had come. The Huey was revolutionary, a weapon that allowed a major shift in strategy and

tactics; but arguably, it also played a role in America's defeat.

Choppers and dominoes

As the Cold War raged across the globe, America's paranoia focused its attention on South-East Asia. Desperate to combat the spread of communism, Vietnam became the focus of US foreign policy. The victory of communist-led nationalist revolt in North Vietnam threatened to spread to South Vietnam and neighbouring Cambodia and Laos.

The United States had been so concerned about this 'domino effect'

THE HUEY UH-1 DEVELOPMENT TIMELINE

- 1954:** First Bell helicopter to use a turbine engine is flown. It is designated the XH-13F.
- 1955:** Bell Model 204 is conceived in response to US Army's requirement for a multi-purpose helicopter, revolutionising helicopter design and capability.
- 1956:** Civilian Model 204 becomes Military Model XH-40, and is first flown on 22 October.
- 1960:** US Army award Bell a production contract for 100 aircraft. XH-40 has been redesignated HU-1A and officially named 'Iroquois' after the Native American tribe.
- 1961:** First UH-1B Huey delivered to the US Army.

- 1962:** UH-1B Huey first sees combat in Vietnam in Medevac variant.
- 1963:** First UH-1D Huey delivered to US Army.
- 1964:** US Marines take delivery of the UH-1E variant.
- 1970:** The US operating more than 3,900 helicopters in Vietnam. Two thirds of these are Hueys.
- 1975:** Operation Frequent Wind is launched to remove remaining US personnel from Saigon. Huey helicopters are memorably seen evacuating US personnel from the roof of the US embassy in Saigon, heralding the end of the Vietnam War.
- 1979:** The Sikorsky UH-60 Black Hawk officially replaces the Huey as the US Army's main tactical transport helicopter.

CHOPPERS IN NAM

not long before the use of these more powerful engines was being considered in helicopter design. The extra power of turbine engines enabled helicopters to lift more weight, travel faster, and crucially, become larger in size.

Medevac and troop-carrying

The first Bell helicopter to use the new turbine engine was flown in 1954, the same year as the defeat of the French army in Vietnam. It was designated the XH-13F. The US Army was impressed with the XH-13F's potential, and the following year awarded Bell a contract to develop a new generation of turbine-powered helicopters.

The original intention was to use the helicopter in a similar role to that in Korea, namely for troop 'medevac' (medical evacuation). But the possibilities were far greater.

The first of the new generation of machines, designated XH-40, flew on 22 October 1956. Over the next two years, many different prototypes were built and the potential for broadening the role of the helicopter became increasingly apparent.

The first Bell UH-1A Iroquois, or 'Huey', flew in 1956, and several further versions soon followed. Its nickname came from the original designation of the helicopter: HU-1A Iroquois (the name Iroquois continued the US Army tradition of naming aircraft after Native American tribes). The 'B' version of the helicopter improved on the original and was able to carry up to seven passengers, but this was soon replaced with further-

improved models. The UH-1D, with its elongated cabin, was able to carry up to 12 fully armed men, with speed and efficiency, straight to the battlefield. It proved to be a formidable weapon.

Into battle

The Huey first saw combat in Vietnam during 1962. After initial use for medevac as planned, the helicopter was soon adapted to be a highly efficient troop-transporter ('Slick'), and the idea of 'air assault' was born.

In a conflict with no established front-lines, helicopters were crucial in taking the fight to the enemy. New divisions were created and existing ones were equipped with the revolutionary helicopter. The 1st Air Cavalry became the 1st Air Cavalry 'Airmobile' and, together with the legendary 101st Airborne Division, they developed

“It did not take long for the VC and NVA to realise that the Huey was particularly susceptible to small-arms fire.”

advanced tactics for helicopter assault and counter-insurgency warfare.

These two divisions were at the forefront of a new type of war that was only possible due to the technological and industrial might of the US. The Huey was the symbol of this power, just as the Sherman tank and the B-17 Flying Fortress were during the Second World War.

