

ADM DEFENCE WEEK PREMIUM EDITION

AUSTRALIAN DEFENCE MAGAZINE
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Avalon 2019 is the largest airshow in the southern hemisphere.

AIA

Avalon 2019 kicks off

Nigel Pittaway | Avalon

The 2019 Australian International Airshow kicked off at Avalon on Tuesday, with 699 exhibitors from 30 nations in attendance, according to chief executive Ian Honnery.

Avalon 2019 is the largest airshow in the southern hemisphere and one of the top five in the world. This year, organisers expect a record 347 aircraft to participate, combined with an additional 600 visiting aircraft. Highlights in the air include the first full display by a RAAF F-35A Lightning II Joint Strike Fighter in Australia and the first visit by a Kawasaki Heavy Industries (KHI) C-2 transport aircraft from the Japan Air Self Defense Force (JASDF).

A wide range of ADF airpower is also on display in the air and on the ground, including RAAF F/A-18A/B Hornets, EA-18G Growlers, a P-8A Poseidon, C-27J Spartan, MH-60R Seahawk and Tiger Armed Reconnaissance Helicopters (ARH).

On the opening trade day of the Avalon 2019, Australian SME Sypaq announced it had won seed funding to further develop its Corvo X Small Unmanned

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Aerial Systems (SUAS) capability, under Land 129 Phase 4B. Corvo X was originally one of three platforms selected in April 2018 for a Phase 1 Concept Exploration through the Innovation Hub's 'Special Notice' request for a man-portable SUAS.

Corvo X will be further developed ahead of a capability demonstration to Army in the first half of 2019.

"Through a Defence Innovation Hub Special Notice, we have had access to opportunities not typically available to SME businesses, including direct collaboration between innovators and end-users. This has allowed us to continue the

development of Corvo X with confidence that we understand the capability needs of Army, both now and into the future," Sydaq CEO Amanda Holt said.

"Army has been a fantastic partner throughout this process, and the result is a system that pushes the boundaries from a technology and soldier integration perspective."

On the second day of Avalon 2019, Boeing unveiled its Airpower Teaming System unmanned aircraft (known as Loyal Wingman), which has been designed in Australia in partnership with the RAAF.

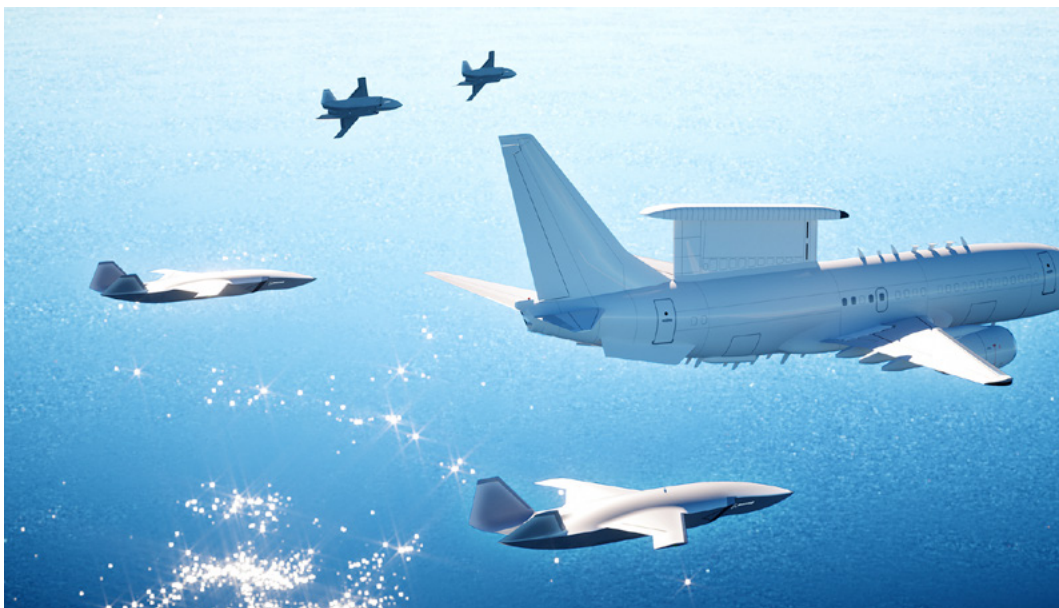
Three prototypes of the 'Loyal Wingman' will be constructed in Australia under Defence Project 6014 Phase 1 (Loyal Wingman – Advanced Development Program), representing the largest ever Boeing investment in an unmanned system outside the US.

