

ADM

AUSTRALIAN DEFENCE MAGAZINE

SERVING THE BUSINESS OF DEFENCE

DEFENCE WEEK PREMIUM EDITION



The first Airpower Teaming System has been presented to the RAAF.

BOEING

BOEING PRESENTS FIRST LOYAL WINGMAN

Boeing Defence Australia (BDA) provided an update this week on the progress of the Loyal Wingman project, which will see three prototype autonomous aircraft (Airpower Teaming Systems, or ATS) built for the RAAF under Minor Program Def 6014.

EWEN LEVICK | SYDNEY

The first aircraft has now been presented to the Commonwealth, marking the first time in over 50 years that a military aircraft has been designed and built in Australia.

In effect, the program is one part science project and one part product development: RAAF will use the three ATS prototypes to inform future acquisitions in autonomous air vehicles (which are a step-up from remotely-piloted air vehicles), whilst Boeing has its eye on the potentially lucrative export market for affordable air power.

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“It’s going to allow Defence to make a more informed decision about how we acquire these systems and how we adapt our air combat strategies accordingly,” Head of Air Force Capability Air Vice Marshal Cath Roberts said in a media update on Tuesday. “Loyal Wingman is a concept demonstrator that has the potential to give Australia a true capability edge.”

The plan is for the ATS to accompany manned aircraft and supplement their capabilities using a variety of different payloads and possibly weapons systems. According to Boeing’s head of program Dr Shane Arnott, the payloads will be carried in the nose

“THE WHOLE IDEA IS TO GIVE FLEXIBILITY AND MULTI-ROLE CAPABILITY AT A FRACTION OF THE COST”

of the aircraft, which can be completely detached and swapped out on operations according to different mission profiles. Previous updates have suggested that payloads will also be carried in the belly.

“The nose is completely removable and able to be done so on operations. It is two and half metres long and 1.5 cubic metres in volume,” Dr Arnott said. “That’s a lot of space to take different payloads and sensors. The whole idea is to give flexibility and multi-role capability at a fraction of the cost.”

Neither Boeing nor RAAF would be drawn on what payloads the aircraft will carry, but suggested these could be inferred by the types of missions it will fly and the aircraft it will fly alongside. One possibility is acting as a decoy for fighter jets, triggering enemy air defence systems. Another is flying in formation to create a distributed antenna effect, achieving greater electromagnetic aperture using cheaper sensors on multiple aircraft than one expensive sensor on a single aircraft.

Dr Arnott also said that deployability and non-traditional runway operations are central to the ATS concept but did not elaborate on how this would work.

“It is built for distributed operations,” Dr Arnott said. “We’ve built it for deployability and the approach of being able to containerise it is a concept we’ll be talking about soon.”

BUILD PHILOSOPHY

The second half of the Loyal Wingman story is the build itself. The wings, for example, are created using the largest resin-infused pieces on any Boeing-made military or commercial aircraft, an approach originally developed for the 787 program.

A number of Australian companies are contributing to the project, including the local subsidiary of BAE Systems, RUAG, Brisbane-based MET, and Allied Data Systems. For many, the opportunity to contribute to the first Australian-built military aircraft in half a century is a point of pride.

“We are very proud to have achieved this success in delivering the landing gear systems,” Terry Miles, General Manager RUAG Australia, said.

“Our team is proud to supply power units to the Loyal Wingman unmanned aircraft,” Andrew MacLaurin, Allied Data Systems’ CEO, said. “This initial contract will help support jobs for Allied Data Systems and its subcontractors in NSW.”

Boeing said that no decisions have been made on where the aircraft will be manufactured. The company also declined to answer questions on where the IP resides, what commercial engine the aircraft uses, where the first flight will take place, which other countries are interested (other than the UK and US), what weapons it will carry, or when

the next air vehicle will be ready (although did confirm that the next ATS is in fabrication).

The company said only that production is scheduled to begin 'around the middle of the decade', that there's 'broad interest' from overseas, and that the first flight will happen 'before the end of the year.'

