

DEFENCE WEEK PREMIUM EDITION



The Shadow 200 UAV in operation during Exercise Hamel 2018

DEFENCE

QINETIQ AUSTRALIA TO DESIGN AND CONSTRUCT UAS TEST RANGE IN QLD

QinetiQ Australia has been awarded a \$14.5 million contract to design and construct an unmanned aerial systems (UAS) flight test range (FTR) on behalf of the Queensland Government.

KATHERINE ZIESING | CANBERRA

The FTR will be located at Cloncurry Aerodrome in North West Queensland and will consist of access to a commercial quality runway, dedicated hangar and workshop, range control centre, range control system including a primary surveillance radar and other surveillance and tracking equipment, dedicated airspace and regulatory approvals for UAS FTR operations.

"The Queensland Government has a vision to be a world leader in UAS technologies and QinetiQ is proud to support this through the creation of the flight test range facility at Cloncurry," QinetiQ Australia

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Managing Director Greg Barsby said.

"Together with our partners, QinetiQ manages some of the world's most advanced range facilities across the land, maritime and aerospace domains. By drawing on our global experience, QinetiQ and our partners will deliver this facility, the largest of its kind in the region."

Queensland Minister for State Development, Tourism and Innovation Kate Jones said the project will provide a key missing element for UAS research and development. The facility is part of the larger North West Queensland Economic Diversification

"THE QUEENSLAND GOVERNMENT HAS A VISION TO BE A WORLD LEADER IN UAS TECHNOLOGIES."

Strategy Implementation Plan 2019–2021 push from the state government to support a diverse range of businesses in regional areas.

"The Queensland Government was the first in Australia to launch a drone strategy, and now we're well on the way to becoming the nation's drone technology capital."

The initial capability offered by the facility will support all weight classes of UAS for routine flying operations, demonstration activities and test and evaluation trials of moderate complexity. Future phases of development will support the full range of ground and flight test activity, providing an Australian home for the conduct of highly complex developmental test programs. Boeing Australia is expected to be first in line to test at the facility as part of its Advanced Autonomy Platform Technologies agreement with the Palaszczuk Government under the Advance Queensland program. The construction of the facility is expected to be finished later this year for flying to begin in September.

HOW TO GET MORE OUT OF THE OPVS: ASPI

ASPI's Dr Marcus Hellyer, a frequent speaker at *ADM*'s annual Congress, has published a report on how to get more 'bang for the buck' from the RAN's Arafura class offshore patrol vessels (OPVs).

EWEN LEVICK | SYDNEY

The central problem Hellyer aims at is the Naval Shipbuilding Program, which won't deliver new missile-equipped vessels for at least ten years and only replaces current vessels on a one-for-one basis until 2040.

This raises a number of subsequent issues. The first, according to Hellyer, is that the mainstays of the shipbuilding program (Sea 1000 Attack class submarine and Sea 5000 Hunter class frigates) remain in the design phase and are not appropriate for stimulus spending. In addition, they cannot be accelerated with more money because the bottleneck is in skilled workers, rather than funds.

The second is that current platforms will need to remain operational for longer than intended to bridge the gap to those new capabilities. Third, cash flow issues prohibit program acceleration; fourth, the Navy's force structure cannot protect sea lines of communication; fifth, the acquisition program overlooks the benefits of unmanned systems; sixth, anti-ship weapons demand a distributed lethality approach; seventh, big ships are too expensive; eight, autonomous systems are weighed down by a chicken-and-egg development cycle; and finally, Defence's overwhelming focus on designing the perfect future force is a straightjacket on agility.

"Defence should be striving to deliver more war-fighting capability sooner," Dr Hellyer argues. "It can, whilst also delivering an economic stimulus to Australian defence industry."

According to Dr Hellyer, Defence can achieve this goal by acquiring more OPVs in a greater number of variants in order to perform across a range of operational contingencies. The current build program, he argues, should be expanded from 12 to 18 whilst avoiding the urge to make each new vessel capable of multiple functions.

Dr Hellyer envisions this expanded OPV fleet as creating a swarm in tandem with other surface vessels and joint force assets, including land-based fires and special forces. "These adaptively reconfigured swarms would employ enabling technologies such as a common control system that would allow a human operator to command multiple autonomous systems of different kinds, as well as state-of-the-art Al-enabled spectrum management to ensure that increasing amounts of sensor data could be shared and command and control of both manned and unmanned platforms could be preserved," Dr Hellyer argues.

