



A Litening sensor pod hangs from the wing of a No. 37 Squadron C-130J Hercules aircraft at RAAF Base Richmond.

DEFENCE

RAAF TRIALS LITENING POD ON C-130J

The RAAF has begun flight trials of a Lockheed Martin C-130J-30 Hercules fitted with Northrop Grumman's AN/AAQ-28(v) Litening sensor pod on an underwing pylon.

NIGEL PITTAWAY | MELBOURNE

The Litening pod is intended to provide electro-optic and infra-red (EO/IR) video in day and night conditions, which will be used to provide enhanced situational awareness to both the flight crew and commanders on the ground, via wideband satellite communications (SATCOM).

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The pods were originally acquired for the RAAF's F/A-18A/B Hornets as a targeting pod and entered service in 2007. With the withdrawal of the Hornet fleet in favour of the F-35A, which has an internal sensor and targeting system, the Litening pods are becoming surplus to requirements.

ADM understands that the laser designation capability of the pod will be disabled, rendering incapable of providing targeting information and therefore ruling out – at least for now – weapons such as the Hellfire air to ground missile, as seen on some US Marine Corps C-130J aircraft.

With this installation, the RAAF becomes just the second air force in the world to integrate the pod on to the C-130, behind the US Arkansas Air National Guard (ANG).

One aircraft has been modified at RAAF Richmond by C-130J maintenance provider Airbus Australia Pacific, with assistance from Lockheed Martin and Northrop Grumman. The aircraft (A97-448) is the RAAF's 'Jericho Demonstrator' and has already been modified with a number of modifications, including a high-speed satellite communications (SATCOM) system and an augmented crew station in the flight deck. Information received from the Litening pod will be displayed at the augmented flight station.

"A97-448 will allow us to explore how the Hercules and wider air mobility fleet will support operations as part of a fifth-generation air force," said Air Commodore Carl Newman, Commander Air Mobility Group (AMG).

"For air mobility, that means the ability to gather and share greater amounts of information within a battlespace, enabling better decision-making for the crew, embarked forces and other supporting units."

**"THE RAAF BECOMES JUST THE
SECOND AIR FORCE IN THE WORLD
TO INTEGRATE THE POD ONTO THE
C-130"**

The flight trials are being conducted at Richmond by 37 Squadron (the operators of the RAAF C-130J fleet) and the Aircraft Research and Development Unit (ARDU), supported by the Air Warfare Engineering Squadron. They began on January 17 without the pod installed, in order to determine baseline performance, followed by the initial flight with the pod on January 29.

"This trial will examine how the Litening pod can improve crew situational awareness to mitigate mission risks," AIRCDRE Newman added. "For example, (it) could help us maintain contact with survivors during search and rescue (SAR) operations or examine conditions at an airfield or drop zone prior to delivering cargo or personnel."

ADM first revealed the RAAF was considering fitting surplus Litening pods to the C-130J fleet early last year (see [Litening Pods for RAAF C-130Js?](#)).

LÜRSSEN CELEBRATES SME MILESTONES

Lürssen Australia celebrated its engagement with local industry on Defence's \$3.6 billion Arafura-class offshore patrol vessel program (Sea 1180 Phase 1), with an award ceremony for its SME supplier base in Perth on January 30.

■
NIGEL PITTAWAY | PERTH

The ceremony was attended by representatives from its SME supplier base and dignitaries including Lürssen Australia CEO Jens Nielsen, Minister for Defence Industry Melissa Price and WA State Government Minister for Tourism, Racing and Gaming; Small Business; Defence Issues; Citizenship and Multicultural Issues, Paul Papalia.

Before presenting representatives from each of the more than 100 SMEs it has engaged with on the OPV program with their award, Nielsen announced Lürssen Australia has donated \$100,000 to bushfire relief in the country.

"The dramatic bushfires which have impacted this country severely require a lot of help and support in rebuilding," he said. "I would like to think that our example will encourage our partners in the Sea 1180 project to find ways to contribute to assist those affected by bushfires."



Civmec's Henderson facility.

CIVMEC

Nielsen said that when Lürssen won the Sea 1180 program two years ago it committed to a 60 per cent Australian Industry Capability (AIC) and today the company has achieved 62.7 per cent.

"The result to date we are very proud of but (it) will also not stop us from continuing to achieve more," he promised. "We are proud to be part of this nation's shipbuilding future. We are proud to transfer Lürssen's experience, design and technical skill to Australia to help create a sovereign industry, which we are all part of."

