Greetings
During September a number of AIDN-Vic members attended Land Forces in Adelaide. The vibe was very positive and there was certainly an upbeat feeling amongst defence industry.

Invitations have been sent out for AIDN-Vic’s major event for the year, the AIDN-Vic Defence Update and Golf day on Tuesday 25 October. Sponsorship opportunities are still available by contacting sue.smith@aidnvic.org.au.

Following is the line-up of speakers:

Leonie Walsh, former Victorian Lead Scientist - 'Drivers of change impacting the Defence Sector'
Brian Gathright, BAE Systems - Land 400 Phase 2 update
Michelle Richard, Purchasing Director, Thales – domestic and global supply chain opportunities
John Teager AM, Managing Director, RUAG Australia
Victorian Defence Alliance Update
Gary Stewart, Rheinmetall - Land 400 Ph 2 business opportunities
David Luchetti, Dept of Industry - "The Square Kilometre Array: Construction ready?"
Kate Louis, First Assistant Secretary Defence Industry Policy Division

The Victorian Defence Alliances have held a number of committee meetings and plans are underway for networking events in October/November.

AIDN-Vic membership continues to grow and if you know of companies working in the defence and security sectors that could
benefit from joining AIDN-Vic please pass on their contact details to sue.smith@aidnvic.org.au.

AIDN National held its quarterly meeting on Friday 9 September, following Land Forces. The main themes from the meeting were that AIDN is currently producing its Strategic Direction document and Strategic Plan. AIDN supported, in principle, the proposal to establish the Australian Maritime Innovation Centre. AIDN will be having a stand at the Avalon International Airshow in Feb/March 2017.

Regards
Stephen Harvey
AIDN-Vic President president@aidnvic.org.au

**AIDN-Vic DEFENCE UPDATE/GOLF DAY**

AIDN-Vic has now invited members and guests to the Riversdale Golf Club for the annual Defence Update and Golf Day on Tuesday 25 October. So please get in early because last year it was booked out and places are filling fast.

**AIDN-VIC NEW MEMBERS**

AIDN-Vic welcomes the following 3 new members:

### Anywise Consulting

Anywise Consulting delivers flexible and responsive consulting support to help companies win and deliver Defence contracts.

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Please contact:
Adam Evans
Director
Phone: 0410 970 486
adam.evans@anywise.com.au

### KPMG

KPMG is a global network of professional services with more than 155,000 people worldwide, 6,600 in Australia and 1,100 of those with a security clearance.

KPMG has a strong and established reputation built on a long history of objectivity and integrity. These values drive us to deliver clear and practical advice to help our government and industry clients grow and succeed in their chosen fields.

They also make us committed and successful leaders in our profession. In Australia, our local experience is situated across the country and enhanced by the technical and defence industry knowledge of our global network, which means we bring a deep understanding of our client's businesses and their industries to each assignment. These factors also enable our professionals to deliver informed and timely advice.

Please contact:
Oliver Cunliffe
National Business Development Manager
Phone: 03 9288 5156
ocunliffe@kpmg.com.au
Strategic Connections Group

Strategic Connections Group was formed in 2009 and provides professional services to the manufacturing, rail and construction sector.

SCG is globally connected to technology companies linking them to opportunities in Australia with Australian suppliers. SCG has experience in engineering projects, supply chain, local content, logistics, risk and stakeholder management.

SCG’s team are all professionally qualified and is ready to assist local and foreign companies achieve their goals in defence contracts.

Please contact:
Alan Burne
CEO & Managing Director
Phone: 03 9840 6925
alan@strategicconnectionsgroup.com

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AIDN-VIC MEMBERS’ NEWS
INTELLIGENT TRAINING TECH FOR MEDICAL STUDENTS

The first project in a new early-career researcher grant program for small and medium businesses (SMEs) has just kicked off.

The grant program is managed by CSIRO and funded through the Science and Industry Endowment Fund (SIEF) STEM+ Business Fellowship program.

Researcher Dr James Zhang from Deakin University's Institute for Intelligent Systems Research and Innovation is working with innovative software company YTEK to develop advanced training tools for surgeons, emergency workers, soldiers and pilots.

YTEK is a Melbourne-based SME developing solutions for simulation and training in the emergency response, defence and aerospace sectors.

Dr Zhang will work closely with the company to research machine-learning algorithms that will intelligently monitor and evaluate a trainee's conduct in mission-critical simulations.

Using sensors on training tools, such as manikins, the software will help trainers to assess students in practical training and accreditation, and see individual and group performance.

YTEK CEO Richard Yanieri said this is particularly important for medical students in clinical lessons to ensure they have the best education possible, while making the best use of trainer time and education resources.

"We've been working with Deakin's School of Medicine to understand their needs so that we can tailor a solution that works for this industry," Mr Yanieri said.

Competing in an increasingly global market requires Australian SMEs to utilise leading technologies to grow and adapt.

Research can be expensive for small businesses so this new grant initiative makes it easier and more viable for SMEs to create these new technologies.

Having obtained his PhD in 2014, Dr Zhang is keen to put his skills to the test in a commercial environment and help deliver an innovative solution to capture new business opportunities.

"This is a great opportunity for me to be directly embedded in the business and to use my expertise to help YTEK create a new product," Dr Zhang said.

"I've gone from being a researcher to learning about the business environment and it's a really exciting new phase in my career.

"This new technology is the future for training delivery so I'm pleased to be a part of it."

The project has been facilitated by CSIRO's SME Connect team which links SMEs with researchers to increase productivity and help develop new products and capabilities.

