The composition of this event speaks eloquently about the nature of the security challenges facing Australia and the ADF as we approach the third decade of the 21st century. Increasingly, modern military forces are required to conduct so-called ‘whole-of-government’ operations across a broad spectrum of contingencies. And, in this era of fiscal austerity, any military force which aspires to maintain its technological edge must enjoy a close, indeed a seamless, relationship with its business partners through shared research, development and experimentation.

Likewise, the presence of all three Australian Service Chiefs at this conference sends a clear message about how the ADF perceives its role in the future operating environment. It makes it clear that the ADF regards professional mastery of joint warfare as its primary mission. And, today, that implies delivering joint effects across the traditional land, sea and air domains, as well as the emerging realms of cyber and space.

These days, it is customary to adopt the expanded definition of the ‘global commons’, which embraces the domains of cyber and space. So when I employ that term, as I inevitably must in a forum such as this, please understand that I am using it in that expanded. However, in the interests of simplicity, I will simply refer to the global commons. This reflects the current lexicon of multi-domain warfighting. And these concepts must inform our force structure and doctrinal settings in the future.

Our extant strategic guidance directs the ADF to implement a maritime strategy in the defence of Australia and our wider interests, whether in our immediate region or further afield. Of course, the ADF is keenly awaiting the release of the next White Paper, which I expect will broadly reaffirm that commitment to a maritime strategy. Accordingly, the ADF will continue to develop capabilities which enable us to conduct decisive joint operations in the approaches to Australia. From such capable joint forces, we must be able to configure tailored task forces to conduct other military operations, including humanitarian aid and disaster relief.

My confidence that there will be such continuity in our grand strategic guidance is based on an examination of our history as a nation. Even before we articulated a coherent maritime strategy, we consistently implemented a pattern of strategic practice which conformed to the tenets of classic maritime strategy as expounded by Sir Julian Corbett.2 Australian strategic policy has always been shaped by our national culture, heritage and values, as well as our geography. While we must adapt to changes in the global political system, our history and our geography will continue to strongly influence our choices. As former Prime Minister John Howard has noted, we do not need to choose between our history and our geography.3 They operate together to shape our strategy. His main protagonist, former Prime Minister Paul Keating, framed our strategic dilemma slightly differently when he stated that Australia needed to seek its security ‘in Asia, not from Asia’.4 I believe that our current strategic practice neatly fuses both those views.

If this sounds a bit academic, be assured that our national leaders have always implicitly understood the irreducible conditions for Australian security. None of them needed a PhD in International Relations to conclude that as an island trading nation, Australia’s very survival depended on unfettered access to the global commons for our security and prosperity.

Recently, I read an excellent research paper by Professor Ross Babbage, prepared for the Menzies Research Centre, in which he made this very point. From our origins as a settler society, we have...
always assumed that we alone simply cannot defend our homeland nor secure our wider interests. Initially, we contributed to Imperial defence by dispatching small force elements to British colonial wars. The Maori Wars, the Sudan and the Boer War all conformed to this paradigm. Significantly, this pattern was well established even before we achieved nationhood.

As the global balance of power shifted, we then supported the US in the maintenance of a liberal, rule-based global order. From the end of the Vietnam War until today, we have continued to seek security through the ANZUS alliance and numerous other partnerships. However, we also aspire to a significant degree of self-reliance in being capable of defeating any credible threat to our territory.

The unifying theme in our quest for security and prosperity has been our tendency to collaborate with the dominant liberal democratic maritime power of the day. In particular, we have been reliant on the maritime power of Great Britain and the US to guarantee freedom of navigation and good order at sea. And, in the post-colonial era, we have developed vital security relationships with our neighbours in the South Pacific and Southeast Asia.

The end of the Cold War coincided with—if indeed it did not cause—the phenomenon we loosely refer to as 'globalisation'. Again, I like Thomas Friederman's remark that 'globalisation means stuff happens much faster than ever before'. The unprecedented speed with which goods and information circulate has also reduced the tyranny of distance. Marshall McLuhan’s 'global village' is now a reality. The interconnected world has made us even more reliant on alliances and coalitions to meet transnational security challenges. To paraphrase the metaphysical poet John Donne, 'no island is really an island any more'.

