

Some Problems with Airpower History

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In 1978, The United States Air Force Academy hosted a conference on the history of airpower. “For many years...the very limited amount of scholarly work in the field has hampered the effective teaching of the subject at the Academy and elsewhere,” but the time had come to “assess what has been done and to stimulate new work.”¹ This conference, the first serious symposium ever held on the topic, was attended by leading students of airpower from across the world. It included outstanding American practitioners of the art of airpower, including that icon of annihilation, Curtis E. LeMay, and scholars of military and international history, ranging from old hands such as Ernest May and Theodore Ropp to (then) young Turks like David Rosenberg and Dennis Showalter.

This meeting occurred at a peculiar moment in the history of airpower. Scholars finally could mine the experience and some of the records on seventy-five years of international aviation history, involving many different competitors and competitions in power politics and war. These possibilities enabled comparison between nations, actions, policies and ideas. Meanwhile, in conceptual terms, the imagined culminating point of

¹ Air Power and Warfare, *Proceedings of the Eighth Military History Symposium, Office of Air Force History, Headquarters USAF and USAF Academy, 1978*, (the citation comes from pp. iii). For the broader organizational and doctrinal context, cf. Edward Kaplan, *To Kill Nations, American Strategy in the Air-Atomic Age and The Rise of Mutually Assured Destruction*, (Cornell University Press, 2015) and R. Michael Worden, *The Rise of the Fighter Generals, The Problem of Air Force Leadership, 1945-1982*, (Air University Press, 1998).

airpower had switched from mass devastation conducted through independent means, back toward cooperation in interdependent forms of warfare like Air/Land Battle, with long-range precise strikes lurking on the horizon. Had this conference been held in 1960, its' focus would have been different. The meeting also reflected a post-Vietnam war malaise among American airmen and academics, who agonized over how and why political and technical limits and/or weaknesses had affected the value of airpower in Indochina and might perhaps do in future conflicts. Papers focused primarily on American examples, with plenty of British and some German, Japanese and Soviet instances on parallel matters², especially the development and role of conventional airpower and doctrine about it. Scholars and practitioners treated these matters in an empirically rich, comparative and transnational fashion. While they pursued better history on conventional matters, especially those involving what might be called *coercive bombing*, panellists were less rigorous when they addressed currently unfashionable ideas about air power. Little attention was paid to the dominant concern of The United States Air Force (USAF) between 1945-65, and a key event in the history of airpower: the development of a nuclear-armed bomber fleet, its rise to the primary arm of American power, and decline to a secondary status. Access to material on this topic was restricted, and Strategic Air Command (SAC) clearly could no longer drive a dynamic and independent air force. Since SAC had no future, its past seemed of little interest to airpower, while feelings over the marginalization of that service remained raw. The keynote speaker, Brigadier General Noel Parrish, USAF, even erroneously claimed that the USAF never had really favoured mass nuclear attacks.² Another classic role of airpower, in counter-insurgency, was discussed under the *rubric of limited war*, which focused essentially on complaints that American civilians misunderstood airpower, which had gutted its value in the Korean and Vietnamese wars, rather than an analysis of how air forces had affected irregular warfare.³ All participants in this conference held that airpower was crucial to power and strategy and was misconstrued by the public and government. Knowledge of history was essential to the understanding and use of airpower, yet it was lacking, because few scholars addressed the topic while the government censored discussion about it (which had some truth at the time). The volume

² *Power and Warfare*, pp. 10-11, 215-45.

³ *Ibid.*, pp. 299-344.

highlighted Parrish's conclusion that "despite the commendable efforts of many, our traditions and the memories that made them have been neglected, our costly lessons from the recent past are in danger of being forgotten before they are really learned. That is why we are here." Parrish also held that "the influence of airpower upon most historians is largely negative." (meaning that scholars disliked and distorted the topic) while "the influence of historians on air power...is practically non-existent." These comments, probably true at the time, though less so today, reflect how airmen believed that airpower history should support good policy, and be judged by that criterion.⁴ History should inform policy and justify it.