For all the Huey's advantages, it was perhaps its most famous characteristic that proved its weakest link. The large, twin-bladed rotor created a loud, and very distinctive, 'whomp whomp' sound in flight. This was due to the tip of the blades breaking the sound barrier and creating a mini sonic-boom. This in turn meant that the Viet Cong (VC) and North Vietnamese Army (NVA) could usually hear Hueys approaching from some distance away.

Robert Mason, a Slick pilot during the war and author of the renowned book *Chickenhawk*, tells of how often empty Hueys would be used to lure the enemy into ambushes, keeping the communist forces guessing and using the helicopter's distinctive sound to the Americans' advantage.

It did not take long, however, for the VC and NVA to realise that the Huey was particularly susceptible to small-arms fire. A high percentage of the 3,300 helicopters lost in the war were brought down in this way, and flying into hot LZs (landing zones) was a terrifying business. More than 1,000 pilots and 1,100 crew members lost their lives in Vietnam: a high price to pay for the ease of movement the helicopter provided.

AIR CAVALRY

The Huey was adapted as a troop-transporter, capable of delivering troops rapidly and unexpectedly to distant battlefields,



Nevertheless, the advantages outweighed the losses, and some 7,000 Hueys saw service during the war.

Gunships

Medevac and Slick variants of the Huey were soon joined by heavily armed gunship versions to support mass landings and evacuations of soldiers. It was the very success of the helicopter in moving men to and from the combat zone that, perhaps indirectly, contributed to America losing the war.

The concept of air assault meant that there was rarely a permanent American presence in the steamy Vietnam jungles. In general, US troops would operate from heavily fortified firebases, only venturing out on localised patrols or in fleets of helicopters to launch operations. This allowed the enemy to remain deeply embedded in the local population, to move at will through the landscape, and to become alert to the approach of US forces from the distinctive sound of those rotor blades.

It also meant that the US forces were separated from the people, with soldiers cultivating a state of mind which regarded the Vietnamese as distant, alien, and hostile. The Americans never really understood the multi-faceted landscapes of the war – unlike the VC and NVA, whose relationship with the landscape was organic and intimate.

Cultural icons

The Huey was not just a weapon of war; it was also an object of war, material culture that defined a generation. Films such as

Oliver Stone's *Platoon* and Francis Ford Coppola's *Apocalypse Now* featured the helicopter as one of the films' stars. The legendary scene in *Apocalypse Now* where a flight of Hueys destroys a village to the sound of Wagner's *Ride of the Valkyries*, its gung-ho commander sporting a US cavalry hat, epitomises the helicopter's infamy. It was fast, powerful, and had no equal – a metaphor for America's position on the world stage.

The helicopter sparked intense emotions among the soldiers of both sides. It delivered the Americans into danger, but was also there to rescue them and take them home. It would bring them fresh supplies in difficult and life-threatening situations, but when it arrived, it would often be covered in the blood of the wounded and dying evacuated on the previous flight.

To the Vietnamese guerrillas, it was a harbinger of doom, evidence of the technological superiority of their enemy, yet also an example of how this enemy could be defeated with the simple Kalashnikov. The ease with which the helicopters could be brought down meant that many Americans dreaded travelling in them. It was common for soldiers to sit on their helmets on the way to battle, as the enemy's bullets would pass straight through the thin-skinned belly of the Huey; what, in the circumstances, they feared above all was 'The Wound' – destruction of the genitals.

Social lives

All objects have social lives. They take on the experiences and feelings of the ▶



KEY FACTS

- The Huey was the very first turbine-powered helicopter.
- Its turbine engine and huge twin-rotor blades produce very high lift-capability.
- Over 16,000 Hueys have been produced worldwide.
- More than 40 countries, to date, have operated Hueys in various civilian and military roles.
- The Huey has flown more combat flight hours than any helicopter in history.
- According to the Vietnam Helicopter Pilots Association, 7,013 Hueys flew in Vietnam during the US involvement.
- 1,074 Huey pilots were killed during the Vietnam War.
- 1,103 other Huey crew were killed.
- 3,305 Hueys were destroyed during the Vietnam War.
- During the war, up to 900,000 wounded were medically evacuated by Huey helicopters. As a result, 98% of the wounded who did not die in the first 24 hours survived.
- After 40 years in production, the Huey is still in use around the world today.

and also of extracting them when defeat threatened or their mission was accomplished.



