

DEFENCE WEEK PREMIUM EDITION



The Pacific 2019 tradeshow took place at Sydney's ICC.

AMDA

The highlights of Pacific 2019

Ewen Levick | Sydney

The Pacific 2019 tradeshow took place at the International Convention Centre in Sydney's Darling Harbour this week, attracting delegates and companies

from across the globe to see the latest maritime technologies on display.

The ministerial releases came thick and fast. Minister for Defence Industry Melissa Price launched the Navy Industry Engagement Strategy alongside Chief of Navy Michael Noonan on Tuesday morning. The Strategy aims to help Navy work more closely with industry on capability needs.

"My vision is for Navy, industry and academia to become better partners that focus on transformational relationships and shared awareness to enable the best possible outcomes for Australia," Vice Admiral Noonan said.

The Naval Shipbuilding College, ASC and the Australian subsidiaries of Naval Group, BAE Systems, Luerssen, Saab and Lockheed Martin also announced their Industry Strategic Workforce Plan, which will complement the government's forthcoming skilled naval workforce strategy.

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Chief Executive of the Naval Shipbuilding College Ian Irving said it details the national Naval Shipbuilding Enterprise's pledge to work together to develop and retain a skilled workforce.

"Industry recognises it is stronger and will be more successful when operating collaboratively, in terms of workforce development in Australia," Irving said.

"It is very much a case of the whole being greater than the sum of its parts. All the companies involved have skin in the game and are committed to working cooperatively to create a sovereign, naval shipbuilding workforce capability for Australia for generations to come."

Minister Price also announced that Sonartech Atlas, an SME based in Macquarie Park, has been awarded a \$1 million contract through the Defence Innovation Hub to develop a mobile software system capable of analysing contemporary communications transmissions in the maritime environment.

Sypaq was another Innovation Hub winner, securing \$3.5 million develop a small Unmanned Aerial System (UAS) with a hybrid power delivery system and the capacity to operate in harsh environmental conditions, such as those at sea.

"If successful, this UAS would be capable of operating from ships at sea and performing a range of surveillance and reconnaissance operations," Minister Price said.

Other news items included an agreement for Raytheon to provide engineering

"My vision is for Navy, industry and academia to become better partners" and logistics services in support of upgrades to RAN's surface ship combat systems for up to six years, Boomeranger Boats winning a contract to supply 41 sea boats for the Arafura class OPVs, and Naval Group's launch of a new local subsidiary, Naval Group Pacific.

Distinct from the Adelaide-based Naval Group Australia, which is wholly dedicated to the Australian Future Submarine

Program, Naval Group Pacific will focus on 'strengthening Australia's broader defence capabilities' through sales, program management and sustainment of the Naval Group's existing portfolio. The Sydney-based subsidiary will have responsibility for Naval Group business development activities in Australia and NZ.

In-depth coverage of Pacific 2019 will be available in the forthcoming December/ January edition of *ADM*.

Attack class submarine industry brief series continues

Katherine Ziesing | Sydney

In keeping with the rolling industry brief series around the Attack class submarine, Naval Group Australia gathered hundreds of interested delegates at the Pacific expo this week to give them an update on the work so far.

Stuart Lindley, Naval Group's General Manager – Industry Capability Development confirmed that while <u>Naval Group Australia</u> is the acquisition lead for the program, the process takes time – typically two years from initial Expression/Registration of Interest to contract.

The tiers of industry engagement were once again outlined:

- 1. Critical
- 2. Main and critical
- 3. Contractor designed equipment and common technology
- 4. Advanced manufacturing
- 5. COTS and MOTS

The program is on track for another system requirement review in Q4 this year with the design phases of concept, preliminary and detailed on track, according to the senior leaders in Defence, Naval Group Australia and Lockheed Martin

"ADM also understands that this contract opens the door for the company to start a conversation with ASC'

Australia - RADM Greg Sammut, John Davis and Joe North respectively. The parties also confirmed that the system design review for the combat system was completed earlier this month.

