

A 'Miserable Damn Performance'? The Effectiveness of American Air Power Against Insurgency in Vietnam¹

By Squadron Leader Dan Shaw

Biography: Dan Shaw is a Tornado GR4 pilot and Qualified Weapons Instructor (QWI) who has completed operational tours of Ops TELIC and HERRICK with 13 Squadron. Following further time in Afghanistan in an Air Effects and Deployed Air Integration role, he completed an F-18 Instructor Pilot exchange with the US Marine Corps, an HQ role with the Tornado Force and will shortly resume flying with the Typhoon Force this year.

Abstract: The Vietnam War saw the USA, at the pinnacle of its power, defeated by technologically overmatched opponents, using political violence coherent with a sophisticated information warfare campaign. This article seeks to elucidate lessons from Vietnam in the integration of kinetic and non-kinetic effects, from an air perspective. The importance of these lessons for the defeat of Daesh is manifest.

Disclaimer: The views expressed are those of the authors concerned, not necessarily the MOD.

Introduction

Suggesting that one is evaluating the effectiveness of air power in support of the counterinsurgency (COIN) campaign in Vietnam implies that there was, in some meaningful sense, a COIN campaign being fought. Though figures such as John Paul Vann saw the conflict for what it was and urged that it be fought as such, there is scant evidence that the upper reaches of the US political and military leadership grasped Clausewitz's dictum:

The first, the supreme, the most far-reaching act of judgment that the statesman and commander have to make is to establish . . . the kind of war on which they are embarking, neither mistaking it for, nor turning it into, something that is alien to its nature.²

In the absence of this understanding, the United States and its armed services, especially the United States Air Force (USAF), fought the war for which they were postured, trained and equipped, and failed to heed Clausewitz's warning. General Lew Walt's thoughts after leading 1st Marine Division ashore at Da Nang in 1965 hinted that some senior officers realised that there was a problem:

Soon after I arrived in Vietnam it became obvious to me that I had neither a real understanding of the nature of the war nor any clear idea how to win it.³

Unfortunately for the Americans, it appears that translating this realization into corrective action was not undertaken until much too late. Maurice, Comte de Saxe observed: 'In default of knowing how to do what they ought, [people] are very naturally led to do what they know,' and it is the contention of this article that this was exactly what happened to the US, with deleterious effects upon its use of air power.⁴ Consequently, assessing the effectiveness of air power in the COIN campaign misses the larger issue and risks making the same mistake of "goal displacement"⁵ the US military committed, where metrics became the end in itself.

To provide a lens through which to view this conflict and elucidate the limitations on effectiveness, imposed by the intellectual framework within which US air power operated, this essay will utilize the ideas of Antonia Giustozzi and further elucidated by Emile Simpson. That war is more than 'the extension of policy by other means' but rather a medium of political discourse: armed politics.⁶ Within this paradigm every military act, however effective militarily, must be judged as forming part of the dialogue of armed politics. Whilst the National Liberation Front (NLF), more often known as the 'Viet Cong' (VC), was conducting an insurgency, US air power was used to deliver approximately 373,000 tons of napalm.⁷ However militarily effective it was as a method of killing insurgents, it was speaking in a different language. Seeing that war does not exist in a hermetically sealed domain, isolated from the political aspects of each action taken, allows a more subtle answer to the question of air power effectiveness posed. At a military level, air power was highly effective in Vietnam but ineffective, to the point of being counterproductive, against an opponent with

an 'asymmetric strategic narrative': an insurgency.⁸ Tellingly, when the NLF and Democratic Republic of Vietnam (DRV) chose to fight conventionally war (elements of the Tet Offensive in 1968, and then the Easter Offensive of 1972) air power was devastatingly effective once both sides shared a 'symmetrical strategic narrative' - that is they were speaking the same language.⁹