The milestone is certainly a historic one for the history of Australian aviation.

"Australia has done components for a long time but has not done a whole aeroplane," Dr Arnott said. "We are restarting that machine. It's a real passion project."

DEFENCE PROVIDES UPDATE ON HORNET DISPOSAL PLANS

Defence this week provided more details regarding its plans to dispose of its remaining fleet of Classic F/A-18A/B Hornets and in addition also outlined plans to auction the remaining batch of PC-9/A trainers and the likely disposal of most of Army's S-70A-9 Black Hawk helicopters.

NIGEL PITTAWAY | MELBOURNE

ADM has reported that 'up to 46' Hornets will be sold to US-based air combat training company US Air. Defence has previously announced that 'up to 25' Hornets will be sold to the Royal Canadian Air Force, and at least three of those aircraft have already been delivered to Canada.

If all these options were to be taken up, it would account for all 71 of the RAAF's surviving Hornets, leaving none to be allocated to museums for preservation and display. However, Defence has confirmed that eight aircraft will be retained for heritage purposes, including six single-seat F/A-18A Hornets (A21-22, – 23, – 29, – 32, – 40, – 43) and two twin-seat F/A-18Bs (A21-101 and – 103).



Eight Classic F/A-18A/B Hornets will be retained for heritage purposes.

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“The total number of Hornets that may be sold to Canada is at least 18 and up to 25,” a Defence spokesperson said this week. “Up to 46 Hornets will be sold to Air USA. The final number will depend on how many aircraft Canada purchase.”

The spokesperson declined to provide details of individual aircraft, citing commercial in confidence reasons.

Defence also confirmed that the final batch of PC-9/As, up to 17 aircraft in total, may be sold at auction, most likely in 2021. Eighteen aircraft had previously been sold in an online auction conducted by Australian Frontline Machinery and Pickle’s Auctions,

but the Defence spokesperson again declined to provide details of their new owners, or prices fetched during the auction on commercial in confidence grounds.

“EIGHT AIRCRAFT WILL BE RETAINED FOR HERITAGE PURPOSES”

ADM understands that five of the aircraft were sold to another US-based air combat training company, Blue Air of Las Vegas, Nevada, as five aircraft with serial numbers corresponding to five PC-9/As sold in the auction have recently been placed on the US civil aircraft register.

Defence says that nine PC-9/As have been retained for heritage purposes in Australia; for display at the RAAF Museum Point Cook (A23-001), RAAF Base Pearce (A23-009), Fighter World at Williamtown (A23-020), RAAF Base Townsville (A23-022), the Fleet Air Arm Museum at Nowra (A23-028), two for display at RAAF Base East Sale (A23-030 and – 036) and one at RAAF Base Wagga Wagga (A23-031). One aircraft reserved for heritage purposes (A23-032) will be displayed at a ‘RAAF Heritage’ location yet to be announced.

Five of the Army’s 34 surviving Black Hawk helicopters have also been earmarked for preservation and will be allocated to the Australian War Memorial, Australian Army Flying Museum at Oakey, RAAF Museum Point Cook and the RAAF Aviation Heritage Centre at Amberley.

“Defence expects that 34 Black Hawks will be disposed. Five have been allocated to heritage purposes, with the number to be sold commercially yet to be confirmed,” the spokesperson added. “Defence will not know the buyers until completion of commercial approach to market.”

The number to be disposed will presumably include two helicopters which the federal government announced would be donated to the NSW Rural Fire Service, amid much fanfare, in June 2018.

MOST READ ONLINE AT WWW.AUSTRALIANDEFENCE.COM.AU



1. [Rhetoric vs reality in treatment of Defence SMEs](#)
2. [First Loyal Wingman handed to RAAF](#)
3. [Details missing in Chilean FFG deal](#)
4. [Austal to build six more patrol boats for RAN](#)
5. [Fincantieri to build US frigates](#)

FIRST LOCAL PRODUCTION LOT OF F-35 AMMUNITION COMPLETE

Regional workers in Benalla, Victoria and Mulwala, NSW, have reached a milestone in delivering Australia's F-35A Joint Strike Fighter capability, completing the first production lot of a new Australian-made munition for the RAAF.

