

# ADM

AUSTRALIAN DEFENCE MAGAZINE

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## DEFENCE WEEK PREMIUM EDITION



A RSAAF CH-47D Chinook (foreground) and two Australian Army CH-47Fs, taken at Avalon in February 2019.

NIGEL PITTAWAY

## SINGAPORE EXPANDS OAKLEY CHINOOK FOOTPRINT

Defence has confirmed that the Republic of Singapore Air Force (RSAF) will increase the number of Boeing CH-47 Chinook heavy-lift helicopters based at the Army Aviation Training Centre at Oakey under a bilateral agreement between Australia and Singapore.

**NIGEL PITTAWAY | MELBOURNE**

“Defence can confirm that the number of RSAF Chinook helicopters based at Oakey will be increased under the terms of the current agreement between the Commonwealth of Australia and the Republic of Singapore,” a Defence spokesperson said.

ADM understands from other sources that 10 new-build CH-47Fs from an unannounced Singaporean

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order for 16 helicopters, signed in November 2016, will be based at Oakey. The first of the new helicopters are expected to arrive in the first quarter of 2021, with the balance being shipped directly to Singapore from the US.

Five RSAF CH-47D Chinooks have been based at Oakey since 2018 under the Oakey Agreement between the two countries, which allows up to 16 helicopters to be based in Australia at any given time for pilot training.

The agreement was signed in October 1996 and included provision for up to 12 Airbus Helicopters AS332M/M1 Super Pumas to be relocated from Singapore to the

Army Aviation facility at Oakey, with an option to include Chinook helicopters at a later date. The Oakey Agreement came into effect with the arrival of the first helicopters in September 1998. The Super Pumas have since returned to the island nation, replaced by the five CH-47Ds. It is not yet clear what will happen to the five heavy-lift Chinooks currently at Oakey once the new helicopters are delivered.

To accommodate the increased RSAF footprint at Oakey, FKG Group was awarded a contract in October 2016 under infrastructure Project A9032 (Republic of Singapore Air Force CH-47 Chinook, Super Puma and Support Logistics Infrastructure) as the Managing Contractor for the upgrade works.

"Facilities to support the agreement between Australia and Singapore were required, and works on the project commenced in January 2017," the Defence spokesperson said. "The project included the refurbishment of existing RSAF helicopter training facilities and new support logistics and maintenance facilities, as well as airfield infrastructure."

The works, valued at around \$57.7 million, were completed in August 2019.

**"THE NUMBER OF RSAF CHINOOK HELICOPTERS BASED AT OAKEY WILL BE INCREASED UNDER THE TERMS OF THE CURRENT AGREEMENT"**

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2. [Submarines and manned-unmanned teaming](#)
3. [2020 Women in Defence Awards finalists](#)
4. [Earthquakes hit Land 400](#)
5. [Air 555 Peregrine support works remain on schedule](#)



## HEIGHTENED INTELLIGENCE

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**L3HARRIS**

# AUSTRALIA SIGNS EW AGREEMENT WITH US

Defence has signed a six-year agreement with the US Department of Defense to collaborate on the joint design, development, testing and demonstration of dynamic multi-platform electromagnetic manoeuvre warfare resource allocation management (EMW RAM) tools and decision aids.

NIGEL PITTAWAY | MELBOURNE

Under the Airborne Multi-Platform Electronic Warfare (AMPEW) Agreement, Australia and the US aim to develop technologies for the deployment of co-operative manned and unmanned electromagnetic operations in the air domain.

The partnership is between the US Naval Air Warfare Centre, Weapons Division Office of Naval Research, Naval Air Systems Command; the RAAF DST Group and both Australian and US industry.

**“THE PRIMARY AIM IS TO DECREASE AIRCREW COGNITIVE WORKLOAD AND AUTOMATE COMMAND AND CONTROL”**

“The primary aim is to decrease aircrew cognitive workload and automate Command and Control on manned and unmanned EW systems from stand-in to stand-off ranges,” Head Air Force Capability, Air Vice Marshal Cath Roberts said.