This conference marked the start of a debate between the first generation of airpower historians, often having official or unofficial privileged access to archives, and relying on memoirs and easily accessible primary documents, against second-generation scholars who studied the full range of documents, without necessarily sharing loyalty to institutions or their traditions. Thus, Rosenberg and Showalter raised the most penetrating critiques of first-generation orthodoxy, which opened a dominant trend in the coming decades. Yet in 1978 these differences between schools were small compared to the commonalities. All participants attacked myths about airpower which had emerged during its childhood and then echoed through the first generation of studies about it. All agreed that to develop knowledge about airpower history would require comparative studies of how different nations had tackled its conditions and problems, and integrate into their analyses matters like technology, strategy, organization and leadership. In effect, participants asked airpower historians to behave more like their military and maritime colleagues, though with different foci, and to lay a foundation for improved literature on the topic which would boost public understanding of the topic, and scholarship on it. Another implicit aim was to develop a new consciousness among scholars, practitioners and the public, which would transform understanding and action about airpower. Though no one used the term, this approach echoed the concept of "airmindedness" which was so common among airmen of the interwar years, as they attempted to justify their demands among civilians, and today has been redefined in a

⁴ Ibid., pp. 1, 3, 18.

more technical sense.⁵ Where airmen view *airmindedness* as a way to raise consciousness, their opponents regard it as creating a form of ideological false consciousness.

This conference produced good works, which foreshadowed how historians would tackle airpower over the next forty-five years. During this period, military history as a whole, whether academic, official or popular, exploded in quantity and quality. New approaches became standard.⁶ Strategic history, with its focus on diplomacy in war and power in peace, underpinned work on service policies. The study of *War and Society* expanded the breadth and depth of the field, though some feared that it might become a stalking horse for social historians to subvert *real* military history. Maritime history, almost dead in the water by 1970, surged into strength, as increasing numbers of students tackled untouched documentation, developed new ideas, and broadened the field to embrace connections with strategy, society, technology, economics and ideas. Airpower history did not match this success, but still, it acquired an academic dimension for the first time and became far broader deeper, and more comparative and transnational, than before. In 1978 the documentary based on military airpower remained largely classified, but then records into the period of the Cold War rapidly and increasingly entered the public domain. Well-researched, if often controversial, official and demi-official histories increasingly provided material on very recent uses of airpower.⁷ Historians used this evidence in new ways. Official histories became more powerful and innovative, such as a trilogy about Canadian airpower from 1914 to 1945, and Robert Frank Futrell's histories of United States Air Force (USAF) organization, actions and doctrine.⁸ The best air historian before 1980, Robin Higham, continued to provide cutting-edge and

⁵ Brigadier-General Christopher J. Coates, "Airmindedness—An Essential Element of Air Power," *The RCAF Journal*, 4/3, Summer 2015.

⁶ John Ferris, "Power, 'Strategy, Armed Forces and War,'" in Patrick Finney (ed), *Palgrave Advances in International History*, (Palgrave Macmillan, 2005), pp. 58-79.

⁷ Eliot A. Cohen, Director, *Gulf War Air Power Survey*, 5 vols, U.S. Government Printing Office, 1993, and Sebastian Ritchie, *The Royal Air Force in Operation Shader: Air Combat and ISR Support in Operations Against the Islamic State, 2014-2019*, (AHB, 2023).

⁸ Robert Frank Futrell, *Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force, 1907-1960*, Volume 1, and 1961-1984, (Air University Press, 1989); Sydney Wise, W.A.B. Douglas and Brereton Greenhous, et.al., *The Creation of a National Air Force (Sydney Wise and W.A.B. Douglas, Volume One, Canadian Airpower and the First World War; W.A.B. Douglas, Volume Two The Creation of a National Air Force; and Brereton Greenhous, Volume Three, The Crucible of War, 1939-1945*, University of Toronto Press, 1980, 1986, 1994).

comparative work.⁹ Second generations of air historians rejected key assumptions of those who first pioneered the study, only to be challenged themselves by younger cohorts, which enabled a standard means to advance academic literature. Unofficial histories by serving air officers and scholars like Mark Clodfelter, Edward Kaplan, Philip Meilinger and R. Michael Worden illuminated the doctrinal and strategic forces which drove USAF policy during the early Cold War.¹⁰ Civilian scholars attached to military institutions, like Tami Davis Biddle, Bradley Gladman and Sebastian Ritchie, illuminated key issues such as doctrine for strategic bombing, air support for armies, and the industrial and technological base for airpower.¹¹ Compilations of airpower history became common, as did work on previously unstudied or understudied national experiences, like those of Romania or China.¹² Popular histories of airpower became more powerful, precise and comparative than before, and brought unorthodox ideas to the table.¹³

Airpower history still focused on the thoughts and actions of people within conventional air forces, but new schools emerged that synthesized airpower with other matters. A cultural approach, focusing on public attitudes toward airpower, which has links to the airmen's concept of air-mindedness, became a particular characteristic of the

⁹ Robin Higham, *Two Roads to War, The French and British Air Arms from Versailles to Dunkirk*, (Naval Institute Press, 2012) and *100 Years of Air Power and Aviation*, (Texas A&M University Press, 2003).

