



## THE ON-GOING EVOLUTION IN AIR POWER APPLICATION

A common thread across the history of military air power has been the impact that forward thinking has had in its optimum application. It can be argued that the claims of early air power strategists were not matched by the capability of the systems of the day. However, technological advances have overcome past difficulties and today air power has fulfilled those early promises and become a valuable element of military and national power across the contemporary spectrum of operations. Recent conflicts have illustrated that air power, properly applied, is very effective in shaping and responding in a battlespace to create war winning conditions, at times being the dominant element. It has also been demonstrated that air power, like any other force projection capability, will struggle to make an effective difference if employed inappropriately and if not properly integrated into a joint military or national security campaign.

The 1991 Gulf War was a watershed event in the evolution of the application of air power. The dominant contribution that air power made to the allied victory was seen as a clear indication of its coming of age. The effectiveness of air power in that

war, achieved through superb campaigning—carefully matching capability, planning and execution to objective through orchestrated operations—was proclaimed by enthusiasts to be the beginning of an era of air power ascendancy. It is undeniable that in the past two decades air power has played a significant and crucial role in joint military and, increasingly, national security, operations. However, the circumstance and environment in which military force is employed is constantly changing and this has also had credible impact on the forward thinking and application of air power. Four major factors must be carefully considered in order to understand the on-going evolution of air power application in today's context.

First, this requirement to alter the practical application of air power requires air power practitioners to constantly adapt its doctrines and systems to context to ensure effectiveness. Because of its inherent flexibility, the application of air power is unique and success is critically dependent on a clear understanding of current principles and the capacity to mould it to cater for emergent situations. For example, the recent conflicts in Afghanistan and Iraq are indicative of the move towards insurgency and guerrilla warfare to counter conventional forces. The adversary has chosen these styles of warfare for a number of reasons. These include: the natural asymmetry of such forces when compared to the conventional, state-based militaries of the west, which have difficulty in countering insurgents who

are embedded amongst the people; and the fact that irregular insurgent forces suit the cultural and religious ethos and warfighting capabilities of those groups fielding them.

Whatever the motivation, their actions are characterised by a seeming randomness and absence of a conventional strategy. Under these circumstances, the absence of predictability in the

conflict-space is a constant factor, making it imperative for our force projection capabilities to be flexible and adaptable. Air power offers some solutions. With the battlespace in a constant state of flux, the inherent characteristics of air power—speed, range, precision and persistence—make it a natural choice for projecting power that, with appropriate ISR and C2, can be rapidly and precisely brought to bear on fleeting targets.

Second, in the past decade or so, military planning has undergone a clearly visible transformation towards an effects-based approach, increasing the relevance of air power because of its capabilities to influence the physical,



*Hornet releasing AIM9*

cyber and cognitive domains, often simultaneously, as part of an orchestrated and parallel campaign. Since the ultimate end-state sought in conflict is to alter the mindset of the adversary to align with our own, it is in the cognitive domain that the final outcome will rest. However, effective influence in the cognitive domain can only be achieved by actions that are initiated in the physical and cyber domains. These actions will be spread across the complete spectrum of effects that air power can bring to bear—from physical destruction to the manipulation of information.



*Wedgetail*

The third factor is the increasing danger of technology hindering the concerted and optimum application of force at the desired time and place. Contemporary application of air power will have to adhere to the basic tenet of 'centralised control and decentralised execution' which will need to be appropriately tailored and orchestrated for effectiveness in the physical, cyber and cognitive domains within a given context. The technological developments essential for this control also provide senior commanders with the ability to 'see' the tactical battlefield from remote locations, thereby allowing them to intervene, not always appropriately, in tactical decisions, thus introducing the potential to undermine decentralised execution. Mastering the dynamic balance between control and execution to empower decision-making at the appropriate level will be the hall mark of successful twenty-first century operations. State-of-the-art technology, if not well understood, can become the proverbial double-edged sword.

The fourth factor underpins the previous three. The need for the development of sound, contemporary,

doctrine and related strategy in applying air power cannot be overstated. These must be kept fresh in the minds of practitioners through sound operational analysis and ongoing education so that commanders can create and implement effective plans. This translates to the professional mastery of the theory, practice and considered development of air operations by the people of the air force. Flexible, innovative and adaptable thinking and the conversion of concept to reality by professionals are the most important factors in the success of air forces, particularly smaller ones like our own that are sophisticated and seek to remain first rate, but is also resource constrained.

The importance of air power as an integral part of a joint force is now cemented through demonstrated historical success. However, there is on-going change, more evolutionary than revolutionary, which affects all aspects of its employment. It is imperative for air forces to be constantly aware of the changing face of conflict and to constantly adapt to optimise the employment of air power on the day.

- *The circumstance and environment in which military forces are employed is constantly changing.*
- *Air power can contribute effectively to effects-based planning and operations.*
- *Technology can become a double-edged sword if not fully understood.*
- *There is no substitute for sound doctrine and professional mastery.*

*"There are no 'battle management' magic bullets that will substitute for the ability of on-scene commanders, soldiers and airmen to make appropriate decisions based on the ebb and flow of events."*

*- Richard P. Hallion*



**Air Power Development Centre**  
Level 3, 205 Anketell Street  
TUGGERANONG ACT 2900

Ph: 02 6266 1355 Fax: 02 6266 1041  
Email: [airpower@defence.gov.au](mailto:airpower@defence.gov.au)  
Web: [www.raaf.gov.au/airpower](http://www.raaf.gov.au/airpower)

