

Air Power in Asymmetric Warfare

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Heavier than air flight is still little more than a century old, but it has transformed our world. One need only consider how unthinkable it would have been in 1900 to invite international experts to ‘pop across’ to Japan for a brief conference such as this! The rise of military air power coincided with the great power conflicts of the World War era, with the result that air power first developed in a largely symmetrical strategic environment. Contending air powers had comparable resource bases and technological capabilities, so that aerial contests tended to take the form of prolonged attritional duels in which both sides suffered tremendous air losses until one side finally succumbed through sheer national exhaustion. Since 1945, however, air contests have tended to become increasingly asymmetric, with one side quickly establishing air superiority or even unchallenged air supremacy.¹

There has been considerable debate about the implications of this increasingly asymmetric strategic environment for the utility and importance of air power. On the one hand, there are those such as USAF Colonel John Warden who have hailed the growing dominance and irresistibility of advanced air power, as demonstrated in the 1991 Gulf war.² General Wes Clark, NATO’s Supreme Allied Commander in Europe during the 1999 Kosovo campaign, even went so far as to say that ‘Milosevic must feel he is fighting God’!³ On the other hand, there are sceptics such as Professor Martin van Creveld, who argued in his 2011 book on air power that ‘seen in retrospect airpower has now been in decline for six decades and more’.⁴ So who is right? Is modern air power the ideal instrument of asymmetric advantage, or has the shifting nature of international conflict since the symmetrical attritional duels of the World Wars progressively undercut the utility of air power since its triumph in 1945?

Let us start by identifying some less contentious aspects of the military air power experience in recent generations. First, there is no question that Western aircrew losses have declined precipitously since the aerial bloodbath of the World Wars, when surviving the conflict unscathed was very much the exception rather than the norm for those aircrew involved from the outset.⁵ Even in Vietnam, over 8,000 US aircraft were lost, but more recently in Kosovo and Libya, entire air campaigns have been concluded without a single aircrew fatality.⁶ This remarkable shift stems partly from the growing asymmetry of capability between advanced air powers and regional opponents such as ISIS with outdated or non-existent air defence

¹ John Olsen, (ed.), *A History of Air Warfare* (Washington, DC: Potomac Books, 2010)

² John Warden, ‘Employing Air Power in the Twenty-First Century’, in Richard Shultz & Robert Pfaltzgraff (eds.), *The Future of Air Power in the Aftermath of the Gulf War*, (Maxwell AL: Air University Press, 1992)

³ Bob Marshall-Andrews, ‘We polished our weapons while the Albanians died’, *The Independent*, June 19th, 1999

⁴ Martin van Creveld, *The Age of Airpower*, (New York: Public Affairs, 2011), p.171

⁵ Mark Wells, *Courage and Air Warfare* (London: Frank Cass, 1995)

⁶ René Francillon, *Vietnam Air Wars*, (London: Hamlyn, 1987), p.208; Ben Lambeth, *NATO’s Air War for Kosovo* (Santa Monica, CA: RAND, 2001); Douglas Barrie, ‘Libya’s Lessons: The Air Campaign’, *Survival*, 54(6), Dec 2012–Jan 2013, pp.57–65

panoplies, and partly from technological change. Modern air vehicles are much safer and more reliable than their earlier counterparts, modern air warfare depends increasingly on electronic duels in which being second-best can be disastrous in the face of enemy homing and jamming technologies (as in Lebanon in 1982), and the software and communications revolutions give air systems increasing stand-off potential to attack targets accurately without putting aircrew at risk from short range defences such as anti-aircraft artillery.⁷ The ultimate expression of this latter trend is, of course, unmanned systems such as cruise missiles or remotely-piloted air vehicles which remove altogether the risk of aircrew losses.⁸