Twelve Arafura-class OPVs are being acquired under the program, with the first two vessels now undergoing fabrication at ASC's facility at Osborne in SA. The following 10 ships will be built by Cvmec in Henderson, WA, in an impressive new fabrication facility now undergoing completion.

"On January 31, 2018, almost two years ago, Lürssen signed the Sea 1180 contract with the Commonwealth. We said we would be using Australian shipyards, Australian SMEs, Australian labour (and) Australian steel," Nielsen said.

**"TODAY IS A SMALL
STEP ALONG THE PATHWAY
WE WILL SHARE TOGETHER"**

"And in the two years we have achieved the scheduled design integration milestones in parallel with cutting steel since (the) fourth quarter of 2018. Construction of our 12 vessels is well on the way to ensure a timely handover to support Navy capability."

Cvmec has completed the cutting of steel for the first OPV, which it supplies to ASC in Osborne for ship fabrication and is about halfway through this process for Ship No. 2. The first steel is expected to be cut for Ship No. 3 – the first to be built at Henderson – at the end of March.

"We committed ourselves to a schedule which resulted in us jointly achieving the commencement of construction of OPV No. 1 in November 2018 and a keel laying ceremony on May 10, 2019 – as well as commencement of construction of OPV No. 2, which started on June 4, 2019," Nielsen told suppliers.

"We are preparing for the OPV No. 2 keel laying ceremony and commencement of construction of OPV No. 3 here in Henderson, where ships three to twelve are being built. And all of this is on time.

"Today is a small step along the pathway we will share together. We are proud of the relationship we have built, and we look forward to future milestones and activities such as achieving ship acceptance and sustainment opportunities. We are committed to Australian industry and we will continue to invest in its capability."

Disclaimer: The writer travelled to WA as a guest of Lürssen Australia.

CIRRUS WINS THREE NEW DEFENCE CONTRACTS

Cirrus has won three new contracts with the Department of Defence, managing director Peter Freed has announced.

EWEN LEVICK | SYDNEY

The first contract is with the RAAF for the development of light weight, deployable and interoperable Electronic Warfare (EW) sensors for the localisation of RF transmitters. The contract is for prototype development with no decision yet made on which platforms will be selected for trials.

The second contract is with the RAN for the extension for of Cirrus' Generic COMCEN Simulator (GCS) to additionally simulate the behaviour of the Maritime Tactical Wide Area Network (MTWAN) functionality that operates in concert with a ship's COMCEN (Communications Centre). The GCS is located at HMAS Cerberus, in the School of Signals Maritime Communications Information Systems Wing, and is used to mimic the operational environment faced by communicators on warships at sea.

The third contract is also with the RAN for the expansion of engineering services provided for additional Tactical Electronic Warfare (TACEW) equipment recently delivered by Cirrus to the RAN at HMAS Watson under a contract announced in October last year.

"The expansion was for an additional 39 training workstations, both by expansion to the existing facility at HMAS Watson and a new TACEW facility at HMAS Stirling," Freed



RAN trainees utilise the newly built Communications Centre Simulator at the Defence Force School of Signals.

DEFENCE

said to ADM. "The expansion at Watson is now complete - the newly agreed work announced is additional engineering services to support the new, extra equipment at Watson.

"Cirrus is very pleased to commence 2020 with these new work engagements with Defence," Freed said. "The breadth of engineering encompassed by these works - spanning from the development of sensor and simulation technologies to the supply of support engineering services - exemplifies the capability within the high technology SME sector of the Australian defence industry."

**"CIRRUS IS VERY PLEASED TO
COMMENCE 2020 WITH THESE NEW
WORK ENGAGEMENTS"**

MOST READ ONLINE AT WWW.AUSTRALIANDEFENCE.COM.AU



1. [Army helicopter starts major Canberra bushfire](#)
2. [Superpower launches direct attack on Australia](#)
3. [Austal's Australian shipyards can now service US warships](#)
4. [Lendlease secures HMAS Watson redevelopment](#)
5. [Contract awarded for Cocos/Keeling runway upgrades](#)

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
T: 07 3087 5101
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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Yaffa Media Pty Ltd
17-21 Bellevue St,
Surry Hills NSW 2010
T: 02 9281 2333

greatmagazines.com.au

ADM CANBERRA OFFICE

PO Box 4783, Kingston ACT 2604
T: 02 6203 9535

ADM BRISBANE OFFICE

PO Box 9165,
Wynnum Plaza Qld 4178
T: 07 3348 6966

australiandefence.com.au

SUBSCRIPTIONS GREATMAGAZINES.COM.AU CALL 1800 807 760 EMAIL SUBSCRIPTIONS@YAFFA.COM.AU

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The contract with the US Marine Corps follows previous contracts in 2018 and 2017.