A number of main systems were announced in the lead up to the show as well as at the show. In April this year, MTU and Penske were announced for work on the diesel motors, for both the Collins Life of Type Extension (LOTE) and Attack class. During the show it was announced that Safran has been selected for the design of the Optronics Search and Attack, Navigation Radar and Navigation Data Distribution subsystems under a contract from Lockheed Martin as the prime systems integrator. During the design phase, Safran will engage Australian suppliers

Acacia Systems and Thomas Global Systems to provide design services.

ADM also understands that this contract opens the door for the company to start a conversation with ASC on using the technology or its elements as part of the Collins LOTE program, in a bid to de-risk the Attack class. This approach is being undertaken by all the companies listed above - Collins LOTE in the mid 2020s will be an important learning curve for Attack class build. At this point, Naval Group Australia and ASC have an MoU framework in place to look at a number of collaboration opportunities for both Collins and Attack class on areas like skilling, workforce, technology and testing.



The Future Submarine program is on track for another system requirement review in Q4 this year

Back in the submarine brief, Australian National Infrastructure (ANI) and Laing O'Rourke gave their first briefing on how the facilities side of the programs was progressing.

ANI's project director Phil Cornish said that the \$500 million program was being conducted in phases, and will need to be 'flexible as the capability evolves and is built'.

His Laing O'Rourke counterpart Spiros Tsakanos confirmed that first phase of the build program will see the Lockheed Martin combat systems integration buildings and Naval Group Australia's land-based propulsion test site go up first, with their work now underway.

ADM understands that government is due to make a decision on the location of full cycle dockings for the Collins class before the end of the year – both South and Western Australia are making their respective cases for the work with Defence confirming that they are putting all options to government for consideration, with workforce/space concerns front of mind in both scenarios.

Boomeranger wins Navy RHIB contract

Nigel Pittaway | Sydney

Finland's Boomeranger Boats has won a contract to supply 41 Rigid Hull Inflatable Boats (RHIBs) to the RAN for use on its Arafura class Offshore Patrol Vessels now under construction.

The order, announced at the Pacific 2019 maritime exposition in Sydney on October 9, covers two davit-launched 8.5 metre Fast Rescue Boats and a single 10.5 metre ramp-launched Special Operations Boat for each OPV, plus five additional vessels to support training and to provide a number of spares.

Deliveries of the first RHIBs will begin in 2021 in time for the delivery of the first of the 12 OPVs, being acquired under Sea 1180 Phase 1, and the remainder will be delivered over the following decade.



Boomeranger Australia will oversee the acquisition and sustainment of the RHIB fleet.

LUERSSEI

"Both designs have been successfully trialled by Navy"

Boomeranger Boats CEO Miika Tammi said both boats are existing designs, but customised to meet Australian requirements, including the configuration of the deck and the integration of Government Furnished Equipment.

The 8.5 metre FRB 850 is an inboard diesel, stern-drive boat already in service with the Finnish and German Navies and the

10.5 metre C 1100 outboard-powered RHIB has been supplied to the Royal Brunei Navy and is operational aboard the service's four Lürssen-designed Darussalam-class OPVs.

Both designs have been successfully trialled by Navy and formed part of Lürssen's winning bid for Sea 1180.

Tammi said that the vessels for the first two Arafura OPVs, which will be built in Adelaide, will be assembled in Finland, but fitted out locally and the company has established Boomeranger Australia to oversee the acquisition and sustainment of the fleet. The remaining boats will be delivered to Henderson to support construction of the following 10 OPVs and will feature increasing Australian content.

"We are building an Australian supply chain," Tammi said. "And we have already engaged extensively with local industry."

Whiskey Project shines at Pacific

Julian Kerr | Sydney

If maritime expositions have stars, it's fair to say that at Pacific 2019, the much-anticipated Whiskey Project next-generation tactical watercraft was certainly one of them.

Unveiled there for the first time, the 8.5 metre carbon-fibre composite craft looked every inch the part, from hulking twin 200 hp diesel outboards at the stern to a remote weapon station deploying a 7.62mm minigun at the bow.

Yet the craft's striking appearance is simply a reflection of the program's objective – to produce operator-focused watercraft that provide optimal performance and protection for those who risk their lives in tactical maritime environments.

