



Is there an enemy in the sun?

# Where are the Air Power Strategists?

By Gp Capt Ian Shields<sup>1</sup>

*As in a building, which however fair and beautiful the superstructure, is radically marred and imperfect if the foundation be insecure – so, if the strategy be wrong, the skill of the general on the battlefield, the valour of the soldier, the brilliance of the victory, however otherwise decisive, fail of their effect.*

(Alfred Thayer Mahan, 'Naval Administration and Warfare', 1903)

The Concise Oxford English Dictionary defines strategy as: 'the art of war'; what, then is the 'art' of air power? We are very good at expressing the "what": we can articulate the effects of air power, its roles, but can we capture its art? Flexibility may be the key to air power, but this does not capture its uniqueness, that which differentiates it from all other forms of warfighting, the statement that summarises what we, as professional air power practitioners, bring that is totally compelling. Is this important? This article will argue that it is, that we need to capture this very essence of our profession of arms in the same way that Corbett and Mahan have done for the maritime environment, and Clausewitz and Jomini for the land – for strategy allows us to address the 'friction' of war and counter its uncertainties.<sup>2</sup> To address this claim that there has not yet been an air power strategist, this article will consider the history of air power in three eras and examine their theorists, before suggesting four possible reasons why there has not yet been this strategist. In concluding, it will not attempt to answer the question, but seek to trigger a debate on whether we have an air power strategy and if not whether any such lack is relevant.

### **The Three Eras of Air Power and Their Theorists**

Arguably, air power has developed in three distinct eras: up until the end of the Second World War, from 1945 until the 1991 Gulf War, and since then. The first of these two eras have produced air power theorists, while the third is still too young, but nowhere can be seen the over-arching, enduring capture of air power's art – its very essence.

The first era can perhaps be summarised as the belief in strategic effect. By the end of the First World War many of the roles of air power as we would recognise them today had evolved – air/land integration was evident on the Western Front and in other theatres such as the Balkans, defensive counter-air had reached an effective pitch and even something as obscure as aerial re-supply was attempted at Kut in Mesopotamia in 1916. However, technological difficulties limited the effect in several areas and it is likely that some false lessons on the efficacy of air power's ability to have Strategic effect were drawn. This false dawn was further reinforced by the subsequent years of the Empire Policing role where air power's ability to cower and its seeming limited financial and political commitment led to a firm belief in the Strategic effect of air power. With hindsight, clear thinking was perhaps difficult, if not impossible, in the era when the very survival of the independent air arm was being challenged, and every small success was exaggerated in order to bolster the case for the RAF. What followed is well known: air power for strategic effect, particularly its ability to break the will of the people, was fully tested in the Blitz and the Battle of the Ruhr, and found wanting. It might be

argued that the atomic bombs dropped at Hiroshima and Nagasaki did achieve the dream of the pre-war theorists, but has been deemed to lack utility.

What of these theorists? Douhet, Mitchell and Trenchard all based their belief on the experiences of the day – remember that Douhet was swayed by Italian successes in the Horn of Africa against people who had possibly never even seen an aircraft – and the technologies of the era. They were, perhaps, swept along by enthusiasm and the belief that air power did offer an alternative to the attritional and static warfare of the trenches; nevertheless, they did not apply sufficiently rigorous review of their own theories and we have since (Warden notwithstanding) discounted the idea that the bomber will always get through, or that the will of the people will be broken by air power alone. More critically, what they expressed was a theory of the employment of air power, of the use of kinetic effect; they did not address the question of the art of air power and, acknowledging that they are recognised as theorists rather than strategists, did not offer anything that could be identified as an air power strategy. So, if not of this generation, what of the next?