Managed by SME Connect the SIEF STEM+ Business Fellowship Program is set to place over 35 researchers in businesses over the next five years. The aim is to help create a cohort of industry-savvy early-career researchers.

With co-investment from participating organisations this program has the capacity to deliver $24 million of research projects with Australian SMEs.
The SME Connect team is looking for SMEs to partner with organisations from across the innovation system on research projects. For more information visit, www.csiro.au/SMEconnect

The successful Australian designed and manufactured Aerosonde 4.7 has met with great success with US Special Forces

AEROSONDE NOW TEXTRON SYSTEMS AUSTRALIA

Textron Systems has announced that it has renamed its Melbourne, Australia-based company, Aerosonde Pty Limited to Textron Systems Australia Pty Limited. It explained the re-branding reflects its broader service offering and continued commitment to the Asia-Pacific region.

Textron said that Textron Systems Australia has decades of unmanned aircraft system expertise, including the original design and manufacture of the Aerosonde Small Unmanned Aircraft System (SUAS).

It added the Australia-based company specialises in all facets of unmanned aviation including ground control technologies, training and simulation systems, logistical, engineering and support services.

Jack Kormas, Textron Systems Australia managing director, said: “For the past 25 years Textron Systems Australia has been deeply focused on UAS manufacturing, design, operations and support – specifically focusing on the Aerosonde SUAS product and services line.”

“We plan to continue supporting the Aerosonde SUAS, while also adding support for other Textron Systems businesses. Our services can be applied to various Textron Systems products and endeavours– and we are excited to formally take on this expanded mission.”

Textron also said that Textron Systems Australia has provided a single resource for UAS or operational services across the entire Asia-Pacific region to Antarctica, has strong ties to the region’s aviation community, including Australia’s Civil Aviation Safety Authority.

With this experience, the company supports other Textron Systems businesses including TRU Simulation + Training with maintenance and training, Textron Systems Support Solutions with Shadow Tactical UAS flight maintenance, as well as program management, business development and other support.

Textron also said that, for example, the business provides flight instruction and maintainer training for Textron Systems’ Shadow Tactical UAS, as well as flight simulator maintenance and maintenance training on the C-17 Globe master aircraft.

DEFENCE INNOVATION WITH AMSIINTERN

As they race to keep pace with rapidly evolving technology, the defence industry is increasingly turning to specialised research to accelerate idea development and innovation.

Independent engineering and project management consultancy, BMT Design & Technology recently discovered the benefits of in-house access to dedicated onsite research skills with AMSIIntern. A value- add that, according to Senior BMT Design & Technology Engineer, Aidan Depetro, perfectly complements engagement with Defence Materials Technology Centre DMTC, DSI and DST Group.

“While BMT already values and actively invests in research and development, the AMSIIntern program has shown us how effective a dedicated project-focused researcher can be,” Aidan said.
For the defence, maritime and industry leader this came in the form of Swinburne University of Technology PhD student, Sergei Chichin. Sergei was matched to BMT by the all-discipline, all-sector internship program to apply his specialised computational mechanism design skills to optimise development of an in-house design tool.

“Sergei’s specialist optimisation and software design knowledge helped us overcome major hurdles in the automation of compartment arrangement and incorporation of in house knowledge into the design tool,” explains Aidan.

For Sergei the project was an opportunity to make theory come to life and help solve a real-world challenge.

“It was really exciting to apply my computer science and applied mathematics knowledge to address challenges in unrelated fields, such as naval engineering. This exposure to industry is invaluable for students, who like myself, are transitioning into research careers,” he explains.

As Sergei’s academic mentor, Swinburne Intelligent Systems Professor, Ryszard Kowalczyk, has been particularly impressed by AMSIIntern’s benefits for students and research engagement.

“It is a unique internship program that offers placements and opportunities for PhD researchers to work on industry-led research and experience practical R&D incorporate environments,” says Professor Kowalczyk.

Also benefitting from the stronger relationship with BMT Design & Technology, he says, “better understanding other’s needs and capabilities has opened opportunities for further research collaboration.”

For BMT Design & Technology, the results speak for themselves, with the company considering the design tool as an opportunity for future business enterprises. “At this stage, the tool will be used internally to rapidly generate and evaluate designs for a range of clients but commercial ventures are a possibility down the track,” says Aidan.

BAE SYSTEMS ANNOUNCES PARTNERS TO UPGRADE AUSTRALIA’S RADAR NETWORK

BAE Systems Australia recently announced a team of industry partners that ensures the best of Australian expertise is in place for its bid to upgrade Australia’s long-range High Frequency (HF) radar network.

Central to BAE Systems’ team is a partnership with leading defence systems integrator, Raytheon Australia, that will deliver unparalleled systems integration experience and expertise to the Jindalee Operational Radar Network (JORN) project.

BAE Systems Australia’s Chief Executive Officer, Glynn Phillips, in announcing the partnership with Raytheon Australia said: “Since 1980 BAE Systems has contributed to the development and delivery of JORN, and we are very pleased to strengthen this unique experience with Raytheon’s proven software and systems integration capability.”

As a key strategic partner on the team, Raytheon Australia’s Managing Director, Michael Ward, added: “Raytheon Australia is pleased to partner with BAE Systems to upgrade and support the Jindalee Operational Radar Network. Together, we have the Australian engineers and technicians with the experience and capability needed to upgrade Australia’s radar network to provide world class surveillance coverage of Australia’s northern approaches.”