Defence Minister Christopher Pyne said that the government would contribute \$40 million to the development program, which is expected to realise significant export opportunities among the 'Five Eyes' nations.

"This is the first (military) aircraft concept that Australia has invested in since the Boomerang in 1942 to 1945, so it is a red-letter day," Minister Pyne said.

A full report from Avalon 2019 will appear in the April issue of *ADM*.

**"This is the first
(military) aircraft
concept that
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invested in since the
Boomerang in 1942"**



A concept image of Boeing's Loyal Wingman platform in flight.

BOEING

Teaming and collaboration a key theme at Avalon

Katherine Ziesing | Canberra

A number of companies, universities, government agencies and think tanks took the chance at Avalon to announce teaming and partnering arrangements.

“Team Reaper Australia has expanded its ranks”

Leonardo and Northrop Grumman Australia have signed a Memorandum of Understanding (MoU) to partner on C-27J through life support services in NZ. Under the memorandum, Leonardo, manufacturer of the C-27J Spartan tactical airlifter, and Northrop Grumman Australia will jointly bid the incoming Future Air Mobility Capability (FAMC) Program of the Royal NZ Air Force (RNZAF). The parties will use their existing relationship to offer the C-27J to NZ as a replacement for the aging C-130H fleet.

Cobham Aviation Services Australia and Acacia Systems are exploring opportunities to export globally its advanced mission management systems (MMS) for surveillance aircraft. Cobham most recently collaborated with Acacia Systems on the delivery of four search-and-rescue Challenger-aircraft for the Australian Maritime Safety Authority (AMSA). Acacia supplied state-of-the-art mission management systems software for the aircraft that Cobham modified, integrated and now operates on behalf of AMSA under a 12-year \$640 million contract. Cobham will again work with Acacia as it prepares to retender of its current Australian Border Force aerial surveillance contract.

Building on the teaming arrangements announced at the previous Avalon Air Show, Team Reaper Australia has expanded its ranks too:

- Cobham Aviation Services Australia – Maintenance, Repair and Overhaul (MRO), logistics



Airbus Australia Pacific Board Chairman, Matthieu Louvot; Airbus Australia Pacific Managing Director Andrew Mathewson; NZ Chief of Air Force, Air Vice Marshal Andrew Clark; and Airbus Senior Program Manager NZ Operations, Geoff Blake. AIRBUS

- CAE Australia – RPA training devices, training services, support material and courseware
- Airspeed – Sovereign payload pods and in-country composite repairs
- Flight Data Systems – Aviation services and products, including environmental testing of line-replaceable units, flight data acquisition, monitoring and analysis
- Raytheon Australia – Electro-Optical/Infrared image systems and integration of payloads and weapons
- Collins Aerospace – Fast Attack (FastAK) Network Joint Fires on Rosetta Data Link Processor Gateway for Digital Joint Fires
- Quickstep Technologies – Composite component manufacturing
- Sentient Vision Systems – Autonomous detection systems, including all environmental ViDAR Wide Area Motion Imagery
- TAE Aerospace – Honeywell TPE331 Engine MRO and other power plant-related component manufacturing
- Ultra Electronics Australia – Electronic Warfare (EW) payloads

PAL Aerospace and Air Affairs Australia have confirmed a strategic partnership between the two companies for the provision of special mission aircraft and support services within Australia and the South Pacific. The announcement follows an MoU signed by the two companies in 2018 to support the pursuit of special mission opportunities in maritime patrol and defence based activities in the region.