This asymmetry of language severely limited the political effectiveness of US air power regardless of its military effectiveness. The US never devised a coherent politico-military strategy to reach President Johnson's end-state of an 'independent, stable, non-communist South Vietnam.'¹⁰ A lack of a strategic narrative deprived all audiences to the conflict, most critically the American and South Vietnamese publics, with an interpretive framework with which to understand events. Trapped within the paradigm of conventional war in a discreet military space, air strikes that killed Vietnamese civilians, whatever their allegiance, supported the Communist narrative. This characterized the Americans as aggressors and the NLF as the liberators of South Vietnam. The NLF leadership in the Central Office for South Viet Nam (COSVN) articulated their struggle in terms of *Dau Tranh*, an operational construct that recognized no boundary between political and military acts. This interpretive framework enabled them to portray all their actions in a coherent way. This legitimized brutal acts such as political assassinations, including the killing of 3000-5000 Government of Vietnam (GVN) officials and supporters after capturing Hue during the Tet Offensive. It also justified the 851,000 combat deaths sustained during the conflict by Communist forces.¹¹ There was recognition in Military Assistance Command, Vietnam (MACV) and Washington that indiscriminate attacks were counterproductive; rules of engagement were constrained and all air attacks in South Vietnam had to be controlled by a Forward Air Controller (FAC) to mitigate against collateral damage. In purely military terms, close control of attacks by FACs was likely to lead to more accurate strikes; as laser-guided weapons became available, this likelihood increased further. Unfortunately for the Americans, without an understanding of the political implications, from the immediate vicinity to global level, and an interpretive framework for the action, air power's efficacy as a tool of COIN was, at best, limited. With the Communists fighting *Dau Tranh* the US could have persisted with conventional warfare by forcing symmetry and their interpretive framework with overwhelming military force. In reality, it is questionable if this was feasible. Given that the DRV and NLF manpower pool of fighting-aged males was approximately 2.3 million, even at Tet casualty rates it would have taken 13 years to exhaust.¹² Less than 1% of 'Search and Destroy' missions ever made contact with the enemy and when they did, having found and fixed, they let artillery and air power finish.¹³ This lack of pursuit meant Communist forces were never indisputably beaten; and this ambiguity of outcome allowed interpretation and presentation to differ between the US/GVN and the Communists. Lacking a strategic narrative beyond conventional warfighting and unable to impose interpretive symmetry on the conflict by overwhelming victory, US air power dropped 4 million tons of bombs on the insurgency and could never be said to have been effective beyond the immediate, tactical level.¹⁴

The effectiveness of US air power in COIN was further constrained by the force structure and equipment it had throughout the Vietnam conflict. This drove how air power was employed and provided a structural bias in the American attempt to deal with the insurgency. An example may be found in the 1st Cavalry Division (Airmobile), which had its genesis independent of and just prior to the massive escalation by the US in 1965. The division was conceived for conventional warfighting, but the mobility conferred by the entire unit being lifted by helicopter appeared perfect for Vietnam. With sponsorship from Secretary of Defense McNamara down, the unit deployed in 1965 and met with initial, though hard-fought, military success in the Ia Drang valley.¹⁵ This was proof of the validity of air cavalry as the way to fight in Vietnam and led to the deployment of over 12,000 helicopters.¹⁶ Whilst air power was intrinsic to this approach, it conferred one of the inherent characteristics of air power - impermanence - upon the infantry and precluded them from providing the basic security for the population vital to counterinsurgency.¹⁷ As Sir Robert Thompson later observed:

The helicopter is one of the greatest modern assets to a government faced with insurgency ... Its use should not, however, be overrated to such an extent that operations are considered impossible without it. It is not a substitute for feet on the ground.¹⁸

In this way, air power's very effectiveness helped to undermine the COIN campaign. In counterpoint, the Marine Combined Action Platoons (CAP) in I Corps area were arguably the most effective COIN tool employed by the US.¹⁹ Consisting of an Army of the Republic of Vietnam (ARVN) platoon and embedded Marine rifle squad, they lived with the peasants in their villages for months at a time, providing security, earning trust and deterring the NLF. This highly effective COIN tool was made possible by the reconnaissance and supply provided by Marine air power.²⁰ The effective integration of air power into a wider, COIN focused plan, with good command and control made air power a key enabler, rather than the superficially effective tool it appeared to be in supporting search and destroy missions.

