



DEFENCE WEEK

PREMIUM EDITION NEWS | INTELLIGENCE | BUSINESS OPPORTUNITIES | EVENTS

IN THIS ISSUE

CONTENTS

Lockheed Martin and GTESPO sign agreement as TADRS sustainment goes local1
 Australia to contribute \$85m to P-8A improvements2
 Growler decision elicits more growls . .3
 ANAO to review C-27J acquisition . . .4
 ANAO - keeping its eye on the DMO . .4
 Phew! New version of AFATDS is back-compatible5
 Another order for Platt6
 ADM Online: Weekly News Summary . .6

INTERNATIONAL NEWS

BAE Systems wins VLS missile canister contract7
 Three teams win JLTV EMD contracts . .7
 Further technology development for JAGM8
 Bulbous noses - stern flaps what next? 8

FORTHCOMING EVENTS9

DEFENCE BUSINESS

OPPORTUNITIES See Separate PDF

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(L to R seated) Carl Newman Manager, Radar Customer Support, Lockheed Martin MS2; Group Captain Peter Pollock, Officer Commanding GTESPO; Jack Mahoney, General Manager Lockheed Martin Australia Electronic Systems.

(L to R standing) Marcus Freese, Contracts Manager, Lockheed Martin MS2; Squadron Leader Terry Withers, ADGE PM GTESPO; WGCDR Dick Haines, CO LMU GTESPO; Rob Darge, TADRS Program Manager, Lockheed Martin Australia, Greg Mitchell, TADRS Technical Lead, Lockheed Martin Australia.

Lockheed Martin and GTESPO sign agreement as TADRS sustainment goes local

Lockheed Martin and the Ground Telecommunications Equipment System Program Office have signed an agreement to novate the TPS-77 TADRS sustainment contract from the US to its Lockheed Martin Australia business.

The contract, which originally started in 2005 following the delivery and acceptance of the fourth TPS-77 radar to the Australian Department of Defence, has to date been managed by the company's **Mission Systems & Sensors (MS2)** business in New York, with **Lockheed Martin Australia** in support.

The Lockheed Martin Australia office in Newcastle has now matured, gaining Authorised Engineering Organization status, and is capable of assuming the lead on the sustainment contract.

Group Captain Peter Pollock, Officer Commanding GTESPO, said at a recent meeting to mark the support contract novation occasion, that his program office “had confidence in the local capability, and consolidation of contract management arrangements at the local entity will generate savings within the Strategic Reform Program.”



Australia to contribute \$85m to P-8A improvements

The US Defense Department plans to sign a \$1.2 billion deal with Australia to jointly develop new capabilities for P-8A Poseidon aircraft in response to evolving threats. The Pentagon's acting director of international cooperation, Frank Kenlon, described plans for the project arrangement with Australia's Department of Defence in a July 18 letter to lawmakers. *Inside the Pentagon* reviewed a copy of the letter.

The aim is to "jointly research, develop, test, evaluate, integrate and establish production capacity of the P-8 increment 3 capabilities, in order to provide more affordable, supportable, maintainable and operationally effective P-8 weapon systems for both participants," Kenlon writes.

"The increment 3 follow-on development effort will allow the P-8A to keep pace with ever-present threats to the security of the United States and is a step in the P-8A evolutionary acquisition strategy that consists of sequential improvement upgrades," Kenlon notes.

The planned deal falls under the memorandum of understanding between DOD and Australia's defence ministry concerning cooperation in the P-8 production, sustainment and follow-on development project. The new project arrangement "provides for acquisition activities" for P-8A requirements engineering, capability prototyping, research and development, test and evaluation, retrofit production efforts and sustainment planning for increment 3 capabilities.

The results of the project arrangement will be retrofitted into the 117 US P-8A aircraft and the eight Australian aircraft that will be acquired under the memorandum of understanding, Kenlon says.

Out of the \$1.2 billion, the United States will contribute nearly \$1.1 billion toward the effort, and Australia will contribute \$85.7 million, according to the letter.

In addition, the United States will contribute six 'man-years' for the duration of the P-8A increment 3 agreement, from fiscal year 2012 to 2022, and intends to make prototyping facilities worth \$22 million available to the project. Australia will also contribute four cooperative project personnel from FY-12 to FY-22.—*InsideDefense*

More on the P-8A Increment 3 upgrade

New technology is not anticipated under the project arrangement; instead, the focus is on adapting and incorporating commercial technology and technology developed in other programs.