The team announced by BAE Systems recently includes defence company Daronmont Technologies and facilities management company RCR Resolve FM. Daronmont has niche systems integration, software and engineering expertise that complements the team. This Australian SME will also provide sounders and transponders for all JORN sites as well as niche software products. RCR Resolve FM will contribute remote site facilities management to the team. The company has extensive remote site experience in adjacent industries, as well as an established network of 50 depots.

BAE Systems Australia’s Chief Executive Officer, Glynn Phillips, said: “We are very pleased to be able to bring together a group of companies with the in-country expertise and technological skills necessary to upgrade and support JORN.

“We have selected our partners not only to ensure that the Commonwealth is supported by leaders in our individual fields, but to deliver a program where local knowledge, local expertise and local talent will contribute to the evolution of JORN, ensuring sovereign control of the technology, and building a foundation for future defence exports.”

If selected for the project, the HF technology, software and system integration knowledge from a 600-strong, highly-skilled local workforce will ensure that the upgrade to JORN is delivered efficiently and effectively. More than 20 specialist SMEs will also join the team to ensure high levels of innovation and broader industry participation.

Ben Norris, Daronmont Technologies Chief Executive Officer, added: “BAE Systems has taken the lead in supporting Australian SMEs like Daronmont and we are very pleased to be able to offer our HF Radar and remote support experience to the BAE Systems JORN solution.”

Dr Paul Dalgleish, RCR Managing Director, added: “This is a major opportunity for RCR with one of the world’s premier...
defence companies and we are pleased to be working alongside them on this major technology project.”

Valued at more than $1 billion, the JORN upgrade and support contract is for Australia’s only real-time, long-range HF radar detection system that protects the country’s northern borders. BAE Systems was the first manufacturer of Australia’s long range HF Radar used in JORN. The network is a unique asset that is vital for situational awareness and supporting the Australian Defence Force’s (ADF) air and maritime operations. It also provides wide area surveillance and information for the Government’s border protection, disaster relief, and search and rescue activities.

LMATS ACQUIRES WELD-RITE INSPECTION & TESTING IN PERTH

LMATS Pty Ltd, with headquarters in Williamstown, Victoria, has acquired Perth based Weld-Rite Inspection & Testing Services and Australian Welding Academy, effective from 1st September 2016.

LMATS (Laboratories for Materials Advanced Testing Services) currently operates NATA accredited laboratories in Victoria, New South Wales and Queensland. LMATS offers comprehensive range of Third Party Testing and Inspection services such as Advanced NDT, Conventional NDT, Metallurgical & Mechanical testing, Chemical Analysis of metals, WPS/Welder Qualifications, Hydrostatic Testing, Pressure Equipment & Tank Inspections. Having added Western Australia to its location portfolio, LMATS now have a truly national geographic footprint, servicing all major industrial hubs around Australia.

As with their East Coast operations, LMATS will reinforce its core services at Canning Vale (WA) laboratory to provide asset integrity, engineering testing and third party inspection services Australia wide. Further information about LMATS can be found at their website: www.LMATS.com.au

SMALL UAS TEAM ANNOUNCED FOR ARMY’S WASP

At Land Forces 2016 small unmanned aircraft systems (UAS) manufacturer Aero Vironment today announced it is teaming with Australia-based XTEK, Sentient Vision and General Dynamics (GD) Media ware to deliver its family of Unmanned Aircraft Systems to the Australian market.

The team will offer the Aero Vironment Wasp AE Micro Air Vehicle, designated as the RQ-12A by the US Department of Defence, to the Australian Armed Forces.

“Teaming with XTEK, Sentient and General Dynamics Media ware for delivery and sustainment is key to ensuring our customer’s success as its forces rely on the advanced, versatile and life-saving capabilities of our Wasp AE systems to proceed with certainty,” Kirk Flittie, vice president and general manager of Aero Vironment’s Unmanned Aircraft Systems business segment said.

“Wasp AE is an all-environment small unmanned aircraft system designed for reliable and effective operation in real-world environments,” he added. “It enhances our fully digital family of small unmanned aircraft systems and incorporates the advanced capabilities of Puma AE and Raven into a smaller, lighter and more portable package for rapid deployment and minimal logistics support.”
Each Wasp AE system consists of two air vehicles and one ground control system (GCS). “It delivers – in a man-packable asset – exceptional features of superior imagery, increased endurance, encrypted video and ease of use that is inherent in all Aero Vironment UAS solutions,” Flittie said.

The 1.3 kilogram MAV has a 29-inch wingspan and is designed for ground and water landing, making it suitable for both land and maritime missions. It carries interchangeable payload modules and incorporates the smallest of Aero Vironment's Mantis suite of miniature gimbaled payloads, the 275 gram Mantis i22 AE, giving operators both color and infrared video imagery from a single sensor package.

Operating virtually undetected, Wasp AE’s mechanically stabilized EO/IR gimbal payload transmits advanced imagery, even in windy conditions, for mission effectiveness. It also features hand-launch capabilities, with a deep-stall landing in confined areas on land or water. It further can be operated manually or programmed for autonomous operation using the system’s advanced avionics and precise GPS navigation.

Wasp AE is operated from Aero Vironment’s time-tested and proven GCS with a communications range of 5 km and flight endurance of 50 minutes. Aero Vironment’s common GCS interfaces with all of its tactical ISR air vehicles reducing the level of training required and decreasing the time and cost involved. Courtesy of ADM

LES DOES PUSH-UPS FOR MATES4MATES

Logistic Engineering Services presented a donation to charity Mates4Mates at this year’s Land Forces Conference, of funds raised as a result of a company-wide 22 push up challenge.

