

AIR BASES:  
THE FOUNDATION OF VERSATILE AIR POWER





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# AIR BASES: THE FOUNDATION OF VERSATILE AIR POWER

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## PREAMBLE

This, the third CAF Occasional Paper, *Air Bases: The Foundation of Versatile Air Power*, describes the complexity and fundamental importance of air bases to the conduct of air operations. Air bases with the necessary infrastructure, personnel, and at the correct strategic locations are an indelible part of the Royal Australian Air Force's capability to meet the Government's security needs.



This CAF Occasional Paper describes the key characteristics of the RAAF's air bases, the unique factors that differentiate them from the other Service's bases and the complex and carefully designed strategic and operational processes that the RAAF has in place to ensure that its air bases generate and apply versatile air power wherever and whenever deemed necessary.

The RAAF's air bases have two key functions—they support and facilitate the peacetime functions of raising, training and sustaining the capacity of the RAAF for operations, and they concurrently



carry out ongoing peacetime operations such as surveillance, reconnaissance and humanitarian assistance. The means by which the RAAF guarantees these functions have been derived through deliberate decision-making at the most senior levels of command.

My intent for these CAF Occasional Papers is to make interested decision-makers, policymakers and strategists, along with the interested public, aware of air power issues of importance. Issues that will be discussed in these papers are primarily at the strategic level, with content at the operational level when that is an essential component of the argument. However, irrespective of level, my intent is that the argument be illustrated with real-world examples that add colour, context and understanding for readers.

CAF Occasional Papers will be produced as needed, rather than to a fixed schedule. Comment on the publication and enquiries on air power related matters are welcome and should be forwarded to the Air Power Development Centre.

This paper, *Air Bases: The Foundation of Versatile Air Power*, was written at my direction. The paper brings out salient points regarding the status of the RAAF's air bases in Australia's strategic posture, and the fundamental importance of air bases in joint operations. Although the paper is written from the perspective of the Royal Australian Air Force, it may have broader application for other like-minded air forces.

I endorse the views expressed in this paper and commend it to you.



M. BINSKIN, AM  
Air Marshal  
Chief of Air Force  
Air Force Headquarters





## ACKNOWLEDGEMENT

Air bases and air power are two sides of the same coin. From the inception of the RAAF, air bases have been and continue to be an indelible part of the force. No paper on air bases would be complete without referring to their evolution through the history of the RAAF.

The authors gratefully acknowledge the invaluable contribution of Dr Chris Clark, Mr David Clarke and Mr Andrew Quinn from the Office of Air Force History, who prepared the air base vignettes included in this CAF Occasional Paper. Air bases have changed significantly since the early days of the RAAF, reflecting changes in the air power capabilities of the force and in the nature of Australia's strategic demands for the application of air power in the pursuit of national security. These vignettes bring a valuable and historically informative dimension to this paper. They also highlight the critical fact that air bases are integral parts of the RAAF's combat power and must continue to be carefully designed and developed.

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Air Power Development Centre  
August 2008









## INTRODUCTION

Air bases are the geographical locations from which the Royal Australian Air Force flies, fights and commands air operations. The RAAF's ability to provide the Government with effective air power for Australia's security is dependent on the capability of the force to optimally operate as a system combining its airborne platforms, air power support systems and air bases. This ability to produce and effectively apply air power across the full range of military operations is critically reliant on assured access to secure air bases, in the right locations and with adequate base utilities, essential support personnel and services.

The RAAF operates from permanent main operating bases and from forward bases as required. The Air Force's main bases are its major infrastructural locations from which the force derives its capacity to generate and sustain the entire spectrum of air operations required of it, achieved through dual functions. First, they support and facilitate the peacetime functions of raising, training and sustaining the capacity of the Air Force for operations. Second, they continue to concurrently support ongoing peacetime operations such as surveillance, reconnaissance, humanitarian assistance etc., at the required tempo. Accordingly, main bases



are complex and in themselves are carefully blended systems, including social support dimensions, crafted by design to operate as single entities that generate air power of the necessary calibre.

As a result of a well-analysed strategic decision, most RAAF main air bases are located near major population and industrial centres. This has a dual advantage. First, it ensures ready and easy access to the necessary technical support infrastructure and skilled personnel, both in uniform and civilian, required to generate first rate air power. Second, it enhances RAAF's capacity to attract and retain quality personnel by providing adequate social and community connectivity that is necessary to support the larger Air Force family.

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Forward bases on the other hand are either 'bare bases' within the country or bases beyond Australia's borders from which the RAAF mounts expeditionary air operations, independently or as part of a larger coalition. The permission to operate from bases outside Australia is a function of national political and diplomatic understanding between Australia and the host nation, beyond the purview but not the influence of the RAAF. However, from an operational perspective, the Air Force needs to be cognisant of the requirements to operate from both these types of bases to be able to achieve its expeditionary capabilities.





Air bases therefore, are crucial components in the overall ability of air forces to provide decisive air power, in a responsive and robust manner, in the pursuit of national security. By its very composition, an air base is a complex system comprising many dynamic, independent and interdependent elements. When these elements function in concert, air bases become versatile and valuable assets that provide a variety of capabilities that enhance the effectiveness of independent Air Force and joint operations.

The nature of contemporary conflict is such that well-founded air bases can become the main point of entry for joint forces, provide basing facilities for the concentration of friendly forces and assets, and function as bases for the surface forces to mount their operations. This capability adds a demanding layer to their functional complexity and assumes even greater importance in expeditionary operations. While maritime and land operations can be and at times are supported from a main or even forward air base, air operations cannot be mounted from purely naval or army bases. Each air base is a separate entity and needs to function within a number of constraints peculiar to individual bases dependent on its operational role.

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In addition to carrying out independent operations, often, support facilities for joint and coalition operations are also an intrinsic part of air bases, again increasing their complexity. However, the



complex functionality of air bases also provides great flexibility that completely mitigates the traditional concept of their being one of the limiting characteristics of air power and air forces. A clear understanding and mastery of the complexity of the functioning of an air base is one of the hallmarks of professional military air power.

The technical and professional mastery necessary to establish and operate air bases efficiently has been at the core of the RAAF's success in all its operations, ranging from humanitarian assistance through to high-intensity conflict. Such demonstrated mastery at the operational level is achieved through the RAAF's strategic planning process. This process carefully evaluates air base requirements and then ensures adequacy of support arrangements that sustain operations at the required tempo. Operational support arrangements encompass the availability of trained air base personnel and adaptable infrastructure to allow the secure employment of air power assets to mount air operations in independent or joint military and/or inter-agency campaigns.