Wellington Shire Council has announced partnerships with RAAF Air Academy and Federation Training that will ensure West Sale Airport is a leader in aviation and the facility is ripe for further investment.

The Council's imminent completion of the \$6 million runway extension and lighting upgrade will bring the facility up to the standard required for RAAF Air Academy to use the facilities as part of the new Pilot Training System.

The peak French Government scientific research organisation, CNRS (National Centre for Scientific Research) and Naval Group, have signed a Letter of Intent with Flinders University, the University of Adelaide, and the University of SA to develop a proposal to base what would be one of only five industry-linked CNRS international joint laboratories in the world, in Adelaide.

Lockheed Martin Australia has established a formal relationship with Clearbox Systems to assist the small, but highly innovative high-tech company, to successfully compete for future prime and subcontractor contracts in both local and global supply chains.

The Mentor-Protégé relationship, being overseen by Lockheed Martin Australia's Office of Australian Industrial Participation, is based on a highly successful US program where Lockheed Martin will act as a Mentor to Clearbox Systems to provide dedicated assistance and market advice to open opportunities for technology transfer, innovation and local skilled jobs.

Nova Systems will be supporting Leidos Australia to deliver the \$500 million Joint Project 2096 Phase 1. Nova Systems has been selected as a key subcontractor to provide a systems training solution and verification and validation services.



The expanded coverage towards Antarctica means that Triton will represent a unique whole-of-government capability. ALEX EVERS

Seventh Triton still on the table

Ewen Levick | Avalon

One of RAAF's most significant unmanned acquisitions over the last year is the MQ-4C Triton. At the time of the announcement, [ADM understood](#) that the option for a seventh option had not yet been taken off the table, and was able to confirm this with representatives from RAAF and Northrop Grumman at this year's Avalon Airshow.

"We've committed to six, but we'll be looking at attrition aircraft"

The six aircraft will be based at RAAF Edinburgh in SA and RAAF Tindal in WA to undertake maritime surveillance operations – cruising at 310 knots for up to 24 hours at 46,000 feet, 11,000 kilometres from home, with a 400 kilometre sensor range. According to GPCPT Jason Lind, Director of ISR, EW and Space for RAAF, the platform is also defined by ability to plug into other 5th Gen platforms: "It's the networking we're interested in – using the combat cloud to improve our decision superiority."

As part of the acquisition, Australia is entering into a \$200 million cooperative program with the US Navy to develop, produce, and sustain the Triton: an approach that requires RAAF to take on a degree of risk in exchange for a limited ability to tailor the program towards unique Australian requirements.

"The Cooperative Program is different to an FMS in that we're a partner," GPCPT Martin Nussio, Director ISR for CASG, explained. "In this case, the decision [to enter a cooperative program] was to do with where Triton is at in its development cycle. That means we share risk, but also share reward."

"It's genuinely a cooperative partnership."

The option for a seventh Triton is under consideration as an attrition aircraft, although a decision on further platforms awaits the next White Paper.

"We've committed to six, but we'll be looking at attrition aircraft," GPCPT Lind

said. "If another White Paper were to come out then maybe it would be a different decision, but for now it is six with the attrition aircraft question down the track. That's the government's prerogative."

The reason for the split between RAAF Edinburgh and RAAF Tindal, GPCPT Lind explained, was that Defence intended to use the aircraft to fly further south than previously possible.

"This is an asset that can go down to Heard Island and Antarctica – places we haven't been able to reach before," GPCPT Lind said. "We've got flexibility with this aircraft flying phenomenal distances. Certainly down in Edinburgh we'll be going south."