The period from the end of the Second World War to the end of the 1991 Gulf War, the second era of air power, can be described as the era of procedural operations, the so-called ‘lines on maps’ period. While there was no longer any debate over the need for an independent air arm, thinking does not seem to have developed much further. Technology offered new solutions and agility steadily increased. Analysis recognised the limitations of air power and codified



**A Buccaneer S2 of No 15 Squadron in formation with an F-111 of the USAF over Germany, May 1983**

their roles. In particular, in the period after the Royal Navy assumed the guardianship of the independent nuclear deterrent, air power seems to have concentrated on supporting the other environments and to become almost fixated with deconfliction, and hence lines on maps. Those who remember operating in the Cold War era of the 1980s, for example, will readily recall the plethora of lines defining FSCL, safe corridors, MEZs, squawk switch-on, and so forth. Arguably, that thinking that was undertaken was equally constrained by lines of thought, with the emphasis on supporting the Army and Navy and little consideration given to this elusive art of air power, this defining characteristic.

When thinking of the theorists of this era one is perhaps naturally drawn towards Colonel John A Warden III of the USAF, and his theory of ‘Five Rings’,<sup>3</sup> thinking that some have claimed is truly ‘strategic’; but was it? Warden, like Douhet et al before him (and Warden claimed that the 1991 campaign finally vindicated Douhet), applied the technology of the day and the thinking of the time to produce kinetic effect that, ultimately,

supported the ground campaign. It was a very good articulation of how to fight with the weapons of the day, but it did not capture the elusive art of air power. And not everyone fully agreed: Robert Pape argued that air power was too often linked to kinetic effect to produce coercion and was therefore one-dimensional in its application, that there needed to be an approach beyond strategic bombing.<sup>5</sup> So what since?



**UK Hermes 450 UAV**

This third age, that of agile air power, has seen further rapid advances in technology, allowing air power to start to address some of its weaknesses. Persistence is now less of an issue with long-endurance UAVs, and increasingly CUAVs, allowing both ISTAR and CAS-type missions to be undertaken around the clock. Likewise, neither night nor bad weather are the hindrance they have been previously, with air power becoming ever more agile. Meanwhile, space (in which the airman has, for reasons of history, the lead status) offers new technological solutions to our problems with its ability to provide surveillance, over-the-horizon communications and networking, allowing the Network-Enabled Capability to be realised.

While there has yet to emerge a new proponent on how this new technology will shape the employment of air power, it is likely that he (or she) will look to the technology and thinking of the day to attempt to address the needs of the land and maritime components; there is little to suggest that they will address this issue of strategy purely by considering technology.

There are things that we as air power professionals express well: the 'how' of air power. Read AP 3000, or examine the Core Air and Space Power Roles (the CASPRs) and you will find plenty of exposure to this question, but nothing about the art. Why might that be?

### **Why We Might Not Have Produced An Air Power Strategist**

This article suggests that there are four reasons why we have yet to capture this art of air power: our age, our military origins, technology, and the uniquely joint nature of air. First air power's age: it is only just over a century since the first powered flight in a heavier than air machine. The great strategists for either maritime or land power have been able to draw on centuries of military actions and thinking: Clausewitz and Jomini both looked back over the turbulence of the Napoleonic era and further, and were able to discern the bedrocks of land strategy, the art of fighting major wars with large armies. Mahan and particularly Corbett, writing in the post-Nelsonian era and at a time of major expansion of trading, concentrated on the art of employing maritime power to support the burgeoning economy. A lack of history may in part explain the inability, so far, for air power thinkers to discern the same enduring themes that together spell out the art of air power.



**Powered, manned aircraft were pressed into service almost as soon as it was able to prove even moderate utility. Pictured here is a BE2c of the RFC**

Second, air power's military origins. The powered, manned aircraft was pressed into service almost soon as it was able to prove even moderate utility. But, and arguably the advent of WWI so soon after aviation became a serious military proposition was counter-productive in the long term, air power was viewed from the beginning as an adjunct to the two existing domains – land and maritime – as witnessed by the Royal Naval Air Service and the Royal Flying Corps. Although the practitioners within the third dimension did break away soon afterwards with the foundation of the first independent air force in the Royal Air Force in 1918, were these early aviators already hamstrung in their thinking? Unlike the Royal Navy or the Army, who had grown up separately, each at ease in their own environment, the RAF had been created as an addition to another; from the outset the RAF did not exploit the seams between the environments, nor did it use the third dimension as its own but sought to meet the needs of the others. Furthermore, its early leaders had risen through the ranks of another Service so were perhaps

already conditioned not to see air as the unique environment. It may indeed be, therefore, that an element of the lack of an air power strategy has been hamstrung by this conjunction with the other environments.