The Government can employ the RAAF independently or as a part of a joint or combined force in a wide and diverse range of operations in varied theatres. Therefore, the geographic locations of air bases in Australia and the political-diplomatic arrangements to make bases available in the region and beyond are contiguous elements of the Air Force's strategic posture. The ability to influence these issues and provide air power on an as required basis from air bases—both permanent and forward/expeditionary—is one of the critical skills that mark the RAAF as a strategic force.

Air bases need a core group of specially trained and skilled personnel to operate and thereby create the necessary facilities for the efficient conduct of air campaigns. For air bases to be effective, in addition to their primary role of generating and sustaining air operations, they also need a resident capacity to resist, operate





through and quickly recover from adversary attacks. This creates specific demands of the air base organisation as well as personnel.

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All successful air forces have the capacity to establish and operate air bases that allow them to conduct air operations of the desired intensity and tempo at the time and place of their choosing. Smaller air forces like the RAAF have to generate such air base capabilities within the limited resources available and yet be capable of creating the broadest possible range of options while maintaining high degrees of readiness. This requires enormous flexibility in the allocation and utilisation of resources, firmly based on clear and stated strategic intent.





## AIR BASES: DISTINCTLY DIFFERENT GENERATING AIR POWER

Air bases have evolved from humble beginnings, such as the rudimentary airfields of World War I that provided basic infrastructure and relatively simple support to air operations. In the early days of military aviation, since the aircraft were not technologically very advanced and had very limited capabilities, their support requirements were also minimal. The greatly enhanced capabilities of air power systems today are mainly technology-aided. This has created a demand not only for complex maintenance support, but also for sophisticated mission planning and analysis, command and control (C2) facilities and a wide breadth of supporting services to be provided as part of routine air base operations.

A modern air base comprises two distinct but interconnected elements. One is the geographical airfield and other physical infrastructure that provides the basis for the generation of the second element, which is the product of the virtual capabilities that emanate from the sophisticated employment of the infrastructure resident in the base. The geographical and physical elements provide the support to generate and protection to







employ the virtual capabilities efficiently and therefore, the two are inseparable. This unique feature of air operations is at the core of the distinctiveness of an air base.

### **Selecting Australia's First Military Air Base – Point Cook**

Selection of a site for an air base to locate a flying school was one of the first steps taken after Australia decided in 1911 to establish a military air service. Government thinking during 1912 initially favoured locating the flying school that it intended to form within the newly-proclaimed Federal Capital Territory. The hilly terrain there was, however, considered to be unsuitable for operating the aircraft types in use, and early the next year a number of possible sites surrounding Melbourne were inspected instead. The choice eventually settled upon 300 hectares of land at Point Cook on the western side of Port Philip Bay.

The selection of Point Cook was based on the consideration of a set of criteria for main air bases that has remained relatively unchanged to the present day. These included proximity to transportation networks, urban centres and industrial facilities. The closeness and ease of communication with Melbourne (then the temporary seat of the Federal Government, and the Department of Defence) also influenced the final decision. Particular emphasis was placed on the geographical characteristics of the site: the general suitability of the prevailing weather conditions, and the surrounding terrain for flying, and the ground for the construction of an airfield. Selecting a site by the sea also allowed for the future use of the Central Flying School for naval aviation training.

Navies, armies and air forces all require main bases to generate their forces and conduct operations. However, air forces utilise their bases to project power in a significantly different manner to that of navies and armies. Maritime and land forces generally conduct operations far from their originating bases, making them purely generating bases in their context. However, air bases generate and sustain air operations for the entire duration of a campaign and therefore have a completely different orientation and operational ethos. The inherent characteristics of reach, penetration and



responsiveness of air power are fundamental to the success of air campaigns within a joint operations context. These can be brought to bear in a sustained manner, at the appropriate time and location, only with the assured availability of air bases. This centrality of air bases to the success of air operations is unique.

The RAAF generates and sustains its part of the joint warfighting functions of C2, Information Superiority and Support (ISS), force deployment, force protection, force application and force generation and sustainment from air bases. To optimally conduct these functions, air bases perform three key activities. First, air bases maintain the physical operational infrastructure in a condition that facilitates the generation of effective air power throughout the spectrum of conflict. Second, they provide the personnel and support systems for mission preparation and other force sustainment elements, including the wider range of garrison services such as provision of meals, medical support, hygiene and recreation. Third, air bases maintain organic force protection capabilities that have the capacity to deploy in case of expeditionary requirements, without compromising main base security.

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The inherent characteristics of reach, penetration and responsiveness of air power—fundamental to the success of air campaigns within a joint operations context—can be brought to bear in a sustained manner, at the appropriate time and location, only with the assured availability of air bases.

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Operationally effective air bases will have the capacity to carry out these three activities discreetly and simultaneously in consonance with each other to create effects aligned with the joint campaign



objectives. This requirement is complex and needs careful management on a case-by-case basis, making air base organisation a unique undertaking that can only be managed efficiently by personnel with specialist skills.

A capable air force will be able to readily maintain the necessary capabilities to mount air operations from a main air base by providing infrastructure and adequate training of personnel. However, it requires professional mastery of a high order and an in-depth understanding of air operations to deploy air elements to a forward base with minimal facilities and initiate effective operations in a responsive manner. The flexibility required of air base operating personnel to ensure this level of effectiveness will be dependent on specialised training and practise.

The prevalent geo-strategic environment demands expeditionary capabilities from the ADF. The inherent responsiveness and agility of air power automatically places the RAAF in the vanguard of such operations. All RAAF main air bases must have the capacity to generate expeditionary air power to meet any emerging contingency. This means that the structures, support systems and personnel in these bases must be capable of providing the wherewithal in terms of personnel, processes and systems to conduct expeditionary operations while concurrently operating the main base effectively, and be capable of sustaining these operations for the necessary duration. This requires pre-planning of a very high order at the strategic level of command.

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### **Australian Flying Corps – World War I Bases**

Throughout World War I, Point Cook was the sole military air base operated within mainland Australia by the Department of Defence. A second airfield at Richmond, near Windsor, outside Sydney, was also used to contribute to the war effort, but this was maintained and operated by the New South Wales Government to provide pre-enlistment flying training. In addition to providing basic flying instruction for military trainees, Point Cook served as the assembly depot for Australian Flying Corps (AFC) units and contingents forming prior to departure on overseas service, in New Guinea (1914), Mesopotamia (1915), Egypt (1916) and England (1916).

