



DEFENCE WEEK

PREMIUM EDITION NEWS | INTELLIGENCE | BUSINESS OPPORTUNITIES | EVENTS

IN THIS ISSUE

CONTENTS

Report into major capital equipment procurement released	1
Aussie wing concept for JDAM nearing production	2
Austal's JHSV completes acceptance trials in Gulf of Mexico	2
Massive ADF inventory barcoded	3
Australia/Indonesia SAR operations strengthened	3
New \$43m workshop for Ohakea air base	4
First sortie for NZDF's upgraded P-3K2 Orions	4
Land attack for future frigates	5
Encryption in Australia report released	6
ADM Online: Weekly News Summary . . .	7
INTERNATIONAL NEWS	
Final Type 45 heads for sea trials	8
Upgrade for Firefinder radar	9
Navistar files protest against JLTV award	10
UK MOD signs anti-air threat research with Thales	11
Ownership costs of Virginia-class subs studied	11
More SM missiles for US	12
FORTHCOMING EVENTS	12

DEFENCE TENDERS See Separate PDF

CONTACT DETAILS

EDITOR Katherine Ziesing,
Tel: 02 6203 9535

Email: katherineziesing@yaffa.com.au

PUBLISHING ASSISTANT

Erin Pittman, Tel: 02 6203 9535

Email: erinpittman@yaffa.com.au

MANAGING EDITOR

Judy Hinz, Tel: 07 3348 6966

Email: judyhinz@yaffa.com.au

SUBSCRIPTIONS

Martin Phillipott, Tel: 02 9213 8325

Toll Free 1800 807 760

Email: martinphillpott@yaffa.com.au

Articles by **Katherine Ziesing, Tom Muir**

DEFENCE WEEK PREMIUM is a component of the ADM Premium Online subscription.

Report into major capital equipment procurement released

As ADM's newsletter closed for press last week, the Senate's Foreign Affairs, Defence and Trade committee released the final copy of its report into the Defence procurement of major capital equipment.

The preliminary report released in December last year gave a clear indication that the report was not going to be hearts and flowers for the department, despite numerous reviews into the issue slowly but surely being implemented.

"Much of the dysfunction stems from the organisational structures imposed by all Governments over the past two decades in search of short term saving measures," according to a statement from Liberal party committee member Senator David Fawcett.

"These reform measures have had the unintended consequence of imposing an organisational straightjacket on Defence that has de-skilled the services and disempowered leadership at all levels to react to changing circumstances in a timely manner. Sustainable change must begin at the top with a new accountability and governance model between the Minister, the Military and the Department."

The document opines a number of well known issues including a reduction in the number of groups, reallocation and redefinition of roles and a removal of the 'current matrix management model resulting from shared services'.

At close to 400 pages in all, the report is weighty reading. But perhaps the most obvious point is that the report has no bones about how the problems the procurement process faced are largely 'unintentionally self-inflicted'.

Of the 28 recommendations made, it will be up to government to decide which ones it picks and chooses to implement. The ones that relate to the role of the Defence Materiel Organisation being downgraded in favour of Capability Development Group will no doubt make huge friends in the organisation as will the possible recreation of the Defence Acquisition Organisation.

And the gate review process is being overused and thus 'lacks potency'.

The issue of the DMO becoming statutory authority is raised again but given the track record on the matter, it doesn't look like that will come to pass. ►

ADM Note: Real change in an organisation is not about making life easy for everyone but overall better. The words of Chinese philosopher Lao Tzu ‘if you do not change direction, you may end up where you are heading’ seem terribly apt right now.

To download a copy of the report, head to

http://www.aph.gov.au/Parliamentary_Business/Committees/Senate_Committees?url=fadt_ctte/procurement/report/index.htm

Aussie wing concept for JDAM nearing production



A winged version of the Boeing Joint Direct Attack Munition (JDAM) that will triple the weapon’s glide range to more than 40 miles is a step closer to production after completing wind tunnel tests at a US facility in June.

Developed in partnership with the Commonwealth of Australia, the 500-pound **JDAM Extended Range (JDAM-ER)** features a modular add-on wing kit that will unfold in flight. The kit can also be coupled with other modular enhancements, such as laser sensors. The wings were first integrated with the **Boeing JDAM** during **DSTO’s Capability and Technology Demonstration program**, which successfully completed flight tests in 2008.