At a macro level, command and control added further difficulties for American air power. The organizational structures limited air power's effectiveness as they ensured that coherence of approach was never achieved. The 7th Air Force and 7th Fleet, providing almost all the strike assets between them, were organizationally independent throughout the war, necessitating the Route Package system to deconflict attacks. Both organizations fell under C-in-C Pacific in Honolulu and were independent of MACV, resulting in all strikes outside South Vietnam being commanded and controlled from elsewhere. This was hardly conducive to a coherent overall campaign. Even within South Vietnam, the Marine Aircraft Wing in I Corps remained independent of 7th AF until after Tet and even then continued to operate in its unique USMC fashion.²¹ From 1961 the 'Farm Gate' missions of the 4400th Combat Crew Training Squadron (CCTS) Detachment 2A at Bien Hoa were an uncoordinated part of the COIN campaign. Indeed, the 4400th CCTS demonstrates another facet of this structural problem, metaphorically that, provided with only a hammer, all problems begin to look like nails. The explicit and intended training mission of Det 2A was authorized by President John F Kennedy on 11

October 1961, equipped with strike and airlift aircraft. This led to US advisors and Special Forces trying to exploit the latent capability, consequently Farm Gate was further authorized to conduct strike missions by McNamara on 16 December 1961.²² A training unit rapidly morphed into a Special Ops support unit. Tellingly, Farm Gate began the pattern of civilian casualties from airstrikes, notably at Da Ket on 26 June 1962, within months of Farm Gate commencing strike operations. Da Ket saw a number of civilian casualties leading to General Emmett O'Donnell, the commander of Pacific Air Forces, to express concern that 'excessive reaction to collateral damage would limit the usefulness of air power in South Vietnam.'²³ Growing unease at the level of innocent casualties led James Cross to observe as early as 1963 that:

In a form of warfare in which political considerations regularly outweigh the military, air attacks against "suspected enemy groups" are all too likely to be self-defeating. The loss of support brought on by each innocent man or woman killed is likely to far outweigh the possible gain of hard-core rebels eliminated.²⁴

Whilst it is questionable whether the US ever fought a COIN campaign in any meaningful sense, the structural limitations of US air power imposed by its organization and equipment limited its effectiveness. This constrained it to conventionally effective ways of fighting an unconventional COIN.

The structural impediments to the effectiveness of US air power were underpinned by both inter-service rivalry and their organizational "essence", especially in the case of the USAF.²⁵ Fiercely guarding its independence, the USAF placed emphasis on independent air action, especially strategic bombing. Similarly, the USN wanted to demonstrate the value of its independent air power. This drove both separate command chains and competition over sortie counts and targets destroyed.²⁶ Internecine strife undermined promising COIN experiments beyond the Marine/ARVN CAPs. The 4400th CCTS partly had its genesis in response to the Joint Chiefs of Staff (JCS) establishing the Combat Development and Test Centre upon direction from McNamara in September 1961.²⁷ This was in accordance with National Security Action Memorandum 2 directing the US forces to develop a COIN capability.²⁸ USAF Chief of Staff Curtis LeMay saw a US Army bid to be the lead service in COIN and acted to ensure the USAF was the dominant force, though no changes to doctrine or force structure resulted. Further tit-for-tat ensued when the USAF established its own COIN test centre in Vietnam in 1963 in response to the US Army unit established in 1962.²⁹ These in-theatre units devoted their energy to proving the effectiveness of their own service, devising corresponding metrics and contributing to "goal displacement": the focus of operations became the metric vice COIN effectiveness. The numbers of sorties launched, bombs dropped and targets claimed destroyed became the key, disguising the effect that air power had (or had not) achieved. The obsession with metrics and their obvious divergence from reality was perhaps most clearly exemplified when junior officers sarcastically invented the 'Great Laotian Truck Eater', a monster which devoured the hulks of trucks which had been claimed as positively destroyed

by gunship crews, the monster's preferred diet leading to a notable discrepancy between the number of trucks claimed and the wreckage which could be found by reconnaissance aircraft the following morning.³⁰