In both the Middle East and European theatres, the AFC used airfields and base facilities made available by the British Government and maintained by the Royal Flying Corps (RFC) of the War Ministry until April 1918, and thereafter the Royal Air Force (RAF) under the Air Ministry. In Egypt, No 1 Squadron operated from Heliopolis, outside Cairo, before joining the eastward advance across the Sinai into Palestine. The three AFC squadrons sent to England went to Castle Bromwich, near Birmingham, and South Carlton and Harlaxton in Lincolnshire, for training with RFC Training Wings prior to their dispatch to France. When four AFC training squadrons were formed in England as the 1st AFC Wing in September and October 1917, these briefly occupied RFC aerodromes in Shropshire, Wiltshire and Gloucestershire, before moving to two dedicated AFC 'Stations' in south-west England—No 1 at Minchinhampton, and No. 2 at Leighterton—in February and April 1918.

Once on operations, the AFC squadrons often shared airfields with RFC squadrons and other Allied military air services. During the course of the war, the AFC squadrons moved frequently in response to the operational tempo and rarely occupied the same airfield for more than a few months at a time. The low speeds and limited range of the military aircraft of the period necessitated that, in order to project air power into the battle space, bases and airfields had to be established as close to the front lines as logistical support and communication systems would allow. In Mesopotamia and Palestine, this created the burden of establishing a continuous series of new airfields as the front advanced. On the Western Front, this also entailed considerable risks as airfields (and the aircraft and airmen using them) became exposed to attacks by enemy aircraft and artillery that at times resulted in the precipitous evacuations of airfields during enemy offensives—as occurred to the AFC squadrons during the German Spring Offensive of 1918.



Air power is an intrinsic part of all joint operations and critical to their success. Therefore, joint planning must take into account the availability of air bases to support them. The necessity to establish adequate air base capability, both from bare facilities or by adapting existing infrastructure, becomes paramount in joint campaign planning and can shape the entire process. Air bases vary in size, complexity and location as well as the intensity, tempo and nature of operations that they can generate and sustain. The first consideration in all air operations will be the need to have, at appropriate geographical locations, air bases with adequate capabilities to support the campaign to gain and maintain the necessary level of control of the air. Once control of the air is established, air bases should then be able to support air operations ranging from independent air strikes to supporting air mobility requirements of the joint force.

Air bases also support air power systems, both airborne and ground-based, that are critical communication nodes in a networked force. C<sup>2</sup> and information dissemination are greatly enhanced by air assets, operated and controlled from air bases. Further, air power operations facilitate joint force manoeuvre, provide responsive and far-reaching intelligence and precision force application to create joint effects. Maintaining an expeditionary capability to support this breadth of operations strategically shapes the RAAF's air bases.

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Air bases vary in size, complexity and location as well as the intensity, tempo and nature of operations that they can generate and sustain.

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The balanced capabilities of the RAAF enhance its inherent agility—a war-winning factor in expeditionary operations. This agility is part of the edge the RAAF maintains, giving joint forces a rapid reaction capability that in turn allows them to seize the initiative from an adversary. One of the foundational requirements to the necessary agility is the capacity of air power to switch from one role or objective to another rapidly, within or between theatres, while operating from the same air base. The Air Force nurtures this capacity by retaining the ability to deploy air base systems and personnel trained and skilled in a broad spectrum of operational and support capabilities. The capability to deliver this agility places stringent demands on the base personnel who will have to operate in a range of possible contexts and locations.

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Air power operations facilitate joint force manoeuvre, provide responsive and far-reaching intelligence and precision force application to create joint effects.

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The agility of air power is underpinned by a flexible air base structure, capable of adapting at very short notice. This flexibility is one of the cardinal divergences between operational air base organisational ethos and that of other military maritime and land bases.

Air power's reliance on air bases for the generation and sustainment of the air campaign is sometimes considered a weakness. Well-established and secure air bases comprehensively mitigate this perceived weakness. Such bases, by their very nature, provide secure locations with a range of valuable capabilities that enhance the overall operational efficiency of all joint and coalition assets. These capabilities can range from the provision of demanding combat or combat support activities, such as dedicated airlift to enhance





ground manoeuvre to evacuee handling and transhipment of humanitarian aid supplies.

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Air bases are complex and self-contained systems that carry out a variety of roles that range from the generation of lethal force through the employment of airborne platforms or land and maritime forces to being the mounting base for benign humanitarian aid.

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The Air Force trains to maintain all the skills necessary to operate an air base routinely as part of its ongoing force generation and sustainment activities. These activities, like those of the Navy and Army, are conducted at the main operating bases. Within contextual geo-strategic realities, the Air Force is dependent on forward bases to project power to the desired range and intensity. Being a smaller air force, this requires the RAAF to staff bare forward bases adequately on an as required basis. The Air Force achieves this by drawing on a critical body of personnel and equipment from the main bases and deploying them to create expeditionary air base capabilities to support the full range of Air Force operations. Therefore, the RAAF's ability to prepare forces, mount expeditionary operations and sustain their deployment on operations is centred on its core air base capabilities, resident in permanent bases in Australia. This has strategic implications for the RAAF's force projection capability.

Air bases are complex and self-contained systems that carry out a variety of roles that range from the generation of lethal force through the employment of airborne platforms or land and maritime forces to being the mounting base for benign humanitarian aid. The capability to operate efficiently over such a broad spectrum requires dedicated training and a high degree of competence from



all personnel involved with air base operations. However, the most important factor in ensuring that air bases—main or forward—provide the joint force with the required air power and other force projection capabilities is the understanding that air bases are unique in their operational, organisational and command ethos.

### **The Creation of the RAAF – Inter-war Expansion**

When the RAAF was formed in 1921, Point Cook remained the only permanent air base. One of the first major tasks undertaken by the RAAF was the aerial surveying of Australia to identify suitable landing fields to enable the movement of the RAAF's short ranged aircraft, permitting the application of air power across the continent.

The RAAF's initial attempts to expand in size were hindered by budgetary cutbacks to Defence following World War I, opposition from the Army and Navy and the decision that the new Service should use existing defence resources wherever practicable. The first expansion occurred four years later with the establishment of new permanent main bases at Richmond in 1925 and at Laverton in 1926. The proximity of these bases to the large population centres of Sydney and Melbourne was essential for the growth of the RAAF. They provided access to commercial and industrial facilities necessary for the operation and maintenance of increasingly sophisticated aircraft. Equally important, they enabled the part-time members of the Citizen Air Force (CAF) to participate in the air defence of Australia. The government had envisioned that the manpower requirements of the new Service would be met by a substantial citizen component. In 1925, the first composite CAF units, No 1 Squadron and No 3 Squadron, were established, and in due course these were stationed at Laverton and Richmond respectively. Both squadrons soon included members of the CAF who served alongside Permanent Air Force personnel.