“The Project Arrangement serves as the mechanism under which the US Navy and Australia are executing the EMW RAM Coalition Warfare Program project and future Naval capability.”



The work will build on work previously carried out by DST and the US Navy in sensor development on airborne platforms. NIGEL PITTAWAY

The work will build on work previously carried out by DST and the US Navy in sensor development on airborne platforms such as the F/A-18A/B Classic Hornet, F/A-18F Super Hornet and EA-18G Growler. It aims to pursue technological solutions which may in the future be deployed on manned airborne platforms such as the Super Hornet and Growler, P-8A Poseidon and MH-60R Seahawk naval combat helicopter, but also potentially on future unmanned platforms and C2 systems.

“The parties will jointly undertake studies to identify future co-operative development opportunities directed towards increased airborne multi-platform EW capabilities,” AVM Roberts said.

## ADM'S TOP 40 DEFENCE CONTRACTORS SURVEY OPEN

Continuing the annual survey, ADM is proud to announce that the 2020 survey is now available.

KATHERINE ZIESING | CANBERRA

For over 20 years, the Top 40 Defence Contractors and Top 20 SMEs lists have been an insight into the shape and performance of Australia's Defence Industry sector.

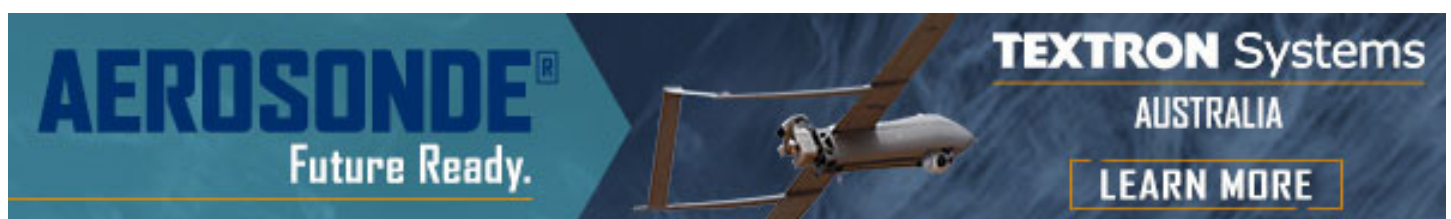
“Given the uncertainty around 2020 in the wake of a devastating bushfire season and then the COVID-19 pandemic, it will be interesting to see how the Defence Industry performed this year by the number,” ADM Managing Editor Katherine Ziesing said.

**“IT WILL BE INTERESTING TO SEE HOW THE DEFENCE INDUSTRY PERFORMED THIS YEAR BY THE NUMBER”**

Rankings are based purely on turnover earned during the calendar year of 2020 in Australia and/or NZ. To qualify as an SME, ADM relies on the definition used by the Australian Bureau of Statistics; a business must have 200 or less full-time equivalent staff members. An ANZ SME must meet that mark plus be owned and operated in Australia/NZ, independent of a foreign-owned parent company. Participation is entirely voluntary.

Results from the survey will once again be published in the December/January edition of the magazine.

If your company did not receive an invitation to take part yesterday, please contact Katherine Ziesing for details.



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# 36 SQUADRON CHOOSES KONICA MINOLTA AND MIR TO EXPLORE LOGISTICS AUTOMATION

**The RAAF's 36 Squadron (36 SQN) has chosen Konica Minolta and MiR to explore the automation of the movement of aircraft parts.**

**S**ARAH, short for Supply Assistance Robot – Autonomous Hardware, in the form of an MiR200, was introduced at 36 SQN as phase one of an innovation program to automate the manual movement of aircraft parts from the logistics section to the technician.

"36 SQN was interested in exploring whether there were ways to simplify or automate this task to free up the team's time for higher value tasks and let a robot do the mindless manual handling tasks," RAAF Amberley Squadron Leader Evan Smith said.

