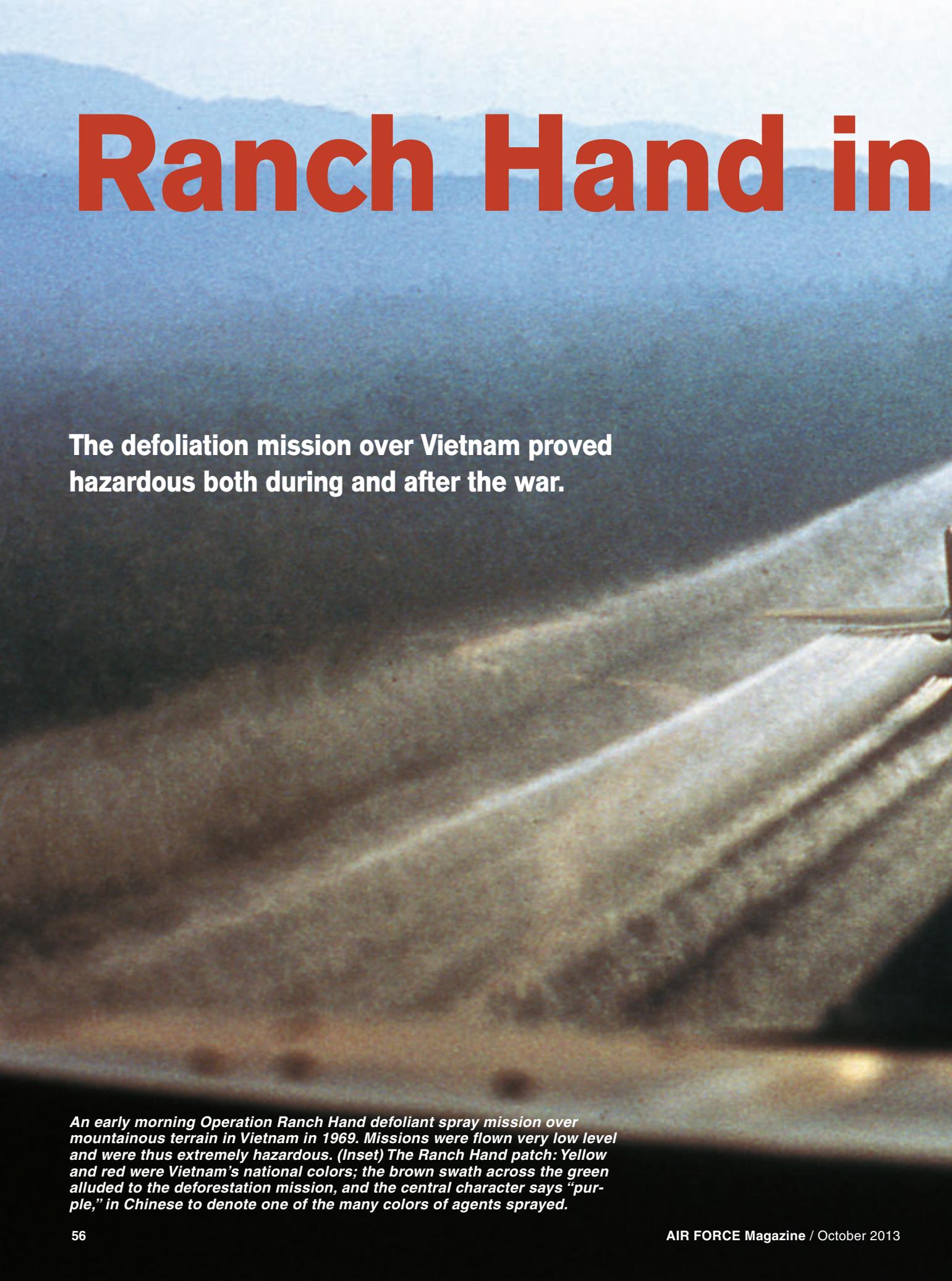


Ranch Hand in

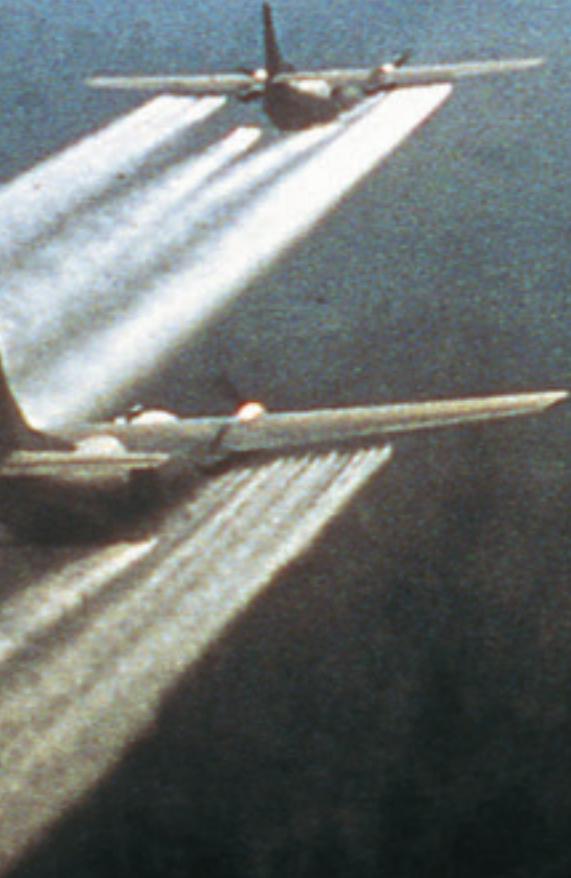


The defoliation mission over Vietnam proved hazardous both during and after the war.