The looming prospect of another war in the late 1930s gave renewed impetus to the expansion of the RAAF and the provision of air power for the defence of the continent's northern and western approaches. RAAF Stations were established at Bullsbrook (later renamed Pearce) near Perth in 1938, and in Darwin in 1939. By the outbreak of World War II in Europe, planning and construction had already begun on an additional base in northern Australia, at Amberley near Brisbane; a seaplane station at Rathmines on Lake Macquarie, New South Wales; and another air base at the national capital in Canberra.





## AN IDEAL AIR BASE

The RAAF meets air power-related security needs of the Government by generating and sustaining a balanced force capable of effective operations throughout the spectrum of conflict. This force presents a credible air power posture to deter potential adversaries and maintains strategic influence by signalling Australia's resolve to protect its sovereignty. This requires a demonstrated capability for power projection and the offensive application of air power to create the necessary effects that will provide the Government with sufficient options to ensure the nation's security. Air power projection can only be achieved from air bases structured to meet all the operational demands of the RAAF.

The RAAF will inevitably be required to participate in operations with differing degrees of intensity, operational tempo and complexity, often from bases that have limited organic support infrastructure. To be effective in these circumstances, the Air Force will require a high degree of built-in expeditionary capabilities. Therefore, the RAAF must have the capability to provide a range of operational support and infrastructure, tailored to meet contextual requirements. This capability is dependent



on adequately trained personnel who have the broad-based technical mastery essential to establish and operate air bases. Ideal air bases will have adequate infrastructure and sufficient numbers of these skilled personnel. For smaller air forces with finite personnel resources, this creates exacting training and developmental demands.

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A balanced Air Force presents a credible air power posture to deter potential adversaries and maintains strategic influence by signalling Australia's resolve to protect its sovereignty.

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RAAF's strategic design and long-term planning for force generation is tailored to ensure that suitable air bases are available to plan and launch air campaigns as demanded by the Government. Efficient air bases are an indelible part of the RAAF's total capability to meet these security needs.

Air power provides the joint force with a wide range of employment options and enhances its flexibility. However, air power flexibility is largely derived from complex and sophisticated systems—airborne and ground-based—that must be complemented by comprehensive operational analysis and other support systems located at the air bases. The technological advances of future Air Force systems, such as the Joint Strike Fighter and the Airborne Early Warning and Control platform, will necessitate the creation of even more demanding operational and maintenance capabilities resident in air bases. The RAAF will have to consciously create these capabilities, mainly resident in trained personnel, within their air bases to be able to absorb and efficiently employ these





new air power capabilities. An ideal air base will have the inherent capacity to grow as required with minimal effort.

The skills required to establish and operate air bases are complex and the RAAF has a comprehensive training and education process to develop these critical skills in its personnel. This training is oriented towards creating a minimum level of technical and professional mastery that is essential to operate an air base efficiently. Further, the Air Force's ability to generate air power of the required calibre is ensured by optimising the employment of personnel and the utilisation of other resources in a carefully designed manner. An adequately resourced and efficiently managed air base is the cornerstone of the Air Force's capability to conduct responsive and versatile air operations in support of joint forces and the nation's security needs.

These stringent demands have shaped the design of Air Force's Combat Support Group (CSG), which is a cadre of uniformed personnel, dedicated towards providing the full range of essential air base services for the conduct of operations from varied bases. The essence of air base services is responsiveness and flexibility, which CSG is able to provide. This ensures that the Air Force's needs for military air bases with comprehensive organic combat support capabilities are met.

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## World War II – The Battle for Australia

When Japan entered World War II in 1941, four RAAF squadrons formed part of the RAF's Far East Command at air bases in Malaya and Singapore. The stunning rapidity and success of Japan's offensive drives throughout South-East Asia led to the rapid collapse and subsequent defeat of Allied forces across the region. With the fall of Singapore, Australia's reliance on a strategy of forward defence had completely failed, and the nation was dangerously ill-prepared for the air defence of its own shores. In February 1942, Japanese aircraft began bombing Darwin and other airfields, harbours, and towns across northern Australia, inflicting major damage to military and civilian infrastructure. The RAAF's long climb back from this nadir began with a major build-up in the Darwin area and the construction of several air bases to allow the dispersed deployment of flying squadrons and their crews. New technology was also adopted as the RAAF built its first radar stations to augment the air defence capabilities of its bases.

In the vast expanses of the Pacific Ocean, air bases were the key to the projection of air power and victory. Major General George C. Kenney USAAF, Commander of Allied Air Forces in the South-West Pacific Area (SWPA), stated that the Pacific islands were 'nothing more or less than aerodromes'. Many major battles in the SWPA were fought to secure suitable airfields and to deny the same to the enemy. The RAAF's first major victory was the pivotal role it played in the defeat of the Japanese attempt to seize airfields at Milne Bay. The RAAF quickly adapted to the fact that airfields would be the determining factor in the air war. Airfield Construction Squadrons (ACS) were formed that gave the RAAF the capability to construct forward air bases and radar stations in Australia and in inhospitable jungle terrain, often under enemy fire, in New Guinea, Borneo and other Pacific locations. Methods of quick and cheap construction were developed, such as the use of prefabricated structures, plant and equipment. As the Allies pushed north, the ability to rapidly construct and repair airfields was crucial to the RAAF's contribution to the air campaigns that defeated the Japanese.



The overarching requirement of an ideal air base is the capability to generate air power irrespective of the environment or location. This requires their personnel to be able to synthesise all elements and components of the air base systemically in unison, ensuring the functioning of the base as a coherent single system. An air base operating as a complex system creates very high demands on overall preparedness and professional mastery of the personnel involved. Satisfying these demands is critical, as the effectiveness of air bases will directly impact on the strategic influence that the RAAF can bring to bear in the application of air power.

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## AIR BASE PROTECTION

Air bases have a high concentration of air power assets that include high-value assets and key operational personnel. This makes them lucrative targets for enemy attack and sabotage because damage or loss to systems on the ground will have a disproportionately large impact on the force's capability to generate air power. Therefore, protection of air bases is of cardinal importance. Accordingly, the RAAF invests heavily in developing and sustaining its organic air base protection capabilities. Effective air base protection involves protecting air power systems, base infrastructure and personnel from threats posed by adversaries as well as against natural calamities. The diverse nature of these threats creates the necessity





for the force protection element to have a broad range of specialist and general protection skills.