The new BLU-111 will have the same range and performance metrics as current General Purpose Bombs but will be significantly safer to store, transport and operate. Minister for Defence Industry Melissa Price said 15 Australian companies, including five small businesses, were delivering this capability for Defence.

“THIS WORK ESTABLISHES A STRATEGICALLY IMPORTANT SOVEREIGN MANUFACTURING CAPABILITY”

“This work establishes a strategically important sovereign manufacturing capability to support the ADF,” Minister Price said. “It is a practical example of the Government’s ongoing commitment to domestic manufacturing of munitions, which is one of the 10 Sovereign Industrial Capability Priorities under the 2018 Defence Industrial Capability Plan.”

The government released the Sovereign Industrial Capability Priority Industry Plan for Munitions and Small Arms Research, Design, Development and Manufacture last year.

The news came as Chemring Australia, based in Lara, secured a US\$107.5 million contract for the production and delivery of countermeasure flares for Australian, US and international F-35 operators.

Chemring Group and Defence have worked closely with the US Navy’s Naval Air System team to qualify Chemring Australia as the second source supplier of the MJU-68 countermeasure and MJU-61 training flares since 2011.



A 1939 RAF DH Tiger Moth and an Air Force F-35A Lightning II on the flight line at RAAF Base Edinburgh.

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GENERAL ATOMICS TEAMS WITH GEELONG- BASED CONFLUX

General Atomics Aeronautical Systems (GA-ASI) has partnered with Geelong-based Conflux Technology on the development of a heat exchanger.

The part is being developed using a metal additive manufacturing process for possible integration onto GA-ASI's line of Remotely Piloted Aircraft Systems (RPAS).

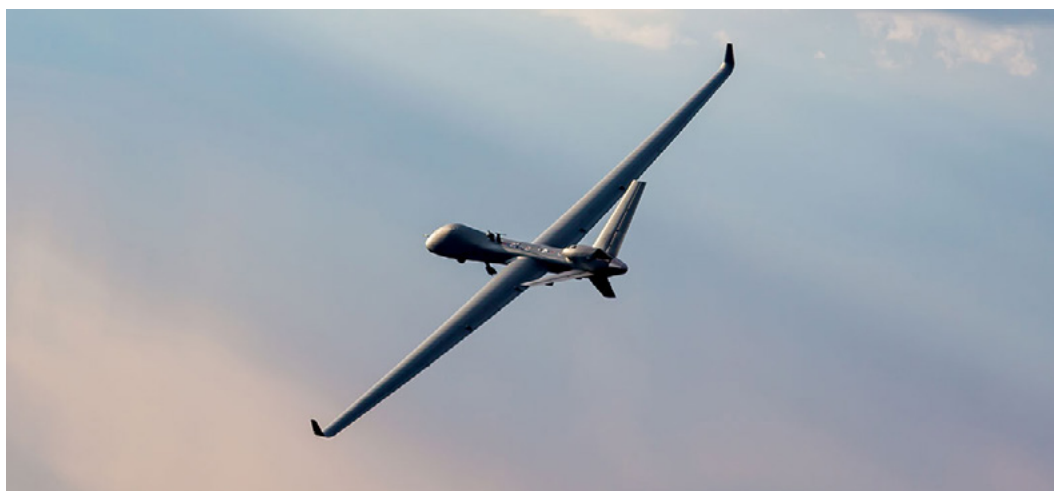
**“CONFLUX HEAT EXCHANGERS
DERIVE THEIR PERFORMANCE
FROM HIGHLY COMPLEX
GEOMETRIES ENABLED BY
ADDITIVE MANUFACTURING”**

Conflux Technology specializes in thermal and fluid engineering. It is providing design expertise in the optimisation of additive manufacturing heat exchangers to increase the performance of RPA.