DEFENCE

CANBERRA SME SIGNS CONTRACT WITH US MARINE CORPS

A small technology company from Canberra has signed a new \$1.4 million deal with the US Marine Corps.

Kord Defence, which develops programmable control systems for military and law enforcement markets, credits their export success to the early investment by the Defence Innovation Hub.

The contract will enable Kord to complete the development of its Rifle Accessory Control Unit Technology.

Minister for Defence Industry Melissa Price said it was an example of how the Defence Innovation Hub is opening doors for Australian companies.

"I'm pleased to see the investment our Government made in Kord has enabled them to grow and pursue new export opportunities in global markets," Minister Price said. "Along with growing the sovereign capability of our own defence industry, this is precisely what we designed the Defence Innovation Hub to do.

"It's really great to see another Canberra company highlighted on the world stage."

Kord's Managing Director, Dr Peter Moran said development of their technology would not have been possible without the support of the Defence Innovation Hub.

"Winning an Innovation Hub contract in 2017 enabled us to develop a wireless control system which formed the basis of the technology now being tested by the US Marine Corps," Dr Moran said.

Kord has previously signed contracts for its technology with the US Marine Corps, most recently in 2018, but has been working on the **technology** for over a **decade** now.

DEFENCE AND AEROSPACE PRECINCT SIGNS LEAD CONTRACTOR

The creation of the Astra Aerolab defence and aerospace precinct at Newcastle Airport has progressed with the appointment of Daracon as lead contractor for the \$13 million stage one civil works.

Stage one includes all the elements required to deliver on the promise of an uplifting experience for both workers and business. Including road pavements, sewer, water, lighting, CCTV, fencing, street furniture, signage, high quality landscaping and street art.

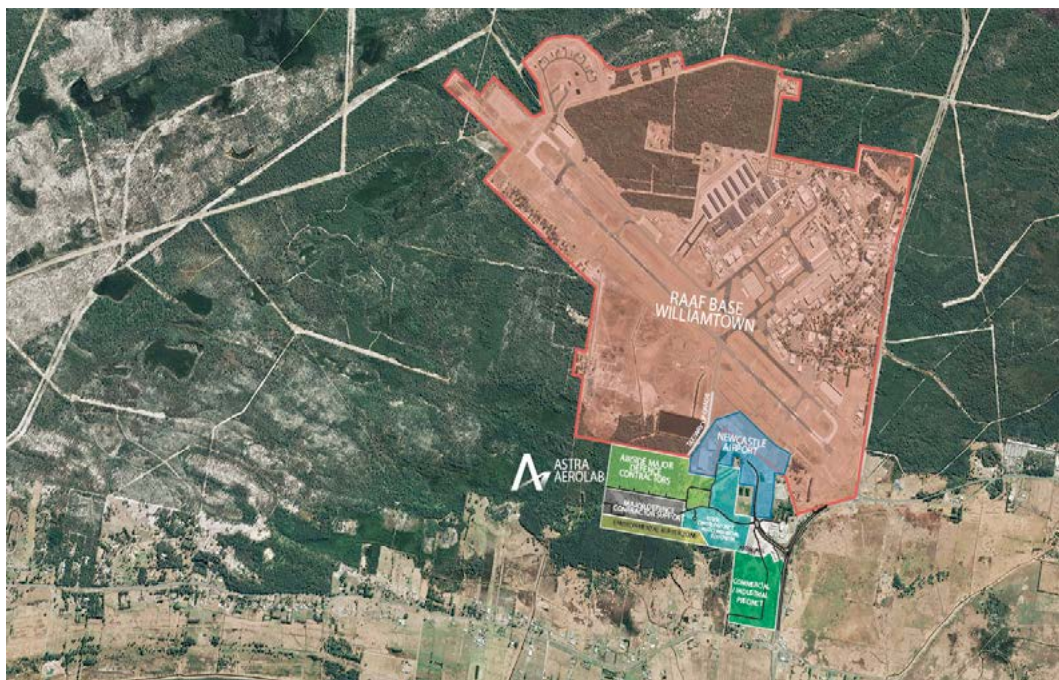
Newcastle Airport CEO Dr Peter Cock said the realisation of the hub will help position the region at the forefront of international innovation and high-end manufacturing.

