



DEFENCE WEEK

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Jobs remain in Australia under Hornet contract

Defence Minister Senator David Johnston has announced a multi-million dollar contract extension for the maintenance of the Classic Hornet F404 engine.

The contract, valued at approximately \$230 million was awarded to **General Electric International Incorporated**.

Senator Johnston said the extension followed an announcement by the Chief of Air Force to extend the Classic Hornet's life out to 2022.

"After successful negotiations between GELL and the **Defence Materiel Organisation**, we have reached a mutual agreement on the price and requirements of the Classic Hornet contract extension, achieving savings of \$36 million," Senator Johnston said.

"In addition, the Australian component of the contract will continue to be subcontracted to **TAE**, creating continued employment for 90 personnel located at Williamstown, NSW, and Ipswich, Queensland.

"As the original equipment manufacturer of the Classic Hornet F404 and the Super Hornet F414 engines, GELL has held a contract with the DMO to provide sufficient engine maintenance and logistic support since 2008."

At the time of the original contract the Planned Withdrawal Date for the Classic Hornet was June 2018, with the drawdown period commencing 1 July 2015.

The contract extension with GELL ensures engine capability is maintained through to the revised Classic Hornet Planned Withdrawal Date of 2022.





The first RAAF pilots selected to fly the F-35A Lightning II, Squadron Leaders David Bell (left) and Andrew Jackson look through the cockpit of an F-35A Lightning II mock-up. [Photo:Defence]

First Australian pilots to undertake F-35A training

The names of the first two Australian pilots selected to undergo training in the US on the F-35A Lightning II, commonly known as the Joint Strike Fighter, were announced by the Deputy Chief of Air Force, Air Vice Marshal Gavin Davies who said the training represented an important milestone towards introducing the F-35A into RAAF service.

"It is fitting to announce the future of this capability here at Point Cook, where military aviation in Australia

was born," he said. "Our history is important, and our first two pilots will make history as they become our first pilots to fly this fifth generation aircraft.

"Not only do they represent the future of RAAF, they will have an important leadership and training role as future instructors for the F-35A," AVM Davies said.

Squadron Leaders **Andrew Jackson** and **David Bell**, currently based at RAAF Base Williamtown, NSW, were selected for their operational flying skills, extensive experience and leadership. They are among the very best in their field. They will soon travel to the United States to commence their training.

"The F-35A will be Australia's first fifth generation aircraft and will provide us with an incredible air combat capability. I'm excited to be given the opportunity to take a leading role in its introduction" Squadron Leader Jackson, a qualified Fighter Combat Instructor, said.

Squadron Leader Bell, a qualified Test Pilot, was equally impressed by the opportunity. "This aircraft gives fighter pilots a level of situational awareness that far exceeds legacy platforms. It will be an honour to work alongside the US Air Force and to be at the leading edge of delivering the F-35A to Australia," he said.

OUT SOON! ADM March 2014 SEA Power 2014

- Phased array radar on HMAS *Perth* and HMS *Daring*
- Ship changes for Romeo arrival
- LHD and AWD updates
- From Orions to P-8s
- SMEs readying for Future Submarine





ITT Symphony OpsVue.

Now ADS-B transponders track aircraft on the ground

Tom Muir

ITT Exelis, which has acquired Adelaide-based C4i and is a contender for the Australian OneSky air traffic management system, has equipped Spirit Airlines with its aircraft surveillance solution, known as Symphony OpsVue, to visually track its aircraft fleet while on the ground. This solution provides a

highly accurate and reliable flight tracking network of aircraft surveillance data on a single Web-based display.

Spirit Airlines' aircraft fleet is currently fully equipped with Automatic Dependent Surveillance-Broadcast (ADS-B) transponders. ADS-B equipage enables operations personnel to receive aircraft position reports every 5 seconds in the terminal airspace area.

With Symphony OpsVue, Spirit can monitor its aircraft on the airport surface in the taxiway, ramp or gate at any of its primary and diversion airports with a single application. The solution also enables airlines to manage tarmac delay requirements, which require contingency plans, including passenger provisions and deplaning, for lengthy tarmac delays. Benefits of the Symphony OpsVue solution include improved safety through enhanced situational awareness and operational efficiency of the fleet, as well as a better overall passenger experience through reduced delays.

Introduced in Australia nearly 10 years ago, ADS-B is an air traffic surveillance technology that enables aircraft to be accurately tracked by air traffic controllers and other pilots without the need for conventional radar. The system is based on equipment linked to the aircraft's navigation system that records its position via GPS and then broadcasts the precise location of the aircraft via a digital data link at rapid intervals.