The Whiskey project, funded by private equity, is headed by two veteran RAN clearance divers well-versed in Special Operations. Darren Shuback and Ryan Carmichael, with a combined total of more than 40 years RAN service, have seen equipment pushed beyond its capability.

"Many problems came down to a hell of a lot of retrospective equipment being fitted," Carmichael said.

"A RAN 7.2 metre RHIB designed to carry a 12-strong boarding party is now restricted to six or eight on board depending on the sea state. Anything above Sea State 4 is simply about survival."

They acknowledge that providing a capability to rectify current shortcomings leads to broader opportunities linked to the Future Frigate program, future Mine Warfare support vessels, Special Forces requirements under Project Greyfin, and ultimately, the replacement of every RHIB in the RAN with watercraft <u>fit for purpose</u>.



The Whiskey Alpha on show at Pacific 2019

"The 8.5 metre

composite craft

carbon-fibre

looked every

inch the part"

JULIAN KERR

The 8.5 metre Whiskey Alpha (an 11 metre Whiskey Bravo is under development and 6 metre and 7.5 metre crafts are also in design) features a planing hull designed by Hawaiian company Navatek in response to a commission from the US Navy Office of Naval Research. This cuts debilitating slamming by 40 per

cent to that experienced by a comparable RHIB, a benefit enhanced by a shock mitigating console and seating.

Maximum beam is 2.90 metres and full hull draft is 0.6 metres.

The hull's advanced carbon fibre composite construction – more than 100 times stronger than steel – includes a collision bulkhead and provides increased displacement and a payload of nearly 2,000 kg, together with a higher average speed than a deep V hull.

Power is agnostic – either outboard, inboard stern drive or an inboard waterjet backed by a fuel capacity of 650 litres.

The Whiskey Project was officially launched by Defence Industry Minister Melissa Price and given the number of senior RAN officers inspecting Whisky Alpha, has clearly attracted strong official interest.

Carmichael says development will continue "working with Defence, the NSW state government and the Defence Export Office."

Pacific 2019 Innovation Award winners announced

Ten Australian innovators have won Pacific 2019 Innovation Awards, worth some \$45,000. They were announced at the official opening by Vice Admiral Chris Ritchie, chairman of the event organiser and presented by the Minister for Defence Industry Melissa Price.

The winners include a research organisation that has developed a new rust-proofing treatment for Navy warships and submarines; an SME which has developed a world-leading portfolio of counter-drone technologies in just 12 months; and

a team of young innovators who have developed a sonar sensor management system for the Navy's new Hunter-class frigates.

The winners are:

- Pacific 2019 National Civil Innovation Award: DroneShield (NSW)
- Pacific 2019 National Defence Innovation Award: DMTC (VIC)
- Pacific 2019 Defence SME Innovation Grant (\$15,000): EM Solutions (QLD)
- Pacific 2019 Young Civil Innovator Award (\$15,000): Lawrence Marychurch,
- DroneShield (NSW)
- Pacific 2019 Young Defence Innovator Award (\$15,000): Ryan McGrath, Thomas
- Churack and Jason Sardi, Thales Australia (NSW)
- Pacific 2019 Innovation Award for C4ISREW, Space, Cyber and Counter-Drone Systems: Ultra Electronics Avalon Systems (SA)
- Pacific 2019 Innovation Award for Autonomous and Unmanned Systems: Advanced Navigation (NSW)
- Pacific 2019 Innovation Award for Platforms and Propulsion: DMTC (VIC)

"We want to ensure that Australian organisations are at the forefront of this innovation"

In addition, two Award contenders won a High Commendation: EM Solutions and Ultra Electronics.

"Our Innovation Awards recognise and reward the creativity, achievements and sheer excellence of innovative Australian companies and individuals in the maritime and defence sectors," Pacific 2019 CEO Ian Honnery said.

"Australia's naval shipbuilding program will provide a spur for development and innovation for the next five decades. We want to ensure that Australian organisations are at the forefront of this innovation, commercialising the results of research and development as products and services that strengthen both our industry and our national defence capability.

"The mission of Pacific 2019 is to promote the development of Australian industrial, manufacturing and information/communications technology resources in the commercial maritime and naval defence sectors."