SQNLDR Smith reached out to Plan Jericho and laid out the vision for automated delivery of parts and equipment, phasing it from the simplest part of the problem to the end-state complete vision. Two thirds of phase one was subsequently funded by Plan Jericho.

"36 SQN was looking for innovative ways to be safer and more efficient," Martin Keetels, national manager of robotics and innovation, Konica Minolta, said. "MiR introduces efficiencies by automating a simple part of the supply chain to free up people to do what only people can do."

When SARAH arrived, Konica Minolta spent time with the team configuring and customising the user interface to their requirements. Upon pressing a digital button on the customised dashboard of the robot, it autonomously transports goods across the facility. It can carry up to 150 kg at a time and staff can call the robot to return the materials using their own smart phones, laptops or tablets via a web-based platform.

SARAH now travels 850 metres a day on average, fulfilling 20 missions, and reducing



The Mir200 can carry up to 150 kg at a time. KONICA MINOLTA



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**“THE COST BENEFIT ANALYSIS  
HAS SHOWN SAVINGS OF MORE  
THAN \$27,000 PER YEAR”**

the risk of injury from lifting and pushing heavy parts. The cost benefit analysis has shown savings of more than \$27,000 per year. An unexpected benefit is that SARA has assisted the team with social distancing. SARA has been working phenomenally by limiting the number of interactions between logistics and technicians, which has helped 36 SQN during COVID-19.

## 3D PRINTER ENTERS SECOND FIELD TRIAL

**Soldiers will deploy the WarpSPEE3D metal printer for the second time during a year-long trial between the Australian Army and Darwin based tech company, SPEE3D.**

Soldiers from the 1st Combat Service Support Battalion (1CSSB) will use the 4,500kg 3D metal printing capability to print genuine military repair parts, using the patented cold spray technology developed by SPEE3D.

The printer is capable of printing large metal parts up to 40 kilograms, at a record-breaking speed of 100 grams per minute.

In addition to the printer, 1 CSSB will deploy their improved machine shop facility for the first time, enabling post print machining and heat treatment in the field.

1 CSSB Commanding Officer, Lieutenant Colonel Kane Wright values the benefits of custom made solutions in the tactical environment.



A WarpSPEE3D 3D printer is seen deployed in the field during a trial conducted at Mount Bunday Training Area, NT.

DEFENCE

“Custom made parts, designed and printed in the field means we can get our equipment back in action and return to our primary role on the battlefield,” Lieutenant Colonel Wright said. “We can strengthen the supply chain by employing modern technology like this to make exactly what we need at short notice.”

**“THE PRINTER IS CAPABLE OF PRINTING LARGE METAL PARTS UP TO 40 KILOGRAMS, AT A RECORD-BREAKING SPEED OF 100 GRAMS PER MINUTE”**

From 17 to 28 August, the engineering soldiers will test their new skills learnt during an intensive design program in collaboration with Charles Darwin University and SPEE3D, which began in February this year.

“Our tech savvy soldiers now have the skills, and the technology from SPEE3D, to lessen the administration and logistics burden – to be their own solution without reaching back to base or a traditional commercial manufacturer,” Lieutenant Colonel Wright said.

SPEE3D CEO, Byron Kennedy said the second field deployment proves the technology is a genuine solution for expeditionary metal 3D printing.

“This two-week trial demonstrates the WarpSPEE3D is a robust workhorse that is capable of printing real parts and solving real problems in the field,” Kennedy said. “It also proves that soldiers can take control of the whole workflow of creating the spare parts they need, from design to printing and post-processing, right there where they need them.”

## BAE SYSTEMS TO CONTINUE SUPPORTING APC FLEET

**Defence has signed a \$5.3 million contract extension with BAE Systems Australia to provide technical support to the Army’s M113 Armoured Personnel Carrier (APC) fleet for another three years.**

Minister for Defence Industry Melissa Price said the contract extension allows BAE Systems Australia to continue to provide vital engineering services to the ‘remarkable’ APC fleet.