Technology has compressed time and space to a degree that was simply unimaginable when I commenced my career. Fortunately, the very same forces which compress time and space—and which make the security environment so dynamic—also assist us in the gathering and sharing of information with our partners. It has also enhanced the reach, speed and precision with which we can project military power. In addition to our collaboration with friends and allies to preserve our access to the global commons, Australia has traditionally sought to secure a technological edge to achieve a multiplier effect. We have never been able to rely on mass, especially in the scale of our land forces.

Australia faces a disruptive, fluid and dynamic environment which presents complex challenges. I now will describe how Air Force conceives the geostrategic context in which we will be required to provide air and space power. I then will describe our transformation vision, with a particular emphasis on how it will affect our ability to operate with the Navy. Of course, that inevitably includes how we deliver joint effects with the Army, especially those elements embarked aboard the Navy’s newest ships.

The entry into service of the Canberra-class vessels, and the initial certification of the Amphibious Ready Element, is of profound importance. It represents a level of sophistication in our ability to conduct joint amphibious operations in our region which we have not possessed since the famed Oboe landings towards the end of the Pacific War. Until recently, each of our individual Services was probably more comfortable and proficient at operating tactically with its allied counterpart than its Australian sister Services.

All of this was supposed to change after the 1976 White Paper, which called for greater self-reliance in defence of our sovereign territory and regional interests. But truly joint capabilities were never adequately funded until the recent era. That was one adverse and unintended consequence of regularly providing niche contributions to allied coalitions. However, since the crisis in East Timor in 1999, I believe that we have become a truly contemporary joint force, both in structure and—even more importantly—in culture and mindset. Both our strategic guidance and the evolving nature of the global system demand that we become seamlessly joint and capable of multi-domain operations.

We do live in interesting times. The state system established in the wake of the Ottoman Empire in the Middle East is fragmenting. The stability provided by autocratic states like Iraq, Libya and
Syria has collapsed. In the wake of civil war and state failure, we have witnessed sectarian violence, genocide and massive refugee flows. That is why the Syrian civil war is our business. Both humanitarian doctrines of ‘responsibility to protect’ and realist requirements for stability demand a response from the West. Australia continues to support coalition operations against Islamic State, which seems likely to be a sustained commitment.

Whereas state failure and sectarian violence are the main sources of conflict in the Middle East, it is the relative strength of states that contributes to potential conflict in the Indo-Pacific region. Many strategic analysts have concluded that heightened competition between nation states in both Northeast Asia and the South China Sea constitutes the greatest risk to peace in this region since the end of the Cold War. Those strategic thinkers, like Martin van Creveld and Mary Kaldor, who so confidently predicted the end of conventional state-on-state warfare at the end of the Cold War spoke prematurely.\textsuperscript{11} Nor have we seen an ‘end to history’ as predicted by Francis Fukuyama.\textsuperscript{12}

After more than a decade of counterinsurgency, hybrid war and nation-building operations, we have received a timely reminder that the risk of conventional war between nations remains the ultimate risk for which responsible planners must prepare. High-end warfighting continues to provide the primary rationale for the existence of the ADF—and it must shape our force structure and inform our doctrine. Indeed, our strategic circumstances have been radically altered by globalisation in both its technological and geopolitical manifestations.

Yet we must also be capable of responding to natural disasters and climate events at the request of our neighbours. There were over 180 calls for assistance in response to catastrophic natural events in the Asia-Pacific alone in the past two years. We were the force of first resort for our Government. Moreover, we responded to these contingencies with forces capable of high-end warfighting.