Boeing will produce and integrate the JDAM-ER wing kits for the Royal Australian Air Force (RAAF) under a contract awarded in 2011. The kits will be built in Australia, with initial deliveries expected to begin in early 2015.

JDAM is a low-cost guidance kit that converts existing unguided bombs into near-precision weapons. Boeing intentionally designed its JDAM kit to be modular so the product could mature with a variety of technological upgrades such as a laser sensor, improved immunity to GPS jamming, and an all-weather radar sensor. Boeing has built more than 238,000 JDAM tail kits in its St. Charles, Missouri, facility since production started in 1998. JDAM is used by 26 international militaries.

Austal’s JHSV completes acceptance trials in Gulf of Mexico



First-in-class Joint High Speed Vessel **USNS Spearhead (JHSV 1)**, the high-speed catamaran transport ship under construction at Austal USA in Mobile, Alabama, successfully completed Acceptance Trials (AT) on August 17, 2012, in the Gulf of Mexico.

To achieve this milestone, the USN conducted comprehensive tests which demonstrated the successful performance of the

ship’s major systems and equipment to include the propulsion plant, ship handling and auxiliary systems.

These trials are the last significant milestone before delivery of the ship to the



USN which is expected over the coming months. The ship was presented to the Navy's Board of Inspection and Survey (INSURV) with high levels of completion, according to the USN.

USNS Spearhead (JHSV 1) will soon be followed by *Choctaw County* (JHSV 2) which will be christened on September 15. Two more JHSVs are under construction at Austal's Mobile, Alabama shipyard.

Austal is currently under contract with the USN to build nine 103-meter JHSVs under a 10-ship, US\$1.6 billion contract and five 127-meter Independence-variant Littoral Combat Ship (LCS) class vessels, four of which are a part of a 10-ship, US\$3.5 billion contract.

For the LCS and JHSV programs, Austal, as prime contractor, is teamed with **General Dynamics Advanced Information Systems**, a business unit of General Dynamics. As the ship systems integrator, General Dynamics is responsible for the design, integration and testing of the ship's electronic systems including the combat system, networks, and seaframe control.

Massive ADF inventory barcoded

Earlier this year BAE Systems Australia completed a two-year project to barcode the ADF's 1 million-plus inventory items three months ahead of schedule and under budget. The project was an important improvement to inventory record accuracy.

At 26 sites across the country, close to 4 million 2D barcode labels were added to inventory and nearly one million stock codes in more than 400,000 locations inspected. These labels allow a significant amount of information to be captured and stored.

The BAE solution also included the use of scanners and portable and mobile printers to allow labels to be printed at the bin front. In addition, almost 800,000 items were repacked to ensure all items had packaging suitable for seven years' storage. As one might expect the outcome has been well received by Defence.



Australia/Indonesia SAR operations strengthened

Australia-Indonesia search and rescue coordination have been strengthened following a high level meeting between Ministers from both countries in Jakarta this week.

The Ministers agreed to expand the \$38.4 million Indonesia Transport Safety Assistance Package which began in 2007, to provide for additional bilateral coordination on search and rescue activities. As maritime nations, Australia and Indonesia have a mutual interest in effective search and rescue for people travelling by sea in our region.

Defence Minister Stephen Smith said the respective search and rescue agencies, BASAR-NAS and AMSA, have been working closely together for some years to improve capability and coordination of search and rescue activities in our region. Activities undertaken to date include search and rescue exercises, short-term officer secondment and training in aeronautical search and rescue operations.



Under the agreement reached this week, the Australian Government will make an additional \$4.42 million available to enhance coordination between BASARNAS and AMSA and provide for an exchange of expertise and experience to improve search and rescue outcomes in our region.

The extended arrangements will establish an exchange program of search and rescue specialists between BASARNAS and AMSA and enhance access by Indonesia to the latest ship tracking information and satellite communications technology.