¹⁰ Kaplan and Worden, op.cit., Mark Clodfelter, *The Limits to Airpower, The American Bombing of North Vietnam* (Free Press, 1989); Philip Meilinger, *Bomber, The Formation and Early Years of Strategic Air Command*, (Air University Press, 2012).

¹¹ Tami David Biddle, *Rhetoric and Reality in Air Warfare, The Evolution of British and American Ideas About Strategic Bombing, 1914-1945* (Princeton University Press, 2002); Bradley Gladman, *Intelligence and Anglo-American Air Support in World War Two, The Western Desert and Tunisia, 1940-43*, (Palgrave MacMillan, 2009); Sebastien Ritchie, *Industry and Air Power: The Expansion of British Aircraft Production, 1935-1941*, (Frank Cass, 1997).

¹² Sebastian Cox and Peter Gray, (eds), *Air Power History, Turning Points from Kitty Hawk to Kosovo*, (Frank Cass and Co., 2002); Gohn Gooch (ed), *Airpower, Theory and Practice*, (Frank Cass, 1995); Alexander Statiev, "Antonescu's Eagles against Stalin's Falcons: The Romanian Air Force, 1920-41," *The Journal of Military History*, 66/4, October 2002, pp 1085-1022 ; Kwong Chi Man, "Debating Douhetism: Competing Airpower Theories in Republican China, 1928-1945," *War in History*, 28/1, 2019, pp. 118-142.

¹³ Jeremy Black, *Air Power, A Global History*, (Rowman & Littlewood, 2016), and Stephen Budiansky, *Air Power, The Men, Machines, and Ideas that Revolutionized War, From Kitty Hawk to Gulf War II*, (Penguin, 2004).

field.¹⁴ David Edgerton pioneered what might be called a *critical airpower* approach, which showed new ways to integrate social, strategic, technological, economic and cultural history with the study of air power.¹⁵ Several powerful works addressed key elements of airpower from transnational and multidisciplinary perspectives, many of them using the rubric, “the influence of airpower upon history”.¹⁶ Meanwhile, a *critical airpower* approach challenged the ideological assumptions which drove the field and its close association with air forces. Two schools addressed limits in the mainstream literature on airpower. One tackled the role and effect of airpower in counterinsurgency, which became an increasingly common phenomenon after 1995, just as it had been between 1911-45. This topic has received ample attention from civilian and demi-official historians, while the RAF Air Historical Branch has published several excellent studies on the contemporary use of airpower in counterinsurgency by Sebastian Ritchie.¹⁷ A critical school denounced that approach as being written purely from Western colonial perspectives, and challenged its political assumptions.¹⁸ Meanwhile, students of war and society, some with a “critical airpower” focus, addressed the social history of air forces, including previously overlooked matters like the experiences of female or minority members of air forces.¹⁹ So far, the critical airpower and war and society schools have

¹⁴ Robert Wohl, *A Passion for Wings, Aviation and the Western Imagination, 1908-1918*, (Yale University Press, 1994); Mathew Paris, *Winged Warfare, The Literature and Theory of Aerial Warfare in Britain, 1859-1917*, (Manchester University Press, 1992).

¹⁵ David Edgerton, *England and the Aeroplane, An Essay on a Militant and Technological Nation*, MacMillan Academic and Professional, 1991).

¹⁶ Peter W. Grey, “Airpower History” in *The Routledge Handbook of Air Power* (2018); Walter J. Boyne, *The Influence of Airpower upon History*, (Gretna, La., Pelican, 2003); Robin Higham and Mark Parillo, *The Influence of Airpower upon History: Statesmanship, Diplomacy and Foreign Policy since 1903*, (University Press of Kentucky, 2013).

¹⁷ James S. Corum, “The Myth of Air Control: Reassessing the History,” *Aerospace Power Journal*, Winter 2000, pp. 61-77; Sebastian H. Lukasik, “Insurgent Airpower in Historical Perspective: An Introduction and Prospectus for Research”, *The Historian*, 74/2, Summer 2012, pp. 217-40; Sebastian Ritchie, *The Royal Air Force in Operation Shader: Air Combat and ISR Support in Operations Against the Islamic State, 2014-2019*, (AHB, 2023).