An early morning Operation Ranch Hand defoliant spray mission over mountainous terrain in Vietnam in 1969. Missions were flown very low level and were thus extremely hazardous. (Inset) The Ranch Hand patch: Yellow and red were Vietnam's national colors; the brown swath across the green alluded to the deforestation mission, and the central character says "purple," in Chinese to denote one of the many colors of agents sprayed.

Vietnam

Photography via Warren Thompson



Art Ericson photo

From 1962 to 1971, the Air Force performed aerial spraying missions over South Vietnam, Laos, and Cambodia, under an operation known as Ranch Hand. The idea was to defoliate jungle areas—such as along the Ho Chi Minh Trail—thus depriving communist insurgents of cover and to destroy crops that would sustain the enemy. More than 20,000 sorties delivered 20 million gallons of chemicals over some six million acres in South Vietnam. The various herbicides used each had a color name, such as Agent Purple, Blue, White, Orange, or Pink. They were nicknamed “rainbow” agents and applied in concentrations many times that intended for agricultural use. Spray aircraft would fly in formation to denude an area as much as 10 miles long at a time. **1** The spray apparatus hangs from the wings and tail of this UC-123 Provider. **2** This UH-1 Huey helicopter based at Bien Hoa, South Vietnam, was also used in the spray mission—for the mosquitoes that plagued US troops. **3** The aircraft got quite low to ensure effectiveness. **4** A crew chief checks the oil in a C-123. Aircraft had high in-service rates.



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USAF photo



Bill Sarring photo

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Tom Kasych photo



Bryan Aleksich photo



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Bill Sarring photo



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Spray aircraft flew early in the morning because the rising heat of the day could cause the vaporized chemicals to float up instead of drift down, and winds were lighter. The lower the spray was applied, the more effective it was likely to be, but that put aircraft and crews within range of small-arms fire and anti-aircraft artillery. 111 This aircraft operating out of Da Nang, South Vietnam, in 1969 was lucky; damage from the high-caliber round could easily have felled the aircraft if it had been hit in a more vulnerable spot. 121 Early missions meant mission briefs typically at zero-dark-30. 131 The hazards of flying so low are clearly evident in this shot of a maintainer fixing holes in a Provider's tail. The name Ranch Hand was an offshoot of the name of the broader spray and defoliation mission in Southeast Asia, Trail Dust. A variety of vehicles also performed the mission at ground level.



Art Ericson photo

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111 A C-123 sprays defoliant from under its wings and tail. Typically, several aircraft would fly in a staggered formation to cover a wide swath without wing vortices disrupting the dispersal pattern. Note the stripped foliage at left, resulting from a previous mission here. 121 Agent Orange arrives in 50-gallon drums at an unidentified location. Ranch Hand was flown from five main locations in South Vietnam. 131 Onboard, the chemicals were contained in a 1,000-gallon tank. 141 C-123Ks sent to Vietnam had auxiliary jet engines under the wings to add agility, speed, and carrying capacity. Some 183 Providers were equipped in this way. Spray-configured versions were designated UC-123Ks. 151 This view from a Provider shows red stripes that made the aircraft more visible to others flying above it. 161 Spray-equipped Providers, seen here at Bien Hoa, wore the standard South-east Asia paint scheme—all except "Patches," a bare-metal aircraft that earned its name from more than 600 bullet holes that had to be repaired on its skin. "Patches" was used mainly for mosquito spraying over US bases in South Vietnam. It now represents the Ranch Hand mission



Art Ericson photo



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Art Ericson photo



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Bill Sarring photo



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Bill Sarring photo



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Art Ericson photo



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Don Huff photo

in the National Museum of the US Air Force in Dayton, Ohio. 171 An airman refills the onboard tank with Agent Orange. The messy process resulted in heavy exposure for many servicemen. After years of postwar litigation, the US government admitted the long-term toxic effect of the chemical, and in the 1991 Agent Orange Act, Congress approved benefits to veterans with a range of illnesses presumed to have been caused by the chemical.

111 The C-123s could also be tankers, transporting fuel to forward locations where Ranch Hand aircraft staged. The full fuel bladder in the foreground, likely about to be unloaded for use by helicopters, sits behind a UC-123K. *121* A large formation of UC-123Ks heads out to a jungle target in 1968. *131* The Ranch Hand motto—"Only we can prevent forests"—was a play on the Smokey Bear injunction of the time, "Only you can prevent forest fires." *141* The tail spray booms on a UC-123K. *151* This head-on photo shows the wing spray booms. The other main user of the C-123 in Southeast Asia was the CIA, whose "Air America" false-flag company moved personnel and cargo with some degree of deniability. *161* Another view of "Patches." Seven of its crew received the Purple Heart for wounds they received during battle. *171* Capt. Arthur Ericson poses with his Ranch Hand helmet during his third combat tour in Vietnam. A veteran of many spray missions, he also flew EC-121s in-theater. Note the flak jacket and rifle—standard personal gear when going so low and slow over enemy territory.





Art Ericson photo



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Art Ericson photo



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Vincent Elequin photo



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Bill Sarring photo



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USAF photo



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Art Ericson photo

The UC-123Ks were transferred to the Air National Guard and Air Force Reserve after Vietnam, used chiefly for domestic control of mosquitoes and other harmful insects. When retired in the 1980s, some transferred to federal agencies such as the Department of Agriculture, and the last ones did not retire until the late 1990s. USAF's spray mission today resides with C-130s configured with a special modular system. ■