New \$43m workshop for Ohakea air base

Another milestone in the upgrade of the Ohakea air base of the NZ Defence Force was reached today with the Defence Minister Dr Coleman opening the new NZ\$43 million aircraft maintenance workshop. The Air Force Maintenance Support Squadron workshops will house 140 staff in two main buildings and three small ancillary buildings, with a foot print of nearly 13,000 square metres.

The facility will provide all the aviation engineering for the new NH-90 and A109 helicopters as well as providing engineering support for other Royal NZ Air Force aircraft for work such as structural maintenance and hydraulic component overhauls.

Other developments at Ohakea, as part of **Project Takitini**, have seen the new No 3 Squadron Hangar and the Helicopter Simulation Centre constructed as well as a new duty centre, main gate and perimeter fence being built. Design work is currently underway for a new Air Movements terminal and a new In-Flight ration store. The main workshop has been designed with a Five Green Star standard for including lighting efficiencies, solar water heating and water recycling.

The registration of interest appeared in last week's Defence Tender PDF (DWP 220).



First sortie for NZDF's upgraded P-3K2 Orions

A significant milestone has been passed in the NZ Defence Force's P-3K2 Orion Introduction Into Service process—on 17 August the first Transition Course sortie was flown.

Training sorties are now being flown frequently from Whenuapai. Flying training on the newly upgraded Orions is an important step for the operational test and evaluation of the upgraded aircraft, one of the major projects undertaken by the RNZAF and the Ministry of Defence.

Group Captain Kevin McEvoy, the Officer Commanding 485 Wing, said he was delighted that this major advance in training for the aircraft's improved capability had been achieved. The initial aim of the test and evaluation program was to release the Search and Rescue and Maritime Surveillance capabilities of the upgraded aircraft. The flying phase of the aircrew training marks a step change in the work towards that aim.



Another two aircraft should be joining the sole P-3K2 in the upgraded fleet by the end of September. They are:

- NZ4205, the second production aircraft, currently undergoing acceptance testing at RNZAF Base Woodbourne, and
- NZ4201, the first production aircraft, which is undergoing its scheduled Depot Servicing, also at Woodbourne.

The first Transition Course was primed to graduate at the end of October, allowing capability development and operational test and evaluation on the upgraded Orions to commence soon after.



Land attack for future frigates

JDW reports that the UK has set out plans to recapitalise its naval fire support capability through the acquisition of a new Maritime Indirect Fire System (MIFS) to equip the Royal Navy's (future) Type 26 Global Combat Ship.

An information note was released to industry in early July 2012 for the procurement of a military off-the-shelf MIFS solution, effectively pitching **BAE Systems'** Mk 45 Mod 4 5-inch/62-calibre medium-calibre gun system (MCGS) against the rival **Oto Melara 127/64 LW** medium-calibre gun system being offered under the prime contractorship of Babcock.

However, the weapons requirements for **Australia's Future Frigate program**, which may well draw upon aspects of the UK's Type 26 design, are not yet defined but one suspects that in regard to the medium calibre gun system the outcome to the UK's MIFS requirement may prove similar.

There are a number of options but according to the UK's *Think Defence* there are probably only two realistic ones: the BAE 5" Mark 45 and the Oto Melara 127mm Compact and Lightweight. The Mark 45 Mod 4, as used by the US Navy, South Korea, Denmark, Australia and others, is a 5"/127mm system with a 62 calibre barrel and is capable of a rate of fire up to 20 rounds per minute. ▶

The Oto Melara system comes in a Compact form and a newer Lightweight version with a 64 calibre barrel. Capable of firing 35 rounds a minute, the gun uses an advanced ammunition handling system comprising four drum magazines allowing flexibility in ammunition selection.

In an era of long range, high precision anti-air, anti-ship and land attack missiles (such as the maritime strategic strike capability proposed under **SEA 5000's third phase**), one may even question the relevance of a gun system on frigates that won't see the light of day until the mid-2020s. One immediate answer is the development of ammunition capable of precision engagement at ranges previously achievable by missile systems, but at a fraction of the cost.

While the US Extended Range Guided Munition was cancelled, leaving the USN without a precision gun launched land attack round, Oto Melara have continued to persevere and have introduced the Vulcano range of munitions. Vulcano has both an extended range unguided and long range guided nature that is used with the 127mm gun to deliver rounds out to 120km.

