

## AC-47D Gunship Operations During Vietnam

By Bruce Dobbs

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Systematic air operations (Commando Hunt, Barrel Roll, Steel Tiger, Tiger Hound, etc.) were designed to interdict the flow of personnel and supplies by the Peoples' Army of Vietnam on the logistical corridor known as the Ho Chi Minh trail. The movement of personnel and supplies funneled materiel into South Vietnam via Laos and Cambodia. These air campaigns were successful and U.S. air power owned the day which forced the North Vietnamese and Viet Cong to run their supply convoys at night. Since the North Vietnamese and Viet Cong owned the night, the flow of personnel and supplies continued. The U.S. needed to interdict the flow of personnel and supplies but its fighter jets couldn't stay on station long enough to await the arrival of convoys. Cargo aircraft could, however, stay on station throughout the night when road traffic was heaviest.

To maximize the ability of the Gunships to hit high priority targets, the pilots used the "on pylon turn" maneuver or turn around a point. To accomplish this maneuver, the pilot visually places the wing tip on a spot on the ground and turns 360 degrees around that point. When the pilot is upwind, the bank angle is shallower and when downwind the bank angle is steeper. If a gun is fired out the side window of the aircraft during that maneuver, the bullet would hit the selected spot on the ground. This lateral firing concept was tested by the Aeronautical Systems Division (Wright Patterson AFB, OH) by installing three .50 caliber M-61 machine guns in a Conair C-131. Testing was successfully conducted at the Armament Division at Eglin AFB, FL where it was quickly discovered that crude grease pencil crosshairs on the pilots foul weather window could be used to enable the pilot flying the pylon turn to hit a stationary target with relative accuracy and ease (see Wikipedia ([http://en.wikipedia.org/wiki/Douglas\\_AC-47](http://en.wikipedia.org/wiki/Douglas_AC-47))).

Under Project Gunship, a C-47D was converted along the lines similar to the flare ships (C-47s and C-123s used during night attacks). The C-47D was equipped with three 7.62 mm rotating 6 barrel guns – GAU 2/A miniguns strapped on locally fabricated mounts so the guns could be fired by the pilot remotely out the port side of the aircraft (see figure 1 and 2). The newly modified C-47D operated initially under the call sign "Puff" (probably named after the very popular Peter, Paul, and Mary hit song entitled "Puff the Magic Dragon"). The AC-47D's purpose was to protect villages, hamlets, and personnel from mass attacks by Viet Cong guerrilla units (see Wikipedia ([http://en.wikipedia.org/wiki/Douglas\\_AC-47](http://en.wikipedia.org/wiki/Douglas_AC-47))).

The gunships were so successful that the U.S. Tactical Air Command formed a gunship squadron. Now using the call sign "Spooky" (the Puff name was still widely used) and the 14<sup>th</sup> Air Commando Wing was established and was comprised of the AC-47D which went on to win a

Presidential Unit Citation. Each of the guns could fire either 50 or 100 rounds per second. Flying an orbit at 120 knots between 2000 and 3000 feet above ground, a Spooky Gunship could put a bullet every square yard in an area the size of a football field in less than 10 seconds. The guns were fired by the Aircraft Commander (left seat) using buttons on the control yoke, which controlled one, two, or all three guns. Notable flyers include Airman First Class, John Levitow, an AC-47 Loadmaster, who received the Medal of Honor for saving his gunship after it was struck by an 82 mm mortar that put 3,500 holes in the aircraft. Even though he was struck 40 times by shrapnel Levitow used his body to jettison an armed magnesium flare out of the aircraft.

Figure 1 – AC-47D on ramp at Udorn Royal Thai Air Base (Photo courtesy of Bruce Dobbs)