The gunship began as an air power COIN innovation but demonstrates the stifling effect of the USAF's organizational essence. The idea was first mooted in 1961 but took four and a half years to be fielded due to reluctance towards the concept within the USAF. Once employed, it proved a highly successful, discriminate weapons system in support of ground troops, famously at Con Thien and Khe Sanh. Despite the evidence of its effectiveness in the close support role, the USAF drove its employment as an interdiction platform, mainly on the Ho Chi Minh Trail.³¹ This was not a unitary trail but a network of over 6000 miles of tracks, paths, rivers and streams; interdicting the 100 tons of supplies a day required by the NLF was highly unlikely to ever be achievable.³² The replacement of the AC-47 gunship with the AC-130 was immensely controversial within the USAF as its slow speed and armament was felt to support the Army's case for helicopter gunships as sole fire support, threatening a USAF role.³³ Perhaps the most bizarre example of organizational essence driving the debate, were the arguments made by members of the 1st Cavalry that it should be independent of both the Army and the USAF.³⁴ Inter-service rivalry, driven by each service's organizational essence, stymied adaptation to the war and willingness to fight it on its own terms. This severely hampered the effectiveness of US air power in the COIN campaign.

Doctrine further limited effectiveness by conceptually constraining US air power. Hidebound by doctrine the USAF, USN, US Army and to a lesser extent the USMC applied their air power how they wanted to fight the war instead of engaging with it in its own terms, accepting the syncretism COIN demands. Consequently Ranch Hand, the aerial defoliation campaign, can be seen as the ultimate rejection of Vietnam on its own terms. The initial Ranch Hand plan was to eradicate 31,250 square miles of jungle. This would have fundamentally altered the geography of half of South Vietnam: air power and chemistry harnessed to produce the battlefield the US wanted.³⁵ The USAF employed air power within an intellectual construct that was Douhet and Mitchell writ large, a "SACerized"³⁶ USAF locked into a rationalist conception of war stretching back through Schelling and Brodie to Jomini to Vegetius. War-by-numbers produced OPLAN37-64, which promised victory in 28 days by striking 94 targets, very much in the "scientific" reductionist tradition. Such intellectual antecedents led to the Vice Chief of Staff of the USAF making statements such as 'nuclear weapons are as useful in counterinsurgency as in major war';³⁷ and serious limitation in conceptual thought at the top of the USAF in Vietnam; General Harry Anderholt observed of the commander of 2nd Air Division 'Anthis doesn't know shit from shinola about [counterinsurgency] warfare.'³⁸ USAF doctrine did develop, to an extent. March 1967 saw Air Force Manual 2-5 *Tactical Air Operations, Special Air Warfare* published. So did force structure, with a peak of 19 Special Air Warfare squadrons fielding 550 aircraft. This was, however, seen as a deviation; AFM2-5 was defunct and the Special Air Warfare fleet reduced to less than 40 aircraft by 1974.³⁹ The USAF concept fitted into a broader American way of war:

On the battlefields of Europe the US Army developed a mode of operations so effective that it has influenced American and western military operations on land to the present day...Whenever possible, money in the form of firepower, was expended instead of blood.⁴⁰

This reliance on firepower, with air power contributing 56% of Communist casualties, meant air power was highly effective in self-referencing, rationalist terms.⁴¹ The epistemological problem is a mechanistic, war-by-numbers-approach neglects the human element fundamental to COIN.