While *Think Defence* opines that the Type 26 doesn't necessarily need the precision guided ammunition straight away, it would provide a simple upgrade path and despite doubts about the explosive content of guided shells it would still offer a significant capability, have the potential to reduce the need (therefore cost) for air delivered precision munitions and allow the Royal Navy to take advantage of a mature user base.

Oto Melara is no stranger to the Australian Navy, all the RAN FFGs were equipped with the Type 75 Oto Melara 3 inch gun system but lost out to the Mk 45 Mod 4 system on the Anzac ships. Will the precision strike capability offered by Vulcano ammunition bring Oto Melara back into the fray for the Future Frigate's medium calibre gun system?



Encryption in Australia report released

Thales has released the Australian Encryption Trends Study. This is the only annual report that focuses on the use of encryption in Australia, and is part of a seven year global study conducted by independent research firm the Ponemon Institute

and commissioned by Thales.

"Cyber security is becoming increasingly important as both government and industry respond to new threats from a variety of hostile sources," **Peter Bull, Vice President of Thales Australia's National Security and C4I**, said. "It is critical that organisations work closely together to counter these threats, especially when the number and type of assets defined as critical to our national security is expanding."

The Australian Encryption Trends Study indicates:

- The main driver for encryption is the protection of an organisation's brand or reputation in the event of data breaches. Australian respondents are much more likely to see brand or reputational issues as the main reason for deploying encryption (72 per cent) which is much higher in comparison to other countries surveyed. Overall, 82 per cent of respondents from Australian organisations view data protection activities as a very important (41 per cent) or an important (41 per cent) part of enterprise risk management.
- In Australia, encryption usage is an indicator of a strong security posture. ►

The use of encryption by Australian organisations participating in this research has increased at a compound rate of 20 per cent over the past four years, a factor that correlates very strongly with general awareness of data security threats and a clear understanding of how best to respond to those risks.

- Australia is ahead of the other countries in the survey in terms of having an enterprise encryption strategy. Since the research began tracking trends in encryption deployment among Australian organisations, respondents claim that more companies are adopting an overall encryption strategy than are not – a trend that is further advanced in Australia than other countries we surveyed. In Australia this trend is driven by IT staff, whereas elsewhere there is a clear shift towards business managers playing a much more active role.
- Encryption spending has increased. Since 2008, encryption spending relative to the total IT security budget increased from a low of seven per cent in 2008 to nine per cent in last year's study. But again, Australian organizations should not be complacent since the number of respondents that report that encryption is deployed extensively within their organization, while growing, still lags the average of the seven countries that make up the survey.
- The protection of sensitive or confidential data at rest is the top data protection priority for Australian companies. Comparing adoption rates for nine different uses of encryption within the enterprise, the most common uses focused on protecting stored data, in particular within databases followed by encryption of corporate backup files and for stored data on laptops.

“Encryption is taking centre stage as a strategic IT security issue in order to mitigate the risk of data breaches and cyber-attacks and to protect an organisation's brand, reputation and credibility,” Richard Moulds, vice president strategy, Thales e-Security says. “Australian organisations well understand these risks and how to respond through the encryption of sensitive or confidential information.”

471 business and IT managers in Australian organisations were surveyed for this report. The Australian sample is part of a larger study involving 4,140 business and IT managers in the US, UK, Germany, France, Australia, Japan and Brazil. The findings from this study appear in the 2011 Global Encryption Trends Study published in February 2012.

ADM Online: Weekly News Summary

A summary of the latest news and views in the defence industry, locally and overseas. Check out our webpage for daily news updates on the ADM home page and make sure you bookmark/RSS this for a regular visit.

This week, **Thales launched Australian Munitions** - a business that will provide munitions, which will bring together global and local supply chains and lower the cost of Australia's explosive ordnance capability.

Also, **site works have commenced for Australia's biggest titanium manufacturing facility** in Adelaide. The BAE Systems Edinburgh Park site will supply long, thin titanium components for the Joint Strike Fighter program.

Fifteen ships with about 2,000 defence personnel from seven Pacific nations set sail from Darwin Harbour for the military training Exercise Kakadu 12.