The expanded coverage towards Antarctica is one reason why Triton will represent a unique whole-of-government capability, with data from the platform theoretically accessible to other departments, such as the Antarctic Division and the Australian Fisheries Management Authority, in 'near real-time'.

"We're not doing this for ourselves," GPCPT Lind said. "We should be sharing our info as quickly as possible and to whom needs it in government."

Avalon 2019 Innovation award winners announced

Katherine Ziesing | Canberra

The Avalon 2019 Innovation Awards and Pitchfest prizes were presented on Wednesday 27 February in a ceremony at the Avalon 2019 Theatrette.

The winners are:

- National Civil Innovation Award: [InnovAero](#) (WA)
- National Defence Innovation Award: [Defence Innovations](#) (VIC)
- Defence SME Innovation Grant (\$15,000): [Cryoclock](#) (SA)
- Young Civil Innovator Award (\$15,000): Graham Bell, Monash University & NextAero (VIC)



A full-scale model of Boeing's X-47B unmanned aircraft on show at Avalon.

NIGEL PITTAWAY



The host of winners from the Innovation Awards include technologies ranging from aerial camera systems to non-destructive testing.
AVALON 2019

- Young Defence Innovator Award (\$15,000): Jimmy Toton, RMIT University and [DMTC Limited](#) (VIC)
- Innovation Award for Space Operations and Technology: [Inovor Technologies](#) (SA)
- Innovation Award for Autonomous and Unmanned Systems and ISR: Cryoclock
- Innovation Award for Training: [Toll Helicopters ACE Training Centre](#)
- Innovation Award for Aeronautics and Counter-Drone Systems: InnovAero Aerospace Australia Limited, organiser of the Avalon International Air Show and Aerospace and Defence Exposition, created the Innovation Awards program to recognise the culture of innovation in the aviation industry.

Partnering with the awards, the Innovation Pitchfest is organised by the Defence Science Institute at the University of Melbourne and includes a number of emerging technologies and innovative ideas that aim to improve the wider aviation community.

The first Innovation Awards were presented six years ago at Avalon 2013 and since then some \$350,000-worth of SME Innovation Grants and Young Innovator Awards have been presented.

Full details of all the winners and their respective winning entries plus a list of other highly commended entries can be found [here](#).

MOST READ ONLINE AT WWW.AUSTRALIANDEFENCE.COM.AU



1. [AWD helicopter upgrades are underway](#)
2. [Australia's Economic Security: Is there a problem?](#)
3. [Avalon Airshow ministerial announcements in overdrive](#)
4. [Holmwood to show prototype to US Army](#)
5. [Attack-class framework agreement signed](#)

RAN helicopters re-join Exercise Joint Warrior

Julian Kerr | Sydney

Two RAN MH-60R naval combat helicopters are to take part in April in the multi-national exercise Joint Warrior 2019, the maritime element of which will be focused in the offshore and coastal waters to the north east, north and north west of Scotland.

Captain Grant O'Loughlan, deputy commander of the RAN's Fleet Air Arm, told *ADM* the MH-60Rs from 816 Squadron RAN along with aircrew and support personnel would be flown to the UK by RAAF C-17A Globemaster III strategic airlifters and spend about three weeks participating in the exercise.

The first international deployment of RAN MH-60Rs was to Exercise Joint Warrior 2018, where two of the type participated in high-end anti-submarine scenarios off the coast of Scotland pairing with UK Royal Navy Merlin helicopters.

The forthcoming deployment would hopefully be followed by annual exercises with European navies to hone with diverse submarine types the anti-submarine

skills of the RAN's 24-strong MH-60R fleet, CAPT O'Loughlan said.

The deployment follows news that modifications are [well underway](#) to improve HMAS *Hobart*'s capacity to store Mk54 torpedoes and AGM-114N Hellfire missiles for the Air Warfare Destroyer's MH-60R.

