

ADM **DEFENCE WEEK** AUSTRALIAN DEFENCE MAGAZINE SERVING THE BUSINESS OF DEFENCE **PREMIUM EDITION**



The government has rejected the idea of hosting US missiles but wants access to US fuel reserves.

US DOD

Government declines to host US missiles but wants fuel

Ewen Levick | Sydney

Prime Minister Scott Morrison and Defence Minister Linda Reynolds have rejected the idea of hosting US missiles in Australia following the weekend's AUSMIN talks as the government confirmed that it is in negotiations to access the US Strategic Petroleum Reserve.

[Media reports](#) earlier in the week suggested the US is considering deploying mid-range missiles in the Indo-Pacific after formally withdrawing from the Intermediate-Range Nuclear Forces treaty with Russia, originally signed during the Cold War.

Whilst the treaty served to de-escalate tensions between the US and the Soviet Union, the exclusion of China meant the country has been free to develop theatre nuclear capabilities and precision strike systems.

Defence Minister Linda Reynolds told ABC Radio that she raised the issue with US Secretary of Defense Mark Esper on Sunday, revealing that the US had not made a formal request.

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"I did discuss that yesterday with Secretary Esper, and he confirmed that there was no ask of Australia and that none was expected," Minister Reynolds said. "I asked him directly, was there any expectation of a request? And he said to me no."

PM Morrison then told reporters in Brisbane that he would 'rule a line' under the idea.

Separately, Minister Reynolds and Energy Minister Angus Taylor also confirmed that the Commonwealth is negotiating with the US for access to its strategic fuel stores as part of a strategy to off-set Australia's critically low reserves.

The US has 700 days' worth of fuel stored in caverns in Texas and Louisiana. Australia currently has around [21 days](#) of diesel fuel, which has dipped to as low as 12 days in recent years, and imports 90 per cent of other liquid fuels. It is required to store 90 days worth of fuel under an agreement with the International Energy Agency.

"The government has undertaken this new initiative since the election to ensure that we continue to deliver increased security for Australians," Taylor told the [Sydney Morning Herald](#). "Access through a contractual arrangement would greatly boost our stocks and flexibility of supply."

A fuel security review is due by the end of the year.

ADM Comment: It is unclear how fuel stored in a cave in Texas would [reduce Australia's vulnerability](#) to maritime supply disruptions given that it would still need to be shipped and refined here, a process that would likely take longer than 21 days. The ADF would come to a standstill before the fuel was available for use.

Minister Taylor also said that the government is trying to change the treaty so that fuel already on its way to Australia counts toward the 90-day requirement. Yet ships at sea remain vulnerable to disruption: successfully redefining 'fuel reserves' will be little comfort when F-35s are sitting motionless on a flight-line because the fuel they need is either in a North American cave or somewhere in the Indian Ocean.

"Redefining 'fuel reserves' will be little comfort when F-35s are sitting on a flight-line because the fuel they need is in a North American cave"

Supashock opens new facility in Adelaide

Matt Rainbow | Adelaide

The opening of Supashock's new headquarters yesterday marks another significant step in the growth of the Adelaide-based manufacturer.

The facility, in the inner north-eastern suburb of Holden Hill, marks the first phase of Supashock's \$5 million expansion project. It will enable the further introduction of state-of-the-art manufacturing equipment and systems and provides an example of home-grown ideas and innovation and the importance of collaboration between industry, government (both State and Federal), and educational institutions.

Suspension systems designed and manufactured by Supashock are to be included in the Boxer CRV built by Rheinmetall – the winning bidder for Defence's Land 400 Phase 2 project which will provide 211 vehicles to the Australian Army. And the company will also be a component of the Lynx, which Rheinmetall has proposed to provide to meet the



Air Chief Marshal (Ret'd) Sir Angus Houston, Rheinmetall MD Gary Stewart, Minister for Defence Industry Melissa Price, and Supashock MD Oscar Fiorinotto. SUPASHOCK

requirement for 450 IFVs for [Land 400 Phase 3](#). Rheinmetall is also proposing the Lynx for the US Army's IFV program, which is about 10 times the size of Land 400 Phase 2.

Two years ago Rheinmetall, whose Electronic Division (including its defence simulation business) is co-located with Supashock's new facility, [took a 49 per cent stake](#) in the suspension manufacturer and has been credited by some with seeing Supashock's potential and assisting the SA company's move into the defence sector by providing access to global supply chains and contracts that would not have otherwise been possible. Indeed, at the opening ceremony, Rheinmetall Chairman Armin Papperger stated that Supashock Managing Director Oscar Fiorinotto took just five minutes to persuade the German of the value of a partnership with Supashock.

