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Book Review

Close Air Support: Case Studies on the Integration of Air Power on the Battlefield

(Harry Raffal and John Alexander, eds.)

Warwick: Helion
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The undying question of when, where and how air power is to be applied in surface warfare, as well as the associated topic of joint land and air planning[1] formed the basis of a cooperative effort in *Close Air Support: Case Studies on the Integration of Air Power on the Battlefield* edited by Harry Raffal and John Alexander. Although air power entails a variation of concepts and the application of military power, in this instance, the focus lies with close air support (CAS) as defined and understood uniformly by all air forces, including the South African Air Force (SAAF).[2] Close air support is essentially a force multiplier to surface forces in combat, as it supports the surface battle from the air by delivering firepower within close vicinity of own forces.

Although Raffal and Alexander are credited with the editing, they both contributed equally to this compilation together with an array of scholars, academics and air power enthusiasts.[3] Holding a doctorate from the University of Hull, and following his thesis on Royal Air Force (RAF) and Luftwaffe operations during the Dunkirk evacuations (26 May to 4 June 1940), Raffal is well received as a scholar of air power having published articles and presented research papers on air power internationally.[4] As an officer in the RAF, Alexander has published articles on the topic of air power, contributed to doctrinal development in the Ministry of Defence (MOD), and is in process of completing a doctorate on joint air–land operations from 1918 to 1944.[5]

In his account of the early application of air power of the First World War (WW1) in Chapter 2 of the book, Michael Terry offers a quick synopsis on the birth of CAS,[6] or as some in the early Royal Flying Corps (RFC) or the Royal Air Force (RAF) termed it, 'low flying work'.[7] Terry's contribution offers an insight into the very early evolution of the role of fighter aircraft in combat from 1917 to 1918. He uses accounts from four prominent WW1 ace RAF fighter pilots to gain insight into the perceptions of combat flying at the time. The gist of their accounts centres on the lack of enthusiasm for CAS flying during these nascent stages of air power in favour of gaining honour via the route of air-to-air combat with an adversary.

In Chapter 3, Mike Meech discusses 'counter attack patrol' (CAP),[8] not to be confused with 'combat air patrol' as found in South African doctrine.[9] This chapter is filled with accounts and some technicalities of how early WW1 scouting sorties (CAPs) emerged, as well as the rudimentary communications between air and ground forces. It also covers an early account of the emergence of armed reconnaissance (tactical air reconnaissance), as well as of the competition between aircraft and the Royal Artillery for targets. It does however, address only superficially why CAS became vital in combat.

Chapter 4 by Geoffrey Vesey Holt,[10] as Chapter 3 by Meech, discusses the communications between ground forces and aircraft. Chapter 4 centres on tank manoeuvres in battle, although the efficiency of aircraft to deal with anti-tank guns is discussed in both chapters with reference to the difficulty of targeting German field artillery used as anti-tank weapons. Once the artillery started firing on Allied tanks it was almost too late to counter it with Allied artillery; therefore, the best way to deal with the German anti-tank effort was aircraft.[11] Also covered here are accounts of air support to tank combat at Amiens, and the 'second breaching of the Hindenburg Lines'[12] in 1918, with added lessons learned regarding the importance of a mutual understanding between aircraft and tanks by which messages were dropped by aircraft to Allied tank positions to inform them of impending dangers. Tanks, in turn, utilised coloured smoke shells to indicate targets for CAS. These beginnings of cooperation were later observed to provide success in the Second World War (WW11) (1939–1945).