“This engineering services contract ensures the operation of the APC fleet for several more years until its replacement is provided under the Land 400 Phase 3 – Land Combat Vehicle System project,” Minister Price said.

“The contract extension with BAE Systems Australia represents continued investment and confidence in the highly technical and experienced Australian workforce.





Corporal Josh Green commands a M113AS4 and two autonomous M113 AS4 optionally crewed combat vehicles (OCCV) during a demonstration at the Majura Training Area.

DEFENCE

“It is also recognition of the company’s highly valued expertise in supporting the APC vehicles over many years.”

BAE Systems Australia will continue to employ 20 staff at their Edinburgh site, in Adelaide’s north, to support the APC capability.

The APC family of vehicles are used by Army units across the country, including in Queensland at Townsville and Brisbane, Adelaide, and Puckapunyal.

The APCs have been in service since the Vietnam War almost six decades ago and will continue in service until the introduction of Land 400 vehicles later this decade.

**“THIS ENGINEERING SERVICES  
CONTRACT ENSURES THE  
OPERATION OF THE APC FLEET  
FOR SEVERAL MORE YEARS”**

## PEOPLE ON THE MOVE

Serco Australia has introduced global specialist Simon Latus as a senior instructor as part of its leading Bridge Simulator training program. Serco has been able to bring Simon’s unique skills to its Australian operations at HMAS Watson.



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The contract extension will include \$1.1 million to support supply chain development activities.

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## CONTRACT EXTENSION SIGNED WITH DMTC

**The government has signed a \$3.9 million contract extension with DMTC Limited.**


The contract extension will include \$1.65 million for research and development and innovation activities, and \$1.1 million to support DMTC's supply chain development activities, many of which are in regional and remote areas of Australia.

Minister for Defence Industry Melissa Price said the contract extension would "help build a vibrant and competitive innovation sector within defence industry."

Minister Price also said DMTC had a strong track record of delivering for Defence and industry, from partnering with industry primes and their supply chains in sovereign capability areas, to building research networks and supporting future generations of researchers.

"I had the opportunity to visit DMTC in late 2019 and was impressed by their focus on making a positive impact across the defence and national security sectors," Minister Price said. "It is partnerships with organisations like DMTC that help Defence identify innovative technologies being developed by Australian businesses."





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**“COLLABORATION IS  
ABOUT DOING REAL WORK  
WITH SHARED PURPOSE”**

DMTC CEO Dr Mark Hodge said DMTC’s collaborative model would continue to leverage contributions from industrial partners at all levels of the supply chain and from Australian universities and research organisations.

“Our commitment is firm, and has been since we were established over a decade ago, to generating industrial capability for Australia in areas identified as priorities by

Defence,” Dr Hodge said.

“Collaboration is about doing real work with shared purpose. That is true of DMTC’s collaborations with all our partners from across industry and government.”

## NSW SIGNS LETTER OF INTENT WITH QUICKSTEP

**The NSW Government has signed a letter of intent with Quickstep. Quickstep will work with the Western Parkland City Authority to ‘identify synergies’ between their leading-edge capabilities in aerospace advanced manufacturing and the planned Advanced Manufacturing Research Facility (AMRF), with a view to Quickstep becoming a participant once the facility is operational.**

Minister for Jobs, Investment, Tourism and Western Sydney Stuart Ayres said the company is an Australian success story, which has grown from a small operation in 2001 to the largest independent composite manufacturer in the country.

“We want the Western Parkland City to be a global leader in aerospace advanced manufacturing. To achieve that we will need to work with the best in class and there is no one better than Quickstep,” Ayres said.

“I have no doubt this is just the start of a long-term relationship and it will play a key role in making our vision for the Aerotropolis a reality.”

Quickstep CEO and Managing Director Mark Burgess said the opportunity to take part in the co-design of a world class advanced manufacturing facility, such as the AMRF, was too good to pass up.

“This is an exciting opportunity for Quickstep to leverage collaborative partnerships with global aerospace companies, strategic suppliers and world-renowned researchers in the context of a government-supported applied research facility,” Burgess said.