The broadcast, which includes identity, altitude, velocity and other surveillance data, is received by dedicated ground stations and relayed to air traffic control for precise tracking of the aircraft. The information can be used by other aircraft and air traffic control to show the aircraft's position and altitude on display screens.

For the Australian advanced air traffic management system (TAAATS) Thales was awarded a contract in 2004 for the provision of 56 ADS-B Ground Stations and since then ADS-B services have been implemented in stages during which time surveillance coverage has progressively increased. Currently, the system is supported by 29 duplicated ADS-B ground stations nationwide plus 14 ADS-B capable multilateration sites in Tasmania and 16 sites in the Sydney basin.

Using ADS-B to track aircraft on the ground is a new one to us but not, perhaps, to Thales!



Air Force launches General Purpose Uniform



RAAF members display the current range of uniforms, including the newly launched General Purpose Uniform. [Photo:Defence]

The RAAF has recently launched a General Purpose Uniform (GPU) at the Centenary of Military Aviation Airshow.

The dark blue and metal grey uniform was officially launched by Chief of Air Force, Air Marshal **Geoff Brown**, AO.

“The purpose of the GPU is to provide a unique and easily identifiable Air Force presence to the Australian Defence and civilian communities, consistent with the Air Force’s distinctive identity and still effective in meeting our service requirements,” AIRMSHL Brown said.

“The new uniform will begin, from today, to replace the current camouflage uniform, also worn by Army, for general base duties and in non-warlike environments such as humanitarian tasks and Defence assistance to the civil community.”

Introduction of the Air Force GPU will be cost neutral over the long term due to uniform production changes, depletion of existing stocks and reforms to standard equipment issue. The new Air Force GPU is less expensive than the current **Disruptive Pattern Camouflage Uniform (DPCU)** issued to Air Force personnel as it does not have the same camouflage requirements for warlike conditions.

Existing Air Force DPCU production will be reduced and replaced by production of the GPU. It is planned that all Air Force personnel will be issued with a mix of camouflage uniforms and GPUs by the end of 2015.

Martin-Baker completes US16E Ejection Seat for RAAF



L-R: James Martin, WGCDCR Anthony O'Leary, Brian Hickey and John Martin.

Martin-Baker has completed the first production US16E Ejection Seat for the Royal Australian Air Force (RAAF) F-35, named the AU-1.

The US16E Ejection Seat for the RAAF (serial number 00141) is part of Low Rate Initial Production (LRIP) VI and is the 141th seat to be produced for the F-35 Program.

To mark the completion of the AU-1 Ejection Seat, Counsellor Defence Materiel, **Brian Hickey** and WGCDCR **Anthony O'Leary**, RAAF, visited Denham, joined by **James** and **John Martin** (Joint Managing Directors) from Martin-Baker.

REGISTER NOW!

ADM Cyber Security Summit

19-20 June 2014 | Canberra

This year's speaker faculty will feature presentations from renowned experts from government, industry institutions/agencies, academia and leading vendors. Some of the key topics to be addressed include:

- Cyber warfare
- Mitigating and preventing cyber offensives
- Protecting critical cyber infrastructure
- Intelligence and surveillance
- Cyber terrorism
- International Policy





Aircraft Research and Development Unit test pilot, Squadron Leader Steve Bekker waves to the crowd after his flight in the Bristol Boxkite replica during the Centenary of Military Aviation Air Show. [Photo:Defence]

Boxkite's use in training the first Australian military aviators reflects the foresight of the pioneers who saw the value and future of air power," he said.

"During the historical flight the replica aircraft reached an altitude of around 50 feet and a speed of 55 kilometres per hour."

The Boxkite replica is the culmination of several years work by a team of enthusiastic volunteers from the RAAF Museum. None of the original Bristol Boxkite aircraft that trained Australia's airmen exist today.

Boxkite flight recreated

History was recreated at Point Cook when a replica Bristol Boxkite re-enacted the first Australian military flight 100 years ago.

Boxkite pilot, **Steve Bekker**, relived the exact moment when **Lieutenant Eric Harrison** flew a Bristol Boxkite March 1914.

Squadron Leader Bekker said he was honoured to be able to recreate the event that marked the birth of military aviation in Australia.

"In the early 1900s, Boxkites were the cutting edge of technology. The



2014 Australian Industry & Defence Network (AIDN) Young Achiever Award (YAA) winner Aidan Depetro. [Photo:Leigh Atkinson]

AIDN National Young Achiever award

Aidan Depetro from BMT Design & Technology was announced as the national winner of the 2014 Australian Industry & Defence Network (AIDN) Young Achiever Award (YAA) at the ADM2014 Congress awards dinner.

