The United States Army is an organization of movement. Mobility grants the Army capability, adaptability, and lethality within its area of operations. Whether rapidly transporting infantry to the battlefield, providing supporting fires, supplying servicemembers or evacuating the wounded, mobility is vital to the Army's success. On 20 September 1954, Secretary of the Army Robert Stevens spoke before the National Defense Transportation Association, where he stated the Army was "on the threshold of a degree of strategic and battlefield mobility unparalleled in military history." Stevens was talking about the helicopter. The Army first employed rotary aircraft in mass during the Korean War. In the years that followed, the Army invested heavily in manpower and research to advance and incorporate helicopter technology into its concept of operations. By the onset of the Vietnam War, the Army's in theater concept of operations centered on the helicopter.

### Contested Roles and Missions

The Army's adoption of the helicopter was far from guaranteed. Following the U.S. Air Force's establishment in 1947 as an outgrowth of the U.S. Army Air Corps, the Army and Air Force engaged in extended and contentious discussions. Seeking to define, advance, and defend its organizational culture and mission, the Air Force sought to limit Army Aviation and act as the principle means by which the United States could achieve air dominance throughout the Cold War. For the Army's part, the service increasingly saw the developments of organic aviation assets as vital to its success.

Prior to the Korean War, the two services clarified aviation roles over a series of meetings and memorandums. Most notable were the Key West Agreements in October 1951 and November 1952. These organizational understandings led to an expansion of Army mission roles and aircraft capabilities, yet Army and Air Force joint regulation agreements continued to limit Army Aviation. For instance, Army helicopter weight was set to exceed 4000 pounds, which limited the helicopter's overall size, engine power, range, and capabilities.

The Army primarily relied upon the H-13 Sioux in Korea, a helicopter that served in a number of roles including aerial observation and reconnaissance, laying wire, transporting supplies and equipment, and emergency aeromedical evacuation. For its work saving lives of the wounded, the H-13 earned the moniker "Angel of Mercy." Known for its distinctive soup bubble canopy, in addition to serving in Korea and Vietnam, U.S. audiences became familiar with the "Angel of Mercy" during the opening credits of the television sitcom "M.A.S.H."

### The Nuclear Battlefield, Dispersion, and Airmobility

The threat of nuclear weapons on the battlefield hastened the Army's search for greater mobility. Army thinkers such as Lieutenant General James Gavin believed that if the Army came under attack from nuclear weapons in the form of bombs, guided missiles, or artillery projectiles, against such destructive power, the general surmised, "the only counter-measure possible is to reduce drastically the numbers of soldiers per square mile in the battle area." The helicopter provided the Army with an answer to the nuclear threat, it enabled the Army to rapidly disperse and reconstitute. As military planners devised new ways to employ helicopters, the Army rapidly expanded its aviation school and incorporated helicopters with greater size, capacity, and range into its force structure. To screen and protect its aviation and ground forces, the Army developed armed escort helicopters. The Army's development of airmobility anticipated a nuclear war with conventional forces fought in Europe against the Soviet Union. As it turned out, airmobility arrived for an unconventional, low-technology war in Southeast Asia.

To be successful, the U.S. Army required dispersion on the nuclear battlefield. Here the U.S. Army's 280mm artillery fires a 15 kiloton nuclear projectile on 25 May 1953 in the Nevada Test Site. (Courtesy of National Nuclear Security Administration)

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The armies of the world no longer need be tied to the ground.

— Lieutenant Colonel Robert R. Williams, Army Aviator, 1952

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The Board has only a single, general conclusion. Adoption by the Army of the airmobility concept…is necessary and desirable. In some respects the transition is inevitable, just as was that from animal mobility to motor.

Howze Board 1962

The Howze Board

In April 1962, Secretary of Defense Robert McNamara issued a memorandum to the Secretary of the Army directing the service to thoroughly examine the potential for airmobility. Known for his devotion to efficiency, McNamara believed the Army needed to reexamine its aviation requirements and conduct analytical studies, exercises, and field tests to obtain maximum mobility in the combat area. To instigate these studies, McNamara established the Army Tactical Mobility Requirements Board, or the “Howze Board.”

The Howze Board (named for its chair, Lieutenant General Hamilton Howze) quickly got to work. The board submitted its final report on 20 August 1962. This document and its recommendations embodied the creation of the airmobile division as the next logical step in the Army concept of operations. In the airmobile division, all equipment was light enough to be carried by helicopter. In Vietnam, airmobility received its first test, and though the Army employed many helicopters in theater, the most famous was the UH-1 Iroquois, known far more commonly as the “Huey” due to the pronunciation of its original designation “HUE-1.” Although the Army’s 1st Cavalry and 1st Air Cavalry Divisions were designated airmobile divisions, most Army units employed some degree of airmobility.