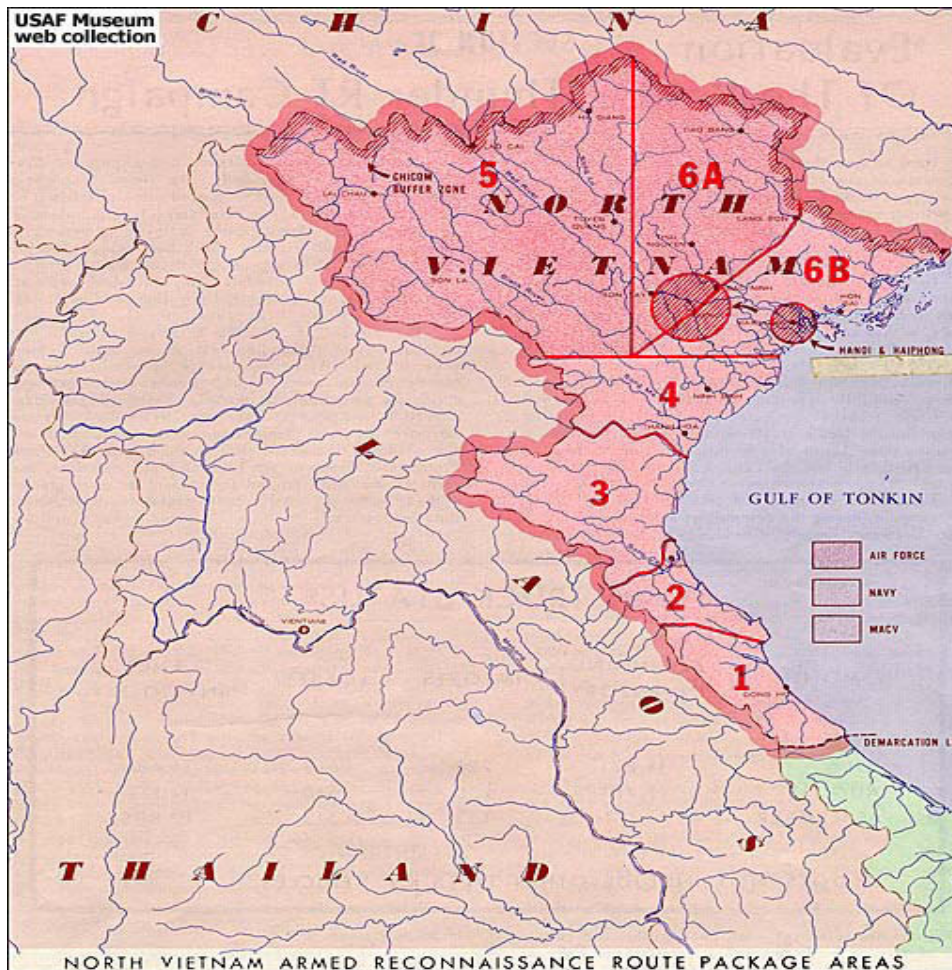




Figure 2 - Three

7.62 mm Miniguns mounted atop the ammunition cylinders (Photo courtesy of Bruce Dobbs)

On special assignment, I flew with the 4<sup>th</sup> Special Operations Squadron, stationed at Udorn Royal Thai Air Base, Thailand. The Spooky Gunships were flying nightly into Laos, Cambodia, and North Vietnam (Route Packages 1, 2, and 3). The route packages were names given by the U.S. Air Force and U.S. Navy to describe areas of air operations over North Vietnam. They were referred to by the aircrews as a Route Packs, or "Pac" or "RP". Each of the numbered areas represented a specific area of North Vietnam. Route Package one was on the border with South Vietnam and Route Package six (6A and 6B) represented the area around Hanoi and Haiphong. Route Package six was the most heavily defended air space in the history of warfare.



Route Packages 1 Thru 6 (Wikipedia/Boyne,11/1999)

The Spooky Gunships were very successful in interdicting the movement of personnel and materiel. After many Spooky missions, thousands of hand held weapons, such as AK-47s, were recovered as the North Vietnamese and Viet Cong dropped their weapon and fled the gunship attack. When the Gunship arrived in the target area, the Load Master would drop a target flare and then he would drop a three million candle power flare so the Aircraft Commander could see his target and start firing. Every fifth round out of the miniguns was a tracer so the Aircraft Commander could better aim at the target of troops or vehicles.

While over the target area one dark night, our Gunship received a radio call from the orbiting EC-121, (Airborne Warning and Control) call sign Ethan, and the message was very direct. "Spooky 01, Ethan"; "Go ahead Ethan"; "Spooky 01 there are two MiGs headed your way and you are it (meaning we were the target)". "Also, Spooky, be advised, the MiG missile radar was active".





Figure 3 Typical Spooky Gunship firing (Photo Courtesy of Bruce Dobbs)

Simultaneously, upon hearing the transmission from Ethan, our Aircraft commander shouted, “Good, we’ll shoot them down”. He asked Ethan’s assistance in keeping our gunship perpendicular to the MiGs at all times. Once we sighted the MiGs, we planned to roll the aircraft on its side and fire all three guns (18,000 rounds per minute) at once. The 7.62 mm rounds would not penetrate the skin of the MiGs but the 18,000 rounds would provide enough Foreign Object Damage to cause the engines to flame out and down they would go. Our gunship descended in altitude to just above the top of the jungle canopy in an effort, hopefully, to prevent the MiGs from obtaining a missile radar “lock”.

The MiGs made a direct pass over our position but apparently could not get a radar lock due to radar ground clutter. We did not see the MiGs. The MiG executed a 270 degree turn and made another pass directly over our gunship. We did not see them and they apparently couldn’t get a sufficient radar lock to fire the missiles. After two passes the MiGs vacated the area and we were safe but a bit shaken.

Figure 4 is a picture of one of the crewmen onboard Spooky 01 after learning the MiG had “bugged out”.



Figure 4 A very happy Spooky 01 crewman (Photo courtesy of Bruce Dobbs)