“GA-ASI and Conflux are developing novel and state-of-the-art thermal solutions for application to our existing and next generation RPAS,” Linden Blue, GA-ASI CEO, said. “This will allow enhanced endurance and lower manufacturing cost, as well as more flexibility in our product design and integration.”

“Fundamental efficiency gains require heat transfer innovations. In Conflux we have a highly innovative engineering team that blends first principles thermo-fluid dynamics with design creativity and additive manufacturing process expertise,” Michael Fuller, Conflux Technology CEO, said. “Conflux heat exchangers derive their performance from highly complex geometries enabled by additive manufacturing. Our scientists and engineers, alongside their GA-ASI counterparts, will now develop heat exchange applications to improve fundamental efficiencies for GA-ASI's RPA systems.”

The government recently selected GA-ASI's MQ-9B SkyGuardian variant to provide the armed RPAS for the ADF under Project Air 7003.



Conflux will help develop heat exchangers for GA-ASI's remotely piloted aircraft.

GA-ASI

AIRBUS PARTNERS WITH NOVA SYSTEMS

Airbus Helicopters and Nova Systems have agreed to identify future collaborative business opportunities, improve their capabilities through the complementary application of skills, and deliver competitive solutions to the Australian aerospace sector.

The scope of opportunities under the agreement include: equipment acquisition and support programs, provision of engineering services and secondment of personnel. “In the spirit of co-operation, communication and commitment, the joint endeavours will consider competitiveness, value for money and best for customer outcomes, when exploring future opportunities and projects,” Airbus said in its statement.

“AIRBUS WELCOMES THE OPPORTUNITY TO WORK CLOSELY WITH INNOVATIVE ENTERPRISES SUCH AS NOVA SYSTEMS”

“Airbus’ charter with Nova Systems sets the framework for a long-term collaborative relationship that will deliver real results for Australia’s defence industry capabilities, local jobs and technology upskilling,” Andrew Mathewson, Managing Director at Airbus Australia Pacific, said. “Airbus welcomes the opportunity to work closely with innovative enterprises such as Nova Systems to ensure that we continue to deliver the best solutions to our customers.”



Airbus Helicopters’ Australian presence is built around the Tiger and Taipan helicopters.

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Nova Group Global Chief Executive Greg Hume commented on the partnership and the potential for further agreements across the globe.

“Agreements such as this provide Nova Systems the opportunity to collaborate and partner with Defence and Security companies at the leading edge of capability and technology,’ Hume said. “Nova Systems has capabilities that enable technology through our core specialisations such as test, safety and systems assurance.

“This partnership between Nova Systems ANZ and Airbus is a great example of a collaborative relationship providing sovereign services in support of the Australian government’s strategic and national interests.”

NAVAL SHIPBUILDING COLLEGE ENDORSES COURSES AT EDITH COWAN

The Naval Shipbuilding College has announced the endorsement of a suite of engineering courses provided by Edith Cowan University (ECU) in WA.

The seven Bachelor of Engineering courses offered by ECU and endorsed by the College include: Mechanical; Electrical Power; Mechatronics; Electronics and Communications; Instrumentation, Control and Automation; Computer Systems and Naval Architecture – in conjunction with the Australian Maritime College.

Endorsement provides confirmation that these courses meet the needs of the shipbuilding industry in quality and consistency for these important programs of study.

The courses are considered vital to assist in creating a ‘robust’ talent pipeline for engineering careers identified by the naval shipbuilding industry. ECU is part of the College’s national Training and Education Provider Network.

“This endorsement by the Naval Shipbuilding College means students in WA can quickly and easily identify education options that will fast-track their career in naval



An engineering student at Edith Cowan University.

SUPPLIED

shipbuilding,” Minister for Defence Industry Melissa Price said. “The [government] has also just announced an additional six Patrol Boats for the Navy will be built here in WA, so it’s clear there’s no shortage of opportunities in our naval shipbuilding industry.”

“STUDENTS IN WA CAN QUICKLY AND EASILY IDENTIFY EDUCATION OPTIONS THAT WILL FAST-TRACK THEIR CAREER”

Chief Executive of the College Ian Irving said students who completed industry-endorsed courses across Australia would be well placed to take advantage of the careers on offer as a result of the growth of the Enterprise.