Boeing is expected to participate in contracting under the project arrangement, and other US contractors are expected to participate in competitions under it. But no Australian prime contractor participation is anticipated under the P-8 increment 3 PA, Kenlon has said.

However, there may be positive effects on US companies involved in increment 3 production, as there will be increased retrofit production quantities to support Australian military aircraft, trainers and support equipment, Kenlon says.

Boeing has provided an interesting overview on the ongoing enhancement of the P-8A through the series of incremental upgrades starting with current formal operational tests of the aircraft, which are expected to lead to the P-8 being declared operational in the third quarter of 2013. 

The Increment 1 capability on the P-8 will be an improved version of what is on the USN's upgraded Lockheed Martin P-3 Orion, which the Poseidon will replace. However, there are a host of improvements that are planned for the new Boeing 737-based jet.

The first major upgrade will be Increment 2, but that effort has been split into two parts, says Boeing's **P-8 business development director David Robinson**. The incremental upgrade is being developed with Australian participation.

The first part of that effort is to equip the aircraft with a new **Multi-static Active Coherent (MAC) system**, which has been accelerated to be fielded in fiscal year 2014. That will enable the fast, high-flying aircraft to search for enemy submarines over a much larger area with a network of active and passive sonar buoys. "The major focus is on the anti-submarine warfare," Robinson says. "MAC is a major portion of Increment 2."

The other part of the Increment 2 upgrade includes the **Automatic Identification System**, which would allow the P-8 to read ships' transponders, plus a new computer architecture to rapidly add new capabilities, a **new tactical operations centre (TOC)**, and a **high-altitude anti-submarine warfare (ASW) system**.

The high-altitude ASW system, which is a collection of sonar buoys, would enable the P-8 to take a closer look at "areas of interest" generated by the MAC, Robinson says. "You'd be able to do both [MAC and high-altitude ASW] at the same time," he says.

The operations centre would allow a **Northrop Grumman MQ-4 Broad Area Maritime Surveillance (BAMS) unmanned air system aircraft** to coordinate seamlessly with the P-8, and would allow the Poseidon to better manage its various ASW activities and sensors. Those capabilities should become operational around fiscal year 2015.

Captain Aaron Rondeau, the USN's Poseidon programme manager said that a follow-on Increment 3 capability has not yet been fully defined, but will include the ability to have some level of control of the BAMS aircraft. It would also have further architecture improvements to allow for roll-on/roll-off capabilities that might enable the jet to take over certain intelligence-gathering missions currently assigned to the USN's Lockheed EP-3 Aries, he adds.

It would also have a new high-altitude ASW weapon and a new "digital, net-ready" anti-surface ship weapon that would improve upon on the existing Harpoon missile. It might also incorporate J-series inertially-guided satellite-correct weapons and the advanced airborne sensor littoral surveillance radar. — *Boeing*



Growler decision elicits more growls

Last week's announcement that the Australian Government had decided to acquire the Growler electronic warfare system for the Super Hornet, at a cost of around \$1.5 billion, has attracted considerable comment in the blogosphere and in more formal statements.

Mark Thompson, in an excerpt from the *Strategist* on maintaining separate JSF and Super Hornet fleets: "The most optimistic outcome is that long-term additional cost of operating two fleets will be funded by purchasing fewer F-35 aircraft. Say goodbye to 100 aircraft. More worrying still—from an RAAF perspective at least—is that someone will crunch the numbers and come up with the obvious alternative; cancel the F-35 and use the substantial savings from operating a single aircraft type to build a larger fleet of Super Hornets. ►

Sure, the F/A-18E/F does not have the technical performance (promised) by the F-35, but it's good enough for the US Navy to be taking new deliveries at the moment. Moreover, a larger fleet of slightly less capable aircraft would be better to have in many circumstances (that is, against other than advanced adversaries). It's at least worthy of close consideration."

Lockheed's Tom Burbage said Australia's \$1.5 billion Growler electronic warfare fleet may be redundant within four or five years of its delivery in 2018. Quoted in the SMH he said his company's Joint Strike Fighter was one of the planes that would be able to carry the next generation jammer, which is expected to come into operation with the US military early next decade.

ADM's comments: The Ministers said that, in acquiring this capability, Australia will be the only country in the world, other than the United States, operating Growler aircraft. Can we be sure that the systems we acquire are identical to those acquired by the US Navy or will these be an export version of the ALQ-99?