HMAS *Hobart* has previously been able to deploy with the MH-60R together with Mk54s and Hellfires, but not with the full combat load.

“The forthcoming deployment would hopefully be followed by annual exercises with European navies”



Leading Seaman Aircrewman Michael Sales surveys the coast from HMAS *Parramatta*'s embarked MH-60R helicopter over the Whitsunday Islands.

Space Agency formalises relationship with Lockheed Martin

The official signing of the Lockheed Martin Statement of Strategic Intent and Cooperation with the Australian Space Agency occurred at the Australian Space Industry Conference 2019, held in Melbourne as part of a dedicated space industry sector program at the 2019 Avalon Air Show.

“The Australian Space Agency is committed to open, transparent and significant engagement with industry”

At the heart of the relationship is investment in space systems and services, technological capabilities, and STEM education initiatives.

Rod Drury, Managing Director Australia and NZ for Lockheed Martin Space, said the agreement highlighted Lockheed Martin Australia’s commitment to investing in partnerships with Australia’s research and industry communities while providing opportunities for technology transfer, innovation, local skilled jobs and sustainable business growth.

“As the world’s largest space business, Lockheed Martin is proud to partner with the researchers and entrepreneurs responsible for the innovative technologies driving the development of Australia’s space sector,” Drury said. “The relationship with the Australian Space Agency further underscores our ongoing commitment to supporting the development of this exciting sector, which is rapidly emerging as a key enabler of Australia’s national security interests and the economy as a whole.”

Lockheed Martin has invested in a joint research and development partnership with Curtin University to investigate the potential for commercialising of its Desert Fireball Network as a Space Situational Awareness (SSA) capability, and the ongoing development of Australia’s Satellite-Based Augmentation Services (SBAS) test-bed network, expanding the capacity underpinning Australia’s SSA,



Rod Drury, Managing Director Australia and NZ Lockheed Martin Space (left) and Anthony Murfett, Acting Head Australian Space Agency mark the official signing.

CIVIC REPUTATION

Position Navigation and Timing ecosystem.

The Australian Space Agency's priorities in space include communication, operations and ground stations; position, navigation and timing; space situational awareness; research and development; earth observation; and remote asset management in space and on earth.

"The Australian Space Agency is committed to open, transparent and significant engagement with industry," Agency head Dr Megan Clark said.

"We welcome Lockheed Martin Australia's continued support to grow the space sector in Australia and for its broad engagement with the Australian economy."

PEOPLE ON THE MOVE

Andrew Mathewson has been appointed as Airbus Australia Pacific Managing Director, replacing new CASG chief Tony Fraser.

Following the first meeting of the Space Industry Association's (SIAA) Board of Directors the 2019 SIAA office holders have been announced: Chair Rod Drury, Deputy Chair/Treasurer David Ball, Deputy Chair Alice Gorman and Secretary Peter Nikoloff.

Myriota has announced that former NASA astronaut and ex-DARPA Deputy Director of the Tactical Technology Office, Pamela Melroy, has joined its board as a non-executive director. Melroy brings expertise in the global space industry, having spent over 30 years at the forefront of space exploration, including as a shuttle pilot and commander.

Defence Teaming Centre CEO, Margot Forster, will be stepping down from her role in June for family reasons. She will be replaced by current Executive Director of Industry Development, Audra McCarthy. "Being CEO of the Defence Teaming Centre has been a privilege," Forster said.

New health centre for Duntroon

Following a competitive tendering process, Defence has awarded a \$33.4 million contract to Kane Constructions for the construction of a new health centre at the Royal Military College Duntroon.

"This new health centre will enhance the provision of primary care"

Assistant Minister for Defence David Fawcett said the upgrades would help support the ADF to maintain and sustain health preparedness for operational requirements.

"This new health centre will enhance the provision of primary care, mental health, rehabilitation, pharmacy, physiotherapy and dental services to ADF members in the Canberra region," Minister Fawcett said.