In introducing the national finalists the AIDN National President, **Alan Rankins** said that although the finalists worked in diverse backgrounds within the defence industry, each YAA displayed outstanding qualities in their profession and are a credit to themselves and their employers.

Rankins also remarked that this year's AIDN National YAA competition had three finalists.

The other national finalists were:

- Vishu Babu, Babcock – DTC Finalist
- Daniel Wang, Thales – AIDN-NSW Finalist





ADM Online: Weekly 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, **NUSHIP Canberra** left BAE Systems Williamstown bound for Sydney on the first period of sea trials.

The Defence Science and Technology Organisation and Lockheed Martin Australia signed a new **strategic alliance** to collaborate on a range of technologies for strengthening defence and national security.

And, Northrop Grumman Australia completed the acquisition of **Qantas Defence Services** Pty Limited, now called Northrop Grumman Integrated Defence Services Pty Limited.



International



Norway acquires IFVs also offered for L400

Tom Muir

BAE Systems Hagglunds handed over the first of two pre-series upgraded CV9030 infantry fighting vehicles (IFV) to the Royal Norwegian Army on 25 February. In total the company will provide the Royal Norwegian Army with 144 new and upgraded CV9030 series vehicles under a contract worth approximately GBP500 million (USD750 million).

The two pre-series vehicles will be put through extensive trials, before the main CV9030 production run begins in January 2015. Production for Norway will take place at BAE Systems Hagglunds' new CV90 production line in Sweden and should be completed in 2017, with a significant amount of final integration work taking place in Norway. Deliveries should be completed in 2018. Norway was the first CV90 export



customer and by 2010 had taken delivery of 104 CV9030N vehicles; 103 remain in service.

Back in 2010 BAE Systems outlined its vision for the future of the Land 400 program by revealing details of two armoured combat vehicles that would deliver superior survivability, mobility and sustainability to Australian warfighters. The company was using the 2010 Australian Land Warfare Conference to discuss its tracked CV90 and wheeled RG41 vehicles.

ADM comment: While Norway beefs up its mobile armour with the CV9030 – a seemingly sensible exercise in today’s perceived threat environment, one might wonder what role the CV90, or any of the other armoured vehicles offered for **L400’s Land Combat Vehicle System**, might fare in the mid-2030s or later, not many years after their introduction into service, when the nature of future warfare may be very different to that forecast by the Australian Army in its future land operating concept and Force 2030 documents.

USN looks for alternative to LCS

The Pentagon has recently tasked the US Navy to look beyond the Littoral Combat Ship (LCS) at a future surface combatant consistent with the capabilities of a frigate, Inside the Navy reported on 24 February.

The LCS program has faced a number of cost and concept challenges throughout its development and operations so far, drawing criticisms from US defence officials and Congressmen alike. But whether the LCS is cut short or built out to 52 ships, the US Navy already has been thinking about what a follow-on small combatant would look like.

Admiral **Jonathan Greenert**, chief of naval operations, routinely champions LCS, but already has directed the surface warfare community to begin thinking about a follow-on.

“We need to look and think about what the next small combatant is,” Capt. **Danny Hernandez**, the CNO’s spokesman said. “Regardless of what the number is going to be, there’s going to be something after LCS, and we need to look at our options. It’s also the prudent and responsible thing to do.”

One concept being thought about as an LCS alternative or follow-on has been a small frigate, able to defend several ships and provide escort services for merchant convoys, amphibious ships or support ships.

But it appears that work on future surface combat ships already is underway at the Pentagon by the director of surface warfare, and under the direction of the surface warfare commander in San Diego, with either of those efforts focused on a frigate. A new study would be aimed at a ship that could be developed within only a few years.





LCS International Vairant

Ship designs flow in

Both LCS design teams, led by Lockheed Martin and Austal USA, have produced versions of their ships aimed at foreign sales, heavily loaded with permanently installed combat systems.

Lockheed Martin has pitched a variant of its Freedom class LCS for international customers that — in its largest offering — includes **VLS** and **AN/SPY-1F** variant of the company's **Aegis radar**, while smaller

versions would be built with an Australian **CEAFAR active phased array** air search radar.

The Coast Guard's national security cutter, built by Huntington Ingalls Industries, could potentially fit the requirements of a future surface combatant, HII president and chief executive officer said last week.

"If the requirements align with that kind of a platform, then I think that we'd have a great opportunity," HII president and CEO **Mike Petters** said on 27 February. "We look forward to the chance to understand it better and to engage with our customer to see how we match up with what it is they are looking for."