He makes the case for this possibility by highlighting the strengths of the OPVs. They are, he says, real warships, with Saab's Situational Awareness System, L3Harris' Integrated Electronic System, and physical space available for a range of different systems. If the ships were fitted with CEA Technologies' CEAFAR active electronically scanned array radar, and if variants were constructed to include long-range anti-ship missiles, or a towed



The two halves of the first OPV are brought together and welded to form a complete hull

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"DEFENCE SHOULD BE STRIVING TO DELIVER MORE WAR-FIGHTING CAPABILITY SOONER"

sonar array, or air defence missiles, then the RAN would operate a distributed and lethal fleet.

The report then argues that the build schedule could be accelerated at Civmec's facility in Henderson, WA with room for a possible second production line elsewhere. The estimated cost of the redesigned program

would be \$5-5.5 billion, a \$1.5 billion increase on current sums.

"It's impossible to predict the future, which is why we need hedging strategies, particularly if those strategies, like the one being proposed here, have utility across a wide range of potential futures," Hellyer concludes.

NAVANTIA RECOGNISED AS DESIGN AUTHORITY ON FOUR SHIP CLASSES

Defence has signed a strategic agreement to recognise Navantia as a Design Authority for four classes of RAN ships.

Vice Admiral Michael Noonan, Chief of Navy, and Navantia Australia's Chairman, Warren King, signed the agreement on board HMAS *Hobart* in Sydney Harbour on Sunday, 17 May. CASG Deputy Secretary National Naval Shipbuilding, Tony Dalton, and Navantia's Global President, Susana de Sarría, were also signatories to the agreement.

The agreement provides a framework to ensure that all current and future Navantia designed vessels in service with the RAN are adequately supported for their life of type.

Under the agreement, Navantia Australia will work towards establishing a digital ship as a means to enhance the service level for each class of ship. This will ensure that



Vice Admiral Michael Noonan, Chief of Navy, and Navantia Australia's Chairman, Warren King, signing the agreement.

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"IT WILL SEE THE LARGEST,
MOST VALUABLE TRANSFER OF
CAPABILITY THAT I AM AWARE OF
IN THE HISTORY OF AUSTRALIAN
DEFENCE INDUSTRY"

the design integrity, configuration control, upgrades and modernisation of Navantia designed ships and supplied systems and equipment is fully supported in Australia.

"The Strategic Agreement outlines Defence and Navantia Australia's joint commitment to ensure the best possible support for Australia's Navantia-designed warships," VADM Noonan

said. "This agreement further enhances the important relationship between Defence and Navantia."

"This represents a significant milestone in the development of the sovereign capability of Navantia Australia and strengthens Australia's naval shipbuilding and sustainment industry. It will see the largest, most valuable transfer of capability that I am aware of in the history of Australian defence industry," Navantia Australia Chairman Warren King said.

"This transfer means that the design data for the Hobart class Guided Missile Destroyers, Canberra class Landing Helicopter Docks and Landing Craft and the Navy's new Supply class Auxiliary Oiler Replenishment ships and the maintenance, update and upgrade of the Navantia Integrated Platform Management System components will all be managed from Australia."

MEGGITT WINS ADF CONTRACT FOR ADDITIONAL WIRELESS VIRTUAL WEAPONS

Meggitt Training Systems has been awarded a US\$1.8 million contract for 73 additional BlueFire EF88 assault rifle wireless virtual weapons to be used by the ADF on its Weapon Training Simulation Systems (WTSS).

These latest EF88 weapon simulators will be used at several ADF bases throughout the country with all deliveries to take place in the first half of 2021.

"BlueFire wireless simulators provide the highest level of realism by maintaining form, fit and function of the original weapon," Andrea Czop, vice president of strategy, sales and marketing at Meggitt Training Systems,

said. "Like all our simulators, this version of the EF88 reinforces marksmanship training by providing sensor feedback on a variety of fundamental parameters."

The development and ongoing delivery of 533 BlueFire EF88 simulators has allowed the ADF to continue to train and qualify soldiers on its new rifle using the WTSS. BlueFire EF88s are

"THE BLUEFIRE EQUIVALENT PAIRED WITH UPGRADED WTSS UNITS BEING DELIVERED BY MEGGITT THIS YEAR WILL SIGNIFICANTLY IMPROVE ADF WEAPON TRAINING CAPABILITIES"



Senator Sam McMahon experiences the Weapons Training Simulator System during a tour of HMAS Stirling.

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manufactured at Meggitt Training Systems in Suwanee, Georgia, with service and maintenance conducted in Australia under the Operations & Maintenance Support Services (OMSS) contract, which has been held by Meggitt Training Systems Australia (MTSA) since 1999.

