

PATHFINDER



AIR POWER DEVELOPMENT CENTRE BULLETIN

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'Pathfinder' is a fortnightly bulletin from the Air Power Development Centre. Its title is a tribute to the Pathfinder Force which operated within RAF Bomber Command from August 1942. The original Pathfinders were an elite navigational group with the role of preceding each raid and accurately lighting up the target area with incendiary fires to permit visual bombing by the main force. The first commander was Group Captain (later Air Vice-Marshal) D.C.T. Bennett, a Queenslander who trained with the RAAF in 1930-31 before transferring to the RAF, and many other Australians also flew with the force.

The emblem we have adopted is 'Fiery Mo', the unofficial insignia carried on No. 6 Squadron's Hudson aircraft in New Guinea during 1943.

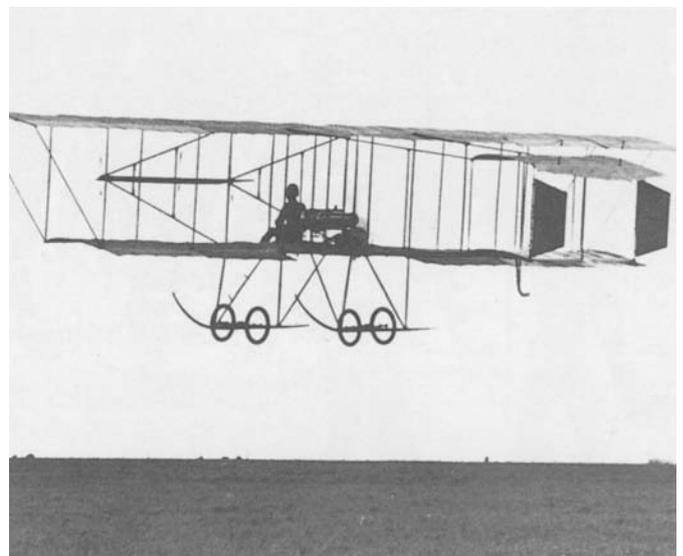
THE CHANGING FACE OF AIR POWER

It is certain that even the most ardent exponent could not have envisaged the rapid progress that aviation would make in a little over a century from the first manned flight. The words of Rudyard Kipling, 'We are at the opening verse of the opening page of the chapter of endless possibilities', were indeed prophetic. In a little less than a decade, aviation was converted to military use heralding the advent of air power. From humble beginnings, when firepower was restricted to the carriage of small arms in the cockpit, air power now is capable of bringing to bear devastating and accurate firepower under all weather conditions.

This unprecedented and rapid improvement in capabilities is unique to air power when compared with other means of force projection. Such rapid changes can be advantageous, but if not carefully harnessed can also become a liability. Currently, the characteristics of enhanced reach and rapid, precise and overwhelming response have made air power the weapon of 'first choice' in most contexts. While considered and appropriate employment of air power will more often than not achieve the desired aim, there are a number of factors that, if not cohesively appreciated, will be inordinately detrimental to the success of not only a particular mission, but also the entire campaign.

The primary ethos that must be the corner stone in the application of air power is the unchanging basic principle of its employment—the need to gain and continuously maintain control of the air throughout the duration of the campaign. This factor has to be addressed comprehensively before any campaign plans are formulated. It is worthwhile noting here that ever since World War II, the forces of the United States (unarguably the most potent military force in the

world today) have not engaged in combat without the assurance of absolute control of the air. Historically, it is seen that whenever control of the air has been contested, even to a minor extent, the restrictions placed on all operations have been dramatic. Ever since the first Gulf War, control of the air has been a constant in the planning process of all campaigns. Any unforeseen contest by the adversary will therefore likely put the planning process in disarray.



Control of the air is the fundamental factor that has to be borne in mind when any campaign planning is undertaken by air forces around the world. There can be no reason to believe that control of the air will be uncontested even when smaller air forces are involved in the conflict. So the basic dictum of air power, the need to gain and then fight to maintain control of the air, remains unquestioned as a universal truth even today.

If the basics have remained unchanged over a century, what changes have taken place? It is indeed a fact that the absolute necessity to control the air made it the primary role of air power. Technology has, however, conspired with air power's inherent competencies to move it to a place of primacy in the hierarchy of military capabilities. This observation is not made with any intention to lessen the importance of other forms of force projection, but to emphasise the absolute need, in all types of conflicts, for adequate and timely air power capabilities to be made available.

The changes in air power capabilities have been revolutionary. The doctrinal and theoretical developments have, however, been such that the changes in air power application have been subtle and evocatively evolutionary.



The entire spectrum of air power roles can now be encapsulated in four major groupings: strike, command of the air, airlift and enabling operations. This doctrinal change has been made possible with the gradual acceptance of air power as the primary repository of strike capabilities at least in the initial stages of a conflict. Strike as the primary role of air power could not have been envisaged as a conclusive air power responsibility even in the late 1980s. The rapid and incremental technological improvements that have been

made available in the past decade have catapulted air strike capabilities to the forefront of considerations in conflict. However, the downside of such changes has been twofold.

Firstly, air power at its optimum high-tech form has become far too costly for the less industrialised nations to obtain and maintain. This has forced a number of nations to rethink, in a realistic manner, the level of air power that they can afford. As a result some nations have reluctantly accepted the inevitable decline of their indigenous air power capabilities. Secondly, there is now a clear distinction that can be observed when a holistic view is taken of air power capabilities—that there are two types of air power: that of the United States, and the rest of the world!

These two factors at times tend to overshadow the entire spectrum of air power and its development. It is, therefore, important to understand the implications of resource constraints and the technological background required to enhance the growth of indigenous air power. The drawbacks can be ameliorated by a robust overview that combines a high level strategic outlook with a clear underpinning at the operational level and adequate tactical understanding. The need is to recognise important core competencies and supporting technologies and to develop doctrinal changes accordingly.

Air power competencies, capabilities and roles have evolved over time while remaining fundamentally the same in a number of core areas. The changes have taken place in such a short span of time that it is clearly visible even to a casual observer of military matters. It is incumbent on the practitioners of military art to clearly fathom these changes so that they do not falter in the application of this extremely sophisticated force projection capability. Only a concise and articulated doctrine that is amply supported by closely studied theory, innovative practice and high-end technology can ensure cost effective optimisation of this scarce yet critical warfighting capability.

The theory of strategic air power is not so much wrong as incomplete.

Professor Colin Gray, *Modern Strategy* (1999)



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
Web: www.raaf.gov.au/airpower