The workforce in the **Hunter for the Air Warfare Destroyer (AWD) Project** has hit almost 700 across Forgas' two Newcastle facilities in Tomago and Carrington. ►

Babcock has recently completed two milestones at their UK dockyards that they believe will be of great interest to Australia. These include the upgrade and investment program at its historical Devonport Royal Dockyard in the UK and two UK Royal Navy landing craft which have completed a support period docking (SP(D)).

Meanwhile, check out the details of the upcoming **ADM Defence Workforce Participation Summit to be held in Canberra 27-28 September**. Registration and information for this and other ADM events can be found under the events tab on the website.

International



Final Type 45 heads for sea trials

Duncan, the sixth and final Type 45 destroyer built by BAE Systems, has set sail from the company's Scotstoun shipyard to embark on her first stage of sea trials off the west coast of Scotland. During three weeks at sea, the destroyer will undertake an extensive program of trials that will include testing of her power and propulsion systems, auxiliary and domestic services.

Duncan is on track to be handed over to the UK Royal Navy in the first half of next year. This follows the handover of *Defender*, which was accepted off contract in a ceremony at Portsmouth Naval Base in July.

Once handed over, the ship will be based in Portsmouth where BAE Systems will continue to provide ship support alongside the MOD, Royal Navy and industry partners in the Type 45 Class Output Management Team (COM), which works as a single team to sustain the high level of availability required throughout the life of the Type 45 ships.

The Type 45 COM currently provides support to all six ships in class, including the four commissioned vessels, *HMS Daring*, *HMS Dauntless*, *HMS Diamond* and *HMS Dragon*.





Upgrade for Firefinder radar

Thales Raytheon Systems has been awarded a US\$44.9 million contract by the US Army to upgrade the Receiver Exciter (REX) in the Improved AN/TPQ-37 Firefinder radar. The enhanced REX is part of the US Army's program to further improve the AN/TPQ-37's performance, maintainability and reliability, while extending the service life of these long-range counter-battery systems.

REX Modification Kits and spares are scheduled to be delivered to the US Army mid-2013. The REX unit performs two critical radar functions: It produces the signal transmitted from the radar antenna and conditions the received signal for processing within the radar's computer system.

With its extended range, the AN/TPQ-37 is an advance over the AN/TPQ-36 Firefinder radar which was introduced into ADF service in 1987 as an earlier phase of Land 58. A total of seven radars, a simulator, plus support and test equipment were purchased. Upgraded in the meantime, the AN/TPQ-36 weapon locating radars (WLR) are serving with the Saab Giraffe counter rocket and mortar (CRAM) early warning system for ADF troops in Afghanistan.

Nevertheless the AN/TPQ-36 is a highly capable system for warning of 'incomings'. It can handle simultaneous fire from weapons at multiple locations, detecting and reporting their positions on the first round. The AN/TPQ-36 directs accurate counterfire to neutralise enemy positions. The AN/TPQ-36's automatic detection, tracking, and locating process is so fast that an enemy weapon's position can often be pinpointed before its projectile impacts.

Locations of enemy weapon positions are automatically corrected for altitude differences, using computer-stored digital maps, and presented to the operator in northing, easting, and altitude coordinates. The system is so automatic and simple to operate that, once set up, the operator need not be present in the operation control shelter to determine a weapon's location. Rounds from friendly weapons also can be tracked, for more accurate delivery.

The AN/TPQ-36 can detect and report the positions of up to 10 different weapons in seconds, at a maximum range of 24 km. The system also corrects and improves the delivery of friendly fire. ▶



Navistar files protest against JLTV award

Navistar Defense, one of the losing contenders for a Joint Light Tactical Vehicle (JLTV) contract, has filed a bid protest with the Government Accountability Office (GAO), *Inside the Army* has learned. As part of the protest proceedings, GAO granted a stay of work until attorneys there rule on the case, which can take several months. Navistar's (last) Friday-afternoon filing comes before the long Labor Day weekend, which could factor into other companies' decisions to follow suit.

Navistar had submitted a proposal with a variant of its International Saratoga light tactical vehicle, which the company launched in October after conducting tests on its automotive and anti-blast capabilities.

