

# ADM

AUSTRALIAN DEFENCE MAGAZINE

SERVING THE BUSINESS OF DEFENCE

## DEFENCE WEEK PREMIUM EDITION



Major General Simon Stuart, Head Land Capability, speaking to delegates at ADM Congress 2021.

ROYA GHODSI

## LARGE TURNOUT AT ADM CONGRESS 2021

The 2021 *ADM* Congress brought speakers and delegates together at a Covid-safe event at the National Convention Centre in Canberra yesterday, which for many (including the *ADM* team) was the first return to a face-to-face format since the pandemic began.

EWEN LEVICK | CANBERRA

At a drinks event at the Hyatt on Tuesday night, delegates were introduced to the new Shadow Defence Minister Brendan O'Connor, who spoke on the importance of a strong defence industry and his intent to maintain a largely bipartisan approach to the sector.

Minister for Defence Industry Melissa Price, who was due to speak in person before she was required to self-isolate following the snap lockdown in Perth, opened the day proceedings with a video message instead.

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Minister Price spoke about the government's support for industry after the pandemic began, particularly through accelerated invoice payments but also through direct contact with key players.

"Supporting defence industry throughout Covid-19 has been my highest priority," Minister Price said. "That's why I hosted weekly calls with primes, SMEs, and others to hear problems and provide quick solutions."

Minister Price also highlighted the importance of the 2020 Defence Strategic Update and Force Structure Plan for defence industry, both in terms of the business opportunities within and the wider undercurrents of geopolitical change that the documents reflect.

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**"FOCUSING ON ONE PART –  
A VEHICLE OR A HELICOPTER –  
IS TO MISS THE POINT ENTIRELY"**

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Major General Simon Stuart, speaking on behalf of Chief of Army Lieutenant General Rick Burr, made the same point.

"Our strategic environment is one of perpetual cooperation, competition and conflict," MAJGEN Stuart said. "We need to make sure our Defence

enterprise is fit for purpose - turning intent and purpose into capability."

MAJGEN Stuart also spoke about the importance - from an industry point of view - of thinking of Army as a 'system of systems'.

"A warship is a system of systems combined in a single hull," MAJGEN Stuart said. "Army capability is delivered at the point of need by scalable teams. They too are a system of systems. Focusing on one part - a vehicle or a helicopter - is to miss the point entirely."

Next up was Tony Dalton, Deputy Secretary of National Naval Shipbuilding for Defence, who announced the forthcoming release this year of the Shipbuilding and Sustainment Plan as a follow-up to the Naval Shipbuilding Plan, which was brought about by the 2020 Defence Strategic Update and Force Structure Plan.

Dalton also said that shipbuilding in Australia is now a truly continuous effort, with design efforts already planned to replace the Hobart class destroyers, the last of which only joined RAN service in 2020.

"Ship 10 of the continuous build at Osborne will be the replacement of HMAS *Hobart*," Dalton said. "That's a positive sign supporting continuous naval shipbuilding in Australia."

However, Dalton did acknowledge pandemic-related delays.

"We have seen delays, as you'd have seen in the arrival of our first Supply replenishment ship, which is 6 months behind schedule," Dalton said. "The second will arrive in the next few months."

Chief Defence Scientist Professor Tanya Monro delivered an impassioned speech on her priorities and how she sees Australian research capability plugging into defence capability.

"I have a passion to make sure Australian research is done in the knowledge of how it can be applied - how it can be used by the end user, the ADF," Professor Monro said. "We'll be putting more focus on rapid prototyping, partnering with companies and universities, and we're working in a new way with our international and Five Eyes partners to align our areas of priority."

Professor Monro highlighted DSTG's partnership with PMB Batteries to research a nickel-zinc battery for the Collins and Attack class submarines as an example, as well as their strategic alliance with Gilmour Space to develop Australia's first sovereign orbital launch capability by 2022.

Richard Cho, managing director of Hanwha Defense Australia, spoke after morning tea on his company's experience in readiness through supplying the South Korean military, which has been on a war footing since 1953 – providing platforms for operational use as soon as possible.

