PATHEINDER

AIR POWER DEVELOPMENT CENTRE BULLETIN

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AIR AND SPACE POWER IN THE DEFENCE WHITE PAPER 2013

As a key part of Australia's defence strategy, The Royal Australian Air Force must be able to control Australia's air approaches and enable and support friendly operations in the land, sea and air environments.

Defence White Paper 2013, p. 87

The Defence White Paper released on 3 May 2013 provides strategic direction to the Australian Defence Force (ADF). It gives a holistic view of how the ADF's warfighting capabilities will be developed in the coming years.

In the White Paper the Government lists the four principal tasks the ADF is responsible to discharge. These tasks in order of priority are: to deter and defeat armed attacks on Australia; contribute to stability and security in the South Pacific and Timor-Leste; contribute to military contingencies in the Indo-Pacific region, with priority given to Southeast Asia; and contribute to military contingencies in support of global security.



The F/A-18F Super Hornet; a multi-role platform.

The highest priority task of defending Australia is hinged on a maritime military strategy. Controlling the sea and air approaches to the nation in order to deny them to an adversary and provide maximum freedom of action for own forces is the key to defending Australia. This strategy, focused on the maritime domain, aims to: deter adversaries from conducting attacks against Australia

or attempting coercion; achieve and maintain air and sea control in places and at times of our choosing; deny or defeat adversary attacks and protect key sea lines of communication; deny adversary forces access to forward operating bases or the freedom to conduct strikes against Australia from beyond our maritime approaches; and project power by deploying joint task forces in the Indo-Pacific region and support the operations of regional partners when required.

The RAAF's role in this strategy can be examined through the lens of the core air power roles—control of the air, strike, air mobility and intelligence, surveillance & reconnaissance (ISR)—and the provisions that the Government has made to enhance its ability to carry them out effectively.

The current force mix of F/A-18A/B Hornet and F/A-18F Super Hornet platforms is capable of gaining and maintaining the necessary level of control of the air at specific times and locations as required to enable and support ADF joint operations. The introduction of the EA-18G Growler will add a transformational electronic warfare capability that will significantly enhance the RAAF's capability in all of the four core air power roles. Further enhancement will be realised with the replacement of the F/A-18A/B by the F-35A Joint Strike Fighter with its stealth attributes coupled with its new weapons, sensors, networks and data-fusion capacity. The combination of this fighter fleet and the air-to-air refuelling capacity provided by the KC-30A significantly expands the geographic area where the RAAF will be able to establish adequate control of the air. Additionally, the introduction of the E-7 Wedgetail Airborne Early Warning and Control (AEW&C) aircraft has revolutionised Australia's control and coordination of its air combat fleet. The highly capable radar and systems onboard the AEW&C provide a situational awareness edge to the ADF.

The E-7 can also improve the level of control of the air when the Cooperative Engagement Capability (CEC) is fitted to the aircraft, which will allow the E-7 to communicate with the Navy's CEC equipped Air Warfare Destroyers (AWD). Such communications will permit the AWD to engage air targets beyond its own radar horizon and maximise the potential of its SM-6 missile, which has a range in excess of 200 nautical miles.

The F/A-18 family and F-35A are multi-role aircraft, and will not only deliver control of the air, but will also provide capable strategic and maritime strike options and pose a potent threat to a potential adversary. This is a powerful deterrent capability. Supported by the KC-30A and the E-7, the force package will have wide ranging capabilities, superior situational awareness, and will be well coordinated. The employment of new standoff weapons—such as JASSM and JSOW—will increase the lethality and survivability of the force and complicate an adversary's defensive considerations.

Australia's continued commitment to the acquisition of the Boeing P-8A Poseidon to replace the AP-3C Orion will also enhance the RAAF's anti-submarine warfare (ASW) and anti-surface warfare (ASuW) capabilities. With its enhanced sensors and weapons, and with support from the KC-30A air-to-air refueller, the P-8A will provide long-range, long-endurance ASW and ASuW across Australia's vast maritime area of interest.

The P-8A's maritime ISR role is being analysed with the intention of sharing the workload with an unmanned system that will undertake broad area maritime surveillance and fleet overwatch. Satellite systems and the Jindalee Operational Radar Network (JORN) will complement this combination of manned and unmanned platforms. This combined ISR capability will provide a comprehensive air and maritime surveillance system.

Air Force's contribution to land and Special Forces operations is usually understood to be supplied by its air mobility fleet consisting of the C-17, C-130J and KC-30A. In the future, 10 C-27J will be acquired, the CH-47F will replace the CH-47D, and the Blackhawk will be replaced by the MRH-90—changes that will significantly boost the ADF's tactical and heavy airlift capability. Additionally, the ISR capabilities of the E-7, P-8A and unmanned ISR platforms will contribute to improved situational awareness of these forces. The White Paper also mentions that Defence will 'investigate the expansion of the role of unmanned systems to include interdiction and close air support', a possible addition to the strike capabilities provided by the F/A-18 fleet and the F-35A.

Other ISR capabilities discussed in the White Paper include the continued development of JORN, satellite systems, and some further significant steps into space situational awareness capability. These steps include the relocation of a currently US-based C-band space object detection and tracking radar and a highly advanced optical space surveillance telescope from the US to Western Australia.

The White Paper recognises that cyber capabilities 'have continued their evolution toward being military capabilities of real value'. The establishment of a new Australian Cyber Security Centre will boost Australia's ability to protect networks against cyber attacks. The Department of Defence will play a principal role in

ensuring cyber security along with the best cyber security experts from a variety of other government departments along with State, Territory, industry and international partners.



The Boeing P8-A Poseidon will replace the AP-3C Orion and provide increased ISR capability to the ADF.

(Source - Boeing)

From a historical perspective, the 2013 White Paper demonstrates the advances that air power has made in Australian national security thinking over the past 93 years. In 1920, the question being asked was whether a new service should be formed to field Australia's air power, or whether air power should remain purely an adjunct to the Navy and Army to augment their capabilities with specialised development within each. The 2013 White Paper clearly indicates that the Air Force is the primary repository of Australian air power, although both the Navy and the Army field organic air power elements. In less than 100 years, air power has transitioned from being a support element that enhanced traditional military forces to an indispensable element of national power, and an essential service in its own right. Since airpower is common to all three services, it is a critical component of joint force interoperability, integration, and the delivery of joint effects.

Key Points

- The 2013 Defence White Paper provides strategic direction to the ADF
- The RAAF's capabilities will be enhanced by the commitment to the acquisition of improved systems
- Air power is now an indispensable element of national power



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