Whereas during the Cold War our location made us a strategic backwater, today we are located at the very epicentre of geopolitical rivalry over hegemony in the Indo-Pacific region. According to Ross Babbage, Australia is both a ‘hinge’ and an ‘anchor’ in a pivotal region at a decisive moment in history.\textsuperscript{13} The Indo-Pacific region is the scene of increased great-power rivalry. We have a direct interest in contributing to peace and stability in our own front yard.

Such a complex, dynamic strategic environment also demands robust security partnerships. It also requires Australia to maintain balanced joint forces. That is because no single Service or capability provides a ‘silver bullet’ solution. However, we must develop agile, conventional forces capable of operating across all domains and surviving in a fiercely-contested cyber space. In such an environment, any credible adversary will seek to deny our use of our space assets and blind the sophisticated sensors and communications systems on which we rely to fight.

As a professional, I will let others decide whether the very nature of war is changing or whether, as Clausewitz told us, the nature of war is constant but is also a true chameleon which adapts to the complexion of its social and political context.\textsuperscript{14} If you accept that premise, then the proliferation of sensors and information will inevitably define the character of war.

That is why Air Force believes that 5\textsuperscript{th} generation technology will have a transformative impact on warfare and military forces. In the past, air power theorists have been prone to overestimate the effect of technological advances on war. Many of us lived through a number of so-called ‘Revolutions in Military Affairs’ over the course of our careers.\textsuperscript{15} I may be accused of engaging in panacea thinking or technological determinism in making the case for 5\textsuperscript{th} generation transformation. But I passionately believe that its advent is a game changer for the ADF, providing we harness it properly.

I am encouraged by the similarities between Navy’s Plan PELORUS and Army’s Plan BEERSHEBA.\textsuperscript{16} We have all arrived at similar conclusions about the demands of the modern battle-space. All of our responses are predicated on harnessing information, sharing a common operational picture and seamlessly linking sensors and shooters across all domains. The challenge now is to ensure that all our transformation visions are compatible with one another.
Let me make it really clear that Air Force’s 5th generation capability is neither synonymous with nor confined to the Joint Strike Fighter. The introduction of the Joint Strike Fighter has provided the catalyst for our transformation. But it is the proliferation of sensors across our entire fleet of manned and unmanned systems that will define the 5th generation-enabled Air Force.

Our transformation vision was derived from recognition of that reality. We realised that it would be folly to operate the most sophisticated fleet of manned and unmanned systems in our history if they were unable to share information with one another. By extension, we then recognised that we needed to achieve greater synergies with Army and Navy. It seems incredibly obvious but we have not always done it. Plan JERICHO was named after a famous air raid to break down the walls of a Nazi prison camp. As the name implies, we are looking at ways to break down stovepipes. The desired end-state is to create a ‘system of systems’. This time we are determined to make the reality match the rhetoric.

In conclusion, I want to focus on two areas which are likely to be of keen interest to Navy. We are striving to enhance Air Force’s maritime operations capability and to develop an integrated fire control capability. Most of the military commitments this century have been comprised of land-centric operations against hybrid/unconventional enemies. We have predominantly employed air power in its tactical roles of close air support and air mobility.

The demands of such operations inevitably eroded some of our conventional warfighting skills. And we neglected thinking about employing air power to strategic effect. In particular, some attrition of our maritime strike and sub-surface warfare skills occurred. We have been urgently remediating this capability since the return of our Orion P-3C maritime patrol aircraft from operations in the Persian Gulf three years ago.

However, the introduction of new platforms—including the F35 Joint Strike Fighter, the P-8A Poseidon maritime surveillance aircraft, and various unmanned aerial systems—will enhance our ability to share a common operational picture across our deployed joint force, especially in the maritime domain. Through Plan JERICHO, we aim to enhance joint air and maritime operations, such as maritime surveillance, maritime strike, and under-sea warfare, as well as protection of the Amphibious Task Group.

A key element of this will be our pervasive ISR (intelligence, surveillance and reconnaissance) capability and our access to space assets, which will create and share the common operating picture in real time. We must develop redundancy in these systems through our regional partnerships, and develop the resilience of our networks, as well as train to operate without them in a worst-case scenario. We must also ensure Air Force capabilities can provide the communications gateways or relays necessary for the surface groups to retain information control in contested, denied-operating environments.