"You hire for character and can train for skill"

About half of Supashock's production is currently devoted to the defence manufacturing sector, about one-third is for automotive mechanical manufacturing, with the remainder being for the commercial sector. Fiorinotto credits the recent growth of his company to the increase in defence exports. About 65 per cent of Supashock's production is exported, which is up from around 10 per cent just a few years ago.

In addition to Australian customers, Supashock is also exporting to defence customers in Europe and Southeast Asia. Supashock is also deeply involved in the autonomous vehicle market and is working to provide fully active and predictive suspension technology for a US company who is the fastest growing manufacturer of those vehicles in the world.

Additional production has led to a growth in Supashock's workforce, which is up from about two employees in 2012 to 50 workers currently, and this is expected to increase to 80 by the end of next year and more than 100 by 2024. Fiorinotto stated that to be successful it is vital to attract, develop and retain the very best staff.

Once recruited he believes that Supashock's workers are happy due to the company's culture and opportunity to work on high-end technology projects. Papperger seconded this enthusiasm by stating that Supashock has "great people... who have sparks in their eyes."

To gain access to appropriately skilled people Fiorinotto mentioned the importance his company has placed in establishing strong relationships with several SA tertiary institutions. In particular, Supashock is interested in graduates and apprentices with skills in mechatronic and electrical engineering.

When asked what the most important attribute for prospective staff was, without hesitation Fiorinotto replied, "passion." According to the Supashock founder, "you hire for character and can train for skill."

Space tracking investment increased

Lincoln Parker | Sydney

In April of this year Western Sydney University (WSU), led by their International Centre for Neuromorphic Systems (ICNS) won the [largest ever contract](#) from the Defence Innovation Hub (DIH), specifically to build a camera inspired by the human eye for the task of looking at space. That includes space situational awareness, and for tracking satellites and space junk.

I recently sat down at WSU with Professor André van Schaik, director of ICNS to learn more. He explained that current space monitoring technology is based on radar and optical telescopes in observatories. But radar technology is expensive to install and maintain and it is an active technology. In other words, when you use radar, everyone knows you're looking. And standard astronomy cameras don't work during the day because they're made to be very sensitive to light. This led to the development of Astrosite, a world-first mobile space situational awareness module, developed with RAAF's Plan Jericho.

Inspired by Human Biology

In world first technology, using biologically inspired event-based cameras (sensors), WSU is able to capture what no other system can; that is events from each



WSU's game-changing Astrosite technology.

SALLYTSOUTAS

pixel to provide a stream of events through time, rather than images. 'Event'-based means that each photoreceptor, each pixel in the camera, independently looks for changes. If the light changes over time to become brighter by a certain amount or darker by a certain amount, it will send an event identifying whether it was a brighter or darker change. And what this means is that each event is a precisely timestamped piece of information.

Junk concerns

The amount of space junk around Earth is significant and growing. This junk only increased when two countries recently blew up their own satellites to test their missiles, creating clouds of debris pollution whizzing around. Even a tiny 10cm square piece of debris travelling at 28,000km an hour can completely destroy multi-billion-dollar satellites. What does this mean to you? We rely on satellites for GPS navigation, weather, entertainment and communications, and of course intelligence gathering. Tracking this junk is therefore crucial, and valuable.

"Now adversaries have no idea where you're looking from or when"

Space Race

It is estimated that over 60 countries have plans and the capacity to launch into space in the near future. Every launch requires knowledge of what is in the space (area) their satellite will fly into and occupy, lest it is destroyed by space junk. WSU's systems provide that capability efficiently, with incredible accuracy and at a lower cost than current technologies. And this is by no means the only capabilities WSU's technologies can and will provide. More of that in future articles and below, but it is fair to say that the economic growth and highly skilled jobs resulting from developments like these will launch Western Sydney, NSW, and Australia into the global club of space nations.

Cat & Mouse in the Heavens

Spy satellites are constantly moving around in orbit to collect intelligence, attack, hide and bully. There are reportedly many examples of competitor satellites not just hiding themselves, but also attacking or being moved directly into the path of or near other (most often commercial) satellites and forcing them to move, which is time consuming, disruptive and expensive.

