



RAN Sea Power Conference
- Chief of Air Force: Air Marshal Geoff Brown AO -
Air Power's Contribution to Naval Operations – Synergistic Strategies
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(Check with delivery)

The Honourable Mr Stoner, Deputy Premier of New South Wales, Vice Admiral Griggs, Chief of Navy, Lieutenant General Morrison, Chief of Army, Mr Jeremy, Chairman of the International Maritime Conference Organising Committee and Vice Admiral Ritchie, Chairman of Maritime Australia, visiting serve chiefs, other distinguished guests, ladies and gentlemen, thank you the opportunity to address the Royal Australian Navy's Sea Power Conference.

In the often misquoted words of Donald Horne, 'Australia is a lucky country'. Lucky, geographically, demographically, politically, and economically.

But to diverge from Mr Horne's commentary on Australia in the 1960's, rather than rely on luck as strategy, which, unless you are a golfer, is never a particularly sound approach. We underpin the security of our nation and its interests through sustainment of a military force focused on the defence of Australia from direct armed attack. This has been, and continues to be, our number one national security priority.

As the largest island nation on this planet, and as our national anthem reminds us, "with golden soil and wealth for toil, our home is girt by sea", indeed surrounded entirely by sea, and so it comes as no surprise that our security and prosperity are inextricably linked to the sea, whether it be on it, under it, or above it. Thus, again it is no surprise that a maritime strategy underpins our approach to national security.

As the Chief of Navy described earlier, Australia's prosperity has long been tied to the strength of our Navy; its people its capabilities, and its professional excellence. The Navy's ability to secure our maritime approaches and sea lines of communication has been, and continues to be, fundamental to the maintenance of our way of life. The Royal Australian Navy has a rich heritage of fulfilling this mission and rightly should be proud of it.

While our land is surrounded entirely by sea, it is also covered 100% by air, and this fact too fundamentally influences our strategic approach to national security. Air, land and sea forces are of course the irreducible minimum components of our national security approach, but today I want to limit my comments to the interaction of just our sea and air forces.

Air Force's contribution to Naval operations has historically, and continues to be realised through the four key air power roles of; Intelligence, Surveillance and Reconnaissance, Strike, Air Mobility, and Control of the Air. These roles are enduring and fundamental to air power's contribution to national security and they are terms that I use consistently, as you may have heard in other forums, whenever I speak about Air Force and air power. The reason for this is because these roles are enduring and fundamental to all we do as an air force. They underpin the ways and means air force interacts and operates with Navy. The titles for these roles may have changed over the years, but

they encapsulate the core functions that air power has provided to military operations since military aviation was first developed as a significant form of warfare.

Each role can support the many tasks the Air Force, Navy, and Army have in the joint fight. In fact in many ways, the roles have a certain synergy to them. To conduct effective **Air Mobility** requires some degree of Control of the Air. Similarly to establish **Control of the Air**, certain aspects of the **Strike** role may need to be undertaken. **ISR** is essential to all roles but itself may need a favourable air environment established through some measure of Control of the Air.

For air power these roles are ubiquitous and in many ways they continue today as they always have, to compliment the principle sea power roles of power projection, sea denial, and sea control.

We have all seen the word “Joint’ grow fashionable since the eighties, but the forging of Air and Naval power has a long and cooperative heritage that can be traced as far back as World War I and the very advent of air vehicles as instruments of war.

World War I

During a light cruiser raid into Germany’s Heligoland Bight in June of 1918, British Sopwith Camels launched from HMAS Sydney and Melbourne against attacking German fighters, conducting the first Control of the Air mission from Australian warships. The German aircraft were repelled with at least one machine gun hit recorded on an enemy plane. The age of air power in support of Australian Naval operations had begun.

Interwar

Cooperation between the Royal Australian Navy and the Royal Australian Air Force reaches back to the early days of Australian military aviation. Indeed the first Fairey Seaplanes purchased in 1921 to support RAN reconnaissance operations were managed by the newly formed RAAF. This was likely to be the RAAF’s first contribution of **ISR** support to the Navy.