CHOPPERS IN NAM



AIR AMBULANCE, TROOP-TRANSPORTER, SUPPLY CARRIER, AND GUNSHIP

people who use them. The Huey is no different. The pilots and crew became very attached to their machines. They learned to live and operate as one: man and machine in perfect harmony. Often pilots would name their helicopters and decorate them with insignia and other motifs, humanising them. The helicopters would provide shelter, for soldiers and airmen alike, during the frequent and intense rain showers that drenched the jungle. Back at base, the rotor blades were sometimes utilised for tables and benches, incorporating the machines into everyday life.

For a serviceman in Vietnam, the Huey was a facet of everyday life. They were ubiquitous and could be seen, smelt, heard, and felt. Jack Sturiano, a US Navy Corpsman, who served in Vietnam between 1968-1969, remembers his first experience of the Huey when arriving at Phubai, south of Hue. There was a large MASH unit based there and Sturiano recalls how the 'whomp whomp' of the Huey's rotor blades would pound his tent, night and day. He describes how he could 'feel' the sound of the helicopters passing low overhead, in a way that no other helicopter was able to express.

The Huey was so ubiquitous that it became a cultural icon: the weapon that symbolised an entire war.

At that time, the USMC, to which Sturiano was seconded, had no Hueys. They used the larger, twin-engine Sikorsky 35s and Chinooks; the Huey was predominantly used by the US Army during the conflict. Sturiano often thought that the smaller Hueys looked as if a man could fall out of them, as they manoeuvred through the air, their bay doors wide open.

After Vietnam

The end of the Vietnam War did not signal the end of the Huey. It continued to be produced in large numbers until the beginning of the 21st century. More Hueys, in various versions, have been built than any other helicopter in history. The successor to the Huey is the Sikorsky UH-60 Black Hawk, which first saw service with the US Army in 1979, and is still the main helicopter of the US Army today.

The Huey stood the test of time for many reasons. One factor was that it was able to take extreme punishment and stay in the air. Pilots tell of how Hueys would regularly make it back to base riddled with bullets. But it was its mix of speed, size, and lift-capability that really distinguished it from the crowd.

VITAL STATISTICS the 'Huey' UH-1D (Slick variant)

Crew:	2 pilots and 2 door-gunners
Capacity:	3,880lb or up to 12 troops, or 6 stretchers, or equivalent cargo
Length:	57ft 1in (17.40m) with rotors
Wingspan:	48ft 0in (14.63m)
Fuselage width:	8ft 7in (2.62m)
Height:	14ft 5in (4.39m)
Empty weight:	5,215lb (2,365kg)
Gross weight:	9,040lb (4,100kg)
Max takeoff weight:	9,500lb (4,309kg)
Powerplant:	1 x Lycoming T53-L-11 turboshaft 1,100 shp (820 kW)
Main rotor diameter:	48ft 0in (14.63m)

PERFORMANCE

Maximum speed:	135mph (217kmh)
Cruise speed:	125mph (201kmh)
Range:	315 miles (507km)
Service ceiling:	19,390ft (5,910m)
Rate of climb:	1,755 ft/min (8.92 m/s)
Power/mass:	0.15 hp/lb (0.25 kW/kg)

ARMAMENT

Slick variant:	2 x 7.62mm M60 machine guns (either sling or rigid mounted)
Gunship variant:	2 x 7.62mm M60 machine guns or 2 x 7.62mm GAU machine guns
Gunship variant (rockets):	2 x 7 round or 19 round 2.75in/70mm rocket pods

In addition, it was easily maintained – an important factor in the oppressive jungles of Vietnam. This made the helicopter good value for money and aided its massive popularity with armed forces and civilian institutions around the world.

The Huey revolutionised warfare and allowed strategic planners to utilise the full potential of the helicopter as a weapon of war. Loved and loathed, feared and respected, the Huey is an iconic piece of material culture that has earned its place in the annals of modern conflict. 

AIR ATTACK

The Huey was also a highly mobile gun-platform.