Navistar said the Saratoga was designed to target a gap in the light tactical vehicle market and features a flexible platform that will allow the company to quickly produce variant models.

"We made a significant investment in developing the Saratoga on our own nickel because that's what we do commercially - it is part of our DNA," said Navistar Defense President Archie Massicotte. "The Saratoga is a solid design and now that we have seen the requirements of the JLTV migrate toward our vehicle capabilities, we are in a position to modify the Saratoga to fit those requirements."

Three awards were made for the **Engineering and Manufacturing Development (EMD) phase of the JLTV program**. The value of these awards include both the base contract effort (capped at US\$65 million) and an evaluated, unexercised Level of Effort (LOE) option price are:

AM General: US\$64,511,108.

Lockheed Martin Corporation: US\$66,319,507

Oshkosh Corporation: US\$56,402,286.





UK MOD signs anti-air threat research with Thales

The Ministry of Defence (MOD) and Thales UK have signed a new research contract for technology that will improve the resilience of future UK aircraft to anti-air threats.

The jointly funded contract, worth £24.5 million, builds on years of research work conducted by Thales and the Defence Science and Technology Laboratory (Dstl) to develop an infra-red warning system to detect missiles, gun fire and other threats so that appropriate counter-measures can be deployed.

The technology demonstrator, scheduled to be completed in 2015, will prove that the system can identify and declare threats in complex environments with a high level of accuracy. It will use up to six single colour infra-red sensors to provide full coverage of the volume around the aircraft and use Thales algorithms on a central processor.

Testing at each stage of the development will use a bespoke evaluation and validation system. Dstl will conduct a series of ground and flight trials to assess the system's performance in representative conditions.

The system's sensors will also be capable of generating infra-red imagery from all around the aircraft to aid aircrew situational awareness and is designed to include data recording to support effective mission planning and post mission replay.



Ownership costs of Virginia-class subs studied

The USN is completing a reduction-of-total-ownership cost study to scale back the operational support cost for Virginia-class submarines, which the service expects will wrap up before a request for proposals for the Block IV contract is released, according to a service official.

The current plan for a Virginia-class sub is a 33-year service life with four major depot availabilities. The study is looking to reduce the number of depot availabilities from four to three over a sub's service life, which enables the boat to have 15 deployments instead of 14, **Captain David Goggins, Virginia-class program manager**, told *Inside the Navy* in an Aug. 27 interview at Washington Navy Yard.

"By going from four down to three major availabilities, there is a reduction in the [operations and sustainment] cost," Goggins said.





More SM missiles for US

The US Missile Defense Agency awarded Raytheon a US\$230 million contract for 14 Standard Missile-3 Block IA missiles and five SM-3 Block IB missiles.

The SM-3 Block IA missiles will bolster the US's inventory that is deployed around the world today aboard US and Japanese Navy ships.

Designed to destroy short- to intermediate-range ballistic missile threats in space, Raytheon's SM-3 Block IB includes an enhanced two-colour infrared seeker for better target discrimination. This improved SM-3, which was recently successful in two back-to-back flight tests in May and June 2012, also has a

Throttleable Divert and Attitude Control System that allows the kinetic warhead to propel itself toward incoming threats using short bursts of precision propulsion.

Forthcoming Events:

ADM's Defence Workforce Participation Summit

27 – 28 September 2012, Hyatt Hotel, Canberra

ADM's annual Defence Skilling Summit is an important event examining the issues of training and maintaining a skilled workforce for Australia's defence industry. It's an event not to be missed!

Further Information: ADM Events - Jamie Burrage, Ph: 02 9080 4321;
Email: jamie.burrage@informa.com.au Web: www.admevents.com.au

UAV Challenge

1-3 October 2012, Kingaroy, Qld

The UAV Challenge - Outback Rescue has been developed to promote UAV's significance to Australia. The UAV Challenge is a joint initiative between the Queensland Government, the Australian Research Centre for Aerospace Automation (ARCAA, a partnership between QUT and CSIRO), Aviation Development Australia Limited and AUVS-Australia - a prime example of government, industry and research organisations working together.