World War II

Throughout World War II, RAAF aircraft, flown by a combination of RAAF pilots and Navy observers and gunners, alongside their land-based aircraft, escorted Australian convoys, performed anti-submarine patrols, flew many thousands of hours on air-sea rescue tasks, conducted **strikes** on enemy vessels, and undertook long-range **reconnaissance and surveillance** operations in support of Australian and allied naval task forces.

The tradition of Air Force support to Australian Naval operations continued through conflicts in Korea, Vietnam and during the long years of the Cold War.

Maritime **surveillance** and anti-submarine warfare, conducted by Sunderland and Catalina flying boats, Lincoln bombers, Lockheed Neptunes, and P-3B and C Orions, have been institutionalised elements of RAAF tasking for more than 70 years.

In addition, these aircraft, alongside F-4 Phantoms, the F-111, and F/A-18 Hornets, continued to maintain a maritime **strike** capability, ready to contribute to any offensive or defensive tasks that the Royal Australian Navy may have been called upon to perform.

Contemporary Contributions

The Chief of Navy spoke on the importance of a comprehensive maritime strategy to Australia's ongoing prosperity. The large expansive waters to our north, south, east and west, the vastness of our economic exclusion zone, and the criticality of the oil and gas fields to our country's future economic outlook, ensure we need to remain committed to a maritime strategy. This will require air and sea power to be applied as coordinated national effort in order to shape the maritime environment and deter any potential adversaries. Air Force is committed to supporting the full range of Australian Naval activities; whether they are sea denial, sea control, border security, suppression of piracy, economic security zone patrols, or force protection operations.

As with all elements of our defence force, the nature of the operation will determine the character of our contribution. However, as history, and in particular the last 20 years, have shown, we rarely operate in a state of complete peace or total conflict. We recognise through experience that all elements of the ADF need to be prepared to conduct both peace and warlike activities concurrently. Thus, while Air Force strike and control of the air activities are conducted primarily in the lead-up to and during conflict, ISR and air mobility occur across the spectrum of conflict.

The use of the air to collect data and information for development into intelligence was the first role for military aviation and continues to underpin much of our operational effectiveness. Air Force views Intelligence, Surveillance and Reconnaissance as an integrated concept to synchronise, prioritise and manage collection, analysis and processing activities.

The vastness of the maritime environment presents a unique challenge to the Navy. The RAAF appreciates Navy's requirement to gain situational awareness of the operational context, as well as tactical information for offensive and defensive actions. This requirement underpins all joint maritime operations and drives our commitment to deliver timely ISR product; specifically through the Jindalee Over the Horizon Radar and AP-3C maritime surveillance capability. The P-8 Poseidon, the planned replacement being acquired under Project Air 7000, along with a high altitude, long endurance multi-role unmanned aerial system will continue to meet the increasing demands for maritime patrol and overwater ISR required for the security of Australia's maritime approaches.

Strike

Anti-Surface Warfare

I agree with Chief of Navy that that at the high end of conflict Navy's contribution to the defence of Australia will rely on its ability to control the seas through its capital ships and support vessels. Protection of these naval task force elements will be a priority mission for Air Force and we have long contributed to this task through our maritime strike capability.

From our early days with Sunderland flying boats through to the F-111, and present day F/A-18, Super Hornet and AP-3C we have demonstrated the capability to strike warships that threaten our naval task forces, Sea Lines of Communication, or ability to gain Control of the Sea. Through the acquisition of the P-8 and Joint Strike Fighter we remain committed to this task.

Anti-submarine warfare

Anti-submarine warfare has been a mission of the RAAF since World War II and remains so today embodied in our AP-3C fleet. We recognise anti-submarine warfare as a true joint enterprise, encompassing the suite of capabilities open to the ADF.

Understandably, much of our attention over recent years has been in the MEAO and on surveillance of our northern approaches which has drawn our focus away from this vital task. We look to revitalising this mission and see its future involving networked Air Warfare Destroyers, ANZAC and Adelaide-class frigates with their MH-60 Romeos, and Collins-class submarines working with AP-3C, P-8 Maritime Patrol Aircraft, and Maritime Unmanned Aerial Systems. These air assets will be supported by aerial refuelling tankers and space-based assets, as well as leveraging the electronic capabilities of the Wedgetail AEW&C.