The upgrades are part of a \$212 million Joint Health Command Garrison Health Facilities Upgrade Project which will see upgrades to Defence health centres across 13 Defence sites nationally.

"In line with a government initiative, Kane Constructions has developed a local industry capability plan to ensure local businesses, suppliers and trades are given full opportunity to be involved in the facilities construction," Minister Fawcett said.



The December 2018 graduating class of the Royal Military College Duntroon march off the parade ground.

DEFENCE

"It is great to see Defence working with business such as Kane Constructions, who engage local businesses, suppliers, and trades in their projects, creating job opportunities for Canberrans and delivering a boost to the local economy," Assistant Minister for Treasury and Finance Senator Zed Seselja said.

Kane Constructions anticipates up to 53 sub-contract packages, with a value of \$30 million, will be sourced from companies within the local Canberra region. They are aiming for around 90 per cent of the workforce to come from the ACT.

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Forthcoming Events

ADM EVENTS

More detail on **ADM** Events can be found on our dedicated website: admevents.com.au

- [ADM Space Summit](#) – 30 April 2019
- [Women in Defence Awards](#) – 11 July 2019
- [ADM STEM and Defence Summit](#) – 14 August 2019
- [ADM Defence Estate and Base Services Summit](#) – 12 September 2019
- [ADM North Australian Defence Summit](#) – 23-24 October 2019

Emerging and Disruptive Technology Assessment Symposium (EDTAS)

Date 05-06 March 2019

Location Perth

Website <https://www.minister.defence.gov.au/>

Western Australia will host a major space technologies symposium that will bring together internationally recognised academic, industry and Defence leaders to explore and shape the long-term vision for space technologies.

Project Leaders as Humble Iconoclasts

Date 14 March 2019

Location Online, 13:30-14:30

Website <https://iccpm.com/events/project-leaders-as-humble-iconoclasts-with-dr-kaye-remington/>

A 1-hour webinar hosted by Dr Kaye Remington, internationally renowned author, academic & complex project specialist. In preparation for her book *Leading Complex Projects*, Kaye and her research team interviewed over 100 successful senior project leaders. These highly successful project leaders consistently exhibited certain key characteristics and behaviours. In this webinar, Kaye discusses some of the outstanding characteristics that distinguished those leaders.

What Does a Project Manager of the Future Look Like?

Date 28 March 2019

Location EAST Hotel, Canberra

Website <https://iccpm.com/events-2/what-does-a-project-manager-of-the-future-look-like/>

The future success of an organisation relies on the ability to manage a diverse body of talent that can bring innovative ideas, perspectives and views to their work. The challenge and problems created by workplace diversity can be turned into a strategic organisational asset if an organisation is able to capitalise on this melting pot of diverse talents. Come and join our ICCPM hosted Breakfast Panel Discussion where our panellists will be sharing their experiences and perspectives from different industries and positions on managing and leveraging diverse talents.

The National Police, Defence and Emergency Services Women's Leadership Summit

Date 29 March

Location Hyatt Hotel, Canberra

Website www.wla.edu.au

The National Police, Defence and Emergency Services Leadership Summit is a major annual event for women at all levels to connect, share ideas and build their leadership skills. Created by Australia's leading authority on women's leadership, Women & Leadership Australia, the Summit has been developed in consultation with a broad range of stakeholders across these sectors.

Export Control Training Session

Date 03 April 2019

Location 60 Clarence St, Sydney

Web <https://www.stickytickets.com.au/81012>

Join us for a 1-day face-to-face training course to de-mystify the complex area of Export Control regulations. The course will address an overview of the ITAR, EAR, and DEC; how the ITAR and EAR apply to all areas of your business; advice on employing dual and third country nationals; licensing and permit requirements; and more.