Further Information: www.uavoutbackchallenge.com.au

New Zealand Defence Industry Association Forum

16-17 October 2012, Wellington New Zealand

At the forum you can join with other defence industry companies from New Zealand and overseas, and with key members of the New Zealand Defence Force and Ministry of Defence to gain greater understanding of the defence procurement processes and hear about future defence procurement plans.

Further Information: Sue Peck Email: sue@spconferences.co.nz
www.nzdia.co.nz

Land Warfare Conference 2012

29 October – 2 November 2012, Melbourne Convention and Exhibition Centre, Melbourne

The Land Warfare Conference is a major event for users, providers, academics, designers and manufacturers to meet, present, share and exchange new and visionary ideas on Land Systems. Academics, commercial organisations, defence research institutions, and military are encouraged to attend and/or offer papers in the field of Land Warfare and related disciplines. An Exhibitor Booth Registration Form and Floor Plan are now available online.

Further Information: Land Warfare Conference Admin Support Office,
Phone: 08 7389 5455; Fax: 08 7389 5196; Email: lwcc@dsto.defence.gov.au
Web: <http://www.dsto.defence.gov.au/lwc2012/>

MilCIS 2012

6 – 8 November 2012, National Convention Centre, Canberra

MilCIS is an annual conference aimed at attendees from military and government organisations, academia, and defence industry, who contribute to key decisions in investments in communications and information systems. In addition to keynote presentations, technical presentations, panel discussions and tutorials, MilCIS features an exposition that provides an opportunity for exhibitors to demonstrate new technologies and promote their products and services to attendees. MilCIS is the only Australian conference focussing directly on the crucial technologies, products, systems and services associated with military communications and information systems.

Further Information: Consec – Conference Management, Phone: 02 6251 0675; Fax: 02 6251 0672; Email: milcis2012@consec.com.au; Web: <http://www.milcis.com.au/>

6th Submarine Institute of Australia (SIA) Biennial Conference 2012

14-15 November 2012, The Shine Dome, Canberra

2012 will be a pivotal year for decisions concerning submarines. With the recent announcement of \$214m in funding for the Future Submarine Program and a significant boost in Sustainment funding for the Collins class, the SIA is grasping the opportunity to present powerful arguments to contribute to the development of the 2013 Defence White Paper against the most challenging budgetary circumstances for Defence since 1938. Delegates to the 6th Biennial Conference will hear from a range of influential speakers from Government, overseas and both the Public and Private sectors as they discuss the pivotal considerations for Australia's submarine capability.

Further Information: Mr David Nicholls (Executive Manager),
Email execmgr@submarineinstitute.com Phone: +61 413 133 391 Fax: +61 2 6260 5416

ADM's Social Media in the Defence Environment

5-6 December 2012, Hotel Realm, Canberra

Inaugural event! More details soon.

Further Information: ADM Events - Jamie Burrage, Ph: 02 9080 4321;
Email: jamie.burrage@informa.com.au Web: www.admevents.com.au

ADM2013: 10th Annual ADM Defence/Industry Congress

12 – 13 February 2013, Hyatt Hotel, Canberra

The annual ADM Congress has evolved into a pivotal event in the Defence calendar, attracting senior officials from all areas of the Defence Force and Defence Industry.

It is a critical forum for any organisation operating within the defence business sector.

Also do not miss the ADM Awards Dinner. The dinner is the perfect opportunity for you to continue networking with colleagues and new contacts made at the Congress.

More details to be released closer to the date

Further Information: ADM Events - Jamie Burrage, Ph: 02 9080 4321;
Email: Jamie.burrage@informa.com.au Web: www.admevents.com.au

Avalon 2013: Australian International Airshow and Aerospace & Defence Exposition

26 February - 03 March 2013, Avalon Airport, Geelong

The Australian International Airshow and Aerospace & Defence Exposition is the essential aviation, aerospace and defence event for the Asia Pacific.

Industry-only trade sessions will be held Tuesday to Thursday (all day) and Friday will be both a trade and public day. The exposition will open each day from 9am until 5pm. Associated industry and technology conferences, seminars and symposia will be held at Avalon and in Melbourne and Geelong during show week.

Further Information: Aerospace Maritime Defence Association Ph 03 5282 0500; Email: airshow@amda.com.au; Web: <http://www.airshow.net.au>

---oOo---