"We've seen our region evolve quickly in recent years and we're confident Astra will be a catalyst for further growth and development into the future," he said.

"I'm confident this development will become the pre-eminent space for innovation in aviation, defence and aerospace-related manufacturing, maintenance, research and education in Australia.

"I'd like to congratulate prominent local firm Daracon Contractors on a successful tender application for this first stage of the Astra Aerolab development.

"We will also be ensuring this is a smart, sustainable site, including the installation of smart pole technology, which has already been adopted by the City of Newcastle,



The Astra Aerolab will be adjacent to RAAF Williamtown.

ASTRA AEROLAB

water sensitive urban design and additional fibre optic links to allow connections to our defence neighbours at RAAF Williamtown,” Cock said. “Wherever possible, construction material will be recycled.

“Ultimately, we’re aiming to achieve overall precinct sustainability accreditation with our design to create something truly remarkable.”

“We are very excited to have the opportunity to continue working with Newcastle Airport and commence the civil works for the Astra Aerolab Development,” Daracon Executive Manager David Mingay said. “We are a Newcastle business, so it is great to be involved in a significant local project such as this. Astra Aerolab will be a great boost to the region, and another step in the ongoing success and growth of the airport.”

The NSW Government contributed \$11.8 million to the Astra Aerolab development under the Growing Local Economies program, established under the Restart NSW Fund.

NSW Deputy Premier John Barilaro congratulated the Daracon Group on securing the contract to deliver the first tranche of the development.

“This project will support the local construction industry while also delivering future economic growth, and I’m delighted the NSW Government is contributing significant funding to assist with the delivery of this outstanding new infrastructure,” Barilaro said.

Expected completion of the stage one works is scheduled for late 2020. The tender is based on a four-contractor panel that will run for three years with Daracon being the first panel member to secure work.

**“I’M CONFIDENT THIS DEVELOPMENT
WILL BECOME THE PRE-EMINENT
SPACE FOR INNOVATION”**



The vessel can perform a variety of surface and subsea tasks.

MARINELOG

DAMEN DEVELOPS NEW OSV CONCEPT VESSEL

Following calls for greater vessel versatility offshore, Damen Shipyards has developed a new concept vessel – the Offshore Support Vessel (OSV) 9020. It features a stable platform with lots of accommodation, good station-keeping capability, low carbon emissions and flexibility to add mission-specific tools.

“We were approached by several different operators at the same time, all looking for slightly different offshore capabilities, but similar enough that their requirements could be met with a conceptual standard platform,” Damen's design and proposal engineer Mark Couwenberg said. “The thinking behind the OSV 9020 is very much in line with the Damen philosophy of shipbuilding in series; it's a standard product, as a result drawing upon proven technology, that can be tailored to individual requirements via modularisation.”

The vessel has been designed to perform a variety of offshore tasks both at surface level and subsea.

“The vessel can be fitted with a moonpool-deployed saturation dive system to allow diving operations at offshore crane, a stern A-frame and an offshore access system,” Couwenberg said. “The vessel can also act as a submarine rescue vessel. For this,

submarine rescue gear is placed on deck. To ensure suitability for this scope of work, the available vessel accommodation, manoeuvring systems and dive support systems are crucial features."

Accommodation is a key feature for the success of any offshore operation. The OSV 9020 provides living space for up to 120 people on board. The interior design is designed to ensure those on board will quickly feel at home, with lots of possibilities to personalise their stay on board.

"There has been a lot of consideration to make sure the accommodations are both functional and comfortable," Couwenberg said. "For example, care has been taken to ensure proper on board logistics, so that daily routines are as efficient as possible and that working areas are separated from living space."

A helicopter deck is integrated in the design, further increasing the vessel flexibility.

The vessel is primarily designed to operate on DP. The complete hull, superstructure and thruster layout is designed for this. The hull features equally good ahead and astern performance. The vessel profile ensures low wind catch. The four identical azimuthing thrusters are arranged symmetrically: two on the stern and two on the bow. This ensures maximum station-keeping performance while avoiding high noise levels in the accommodation. In addition, this clever layout results in lower maintenance costs,

"THE VESSEL HAS BEEN DESIGNED TO PERFORM A VARIETY OF OFFSHORE TASKS BOTH AT SURFACE LEVEL AND SUBSEA"

lower fuel consumption and less total installed power. Although the main benefits of the design are seen during station-keeping, the transit performance of the vessel is also very efficient. Speed and fuel consumption are hardly sacrificed by the layout.