"This order builds on the original EF88 contract awarded in 2018 to Meggitt Training Systems Australia and further proves the value of BlueFire weapons for soldier readiness," Kevin McNaughton, managing director of MTSA, said. "As the Australian Army transitions from the F88 to the EF88 as its primary frontline assault rifle, its BlueFire equivalent paired with upgraded WTSS units being delivered by Meggitt this year will significantly improve ADF weapon training capabilities."

BlueFire EF88 simulators use commercial wireless technology to communicate with WTSS and other FATS 100MIL-based virtual training systems. This provides the same control as tethered weapons, but with full range of movement. Meggitt's BlueFire weapon simulators also feature a 3D marksmanship training environment. The after-action review allows engagement and shot assessment in a 3D virtual environment, while providing detailed trainee diagnostics for skill reinforcement or correction.

MOST READ ONLINE AT WWW.AUSTRALIANDEFENCE.COM.AU



- 1. Babcock and Bell team for Land 2097 Special Forces helicopters
- 2. RAN surface fleet treated with antimicrobial shield
- 3. Australian company wins US Force Posture Initiative contract
- 4. Special Forces helicopter industry brief for Land 2097 Phase 4
- 5. RNZAF Base Ohakea to receive critical infrastructure upgrade

THALES STUDY FINDS ECONOMIC VALUE IN DEFENCE SPENDING

An economic analysis from Thales Australia of how Australia's Defence Industry spending flows through the national economy has found 'significant benefits' to Australian SMEs and a strong economic benefit from Sovereign Industry Capabilities.

E conomic analysts AlphaBeta Advisers were given unprecedented access to data on hundreds of thousands of payments by Thales Australia to its Australian suppliers over a three-year period.

AlphaBeta lead researcher Dr Andrew Charlton said greater understanding of the value and impact of Defence spending in the Australian economy was critical as the government ramped up major acquisition programs under its Integrated Investment Program (IIP).

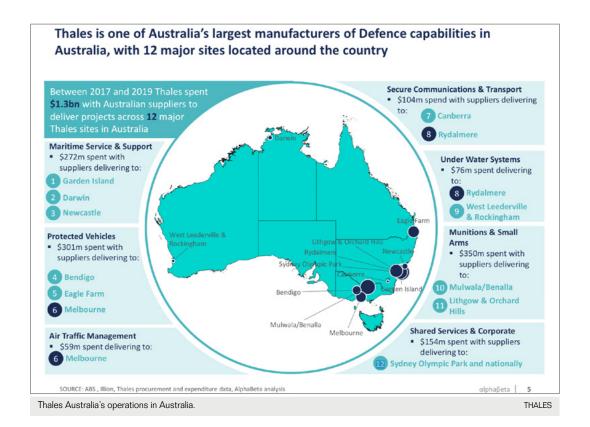
"Prime Defence contractors such as Thales are key to translating IIP spend into effective supply chain and investment programs because they provide a link between the Department of Defence's investment and the many other Australian businesses in the supply chain, many of which may not be defence specialists," Dr Charlton said.

Minister for Defence Industry Melissa Price said the government's 'unwavering commitment' to supporting small businesses in the defence supply chain was having a clear impact.

"It has always been this government's intention that the \$200 billion we're investing in a record build-up of defence capability flows through to the thousands of small businesses that make up our defence industry," Minister Price said. "This analysis by Thales demonstrates how our investments are creating local jobs, and also building



Paul Hanlon of Thales Australia shows Minister for Defence Industry Melissa Price the operation of the Tiger Armed Reconnaissance Helicopter simulator.



"GREATER UNDERSTANDING OF THE VALUE AND IMPACT OF DEFENCE SPENDING IN THE AUSTRALIAN ECONOMY IS CRITICAL AS THE GOVERNMENT RAMPED UP MAJOR ACQUISITION PROGRAMS"

the critical defence capability we need to deliver a capable, agile Defence Force."

Thales Australia CEO Chris Jenkins said the data-driven approach demonstrated there was a triple-dividend for Australia from increasing spending on Australia's advanced industrial capabilities.

"First and foremost, Australia's sovereign defence industry capabilities are vital to delivering a capability advantage to the ADF," Jenkins said. "Secondly, these sovereign industry capabilities build Australia's self-reliance and the capability of

the broader Australian advanced manufacturing sector.

"Thirdly, as this data clearly shows, there is a substantial jobs and economic activity benefit from spending more of the Defence dollar in Australia. It delivers thousands of jobs spread through hundreds of business across the nation.

"This analysis provides strong evidence in support of the government's policy of requiring high levels of Australian Industry Capability (AIC) in its acquisition and sustainment programs. There is a strong correlation between Sovereign Industry Capability and the greatest benefit flowing to Australian suppliers.