The submarine remains a significant threat to the security of our maritime environment, thus our national prosperity. ASW, as a joint endeavour, needs to be at the forefront of military priorities if our maritime strategy is to remain relevant.

Air Mobility

A cornerstone military activity of any operation across the spectrum of conflict is the ability to move people and equipment. The Navy has an unparalleled capacity in our Australian context to move a fighting force across large distances. The size and endurance of its vessels allow the Navy to maintain a presence in the area of operations to conduct follow-on combat and sustainment activities. Air Mobility through the C-17, C-130, and in the future the Light Tactical Airlift Capability provides Air Force with the ability to move people and equipment across large distances relatively quickly. Not only do the air power characteristics of speed and reach compliment the sea power traits of capacity and presence, they can work in harmony to increase the effectiveness of the other.

Time and again Air Force and Navy have worked together to deliver the right people, to the right place with the right equipment. Whether it was Operation FALCONER, where critical war fighting equipment from HMAS Manoora was transferred to RAAF C-130s for distribution around the MEAO; or the humanitarian aid sea-lifted by HMAS Kanimbla and airlifted by RAAF air mobility during Operation Tsunami Assist in 2005.

In addition, RAAF air mobility has provided logistic support to Royal Australian Naval vessels all round the globe, whether it be the delivery of critical components to enable repairs, aero-medical evacuations, or just the routine movement of people and equipment. Sea and air power combine to generate the speed, reach, capacity and presence needed to support Australia's national security interests.

Control of the Air

Just as Sir Julian Corbett's principle of *control of the sea* sets the foundation for sea power strategy, air power theorists place *control of the air* at the cornerstone of all air power effects. Both principles are based on the understanding that each domain is not susceptible to ownership. We can control portions of them in time to achieve our objectives, like security of a Sea Line of Communication or an area of operation, but acknowledge absolute command is not practical. This

position is more prevalent given the scale of our air and sea approaches and the size of our Navy and Air Force.

It is worthwhile to note that the last Royal Australian Navy ship to be attacked by an enemy aircraft was the HMAS Australia off the Philippines in 1945. Since that time Royal Australian Navy task groups operating in contested environments have enjoyed sufficient protection from air power's control of the air, that no enemy air has had the ability to threaten their operations.

But 67 years of history is not a reason for complacency. The Navy and the RAAF understand the risks that enemy air action place on shipping, military or commercial, and on our submarines. This is why the Air Force is committed to the Joint Strike Fighter as the most effective control of the air capability available to Australia, and the Navy is committed to the Air Warfare Destroyer as the most lethal surface combatant Australia can acquire.

Training

But to be able to commit to operations we need to be trained and ready. Thus, we will continue to undertake exercises, engaging not only with the Royal Australian Navy, but also with partner air forces and navies to maximise our interoperability and ensure air power's contribution to Navy activities remains focused, relevant and effective.

But the way we train is undergoing fundamental changes. Gone are the days when training with the air force meant a Macchi or Mirage conducting mock attacks or simulating an anti-ship missile, or a P-3 conducting rigging runs and searches for submarine periscopes.

Today, and into the future, training with air power is more than an inject into fleet exercises or ship work-up drills, but a fundamental contributor to the development of the full spectrum of sea power capabilities.

Training in anti-surface strike operations will involve the full range of Air Force maritime patrol, ISR, strike and control of the air capabilities operating alongside the Collins-class submarines, ANZAC and Adelaide-class frigates, and the Air Warfare Destroyer with their MH-60 Romeos.

Training will be focused on achieving joint effects with service needs leveraged off the outcomes. Don't misconstrue my comment. We will fulfil service training and accreditation requirements, but we need to put more consideration into the adage "we train as we fight". While there will be occasions we may operate as single service, the Australian Way of War is to fight joint. Thus, as sea and air power capabilities continue to evolve so will our approach to training. We will work closer together, enhance our networking, and improve our level of integration if we are to deliver the effects required to support our nation's security and future prosperity.