Air base protection is often a joint responsibility, especially in expeditionary operations. Air bases have a large number of technologically sophisticated assets that are crucial support for uninterrupted air operations. To ensure that these assets, some of which will be fragile, are defended without their being damaged in the action requires specialised skills acquired through dedicated training. This is a basic difference between protecting a normal military base and air base protection capabilities.

By maintaining an organic force protection capability the RAAF ensures adequacy of these specialist skills while also retaining its capacity to deploy its force elements in a responsive manner, independently. It also avoids burdening the land forces with extra responsibilities, freeing their limited resources for other combat duties. Additionally, this organic capability reduces Air Force's operational deployment foot print and also facilitates rapid recovery of air base operating capacity if the base is attacked and damaged.

Organic force protection capability is vital to ensuring the security of air bases—main and expeditionary—which are the fountainheads of air power capabilities.

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By maintaining an organic force protection capability the RAAF ensures adequacy of these specialist skills while also retaining its capacity to deploy its force elements in a responsive manner, independently.

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### **Air Base Protection – Airfield Defence Guards**

In 1942, following the bombing of Darwin and the threat of an imminent Japanese invasion, the RAAF realised it needed to be able to defend its own air bases from ground and air attack. A unit of aerodrome defence guards was raised, consisting of airmen specially trained in anti-aircraft guns and minor infantry tactics of perimeter defence, scouting and patrolling. For the duration of the war these Air Force infantrymen provided the RAAF with the ability to secure, hold and defend the airfields essential for the projection of air power from Australia and the forward air bases in New Guinea and Borneo.

At the end of World War II, the airfield defence guard units were disbanded. In the 1960s, however, as Australia increased its level of commitment to the war in Vietnam, the RAAF re-established the Airfield Defence Guard (ADG) mustering. Flights of ADGs were established at the bases in Thailand and Vietnam from which RAAF aircraft operated. They provided VIP escorts, perimeter defence and conducted wide security patrols to disrupt the Viet Cong's ability to launch stand-off mortar and rocket attacks against the bases. The ADGs were the last Australian ground troops to leave Vietnam. Since the Vietnam War, the RAAF has maintained units of ADGs for air base defence. They have provided the RAAF's ready air deployable security force for the protection of expeditionary air power operations in hostile environments during both peace keeping and combat, from the Sinai through to current activities in the Middle East Area of Operations.



Today, all members of the RAAF have a responsibility for the security of air bases — in both peace and war time. In addition to their primary air base defence tasks, the ADGs also play an important role in the provision of specialised training to all RAAF personnel in air base protection measures, base combatant and ground defence instruction, and small arms individual readiness and continuation training.



## THE LINK BETWEEN MAIN AND FORWARD BASES IN THE RAAF

The RAAF's main operating bases must meet its basic requirements to prepare personnel for operations, be mounting bases for operations from Australia and when necessary conduct sustained operations from forward bases. Main air bases are the hubs from which the ADF mounts expeditionary air operations into the region and further afield, whenever it is required to initiate such actions.

Currently the RAAF derives its ability to operate its main bases by integrating uniformed personnel with civilian staff in an optimum mix. Considering the RAAF's limited personnel resources, this has been judged as the most effective way to operate these bases. The uniformed-civilian mix is carefully designed and maintained to ensure the continued generation of trained air base personnel while ensuring the ongoing, uninterrupted generation of air power from the base. This model has so far worked satisfactorily.

The uniformed-civilian mix of personnel in main bases provides the RAAF with the skilled personnel necessary to conduct the full range of air power operations as well as longer-term maintenance



and garrison support activities. Most of the longer-term activities are performed by the civilian service provider groups and tangibly contribute towards the generation of air power. Other activities directly related to the support of combat operations that have an immediate impact on air operations, such as flight-line servicing, operational system maintenance and battle damage repairs, are performed by uniformed personnel. RAAF personnel prepare for these operational tasks by training and gaining experience during peacetime employment at main bases, often in conjunction with civilian staff. Ideally a main operating base must be able to support ongoing combat operational activities while also satisfying the requirements for the generation, sustainment and reconstitution of forces before, during and after operations.

The single greatest challenge for the RAAF's air basing arrangements is its complex and disparate requirement to operate as an expeditionary force. All expeditionary operations demand deployable personnel and equipment in sufficient quantities to sustain the operations of Air Force's air power systems with minimal external assistance. The current government policy does not permit placing civilians in combat roles and, therefore, the personnel needed to establish and operate main and forward air bases to conduct combat operations have to be drawn from the force's uniformed personnel.

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The uniformed-civilian mix is carefully designed and maintained to ensure the continued generation of trained air base personnel while ensuring the ongoing, uninterrupted generation of air power from the base.

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The RAAF's expeditionary air power capability is critically dependent on its capacity to draw sufficient personnel from the resources of the permanent main bases to establish and operate forward bases. Even under circumstances where main bases are staffed only by uniformed personnel, reduction in their numbers to support a forward base must be carefully managed to avoid an unacceptably negative impact on the overall operational capacity of the base. The uniformed-civilian mix of personnel in main bases that is current practice in the RAAF makes the initiation and sustainment of expeditionary operations an extremely complex activity.

The basic fact is that the main base must provide for the generation of the Air Force's expeditionary capability. The current reality is that the training and preparation required to operate expeditionary air bases are integrated and subsumed in the main base functionality, resident in the mixed personnel model. This model does not lend itself readily to being divided without diminishing operational capability and having a detrimental impact on the capability of main bases to sustain long-term air campaigns. The ongoing operational tempo and the increased requirement for the RAAF to operate in the expeditionary mould exert an inordinately high pressure on the main base operating model.

The RAAF has adopted innovative ways to ameliorate these dichotomous issues. Cross-skilling of a majority of uniformed air base personnel not only reduces the numbers that need to be drawn out of main bases, but also reduces the RAAF's deployment footprint. The necessary depth in the level of cross-skilling is achieved through the provision of a broad range of on-the-job training at main bases. Also, an overarching common operational model for the functioning of main and expeditionary air bases is used to provide sufficient proficiency to the uniformed personnel to meet the requirements of establishing and operating expeditionary air bases.