Thomas Churack, Thales Australia; Dr Mark Hodge, DMTC Limited; Jason Sardi, Thales Australia; Gary Shmith, EM Solutions; Lawrence Marychurch, DroneShield Limited; Minister for Defence Industry Melissa Price; Doug Burd, Ultra Electronics
Avalon Systems; Oleg Vornik, DroneShield; Grace Hynd, Advanced Navigation; Ryan McGrath, Thales Australia.

ASC and Jeumont Electric strengthen relationship

ASC and Jeumont Electric, maker of submarine propulsion and power generation systems, have confirmed plans to establish a joint Australian presence to pursue future business as Australia's submarine sector undergoes an historic expansion.

Signed at Pacific 2019, the 'Heads of Agreement' establishes a steering committee to identify joint business opportunities across Australia's Collins Class and Attack Class submarine programs, as well as Australia's marine generator and rotating electrical machinery market.

Under the HoA, ASC and Jeumont Electric will explore a range of commercial

arrangements for future work, including formal joint ventures, teaming and other contractual arrangements. The HoA confirms earlier collaboration between the two companies, agreed at the 2018 Submarine Institute of Australia annual conference.

ASC Chief Executive Officer Stuart Whiley said the strengthening relationship with Jeumont Electric created 'natural synergies' for the two leading organisations.

"This Heads of Agreement with Jeumont Electric will help to meet the future demands of both the Collins Class and Attack Class future submarine programs and identify diversification opportunities for both companies," Whiley said.

Jeumont Electric already supplies the main propulsion and power generation systems to the Collins Class fleet and is

seeking to provide its advanced permanent magnet propulsion motors to the Collins Class life-of-type extension program and the Attack Class future submarine program.

This Heads of Agreement with **Jeumont Electric** will help to meet the future demands of both the Collins Class and Attack Class"



HMAS Farncomb prepares to berth alongside Fleet Base West.

DEFENCE/LSIS KYLIE JAGIELLO

Explosive ordnance storage build completed

The development of a new military training area in North Queensland has reached a significant milestone with the first piece of infrastructure completed.

The \$5.4 million explosive ordnance storage Earth Covered Building (ECB) at Mt Stuart in Townsville was funded by Singapore under the \$2.25 billion Australia-Singapore Military Training Initiative (ASMTI).

Minister for Defence Senator Linda Reynolds said the Singapore Armed Forces will now have access to explosive ordnance storage when they train in Australia.

"This project is a significant milestone for the ASMTI, and coincides with the start of early construction work on the new training area near Greenvale in North Queensland," Minister Reynolds said.

"The ASMTI will deliver advanced military training areas in Central and North Queensland while meeting the future needs of the ADF.

"Completion of this facility highlights the strong bilateral Defence relationship between Australia and Singapore being fostered through the delivery of these advanced military training areas."

Member for Herbert Phillip Thompson said the completion of the ECB was a boost to the local economy.

"It's fantastic to see 17 companies from the Townsville region provided essential services to support construction of the ECB, including concrete supply, concrete reinforcement, waterproofing, electrical and communications works, fire protection, structural steel, civil works, security, site accommodation, mechanical works, painting and rendering," Thompson said.



An Army MRH90 flying near Mt Stuart, Townsville.

SGT JANINE FABRE/DEFENCE

"This project is a significant milestone for the ASMTI"

"This milestone highlights the progress of the ASMTI in North Queensland and demonstrates our Government's commitment to local industry in the region."

Defence will hold information sessions in the Charters Towers and Townsville regions as part of the next release of work packages in North Queensland. Additional work packages for fencing, potable water supply, waste consumption, fuel supply, consumables and quarry products

will be awarded as part of an anticipated 200 sub-contract packages that will be available over the next five years

Construction <u>recently began</u> on the Shoalwater Bay Training Area expansion and the new Greenvale area.