Adversaries could (and still can) do all of the above because they know when and where current technology can "see" into which parts of space and at what times. That's mostly during the night and from fixed observatories. Therefore, they know which areas of space to avoid if they don't want to be seen.

No longer. Astrosite is a mobile module that operates day and night, is passive, and can even operate on moving platforms (like a ship) or from space itself. In fact, Prof van Schaik states that Astrosite works better from a moving platform.

Now adversaries have no idea where you're looking from or when. And they can't just pop up into an area of space unannounced.

Note: Lincoln Parker works for the NSW Defence Innovation Network (an initiative of the NSW Government, Defence Science & Technology Group and seven NSW universities). The author's views are his own.

STEM Sista program instils success

Katherine Ziesing | Canberra

When is a STEM program not just a STEM program? When it covers more than just the basics to include skills like emotional and financial management, how to network and build relationships while supporting STEM careers across the board.

The [STEM Sista program](#) is a professional development program for young women in high school. It is designed to instil fundamental success principles, commitment and resiliency in girls, effectively setting them up for a life of tremendous accomplishment.

"When I was in my thirties, I was fortunate to be offered amazing professional development," CEO and STEM Sista founder Teresa Janowski explained to *ADM*. "As an engineer, I took on board what they taught me literally and applied it to my life. I often wondered what impact it would have to teach young women in their teenage years the same life skills and tools. In my role I was fortunate enough to have the ability to create such a program and 'pay it forward'.

"In five years, we have delivered numerous programs with hundreds of girls completing the program and continuing with STEM careers. Many of them have become big STEM Sistas and return to teach."

Students attend from a variety of schools (public, private, catholic and independent) mainly from years 9 to 11 in SA. The program is held over four days in a city location from 9 am to 4 pm.

"Each year we work with numerous industry partners," Janowski outlined. "This year we have Defence SA as one of our key sponsors. Richard and his team are amazing hosts and make the girls feel very welcome. This is so important to girls who are considering their study and future career. The girls gain an understanding of what the defence industry is and learn from guest speakers about the variety of roles and opportunities."



STEM Sista is a professional development program that instils the principles of success in young women.

STEM SISTA

STEM Sista grants its students opportunities to walk away with:

- Valuable STEM industry connections and potential career prospects.
- Exposure to and guidance from an array of STEM industry guest speakers.
- Comprehensive insights into the lives of STEM professionals & their various organizations.
- A deep understanding of how to conduct oneself in professional settings such as interviews and workplace environments to achieve optimal results.
- Extensive, result-driven strategies for setting and attaining ambitious goals, managing finances, negotiating effectively, building unwavering resilience & much more.
- Guidance on which STEM pathway is right for them and how to follow that pathway.
- Access to a mastermind of like-minded bright young women with similar ambitions and goals (who usually end up becoming friends for life).

Janowski also heads up STEM Fast Track, with STEM-oriented networking events and professional development courses for young people in school and university who wish to increase their chances of starting a successful career in STEM driven industries.

"Our primary goal is to empower the emerging generation with knowledge and development to become prepared to take on a STEM-driven future with conviction," Janowski said.

Teresa will be presenting at ADM's [STEM in Defence summit](#) in Canberra next week along with an insightful program of presenters.

"Our primary goal is to empower the emerging generation with knowledge and development"

Australian company pioneers secure computing infrastructure

Ewen Levick | Sydney

One tech trend redefining the sector in recent years is a move towards 'infrastructure as a service' (IaaS), and one Australian company is pioneering a uniquely secure IaaS approach for Defence and other customers in need of secure computing infrastructure.

IaaS refers to the shared use of network computers and storage by multiple customers, all hosted by one infrastructure provider. It allows for economies of

scale and a more efficient use of expensive hardware and data centre space by essentially making computing a subscription service similar to the electricity grid or the water supply.

"The traditional model would be an individual company or organisation would all build and buy their own hardware," Managing Director of AUCloud Phil Dawson said to ADM. "Virtualisation technology enables us to share that silicon, share that computer facility, share the storage services securely across multiple organisations instantaneously.

"It's important that you limit the community who have access to those who are able to play by the rules"



IaaS allows multiple customers to share computing hardware.

PIXABAY

"So your laptop at the moment is a device that's used only by you. While you go and have a cup of coffee, that piece of silicon can be actually shared across multiple users. We're doing that on an industrial basis with world class security."