Managing director of Rheinmetall Defence Australia Gary Stewart followed with an overview of how his company is plugging their local suppliers into global supply chains, focusing on the examples of Bisalloy Steels and Milspec.

Marcus Hellyer of ASPI, a regular feature at *ADM* events, covered the growing size of the defence budget and what it means for industry, followed by Dr Ben Greene of EOS on the meaning of sovereignty and how Australia is 'failing' on the resiliency front.

The rest of the day was equally packed, with presentations and talks from Andrew Foster of Downer Defence Systems; Dr John Coyne of ASPI; Matthew Wilson, CEO of Penten; Commodore Michael Turner, Director General Defence Exploration Force for Defence; Karen Stanton, owner and director of the HTA group of companies; Gareth Molnar, CEO of J3Seven; Tim Pickford, director of business development and strategy for Hanwha Defense Australia, and more.

Full coverage of the event will be available in the March/April edition of the magazine.

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## DETAILS EMERGE ON SEA 1300 PHASE 1

**As *ADM*'s online editor Ewen Levick reported in our previous issue, Minister for Defence Linda Reynolds last week announced a one-billion-dollar investment in 'advanced maritime guided weapons.'**

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**NIGEL PITTAWAY | CANBERRA**

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**A**s Ewen also noted in his story, the minister's release did not go into great detail about exactly what the proposed investment would entail and - as has become the norm for ministerial releases, which have to conform with the 'jobs and growth' mantra – the document triggered rather more questions than it in fact answered.

Minister Reynolds' statement said the project "will provide Navy with leading-edge long-range anti-ship missiles, extended range surface-to-air missile, advanced light-weight torpedoes and maritime land strike capabilities."

Although the Evolved Sea Sparrow, SM-2 and SM-6 missiles with ranges 'in excess of 370 km' were named in the release, no details were given regarding the land strike missile which, it said, would have a range 'in excess of 1,500 km'.

"These new weapons will enhance the protection of our maritime resources and



An Australian warship firing a live Harpoon Missile firing off the coast of Hawaii during Exercise Rim of the Pacific 2020. DEFENCE

borders, and hold adversaries at risk at much greater distances,” the release added.

The investment is actually part of Project Sea 1300 Phase 1 (Navy Guided Weapons), a ‘program of program’ of weapons, which gathers several previous projects together under its umbrella and is part of the government’s \$24 billion investment in maritime weapons over the next two decades forecast by the recent Defence Strategic Update and Force Structure Plan.

**“PROCUREMENT PLANS, INCLUDING TIMEFRAMES, WEAPON SELECTIONS, AND INVENTORY QUANTITIES, WILL BE THE SUBJECT OF ONGOING CONSULTATION”**

In order to learn more about which weapons and/or capabilities are covered under last weeks’ announcement, ADM recently contacted Defence for further details.

The ESSM Block II short-range air defence weapon is under development by the NATO Sea Sparrow Consortium and adds an advanced dual mode seeker, which a Defence spokesperson said will “maintain Navy’s short-range integrated

air and missile defence capability edge.”

Production of this latest variant began in 2019 and will initially be employed in Navy’s eight Anzac-class frigates from the early 2020s. The new weapon will replenish the inventory holdings of the ESSM Block 1 variant currently in service.

The announcement also foreshadows Australia’s investment in the development of the SM-2 Block III C weapon to replace the Block IIIB missiles now in service in the RAN and also the SM-6 Block 1, which is a longer-range air defence weapon that can also be used as an anti-ship weapon and, in the future, provide a ballistic missile defence (BMD) capability.

This latter capability requires upgrade of the Aegis combat system used by the Navy's Hobart class air warfare destroyers (and, in the future, Hunter class frigates) to Baseline 9.0 configuration and Australia is likely to become one of the first export customers for the SM-6 missile.

"The Standard Missile family of weapons integrates seamlessly into the Aegis combat system, which is the backbone of Navy's integrated air and missile defence capability. Australia's planned participation in future Standard Missile development ensures the Aegis-fitted surface combatants such as the Hobart-class destroyer and Hunter-class frigates are fielding the most advanced systems in the world," the spokesperson explained.