ANAO to review C-27J acquisition

On 10 May 2012, the Ministers for Defence and Defence Materiel announced that the Australian Government had agreed to purchase 10 Alenia C-27J Spartan Battlefield Airlift aircraft under this project, at a cost of \$1.4 billion. The Ministers noted that the C-27J was assessed by Defence as the aircraft that best met all the essential capability requirements and provided the best value for money.

The acquisition of the 10 C-27J aircraft with associated support equipment will be conducted through a Foreign Military Sales (FMS) arrangement with the United States.

On 31 May 2012, the **Shadow Minister for Defence** wrote to the Auditor-General requesting the **Australian National Audit Office (ANAO)** to conduct an audit of the selection process for this acquisition, in light of concerns he had raised about this at a Senate Estimates hearing earlier that month.

The objective of the audit is to assess the adequacy of Defence's processes, including compliance with the Financial Management and Accountability Act 1997 and other relevant Commonwealth and Defence procurement requirements, to select the capability solution recommended to the Government to satisfy the requirements of AIR 8000 Phase 2 – Caribou Replacement. The audit report is expected to be tabled in the Autumn 2013 Parliamentary sittings.

ANAO - keeping its eye on the DMO

Increased transparency and accountability on progress with major Defence equipment acquisitions has been a focus of parliamentary interest for some time.

Beginning in 2007–08, an annual program has been established in conjunction with the **Defence Materiel Organisation (DMO)** to enable the **Australian National Audit Office (ANAO)** to review major Defence acquisition projects, as set out in the DMO's Major Projects Report. The review includes information relating to the cost, schedule, technical progress and capability performance of individual projects as at 30 June each year.



On completion of the review, the ANAO reports to Parliament on the status of each major project that is subject to review. The first DMO Major Projects Report, tabled in Parliament in November 2008, reported on nine of the DMO's major projects. Since that time three further reports have been tabled on an annual basis and the number of projects reviewed has progressively increased, reaching 28 in 2010–11.

The ANAO continues to undertake analysis of individual project performance and, over time, the emerging trends across all projects and the governance model in place within DMO. The Major Project Report is based on an agreed review scope, and is not as extensive in terms of evidence gathering as is the case for performance audits. The quality of DMO's management reporting systems and controls, and its ability to provide the ANAO with relevant and timely access to information relating to each major project, also influences the review process.

The **2011–12 Major Projects Report** will be the fifth annual report to Parliament on DMO's major projects acquisitions. In 2011–12, 29 projects have been selected, and subsequently endorsed by the Joint Committee of Public Accounts and Audit for review.

The report is expected to be tabled in the Spring 2012 Parliamentary sitting.



Phew! New version of AFATDS is back-compatible

In late July ADM reported that Raytheon had received an \$81 million US Army contract to develop and produce a new version of the Advanced Field Artillery Tactical Data System (AFATDS), which would focus on improving and simplifying the user interface while enhancing speed and capabilities.

Under **Land17 Phase 1A**, along with four batteries of M777A2 Lightweight Towed Howitzers, the ADF is acquiring the networked **Battle Management System – Fires**, based on the Raytheon developed AFATDS, which is designed to integrate and use information from a variety of sources to create a common operational picture. ▶

As a whole, the system uses that information to plan, coordinate and control battlefield elements, including mortars, close air support, naval gunfire, attack helicopters, offensive electronic warfare, field artillery cannons, rockets and guided missiles.

ADM had assumed that the ADF's system could be tweaked/updated to the new version as a matter of course, assuming that is what the ADF wanted. However there were rumours that the new version was not back-compatible to the previous version, so ADM contacted the OEM, **Raytheon**, where a spokesman informed us that the new version of AFATDS was indeed backwards compatible. He pointed out that the US Army had ensured that this was the case since they could not roll it out to their entire force at one time.

"This means that a statement that the current Australian version of AFATDS is not compatible with the new US version is incorrect," he said.

Another order for Platt



The Finnish army is set to equip its fleet of RG-32M armoured patrol vehicles with new weapon mounts. Under a US\$1.7 million contract, Australian company W&E Platt will supply 39 of its MR550 bi-metal ring mounts.

The MR550 weighs less than 400 kg and features a dual layer of spaced armour that combines two material types. The protection level can be upgraded from

STANAG 4569 Level I to Level III - *JDW*

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

In the news headlines this week it was announced that Australia will spend **\$1.5 billion fitting out 12 of its Super Hornets with the Growler electronic warfare equipment**. The Growlers are expected to be available for operations from 2018.

A Defence spokeswoman confirmed to ADM that the first firings from the **Harpoon Block II anti-ship missiles** have taken place with missiles hitting their mark.