According to Dawson, new players in the IaaS market are proving successful because they are singularly focussed on IaaS specialisation and adopting flexible business models that are outpacing legacy providers.

"Large technology companies are systems integrators who have a business model where they sell people," Dawson said. "Having a successful infrastructure as a service solution cuts against the grain of those business models because you're trying to design the thing that you sell out of the process."

AUCloud's offering targets Defence and other national security agencies with highly secure infrastructure that ensures sensitive data never leaves Australia, and is doing so by actually restricting its potential customer base.

"One of our differentiators from, for example, Amazon Web Services, is that they allow anybody to sign up: as long as they've got a credit card, bona fide or not, they can set up an account," Dawson said. "Whereas we recognised that it's important that you limit the community who have access to those who are able to play by the rules, to a set of standards."

Whilst there are still challenges facing a wider uptake of an IaaS computing model, the company is confident that its single-minded focus on security is about to pay off.

"We've put in three years hard yards in Australia," Dawson said. "We've got 30 people at the moment, some of the best technical talent in the country."

"Building on five years successfully creating the leading IaaS provider to government in the UK, and three establishing the foundation of an Australian owned and operated business, I strongly believe AUCloud can deliver secure sovereign infrastructure at the highest level," Dawson said.

"I believe very strongly that AUCloud [can] become the fastest growing technology company in the nation."

Nova's TacPlanner improves satellite management

Ewen Levick | Sydney

Nova Systems is coming to the close of a multi-year program developing a tool called TacPlanner, which will allow Defence's Satellite Operations Planning Cell (SatOps) to better manage the ADF's satellite communication assets.

ADM spoke to Nick Pengelly and Neil Hathaway from Nova about how their technology will improve the ADF's communications environment by maximising the planning and management efficiency of the ADF's UHF SATCOM Capability.

"We knew UHF SATCOM Planning and Management needed to be more streamlined to support the growing space segment resources," Pengelly said.

"We found that there was no quick and simple way for [SatOps] to grab a status shot for their UHF satellite communications.

"CIOG needed something that was streamlined, like some sort of software product that would actually save them a lot of time and money in overall UHF SATCOM management."

Nova's above-the-line program utilised an agile development methodology to find a solution to the problem, consulting regularly with Defence to generate iterative refinements of the software application.

"We would work in short time slices and at the end of every one of those we'd have a working version of the software, and so about every month we usually got the customer out and we got them handling the tool," Hathaway said. "We got their feedback about what was adding value, what wasn't really adding value and we tracked all that."

One of the challenges to this iterative approach was getting passionate developers used to constructive criticisms from end users.



The TacPlanner allows the Satellite Operations Planning Cell to better manage satellite communication assets.

@3SDL

“There was basically quite a big capability gap around UHF satcom management”

“If you think about a traditional high performing team of passionate people, if you tell them they’re now working on a slightly different requirement can lead to frustrations,” Hathaway said. “[But] they [the Nova developers] approached the agile process with a very positive attitude; every time the customer gives us some feedback, that’s a really good thing because it means we are adjusting to deliver the product they actually want in a more streamlined approach.”

The next step for TacPlanner could be into NATO, meaning the technology could become an export success story for Australian defence industry.

“We’ve had some preliminary discussions with NATO organisations. They use similar technologies in their UHF satellites and they’re looking at upgrading their systems in coming years,” Hathaway said.

According to Pengelly, some of the credit for TacPlanner’s success belongs with Defence.

“I think that they probably need some credit for supporting this innovative approach to developing a tool like this,” Pengelly said.

MOST READ ONLINE AT WWW.AUSTRALIANDEFENCE.COM.AU



1. [Defence moves quietly on Greek warship sale](#)
2. [ADM Essington Lewis 2019 Awards winners announced](#)
3. [JP 2060 Phase 4 moves ahead](#)
4. [Civmec hits mega facility milestone](#)
5. [Thales buys insolvent Hawkei engine manufacturer](#)

New Chief Defence Scientist wins leadership award

Chief Defence Scientist [Professor Tanya Monro](#) has won the 2019 SA Award for Excellence in Women’s Leadership.

In its 15th year, the award highlights the contributions of women at a national, state and territory level who are advancing gender equality across Australia.

Professor Monro was recognised for her abilities as a leading scientist and organisational leader.

“Defence is fortunate to have an exceptional leader in Professor Monro, who is responsible for delivering science and technology for national security,” Minister for Defence Linda Reynolds said.