PEOPLE ON THE MOVE

Austal COO Patrick Gregg will be promoted to the position of CEO effective 1 January 2021, following a six month transition from current Managing Director and CEO David Singleton. Singleton said after five years overseeing considerable business growth, the time was right to step aside and look for new opportunities.

US MARINES ARRIVE IN DARWIN

The first group of around 200 US Marines have arrived at RAAF Base Darwin as part of the ninth Marine Rotational Force – Darwin (MRF-D).

Minister for Defence Linda Reynolds said their arrival was the result of extensive planning and coordination between both nations to address challenges posed by COVID-19.

"MRF-D is an important initiative that deepens interoperability between the Australian Defence Force (ADF) and the US military," Minister Reynolds said. "Australia's alliance with the US is our most important Defence relationship. It sends a clear signal about our commitment to the security and stability of our region.

"MRF-D IS AN IMPORTANT INITIATIVE THAT DEEPENS INTEROPERABILITY"

"The fact that we were able to modify MRF-D and mitigate risks associated with COVID-19 to allow it to proceed is a strong testament of the resilience of our alliance."

All Marines will be quarantined for 14 days at Defence facilities in the Darwin area, following biosecurity screening and COVID-19 testing on arrival. The Marines will be tested again for COVID-19 before exiting quarantine.

The government says these arrangements have been established after close consultation with the NT Territory Government.

The US Marines will train with ADF personnel at various Defence training facilities around the greater Darwin area, including Mount Bundey and Kangaroo Flats. MRF-D will grow to 1,200 personnel over the next eight weeks, and will train through to September.

The rotation will finish with the signature MRF-D/ADF bilateral high-end warfighting activity, Exercise Koolendong. The Marines will then redeploy back to Japan and the US.



 $\label{eq:combined} A \ combined \ medical \ team \ conduct \ pre-quarantine \ health \ screening \ for \ recently \ arrived \ US \ Marines \ and \ arrived \ US \ Marines \ Arrived \ Marines \ M$

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OPTIMISING AUSTRALIAN INDUSTRIAL CONTENT IN LAND 400

In support of the Australian Army's Project Land 400 Phase 2 Combat Reconnaissance Vehicle (CRV), Curtiss-Wright Defense Solutions' Switzerland-based Drive Technology business is supplying its modular Turret Drive Servo System (TDSS) and hand controller technologies to Rheinmetall Landsysteme.

OTTO FUCHS | CURTISS-WRIGHT DEFENSE SYSTEMS

While these technologies were designed at the Drive Technology facility in Neuhausen am Rheinfall, Curtiss-Wright is incorporating Australian Industrial Content in its turret drive solution. For example, all of the controllers and gyroscopes used with the TDSS, and its subcomponents, such as power circuit boards and chassis kits, will be manufactured and produced in Australia.

The success of this approach depends on the successful transfer of relevant technology and knowledge to local supplier partners. It also requires that those local partners make use of their own technology and capabilities, and that a high level of bilateral cooperation is maintained between the parties during the project.

In addition, in order to establish an operational interlink between the Australian supply chain participants, including Rheinmetall Australia and Curtiss-Wright Drive Technology in Switzerland, a local Australian company will be selected and trained to provide program management.

"CURTISS-WRIGHT ALSO PLANS
TO TRAIN AND ENABLE AN
AUSTRALIAN COMPANY TO OVERSEE
MAINTENANCE AND PERFORM ANY
REQUIRED SYSTEM OVERHAULS"

AUSTRALIAN SUPPLIER PARTNERS

To achieve these goals, Curtiss-Wright is developing and sustaining a new partner-network in Australia that will both create new jobs and enable Curtiss-Wright and Rheinmetall to support Land 400 Phase 2 with Australian industrial content.

Current estimates show that the local partnernetwork will require and result in the creation

of over 15 new highly skilled technical jobs. Curtiss-Wright has already undertaken an identification and evaluation process to select qualified local Australian Supplier Partners. Major milestones in the process have already been achieved. Initial planning visits to Australia, which began in 2018 and continued through the beginning of this year, were followed by the first delivery of TDSS sample PCB Boards and Chassis kits to Australia.

In the coming months, Curtiss-Wright will assess the parts received, and enter into a memo of understanding (MoU) with the selected suppliers, and contract negotiations

will begin. After establishing the contractual baseline set, detailed knowledge transfer will commence. Curtiss-Wright's TDSS experts will provide support and training directly to the new Australian Supplier Partners at their own sites. This on-site support phase is scheduled to run through Q4 2020.

