

Preface

In an age of supersonic jet aircraft, megaton atomic weapons, and sophisticated electronic devices, nothing seemed quite so incongruous as a lumbering C-47 transport evolving into a potent weapon system. Counterinsurgency warfare, as exemplified by the Southeast Asian war, had generated modern air weaponry paradoxes such as old T-28 trainers serving as attack aircraft. The gunship* joined this group as an improvisation that surprised nearly everyone. From a humble modification of the apparently ageless C-47 (DC-3), the gunship grew into a highly complex weapon system. In doing so, it pioneered new research developments and revolutionized aerial counterinsurgency tactics.

Basically, in the case of the fixed-wing gunship, the U.S. Air Force installed side-firing guns in available aircraft (mostly transports) and employed them tactically while in an orbiting maneuver. This unlikely conversion of relatively slow, large-cabin aircraft into heavily armed aerial firing platforms filled the need for an air weapon system that could direct saturating, extremely accurate firepower on generally small—even fleeting—targets in difficult terrain, varying weather, and particularly during hours of darkness. Very simply, the Air Force's combat aircraft of the early 1960s often could not find nor accurately strike enemy targets at night or under cover of the great jungle canopy. The urgent need for such a capability became dramatically obvious as guerilla warfare expanded in South Vietnam.

From the outset, the AC-47 gunship and its successors—the AC-130 and AC-119—were inseparably linked to the war in Southeast Asia (SEA). More and more, the enemy used the cover of darkness and jungle to mask his supply movements and attacks on South Vietnamese forts, hamlets, and forces. Because the gunship could orbit, lock on a target with special sensors, and carefully apply firepower, it became a vital weapon in the overall U.S.-South Vietnamese war strategy. It quickly proved its worth as a night protector of friendly villages, bases, and forces. Its matchless effectiveness in night operations helped strip away the enemy's "shield of darkness."† Of the three principal types of gunships the Air Force employed, the powerful AC-130 became the preeminent truck-killer of the war. As a primary interdiction weapon, it was employed to try to choke off North Vietnamese support of communist insurgent forces infiltrating into South Vietnam.

*In this study "gunship" refers to the fixed-wing, side-firing aircraft of the U.S. Air Force or allied air forces.

†Maj William R. Casey, "AC-119; USAF's Flying Battleship," *Air Force/Space Digest*, Feb 1970, pp 48-50.

DEVELOPMENT OF FIXED-WING GUNSHIPS 1962-1972

Gunship successes sparked enemy countermeasures, especially along the Ho Chi Minh Trail in Laos. The struggle to keep ahead of the enemy's defenses and to impede his largely seasonal combat and resupply surges is a recurring theme of this history. During the wet summer months when enemy logistics movement all but ceased, the Air Force undertook crash programs to refurbish and improve the gunships in anticipation of the end of the monsoons and a new enemy surge of personnel and supplies down the trail. These USAF efforts had one goal—to return a more effective and less vulnerable gunship to combat in the dry winter months to counter the stepped-up enemy activity. Also, the Air Force steadily refined its combat tactics to better cope with enemy defenses. The gunship was teamed with other aircraft over strongly defended areas. Thus its tactics grew more complex. The story of these cyclical equipment changes and the effect of changing combat missions takes up a large but essential part of this narrative.

Besides spotlighting various combat activities in Southeast Asia, a significant and engrossing story about Air Force research and development is contained in the chapters that follow. The gunship evolved dynamically through modification of several cargo aircraft—C-47s, C-130s, and C-119s—with serious consideration also given from time to time to other aircraft, such as light planes. Colorful names—Spooky, Spectre, Shadow, and Stinger—kept pace with major aircraft changes. Moreover, this pluralistic gunship development became multinational by way of the U.S. Military Assistance Program, with several types of gunships turned over to the Vietnamese and other allied air force. The following account chronologically traces the story of these unique weapon systems in terms of the models of aircraft used, their numbers, and their operational performance.

The gunship's rapid progression toward greater sophistication touches and illuminates many of the problems associated with weapon system advancement. Thus, this study covers such matters as Air Force management, contractor relations, technical problems, funding, and high-level debate and decisions concerning the size, character, and effectiveness of the gunship force. Especially at the beginning, the labor pains incident to the birth, acceptance, and employment of a relatively new idea prove noteworthy. The solutions to some development problems and issues carry lessons far transcending the gunship program.

An outstanding theme of the gunship story was the Air Force's constant improvisation and tinkering as the system evolved. The weapon system did not spring out of the think tanks, move from the drawing boards to the wind tunnels, or undergo exacting scientific-engineering analysis. Instead, its growth largely stemmed from the Air Force making do with basic equipment already in the inventory. It consisted of molding parts from various systems and blending operational concepts from widely different sources. While most technological advances involve borrowed ideas and hardware, the gunship development reflects this to an unusual degree.

People are crucial in any program but a relatively small group of key men determined the gunship's progress. Facing opposition and skepticism, these men battled first for a concept and then for a weapon system employing it. The gunship's success and eventual acceptance hinged chiefly on their personal effect. This, then, is a history of men as well as machines.

The text traces gunship developments through 1972 to the early 1973 truce that closed the American combat role in South Vietnam and Laos. Though fighting in Cambodia continued into 1973 and gunships took part, the gunship combat story had largely been told. Still ahead were interesting and important equipment additions or modifications. However, these and the final events in Cambodia merit a separate account.

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