

ADM

AUSTRALIAN DEFENCE MAGAZINE

SERVING THE BUSINESS OF DEFENCE

DEFENCE WEEK PREMIUM EDITION



Minister for Defence Industry Melissa Price with Air Commodore Damien Keddie, Director General Joint Strike Fighter Branch for CASG. DEFENCE

DEFENCE MOVES TO MITIGATE PRESSURE ON SMES

Defence is assessing which projects can be bought forward to mitigate the pressures on SMEs caused by COVID-19, and is now paying approved invoices within a maximum of two days, Defence Industry Minister Melissa Price told ADM on 7 April.

JULIAN KERR | SYDNEY

Since 23 March, Defence has paid more than 34,000 invoices to a value of \$2.3 billion, of which 71 per cent has been actioned early.

"I will personally intervene if I hear of any cases where major contractors are not flowing the benefits of early payments to small businesses in a reasonable time," Minister Price said.

"I am holding weekly teleconferences with the leaders of defence companies, contractors, industry groups with senior Defence officials to hear first-hand their issues. We are working to provide fast help and good advice on

IN THIS ISSUE

Defence moves to mitigate pressure on SMEs	1
An SME perspective on surviving COVID-19	2
Raytheon and United Technologies complete merger	4
12thLevel wins export approval	5
US approves support contract for RAN MH-60Rs	6
AI trialled in search and rescue operations	7
Forthcoming Events	9

clearing roadblocks and ways to keep our defence industry strong," she stated.

Projects being assessed for accelerating ranged across Capability and Sustainment Group (CASG), Chief Information Officer Group (CIOG), and Estate and Infrastructure Group (E&IG). Those selected would offer the greatest amount of cash flow for small businesses, which remained the driving force of the country's defence industry.

Defence was also looking at options to assist SMEs with training to prepare them for the future.

Note from the Managing Editor: ADM continues to offer our weekly [Tender Bulletin](#) with tenders from federal and state governments, NZ Government and relevant agencies for businesses looking for opportunities.

AN SME PERSPECTIVE ON SURVIVING COVID-19

The events of the last month are unlike any we have ever seen.

KEVIN CHENNEY | OPINION

Such social impact has not been experienced in the Australian population since WWII. Almost every aspect of industry within Australia is impacted, and the Defence industry is also seeing some of this impact starting to filter into everyday work and operations.

Defence has set an example that industry should follow, being the immediate and effective introduction of social distancing rules for its personnel, including the provision for remote work options where possible. The employment of technology such as remote access tokens is proving invaluable in times like this, though it is unlikely that these provisions were forecast to be used in such a situation.



Australian Army soldiers support New South Wales Police with quarantine compliance checks in Sydney.

DEFENCE

Furthermore, Defence should look for opportunities to increase industry participation via the Strategic panel arrangements such as the Defence Support Services (DSS) panel. Specifically, within the DSS panel, the Major Service Providers (MSPs) should have their employment mandate reduced by Defence.

It is understandable that the MSPs are needing to provide work for their staff, but to ensure SMEs are not disadvantaged, the percentage of SME employment should be increased in order to help SMEs survive this challenging period. Similarly, there should be an attempt to monitor and enforce Australian Industry Capability (AIC) plans in order to maximise employment for Australian businesses.

“THE STRENGTHS OF GLOBAL COOPERATION ARE NOW PROVING TO BE A WEAKNESS”

We have joint interest in international projects such as the JSF. Italy and Japan recently closed their production factories for a period, and in doing so impacted the global supply chain model that is so critical to the success of the JSF program. The strengths of global cooperation are now proving to be a weakness and the effects on JSF production are likely to be felt over the coming months. Therefore, the opportunity to investi-

gate options for ‘Australianising’ the supply chain should be investigated. This will help to build resilience if a similar event should occur in the future and set a framework for this to become commonplace for Defence projects.

COLLABORATION VIA DISTANCE

With the social distancing requirements comes a need to carefully monitor how you collaborate with your partners. No longer can you conduct a boardroom meeting to discuss strategies and initiatives, you must look for alternatives to enable your business to continue.

Industry groups are often seen as a key facilitator of Defence business and collaboration.