Even though expeditionary operations have become the norm, it is not possible to denude the entire main base of uniformed personnel. Main bases need to have a core group of uniformed personnel at all times to retain the capacity of the base to continue to generate forces necessary to sustain ongoing operations, especially if they become protracted. Further, in extremis, the RAAF may have to conduct combat operations from and over the main bases themselves, emphasising the requirement for a core of uniformed personnel to be part of its permanent establishment.

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The RAAF's expeditionary air power capability is critically dependent on its capacity to draw sufficient personnel from the resources of the permanent main bases to establish and operate forward bases.

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Essentially, main bases will have to operate in the mixed personnel model while integrating their own ongoing operations with the routine training, preparation and generation of forces necessary to support the RAAF's expeditionary operations. This requires clear understanding at all levels in a whole-of-force approach to air operations for success.

A deliberate and adaptive combination of the organisational dimension, responsible for the generation and sustainment of air power capabilities and operational dimension responsible for the efficient conduct of air campaigns has enabled the Air Force to meet these diverse demands from within its limited personnel and resources. Compromising this adaptability to generate well-trained professionals and simultaneously conduct robust operations will compromise the Air Force's ability to meet the Government's security requirements.



By the very nature of air operations, air bases are subject to a number of demands even during routine peacetime functioning. These reach a crescendo during expeditionary combat operations and any break down in the air base's smooth and efficient functioning can have far-reaching and disastrous consequences for Australia's air power generation capability. These demands on the RAAF main bases make them unique in their structure, operations and administrative ethos. The RAAF will not be able to deliver responsive and versatile air power if the correct personnel mix, structure and organisation are not assured in its air bases.

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Essentially, main bases will have to operate in the mixed personnel model while integrating their own on-going operations with the routine training, preparation and generation of forces necessary to support the RAAF's expeditionary operations.

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## **Post-World War II – Forward Bases for Expeditionary Operations**

At the conclusion of World War II, air bases in the Pacific were abandoned and many of the wartime training bases in Australia were disbanded, reverting to civilian usage. Not all RAAF personnel returned home at the end of the war as the RAAF contributed a fighter wing to the British Commonwealth Occupation Force in Japan. No 5 ACS constructed an air base for the RAAF squadrons on a disused airstrip at Iwakuni. Within two years, even as the postwar demobilisation saw RAAF numbers fall below 10,000, the RAAF was heavily committed to the early confrontations of the emerging Cold War; the Berlin Airlift, counterinsurgency operations in Malaya and garrisoning NATO fighter bases in Malta.

In 1950, in response to the invasion of South Korea by the communist North, Australia committed No 77 Squadron, the only remaining RAAF Squadron in Japan, to the US-led UN military intervention. One of the major challenges facing the UN forces was the lack of air bases and supporting infrastructure within South Korea, since the North's surprise offensive had quickly overrun the few existing airfields. No 77 Squadron initially conducted all air operations across the Korean Strait from Iwakuni. As UN forces drove back the North Koreans, No 77 Squadron was subsequently able to operate from forward air bases constructed by the USAF. Throughout the war, however, Iwakuni remained the RAAF's main air base for Australian operations in Korea. It was served by a composite wing of logistics and maintenance units whose efforts resulted not only in a higher level of serviceability than that achieved by most USAF squadrons, but which also facilitated the rapid conversion of No 77 Squadron from Mustangs to Meteors in theatre.

By the 1960s, Australia's focus was primarily on forward defence through opposing communist aggression in South-East Asia particularly Indochina. An essential part of Australia's acceptance of a greater role in the region was the full-time establishment of RAAF flying squadrons at Butterworth airfield in Malaysia which formally became RAAF Base Butterworth in 1958. The RAAF base at Butterworth, with its flying squadrons, maintenance, administrative and logistics units, was the main base that enabled the RAAF to mount expeditionary operations within the region. This included the deployment of No 79 Squadron to the forward base at Ubon, Thailand, in 1962 and, in particular, Australia's commitment to the Vietnam War through the deployment of flying squadrons to the forward air bases in Vung Tau and Phan Rang.







## EXPEDITIONARY AIR BASES FOR JOINT OPERATIONS

Future threats to Australia's security interests will be diverse and unpredictable. Therefore the RAAF must be able to generate responsive and effective air power to cater for the full spectrum of conflict scenarios, from high-end warfare to humanitarian assistance. Considering the prevailing geo-strategic environment, it is highly probable that the ADF would have to operate in theatres geographically removed from mainland Australia. These two realities make it imperative for the RAAF to be a balanced expeditionary air force.

When conflict theatres are located at distances that preclude effective conduct of operations from main bases in Australia, forward operating air bases will have to be established and operated near the theatre. The minimum level of infrastructure and facilities required to mount operations from these bases will be determined by the combination of aerial platforms and systems involved and the nature and intensity of operations to be conducted. Similarly, depending on a number of factors, these expeditionary bases could also range from basic runways with limited supporting infrastructure to major military air bases or civilian airports.





Since most RAAF main bases are located in the south-eastern part of the country, it must exercise one of two options to meet its full responsibilities vis-à-vis joint military operations in support of national security. The first is to establish and maintain multiple air bases in fully operational state in strategically chosen locations. The resource implications of implementing this option are enormous and clearly beyond the capacity of smaller air forces like the RAAF.

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Considering the prevailing geo-strategic environment, it is highly probable that the ADF would have to operate in theatres geographically removed from mainland Australia.

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The alternative option is a model that establishes and resources main air bases that in turn provide expeditionary functionality through a carefully designed process that enables a relatively small core of highly skilled personnel from these bases to establish and operate forward bases. Within this model, the RAAF's main air bases are complemented by 'bare bases' with pre-positioned supplies of petrol, oil and lubricants, general stores and limited infrastructure. Deployment of the RAAF's expeditionary combat support equipment and personnel to these bases will bring them to operational status very rapidly.

The air-to-air refuelling (AAR) capabilities of the Air Force provides an extension to the reach and penetration of air power assets. AAR assists in tiding over the necessity for immediate response options in a crisis, however, is not optimal for sustaining operations for any significant period of time. Therefore, while a force-enabler, AAR cannot be considered an operational substitute for forward operating bases in extended expeditionary campaigns.





Deciding the disposition of the RAAF's permanent air bases and potential or actual forward operating bases is a critical element of the force's strategic planning. This decision, which will shape the RAAF's expeditionary air power capability, must be arrived at only after careful consideration of government guidelines, strategic risk assessment and balancing available resources.