“WA will play a critical role as part of the continuous National Naval Shipbuilding Enterprise with substantial construction and sustainment activities occurring in the west,” Irving said.

“Construction of the 21 Guardian Class Patrol Boats is ongoing and construction of the first of the 10 Arafura Class Offshore Patrol Vessels recently commenced at the Henderson Shipyard Precinct.

“These programs are adding thousands of career opportunities in WA and across the country as the Enterprise ramps up and sustainment of the existing fleet continues.”

ECU Director of Defence Research Dr Andrew Dowse said the endorsements were a positive move for WA.

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FORTHCOMING EVENTS

ADM EVENTS

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

- [ADM Defence Estate and Base Services Summit](#) – 15 September 2020 | Canberra
- [ADM Women in Defence Awards](#) – 23 October 2020
- [Defence in the North](#) – 28 October 2020 | Darwin Convention Centre
- [ADM Space Summit](#) – 3 December 2020, Hyatt Hotel | Canberra
- [ADM Congress](#) – 3 February 2021, Hyatt Hotel | Canberra

AIRBUS DEFENCE AND SPACE INDUSTRY ENGAGEMENT ROADSHOW

DATE postponed until further notice

LOCATION Various

WEBSITE www.airbus.com/space.html

The purpose of the briefings is to engage Australian industry and identify potential roles in the pursuit, delivery and support of projects of interest to Airbus Defence and Space such as but not limited to satellite and terrestrial communication networks, processing of imagery and data and surveillance sensors. Airbus are particularly interested in companies with the following capabilities, but not exclusive to: Advanced manufacturing; Electronics/Electrical engineering; Antenna design and manufacturing; Mobile Terminals; Electrical harness; Software development; Payload development; Infrastructure.

CYBER DEFENCE NEXT GENERATION TECHNOLOGY & SCIENCE CONFERENCE

DATE: postponed until further notice

LOCATION: Brisbane

WEBSITE: wp.csiro.au/cdng

The Cyber Defence Next Generation Technology and Science Conference, is a first of its kind scientific and technology focused Cyber Defence Conference. The aim is to have the community of cyber-security under the “Next Generation Defence Technologies | Cyber Research” program in collaboration with DST-Data61 and partner universities meet together, expose relevant research activities and discuss future collaborations.

CERTIFICATE IV IN RESPONDING TO ORGANISATIONAL COMPLEXITY | CANBERRA

DATE postponed until further notice
LOCATION to be confirmed
WEBSITE iccpm.com/events/certificate-iv-canberra-2020

Developed and offered exclusively by ICCPM (RTO number 41394), the Certificate IV in Responding to Organisational Complexity helps project leaders develop the skills and attributes they need to respond to complexity, as defined in the Complex Project Manager Competency Standards. This is a highly interactive course which introduces project leaders to useful tools and methodologies with a strong focus on the practical application of concepts to real-world situations.

WILLIAMS FOUNDATION SEMINAR: NEXT-GEN AUTONOMOUS SYSTEMS

DATE postponed until further notice
LOCATION: National Gallery of Australia
WEBSITE www.williamsfoundation.org.au

Building upon the existing foundations of ADF capability, the aim of the March seminar is to explore the force multiplying capability and increasingly complex requirements associated with unmanned systems. From its origins at the platform level, the opportunities and potential of increased autonomy across the enterprise are now expected to fundamentally transform Joint and Coalition operations.

ASIA-PACIFIC SECURITY INNOVATION SUMMIT

DATE postponed until next year
LOCATION Queenstown, NZ
WEBSITE www.apsisummit.com/page/apsi-summit-2020

The theme of this year's APSI summit, to be held in Queenstown on the South Island, is Strengthening Security Resiliency Through Partnerships and Alliances.