The final assembly of the TDSS components will take place at Curtiss-Wright Drive Technology and at the local Australian supplier, while integration will take place at Rheinmetall's new Military Vehicle Centre of Excellence (MILVEHCOE) facility in Ipswich. The go-live plan for Series Production with the Australian Supplier Partners is scheduled for Q1 2021. (Projected schedules are subject to change due to potential impact of COVID-19 and related travel restrictions).

The establishment of local supplier partners to support programs such as Land 400 Project promises to deliver numerous ongoing benefits to Australian industry and Defence. For example, the use of Australian Industrial Content will ease and speed the repair process through the use of locally produced products. The use of locally produced products also helps to mitigate potential export restriction problems in the wake of political changes or regulation amendments.

Maintenance and life time support of products is also enhanced as local partner suppliers can provide faster responses, with support from Curtiss-Wright when needed. Training for operators is also made easier and more cost-efficient, since it will be facilitated by local Australian suppliers.

Examples of some of the many other benefits arising from the local supplier partner approach include reduced Turn-Around-Time for repairs, resulting in enhanced operational availability of vehicles, and cost savings from spares being provided by local suppliers, which also enables a reduction in stocked spares. Curtiss-Wright also plans to train and enable an Australian com-

pany to oversee maintenance and perform any required system overhauls, up to a specified level, of the TDSS in Australia. In addition, as part of Curtiss-Wright Drive Technology's supply chain, local suppliers can derive new opportunities to drive export growth.



ABOUT CURTISS-WRIGHT'S TURRET DRIVE SERVO SYSTEM

Curtiss-Wright's TDSS delivers target location accuracy and turret stabilisation, while providing system integrators with the freedom to define and deploy the solution they require. It enables system designers to upgrade and add stabilisation functionality as their mission requirements change.





Curtiss-Wright is incorporating Australian Industrial Content in its turret drive solution.

The TDSS uses standard system configurations, which speeds system development and enables programs to reach demonstration and production phases more rapidly. The use of preconfigured TDSS system components also reduces the time and costs associated with the requirements definition process.

TDSS enables system integrators to select the aiming and stabilisation solution that their platform requires whilst streamlining enhancements and/or system modification for use on different platforms. This approach is more cost-effective and flexible than traditional bespoke aiming and stabilisation system alternatives.

TDSS is designed to make it easy for system integrators to configure only the system that they require now, and later add increasing levels of stabilisation as their mission evolves. TDSS system components can be easily adapted for use on different ground vehicle turrets to meet dynamic program requirements including performance and precision.

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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 22 September 2020 |
 Canberra
- ADM Women in Defence Awards 23 October 2020 | National Arboretum
- 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

ONLINE COMPLEX PROJECT SIMULATION

DATE 18 June 2020

LOCATION Online

WEBSITE iccpm.com/events/major-project-simulation

ICCPM was established by the Australian Government with support from the Australian, UK and Canadian Departments of Defence to build organisational capability in the successful delivery of complex projects. It is now offering an exciting opportunity for project leaders, organised in competing teams, to manage and "live" a complex project in the safety of a virtual simulated environment. It enables participants to work on a project from start to finish; to make critical decisions and to see the impact of those decisions – all in a virtual team.

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.

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.

2020 VERNON PARKER ORATION AND DINNER

DATE 13 October 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.

2020 ANI GOLDRICK SEMINAR - REMOTE AND AUTONOMOUS SYSTEMS AT SEA

DATE 13 and 14 October 2020

LOCATION Adams Auditorium, Australian Defence Force Academy
WEBSITE navalinstitute.com.au/latest-ani-events-and-archive/

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

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.

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.

2021

43RD COSPAR SCIENTIFIC ASSEMBLY

DATE 28 Jan-4 Feb 2021

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.

LOCATE21

DATE 30 March – 1 April 2021 (rescheduled dates)
LOCATION Brisbane Convention and Exhibition Centre
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.

LAND FORCES 2021

DATE June 1-3 2021

LOCATION Brisbane Convention Centre WEBSITE www.landforces.com.au

The biennial LAND FORCES exposition is an international industry event to show-case 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.

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

AVALON 2021

DATE 23-28 November 2021

LOCATION Avalon Airport

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

2022

PACIFIC 2020 BECOMES INDO PACIFIC 2022

DATE May 2022

LOCATION Sydney Convention Centre WEBSITE www.pacificexpo.com.au

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

VARIOUS DATES

NSW DEFENCE INNOVATION NETWORK'S REGIONAL ROAD SHOW

DATE: Various LOCATION: Various

WEBSITE: defenceinnovationnetwork.com/din-regional-road-show-2019-20

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 (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 VariousLOCATION 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.