"Future government decisions regarding investment in Navy's Standard Missile inventory will be deliberately staged to leverage upgrades to the Aegis combat system and associated Australian interface delivered by a skilled Australian workforce through the national shipbuilding enterprise from the mid-2020s."

Australia has been invited by the US Navy to enter into an Armaments Co-operative Program (ACP) for the development of the Mk.54 Mod 2 lightweight torpedo, similar to the agreement between the two parties currently existing for the Mk.48 Advanced Capability (ADCAP) heavyweight torpedo.

In its Mk.54 Block 0 form, the lightweight torpedo is currently employed by the Navy's MH-60R Seahawk combat helicopter and the RAAF's P-8A Poseidon maritime patrol aircraft. While Defence is reluctant to provide details of the Mk.54 Block 2's capabilities, US Navy sources have stated that the weapon will have a new warhead and propulsion system and is expected to enter service around 2026.

ADM also understands that the MU-90 torpedo currently used by Navy's surface combatants does not have a follow-on development path, in ADF terms at least, and Mk.54 Block 2 weapon development is being watched closely in this context as well.

Finally, what of the 1,500 km land strike missile mentioned in Minister Reynolds's announcement?

"Defence is considering a number of options to meet its maritime land strike capability needs. A portion of the planned \$1 billion investment will facilitate studies into potential weapon systems and the complex work required to integrate them into surface combatants and submarines," the Defence spokesperson said.

"Procurement plans, including timeframes, weapon selections, and inventory quantities, will be the subject of ongoing consultation with industry and (further) Government decisions."

**CHANGING OUR WORLD**



AIRBUS



A Light Landing Craft is seen at Cowley Beach in Queensland.

DEFENCE

## DEFENCE ANNOUNCES AMPHIBIOUS FLEET ACQUISITION PLAN

Defence has announced that it will invest up to \$800 million to acquire new fleets of Australian-built amphibious vehicles and landing craft.

Minister for Defence Linda Reynolds said the Army Littoral Manoeuvre – Light project, Land 8710 Phase 1 will strengthen the ADF’s amphibious capabilities.

**“THESE NEW VESSELS, INTRODUCED FROM 2026, WILL BE LARGER, FASTER, AND BETTER PROTECTED”**

“These new vessels, introduced from 2026, will be larger, faster, and better protected to support ADF operations,” Minister Reynolds said. “They will allow Defence to quickly and effectively deploy both domestically and to our near region, as well as remain engaged with regional security partners and support humanitarian assistance to our neighbours in the Indo-Pacific.

“We have also seen the importance of the Army water transport capability most recently on Operation Bushfire Assist 19-20, evacuating Australians to safety off beaches and delivering much needed supplies.”

Through the project, an Independent Landing Craft will be delivered to replace the Army’s existing LCM-8 vessels. An amphibious vehicle will also be built to replace Army’s current LARC-V which will offer significant opportunities for Australian industry in the vehicle’s design, build, maintenance and through-life support phases.

“Australian industry involvement will be maximised throughout the design, construction and sustainment phases of this project,” Minister for Defence Industry Melissa Price said.

With two separate fleets to be acquired, the watercraft will provide independent shore-to-shore, ship-to-shore, and over-the-shore capabilities to better manoeuvre and sustain the ADF in littoral and riverine environments.

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## MARAND JOINS TEAM LYNX

**Marand Precision Engineering has partnered with Rheinmetall Defence Australia to deliver the Lynx KF41 Infantry Fighting Vehicle in Australia should it be selected for the \$18.1-\$27.1 billion Land 400 Phase 3 program.**

**M**arand has operations in Melbourne and Geelong and supplies sophisticated engineering solutions to the defence, aerospace, rail, mining and energy sectors. It designs and manufactures solutions for a customer base that includes Lockheed Martin, Boeing, BAE Systems, BHP and Rio Tinto.