2020 VERNON PARKER ORATION AND DINNER

DATE 17 June 2020
LOCATION Hotel Realm, Canberra
WEBSITE navalinstitute.com.au/2020-vernon-parker-oration-and-dinner

Sir Peter Cosgrove has kindly agreed to deliver the 2020 Vernon Parker Oration on 17 June. Sir Peter was Governor-General from 2014-2019 and former Chief of the Defence Force. In January 2020 Sir Peter accepted the voluntary role as chairman of the Business Council of Australia's Community Rebuilding Initiative in response to the 2019/20 bushfires.

43RD COSPAR SCIENTIFIC ASSEMBLY

DATE 15 – 22 August 2020
LOCATION International Convention Centre Sydney
WEBSITE www.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 workshoping with space industry – and inspire the next generation of scientists and engineers.

PROJECT AND PROGRAM MANAGEMENT SYMPOSIUM 2020

DATE 25-26 August 2020
LOCATION Canberra Rex Hotel
WEBSITE www.pgcsymposium.org.au

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. Now in its 8th year, PGCS 2020 will focus on ways to build the foundations needed to create project and program success.

2020 INTERNATIONAL ROUNDTABLE WORKSHOP – BRISBANE

DATE 27 August 2020
LOCATION QUT Brisbane, Gardens Point Campus, Brisbane City
WEBSITE <https://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.

LAND FORCES 2020

DATE 01-03 September 2020
LOCATION Brisbane Convention Centre
WEBSITE www.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.

AUSCERT 2020

DATE: 15-18 September
LOCATION: The Star, Gold Coast
WEBSITE: www.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.

ROTORTECH 2020

DATE 14-16 October 2020
LOCATION Royal International Convention Centre, Brisbane
WEBSITE www.rotortech.com.au

RotorTech 2020 is the region's premier helicopter and unmanned flight systems showcase and forum, bringing together operators, manufacturers, suppliers, regulators and government across the Indo-Asia-Pacific. With a comprehensive three-day free industry conference program, RotorTech 2020 will also feature manufacturers technical workshops and an industry exhibition showcasing more than 100 helicopter and unmanned flight related companies.

MILCIS 2020

DATE 10 – 12 November 2020
LOCATION National Convention Centre, Canberra
WEBSITE <https://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.

10TH BIENNIAL SIA CONFERENCE 2020

DATE: 17-18 November 2020
LOCATION Hotel Realm, Canberra
WEBSITE <https://www.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

AVALON 2021

DATE 23 – 28 February 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.

LOCATE21

DATE 30 March – 1 April 2021 (rescheduled dates)

LOCATION Brisbane Convention and Exhibition Centre

WEBSITE <https://www.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.

PROJECT AND PROGRAM MANAGEMENT SYMPOSIUM

DATE 10 – 12 August 2021 (rescheduled dates)

LOCATION Canberra Rex Hotel

WEBSITE <https://www.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

VARIOUS DATES

NSW DEFENCE INNOVATION NETWORK'S REGIONAL ROAD SHOW

DATE: Various

LOCATION: Various

WEBSITE: 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.

DEFENCE READINESS SEMINAR SERIES

DATE postponed until further notice

LOCATION Various

WEBSITE bit.ly/37fipjH

The Defence Readiness Seminar Series kicked off in November last year. If you are considering entering the Defence market, or have staff you consider require orientation to the Defence market, you are strongly encouraged to consider this invaluable series, shaped and developed by people in the Hunter that have worked closely in the Defence Industry over many years. Please see the website for more information on how to get involved.

2020 ICCPM INTERNATIONAL ROUNDTABLE SERIES

DATE Various (April, August)

LOCATION Various

WEBSITE iccpm.com/2020-rs

One of the characteristics of complex projects is that they emerge over time. This creates uncertainty for project leaders. To support project success, project leaders need to understand how to manage risk in uncertainty and identify new opportunities. The International Roundtable Series is a Thought Leadership initiative that brings together senior project leaders and leading academics from different industries to share their experience and international perspectives. The outcomes report will share these insights to improve project success.

ICCPM ONLINE WORKSHOPS

DATE Various

LOCATION Online

WEBSITE www.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.