¹⁸ David Omissi, *Airpower and Colonial Control, The Royal Air Force, 1919-1939*, (Manchester University Press, 1990); Priya Satia, *Spies in Arabia: The Great War and the Cultural Foundations of Britain’s Covert Empire in the Middle East*, (Oxford University Press, 2009).

¹⁹ Reina Pennington, *Wings, Women and War, Soviet Airwomen in World War II Combat*, (University Press of Kansas, 2001). For differing perspectives on the Canadian experience with these issues, cf. Charlotte Duval-Lantoine, *The Ones We Let Down: Toxic Leadership Culture and Gender Integration in the Canadian Armed Forces* (McGill-Queen’s University Press, 2022) and Allen English, “The Forgotten

enriched the study of airpower, with few of the negative consequences perhaps feared by some.

Despite these successes, key scholars continued to emphasize what they saw as unusual problems with the history of airpower, which also hampered discussions of air theory. Thus, Colin Gray held that the understanding of airpower “is harassed and frequently frustrated by both unsound history and incompetent theorizing. The problem is that those who debate airpower typically seek the history they can use to advantage, not the history that strives honestly to be true. As for the theory of airpower, it never did take off safely; it continues to fly in contested skies or to ski indecisively on the runway.” Among his “fallacies of airpower,” Gray listed the premise, “For airpower, the world is akin to a dartboard.”²⁰ Notably, the theoretical works on airpower which most attracted Anglophone airmen after the Cold War, John Boyd’s idea of the OODA loop, and John Warner’s division of targets into categories of *Five Rings*, present airpower from the point of view of the dart, or the pilot. In so doing, they tacticize airpower, and confuse its links with strategy.²¹ So too, is the theory underlying the USAF’s theory of *fires*, or long-range distant strike.²² Fortunately, some scholars honed the conceptual link between air history and strategy, with special emphasis on how to combine aims, means and effects. Colin Gray produced the first study of the theory and practice of airpower which could be compared to Mahan, a goal long pursued in the field.²³ Tami Davis Biddle held that “at this point, we have more than one hundred years of experience with air power as a military instrument, and this historical record has given us a strong sense of where theories have either aligned with or departed from expectations. This analysis is of

Decade: Women and the RCAF, 1952-1962, in Randall Wakelam, William March and Peter Rayls, *On the Wings of War and Peace, The RCAF During the Early Cold War*, (University of Toronto Press, 2023), pp. 205-27.

²⁰ Colin S. Gray, “Understanding Airpower, Bonfire of the Fallacies,” *Strategic Studies Quarterly*, 2/4, (Winter, 2008), pp. 43-83. The citations come from pp. 43, 57.

John Boyd, “A Discourse on Losing and Winning.” (1992), www.danford.net/boyd/conceptual.pdf; John A. Warden III, “Success in Modern War: A Reply to Robert Pape’s “*Bombing to Win*,” *Security Studies*, 7/2, 1997, pp. 172-190.

²¹ John Boyd, “A Discourse on Losing and Winning.” (1992), www.danford.net/boyd/conceptual.pdf; John A. Warden III, “Success in Modern War: A Reply to Robert Pape’s “*Bombing to Win*,” *Security Studies*, 7/2, 1997, pp. 172-190.

²² John Ferris, “Targeting, Air Intelligence and Strike Warfare: Parts 1 and 2,” *The RCAF Journal*, Autumn 2018 and Spring 2019.

²³ Colin Gray, *Airpower for Strategic Effect*, (Air University Press, 2012).

particular significance at this moment in time, as changes in technology force us to rethink what we know and understand about the use of airpower.” The best foundation for this analysis, she argues, is to link the practice of what might be called *coercive airpower*.” to ideas about *coercion theory*, stemming from the strategy of Thomas Schelling.

²⁴Each of these approaches has legs.

This paper will assess the accuracy of such criticisms. It is not the first time that I have considered these problems. Twenty-six years ago, I wrote that around 1970, “the study of airpower was the most academically challenged branch of military history,” but by 1990 it had

become a distinct branch of scholarly military history, with high standards and marked characteristics. Most specialists in airpower have at least one of the following characteristics, and a surprising number share more: they are the children of airmen, have been military personnel themselves, and have been employed at a historical office or service school in Canada, Germany, the United Kingdom or the United States. Relatively speaking, naval and army historians have more heterogeneous backgrounds and are trained and employed at scores of institutions: scholars of air power are trained in a few institutions and employed in a few more.