Chapter 5 by Sebastian Lukasik[13] is a summary of William Sherman's experiences and inter-war publications from 1919 to 1927, as contributions related to the concept of air power.[14] Sherman was a Great War veteran and instructor at the US Air Service Tactical School during the 1920s. He could be regarded as a pioneer of air doctrine development. Lukasik describes the notions of deep strike,[15] ground attack in general, and the importance of close partnership between air and land vis-à-vis what Sherman did not support – the incorporation of air capabilities into land capabilities as a matter of design. Lukasik provides Sherman's thoughts on the early concept of interdiction by air, as well as the importance of air power as force multiplier. Sherman is regarded here as a visionary of things to come in air power, especially his forward thinking and almost predicting what would come in warfare, such as the 'jointness and synergistic relationship between all the services'.[16]

Chapter 6 by Harry Raffal titled 'Malaya, 1941–42',[17] essentially captures experiences of the RAF, Royal Australian Air Force (RAAF) and Japanese 'air support operations' during the Malayan Campaign of WW11.[18] The Japanese Army regarded the support to ground forces by air, as vital – with salient points including interdiction, the early concept of CAS, as well as control of the air. The RAF term 'direct support for ground forces'[19] was a concept that seemed to be less favourable compared to other air power roles, especially deep strike beyond the front line of enemy troops. Training seemed to be a stumbling block insofar as the jointness was not harnessed between ground and air units, and equipment and stores were not sufficient to support training. The Japanese invasion of North Malaya

(December 1941), including the Japanese crossing of the Slim River as well as the Battle of Muar (January 1942), is covered in a short description of historic events that depict Japanese successes and some RAF limitations. This chapter offers some lessons learned regarding the varying effects that CAS could have on the battlefield, which transcends the mere effect of material damage of enemy equipment and capabilities, by including the psychological effect on soldiers.

In Chapter 7, John Alexander[20] provides an overview of Lt Gen. BL Montgomery's thoughts on air power. This narrative is based on the command that Montgomery held in 1942 in Egypt (during the North African campaign) as well as his experience in various positions of command and in training throughout his career, which included the Middle East and Europe. Alexander shows how Montgomery was influenced by experience, as much by peers as by seniors in the military, to have a certain 'air-mindedness'[21] for land combat operations.[22] Montgomery understood that wars would be fought as joint endeavours and not purely remain land affairs anymore. He thus advanced the importance of control of the air in combat.

During WW11, the German forces in Italy entrenched themselves on, what became known as the *Gustav Line*, an impenetrable defence that stretched across central Italy from coast to coast, and which prevented the Allied advance to the north from November 1943 to March 1944. Bill Pyke captures the 1944 events of the Allied Operations Strangle and Diadem as a combined case study on the effectiveness derived for planned 'tactical air interdiction' and CAS to generate a stranglehold on a well-entrenched enemy.[23] The success of breaching the *Gustav Line* is described by how the morale of German troops was affected by strafing rather than by the actual materiel losses incurred during Allied air interdiction operations. It was the persistent nature of the planned sorties that provided the breakthrough.

In Chapter 9, Clive Richards provides a narrative of the short-lived existence of an aerial rocket artillery (ARA) capability in the US Army.[24] In July 1963, the US Army activated the first ARA battalion. This was eventually used in Vietnam in July 1964 where it consisted of Bell UH-1B helicopters armed with two pods (containing 24 x 2,75 inch rockets on each side) essentially constituting airborne artillery.[25] Richards describes the conception of ARA, its implementation in Vietnam, the different units that were composed of this capability, as well as the eventual demise of the capability due to vulnerability of the low- and slow-flying aircraft that were used. The central idea was 'making artillery units mobile'[26] in order to achieve 'area fire'[27] – similar to that of traditional field artillery. Although related to air power, ARA provided a niche service somewhere between CAS and traditional artillery bombardment.

As put by John Alexander, Chapter 10 'offers a fresh perspective on British CAS in the Falklands Campaign and the perennial issue of the prioritisation of CAS vis-à-vis other air power roles'.[28] The planning of the Falklands operation started without the Chief of Air Staff present, and later during the conflict, major shifts in the focus of the air campaign

took place, all without a dedicated joint air commander.[29] Political motives are seen to translate into tactical decisions in this case study. What also permeates here is the dire combat situation created by ineffective communication in operations, as well as imprecise command-and-control.