In addition to technology, we need to develop truly joint doctrine and the associated tactics, techniques and procedures. The Air Warfare Centre, being established in January 2016, will develop and deliver joint education and training for operators, planners and commanders to develop their professional mastery of anti-subsurface warfare, maritime strike and amphibious operations.

Plan JERICHO is as much about culture as it is about technology. I know Navy and Army believe this also. Ultimately, it is people who must make judgments and respond to the challenges of a rapidly-changing environment. In that regard, I wish to place on record how impressed I have been at the response to our 5th generation transformation process from our joint partners. We have already conducted significant joint experiments with them, with more being planned. The pace of our transformation will ultimately be dictated by Government funding. For that reason, I look forward to the release of the White Paper and fiscal measures contained in the next budget.

For the ADF’s part, we must continue to be consultative and collaborative to ensure that each of our capability and platform decisions contributes to joint capability. And let me stress that I am very comfortable with the vector set by the Vice Chief of the Defence Force and my fellow Service Chiefs in that respect. Furthermore, I am optimistic that the ‘First Principles Review’ will also
help us to remove stovepipes in the way we plan force structures and procure major platforms. We must do this in a more cooperative manner from the earliest stages and involve industry in our deliberations as early as possible. The era of wasteful ‘orphan’ capabilities or enablers that cannot communicate with their joint equivalents must be consigned to history.

Air Marshal Leo Davies joined the RAAF as a cadet Navigator in 1979 and graduated to fly P-3B and P-3C Orion aircraft with No 11 Squadron at Edinburgh in South Australia. In 1987, Air Marshal Davies completed pilot training and, after completing a F-111 conversion course, was posted in 1988 to No 1 Squadron at RAAF Base Amberley.

In 1990, Air Marshal Davies was posted to Cannon Air Force Base, New Mexico, to fly F-111D on exchange with the US Air Force. On return to Australia in 1993, he was posted to No 1 Squadron as the Operations Flight Commander, followed by one year as Operations Officer at Headquarters No 82 Wing. After a posting in 1997 and 1998 as the Executive Officer at No 1 Squadron, Air Marshal Davies completed RAAF Command and Staff Course. In 2000, he commenced two years in Capability Systems within Defence Headquarters.

In 2002 and 2003, Air Marshal Davies’ long association with No 1 Squadron was again rekindled when he returned as Commanding Officer. He was the Staff Officer to the Chief of Air Force during 2004, before taking up the post of Officer Commanding No 82 Wing at RAAF Base Amberley. Air Marshal Davies worked as Director Combat Capability within Air Force Headquarters in 2006 and 2007, during which time he was deployed to the Middle East to work in the Combined Air Operations Centre.

Between 2008 and 2010, Air Marshal Davies was the Director General Capability Planning within Air Force Headquarters. He was then posted to Washington as the Air Attaché. Air Marshal Davies returned to Australia in January 2012 to take up his appointment as Deputy Chief of Air Force. He was promoted to Air Marshal and appointed Chief of Air Force in July 2015.

Notes
1 This is an edited version of an address to the RAN’s ‘Sea Power Conference’, held in Sydney from 6-8 October 2015. The original version is available at <http://airpower.airforce.gov.au/UploadedFiles/General/2015.06OCT_SeaPowerConference.pdf> accessed 29 February 2016.


9. Operation OBOE was a series of allied operations aimed at liberating the then Netherlands East Indies and Borneo in 1945: see, for example, the Australian War Memorial’s description at <https://www.awm.gov.au/exhibitions/alliesinadversity/australia/oboe/> accessed 29 February 2016.


11. See, for example Martin van Creveld, ‘Modern Conventional Warfare: an overview’, discussion paper, 2004, available at <http://indianstrategicknowledgeonline.com/web/MODERN%20CONVENTIONAL%20WARFARE%20AN%20OVERVIEW%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%2