Technology too has played a part. To operate in such an alien environment<sup>6</sup> as the air, man has relied from the outset on technology. To overcome the natural weaknesses inherent in aviation, be that flying through cloud, precision-guided weapons, operating where we need oxygen to survive, technology has provided the key to enable activity. Indeed, it could well be argued that air power proponents are in thrall to technology, that it seems to offer glimpses of some holy grail – such as overcoming our lack of persistence. But this reliance on technology has had another, unintended consequence in that the very science that allows man to fly has become so commonplace that it also blinds its users to the fact that they are undertaking an unnatural act. Critically, the danger of being so subservient to technology, always looking forward to the next break-through, may be that this prevents an articulation of the fundamental nature of air power; certainly an examination of the air power theorists would support this supposition.

Finally, the very Joint nature of the air environment may have contributed to this lack of an air power strategy. The maritime sphere is almost exclusively the bailiwick of the Royal Navy, albeit that the RLC does some of its task via small boats. The Land is, with acknowledgement to the RAF Regiment and the Royal Marines once they come ashore, the preserve of the Army. But the air is used by all. Both our sister Services have an organic air capability,



**UK Army Air Corps Lynx**

the Royal Navy with the Fleet Air Arm and the Army with the Army Air Corps and, increasingly, the Royal Artillery's UAVs. Kinetic effect is almost always delivered through the medium of Air, be that a Tomahawk cruise missile, a MLRS rocket or even the round from an SA80 – as well as Paveway and other air-dropped ordnance (be that from a manned or unmanned vehicle). Likewise, the growing array of ISTAR assets are more often than not found operating in or through air – and airspace control is developing a complexity unheard of even a decade ago. All of which serve to complicate the air environment; with such complexity it may even be axiomatic that no single, over-arching expression can capture the art of air power?

### **Conclusion**

It is perhaps significant in the argument presented here that the opening quote was from Mahan, one of the great Maritime strategists. This article has not attempted to produce a strategy, but may at least generate a debate. Any strategy must be enduring and be neither limited by the technology of the day, nor constrained to fighting in the present. For if it is not possible to capture the very essence of air power, only its attributes, as air power

proponents we risk becoming mired in tactical effect, wedded to today's battle. Where this might have real impact will be if General Smith's "war among the people" is not the only model for the future, if there were to be a return to inter-state warfare: would the RAF then be in a position to deliver real strategic effect, enabled by a fundamental understanding of not only strategy, but the strategy of air power? For if the third dimension is not to be regarded as merely an adjunct to the efforts of the other Services, where is air power's unique and compelling voice? Mahan and Corbett were able to articulate enduring themes for Seapower with their concentration on trade, sea Control and the earth's natural choke points and thus shape maritime thinking for generations; air power writers have yet to produce a similar, enduring work that articulates air's unique ability to unpick the seams, to observe, influence and effect those areas where the sky meets the sea, the sea the land and the land the sea. To paraphrase Pilot Officer Magee, perhaps it is time we really did slip the surly bonds of earth, put out our hands and touch the face of God.

### **Notes**

- 1 Gp Capt Shields is the Assistant Director Air and Space, Development, Concepts and Doctrine Centre (DCDC). These are Gp Capt Shields's personal views and do not represent DCDC policy.
- 2 See: Colin S Gray: *Strategy for Chaos: Revolutions in Military Affairs and the Evidence of History* (London, Frank Cass: 2002) Chapter 4.
- 3 See: [www.airpower.maxwell.af.mil/airchronicles/battle/chp4.html](http://www.airpower.maxwell.af.mil/airchronicles/battle/chp4.html)
- 4 For example: [http://op-for.com/2006/05/post\\_3.html](http://op-for.com/2006/05/post_3.html)
- 5 Robert A Pape: *Bombing to Win: Air Power and Coercion in War* (Cornell, Cornell University Press: 1996); see in particular Chapter 9.
- 6 Man can walk on the earth or swim in the sea, but cannot fly unaided.

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