In Chapter 11, Gus Macdonald discusses close air support during counter-insurgency operations in Afghanistan from 2006 to 2011.[30] MacDonald briefly addresses the technology and coordination conundrum that requires refinement to address the 'increased emphasis on collateral damage mitigation'.[31] He also takes into account the lessons learned by the RAF in Afghanistan, and the influence of older as well as emerging technology, such as the unmanned aerial vehicle (UAV), on CAS.

The author of Chapter 12, Samuel Oyewole, discusses the contribution of CAS experiences of the 'Global South'[32] by means of three main themes: 'The Nigerian military experience',[33] 'CAS in the Nigerian military operation',[34] and 'The challenges of CAS in Nigerian military operations'.[35] Oyewole highlights the prominent absence of reflection on CAS operations (and air power in general) in developing nations – compared to the superpowers of the world. He highlights the various roles and operations, such as peacekeeping as well as counterinsurgency operations by the Nigerian Air Force (NAF) since 1964, to support his conclusions.

Summative ideas that could be distilled from the book, would probably yield contributions for: sound doctrinal development with global and technological changes in mind; joint land and air training for CAS; control of the air as a prerequisite for CAS; and understanding why CAS is best applied when well planned – but applied with abundant flexibility, which includes considering air interdiction as a suitable substitution in a given situation. The value of the book lies in the condensed accounts of CAS and additional air activities in combat, spanning over a century of air power.

Close Air Support: Case Studies on the Integration of Air Power on the Battlefield is not really suitable for educating the layman on air power or CAS. Instead, the book comprises material best suited for those individuals already endowed with a fair understanding of these topics and more, such as scholars, purveyors and practitioners of air power in general. In the conclusion,[36] there is allusion to the Russia–Ukraine War, which mentions the technology applied in that conflict. The spectrum of the book may however have benefitted from a full chapter on the Russia–Ukraine air war, and more specifically, CAS.

Scholars of air power might find *Close Air Support* a welcome source of inspiration when contemplating topics for postgraduate studies in the field of air power. Such topics may include the influence of troop morale when friendly CAS is visible, the scope that exists in the developing world, new technology, air power history, or doctrinal development that follows the continuum of technological advancements. From an air power doctrine development perspective, *Close Air Support: Case Studies on the Integration of Air Power on the Battlefield* provides a focus on the importance of keeping technological

advancements firmly in sight while not overlooking the vital importance of tried and tested principles of war, and searching for solutions to modern military challenges.

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Endnotes

1 S Cox, 'Foreword', in H Raffal & J Alexander (eds), *Close Air Support: Case Studies on the Integration of Air Power on the Battlefield* (Warwick: Helion, 2024), xvii–xviii.

2 South African Air Force, *Air Power Edition 1* (Pretoria, 2020), Chapter 9, p. 2.

3 Other contributors to this book include Sebastian Lukasik, an associate professor at the United States Air Force Air Command and Staff College at Maxwell Air Force Base; RAF Squadron Leader Gus Macdonald, who serves as a staff officer at MOD level in London with vast combat flying experience; Mike Meech, who has published several articles on aviation as an RAF veteran of 10 years and who volunteers at the RAF Museum; Samuel Oyewole, a lecturer at the Department of Political Science at the Federal University in Nigeria with a vast publication account of journals in various fields of study that include aerospace and security; Bill Pyke, who is not just an air power enthusiast, but also holds a master's degree in Air Power and is an independent air power researcher focusing on the RAF; Clive Richards, a well-published independent scholar of air power, also holding a master's degree in Air Power from the University of Birmingham; Michael Terry, a lecturer in the field of military history, although he is pursuing a PhD based on First World aerial combat in literature; and Lieutenant Colonel (Retired) Geoffrey Vesey Holt, MBE, a graduate of Durham University and a career Royal Tank Regiment officer.

4 'List of Contributors', in Raffal & Alexander (eds), *Close Air Support*, x.