“We look forward to our strategic partnership with Rheinmetall and Team Lynx,” Marand CEO Rohan Stocker said. “Marand has decades of experience across a variety of industries, where our manufacturing expertise, business systems and scale truly set us apart from our competitors.”

Rheinmetall has delivered three Lynx vehicles to compete in the test and evaluation trials as part of the Risk Mitigation Activity (RMA) to be conducted around Australia over a 12 month timeframe.



The Lynx IFV is currently undergoing a risk mitigation activity.

SUPPLIED

**“WE LOOK FORWARD TO OUR STRATEGIC PARTNERSHIP WITH RHEINMETALL AND TEAM LYNX”**

Rheinmetall Defence Australia Managing Director Gary Stewart said Marand was an outstanding Australian company with a reputation globally in major Defence projects.

“Marand is a proven partner with a global presence in Defence and its design, development and manufacturing work will be critical to the successful delivery of our vehicles to the Australian customer,” Stewart said.

Lynx has been selected by the Hungarian Armed Forces for the delivery of more than 200 vehicles in the first launch order for the vehicle globally.

Marand joins a number of companies announced on Team Lynx in recent weeks, including TacMed, DEFCON Technologies, Rockpress, Queensland Gaskets.

## MURRAY CONSULTING SOLUTIONS OPENS NEW HEADQUARTERS

**Murray Consulting Solutions has opened a new purpose-built headquarters building in Medowie, adjacent to RAAF Base Williamtown.**

Worimi Elder Uncle John, MPs Meryl Swanson and Kate Washington, and Commander Air Combat Group AIRCDRE Tim Alsop joined Murray Consulting Solutions (MCS) staff and family members to celebrate an exciting milestone for the company.



The building has been designed to support Defence capabilities.

SUPPLIED

MOST READ ONLINE AT [WWW.AUSTRALIANDEFENCE.COM.AU](http://WWW.AUSTRALIANDEFENCE.COM.AU)

1. [British Army takes Australian drone to Mali](#)
2. [ADF to get new long range maritime missiles](#)
3. [Defence downselects OPV variant to replace Huon class](#)
4. [Missile purchase prepares ADF for Taiwan contingency](#)
5. [ADM Analysis - Beyond Five Eyes](#)

The security-accredited building has been designed to support Defence capabilities. MCS has also installed a significant solar generation system, electric vehicle charging stations, as well as water retention and filtering systems.

“Opening of this facility is very exciting as it importantly provides our employees a caring, happy environment where they can innovate and work together more productively,” Jason Murray, Managing Director of MCS, said. “We wanted the facility to be both a statement and a reflection of our vision - to make an outstanding difference in all things we do for employees, clients and our community.

**“WE WANTED THE FACILITY TO BE BOTH A STATEMENT AND A REFLECTION OF OUR VISION”**

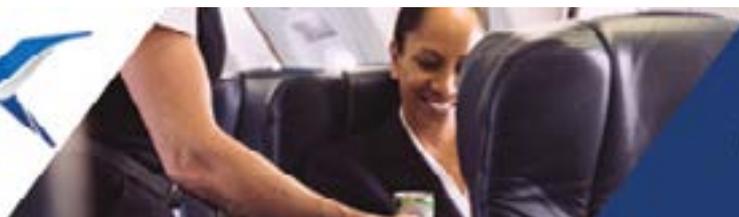
“We invested in a building that will make a difference for our team’s and clients’ day to day work, as well as making a positive environmental impact through solar and EV initiatives which are tied into our MCS Green program.”

Following an engineering career in Air Force, Murray formed MCS in 2011 and the business now boasts a team of over 40 permanent employees.

“We go above and beyond to delight our customers, and specialise in providing award winning project, engineering, logistics, commercial, test and evaluation and maintenance management services,” Murray said. “Our core focus is providing services to Defence.”

Recent MCS support to Defence includes the Air Force Human Performance Program, Defence Science & Technology Maritime Robotics, air traffic control upgrades, the Airborne Early Warning & Control upgrade, the Lead-in Fighter Capability Assurance Program and F-35 commercial support.