This leads on to the second uncontentious aspect of modern air power experience, namely that political leaders have increasingly tended to commit air power as an instrument of first resort if military force needs to be applied, precisely because this minimises the risks to friendly personnel. Professor Eliot Cohen famously wrote in 1994 that ‘Air power is an unusually seductive form of military strength, in part because, like modern courtship, it appears to offer gratification without commitment’.⁹ In Kosovo, Libya, and the ongoing war against ISIS, Western nations have relied principally on air power as a means of military intervention, and this example has been followed recently by the Israelis in Lebanon and elsewhere, the Russians in Syria, and the Saudis in Yemen. Relying on air power (including unmanned systems) minimises the need for leaders in these various nations to ask shrinking families to risk the ultimate sacrifice in pursuit of less than ultimate strategic goals in today’s tangled asymmetric conflicts.¹⁰

So why is air power not seen as an unmitigated asset for advanced nations faced with such asymmetric conflicts? In part, this is because the decline in aircrew risk actually has a double-edged effect. When military flying was more dangerous, public and media attention tended to focus on the heroism of the aircrew themselves. Now, media attention has tended to shift towards the risks faced by those on the ground, be they friendly troops or innocent civilians caught up in the conflict.¹¹ Although some aircrew, such as transport pilots, are still viewed as heroes because of the risks they run to save lives, air power as a whole has acquired an aura of guilt and culpability because of perceptions that it causes unnecessary casualties through misdirected and insufficiently discriminate attacks which hit friendly forces or bystanders by mistake. Such ‘collateral damage’ attracts enormous publicity thanks in part to perceptions of unheroic airmen or distant drone crews accidentally maiming innocents while themselves remaining safely detached from danger.¹²

⁷ See my chapter on ‘The Counter-Air Contest’, in Andrew Lambert & Arthur Williamson (eds.), *The Dynamics of Air Power*, (Bracknell: RAF Staff College, 1996), pp.18-39

⁸ See my chapter on ‘The Strategic Impact of Unmanned Air Vehicles’, in Owen Barnes (ed.), *Air Power: UAVs: The Wider Context*, (Swindon: RAF Directorate of Defence Studies, 2009), pp.97-115

⁹ Eliot Cohen, ‘The Mystique of U.S. Air Power’, *Foreign Affairs*, 73(1), January–February 1994, pp.109–124

¹⁰ Edward Luttwak, ‘Toward Post-Heroic Warfare’, *Foreign Affairs*, 74(3), May 1995, pp.109-122.

¹¹ See my chapter on ‘Air Power and the Media: The Focus on Human Trauma’, in J. Olsen (ed.), *The Routledge Handbook of Air Power* (London: Routledge, 2018).

¹² Clive Blount, ‘War at a Distance? – Some Thoughts for Air Power Practitioners’, *RAF Air Power Review* 14(2), Summer 2011, pp.31–39; Chris Woods, *Sudden Justice: America’s Secret Drone Wars* (London: Hurst, 2015)

Modern precision-guidance technology plays a crucial role in minimising collateral damage, compared to the previous era when whole cities had to be flattened to hit individual installations within them.¹³ However, precision-guidance is not enough in itself, not least because it creates expectations that what CAN be done to limit collateral damage MUST be done. Equally important are effective intelligence and surveillance capabilities, for two main reasons. First, the more precise the weapons, the more dependent they are on accurate intelligence to identify key targets while avoiding embarrassing mistakes. (The 1991 Gulf war air campaign offers a telling example, with 90% of Iraq's nuclear sites remaining unknown and intact while a smart bomb destroyed the Al Firdos bunker, crowded with civilians.)¹⁴ Second, the more that opponents exploit media coverage to allege aerial war crimes, the more important it is for the superior air power to be able to display credible counter-evidence in a timely way.¹⁵