The donation for $2200, equating to a contribution of $100 by the company per day of the 22 day challenge completed by employees, was presented to Mates4Mates at their stand – 4B4 – on Wednesday afternoon.

The 22 push up challenge is now a global initiative to raise awareness of PTSD and veteran suicide. Staff at LES gathered every morning at 9 am to complete their 22 push ups.

Warren Smith, LES business development manager, saw the challenge on the internet and suggested the company get involved.

“I’d seen the hashtag, and 22 for 22 videos on Facebook, and thought, ‘we’re a Defence company, why don’t we do this to support our troops’,” Smith said.

Chairman of Mates4Mates, Don Roach, accepted the donation at Land Forces and thanked General Manager, Phil Jarratt, for the support.

“It’s easy to question whether or not these sorts of social media initiatives actually make a difference. In this instance, it’s an emphatic ‘yes’. These dollars will go towards helping our guys and girls recover from the effects of their service, whether it’s mental health issues like PTSD or physical injuries sustained.”

In response to the issue of veteran suicide, Mates4Mates CEO Simon Sauer recently stated that Mates4Mates had developed a successful blueprint for supporting wounded, injured and ill Defence personnel and their loved ones.

“The key is providing a range of options for individuals to heal holistically through a combination of psychological support, physical rehabilitation activities, employment and education support, and peer support through social connection,” Sauer said.

“It’s also vital that the veteran’s family is part of the process – loved ones are a safe harbour for so many veterans and need
our care and active support too.

“Ultimately, we are committed to using our experience to help save lives.”

LES challenges other companies to take up the 22 push up challenge and donate a dollar per push up to support Australian troops and their families. Courtesy of ADM

Integrated Logistic Support Practitioners Course

Logistic Engineering Services (LES) will be conducting a four day Integrated Logistic Support Practitioners Course during the 24-27 Oct 16 in Melbourne. The course is aimed at personnel who have any interaction with the technical based projects, processes and products. The course focuses squarely on the Ten ILS elements and identifies the Logistic Support Analysis (LSA) tasks and provides practical and theory training to enable personal with the fundamental knowledge and practical skills to work in a collaborative ILS and engineering environment.

The course includes:

- Getting to Know the Support System
- Overview to ILS and Support Systems
- Spares Optimisation
- Understanding a Relational Database Management System (RDBMS)
- Reliability, Availability and Maintainability (RAM)
- Life Cycle Costing (LCC)
- Overview of DEF(AUST)5691
- Overview to DEF(AUST)5692
- Technical Data Management
- Level of Repair Analysis (LORA)
- Configuration Management
- How Logistic Disciplines Relate to ILS
- International Standard S1000D
- Codification and Cataloguing
- Task Analysis and MRD

For further information on this course or to nominate please email admin@les.net.au or phone 03 8698 6400 and ask for Warren Smith.

RHEINMETALL SUPPORTS AUSTRALIAN INDUSTRY AT LAND FORCES 2016

Rheinmetall has underscored its commitment to Australian Industry with the participation of local companies on the company’s stand at Land Forces 2016 alongside world leading company products including Boxer CRV1 and the 35mm Oerlikon Millennium Gun.

Rheinmetall invited four companies to participate in Land Forces 2016 by establishing an active Australian industry presence on the company’s stand. These companies are Adelaide-based Supashock; Melbourne-based Tectonica Australia; Melbourne-based Thomas Warburton; and Sydney-based Axalta Coating Systems.

Rheinmetall Defence Australia and New Zealand Managing Director Andrew Fletcher said the company recognised the importance of creating an enduring Australian industrial capability across every offering to the Commonwealth.

“Australian industry content is an imperative for Rheinmetall and this is reflected in our focus on partnerships with local companies as our presence in the Australian market continues to grow,” Mr Fletcher said.

Rheinmetall has agreements in place with Australian suppliers for work on the Land1213B program valued in the hundreds of millions of dollars, while its activities around Land 400 Phase 2 has involved engagement with over 350 Australian companies during the bidding process. In areas such as munitions and the development of protection systems, Rheinmetall is also building partnerships with local companies with a strong presence in these markets and high quality internal expertise.

“On these and other programs, Rheinmetall is driven by the goal of fundamentally enriching the Australian economy through transfer of knowledge and technology,” Mr Fletcher said.

“This allows us to create sustainable, long term high technology jobs, with a strong potential to export the systems we produce...
back into the global market." The four Australian industry partners represented on the stand include:

- **Supashock**: an innovative South Australian company that has developed active shock absorbing technology and is working with Rheinmetall on its application to build further capability in its range of logistic military vehicles. This has seen a significant investment by Supashock and its owner Oscar Fiorinotto into the development of technical applications for the RMMV HX40M vehicle. Rheinmetall MAN Military Vehicles Australia and New Zealand has supplied a test vehicle to undertake research and design work for capability development supplying relevant technical vehicle data to the Supashock team.

  “Rheinmetall is excited to be part of this drive for innovation and is keen to support projects involving Supashock that will assist this innovative Australian company towards finding new markets and creating Australian jobs,” Mr Fletcher said.

- **Axalta**: produces the entire suite of paints for the fleet of more than 2500 vehicles manufactured by RMMV Australia and New Zealand for the Land 1213B program at its Australian operations in Sydney. This includes hardeners, thinners, primers and the colours required for the Australian Army camouflage pattern. For such a highly specialised project, Axalta also developed customised product solutions including special application techniques designed to improve cycle times and coating productivity.