International Military Writers' Festival

Date 5 – 7 April 2019

Location Double Tree by Hilton Hotel Darwin

Website <https://www.territorytribute.com.au/events/international-military-writers-festival/>

A new three-day festival themed around military writing, the International Military Writers' Festival is part of the inaugural Territory Tribute series of events. The festival will feature author talks, panel discussions and literary sessions bringing together writers, historians and researchers from around Australia to entertain, inform and inspire those with a passion for wartime history. His Excellency General the Honourable Sir Peter Cosgrove AK MC and Festival Ambassador and best-selling author, Peter Fitzsimons AM, will speak at the event. With over 20 sessions and 30 participants, the program offers something for everyone.

Williams Foundation – Seminar: Hi-Intensity Operations and Sustaining Self Reliance

Date 11 April 2019

Location National Gallery of Australia – ACT

Website <http://www.williamsfoundation.org.au/event-3159758>

Since 2013 the Sir Richard Williams Foundation seminars have focused on building an integrated fifth generation force. In doing so they have, among other things, highlighted the challenges of making the strategic shift from counterinsurgency operations in Iraq and Afghanistan to higher tempo and higher intensity operations involving peer competitors. Allies are crucial to the Australian concept of

defence; however, the emerging strategic circumstances demand it is vital we reconsider the ways and means of enhancing Australian sovereignty to better contribute to our relationships and ensure a more sophisticated and independent defence of Australian interests. During the 2019 seminars, the Sir Richard Williams Foundation will develop this theme and address more broadly the question of how to look at the evolution of the Australian Defence Force from the perspective of the sovereign lens and setting the conditions for future success.

Defence Synthetic Environment Working Group (SEWG)

Date 15 April

Location QT Hotel – Canberra

Website

Established as a government and industry communication forum; the requirement for the SEWG has evolved into an interactive working group exploring innovative uses of Modelling and Simulation (M&S) and investigate the future for emerging M&S technologies. Additionally, the SEWG represents an opportunity to explore how to integrate the M&S Industry as part of the ninth Fundamental Input to Capability.

ASPI China Masterclass – Canberra

Date 15 Apr 2019

Location Hotel Realm

Website <https://www.aspi.org.au/>

The ASPI China masterclass is a one-day intensive event that will give participants a strategic understanding of how China is seeking to shape the world around it. Participants will learn and debate with specialists on China with deep knowledge of the current security, political and thematic landscapes. The Masterclass will track China's global and regional ambitions, and review the Chinese Communist Party's (CCP) investments in cyber, intelligence, defence, space & social credit. This event will offer a deeper understanding of China, the CCP and its rapidly evolving place in the world and explore the policy implications for Australia and the Indo-Pacific region more broadly.

ASPI China Masterclass – Melbourne

Date 17 April 2019

Location Melbourne

Website <https://www.aspi.org.au/>

The ASPI China masterclass is a one-day intensive event that will give participants a strategic understanding of how China is seeking to shape the world around it. Participants will learn and debate with specialists on China with deep knowledge of the current security, political and thematic landscapes. The Masterclass will track China's global and regional ambitions, and review the Chinese Communist Party's (CCP) investments in cyber, intelligence, defence, space & social credit. This event will offer a deeper understanding of China, the CCP and its rapidly evolving place in the world and explore the policy implications for Australia and the Indo-Pacific region more broadly.

Overture to Peace

Date 24 April 2019

Location TIO Stadium – Darwin

Website <https://www.territorytribute.com.au/events/overture-to-peace/>

From literature to live stage entertainment – acclaimed artists, musicians and Indigenous performers will converge on Darwin for the Overture to Peace spectacular concert event at twilight on Anzac Day Eve. Overture to Peace will take the audience on a journey – it will honour the men and women who have fought for our precious democracy, reflect on the enormity of the sacrifices made in order to ensure the freedoms, and shine a light on the Territory's unique wartime story. Directed by Australian musician and television personality, John Foreman OAM, the event will feature performances by Human Nature, Dami Im and Marina Prior as well as local artists and the much-loved Darwin Symphony Orchestra at TIO Stadium at Marrara in what promises to be a unique and emotive ceremonial event

BMT's Introduction to Fleet Life Cycle Management (Perth)

Date 01-05 May 2019

Location Perth

Website <https://www.bmt.org/training/introduction-to-fleet-life-cycle-management-course/>

BMT's, five-day Introduction to Fleet Life Cycle Management course covers all aspects of naval life cycle management. The modules provide detailed insight into Asset Management and its applications to naval ships and support systems in Defence's maritime environment.