CAE announced they have been successful in a series of military contracts including developing a C295 full-flight simulator (FFS) for the **Royal Air Force of Oman (RAFO)**, a contract from **BAE Systems** to provide maintenance and support services for the Indian Air Force's Hawk training devices, and contracts from the **UK Ministry of Defence** to upgrade C-130J and Lynx simulators.

Indra announced that they will implement a new Tactical Communication Router (TCR) for the Royal Australian Air Force's (RAAF) Joint Battlefield Airspace Controller teams and **Quickstep** announced they have received the first purchase order relating to their contract with **Lockheed Martin** to supply composite wing flaps for the C-130J Super Hercules aircraft.



International



BAE Systems wins VLS missile canister contract

The US Navy has awarded BAE Systems a \$78 million contract modification to produce canisters for Mk 41 and Mk 57 Vertical Launching Systems (VLS) on cruisers and destroyer battleships. This new contract increases the current contract value to \$158 million.

“BAE Systems has produced the canisters for the Navy since 1985, and this contract further demonstrates our customer’s satisfaction with the quality of our work,” said Mark Signorelli, vice president and general manager of Weapon Systems at BAE Systems.

“It is also a testament to the overall effectiveness of the Mk 41 and Mk 57 systems in supporting and protecting our sailors.”

The canisters are used as a launch platform for various missiles within the Navy fleet and serve as shipping and storage containers for the missiles.

The Mk 41 and Mk 57 VLS are below deck missile launchers capable of launching missiles at multiple naval warfare threats including anti-air, anti-submarine, ship self-defence, land attack, naval surface fire support and ballistic missile defence missions. Work is expected to be completed by December 2014



Three teams win JLTV EMD contracts

On 23 August, the US Army announced it had awarded fixed price contracts under the Joint Light Tactical Vehicle EMD phase to AM General, Lockheed Martin and Oshkosh Corp.

AM General will produce and deliver 22 prototypes of its **Blast Resistant Vehicle – Off road (BRV-O)** for government testing under the EMD phase. The BRV-O features a crew capsule and modular armour already proven effective in government-supervised blast testing. The BRV-O design can be readily adapted to future changes in US military missions, enemy threats and new protection technologies as they emerge.

The **Lockheed Martin** team have optimised a **JLTV model** already proven in government testing to create its EMD design. The production-enhanced JLTV maintains the proven force protection, mobility, transportability and reliability of the earlier Technology Demonstration (TD) model, while significantly reducing weight and cost. Formed in 2005, the Lockheed Martin-led JLTV team includes **BAE Systems** and numerous Tier 1 suppliers.

The **Oshkosh** JLTV solution, called the **Light Combat Tactical All-Terrain Vehicle**, or L-ATV, offers an advanced crew protection system that has been extensively tested and is proven to optimise crew survivability. The L-ATV can accept multiple armour configurations, which allows the vehicle to adapt easily. ►



Further technology development for JAGM

Lockheed Martin has received a \$64 million contract from the US Army to extend the Joint Air-to-Ground Missile (JAGM) Technology Development program. The 27-month extended Technology Development program will include design, test and demonstration phases for the JAGM guidance section, which includes the seeker, dome and housing.

The JAGM guidance section draws upon a legacy of trusted precision-guided weapons including Hellfire, Longbow and Javelin. Lockheed Martin has already successfully designed, tested and fielded missiles with both JAGM seeker modes; the precision-strike semi-active laser on Hellfire and the all-weather fire-and-forget millimetre wave on Longbow.

Lockheed Martin says its JAGM design offers operational flexibility, combat effectiveness and survivability with a single, low-cost advanced missile.



Bulbous noses - stern flaps what next?

The US Navy is revisiting a plan from the 1990s to make ship bows more hydrodynamic, thereby reducing fuel consumption.

Senior engineer in the resistance and propulsion division at Naval Surface Warfare Center Carderock Division, Dominic Cusanelli said that stern flaps on the back of ships have already saved the Navy about \$800 million in fuel costs, with about 180 flaps added to fleet ships and the potential to add 20 or 30 more.

“Adding a bulb to the bow of a destroyer above the sonar dome could save \$400,000 to \$800,000 annually per ship — and with more than 60 destroyers in the fleet, the savings potential is significant,” Cusanelli added.

The bow bulb is said to work by redirecting the water flow around the front of the ship, creating less drag and easing the work load on the ship’s engines to keep moving at a given speed. — *InsideDefense*

FORTHCOMING EVENTS next page



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>

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