The maritime environment has long been at the core of Australia’s security strategy. Trade and continued access to the global maritime commons continue to be fundamental to Australia’s prosperity. Australia’s ability to function as a maritime trading nation is underpinned by the use of the oceans and airways surrounding its shores as reliable means of engaging with neighbours and trading partners. Security and stability of the maritime environment therefore lies at the heart of Australia’s maritime security strategy. The ADF’s maritime strategy is predicated on influencing and shaping the environment where national interests lie, providing a deterrent to any action against Australia, and then if absolutely necessary, defeating any adversary that attacks or threats Australia and/or its interests.

Air power has long contributed to security in Australia’s geo-strategic environment through the RAAF’s maritime surveillance and strike capability. From the Sunderland and Catalina flying boat operations during World War II, through to Cold War patrols by P-2V Neptunes and AP-3C Orions, the Air Force has demonstrated its ability to secure Australian interests in the maritime environment. The AP-3C continues this tradition to the present day with its recently completed, decade-long operations in the Middle East, and its longstanding commitment to border security across Australia’s northern approaches. However, while the AP-3C is still a highly capable platform, it is nearing the end of its service life and despite a number of life-of-type extensions and mission system upgrades, the ability to expand its operational capabilities will have culminated by the end of this decade.

Australia’s approach to replace the capability provided by the AP-3C represents a shift from traditional type-for-type replacement. In an effects-based approach to acquisition, the maritime patrol function will now be split between manned and remotely-piloted platforms. The Australian Government’s announcement of the P-8A Poseidon as the manned platform replacement for the AP-3C ensures Australia’s continued ability to maintain a responsive maritime patrol and overwater Intelligence, Surveillance and Reconnaissance (ISR) and response capability. Under Phase 2B of Project Air 7000, Australia will acquire (subject to approval) sufficient numbers of P-8As as the manned platform element.

The P-8A Poseidon, recently introduced into service with the United States Navy, is based on a Boeing 737-800 airframe, but with significantly greater structural integrity to enable the low-level operations required of a maritime patrol aircraft. The P-8A is fitted with the larger 737-900 Extended Range wings to increase performance and fuel capacity. The P-8A has a ferry range of over 4000 nautical miles on internal fuel, or an ability to stay on-station for over four hours at a range of over 1200 nautical miles from base, placing its operational reach well into the Pacific, Indian or Southern Oceans.

Like the E-7A Wedgetail Airborne Early Warning and Control platform, the P-8A can carry out air-to-air refuelling from Australia’s KC-30A Multi-Role Tankers Transport, which increases its range and endurance. This
Air-to-air refuelling function extends its area of influence, providing greater force protection coverage for maritime elements such as a Surface Action Group or Amphibious Task Force.

The P-8A will be capable of performing the full range of missions currently undertaken by the AP-3C, though, as with almost all new capabilities, the way missions are conducted may differ from the previous platform. The performance of the P-8A and its advanced sensor suite enables the conduct of some operations at higher altitudes than typically conducted by the AP-3C. The P-8A will be able to take advantage of this capability to maximise its mission performance and endurance. Additionally, higher altitudes increase the range of the sensors, enhancing the radar and other sensor coverage that the P-8A can achieve.

But the P-8A is not just a high-altitude capability. When weather or operational conditions require, the P-8A can operate efficiently at low-level, just like the AP-3C. Its design, handling characteristics, systems and performance, enable it to exceed many of the operational capabilities of the AP-3C.

The P-8A can carry over 20 000 pounds of weapons including torpedoes and standoff anti-ship weapons across its internal weapons bay and on wing-mounted hard points. This creates deterrence and affords protection to Australian maritime elements while posing a threat to an adversary’s naval capabilities. Its weapons, advanced sensors, processors and networking capability add teeth to Australia’s maritime security strategy.

Submarines continue to proliferate across Australia’s area of interest, creating an increased level of risk to Australia’s trade routes and pose a threat to its naval combat elements. The P-8A’s acoustic system, with new generation sonobuoys, enhanced buoy accuracy through GPS, improved algorithms and reduced signal losses will significantly increase Australia’s ability to detect, localise, track and, if required, attack submarines. The P-8A does not come with the magnetic anomaly detector carried on many legacy maritime platforms, however, the addition of multi-static acoustic sonobuoys and an advanced acoustic processor results in ASW performance far exceeding those of its predecessors.

As identified in the ‘Australia in the Asian Century’ White Paper, the Indian Ocean and Asia-Pacific regions will continue to be an area dominated by international shipping. In addition, the increasing maritime capabilities of regional nations will see more military activity than ever before in the same area. Australia’s maritime strategy is predicated on security and stability across this area of interest and the P-8A will continue the traditions of the AP-3C and its predecessors in contributing to the security of the maritime commons through it patrol and surveillance operations.

Manned maritime platforms provide a significant degree of flexibility and responsiveness. However, the increased persistence available through remotely piloted aircraft will be leveraged in Australia’s next generation maritime capability. Under Air 7000 Phase 1B, a Multi-mission Unmanned Aircraft System will be acquired for long endurance, persistent maritime ISR to compliment the P-8A operations.

No-one can accurately predict the future, but the P-8A Poseidon will provide Australia with the ability to grow its maritime ISR, anti-ship warfare, anti-submarine warfare and search and rescue capabilities to meet the security challenges of the future in the maritime environment.

Key Points

- The air power effects delivered through airborne maritime ISR and response have long underpinned Australia’s maritime strategy.
- The acquisition of the P-8A Poseidon as the manned platform for the AP-3C replacement provides the growth potential to meet future maritime ISR and response needs to support Australia’s maritime strategy.
- The P-8A will operate across the full range of missions currently undertaken by the AP-3C and, in many cases, exceed those capabilities of its predecessor, and will be complimented in the future by a multi-mission unmanned air system.