5 'List of Contributors', in Raffal & Alexander (eds), *Close Air Support*, viii.

6 M Terry, 'Everything was Sheer Chance: No. 46 Squadron's Experiences with Close Air Support on Western Front, 1917–1918', in Raffal & Alexander (eds), *Close Air Support*, 33–50.

7 Terry, 'Everything was Sheer Chance', 36.

8 M Meech, 'Calling for Close Air Support: The Counter-attack Patrol and the Central Information Bureau', in Raffal & Alexander (eds), *Close Air Support*, 51–72.

9 South African Air Force, *Air Power Edition 1*, Chapter 8, p. 9.

10 GV Holt, 'Close Air Support to the Tank Corps in the First World War: A Developing Success', in Raffal & Alexander (eds), *Close Air Support*, 73–85.

11 Holt, 'Close Air Support to the Tank Corps', 69, 78, 79, 85.

12 Holt, 'Close Air Support to the Tank Corps', 85.

13 SH Lukasik, 'New Vistas of Usefulness: William C. Sherman and the Development of Ground Attack Aviation in the United States, 1919–1927', in Raffal & Alexander (eds), *Close Air Support*, 86–95.

14 Lukasik, 'New Vistas of Usefulness', 88, with reference to U.S. Army Air Service, *Tentative Manual for the Employment of Air Service*, by William C. Sherman (Washington, DC: Government Printing Office, 1919), Department of the Army, *Fundamental Principles for the Employment of the Air Service*, Training Regulation No. 440-15 (Washington, DC, 26 January 1926) and WC Sherman, *Air Warfare* (New York: The Ronald Press, 1926).

15 Lukasik, 'New Vistas of Usefulness', 88.

16 Lukasik, 'New Vistas of Usefulness', 95.

17 H Raffal, 'Malaya, 1941–42', in Raffal & Alexander (eds), *Close Air Support*, 96–124.

18 Raffal, 'Malaya', 96, 98.

19 Raffal, 'Malaya', 101.

20 J Alexander, 'Air Power in the Land Battle: Montgomery and Close Air Support', in Raffal & Alexander (eds), *Close Air Support*, 125–141.

21 Alexander, 'Air Power in the Land Battle', 140.

22 Alexander, 'Air Power in the Land Battle', 140, 141.

23 B Pyke, 'Operations *Strangle* and *Diadem*: Assessing the Impact of Tactical Air Power in Support of the Allied Ground Forces, Central Italy, March–June 1944', in Raffal & Alexander (eds), *Close Air Support*, 142–158.

[24] C Richards, 'Flying Artillery: The Development and Employment of Aerial Rocket Artillery Helicopters by the US Army, 1963–1972', in Raffal & Alexander (eds), *Close Air Support*, 159–177.
[25] Richards, 'Flying Artillery', 165.
[26] Richards, 'Flying Artillery', 163.
[27] Richards, 'Flying Artillery', 168.
[28] J Alexander, 'Suddenly Like Cavalry: British Close Air Support in the Falklands Campaign', in Raffal & Alexander (eds), *Close Air Support*, 178–196.
[29] Alexander, 'Suddenly Like Cavalry', 184.
[30] G Macdonald, 'Close Air Support in Afghanistan: An RAF Tornado Perspective', in Raffal & Alexander (eds), *Close Air Support*, 197–212.
[31] Macdonald, 'Close Air Support in Afghanistan', 205.
[32] S Oyewole, 'Close Air Support in Global South Conflicts: The Nigerian Military Experience, 1967–2022', in Raffal & Alexander (eds), *Close Air Support*, 213–231.
[33] Oyewole, 'Close Air Support in Global South Conflicts', 219.
[34] Oyewole, 'Close Air Support in Global South Conflicts', 221.
[35] Oyewole, 'Close Air Support in Global South Conflicts', 227.
[36] H Raffal & J Alexander, 'Conclusion', in Raffal & Alexander (eds), *Close Air Support*, 232–252.