Where US air power was most effective in the Vietnam War was in support of the NLF *Dich Van* campaign. These were the psychological operations (psyops) conducted by the COSVN to portray the Communist side positively and highlight every flaw within the US and GVN. US air power provided much grist to their mill, which proved highly effective. Mark Woodruff has observed that the communist psyops campaign created 'myths [which] still remain the dominant discourses of the Vietnam war.'⁴² The Communists clearly understood they were engaging in armed politics. They generated a coherent vision and accompanying strategic narrative providing the target audiences in the South, especially the peasantry, an interpretive framework to understand Communist and US actions. John Paul Vann understood the implications observing shortly before his death in combat in 1972:

The destruction of a hamlet by friendly firepower is an event that will always be remembered and practically never forgiven by those people who lost their homes.⁴³

It can be reasonably assumed that a similar lack of forgiveness would be shown by those who had lost members of their families in the same manner. US air power contributed to displacing one fifth of the South Vietnamese population, creating a constituency for the NLF. It probably also forced them into a dependency upon the NLF, in a process analogous to what happened to German civilians in the wake of Allied bombing, where only the Nazi regime could provide the food and shelter fundamental to their basic survival.⁴⁴ Air power was credited with stabilizing a tottering regime in 1965, Assistant Secretary of State William Bundy stating that the Rolling Thunder bombing was 'The only way you could keep any heart at all in the South Vietnamese in Saigon.'⁴⁵ This massive US intervention had the perverse outcome of removing any need for the urban, francophone, Catholic elite to engage with their Buddhist, rural peasantry, or to reform their political structures. The failure to address corruption and basic issues such as land reform left the political domain effectively uncontested. The *Dich Van* narrative was the sole interpretive structure for the consequences of US air power. Only belatedly, when the Thieu regime understood the US was leaving, were reforms undertaken but the Easter Offensive undid what progress had been made.

The Americans did make efforts to win hearts and minds, notably the Civil Operations and Revolutionary Development programme, which sought to pacify South Vietnam, turning the

population away from the insurgents. This was a major change from search and destroy, but air power was never fully coordinated with the programme.

Major Donald Pearce, the US military advisor in Cu Chi district, noted that during the Tet Offensive:

We were trying to win hearts and minds after we had, during the course of battle, destroyed their entire village...I have seen hamlets destroyed by helicopters after taking small arms fire...They [airstrikes] could counteract what I could do in a month in 3 or 4 minutes.⁴⁶

Pearce, it should be noted, was not only critical of air action; in a memo in July 1968, he complained bitterly that the response to a few rounds of small arms fire had often come from the main armament of tanks accompanying the troops, while two months later, Major General Ellis Williamson issued a robust critique of the approach of the men he commanded in 25th Division, deprecating the over-use of firepower and the deaths of civilians and the cattle upon which they relied for their livelihoods as a result.⁴⁷

Nevertheless, the use of air power in this way was so counterproductive that the NLF could not quite comprehend it, as the almost puzzled tone of one captured COSVN report made clear:

The enemy tactics consisted of using armoured vehicles, helicopter gunships and war planes to destroy the battle area, even in strategic hamlets.⁴⁸

Decoupling of the military and political aspects of COIN led to US air power being most effective in supporting the Communist *Dich Van* campaign.

T E Lawrence famously observed 'to make war upon rebellion is messy and slow, like eating soup with a knife.'⁴⁹ It is fair to say that this was exactly the experience of the United States in Vietnam. COIN was fundamentally not the campaign the US wanted to fight, as General Robert Williams remarked:

You have to fight it down in the muck and the mud at night and on a day-to-day basis. That's not the American way and you're not going to get the American soldier to fight that way.⁵⁰

Instead the US military fought the war it was structured, equipped and crucially, intellectually prepared to fight: US air power was at the heart of this construct.⁵¹ This was a war trapped within the Clausewitzian paradigm of conventional warfare in which a distinct military domain delivers an end state to politicians. Whilst constitutionally it is important to make this distinction to preserve civilian control of the military, a shibboleth of Western political theory,

it is inappropriate when embarking upon armed politics, for that is what COIN entails. The NLF and their DRV backers clearly understood this: 'the leadership was always in agreement on one point: political struggle and military struggle must be linked continuously.'⁵² The asymmetry of *Dau Tranh* existed not only in terms of military tactics but political vision and strategic narrative, lending military action an interpretive framework. When conducting COIN one is conducting armed politics and the campaign needs all the accoutrements of a political campaign targeted at key constituencies: this the US lacked but the Communists emphatically possessed. What US air power did, in its military effectiveness, is feed this asymmetry. The physical and human damage wrought by airstrikes fed the *Dich Van* narrative; the lift afforded US forces impermanence; and reconnaissance efforts focused on assessing self-referencing metrics. This asymmetry in interpretive framework led to the famous exchange between Colonel Harry Summers and his NVA colleague in Hanoi, April 1975:

Summers: You know you never defeated us on the battlefield.