IMDEX Asia 2019

Date 14-16 May

Location Changi Exhibition Centre, Singapore

Website imdexasia.com

Coming to its 12th edition, the biennial IMDEX Asia is Asia Pacific's premier international maritime defence show and a must-attend event in the global naval and maritime security calendar. With established conferences and real-time discussions on maritime security, IMDEX Asia draws a plethora of global leaders and distinguished guests.

AusCERT Conference 2019

Date 28-31 May

Location Surfers Paradise Marriott, Gold Coast Australia

Website <https://conference.auscert.org.au>

The AusCERT Conference is the oldest information security conference in Australia. Each year, we attract in the vicinity of 700 participants and approximately 50 sponsors. This year's conference is focused on gaining as many tools for you and your team's toolbox as possible to ensure you are armed and ready for any battle you may face.

Paris Air Show

Date 17-23 June 2019

Location Le Bourget

Website siae.fr/en/

The 53rd Paris Air Show will once again bring together all the players in this global industry around the latest technological innovations. The first four days of the Show will be reserved for trade visitors, followed by three days open to the general public.

PGCS 2019

Date 20 – 22 August 2019

Location The Canberra Rex Hotel, Canberra

Website <https://www.pgcsymposium.org.au>

Now in its 7th year, PGCS 2019 will focus on ways to build the foundations needed to create project and program success. Creating the organisational capability needed to underpin the consistent delivery of successful projects in the 2020's starts at the top. Leadership and a sustained focus are required to build a culture of excellence that can balance innovation with surveillance and accountability, encourage learning, and manage knowledge effectively.

Australasian Simulation Congress

Date 2 – 5 September 2019

Location Gold Coast Convention and Exhibition Centre, Gold Coast

Website www.simulationcongress.com

The Australasian Simulation Congress provides a focused opportunity for industry development, business growth, training, discussion and distribution of information related to Simulation, Modelling, Training and Decision Support. Simulation Australasia can help you directly engage with industry, policy makers, Government and relevant stakeholders to facilitate you and your organisation achieving the success only a truly international Congress can provide.

Australian Cyber Conference 2019

Date 7-9 October 2019

Location Melbourne Convention and Exhibition Centre

Website <https://cyberconference.com.au>

The Australian Cyber Conference 2019 will provide business leaders with insights and best practices taught by the industry's top experts through keynotes, panel sessions and live demonstrations. Attending the conference will enable you to network with these practitioners to help you better understand and manage current threats, as well as identify and prepare to meet emerging challenges.

Pacific 2019

Date 8-10 October 2019

Location Sydney Convention Centre

Website pacific2019.com.au

As the only comprehensive international exhibition of its kind in the Indo-Asia-Pacific

region, PACIFIC 2019 will again provide the essential showcase for commercial maritime and naval defence industries to promote their capabilities to decision-makers from around the world.

MilCIS 2019

Date 12-14 November 2019

Location Canberra Convention Centre

Website <http://www.milcis.com.au/>

In November each year, the Defence Chief Information Officer Group (CIOG) partners with the UNSW Canberra and the Institute of Electronic and Electrical Engineers (IEEE) to present MilCIS. The annual Military Communications and Information Systems (MilCIS) Conference welcomes military and government organisations, academia, and defence industries to contribute to the future direction of military communications and information systems.