When any field has so few students, and they have such homogenous backgrounds, the state of its literature must be affected—the assumptions of a few schools or the eccentricities of a few scholars may even dominate the scholarship.²⁵

That anatomy retains power in 2024. Compared to work in maritime and military history, the literature on airpower is small, its authors are few, and they stem from a narrow social base. Airpower has a smaller history than army or maritime power. Less is known about

²⁴ Tami Davis Biddle, “Coercion Theory, A Basic Introduction for Practitioners,” in *Texas National Security Review*, 3/2, 2020, pp. 95-109) and *Air Power in Warfare: A Century of Theory and History*, (US Army War College Press, 2019). The citation is from *Theory and History*, p.2.

²⁵ John Ferris, “The Air Force Brats’ View of History: Recent Writings and the Royal Air Force, 1918-1960”, *International History Review*, 20/1, 1998, pp. 119.

it, and a larger percentage of works on the topic address basic issues in an unconnected fashion, without a strong continuous narrative or thematic framework. Whereas maritime and military histories treat their topics with a multinational and comparative focus, air historians are divided far more into national schools, with borders hardened because most members of those national schools also are citizens of that nation. Students of Australian or Danish airpower generally are Australian or Danish, as is to a lesser extent true even in the national schools which receive the greatest international attention, like American, British or German. Airpower history also tends to be written from the perspective of pilots and engineers. This approach always causes unrecognized problems especially at this moment, when the role of pilots in airpower is being challenged in unprecedented ways. These different forms of size and narrowness, and the background shared by authors and air forces, produce the desired effect of *fair-mindedness*, but they also shape the literature in unconscious ways. They provide a force for inertia which limits receptiveness to new approaches and reinforces old ones

The history of military services, and the human experience with them and war, have many levels of analysis. *Military history*, a broad and deep topic, embraces social, strategic, operational and political issues. It usually is conflated with its largest sub-component, which might be called *army history*, except that virtually no one does so. "Maritime history" is a pocket version of *military history* with greater attention to civilian matters (human uses of the sea), but *naval history* focuses much more on operational and technical issues than *army history*. That is doubly true of *airpower history*, which finds *aviation history* a weaker partner than navies do *maritime history*, or armies do many aspects of *military history*. Even more, air forces do not work as armies do. Whereas modern armies emphasize the distinctions and connections between tactical, operational and strategic dimensions, for air forces, strikes more often directly link strategic and tactical levels, while avoiding the operational one. Military actions conventionally are divided into three categories: strategic, tactical, and operational. They would better be broken into four of them, including strike, a matter generally counted in other categories, especially tactical. Whereas the tactical level addresses attack and defence by small forces in a closed area, pursuing local aims, strike involves fire by many weapons against distant targets, often for strategic purposes and without entering the operational plane. Both strike and operations link tactics and strategy. The most obvious comparator to *airpower*

history might be *artillery history*, save that the latter matters much less, which is saying something.

Much more than maritime history, the study of airpower focuses on purely technical issues, with a tendency to fetishize specific pieces of kit and to avoid issues like politics. As James Corum wrote in 1997, more books studied the tail markings of German aircraft (three) than the Luftwaffe's policy (at that time, zero).²⁶ Scholars also focus far more on big than small air forces, especially the biggest of Anglophone ones, which reinforces the assumption that Anglophone experiences are the core of airpower history. Of course, big air forces and Anglophone ones must be studied, but their experiences are not identical to those of little services, which merit attention in their own right. Students of Canadian airpower might learn more from comparison with Dutch or Swedish air forces, than with the usual culprits, the RAF and the USAF, if only because they provide context for the major questions of Canadian airpower—why do weak or weaker nations need air forces? and what defines the size and nature of those forces? These problems are reinforced when national and linguistic schools are combined, because few Anglophone air scholars read material in other languages, which obscures the history of foreign air forces, even when substantial literature exists there. Incidentally, digital search engines and mechanical translation systems offer aid in this area even to linguistically challenged scholars.

Part of what Gray sees as the relationship between *unsound history and incompetent theorizing* stems from a powerful but unconscious reflex in thinking about airpower, which links analysis of history to assessments of looming tendencies of the near to middle future, or the next twenty-five years. A leading professional journal, *Air and Space Power History*, has the slogan, *Know the past...Shape the future*. The best scholars of airpower, including Gray himself, characteristically combine accounts of history and theory, of the past and the future.²⁷ They emphasize the relationship between theory and practice, or

²⁶ James Corum, *The Luftwaffe, Creating the Operational Air War, 1918-1940*, (University Press of Kansas, 1997), p. 2.