“Before being appointed Chief Defence Scientist in March, she delivered significant organisational transformation and positive cultural change as the University of South SA’s Deputy Vice Chancellor of Research and Innovation.

“Professor Monro is a tireless advocate for women in science”

"At UniSA Professor Monro personally funded a scheme, Research Momentum During Maternity Leave, to cover a range of ad hoc expenses to make it easier for women to manage their research commitments and the demands of a new baby.

"Professor Monro is a tireless advocate for women in science and was a founding sponsor of the Science in Australia Gender Equity (SAGE) initiative, which is focussed on increasing the proportion of women in senior roles in Australian Universities. Under Professor Monro's leadership, Defence Science and Technology Group has applied for Bronze accreditation with SAGE."

The Award for Excellence in Women's Leadership also recognises Professor Monro as a role model for all women in the STEM environment and as an inspiration to others.

Professor Monro will be speaking at ADM's [STEM in Defence summit](#) next week, and to ADM in our September *From the Source* interview.



Professor Monro personally funded a scheme to make it easier for women to manage their research commitments.

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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](#) – 13 August 2019
- [ADM Defence Estate and Base Services Summit](#) – 12 September 2019
- [ADM North Australian Defence Summit](#) – 23-24 October 2019

WA Indo-Pacific Defence Conference

Date 12 August 2019

Location Crown Towers, Perth

Website www.perthusasia.edu.au

Senior government officials, leaders from industry and the WA SME sector will come together to discuss critical issues and partnership opportunities for WA defence at the WA Indo-Pacific Defence Conference on Monday 12 August. Attendees will hear from Premier Mark McGowan; as well as Minister for Defence Senator Linda Reynolds, Minister for Defence Industry Melissa Price, Shadow Minister for Defence Richard Marles and Shadow Minister for Defence Industry Matt Keogh.

DST Scindicate 2019: Partnering for Impact

Date 15-16 August

Location Adelaide, SA

Website Scindicate@dst.defence.gov.au

Once again, industry, universities and research agencies are invited to participate in the two-day activities which will include technology demonstrations, business matchups, workshops, briefings and laboratory tours, as well as opportunities for networking and forging new collaborations. A Next Generation Technologies Fund Showcase will be a special feature of the event.

PGCS 2019

Date 20 – 22 August 2019

Location The Canberra Rex Hotel, Canberra

Website www.pgcsymposium.org.au

Now in its 7th year, PGCS 2019 will focus on ways to build the foundations needed to create project and program success. Creating the organisational capability needed to underpin the consistent delivery of successful projects in the 2020's starts at the top. Leadership and a sustained focus are required to build a culture of excellence that can balance innovation with surveillance and accountability, encourage learning, and manage knowledge effectively.

Lessons in Leadership

Date 21 August

Location RUSI Hall, Victoria Barracks, Brisbane

Website <http://www.rusi.org.au/event-3317743>

In his presentation to RUSIQ members Dr Brendan Nelson will reflect on his own upbringing and the lessons he has learned through school, university, work as a physician, his political career and now as Director of the Australian WAR Memorial. Dr Nelson will impart key lessons that have stayed with him, and are important to all leaders, such as the importance of service to the community rather than self.

Hunter Defence Conference 2019

Date 23 August

Location Crown Plaza Hunter Valley

Website www.trybooking.com/book/event?eid=503298

The 2019 10th anniversary Hunter Defence Conference will focus on driving collaboration between Defence Primes, NSW regional SMEs, academia and the Department of Defence. Key presentations at this year's conference will include capability development staff from Army, Navy and Air Force Headquarters, Defence Primes articulating the support requirements they will have over the coming decade from regional SMEs. Former Minister for Defence Christopher Pyne will present a keynote at the dinner.

Sir James Rowland Seminar

Date 28 August 2019

Location ADFA, Canberra

Website www.eventbrite.com.au

The Rowlands Seminar series (named after Air Marshal Sir James Rowland – former Chief of Air Staff 1975-1979) is focused on promoting and developing an understanding of Australian air power via practitioners, academics, Defence members, other government agencies, and students of armed conflict.