This pandemic, through social distancing, is having significant impacts as events and meetings are cancelled and postponed. I personally have had a large collection of events disappear from my calendar, all of which I saw as crucial to developing existing, and establishing new relationships, at the start of 2020. While it is necessary, I foresee a considerable drop in the building of collaborative capability and individual business development over the foreseeable future. Video conferencing is great but it does not replace the face to face interaction that is so important in building relationships.

The answer to surviving this pandemic for the industry is multifaceted. It is Defence identifying and making available opportunities to those more susceptible to collapse. It is about businesses getting innovative and realising their potential in other areas. Finally, it is about businesses adapting and finding new ways to do their everyday business. A business should maximise opportunities for staff while ensuring social distancing and other associated personal hygiene steps.

The Australian Defence Industry is resilient and hardy, and it will take every bit of these traits to ensure survival in what is a harsh and confusing environment, and one which is unlikely to see an improvement for many months.

Note: Kevin Chenney is Senior Consultant for Goal Professional Services.

RAYTHEON AND UNITED TECHNOLOGIES COMPLETE MERGER

Raytheon announced the successful completion of the all-stock 'merger of equals' transaction between itself and United Technologies Corporation on April 3.

The announcement followed the completion by United Technologies of its previously announced spin-offs of its Carrier and Otis businesses.

Upon closing of the merger, United Technologies' name has changed to Raytheon Technologies Corporation.

Raytheon Technologies expects to introduce technologies in the areas of hypersonics, directed energy, avionics and cybersecurity.

"Raytheon Technologies brings together two companies with combined strengths and capabilities that make us uniquely equipped to support our customers and partners during this unprecedented time," Greg Hayes, CEO of Raytheon Technologies, said. "We will

also play our part in the war on the COVID-19 pandemic, including doing everything we can to keep our employees around the globe safe and well."

"Today, we introduce Raytheon Technologies as an innovation powerhouse that will deliver advanced technologies that push the boundaries

**"RAYTHEON TECHNOLOGIES BRINGS
TOGETHER TWO COMPANIES WITH
COMBINED STRENGTHS"**



Raytheon and United Technologies have merged into Raytheon Technologies.

@UTC

of known science,” Tom Kennedy, Executive Chairman of Raytheon Technologies, said.

Raytheon Technologies has four segments: Collins Aerospace Systems, which specializes in aerostructures, avionics, interiors, mechanical systems, mission systems and power controls; Pratt & Whitney, which designs, manufactures and services the world’s most advanced aircraft engines and auxiliary power systems; Raytheon Intelligence & Space, which specializes in developing advanced sensors, training, and cyber and software solutions; and Raytheon Missiles & Defense.

12THLEVEL WINS EXPORT APPROVAL

12thLevel, a Canberra-based system design company with specialist naval capability, has been granted Defence Export approval to promote their fleet readiness tools.

For a naval fleet to operate effectively, it needs effective data on current capability: operational readiness, maintenance, personnel competency and training, and fatigue. However, this can create masses of data from disparate sources.

“12thLevel help to provide context to this data, converting it to irrefutable intelligence,” Managing Director Andrew Cleary said. “Attaining this export approval is great — we already have two countries already keen to explore our capability.”

According to the company, it has taken 15 years of partnering with stakeholders and delivering over 20 bespoke information management systems across Defence information environments to reach this milestone.



12thLevel has won export approval for their fleet readiness tools.

DEFENCE

“We really do believe we can make a positive contribution within the Defence export market,” 12thLevel’s Business Development manager Ben Bird said. “On board a war-ship, it’s a dynamic environment, and our systems help people navigate that through real-time information.”

12thLevel’s systems drill down to a specific individual, identifying whether they’re competent to handle a specific task and not fatigued. When a ship is in dock the systems can also track and report whether it will achieve its maintenance milestones on time and be ready to deploy on schedule.

“WE ALREADY HAVE TWO COUNTRIES ALREADY KEEN TO EXPLORE OUR CAPABILITY”

“Our systems and processes are leading the way in delivering solutions through a distanced yet well connected workforce,” Cleary said. “We use the same tools we developed for our clients to manage our own workflows. That means knowing the status of projects in real time, mitigating risk and ensuring reliability. All this adds up to being well-resourced to respond in very reactive times.”