- **Tectonica Australia**: a Melbourne-based defence systems integrator which has developed and manufactured a sophisticated Local Situational Awareness System (LSAS) for Rheinmetall’s Boxer Combat Reconnaissance Vehicle (CRV). Rheinmetall would provide funding and support to Tectonica to develop and manufacture a next generation LSAS that enhances the situational awareness of the Boxer CRV. “Tectonica’s technology will dramatically increase the situational awareness of the Boxer CRV crew and we see potential application not only to the Boxer vehicle but also to our wider family of military vehicles now in-service around the world,” Mr Fletcher said.

- **Thomas Warburton**: an industry specialist and authority in fasteners since the company was established in Melbourne in 1858. It manufactures these products at operations across eastern Australia including Coopers Plains in Queensland and Campbell town in New South Wales. The company has over 40,000 product lines on the shelf at any one time and is a key supplier within RMMV’s Land 1213B Australian supply chain for logistics vehicles to be supplied to the Australian Army.

  “Each of these companies brings important skills, products and services to the Rheinmetall offering for the Australian Defence Force and we look forward to working with them on existing and future programs,” Mr Fletcher said.

1A joint Development of Rheinmetall and Krauss-Maffei Wegmann.

**KICKING OFF PLEDGE ACTION DAY AT THE MCG**

More than 180 Victorian-based organisations have signed up to Sustainability Victoria’s TAKE2 climate change program to help Victoria reach net zero greenhouse gas emissions by 2050.

Victorian Premier Daniel Andrews and Minister for Energy, Environment and Climate Change Lily D’Ambrosio today kicked off Pledge Action Day at the Melbourne Cricket Ground (MCG), one of the TAKE2 Founding Partners.

Several TAKE2 Founding Partners joined Minister D’Ambrosio and Sustainability Victoria CEO Stan Krpan at the MCG to mark Pledge Action Day where they were acknowledged for their work in climate change and their goals for a clean energy future.

Founding Partners come from all sectors, including business, local government, community service organisations and educational institutions. **AIDN-Vic is a Founding Partner.**

In June this year, the State government set an ambitious net zero emissions target for Victoria by 2050 to help keep the global temperature rise under two degrees. Delivered by SV, TAKE2 will help Victorian organisations and individuals follow the lead of the Founding Partners and make a meaningful contribution to reaching that target.
Sustainability Victoria CEO Stan Krpan said TAKE2 is the first state-government led, voluntary climate change pledge program in Australia and one of the most comprehensive programs of its kind in the world.

“TAKE2 requires all sectors and communities to reduce their greenhouse gas emissions, but to also motivate and inspire others, such as staff, members, suppliers and networks, to also take action.

“Through TAKE2, Victoria has taken a significant step towards real and achievable climate change action.

“Our long-term target of reaching net zero emissions by 2050 puts us in line with other states and territories, and shows that we have a clear climate change agenda,” Mr Krpan said.

TAKE2 also helps participating organisations promote their commitment to a zero carbon future for Victoria and get the recognition they deserve.

Victorians can make their TAKE2 pledge at www.take2.vic.gov.au and then choose the climate change actions they will take to do their part.

**ADF HELICOPTERS TO BENEFIT FROM NIFTI TECHNOLOGY**

One of the key presentations during the second Army Aviation Symposium during Land Forces was an overview of the Non-Intrusive Flight Test Instrumentation (NIFTI) system trialled at RAAF Edinburgh last year and its potential for ADF helicopter flight testing.

Developed under the leadership of the Air Warfare Centre (AWC), together with AADI Defence, Precept, DST Group and the Aerospace Systems Engineering Squadron (ASE-SQN), NIFTI is a non-intrusive means of instrumenting aircraft for flight test activities, without altering the original configuration or removing them from the line for extended periods.

NIFTI is a series of battery-powered wireless sensors temporarily attached to an aircraft’s external surface by adhesive and which send data to a Gateway Recorder housed in a pod, mounted on any standard pylon, using bespoke wireless technology. The entire system can be installed in hours, rather than the days, weeks or months currently required by permanently installed flight test instrumentation and associated wiring.

Phase One of the flight test trials was carried out using an RAAF PC-9/A in a series of concept demonstrations in the second half of 2015 after a development of just eight months. Phase Two will be undertaken aboard an F/A-18 Hornet early next year, including supersonic flight, and Phase Three is planned to include development for the F-35A Joint Strike Fighter and rotary wing applications.

“Whilst this presentation is largely based on Air Force development it is just as applicable to rotary wing aircraft as it is fixed wing aircraft,” explained Warren Canning, director of AADI.

“We are going to deliver a NIFTI fixed-wing Initial Operational Capability to AWC at the beginning of 2018. Our plan is to fund the development of the rotary wing capabilities from third party sales of the generic NIFTI IOC because we don’t have any funding stream for it at the moment. However we do have a Capability and Technology Demonstrator (CTD) application in this round and we will hear next week whether that has made it past the first filter.

“Certainly if that is successful and ultimately provides funding of the rotary wing capability, then it will start mid-next year and be delivered sometime shortly after the IOC for AWC.” [Courtesy of ADM](#)

**SHOCK RESPONSE SPECTRUM (SRS) TESTING – PART 1**

Introduction:

Shock testing seeks to evaluate the ability of test items to survive high acceleration, short duration impulses. Often the acceleration-time plots of these shock loads are highly complex. Furthermore, the exact acceleration-time waveforms vary considerably from impact to impact even when the cause of the shock pulses is the same.