Logistics and Transportation

The Army’s Logistics Branch and Transportation Corps were among the earliest to grasp the helicopter’s potential. Overseas Cold War deployments sent the Army into remote locations which possessed limited infrastructure. These locales threatened to bog down a roadbound military and compromise its fighting strength by forcing it to develop and defend road networks. The helicopter permitted the Army to transcend the landscape and expand its area of operations. In Vietnam, the Army created an aerial supply network. The CH-47 Chinook and CH-54 Tarhe (more commonly known as the “Sky crane”) provided medium and heavy lift capabilities. With the capacity to haul tons of weight, these helicopters became the Army’s workhorses. In addition to delivering vital provisions, the helicopters lifted 105 millimeter and 155 millimeter artillery to establish fire support bases, often in Vietnam’s high ground. Fire support bases provided accurate and devastating artillery fires in support of infantry operations.

In Vietnam, the U.S. Army created a vast aerial supply network that served as a benchmark for future Army operations. In contemporary operations, the Army employs Forward Operating Bases and Combat Outposts, which it supplies through a variety of aerial means, including the Chinook, which is one of the few aircraft developed in the 1960s that is still on duty to this day.

Armed Reconnaissance

Before joining as a single team, observation helicopters flew together in what were called “white” teams while gunships flew in “red” teams. In 1967, when the OH-6 Cayuse observation helicopter and the AH-1 “Cobra” attack helicopter arrived in Vietnam, the two helicopters joined to perform armed reconnaissance as “pink” teams. The agile Cobra supplemented Huey gunships, whose weapon systems made them unwieldy. For its part, the OH-6 replaced the OH-13 Sioux and was commonly referred to as the “Loach” — the helicopter’s nickname derived from having won the 1962 U.S. Army Light Observation Helicopter Competition.

During the Vietnam War, most combat aircraft attempted to fly at altitudes and speeds great enough to avoid ground fire, but the “Loach” flew low to draw out enemy fire and locate them. Once the enemy engaged, the “Loach” pulled away and marked the target by dropping smoke grenades. Then the lethal Cobra swooped down and attacked using rockets and, where necessary, a rapid firing minigun. Often the “pink” team flew ahead of “Hueys” carrying troops to observe, engage, and clear a path. The “Hueys” also conducted evacuation missions, if a “Loach” or Cobra was down by enemy fire.

Armed helicopter reconnaissance proved its worth in Vietnam, and continues to find use in contemporary operations. The OH-58 Kiowa saw service in Vietnam as the “Loach” replacement, its D variant, the Kiowa Warrior, acted as an assault reconnaissance helicopter in support of ground servicemen in Iraq and Afghanistan until retirement in 2017. Like its predecessor’s joining with the Cobra, the Kiowa frequently joined with the Army’s current attack helicopter, the AH-64 Apache.
Aeromedical Evacuation

The U.S. Army's medical practices evolved out of the "Letterman System," named after Major General Jonathan Letterman, Medical Director of the Army of the Potomac, who recommended sweeping reforms to the ambulance system during the Civil War to create an orderly group of medical clearing stations to the immediate rear of the Army's frontline units. Ambulances were to bring all casualties to the clearing stations as safely and quickly as possible, and the clearing stations in turn would determine the casualty's needs. This process was called triage. From the Civil War through the World Wars, U.S. Army ambulances transported casualties by land. The Army's successful employment of H-13 Siouxs in Korea led the service to build a helicopter ambulance capable of transporting the injured and medical personnel. Vietnam's lack of secure roads and the remote locations to build a helicopter ambulance capable of transporting the injured and medical personnel. Vietnamese lack of secure roads and the remote locations of much of the fighting inspired its use.

Major Charles Kelly and his successors, including Medal of Honor recipients Major Patrick Brady and chief Warrant Officer Michael Novak, popularized the term "Dust Off." Previously, during the Korean War, the Army landed aircraft in secure locations to retrieve stable patients and fly them to hospitals in rear areas. In Vietnam, daring pilots matched the wounded from the point of injury, often at "hot" landing zones under enemy fire. In some cases, "Dust Off" pilots made multiple stops on a single mission to evacuate as many patients as possible. In total, the 57th Medical Detachment evacuated more than 100,000 patients during its 11 years spent in Vietnam.

Although the 57th Medical Detachment could not have fathomed it at the time, "Dust Off" became the term that remains the Army's call sign for aeromedical evacuation to this day. In the Army's current lexicon, "Dust Off" is synonymous with hope, the idea that "help is on the way." Although the 57th Medical Detachment could not have fathomed it at the time, "Dust Off" became the term that remains the Army's call sign for aeromedical evacuation to this day. In the Army's current lexicon, "Dust Off" is synonymous with hope, the idea that "help is on the way."

Air Assault

The Army conducted air assaults to rapidly close with and destroy the enemy. Air assault missions required unified logistical, transport, reconnaissance, and aeromedical helicopter support. The Chinook supplied fire support bases, and the infantry in turn called upon artillery support frequently; the "Loach" and Cobra conducted reconnaissance. In Vietnam, aeromedical evacuation often came to the wounded near the point of injury. (Courtesy of the Army Aviation Museum)

The Huey, the Cobra, the light observation helicopter, and the Chinook were the essential vehicles of airmobility combat and combat support.

— Lieutenant General John J. Tolson, 1973

Aeromedical evacuation of wounded American soldiers returning from a helicopter evacuation, Vietnam, 1969. (Courtesy of the Army Aviation Museum)