NVA: That may be so but it is also irrelevant.⁵³

Arguments that the war could have been won with more or better-targeted bombing are trapped within the Douhetian paradigm. Counter-arguments bemoaning political constraints spectacularly miss the point that in a COIN all acts are intrinsically political. In the context of COIN, substituting air power for permanent presence on the ground, firepower for blood, will always offer a seductive choice for politicians. It will not offer an effective one. Only a legitimate strategic vision and narrative correctly attuned to target audiences, delivered by coherent political and military actions, of which air power is part, will deliver an effective COIN campaign. Politicians may wish to consider this before attempting to eat soup with a knife.

Notes

¹ The quote is from John Paul Vann, describing the battle of Ap Bac. See Neil Sheehan, *A Bright Shining Lie: John Paul Vann and America in Vietnam* (New York: Random House, 1988), p.277.

² Carl von Clausewitz, *On War*, edited and translated by Michael Howard and Peter Paret (Princeton: Princeton University Press, 1989), p.88. For a full account of Vann, see Sheehan, *Bright Shining Lie*.

³ Eric Bregud, *The Dynamics of Defeat: The Vietnam War in Hau Nghia Province* (Boulder, CO: Westview Press 1991), 90.

⁴ Maurice Comte de Saxe, *Mes Reveries; or Memoirs Upon the Art of War* (Westport, CT: Greenwood Press 1971 (Original 1757)), 77.

⁵ Robert Merton, *Social Theory and Social Structure* (Glencoe, IL: Free Press, 1957).

⁶ Antonio Giustozzi, 'Armed Politics and Political Competition in Afghanistan', in Mats Berdal, and Astri Suhrke (eds.) *The Peace in Between: Post-War Violence and Peacebuilding* (Abingdon: Routledge, 2011), pp.153-172; Emile Simpson, *War from the Ground Up: Twenty-First-Century Combat as Politics* (London: Hurst and Company, 2012), p.102.

⁷ Naplam dropped 1963-1971. Sven Lindquist, *A History of Bombing* (London: Granta

2001), section 344.

⁸ Simpson, *War from the Ground Up*, 38-39.

⁹ Ibid.

¹⁰ Mark Clodfelter, "Air Power Versus Asymmetric Enemies: A Framework for Evaluating Effectiveness," in *Asymmetric Warfare*, ed. John Andreas Olsen (n.p.: Royal Norwegian Air Force Academy 2010), 34.

¹¹ Stephen Hosmer, *Psychological Effects of US Air Power in Four Wars 1941-1991* (Santa Monica, CA: RAND 1996), 129.

¹² Lawrence Grinter, "Vietnam: The Cost of Ignoring the Political Requirements," in *The American War in Vietnam: Lessons, Legacies and Implications for Future Conflicts*, eds. Lawrence Grinter and Peter Dunn (Westport, CT: Greenwood Press 1987), 37.

¹³ Clodfelter in *Asymmetric Warfare*, ed. Olsen, 37; Hosmer, *Psychological Effects*, 136.

¹⁴ Clodfelter in *Asymmetric Warfare*, ed. Olsen, 40.

¹⁵ See, for instance, Harold G Moore and Joseph L Galloway, *We Were Soldiers Once... and Young - la Drang: the battle that changed the war in Vietnam* (New York: Harper Perennial, 1992).

¹⁶ Martin van Creveld, *The Age of Air power* (New York: Public Affairs 2011), 387.

¹⁷ David Jordan, 'Countering Insurgency from the Air: The Postwar Lessons', *Contemporary Security Policy*, 28:1 (2007), 101.

¹⁸ Sir Robert Thompson, *Defeating Communist Insurgency – Experiences from Malaya and Vietnam* (London: Chatto & Windus, 1972), pp.106–7, cited in Jordan, *op cit*.