Air power advocates often highlight 'flexibility' as a key attribute of air power. However, this vaunted flexibility applies only to certain dimensions. Air power is certainly highly flexible geographically, being able to switch its point of application quickly across considerable distances (regardless of terrain) and to redeploy just as quickly without getting tied down in one position as ground forces often do. Air power is much less flexible in terms of its range of interactions with the surface environment. If we leave aside for a moment joint operations involving the aerial transport of ground forces, air platforms alone can do little to affect the surface situation except to observe it from above or to threaten or carry out an aerial bombardment. Land and naval forces, by contrast, can engage much more flexibly WITH the surface environment, by conducting searches, asking questions, taking prisoners and providing reassurance.¹⁶ This flexibility of effect is especially important in the kind of 'wars among the people' which characterise modern asymmetric conflict.¹⁷

Air power tends to work best in higher intensity contests between clearly distinguishable adversaries, in empty and uncluttered terrain and using identifiable heavy equipment and logistic vehicles. It is much less effective in tangled factional confrontations between infantry militias in a heavily populated environment. Professor Tony Mason recognised the crucial importance of such variables back in 1994 in his concept of an 'air power pendulum'.¹⁸ During the frustrating conflicts in Iraq and Afghanistan over the past 15 years, Western nations feared that the bad publicity from occasional mistakes such as bombing innocent wedding parties would undermine support at home and motivate more people to join the insurgencies than

¹³ Richard Hallion, 'Precision Air Attack in the Modern Era', in R. Hallion (ed.), *Air Power Confronts an Unstable World* (London: Brassey's, 1997), pp.111–137

¹⁴ Richard Hallion, *Storm Over Iraq* (Washington DC: Smithsonian, 1992)

¹⁵ James Corum, 'NATO Airpower and the Strategic Communications Challenge', *Journal of the JAPCC* 21, Autumn–Winter 2015, pp.42–48

¹⁶ See my article on 'The Current and Future Utility of Air and Space Power', *RAF Air Power Review*, 13(3), Autumn/Winter 2010, pp.155–173

¹⁷ Rupert Smith, *The Utility of Force* (London: Allen Lane, 2005)

¹⁸ Tony Mason, *Air Power: A Centennial Appraisal*, (London: Brassey's, 1994), p.xiii

were being killed in other, more effective strikes.¹⁹ It was such political concerns that led General Stanley McChrystal in Afghanistan to warn in 2009 that ‘Air power contains the seeds of our own destruction if we do not use it responsibly’.²⁰

There is another characteristic of air power which handicaps its contribution to modern conflicts, and that is the time it takes for air campaigns to demonstrate clear strategic effects. Tactically, air power is incredibly rapid, with air operations being measured in seconds and minutes instead of the hours, days and weeks typical of surface clashes. However, although opposing air forces and air defences can often now be crippled very rapidly (as in Lebanon in 1982), it usually takes far longer than expected for the aerial victors to translate their air supremacy directly into victory in the conflict as a whole. This is because air power (like sea power) relies on coercive and attritional mechanisms to grind down the enemy’s will and ability to resist, whereas land forces with air superiority can sometimes achieve victory through rapid *blitzkrieg* advances as in 1967 and 1991. In Kosovo and Libya, by contrast, it took months for the air campaigns to achieve victory, while against ISIS more recently it has taken years for the bombing to weaken the jihadis sufficiently for local forces to retake Mosul and Raqqa.²¹

A key issue during such prolonged and frustrating air campaigns is whether air power can demonstrably ameliorate enemy counter-action such as rocket or terrorist attacks on civilian targets. In Iraq in 1991 and Lebanon in 2006, attempted aerial suppression of enemy Scud or Katyusha launches achieved disappointing results due to the difficulty of pinpointing the elusive launchers before it was too late.²² Anti-missile defences such as Patriot and the Israeli ‘Iron Dome’ system used in subsequent clashes with Hamas in Gaza have been somewhat more successful, though this may stem as much from effective media ‘spin’ as from real military impact.²³ Hence, the extensive counter-bombardment capabilities developed by Hezbollah and by North Korea against nearby civilian targets act as a powerful deterrent to air action against these powers, despite their weakness in conventional air and air defence forces.