ASDEFCON TD/IP Courses

Date 28-29 August

Location: WA, Vic, NSW

Website defence@majortraining.com.au

Defence have begun delivery of its short course on the new Technical Data / Intellectual Property (TD/IP) clauses in its ASDEFCON suite of templates. The new clauses provide far more flexibility and scope to deal with TD/IP issues but require a better understanding from both Defence and Industry. Defence is delivering this course around Australia and offering a number of spaces to Defence Industry: 6-7 August 2019 in WA: 28-29 August 2019 in Victoria: 23-24 September 2019 at RAAF Richmond: 29-30 October 2019 and 24-25 February 2020 in the ACT.

Australasian Simulation Congress

Date 02 – 05 September 2019

Location Gold Coast Convention and Exhibition Centre, Gold Coast

Website www.simulationcongress.com

The Australasian Simulation Congress provides a focused opportunity for industry development, business growth, training, discussion and distribution of information related to Simulation, Modelling, Training and Decision Support. Simulation Australasia can help you directly engage with industry, policy makers, Government and relevant stakeholders to facilitate you and your organisation achieving the success only a truly international Congress can provide.

Synthetic Environment Working Group (SEWG)

Date 06 September 2019

Location Gold Coast Convention and Exhibition Centre

Website www.defence.gov.au

The Synthetic Environment Working Group (SEWG) 2019 is a one-day Conference/Working Group sponsored by the Department of Defence, ADSTC and managed by the Simulation Governance Directorate.

Australian Naval Institute's Goldrick Seminar

Date 18 September 2019

Location ADFA

Website www.trybooking.com/BDYHF

The 2019 ANI Goldrick Seminar will discuss defence issues associated with the maintenance of Australia's maritime trade. Speakers will be drawn from senior levels of Defence, academia and industry. As in previous years, the theme – Maritime Trade and its Implications for Australia's Defence – was selected by the Chief of Navy; an outcomes report will be provided to the Chief of Navy and it is anticipated that the proceedings will be subsequently published by ACSACS.

Understanding Chinese Strategy for the 21st Century

Date 18 September 2019

Location Victoria Barracks, Brisbane

Website www.rusi.org.au/event-3491733

Join us to hear deeply researched insights into China's strategic calculus in the region and how this will affect Australia's security. Professor Evans is a leading expert in strategy and leadership whose expertise is highly sought-after by international institutions, especially the US military. His command of military history and the extrapolated implications for our strategic considerations are peerless in Australia.

Capability Life Cycle (CLC) Management

Date 23-25 September 2019

Location Canberra, Brisbane, Sydney, Melbourne, Adelaide, Perth

Website unsw.adfa.edu.au

This course provides attendees with an overview of how Australian Defence conducts business with regard to development and management of capability. Attendees from within the Australian Defence Organisation, other government agencies and defence industry are provided with an opportunity to develop an understanding of the principles, processes, practices and artefacts associated with the Australian Defence Capability Life Cycle.

Army Innovation Day 2019

Date 25 September, 2019

Location Adams Auditorium, ADFA

Website www.army.gov.au

AID19 will be held on 25 September and the purpose is for selected respondents to pitch their proposed innovations to assessors, Capability Managers and Defence Innovation Hub personnel. Respondents may also be able to verify, validate and clarify their Request for Proposal response. Request for Proposal submissions closes on 3 September and on 12 October respondents will be notified of outcomes.

2019 SIA Nuclear Seminar

Date 02 October 2019

Location Australian Strategic Policy Institute

Website www.submarineinstitute.com/events/Nuclear-Seminar

The Submarine Institute of Australia (SIA) is Australia's premier organisation for the promotion of submarine matters. The SIA is hosting a single day seminar, aiming to stimulate national discussion on a holistic approach to a nuclear industry.

Australian Cyber Conference 2019

Date 07-09 October 2019

Location Melbourne Convention and Exhibition Centre

Website cyberconference.com.au

The Australian Cyber Conference 2019 will provide business leaders with insights and best practices taught by the industry's top experts through keynotes, panel sessions and live demonstrations. Attending the conference will enable you to network with these practitioners to help you better understand and manage current threats, as well as identify and prepare to meet emerging challenges.

Pacific 2019

Date 08-10 October 2019

Location Sydney Convention Centre

Website www.pacificexpo.com.au

As the only comprehensive international exhibition of its kind in the Indo-Asia-Pacific region, PACIFIC 2019 will again provide the essential showcase for commercial maritime and naval defence industries to promote their capabilities to decision-makers from around the world.

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?

Williams Foundation Seminar – The Requirements of Fifth Generation Manoeuvre

Date 24 October 2019

Location National Gallery of Australia

Website 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.

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.

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).

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.

2020

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.