¹⁹ Clodfelter in *Asymmetric Warfare*, ed. Olsen, 40.

²⁰ Ibid.

²¹ For discussion of the bitter debate over the command and control of USMC air assets, see Jack Shulimson et al, *US Marine in Vietnam: The Defining Year – 1968* (Washington: History and Museums Division, United States Marine Corps, 1997), 487-515.

²² Earl H Tilford, *The USAF Search and Rescue in Southeast Asia* (Washington, D.C.: Office of Air Force History 1980), 36.

²³ James S Corum and Wray R Johnson, *Air Power in Small Wars: Fighting Insurgents and Terrorists* (Lawrence, KS: University press of Kansas 2003), 257.

²⁴ James Eliot Cross, *Conflict in the Shadows: The Nature and Politics of Guerrilla Warfare* (New York: Doubleday 1963), 77.

²⁵ "The notion held by members of an organization as to what the main capabilities and primary mission of the organization should be." Morton Halperin and Arnold Kanter eds., *Readings in American Foreign Policy: The Bureaucratic Perspective* (Boston, MA: Little, Brown 1973).

²⁶ Clodfelter in *Asymmetric Warfare*, ed. Olsen, 38.

²⁷ Corum and Johnson, *Air Power in Small Wars*, 244.

²⁸ Ibid., 237.

²⁹ Ibid, 244.

³⁰ James Gibson, *The Perfect War: Technowar in Vietnam* (New York: The Atlantic Monthly Press 1986), 398.

³¹ See Jack S Ballard, *Development and employment of fixed-wing gunships 1962-1972* (Washington: Office of Air Force History, 1982) for a full account of the concepts behind and

the development of gunships.

³² Earl Tilford "Air Power in Vietnam: The Hubris of Power" in *The American War in Vietnam*, eds. Grinter and Dunn, 78.

³³ Donald Mrozek, *Air Power and the Ground War in Vietnam* (McLean, VA: Pergammon-Brassey's 1989), 127-128.

³⁴ *Ibid.*, 76.

³⁵ *Ibid.*, 132-134.

³⁶ Mark Clodfelter, *The Limits of Air Power: The American Bombing of North Vietnam* (New York: The Free Press 1989), 32.

³⁷ General Frederick Smith in Corum and Johnson, *Air Power in Small Wars*, 227.

³⁸ General Harry Anderholt describing Brig Gen Rollen Anthis Commander Second Air Division, precursor to 7th AF. *Ibid.*, 247.

³⁹ *Ibid.*, 273.

⁴⁰ Beregud, *The Dynamics of Defeat*, 85-86.

⁴¹ Defence Intelligence Agency analysis. Corum and Johnson, *Air Power in Small Wars*, 259.

⁴² Mark W Woodruff, *Unheralded Victory: Who Won the Vietnam War* (London: Harper Collins 1999), 200.

⁴³ Grinter in *The American War in Vietnam*, eds. Grinter and Dunn, 37.

⁴⁴ Richard Overy, *The Bombing War: Europe 1939-1945* (London: Allen Lane 2013), 479.

⁴⁵ Hosmer, *Psychological Effects of US Air*, 27.

⁴⁶ Beregud, *The Dynamics of Defeat*, 212-214.

⁴⁷ Nick Turse, *Kill Anything That Moves: The Real American War in Vietnam* (New York: Metropolitan Books, 2012), 125.

⁴⁸ *Ibid.*, 218. Strategic hamlet was defunct Diem regime terminology misapplied by the NLF to theCORDS programme.

⁴⁹ T E Lawrence, *Seven Pillars of Wisdom* (London: Guild 1989).

⁵⁰ Mrozek, *Air Power and the Ground War*, 91.

⁵¹ The author has sympathy, having fought in two unsuccessful COIN campaigns flying a nuclear bomber.

⁵² Beregud, *The Dynamics of Defeat*, 56.

⁵³ Grinter in *The American War in Vietnam*, eds. Grinter and Dunn, 37.

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