The diesel generators are supported by a battery pack. The electric system is designed to operate safely with closed bus-ties. This makes it safely possible to have less engines running, resulting in reduction of fuel oil consumption and harmful emissions with up to 20 per cent and less maintenance.

Also with clean, sustainable operations in mind, the vessel is fitted with a hybrid power generation system, resulting in low emissions.

However, the vessel can optionally be delivered to operate on green methanol, produced from biological waste streams. This allows reduction of well-to-propeller CO2 emissions by approximately 70 per cent. In addition to the ease of bunkering offered by green methanol at most ports in the world, says Damen, it is easy to handle safely on board and is cost-efficient. Additionally methanol sacrifices very little design capacity so that the vessel does not need to be larger to achieve similar endurance.

Note: This article originally appeared on MarineLog.

FORTHCOMING EVENTS

ADM EVENTS

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

- – 19 February 2020, Playhouse Theatre | Canberra
- [ADM Space Summit](#) – 28 April 2020, Hyatt Hotel | Canberra
- [ADM STEM and Defence Summit](#) – 19 August 2020, Novotel | Brisbane
- [ADM Defence Estate and Base Services Summit](#) – 22 September 2020 | Canberra
- [Defence in the North](#) – 28 October 2020 | Darwin Convention Centre

DEFENCE EXPORT CONTROL COURSE (PERTH)

DATE 11 February 2020
LOCATION 4 McGrath Road, Henderson.
WEBSITE www.stickytickets.com.au/UGCHD

Join us for a 1-day face-to-face training course to de-mystify the complex area of Export Control regulations. The course is suitable for SME's and will address ITAR, EAR and DEC, advice on employing dual and third country nationals, licensing requirements, and much more.

DEFENCE EXPORT CONTROL COURSE (ADELAIDE)

DATE 13 February 2020
LOCATION 19 Young Street, Adelaide
WEBSITE www.stickytickets.com.au/UGCHD

Join us for a 1-day face-to-face training course to de-mystify the complex area of Export Control regulations. The course is suitable for SME's and will address ITAR, EAR and DEC, advice on employing dual and third country nationals, licensing requirements, and much more.

AIDN NATIONAL DEFENCE INDUSTRY GALA DINNER 2020

DATE 19 February 2020
LOCATION QT Hotel Ballroom
WEBSITE consec.eventsair.com/aidn-2020/dinner/Site/Register

AIDN National invite you to attend a defence industry gala event not to be missed. The dinner will include pre dinner drinks and canapes on arrival followed by a gourmet two course dinner served with premium beverages. Guests will enjoy an evening of networking, socialising and fun which includes a VIP guest speaker, presentation of the AIDN National Young Achiever Award and Silent Auction with all proceeds donated to Legacy

CERTIFICATE IV IN RESPONDING TO ORGANISATIONAL COMPLEXITY | ADELAIDE

DATE 19-21 February, 2020
LOCATION to be confirmed
WEBSITE iccpm.com/events/certificate-iv-adelaide-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.

RAAF AIR POWER CONFERENCE

DATE 24-25 March, 2020
LOCATION National Convention Centre, Canberra
WEBSITE <https://raaf.eventsair.com/2020-Air-Power-Conference/>

The RAAF will be conducting its biennial Air Power Conference on the theme of Air Power and Indo-Pacific Security over the period 24-25 March 2020 at the National Convention Centre in Canberra. The Conference attracts more than 1000 delegates drawn from national and international Air Forces and other military Services, Government, Defence Industry, academia and think tanks. The biennial Air Power Conference has grown into a regionally and internationally respected forum which has engaged a number of important and relevant air power themes in its discussions.

CERTIFICATE IV IN RESPONDING TO ORGANISATIONAL COMPLEXITY | CANBERRA

DATE 24-26 March, 2020
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 26 March 2020
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 16-17 April, 2020
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.

AUSCERT 2020

DATE: 02-05 June 2020
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.

QUANTUM TECHX

DATE 08 June, 2020

LOCATION TBC

WEBSITE <https://www.quantumtx.com.au/qtx-program>

TechX is powered by leading innovation providers, Atomic Sky, and its team of experienced business scale-up facilitators. It's supported by a range of financiers, corporate and government partners who provide access to sites, specialist sector expertise, technical mentors and networks. Through the program each company will be provided condensed capability building, tailored site visits and direct mentoring to build capability, capital and connections.

ROTORTECH 2020

DATE 16-18 June 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.

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.

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

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.

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 Various**LOCATION** Various**WEBSITE** <https://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** <https://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.