MOST READ ONLINE AT WWW.AUSTRALIANDEFENCE.COM.AU



- 1. The warship is dead
- 2. From the Source: Chief of Navy Michael Noonan
- 3. The reasons behind the Land 400 Phase 3 decision
- 4. A quiet Hunter: Navy's Future Frigate
- Rheinmetall and Hanwha shortlisted for Land 400 Phase 3

Connected data key to identifying assets that drive value

Chris Needham and Elisha Bellchambers | Aurecon

Globally, we continue to face greater uncertainty and complexity as we are forced to navigate the evolution of the digital world. Organisations are required to tackle today's challenges and prepare for the future in parallel, turning to data to improve decision making and performance – and to achieve the most value possible.

However, short-term or ad hoc approaches when looking to data are not achieving that value.

The landscape is complex, from rapidly evolving technology and blending legacy systems with new layers of capability to the pressures of moving to a single source of truth and confusion around the role of people. These challenges are often mistakenly tackled either with more and more data (without knowing how to differentiate between good and bad quality or value), or investing in technology to manage and collect data, which doesn't directly correlate with how a business is performing.

Combined, these common 'mistakes' create a chasm – how can your business improve by following an ambiguous digital roadmap? This risks redundant investments and accumulating a whole raft of information that doesn't even move the needle.

Achieving the most value from assets requires new ways of thinking, such as building a proactive and predictive vision of your 'digital Estate'. The starting point is to first understand what really drives business value, then linking that with data, technology and asset management. Data determined with purpose, connected to performance, and accelerated with technology, provides power to decision makers. Through such data you increase transparency, the next best thing to certainty.

How can data analytics and information management identify what's important for your Estate, and help calibrate operations better to achieve your goals? Those organisations constantly challenging the answers to these questions are the ones making the largest, and most rapid gains. They have a clear understanding of what drives their business performance (the purpose), their vision of digitisation is clearer (as it is assisted by the purpose), and they see people as critical to achieving higher value.

But value differs from one asset intensive industry to another. In aviation, it may be passenger volume; for the energy sector, it could mean cost per megawatthour. In Defence it may be mission-ready status, an agile and future-ready force, or tracking utilisation efficiency - knowing what's available, where it is and what can be called upon.

Whatever the driver, if the value and desired outcome is not understood, it becomes difficult to know where to focus attention, where to collect data, to whom to report information, where to prioritise decisions, and where performance matters. If you don't know what your data is telling you, how do you define what it's good for? If you do know what you are looking to achieve, it gets the line of priorities right and informs how technology and data should be approached for your business.

Organisations leading the way in their use of technology and data to realise more value from their Estate have three key things in common:



Defence needs to take a long-term and connected view when it comes to decisions around data

DEFENCE WEEKPREMIUM EDITION

- Focus on developing a better business, not a better asset: To understand how to move, you need to clarify where the value lies and what interdependent variables directly contribute towards the overall success of your organisation. The key is to optimise assets, rather than maximise.
- Valuing people and digital (processes, systems, data) in decision making: true value realisation from data and technology comes from judgement intensive tasks – where people remain equally important compared to

technology. When combined and understood correctly, this provides organisations with more power, rather than taking it away.

 Going deep and not skirting around the edges: Go deep to where the value is to be found – have the resilience and discipline to make digital ways of working part of the everyday, and a key part of creating a sustainable and effective business. "If you don't know what your data is telling you, how do you define what it's good for?"

Across the Defence sector, decisions about capabilities today will determine capacity to manage the challenges of the future. This underlies the importance of taking a strategic, long-term and connected view when it comes to decisions around data and assets. Identifying the assets that drive value requires connecting clear business purpose, data and the assets themselves. Each can no longer be approached in silos.

Note: Chris Needham is Defence Digital Leader for Aurecon and Elisha Bellchambers is Director for Quartile One Asset Performance, part of Aurecon.

PEOPLE ON THE MOVE

Mark Donaldson VC has joined the team at NIOA as a Strategic Adviser. Mark's experience in the Australian Army will enable him to provide the company advice on various matters across the land and joint domains in support of the companies' major pursuits.

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Forthcoming Events

ADM EVENTS

More detail on **ADM** Events can be found on our dedicated website:

- ADM Northern Australia Defence Summit 23-24 October 2019
- ADM 2020 Congress 19 February 2020

2019 C.E.W. Bean Oration and Dinner

Date 15 October

Location Australian War Memorial

Website www.trybooking.com/book/sessions?eid=528447&ses=1570182

Mr Rodney Cavalier Chair of the Foundation, and Members of the Board invite you and your guest to the 2019 C.E.W. Bean Oration and Dinner. This year's oration, "Why it's crucial to have media on the battlefield" will be delivered by General the Honourable Sir Peter Cosgrove.