If you would like to read more about this testing please [click here.](#)
L-3 MOVES TO ACQUIRE MICREO
L-3 Communications has announced that it has entered into a contract to acquire Australian defence technology specialist Micreo.

The company, which employs 71 people in Brisbane, designs and manufactures radio and microwave technology for radar and electronic warfare systems. Following the acquisition, Micreo will be integrated into the Electronic Systems Segment and renamed L-3 Micreo.

“We set out to find a shareholder exit that would enable the business to grow, and to look after employee and customer needs, as well as satisfy our shareholders,” said Tim Shaw, Micreo chief executive. “I am satisfied that we have achieved those aims, and the company will continue to grow and to provide rewarding and interesting work.”

Shaw will take on the role of chairman at L-3 Micreo, and the entire management team will continue their work. Micreo is projected to generate $35 million in sales for the year to the end of December 2017.

**ELECTRONIC SURVEILLANCE SYSTEM UPGRADE FOR ARMY**

Minister for Defence Industry, the Hon Christopher Pyne MP announced today that Defence has signed a contract that will provide Australian soldiers with a back-pack electronic surveillance system.

Mr Pyne said the acquisition contract signed with Victorian company Chemring Australia is valued at $18 million and will supply up to 50 back-pack electronic surveillance systems to be delivered during the first 18 months of the contract.

“These new back-pack based systems will detect, identify and determine the direction of communication signals in the field and provide that information to other electronic warfare command units,” Minister Pyne said.

“This replacement of an obsolete system as part of a wider Army electronic warfare capability upgrade will significantly improve the Army’s situational awareness in the field.

“The state of the art system will enable soldiers in the field to perform electronic surveillance operations and network with other Australian Defence Force electronic warfare capabilities.

“The system use the assault back-packs designed by Army’s innovative Diggerworks. The transport and storage systems for the new back-pack systems will be provided by Victorian company Trimcast Pty Ltd”.

Mr Pyne said Chemring Australia will assemble the electronic surveillance back-pack system in their facilities in Victoria, using this opportunity to grow their skills in electronic warfare through the development and support of the capability.

“When all systems are delivered, approximately one million dollars will be spent locally on sustainment activities per year, with around fifty per cent of the $28 million total life-time program cost being spent in Australia.” Mr Pyne said.

**QINETIQ AWARDED 21 SUBPART-J ACCREDITATION UNDER NEW AUSTRALIAN DEFENCE AVIATION SAFETY REGULATIONS**

QinetiQ has been awarded 21 Subpart-J accreditation under Australia’s new Defence Aviation Safety Regulations (DASR) beginning tomorrow.

The recognition from Australia’s Defence Aviation Safety Authority enables QinetiQ to approve structural design changes for all Australian Defence Force aircraft. The scope and breadth of the approval is unique to QinetiQ as the provider of structural integrity services to the Australian Department of Defence.

Air Commodore James Hood from Australia’s Defence Aviation Safety Authority said, “We have been working with Defence and industry organisations for three years to make sure we’ve got the DASR right. I am thrilled that major Australian industry is involved in phase one tomorrow including QinetiQ.”

Greg Barsby, Managing Director of QinetiQ Australia, said, “QinetiQ is proud to be among the first wave of DASR accredited organisations. The high level of industry engagement and accessibility of the Defence Aviation Safety Authority has had a profoundly positive effect on our transition to DASR.”

Michael Houston, Chief Engineer of QinetiQ Australia, said, “QinetiQ is committed to supporting the Defence Aviation Safety Authority and Australian Defence Force aviation community as DASR implementation matures. The new framework offers numerous benefits including flexibility, efficiencies and commonality.”

The DASR bring Australia into alignment with the European Military Airworthiness Requirements, providing a common baseline with more than 30 other countries. This commonality and the flexibility and efficiencies that DASR offers will benefit and enhance Australian military aviation safety into the future.
QinetiQ is one of the longest standing accredited entities under the previous regulations and has been providing Aircraft Structural Integrity services to Directorate General Technical Airworthiness-Australian Defence Force (DGTA-ADF) for more than 15 years. DGTA-ADF is the agency within the Defence Aviation Safety Authority responsible for regulation, compliance and structural integrity services.

This accreditation is a critical enabler to QinetiQ's continued partnership with DGTA-ADF and the Defence Science and Technology Group (DST Group) in the delivery of a sovereign Aircraft Structural Integrity capability.

QinetiQ formed a Strategic Alliance with the DST Group earlier this year to combine the strengths of both organisations with DGTA-ADF in positioning Australia as a global leader in Aircraft Structural Integrity.

VIC GOVERNMENT BUYS EX-HOLDEN SITE

The Victorian Government has purchased the General Motors Holden (GMH) site at Fishermans Bend in a move that signals its intention to capitalise on advanced manufacturing across multiple sectors, including defence.

The deal worth $130 million will see the car manufacturing plant transformed into a leading design and engineering precinct.

The 37.7 hectare site, home of Holden for more than 80 years, is located five kilometres from the Melbourne CBD.

"We will bring together industry leaders in the cutting edge areas of aerospace, defence, marine design, automotive design, and more," the Victorian Government release stated.

The Government is in advanced talks with Holden about their future plans to remain on the site, as well as major global companies and leading education partners for the new development.