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The Loon program was an effort to bring internet to the 'last billion users'.

ALASTAIR WESTGARTH VIA MEDIUM

## ALPHABET EXITS DRONES

**In 2017, after four years of setbacks and crashes, Alphabet shut its project flying solar-powered fixed-wing drones in the upper atmosphere to beam the internet to those cut-off, according to IDTechEx.**

Alphabet, parent of Google, has also dumped its 'Loon' upper-atmosphere balloon version, which was intended to bring cellular connectivity to remote parts of the world.

Facebook then exited its similar project, but the Chinese aerospace industry, Airbus, Boeing, and NASA are progressing.

The Chinese solar Mei Ying drone can survive night and day at the weaker light at 4600 metres, where it is used to quickly establish a WiFi emergency network and to conduct surveillance in remote regions. It is expected to be able to team with future 6G upper-atmosphere drones and low-earth-orbit LEO satellites.

"The road to commercial viability has proven much longer and riskier than hoped. So we've made the difficult decision to close down Loon," Astro Teller, who heads X, the Alphabet subsidiary, said.

The Loon helium-filled balloons were powered by solar panels and guided by artificial intelligence, transmitting internet signals to ground stations and personal devices. The first commercial use was in 2020 with Telkom Kenya, when 35 balloons were deployed to provide a 4G LTE network connection to Nairobi.

PEOPLE ON THE MOVE

Frazer-Nash Consultancy has appointed Christian Rayes to its Systems Safety and Assurance team, based in the firm's Adelaide office. "With significant experience in Naval Architecture, Marine Engineering and Structural Design, Christian's skill set will strengthen Frazer-Nash's extensive defence and maritime capabilities," the company said.

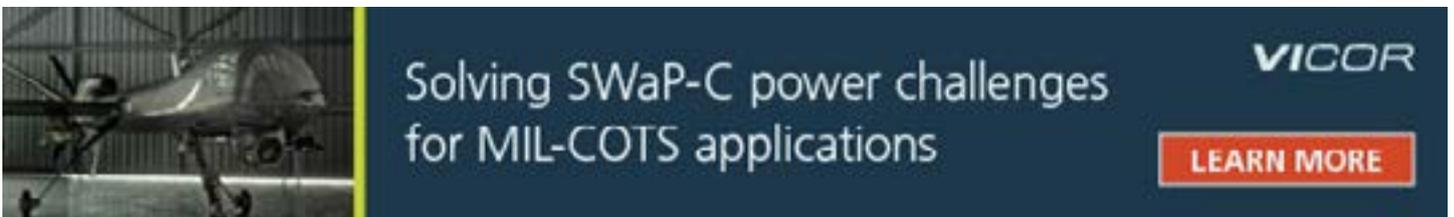
archTIS has announced three key executive appointments. Former Nucleus Cyber CEO Kurt Mueffelmann has joined the company as the new Global COO and US President to define and oversee archTIS's overall business and growth strategy. The company has also appointed former Nucleus Cyber executives Irena Mroz as Chief Marketing Officer and Leigh Rowland as Chief Engineer.

A competing inflatable is the Stratobus unmanned airship under development by Lockheed Martin and Thales Alenia Space in cooperation with the French defence procurement agency DGA. The Stratobus is expected to compete with LEO satellites by holding a steady position and carrying over ten times the payload at a lower cost.

**"THE ROAD TO COMMERCIAL VIABILITY HAS PROVEN MUCH LONGER AND RISKIER THAN HOPED"**

Early this year, Thales Alenia Space and Thales signed a contract with DGA for a concept study of the platform's intelligence, surveillance, and reconnaissance applications. The first flight is expected in 2023.

"6G communications may become an even bigger business than the 5G that is now rolling out worldwide," Raghu Das, CEO of analysts IDTechEx, said. "The Chinese have just sent up a satellite to study 6G physics in the simple environment of space. This is virgin territory."



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The latest Defence Innovation Hub contracts have been announced.