ITAR/EAR/AU Export Control Awareness — Brisbane

Date 15 October, 2019

Location Brisbane

Website www.stickytickets.com.au

Join us for a one-day face-to-face awareness course covering the unique aspects, agreements and regulations for US and Australian Export Controls. Whether you are handling ITAR or EAR controlled technology as a current or prospective contractor, or looking to export your Australian controlled defence article, you must ensure you comply with regulations at all times.

Women in A/AA Melbourne Summit 2019

Date 16 October 2019

Location Level 17, 501 Bourke St.

Website www.aviationaerospace.org.au/events

This year, the summit will focus on how we, both men and women can engage the future through STEM and how we can encourage a more inclusive and diverse workforce. Discussing the barriers and opportunities for women in the industry, we will ask the tough questions and address how we can close the gender gap. What will it take for us to encourage more women to study STEM and what will take for us to encourage more women to pursue a career in STEM?



70th International Astronautical Congress

21 - 25 October 2019 Location: Washington D.C., USA

Website: http://www.iafastro.org/events/iac/iac-2019

It is with great pleasure that the International Astronautical Federation (IAF) invites you to the 70th annual International Astronautical Congress (IAC). #IAC2019, hosted by the American Institute of Aeronautics and Astronautics - AIAA will take place in Washington D.C., United States from 21 – 25 October 2019.

Williams Foundation Seminar — The Requirements of Fifth Generation Manoeuvre

Date 24 October 2019

Location National Gallery of Australia

www.williamsfoundation.org.au/event-3161281

Since 2013, the Sir Richard Williams Foundation seminars have focused on building an integrated fifth generation force. The seminar in October 2019 is titled 'The Requirements of Fifth Generation Manoeuvre' and will examine the differences and potential gaps in how the ADF must equip and organise for multi-domain operations.

Collaborative Technology Showcase: "Conquering the Tyranny of Distance"

Date 25 October

Location The Venue, Fannie Bay

Website tamara.cardillo@baesystems.com

Following ADM's Northern Australia Defence Summit in Darwin, BAE Systems Australia's shipbuilding unit, ASC Shipbuilding, is inviting local businesses to come and view Australian companies' latest cutting-edge innovations and hear from exhibitors how their next-generation technologies can help conquer the tyranny of distance.

AIDN QLD Young Achiever Award

Date: 31 October 2019

Location: TBC

Website: info@aidnqld.com.au

Driven and talented young people are the key to the future of the defence industry. In order to recognise individuals who may be future industry leaders, AIDN has created the AIDN Young Achiever Award. Nominations for the 2019 AIDN QLD YAA (YAA) are now open. The award is held at the AIDN QLD level and the winner will compete for the national award.

GEO Week 2019

Date: 4 – 9 November 2019

Location: Canberra

Website: http://geoweek2019industrytrack.com.au/registration.php.

Technology and space companies from around the world are invited to participate in the Group on Earth Observations (GEO) 'GEO Week 2019' as part of the brand new Industry Track. GEO Week 2019 will be held in Canberra, Australia, from 4-9 November 2019.

2019 Parari Australian Explosive Ordnance Safety Symposium

Date 05-07 November

Location ADFA

Website parari@defence.gov.au

This year's symposium brings together delegates from around the world to discuss the latest innovations and advances in explosives, munitions and weapons safety. International and local experts from industry, academia, military and government will share their research to explore Explosive Ordnance Safety opportunities and challenges as a community.

EW Australia 2019 Canberra Symposium

Date: 06 November 2019
Location: QT Hotel, Canberra

Website: aomevents.eventsair.com/aoc-convention-2019/aoc-symposium

Held at the QT Canberra on Wednesday 6 November 2019, this thought leadership symposium will focus on "Electronic Warfare Battle Management and Manoeuvre in the Cyber and Electromagnetic Battlespace'. Attendees will have access to dedicated sessions on EW and Cyber Security, while being able to maintain connections and expand networks within the Australian EW and Cyber Defence Community.