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A concept image of the Aerotropolis planned for Sydney.

LIVERPOOL COUNCIL

"This initiative is well aligned to the NSW Government's stated desire to develop and support advanced manufacturing in the State and fits perfectly with Quickstep's pursuit of new business and accelerated research and development."

Quickstep is a global provider of composite solutions to the aerospace, defence, automotive and other advanced manufacturing sectors. It joins other aerospace firms keen to play a role in the Aerotropolis, including the Australian Space Agency (ASA), CSIRO, Northrop Grumman, BAE Systems Australia, GE Additive and Mitsubishi Heavy Industries.

## CONTACT DETAILS

### MANAGING EDITOR

Katherine Ziesing  
T: 0419 014 308  
katherineziesing@yaffa.com.au

### ONLINE EDITOR

Ewen Levick  
T: 02 9213 8249  
ewenlevick@yaffa.com.au

### ASSOCIATE PUBLISHER

Kylie Leonard  
M: 0404 844 851  
kylieleonard@yaffa.com.au

### DESIGNER

Lauren Esdaile

### SUBSCRIPTIONS

Martin Phillpott  
Toll Free 1800 807 760  
martinphillpott@yaffa.com.au

### CONTRIBUTORS

Julian Kerr  
T: 0418 635 823  
jhrhkerr@bigpond.net.au

Nigel Pittaway  
M: 0418596131  
cnpittaway@bigpond.com

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PO Box 4783, Kingston ACT 2604  
T: 02 6203 9535  
australiandefence.com.au

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# FORTHCOMING EVENTS

## ADM EVENTS

More detail on ADM Events can be found on our [dedicated website](#).

- [ADM Women in Defence Awards](#) – 23 October 2020 | Online
- [Northern Australia Defence Summit](#) – 28 October 2020 | Online
- [ADM Space Summit](#) – 2 December 2020, Hyatt Hotel | Canberra
- [ADM Congress](#) – 3 February 2021, Hyatt Hotel | Canberra
- [ADM Defence Estate](#) – 23 February 2021, Hotel Realm | Canberra

## 2020 INTERNATIONAL ROUNDTABLE WORKSHOP – BRISBANE

**DATE** 27 August 2020  
**LOCATION** QUT Brisbane, Gardens Point Campus, Brisbane City  
**WEBSITE** [iccpm.com/events/2020-rts-brisbane](http://iccpm.com/events/2020-rts-brisbane)

The International Centre for Complex Project Management (ICCPM) invites project leaders to participate in the 2020 International Roundtable Series. Workshops will be held in key Australian locations and internationally.

## 6TH INTERNATIONAL HLS & CYBER CONFERENCE & EXHIBITION

**DATE** 14-15 September 2020  
**LOCATION** Online  
**WEBSITE** [hls-cyber.b2b-wizard.com/expo](http://hls-cyber.b2b-wizard.com/expo)

The HLS&CYBER event, the international homeland security and cyber event in Israel, returns for the sixth time, and this time, in a virtual format. The event, which will be held on September 14-15, 2020, will include a professional conference, as well as a virtual exhibition of about 100 Israeli companies in the field of homeland and cyber security and an online B2B conference arena.

## AUSCERT 2020

**DATE:** 15-18 September  
**LOCATION:** The Star, Gold Coast  
**WEBSITE:** [auscert.org.au/giveaway](http://auscert.org.au/giveaway)

The AusCERT Conference is the oldest information security conference in Australia. Each year, we attract in the vicinity of 800 participants and approximately 50 sponsors. AusCERT is hosting more than 50 speakers at AusCERT2020, as well as an array of tutorials, workshops, networking events & much more.



