The United States Air Force provided tremendous and diverse contributions in Vietnam, beginning as advisors in the U.S. Military Assistance Advisory Group in the 1950s and ending with large bombing operations in the early 1970s.

Initially, the USAF helped train and equip the growing South Vietnamese Air Force, while also building up radar, reconnaissance, air control, and counterinsurgency capacities. After the Gulf of Tonkin incident in 1964, a major military buildup began and many new types of aircraft arrived in country. At this point in the war U.S. leadership emphasized restraint and gradual escalation, so the USAF mission was at first limited, even as forces grew.

During the second half of the 1960s, the USAF gained more flexibility and took on a more active role in the War. Operation Rolling Thunder, ordered by President Johnson in 1965, had two objectives: (1) to smash the North Vietnamese air defense system, industrial base, and supply network; and (2) to erode its support in the South. The campaign targeted rail lines, highways, bridges, and petroleum targets, as well as the supply lines running down the Ho Chi Minh trail to the South. China and the Soviet Union continued to help North Vietnam build up its supplies of antiaircraft artillery and surface-to-air missiles, eventually creating the strongest air-defense system then in existence. USAF losses in the campaign totaled 531 aircraft and 547 airmen. Increasing losses also meant increased numbers of prisoners of war falling into enemy hands. In total, some 800 men – most of them Air Force and Navy aviators – were taken captive by the North Vietnamese and their allies.

The USAF served in close air support operations with modern fighter-bombers like the F-4s and F-100s as well as older A-7 Skyraiders and the AC-47 Spooky, and B-52 bombers from Guam. This close air support proved crucial to the defense of the Marine base at Khe Sanh, which lay under siege for two and a half months during the Tet Offensive that began in January 1968. The effort also included a supply mission, an important but overlooked element of the war, since, along with aeromedical flights, pararescue, and air sea rescue, they proved essential to supporting and maintaining U.S. personnel and activities throughout the entire region. Between 1965 and 1973, the Military Airlift Command evacuated over 400,000 medical patients. To improve the military infrastructure that allowed all these operations,
the Air Force also created new construction and engineering teams to construct, improve, and repair airfields, buildings, roads, and wells.

As Rolling Thunder ended and Vietnamization began in late 1968, the USAF continued its bombing campaign, including in southern Laos and Cambodia. As ground troops continued to pull out, air power began a greater offensive. During Operation Linebacker I, from May to October 1972, the USAF dropped over 150,000 tons of bombs over North Vietnam, concentrating mostly on transportation targets, airfields, power plants, and radio stations. The USAF also continued to develop a wider range of weapons suited to the conflict, including specialized bombs to penetrate or defoliate the jungle canopy, nonlethal gas bombs that could provide cover for air rescue missions, and a new arsenal of radar- and laser-guided bombs. These bombs felled several important bridges over the Red River, including the Paul Doumer Bridge, which was one of the longest bridges in Asia and the only bridge to link Hanoi and Haiphong—it was a logistically and symbolically important target that had withstood previous attacks.

In this late period, USAF was withdrawing personnel as the United States, South Vietnam, and North Vietnam were negotiating their way through peace talks. As talks dragged on, President Nixon ordered a second Linebacker operation and in late December 1972, B-52s struck Hanoi and Haiphong at night and A-7s and F-4s struck during the day. One hundred Airmen were shot down during this campaign and 35 lost their lives. The North Vietnamese, now defenseless, returned to negotiations and quickly concluded a settlement. American airpower therefore played a decisive role in ending the long conflict.

After the war, Air Force transports evacuated hundreds of prisoners of war and thousands of civilians from the region. During Operation Homecoming, in February and March 1973, 591 former POWs were transported to Clark Air Base in the Philippines, where they received medical exams and treatment before resuming their trip back home. In 1975's Operation Babylift, one of the final actions of the US military during the long conflict, Air Force transports and a fleet of chartered civilian aircraft evacuated civilians, many of them infants and children from orphanages in Saigon. Despite tragedies and difficulties during these last weeks, more than 50,000 civilians escaped by land or sea before the enemy reached Saigon.

Source: History Division of the U.S. Air Force