DEFENCE

## LATEST DEFENCE INNOVATION HUB CONTRACTS ANNOUNCED

**Minister for Defence Industry Melissa Price has announced 10 new Defence Innovation Hub contracts.**

“This latest tranche of investment in businesses and academia is worth more than \$21 million,” Minister Price said.

“These contracts will enable the development of promising technologies that could help protect and sustain Australian personnel in the field.”

**“THESE CONTRACTS WILL ENABLE THE DEVELOPMENT OF PROMISING TECHNOLOGIES”**

The contracts include a \$3.7 million contract with Queensland company Downer EDI Engineering for technologies to counter improvised explosive devices; a \$2.7 million contract with New South Wales company Spearpoint Solutions for a digital combat helmet; and \$3.1 million in contracts with Victorian company Defendtex for next generation body armour and a lightweight modular shotgun system.

“We are also investing in advanced power storage and generation technologies, through a \$3.3 million contract with the Royal Melbourne Institute of Technology and a \$1.8 million contract with Florestan Technology in NSW,” Minister Price said.

The contracts also include \$1.9 million for WA company Techventure Investments to develop a lightweight high-performance projectile, and \$1 million for researchers from the University of WA to develop secure communications system components.

“I am pleased to see West Australian innovators showing strong potential to provide Defence with game-changing capabilities,” Minister Price said.

Other recipients include the Royal Melbourne Institute of Technology to explore next generation integrated counter improvised explosive device technologies; SYPAQ Systems to develop an enhanced imaging capability for diverse applications; Florestan Technology to develop a multi-fuel, lightweight portable power generation system; and BIA5 to develop an innovative electronic trip flare device.

### CONTACT DETAILS

**MANAGING EDITOR**

Katherine Ziesing  
T: 0419 014 308  
[katherineziesing@yaffa.com.au](mailto:katherineziesing@yaffa.com.au)

**ONLINE EDITOR**

Ewen Levick  
T: 02 9213 8249  
[ewenlevick@yaffa.com.au](mailto:ewenlevick@yaffa.com.au)

**ASSOCIATE PUBLISHER**

Kylie Leonard  
M: 0404 844 851  
[kylieleonard@yaffa.com.au](mailto:kylieleonard@yaffa.com.au)

**DESIGNER**

Lauren Esdaile

**SUBSCRIPTIONS**

Martin Phillpott  
Toll Free 1800 807 760  
[martinphillpott@yaffa.com.au](mailto:martinphillpott@yaffa.com.au)

**CONTRIBUTORS**

Julian Kerr  
T: 0418 635 823  
[jhrhkerr@bigpond.net.au](mailto:jhrhkerr@bigpond.net.au)

Nigel Pittaway  
M: 0418596131  
[cnpittaway@bigpond.com](mailto:cnpittaway@bigpond.com)

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**ADM CANBERRA OFFICE**

PO Box 4783, Kingston ACT 2604  
T: 02 6203 9535  
[australiandefence.com.au](http://australiandefence.com.au)

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# FORTHCOMING EVENTS

## ADM EVENTS

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

- [Defence Estate and Base Services Summit](#) – 07 July 2021, Hotel Realm | Canberra
- [STEM in Defence Summit](#) – 16 August 2021, Emporium Hotel | Brisbane
- [Northern Australia Defence Summit](#) – 28 October 2021 | Darwin

## WOMEN IN STEM

**DATE** 25 February 2021

**LOCATION** Online (NSW, VIC, QLD)

**WEBSITE** <https://www.eventbrite.com.au/e/women-in-stem-join-event-eeon-neeopa-dpa-tickets-135113336627?aff=DPA>

DPA, NEEOPA and EEON are joining forces to present a panel conversation discussing women in STEM and how to tackle the prevailing barriers in creating more gender-equal industries. The expert panel will explore the following themes and provide practical strategies you can use immediately in your workplace, or in your entrepreneurial endeavours: attraction and how to inspire the next generation and end under-representation; how we reshape the stories we share about STEM to address enduring myths; rethinking attraction to grow our pipeline, including the role of research and universities; why women leave STEM: the challenges of culture and covert discriminatory practices; and practical strategies to make schools, universities and workplaces ready and more inclusive. This virtual event will be free to attend.