## **2020 ANI GOLDRICK SEMINAR – REMOTE AND AUTONOMOUS SYSTEMS AT SEA**

**DATE** 13 and 14 October 2020  
**LOCATION** Adams Auditorium, Australian Defence Force Academy  
**WEBSITE** [navalinstitute.com.au/latest-ani-events-and-archive](https://navalinstitute.com.au/latest-ani-events-and-archive)

The 2020 ANI Goldrick Seminar will discuss a wide range of issues around Remote and Autonomous Systems at Sea. It will comprise six sessions over 1.5 days covering an overview of Remote and Autonomous Systems at Sea (RAS); RAS in the Littoral Domain; RAS in the Maritime Air Domain; RAS in the Undersea Domain; Measuring Effective, and Legal and Ethical Considerations.

## **4TH ANNUAL SYSTEMS MODELLING CONFERENCE 2020**

**DATE** 27 October 2020  
**LOCATION** Online  
**WEBSITE** [unsw.adfa.edu.au/conferences/SMC-2020](https://unsw.adfa.edu.au/conferences/SMC-2020)

The Capability Systems Centre runs one-day conference on the use of whole-systems approach to design and manage complex problem in socio-technical and socio-ecological systems. The daylong virtual conference on October 27th will feature showcases on the use of systems thinking and systems modelling in a wide range of areas. The event provides a platform for researchers and practitioners to communicate about scientific and practical aspects of real-world problems, receive feedback, and share learning lessons.

## **10TH BIENNIAL SIA CONFERENCE 2020**

**DATE:** 17-18 November 2020  
**LOCATION** Hotel Realm, Canberra and online  
**WEBSITE** [submarineinstitute.com/sia-conferences](https://submarineinstitute.com/sia-conferences)

The 10th Biennial SIA Conference will be held 17-18 November 2020 at the Hotel Realm, Canberra. This year's theme is 'Submarine Build and Sustainment Programs: The Strategic Nature of Reliable, Sovereign Supply Chains'. The Call for Presentations is available on the website.

2021

**43RD COSPAR SCIENTIFIC ASSEMBLY**

**DATE** 28 Jan-4 Feb 2021  
**LOCATION** International Convention Centre Sydney  
**WEBSITE** [cospar2020.org](https://cospar2020.org)

The Australian space research community enthusiastically extends the invitation to you, to meet with us for COSPAR 2020, and in so doing to forge the friendships and opportunities that will connect space research for global impact. The 2020 Assembly will combine the latest in space research findings with activities designed to enrich the global space research community – including helping equip our future leaders, and workshopping with space industry – and inspire the next generation of scientists and engineers.

**LOCATE21**

**DATE** 30 March – 1 April 2021 (rescheduled dates)  
**LOCATION** Brisbane Convention and Exhibition Centre  
**WEBSITE** [locateconference.com/2021](https://locateconference.com/2021)

Due to COVID-19, Locate20 has been rescheduled for Locate21 happening in Brisbane March 30 – 1 April 2021. The event will focus on how geospatial technologies are intersecting with business, Government and defence to address national challenges. It's Australia's premier spatial conference with the inclusion of over 50 inspiring thought-leaders including speakers from government, academia, the defence force, technology, mining, natural resources and more. We believe this conference is of interest to defence personnel.

**LAND FORCES 2021**

**DATE** June 1-3 2021  
**LOCATION** Brisbane Convention Centre  
**WEBSITE** [landforces.com.au](https://landforces.com.au)

The biennial LAND FORCES exposition is an international industry event to showcase equipment, technology and services for the armies of Australia and the Indo-Asia-Pacific. The Land Forces 2020 team is now setting about ensuring the event will achieve its goals of providing an effective platform for the exchange of ideas on key land forces issues and of taking Australian industry to the world.

## **ROTORTECH 2021**

**DATE** 15-17 June 2021  
**LOCATION** Royal International Convention Centre, Brisbane  
**WEBSITE** [rotortech.com.au](http://rotortech.com.au)

The new dates for Rotortech will be Tuesday 15 June to Thursday 17 June 2021. The venue, the Royal International Convention Centre in Brisbane, is unchanged. Rotortech is the region's premier helicopter and unmanned flight systems showcase and forum, featuring more than 100 participating companies and key speakers from industry and government. We believe that deferring Rotortech to its new June 2021 dates will achieve this goal by moving the event to a time where the COVID situation will have improved and the current uncertainties will have passed.