US APPROVES SUPPORT CONTRACT FOR RAN MH-60RS

The US Department of Defense has approved a contract for Lockheed Martin to support Australian and Danish MH-60R Seahawk helicopters.

The US\$13 million contract includes investigations, systems engineering support, risk analysis, integration development, weight impact, publication updates, maintenance, training, tooling updates and qualification testing. The work will take place in New York state and is expected to wrap up in March 2024.



HMAS Toowoomba's embarked MH-60R helicopter approaches the flight deck to deliver priority stores and mail.

DEFENCE

The MH-60R is equipped with Hellfire air-to-surface missiles and the Mark 54 anti-submarine torpedo for anti-submarine warfare and anti-surface warfare. Secondary missions include search and rescue, logistics support, personnel transport and medical evacuation.

Final production work on the integration of the MH60-R helicopter onto final AWD NUSHIP Sydney included modifying the storage of Mk54 torpedoes and AGM-114N Hellfire missiles as part of the construction process rather than after its completion. This allowed for the ships' acceptance several months earlier than previously scheduled.

AI TRIALLED IN SEARCH AND RESCUE OPERATIONS

An artificial intelligence (AI) project run by Defence personnel in search-and-rescue (SAR) trials has the potential to save lives.

The project, dubbed Ai-Search, aims to apply modern AI to help detect small and difficult-to-spot targets, such as life rafts and individual survivors.

Plan Jericho's AI lead, Wing Commander Michael Gan, said his team recognised the potential for AI to augment and enhance SAR.

"The idea was to train a machine-learning algorithm and AI sensors to complement existing visual search techniques," WGCDR Gan said. "Our vision was to give any aircraft and other Defence platforms, including unmanned aerial systems, a low-cost, improvised SAR capability."

His team approached Lieutenant Harry Hubbert of Warfare Innovation Navy Branch, who was prominent in developing AI-enabled autonomous maritime vehicles for the Five Eyes Exercise Autonomous Warrior in Jervis Bay in late 2018 led by DST Group.



No. 35 Squadron C-27J Spartan loadmasters deploy search-and-rescue equipment during a trial off Stradbroke Island.
CORPORAL JESSICA DE ROUW

DEFENCE/

LT Hubbert was given a month to develop the new algorithms and completed the work in a fortnight.

The AI comprises a series of machine-learning algorithms alongside other deterministic processes to analyse the imagery collected by camera sensors and aid human observers.

“THE TRIALS HIGHLIGHTED THE FEASIBILITY OF THE TECHNOLOGY”

Ai-Search was first trialled successfully aboard a RAAF C-27J Spartan last year. The second trial took place in March this year near Stradbroke Island, Queensland. During these trials, Ai-Search detected a range of small targets in a wide sea area while ‘training’ the algorithm.

Using commercial off-the-shelf components with custom software and programming by LT Hubbert, the trials highlighted the feasibility of the technology, which can be applied easily to other ADF airborne platforms.

“There is a lot of discussion about AI in Defence but the sheer processing power of machine-learning applied to SAR has the potential to save lives and transform it,” LT Hubbert said.

The project is a collaboration between Warfare Innovation Navy Branch, Plan Jericho, RAAF Air Mobility Group's No. 35 Squadron and the University of Tasmania's Australian Maritime College. Its genesis was a challenge from the Director General Air Combat Capability, AIRCDRE Darren Goldie, to find a way of enhancing SAR using improved sensors.

MOST READ ONLINE AT WWW.AUSTRALIANDEFENCE.COM.AU



1. [Lendlease wins contract for WA shipyard work](#)
2. [First production-representative SkyGuardian complete](#)
3. [Boomeranger and Birdon cooperate on RHIBs](#)
4. [Leidos adds Aeronautics to Land 129 Phase 3 bid](#)
5. [Defence begins ICTPA refresh](#)

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FORTHCOMING EVENTS

ADM EVENTS

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

- [ADM STEM and Defence Summit](#) – Cancelled
- [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

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.

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 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.

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 workshopping 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

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.

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** 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.