A final constraint on air power effectiveness in modern asymmetric conflicts is its sheer economic cost. With defence budgets under constant pressure and platform costs inexorably outpacing inflation, modern air fleets are numerically only a pale shadow of what they were in the mid-20th century. The rise of unmanned systems has reduced platform costs to some extent, but current unmanned systems require expensive personnel and support infrastructure

¹⁹ Tom Engelhardt, ‘The US Has Bombed at Least Eight Wedding Parties Since 2001’, *thenation.com*, December 20, 2013; Ben Barry, *Harsh Lessons: Iraq, Afghanistan and the Changing Character of War* (London: IISS, 2017)

²⁰ Ewen MacAskill, ‘US commander in Afghanistan to order limits on air strikes’, *The Guardian*, 22 June, 2009

²¹ Robert Gregory, *Clean Bombs and Dirty Wars* (Lincoln NE: Potomac Books, 2015); John Olsen (ed.), *Airpower Applied* (Annapolis MD: Naval Institute Press, 2017)

²² Thomas Keaney & Eliot Cohen, *Revolution in Warfare?* (Annapolis MD: Naval Institute Press, 1995); William Arkin, *Divining Victory* (Maxwell AL: Air University Press, 2007)

²³ Ted Postol, ‘Lessons of the Gulf War Experience with Patriot’, *International Security* 16(3), Winter 1991/92, pp.119–171; Tim Fawdry-Jeffries, ‘The Illusion of Victory’, *RAF Air Power Review* 17(3), Autumn/Winter 2014, pp.10–44; Yiftah Shapir, ‘Lessons from the Iron Dome’, *Military & Strategic Affairs* 5(1), May 2013, pp.81–94

and are much less capable and survivable than manned systems.²⁴ As the revival of great power tensions in Europe and Asia makes symmetrical air contests more thinkable than at any time since the 1980s, air planners face nightmarish dilemmas over how to afford force structures capable of dealing both with peer opponents and with the continuing series of asymmetric challenges. A particular problem is how to regain the resilience needed to cope with a degree of aerial attrition, as technology continues to evolve and as air defence threats become more capable than they have been in recent decades.²⁵

So does all this mean that air power really is in long term decline, as Martin van Creveld has provocatively claimed? I think that the reality is far more nuanced, for three principal reasons. First, surface forces have their own grave limitations in successfully handling modern asymmetric conflicts, as recent experience in Iraq and Afghanistan demonstrates all too clearly (reinforcing the painful lessons learnt by a previous generation in Vietnam). Far from air and surface forces being competitors in tackling these tangled political and military challenges, they are inseparable partners in a joint enterprise. Indeed, it is hardly conceivable that ‘boots on the ground’ would be committed at all in modern intervention operations without the accompaniment of comprehensive air and space capabilities to provide intelligence, communications, mobility, fire support, resupply and air defence. A key reason why Western ground force casualties have been so much lower in Iraq and Afghanistan than in previous wars is the multi-dimensional protective effect of modern air support (including rapid aeromedical evacuation). There is no plausible ‘independent ground’ intervention option to parallel the ‘independent air’ approach adopted in Kosovo, Libya and elsewhere – rather, the issue is what level of surface commitment (ranging from special forces and trainers to heavy manoeuvre units) will best complement and enhance the air commitment which has been the common element of every intervention operation since 1945.