National Defence Industry & Workforce Skilling Summit

Date 6-7 November 2019

Location Perth

Website www.eventbrite.com.au

The National Defence Industry & Workforce Skilling Summit will be held in Perth from 6-7 November 2019. Join representatives from government, industry, academia and peak industry bodies, to explore the complex skills challenges facing Australia's defence industry.

Defence Ipswich Supply Chain Opportunities Symposium 2019

Date: 08 November 2019

Location: Ipswich

Website: live.eventtia.com/en/defenceipswichsymposium2019/Home

Following the successful Queensland Defence Summit Ipswich 2018, Ipswich City Council, proudly supported by the City of Ipswich Defence Industry Development & Attraction Committee, will host our next annual event, the Defence Ipswich 2019

Supply Chain Opportunities Symposium. The event brings together defence and industry participants from government, industry and academia to exchange information and connect with key decision makers over networking and B2B sessions.

MilCIS 2019

Date 12-14 November 2019

Location Canberra Convention Centre

Website 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.

SubSTEC 5 Conference

Date 18-21 November

Location Esplanade Hotel, Fremantle
Website www.submarineinstitute.com

The 5th Submarine Science, Technology and Engineering Conference (SubSTEC 5) will be held at the Esplanade Hotel, Fremantle, WA 18th-21st November 2019. The theme of the Conference will be: 'Innovation and Investment in the Sub-Sea Environment'. SubSTEC5 will be held with the support of the Institute of Marine Engineering, Science and Technology (IMarEST).

Defence Seaworthiness Symposium

Date 21-22 November Location ADFA, Canberra

Website www.defence.gov.au/seaworthiness/Contact_Symposium.asp

The Office of the Defence Seaworthiness Regulator is hosting the inaugural Defence Seaworthiness Symposium in Canberra 21-22 November 2019. The theme of the symposium is 'Reforming to Transform – Seaworthiness as a Defence wide priority'. Day 1 will consist of an address from VADM Michael Noonan and presentations from Capability Managers and their representatives as well as an informative panel discussion. Day 2 will consist of 2 concurrent workshops facilitated by staff from the Office of the Defence Seaworthiness Regulator. Places are strictly limited.

Corrosion and Prevention 2019

Date 24-27 November

Location Crown Promenade, Melbourne Website conference.corrosion.com.au

Corrosion and Prevention 2019 will bring together leading researchers and industry practitioners who combat corrosion daily. Diverse technical streams will showcase the latest developments in corrosion, ranging from fundamental corrosion science to hands-on application.

The 26th Session of the Asia — Pacific Regional Space Agency Forum

Date: 26 – 29 November 2019

Location: Nagoya, Japan

Website: www.aprsaf.org/annual_meetings/aprsaf26/meeting_details.php

The 26th Session of the Asia-Pacific Regional Space Agency Forum (APRSAF-26)

will be held in Nagoya, Japan from 26-29 November 2019.

2020

AIDN National Defence Industry Gala Dinner 2020

Date 19 February 2020
Location QT Hotel Ballroom

Website consec.eventsair.com/aidn-2020/dinner/Site/Register

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

Certificate IV in Responding to Organisational Complexity | Adelaide

Date 19-21 February, 2020

Location to be confirmed

Website iccpm.com/events/certificate-iv-adelaide-2020

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

Certificate IV in Responding to Organisational Complexity | Canberra

Date 24-26 March, 2020 Location to be confirmed

Website iccpm.com/events/certificate-iv-canberra-2020

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

CIVSEC 2020

Date 24-26 April 2020

Location Melbourne Convention and Exhibition Centre

Website www.civsec.com.au

CIVSEC 2020 International Civil Security Congress and Exposition is your gateway event to the growing Indo-Asia-Pacific civil national security environment. CIVSEC 2020 is a premium international event with exceptional opportunities to reach key driver organisations in an evolving, tech-savvy regional marketplace.

Rotortech 2020

Date 16-18 June 2020

Location Royal International Convention Centre, Brisbane

Website www.rotortech.com.au

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

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.