"We have a clear vision for this historic site and the future of Fishermans Bend, which builds on our strengths in defence, education and advanced manufacturing," Victorian Minister for Industry and Employment Wade Noonan said.

"This was a once in a generation opportunity to secure a site of this size and proximity to the CBD – we didn't want to see it wasted."

The Government claims the site will be the centrepiece of the Fishermans Bend Employment Precinct, supporting 80,000 residents and 60,000 jobs by 2050. Courtesy of ADM

ENGAGEMENT FORMALISED WITH WORLD-LEADING SHIPBUILDER

A new agreement between the University of Tasmania, represented by the Australian Maritime College, and one of the world’s leading shipbuilders will unlock opportunities for collaboration in research and education.

A Memorandum of Understanding (MoU) with Navantia Australia (Navantia) confirms the organisations’ intention to explore mutually beneficial opportunities in maritime construction, design and research.
Potential areas of co-operation include developing an internship program, offering joint PhDs, staff and student exchange and conducting collaborative research projects.

Associate Professor Jonathan Binns, leader of defence related research at Australian Maritime College (AMC), sees the MoU as the beginning of a fruitful collaboration between the two organisations.

"Formalising our engagement with Navantia signals our intent to establish a program of work that will bring significant benefits to both parties, to the next generation of maritime professionals, and to the sector more generally.

"As one of the world’s foremost shipbuilders in the defence area, and with substantial activity in Australia, we hope to bring our maritime research, training and education expertise to work with Navantia on some of the key challenges and opportunities in the industry."

Francisco Barón, Navantia’s Australia Managing Director, also views the MOU as an important tool for developing close cooperation with AMC in activities related to the Australian maritime domain.

“Navantia Australia’s relationship with AMC should become a great channel for the development of Naval design capabilities and other skills in maritime systems in Australia.”

The Australian Maritime College, a specialist institute of the University of Tasmania, is a recognised centre of excellence for maritime education, training and advanced ocean engineering and research. It has long-standing collaborations with both industry and defence in areas of training, education and research.

As one of the largest shipbuilders worldwide, Navantia is an expert in ship design, build and repair. It also designs and manufactures the automation system that controls and monitors the operation and performance of the systems on board the ships.

As part of the $90 billion naval defence spend announced in April 2016, Navantia was contracted by the Australian government to build and sustain the two new replenishment ships. This followed a previous engagement to provide the Australian Royal Navy with Helicopter Landing Docks, Air Warfare Destroyers and light landing craft.

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**DEFENCE & SECURITY NEWS**

**JOHNSON AND GILLIS NAMED AS CO-CHAIRS OF CDIC ADVISORY BOARD**

Paul Johnson, former chief executive of Lockheed Martin Australia, and Kim Gillis, Deputy Secretary Capability Acquisition and Sustainment Group, have been appointed as the co-chairs of the new Centre for Defence Industry Capability Advisory Board.

The Centre for Defence Industry Capability (CDIC), which was announced earlier this year as a key initiative of the 2016 Defence Industry Policy Statement, will commence operations later this year, said Minister for Defence Industry Christopher Pyne in a statement confirming the appointments.

The CDIC, which will be headquartered in Adelaide and will receive about $230 million over the next decade, will work with SMEs across Australia to promote competitiveness and guide priorities across industry.

**NZ OPTS FOR SUPACAT SPECIAL FORCES VEHICLES**

The NZ Ministry of Defence has awarded a contract to Supacat to deliver Special Operations Vehicles – Mobility Heavy (SOV-MH) for the NZ Defence Forces.

Supacat is also in the process of agreeing a long term support contract with the NZDF to support the new fleet. The new SOV-MH vehicles are based on the latest MkII version of Supacat’s HMT Extenda and provide a high level of commonality with the equivalent vehicles with other Special Forces. In 2014 Australia awarded a $105 million contract to Supacat to deliver 89 Special Operations Vehicles – Commando (SOV-Cdo) for the Australian Defence Forces under the JP2097 Ph 1B (REDFIN) program. They were also based on the MkII HMT Extenda vehicle.

The program will commence vehicle deliveries in the final quarter of 2017. SC Group CEO, Nick Ames, said “Interoperability is an important element for the Special Forces community and commonality of spares and support, is a key driver in maintaining relatively small fleets.” *Courtesy of ADM*

**BAE SYSTEMS PROVIDES AUSTRALIAN-MADE CAPABILITY FOR NAVAL MISSILE DEFENCE**
BAE Systems Australia has won a $32 million, three year contract to provide the Royal Australian Navy (RAN) with an improved anti-ship missile test capability.

The Future Advanced Threat Simulator (FATS) is an airborne radar system designed to closely emulate the in-flight behaviour of a range of anti-ship missiles. It has been designed to provide a test and evaluation and fleet training capability to assist with the development of advanced maritime self-protection concepts for the RAN. BAE Systems will design, develop, manufacture, test and deliver the FATS capability suite.

Work on the project will start this month and will support 20 specialist engineering roles at the company’s Edinburgh Parks facility.

BAE Systems Australia CEO, Glynn Phillips, said: “At the heart of this impressive technology is local innovation; the simulator is an advanced capability, developed by our specialist engineering team here in South Australia.

“It underscores to our Defence customer that we have an airborne test and evaluation capability unmatched within Australia.

“We are very pleased to play such a pivotal part in the development of the next generation of threat emulation capability for Defence.”