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Permanent and 'bare bases' in Australia provide a clear indication of the Air Force's ability to mount effective air operations and provide a critical appreciation of the strategic posture of the force.

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There is a significant geo-strategic dimension to the location of the RAAF's air bases. Permanent and 'bare bases' in Australia provide a clear indication of the RAAF's ability to mount effective air operations and provide a critical appreciation of the strategic posture of the force. Along with security considerations, political and diplomatic relationships also determine the available options for expeditionary operations beyond Australia's shores. Success of joint operations is dependent on the availability of adequate basing facilities, which is almost completely dependent on the adequacy of political interaction.

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It is incumbent on strategic planners and leaders to ensure that the RAAF is structured, resourced and maintained in an operational preparedness state that enable it to mount expeditionary air operations from forward bases.

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The RAAF is only one element in the military component of the whole-of-government approach to national security. However, it is a critical element that can, and does, make the difference between assured success and possible failure of the operation. Therefore, it is incumbent on strategic planners and leaders to ensure that the RAAF is structured, resourced and maintained in an operational preparedness state that enable it to mount expeditionary air operations from forward bases. Only this capacity will provide the Air Force with the capability edge that is necessary to conduct efficient and successful joint operations.



### **Defence of Australia – Bare Bases to Expeditionary Operations**

Following the Vietnam War, the Government gradually abandoned the strategy of forward defence in favour of a 'Defence of Australia' policy. This policy was formalised in the Dobb Report of 1986 and the 1987 and 1994 Defence White Papers. The focus of Australian defence planning was centered on protecting Australia's northern maritime approaches (the 'air-sea gap') against enemy attack. The ADF was thus restructured to increase its ability to strike at enemy forces from bases within Australia.

For the RAAF, the Defence of Australia policy resulted in the development of RAAF Base Tindal as a main fighter air base in the Northern Territory and the establishment of two other facilities Scherger in far north Queensland, and Curtin in the north of Western Australia as 'bare bases'. The latter joined RAAF Base Learmonth, also in Western Australia, which was originally a World War II airfield that had been extended and redeveloped in 1971–73 and was being maintained on the bare base model. Bare bases consist of essential airfield infrastructure, such as runways, taxiways, parking areas and maintenance facilities, thereby providing the ability to support maritime, air and land operations to secure the vast areas of Australia's northern approaches. Each bare base, usually manned only by a small number of caretakers, is designed to be activated by deploying Operational Support Group elements. These elements bring the base to a fully operational state by establishing, operating and maintaining aircraft support services as well as air base amenities, command and control, administration and management functions.

Renamed Combat Support Group (CSG) in 1998, deployable air base support was enlarged to include RAAF uniformed personnel stationed at the Air Force's main air bases. The focus of CSG was also expanded to include the establishment of forward air bases in support of expeditionary operations to any remote locality within Australia's area of strategic interest. In recent years the ability of CSG units to rapidly establish functioning air bases anywhere in the world has made possible the deployment of Australian air power to the conflicts in the Solomon Islands, East Timor, Afghanistan, as well as providing support to the ADF contribution to the rehabilitation and reconstruction of Iraq. Since the 1990s, CSG has also enabled the undertaking of humanitarian air missions, including the response to the Bali bombings of 2002 and 2005, tsunami relief operations in Sumatra in 2004, and evacuation operations from Lebanon in 2006.







## SUPER BASES OF THE FUTURE

As an element of its strategic approach to providing effective air power into the future, the RAAF is evolving an air base structure generically referred to as a 'super base'. A super base is an air base that has the capacity to host, operate, support and protect multiple force elements simultaneously and with operational redundancy. This contrasts to the current arrangement where most bases can only support one force element with its supporting agencies. For example, RAAF Richmond is today predominantly an airlift base; RAAF Williamtown a fighter base; and RAAF Edinburgh a maritime patrol base. With the relocation of No 36 Squadron, now operating C-17 strategic airlift aircraft, to RAAF Amberley, it is emerging as the first of the RAAF's super bases. However, it is to be noted that Amberley does not yet have the full range of capabilities and infrastructure needed to qualify as a super base.

The principles that underpin the creation of super bases are not new. Since the development of early air bases at Point Cook, Richmond and Laverton, sites and designs for bases have been chosen to meet air power generation needs. The primary needs are proximity to population centres, access to commercial and industrial facilities and the need to provide increasingly sophisticated support arrangements



to meet the highly advanced technological complexity of air power systems. These are enduring principles, although the sophistication and complexity of the technical, industrial, societal and geographical dimensions of establishing and operating air bases today present a difficult challenge.

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A super base is an air base that has the capacity to host, operate, support and protect multiple force elements simultaneously and with operational redundancy.

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Super base locations will be carefully selected to meet the RAAF's strategic requirements and leverage off the security afforded by Australia's geostrategic situation. Australia has no land borders with another country and therefore no potential adversaries at close range. This provides a degree of freedom in locating super bases that is enjoyed by few other nations. Geographic proximity of potential adversaries to such bases would create an extremely resource intensive and prohibitively expensive self-protection requirement that would neutralise any cost-effectiveness that super bases would bring about. Australia's geographic situation allows strategic planners to concentrate on the development of the RAAF super bases at optimal locations without any extra resource implications.

The RAAF generates air power as a combined product of a number of systems acting complementary to each other. Collocation of these systems at super bases will enhance opportunities to more efficiently develop and practice the delivery of air power. For example, the RAAF's strike and fighter aircraft are a major component of such air power, and their air bases will need to be in proximity to training areas where they can practise air operations





through their full performance range, including operations at supersonic speeds. As a result, super bases hosting these aircraft will favour locations in close proximity to areas, primarily over water, where supersonic flight can be conducted with no adverse effects.

The optimum combination of air power delivery and support systems on super bases, along with their associated civilian and industry support facilities will provide an enviable capacity for concurrent activities. During peacetime, super bases will have the depth to simultaneously conduct peacetime activities, such as routine military surveillance programmes and support to civil authorities, whilst conducting a range of other activities that are essential to the raising, training and sustaining of the force.

Personnel are a key aspect of the establishment and operation of any air base, and a large and complex mixture of skilled personnel will be essential for the adequate operation of super bases hosting a range of complex air power systems. Selecting the correct location for these bases will be a vital factor in ensuring the welfare and morale of the base personnel by providing connectivity to communities that offer partner employment, education and family support.