Air Warfare Destroyer

Perhaps the most significant surface combatant capability the Navy will acquire in the next decade will be the Hobart-class Air Warfare Destroyer. The Air Force welcomes the introduction of the Air Warfare Destroyer because, as I indicated earlier, control of the air is fundamental to military operations. The Air Warfare Destroyer, with its Aegis weapon system, Phased Array Radar and SM-6 missiles makes it one of the most lethal combat capabilities ever to leave an Australian port. And I didn't mention its enhanced anti-submarine capabilities. I am glad it will be on our side.

Advancements in maritime attack aircraft and air-delivered munitions mean it is getting a whole lot more dangerous on the seas. Protection of a naval task force from enemy air requires a defence in depth approach. The Air Warfare Destroyer will provide the inner core of the defensive perimeter with air power, through the Joint Strike Fighter, Super Hornet, Wedgetail AEW&C and P-8, providing the broader perspective and combat teeth to neutralise any potential airborne attacks.

Amphibious Operations

I must say that if the future Navy's surface combatant capability looks good then its future power projection capabilities look outstanding. The introduction into service of the Landing Helicopter Docks - Canberra and Adelaide, and the Landing Ship Dock - Choules will provide Australia with an evolutionary new amphibious capability. And Air Force will provide a large contribution to this joint capability.

If the current plan has only six Joint Battlefield Airspace Controllers (Air Traffic Controllers) embarked, how will Air Force's contribution be large you may ask?

Let me say that if the LHD is dispatched into an environment that is in any way contested, the full range of Air Force's control of the air, strike, ISR and air mobility capabilities will be committed to the protection of the task force and support for the entry operation. So while our physical presence embarked with the task force will be small, our presence in the battlespace will be large and noisy.

Communication and Interoperability

Because we operate in separate, but overlapping domains, communications along with command and control have always been perennial challenges. Air Force is fully committed to minimising any roadblocks that inhibit our ability to work seamlessly with naval elements.

Interoperability is a significant element in our acquisition strategy. It will be crucial to our future joint effectiveness our Air Force maritime capabilities to be networked into the naval task elements. The Wedgetail AEW&C, P-8, Joint Strike Fighter, and Maritime Unmanned Aerial System, along with our legacy maritime capabilities, need to be able not just to talk to the Air Warfare Destroyer, LHD, Frigates and MH-60 Romeos, but networked to be able to fight as an integrated group. Wedgetail AEW&C is a good example of steps to improve air and sea power interoperability with a Navy operator fully integrated into every AEW&C crew. Perhaps in the future we exchanges on the MH-60H Romero and P-8.

Reliance on Space

A large part of our ability to network is dependent upon our exploitation the space domain. Communications, ISR, navigation, timing are just a few of the functions supported by space that have become crucial to our individual service and joint combat effectiveness. This level of dependence is only set to increase into the future, thus it is in all our interests to develop a joint approach to the use of space.

Challenges

Coordinating command and control is a perennial challenge. As we transition new capabilities in each service and integrate these into joint effects our greatest challenge will not be how we operate them - we are world-leaders across most of our combat fields - but how Air Force commands and controls air power contributions most effectively and efficiently to meet the Navy components needs and Joint Force Commander's requirements.

Conclusion

Despite some name changes, the air power roles of ISR, Strike, Air Mobility, and Control of the Air have been and will continue to remain enduring functions that compliment the Royal Australian Navy's principle missions. However, the character of air force's contribution will continue to evolve in response to the operational environment, Navy requirements, and technological advancements.

Every capability Air Force will be bringing on-line over this next decade will enhance the RAAF's contribution the naval activities. From the JSF, through to Wedgetail, P-8 Maritime Patrol Aircraft, KC-30 tankers, Maritime Unmanned Aerial Systems, and Vigilare integrated air defence C2 system, every emerging Air Force capability will increase our ability to support Royal Australian Navy operations.

RAAF air power is structured for both peace and conflict, and stands ready to support the full range of Navy's contribution to Australia's national security and prosperity.

Thank you