In its flight mode, the FATS is configured in an under wing pod and flown against the target ship at low altitude from a Defence contracted Learjet carriage aircraft. This enables the FATS to simulate the flight profile of a sea-skimming anti-ship missile whilst also closely emulating the behaviour of the missile’s seeker. The ship’s crew and its self defence systems are exercised as the ship performs actions aimed at defeating the incoming missile.

The FATS is a third generation technology that leverages BAE Systems’ existing capabilities from the successful Generic Threat Simulator and Airborne Millimetre-wave Stimulator (AMS) product lines.

GENERAL NEWS

ENVIRONMENTAL WORKING GROUPS

Environmental Working Groups are administered through the Govdex website. Registrations for attendance, meeting agendas and useful environmental information such as Capability Development contact officers can be undertaken/sourced at this site.

For members who are not already members of the EWGs via Govdex please contact AIDN-Vic aidnvic@aidnvic.org.au for assistance with registration.

Aerospace Environmental Working Group (AEWG)
The last AEWG was held on Friday 29 April 2016 in Canberra. This AEWG focused on the 2015 Defence White Paper, Integrated Investment Programme, the progressive implementation of First Principles Review and Plan Jericho. More details will be provided on Govdex. The date for the next meeting will be advised when known.

Land Environmental Working Group (LEWG)
The last meeting of the LEWG was held on Monday 5 September 2016 in Adelaide, in conjunction with Land Forces Conference.

Maritime Environmental Working Group (MEWG)
The last MEWG was held on Friday 8 April 2016 in Canberra. The date for the next meeting will be advised when known.

C4ISREWG Environmental Working Group
The C4ISREWG Environmental Working Group meeting was conducted 09 September 2014 in Canberra. The date for the next meeting will be advised when known.

Synthetic Environmental Working Group (SEWG)
The last SEWG was held on Thursday 17 March 2016 in Canberra. The date for the next meeting will be advised when known.

UPCOMING ACTIVITIES

ADM Northern Australia  MilCIS 2016  SIA 8th Biennial Conference
Defence Summit
Date: 19-20 October 2016
Location: Darwin Convention Centre
Organiser: Informa and ADM
Website: ADM Events – Northern Australia Defence Summit

The conference will be a high level policy-driven summit with a theme and focus on ‘Defence as a driver for developing the top end’ that will examine key issues including: defence economics, strategic policy, the 2015 white paper, the first principles review, border protection and surveillance, US force posture initiatives, USMC bilateral exercises, engagement with regional partners, defence infrastructure and estate maintenance. The event will hear from ministers, defence officials, military commanders, industry leaders, prime contractors, defence SMEs, strategic analysts, academics and consultants.

NZ DIA Annual Forum 2016
Date: 16-17 November 2016
Location: Viaduct Basin Events Centre
Website: NZ DIA
Email: contact@nzdia.co.nz

The NZ Defence Industry Association organises a Forum in November each year which brings together people from the New Zealand and international defence and industry communities. Its major emphasis is on networking, and encouraging the membership to work together on developing joint approaches to defence projects in NZ and overseas. The Forum will be held in the Viaduct Basin Events Centre, Auckland, to coincide with the 75th anniversary of the founding of the Royal New Zealand Navy. There will be the usual celebrations and a multi-nation Fleet Review.

AIAC17
Date: 26 Feb- 2 March 2017
Location: Melbourne Cricket Ground & Avalon Airshow
Website: AIAC17

The Australian International Aerospace Congress (AIAC) series is the preeminent aerospace forum in the region and is held in conjunction with the Australian International Airshow at Avalon. The Seventeenth in the series, AIAC17 and its participating Conferences and Associated events, has been organised to provide significant technical and business opportunities for aerospace professionals worldwide, but particularly for those in the Australasian region.

2016
Date: 14-16 November 2016
Location: Shine Dome, Canberra
Web: SIA Conferences

The 8th SIA Biennial Conference will address issues that reflect the theme of the Conference: From Collins to the Future Submarine – The challenge of Sustaining an Effective Submarine Capability. In a year where the Government has selected DCNS as its design partner for the Future Submarine, the Conference acts as a pivotal week in the submarine calendar. The program includes an Opening Reception, a Conference Dinner and two days of high quality presentations from the cream of the submarine community.

Click here to download the Call for Papers for the 8th SIA Biennial Conference 2016.

HUMS2017
Date: 26 February – 2 March 2017
Location: Melbourne (MCG & Avalon Air Show)
Website: HUMS2017
Email: wang@dsto.defence.gov.au

HUMS2017 is an established biennial international conference featuring health (condition) and usage monitoring and management systems for mechanical plant, land vehicles, marine vehicles, helicopters and fixed wing aircraft. Details will be added to our website as they are decided. There will be 2 days of presentations at the Congress (MCG) from 27-28 February, followed by technology presentations and day visits to Avalon Air Show on 1 or 2 March.

AVALON INTERNATIONAL AIRSHOW 2017
AVALON 2017 will again present a unique opportunity to showcase products, technologies and services to an informed target audience and to demonstrate a marketing presence in this vibrant and vital region. High levels of economic growth and technological development have resulted in growing demand for aviation and aerospace services, products and technology, right across the spectrum from General Aviation to airlines, air forces and space.

For more details on overseas events please check the AIDN web site under Whats News/Defence Information.

Contact your local AIDN Chapter for more info on the above activities:

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Why? So we can tell all our Member Companies about it, and also the many other people with an interest in the defence, security and aerospace sector who receive the AIDN-Vic Newsletter.

Articles are to be limited in size and submitted by email to sue.smith@aidnvic.org.au. This is a free service to members.

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