## **PROJECT AND PROGRAM MANAGEMENT SYMPOSIUM**

**DATE** 10 – 12 August 2021 (rescheduled dates)  
**LOCATION** Canberra Rex Hotel  
**WEBSITE** [pgcsymposium.org.au](http://pgcsymposium.org.au)

Foresight is more valuable than hindsight! PGCS 2020 is designed to help project and program managers, and their sponsors and senior managers, develop the skills and understanding needed to deliver projects success in the next decade. Creating the organisational capability needed to underpin the consistent delivery of successful projects in the 2020's starts at the top. Now in its 8th year, PGCS 2020 will focus on ways to build the foundations needed to create project and program success

## **AVALON 2021**

**DATE** 23-28 November 2021  
**LOCATION** Avalon Airport

The Australian International Airshow and Aerospace & Defence Exposition is one of Asia-Pacific's most prestigious aviation and aerospace events and the most comprehensive aviation, aerospace and defence exposition in the southern hemisphere. Avalon hosts multiple concurrent conferences and expo streams, across the spectrum of Defence, Airlines, Business and General Aviation, Sport and Recreational Aviation, Airports, MRO, Space, Unmanned Systems, Air Safety and Ground Equipment.

## 2022

**PACIFIC 2020 BECOMES INDO PACIFIC 2022**

**DATE** May 2022  
**LOCATION** Sydney Convention Centre  
**WEBSITE** [pacificexpo.com.au](https://pacificexpo.com.au)

Reflecting the increasing importance of the Indo Pacific region to the entire world, the PACIFIC International Maritime Exposition will become the INDO PACIFIC International Maritime Exposition from 2022. Initially, there will be a new timing. Instead of the previously planned PACIFIC dates in August 2021, INDO PACIFIC will now, in the wake of COVID 19, initially be held during May 2022.

## VARIOUS DATES

**NSW DEFENCE INNOVATION NETWORK'S REGIONAL ROAD SHOW**

**DATE:** Various  
**LOCATION:** Various  
**WEBSITE:** [defenceinnovationnetwork.com/din-regional-road-show-2019-20](https://defenceinnovationnetwork.com/din-regional-road-show-2019-20)

NSW Defence Innovation Network and AIDN will be undertaking a series of small business focused regional forums across NSW. Register to attend and hear about the programs, grants, opportunities and services the NSW Defence Innovation Network (DIN) provides to the small business community across NSW. We encourage small businesses to engage with us and participate in opportunities across our networks, including DIN's seven partner universities, as well as with other state and federal agencies.

**ICCPM ONLINE WORKSHOPS**

**DATE** Various  
**LOCATION** Online  
**WEBSITE** [iccpm.com/online-workshop-webinars](https://iccpm.com/online-workshop-webinars)

Designed to support project teams who are experiencing new challenges due to COVID-19 concerns – Learn how to mitigate new risk levels, effectively deploy virtual teams, manage messy problems and more. ICCPM Online Workshops and Webinars provide you with an easily accessible and engaging option to continue your training from anywhere in the world. These options provide you and your team with a conducive learning environment to support your complex project success.



## **ICCPM ROUNDTABLE WORKSHOPS**

**DATE** Various  
**LOCATION** Various  
**WEBSITE** [iccpm.com/2020-rs](https://iccpm.com/2020-rs)

ICCPM, with Series Partner QUTeX, is pleased to confirm the upcoming Workshops for the 2020 International Roundtable Series Harnessing Emergence in Complex Projects: Risk, Uncertainty and Opportunity. The International Roundtable Series is an exciting Thought Leadership initiative where senior practitioners and leading academics come together and discuss the Series Theme to produce new insights and practical steps to improve complex project success. Registrations for in-person workshops are strictly limited to comply with COVID-19 venue safety guidelines. Please refer to each event page for more details.