The consolidating of RAAF capabilities will also provide opportunities for its personnel to grow their technical and professional skills by undertaking postings to collocated units that support different systems and capabilities, without the need for postings to bases in different geographical locations. The resultant location stability will reduce stresses on families and enhance retention, and also decrease the resource requirements associated with personnel relocations. In addition, this tenure stability will help develop close ties with the community leading to improved recruiting opportunities. The visibility of operations at super bases in the vicinity of large civilian communities will enhance the reputation of the RAAF and further



aid recruitment by demonstrating the professionalism and expertise of the personnel on the base and the technologically advanced capabilities of the force.

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During peacetime, super bases will have the depth to simultaneously conduct peacetime activities, such as routine military surveillance programmes and support to civil authorities, whilst conducting a range of other activities that are essential to the raising, training and sustaining of the force.

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Super bases will also promote knowledge sharing and innovation amongst the RAAF units hosted there and proximity to civilian industry will maximise the effectiveness of industry support across a range of capabilities. This will also encourage the development of enduring partnerships between industry and the RAAF, to mutual benefit. Grouping air power systems on super bases also offers the potential to consolidate the RAAF and industry interface necessary for the ongoing maintenance of the systems and optimisation in resource allocation and expenditure.

The investment in establishing super bases is a strategic measure to ensure the sustainability of the RAAF by carefully designing the facilities and infrastructure to meet evolving capability requirements in the long term. A key feature of the super bases will be multiple runways to support the operations of the increased number of platforms that would be based there. Where contingencies demand it, the facilities and multiple runways on a super base will be able to support a significant increase in the tempo of operations and, where necessary, support the operations of additional joint or coalition forces.



It is envisaged that future super bases will also accommodate ADF ground combat capability assets that would in turn provide rapid response to emerging crisis situations. This will be achieved through the employment of RAAF's strategic airlift capabilities on an as required basis. Co-locating ground force units within the super base structure will provide the ADF with a time-critical combat deployment capacity.

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The breadth of infrastructure on super bases also provides the flexibility to incorporate changes in capability over time; whether these arise as a result of new platforms, more sophisticated weapons, changed concepts for maintenance and logistics or the increasing adoption of concepts such as networked operations; without any noticeable operational inefficiency. The super base philosophy is carefully designed to be the strategic foundation for air operations now and into the future.



### **RAAF Base Amberley – Super base**

RAAF Base Amberley is the largest air base operated by the Air Force. Amberley provides the main air base facilities for strike squadrons and the C-17 strategic airlift squadron. Recent upgrades to base facilities have increased its size and capacity, and in 2009 the base will become the operational home of the RAAF's new air-to-air refuelling aircraft. Amberley is also the main base for RAAF's expeditionary deployment capability, hosting the headquarters of the Combat Support Group, No 395 Expeditionary Combat Support Wing, No 1 Airfield Operations Support Squadron and the headquarters of the Airfield Defence Wing and No 2 Airfield Defence Squadron.



In 2008, RAAF Base Amberley was selected as the pilot site of the ADF's new base support management model. The new base structure will better align base support functions for the generation and delivery of air power. The lessons learnt from RAAF Base Amberley will begin to be implemented at all other RAAF bases from 2009. The result will be the clearer identification of the roles, responsibilities and accountability for the provision of main and forward air base support to the RAAF to raise, train and sustain the force while concurrently generation and sustaining air power and conducting air operations at the required tempo and intensity.



## CONCLUSION

From being grass strip airfields with extremely limited support infrastructure from which fairly simple flying machines operated, military air bases have grown into complex systems that are critical to the generation of sophisticated air power. In effect the air bases themselves function as weapon systems and force multipliers and are the foundations from which a nation's air power is employed effectively in the pursuit of national security.

For smaller air forces, like the RAAF, maintaining the capacity to deliver air power when and where required is a fine balancing act that has to take into account the broader strategic security issues which underpin the development of the larger force structure, organisation, and capability planning of the RAAF. The necessity to have air bases strategically located with the infrastructure required to support air operations of the necessary intensity and tempo for the needed duration cannot be overemphasised.

All joint and interagency operations are dependent to a greater or lesser degree on air power for their success. Therefore, the RAAF has to nurture its capacity to operate in a balanced expeditionary manner, especially under the current constraints of resources and



personnel. This can only be achieved by ensuring that the main air bases have the flexibility and adaptability to cater for emerging situations. Essentially, the main bases are the primary elements in the RAAF being able to mount expeditionary operations from forward bases, in country and further afield. This requires the main air base to be designed and operated in a unique manner that supports the RAAF functional model. Any shortfall in this capacity would have an increasing ripple effect in the overall capability of the RAAF to generate air power.

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The staffing model currently practised in the main air bases that divide operational responsibilities between the uniformed personnel and civilian staff has so far worked competently. However, the ongoing operational tempo in which the RAAF is operating and the need to constantly operate in the expeditionary mode has severely strained this arrangement. It is under such circumstances that the inherent flexibility of a main air base becomes a bulwark against failure. This flexibility is not automatically inherent to all kinds of organisational models, but is unique to the manner in which an Air Force operates its bases, drawing on experience built over a long period of time, balanced with innovative forward thinking. There is a risk that a 'one model fits all' approach to air base structuring and management is likely to fall short of the exacting standards required for the generation of responsive air power.





Air power is a critical necessity in joint operations. It is also a matter of fact that a totally independent operation by the RAAF is a far-fetched reality. Therefore, it is in expeditionary joint operations that the versatility of the RAAF's air base model is tested to the limit. The link between success in joint operations and main air bases is direct and very obvious.

While accepting the need to standardise and thereby reduce extraneous expenditure of resources in the operation of military bases, it is also necessary to balance this activity with operational requirements. After all, the *raison d'être* for the existence of all military forces is to ensure the security and sovereignty of the nation, if required by the application of lethal force. In the case of the Air Force, its ability to be a balanced expeditionary force is completely encompassed in the availability of air bases that provide the wherewithal to generate and sustain air power. In order to be efficient in the generation of air power, air bases have certain unique characteristics that are complex and difficult to husband without concerted effort. The technical and professional mastery necessary to achieve operational status in air bases takes a long time to inculcate but can be dissipated very fast. The RAAF main air bases therefore, have to be designed and operated with a clear understanding of the nuances of the nation's strategic security and the status of air operations within it. Anything short of this will rapidly evolve into a direct threat to the nation's security and be unacceptable to the government of the day.

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Air base flexibility is not automatically inherent to all kinds of organisational models, but is unique to the manner in which an Air Force operates its bases, drawing on experience built over a long period of time, balanced with innovative forward thinking.

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