²⁷ Colin Gray, *Airpower for Strategic Effect*, op. cit., Tami Davis Biddle, *Air Power and Warfare, A Century of Theory and Practice*, (Army War College Press, 2019) and Philip S Meilinger, *Airwar, Theory and Practice*, (Taylor & Francis, 2003) and "The Historiography of Airpower: Theory and Doctrine", *The Journal of Military History*, 64/2 (2000), pp. 467-501.

history and current developments, more than do members of other schools of military history. This relationship is natural and powerful, but if not controlled carefully, can degrade one's focus. Students of airpower confront a problem both with historical sense and strategic extrapolation. At any and every time, air forces think and plan about airpower in a future conditional tense, which is used to interpret past, present and future. Assumptions about the proper strategy for the looming use of airpower, drive ideas about what should have been the right strategies of the past, just as analyses of the past drive recommendations for the future, which can create errors in a self-reinforcing loop between times gone and yet to be. Unfortunately, these ideas about proper strategies took very different forms over the first century of airpower, ranging from support of armies and navies to the pursuit of air superiority or of mass destruction, to precise long-range strikes, and to work in counter-insurgency. These strategies often are mutually exclusive, or hard to combine. Bad air historians may "seek the history they can use to advantage, not the history that strives honestly to be true," but even good scholars can mistakenly link a true historical account to real emerging issues, and so distort both sides of the equation. The base for this combination of historical and strategic analysis can move without notice, while the end is a moving target since many radical changes in airpower always occur at once in any twenty-five-year period. Thus, the criterion for judgment of the relationship between history and strategy may change, without being noticed. This problem is particularly great for non-professional historians—for airpower practitioners and civilian decision makers—and it will worsen as the issue ceases to involve not just airpower on earth, but spacepower, which probably can best be understood in conceptual terms through a mash-up between the theory and practice of airpower and seapower.

Deeper problems stem from and shape air theory and practice. Institutional issues—that is, which organizations control what kinds of airpower—cause bizarre divisions within the base for history, theory and doctrine in airpower. Airpower history ignores large parts of air forces, like platforms which armies often control, such as helicopters and UAVs and the work they do. The tiny literature on maritime aviation is seen as part of naval rather than air history when it really belongs to both and will affect the future of airpower and seapower alike. The literature on airpower is marked by a tension between ideas about independence and interdependence in airpower. Exponents of airpower leap at every opportunity to emphasize the autonomy or the independence of air forces in air operations and in strategic effect. This tendency marked the more

optimistic writings on airpower history and theory during the 1990s and 2000s, which proved as accurate as those about the so-called “Revolution in Military Affairs”. It lives today in USAF definitions of the role of “fires”, in warfare, which emphasize independence, while those of the army demand interdependence.²⁸ The naughty questions are whether airpower can work independently, and how far so. and how one might measure its effect. Gray and Biddle provide useful frameworks for assessment which can improve such discussions, but the latter always will remain controversial. Again, airpower promises the possibility to sidestep attrition and often does so, but rarely in simple or certain ways. For recent counter-insurgency and counter-terrorist campaigns in Afghanistan and the Middle East, airpower enabled precise and effective tactical strikes with remarkably little collateral damage, but could not escape strategic stalemate and political failure. Whether in the Combined Bombing Offensive, Vietnam or Afghanistan, airpower offers false promise to the unwary, because its tactical successes can be too easily mistaken for strategic effect. Identifying how far and under what conditions airpower can escape the surly bonds of attrition, is a key question for airpower historians.

Despite its problems, airpower history is in the best state it has known. Just a few steps would bring it to the quality of naval history. The first step is to understand that these problems exist, pursue solutions, and then learn to live with conditions, matters which we cannot escape but must only endure. The next step is to embrace the comparative and transnational nature of airpower history and to compare its best works with those in its theory, in particular the arguments of Tami Davis Biddle and Colin Gray. A third step is to welcome new voices, especially on issues like the social history of air organizations, which is too important an issue to be left just to students of *critical airpower*. The greatest weakness of airpower history compared to military and maritime history lies in its links to war and society. To address these weaknesses is not to be woke, but wise.

²⁸ John Ferris, "Targeting, Air Intelligence and Strike Warfare: Parts 1 and 2," *The RCAF Journal*, Autumn 2018 and Spring 2019.