Second, there are clear signs that reservations over the risk of collateral damage are becoming a less powerful constraint on the employment of dominant air power than they were in recent decades. This is most apparent from the conduct of authoritarian regimes such as Russia, Saudi Arabia and Turkey, whose recent ‘anti-terrorist’ bombing campaigns have paid little heed to the consequences for nearby civilians. The liberal democracies have done little to restrain such excesses – arms sales have continued, and even the blatantly terroristic use of barrel bombs and poison gas by the Syrian regime has gone almost unpunished.²⁶ Giving air defence weapons to the victims of bombardment (a policy which significantly constrained Soviet air activities in Afghanistan in the 1980s) has been rejected because of the risk of such weapons being turned by jihadis against civilian airliners.²⁷ Western ‘compassion fatigue’ seems to stem from frustration and war weariness after decades of trying and failing to solve

²⁴ Joe Doyle, ‘Rise of the Robots?’, *RAF Air Power Review* 16(2), Summer 2013, pp.10–31

²⁵ Jay Ballard, ‘What’s Past is Prologue: Why the Golden Age of Rapid Air Superiority is at an End’, *Journal of the JAPCC* 22, Spring/Summer 2016, pp.56–64

²⁶ Rachel Sylvester, ‘Our values matter more than deals with Saudis’, *The Times*, July 11th, 2017; Richard Spencer, ‘West joins Trump in new threat to Assad’, *The Times*, June 28th, 2017

²⁷ Alan Kuperman, ‘The Stinger missile and US intervention in Afghanistan’, *Political Science Quarterly*, 114/2, Summer 1999, pp.219–263

the intractable problems of the Muslim world. It also reflects the limits of media anecdotalism – vivid television images can whip up outrage over the fate of a single dead or maimed child, but the media can do little more even when many thousands of innocents perish, whether in the waters of the Mediterranean or in the liberated ruins of Mosul.²⁸

A final reason why air power seems likely to retain its prominent role in asymmetric conflict is that counter-tactics often have contradictory effects and so are hard to integrate into a successful anti-air power strategy. Hunkering down to try to wait out the bombardment allows a patient air adversary to prevail through gradual attrition, while launching an active ground offensive to seize the initiative exposes one's forces to rapid destruction from the air. Conducting unrestrained revenge bombardments or terrorist attacks against enemy civilians can spread fear, but it also undercuts any sympathy one might gain when enemy bombs kill innocents. Trying to create deterrence by threatening hostages or developing capabilities for devastating counter-bombardment (perhaps with Weapons of Mass Destruction) may instead provoke pre-emptive attack from air powers unwilling to tolerate being held at risk by such hostile and unpredictable regimes.²⁹ The chequered history of Iraq, Iran and North Korea as well as of sub-state groups such as Hamas, Hezbollah, Al Qaeda, the Taliban, the PKK and ISIS in recent decades illustrates how difficult it can be for aerial 'underdogs' to frame enduring and effective strategies to offset their vulnerability to air attack.³⁰

My conclusion is that air power is here to stay as a key element in asymmetric conflicts into the future. As experience from Vietnam, Afghanistan and Lebanon clearly shows, there is no guarantee that the superior air power will prevail in such tangled, multi-dimensional conflicts, but air power does offer a crucial asymmetric advantage without which the opponent's advantages in other areas would quickly prove decisive. There will be some conflicts such as domestic counter-terrorism or cyber warfare in which most conventional air capabilities are of little direct relevance, but even here, their latent potential for deterrence or escalation may play an important role in holding the ring and shaping the strategic environment within which the low intensity contest takes place. Whenever military forces are called upon to act, air power is likely to be in the very forefront of the operation, and will form an indispensable element of the overall joint and inter-agency effort.

²⁸ Richard Spencer, 'Civilian death toll in Mosul to pass 10,000', *The Times*, Aug. 21st, 2017

²⁹ Rhys Blakely, 'US threat to attack Kim after bomb test', *The Times*, Sep. 4th 2017; Richard Spencer, 'Israel strikes Syrian weapons factory', *The Times*, Sep. 9th, 2017

³⁰ See my chapter on 'Air Strategy and the Underdog', in P. Gray (ed.), *Air Power 21: Challenges for the New Century* (London: The Stationery Office, 2000), pp.69-97