## MARCH 2021 AVIATION AUCTION

**DATE** 12 March 2021

**LOCATION** 80 Beach Road, Lara, Victoria

**WEBSITE** [australianfrontlinemachinery.com.au/march-2021-aviation-auction](http://australianfrontlinemachinery.com.au/march-2021-aviation-auction)

With Australian Frontline Machinery – This huge ex-Military Aviation Auction includes 8 Pilatus PC-9/A Aircraft, 4 Schleicher ASK 21 Mi Gliders, an Aermacchi MB-326 'Macchi' grounded Jet Training Aid and over 200,000 Spare Parts direct from ADF up for auction on the 12th March 2021. Please check individual listings for each aircraft. Inspection held on 15th – 19th March 2021\*. Inspection advised, video inspections available. \*Subject to change

## **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.

## **CHIEF OF ARMY SYMPOSIUM**

**DATE** 19-20 April 2021  
**LOCATION** Brisbane Convention and Entertainment Centre

In previous years, the Chief of Army's Land Forces Seminar (CALFS) was an event focused on counterpart engagement and featured as part of the broader Land Forces Exposition. In 2021, the Chief of Army's Symposium (CAS) will replace CALFS and will include a number of activities focused on partnerships, technology, innovation and people. It is scheduled to be held at the Brisbane Convention and Entertainment Centre over the period 19-20 April.

## **ARMY ROBOTICS EXPOSITION 2021**

**DATE** 20 April 2021  
**LOCATION** Brisbane Convention and Entertainment Centre

Army is hosting the Army Robotics Exposition 2021 (ARX 2021) to facilitate observation and demonstration of RAS concepts and technologies. ARX 2021 will provide an opportunity for Defence personnel including Capability Manager Delegates to view available technologies and innovations which may be applied to the future operating environment.

## **HUNTER DEFENCE CONFERENCE**

**DATE** 22-23 April 2021  
**LOCATION** Crown Plaza, Hunter Valley  
**WEBSITE** [www.hunterdefence.org.au](http://www.hunterdefence.org.au)

The Hunter Defence Conference will be held in April next year at the Crown Plaza in the Hunter valley. More details will be available soon.

## **LAND FORCES 2021**

**DATE** June 1-3 2021  
**LOCATION** Brisbane Convention Centre  
**WEBSITE** [landforces.com.au](http://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 2021 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 2021 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 2020s starts at the top. Now in its 8th year, PGCS 2021 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

## INDO PACIFIC 2022

**DATE** 12 May 2022  
**LOCATION** ICC Sydney  
**WEBSITE** [pacificexpo.com.au](http://pacificexpo.com.au)

INDO PACIFIC, the biennial International Maritime Exposition, will combine an extensive exhibition presence, a comprehensive conference program and a schedule of networking and promotional opportunities. It will be the 12th iteration of this internationally renowned event, and will be a critical link event for Defence, government and industry as Australia defines how it will invest \$90 billion on new ships, submarines and their systems and support.

## VARIOUS DATES

### ASDEFCON TD /IP ONLINE COURSES

<b>DATE</b>	Various
<b>LOCATION</b>	Online
<b>WEBSITE</b>	<a href="mailto:defence@majortraining.com.au">defence@majortraining.com.au</a>

Defence have begun online delivery of its short course on the Technical Data / Intellectual Property (TD/IP) clauses in its ASDEFCON suite of templates. These clauses provide far more flexibility and scope to deal with TD/IP issues than the previous ones. Defence will offer a number of spaces to Defence Industry on each online course to ensure the new TD/IP regime is successfully adopted by industry. These positions are centrally funded by Defence.

### ICCPM ONLINE WORKSHOPS

<b>DATE</b>	Various
<b>LOCATION</b>	Online
<b>WEBSITE</b>	<a href="http://iccpm.com/online-workshop-webinars">iccpm.com/online-workshop-webinars</a>

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.



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