Interestingly Spain's corvette-style **Buques de Accion Maritima (BAM)** multirole offshore patrol vessel is being proposed as a possible option to meet the US Coast Guard's (USCG's) new **Offshore Patrol Cutter (OPC)** program requirement. To develop this proposal, state-owned Spanish shipbuilder **Navantia** is teaming up with **General Dynamics Bath Iron Works (BIW)**, one of three US yards shortlisted to present designs for a programme that is due to deliver 25 units.

As well as providing design blueprints, Navantia's participation would also include the provision of engineering services under a technology transfer agreement signed between the two companies in 2012.

Although award of the build contract is not expected until 2016, Navantia described its participation in the design stage as "a valuable opportunity for promotion and international prestige". Is this design also being offered for the USN's future combatant?

Go-ahead for South Africa's OPV requirement

The South African Navy (SAN) has been given the go-ahead to acquire offshore patrol vessels (OPVs) to complement its four frigates.

The much-delayed **Project Biro** has been approved by the **Armaments Acquisition Council**, and a request for offers (RFOs) is now expected to be issued before the middle of the year. The number of ships has not been established, but is likely to be three or four, all of which will be built in South Africa. The SAN would like the first operational in 2018, when its Warrior-class patrol boats will be nearing the end of their hull lives.

The OPV acquisition has been planned for several years, initially as a concept to acquire 10 'multi-mission hulls' to replace the remaining Warrior-class and River-class mine hunters. - *Janes*





Indonesia targets 2018 for indigenous submarine

IHS Janes reports that Indonesian State-owned shipbuilder PT PAL plans to complete an indigenously-built diesel-electric submarine (SSK) by 2018, Indonesia's Defence Industrial Policy Committee (KKIP) said on 19 February.

Indonesia's first and second **Chang Bogo-class SSKs**, scheduled to be delivered by 2017, are currently being constructed by Korea's **Daewoo Shipbuilding & Marine Engineering (DSME)** with gradually increased input from PT PAL engineers and technicians. The third SSK will be license-built in a PT PAL shipyard in Indonesia. To date, the KKIP has sent 206 personnel to South Korea to work with **DSME**.

Admiral **Purnawirawan Sumardjono**, head of the KKIP, said that the bigger picture behind these arrangements was for Indonesia to develop the capacity to operate 12 submarines. The Indonesian Navy currently operates two German-built **Cakra Type 209/1300 submarines**, built in the 1970s.

The admiral added that Indonesia ultimately plans to move away from imports as a means of fulfilling its defence requirements, including in the underwater domain. "If we are embargoed, we are finished", he said. "A country that takes charge of its own needs via an indigenous defence industry can have its say in world politics". - *Janes*



U-2 replacement by Global Hawk sparks row

Lockheed Martin is mounting a strong defence of the U-2 reconnaissance aircraft program after the Pentagon announced its intention to retire its entire fleet of legacy 'Dragon Lady' intelligence, surveillance and reconnaissance aircraft in favour of Northrop Grumman's unmanned RQ-4 Global Hawk.

The ageing platform's prime contractor, said it will wait until Defence Secretary **Chuck Hagel** submits the Pentagon's fiscal year 2015 budget request to Congress before "addressing specifics," but was quick to claim the U-2's intelligence-gathering and performance superiority over the Global Hawk.

"The U-2 is the only weapon system flying today, manned or unmanned, capable of accomplishing the high-altitude ISR mission," Lockheed spokeswoman **Melissa Dalton** said "Global Hawk does not have a sense-and avoid-capability, cannot fly in poor weather or a contested environment, and is dependent on satellite links to mature anti-jam capability.

"Our Lockheed Martin U-2 team is focused on sustaining the Skunk Work's heritage of superior performance and support to the USAF now and in the future," the statement continued. "U-2 sustainment costs are poised to go down, not up." - *Inside Defense*



Three-year pizza ration

US field rations include pizza!

Pizza with a three-year shelf life will soon be joining the US Army's field rations menu. These infamous MREs (Meal, Ready to Eat) have a long and chequered history, acquiring such sobriquets over the years as "Meals Rejected by Everyone" and "Materials Resembling Edibles."

Pizza has long topped the list of requested meals, but the task of providing a palatable slice of this complex food that will survive the required three-year shelf life has foiled all attempts. Now, the folks at Natick's Combat Feeding Directorate have achieved a minor miracle in food technology: stopping time for a slice of pizza. – *GizMag*

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FORTHCOMING EVENTS

For a full list of defence and industry events, head to **ADM's online events page at www.australiandefence.com.au**

RAAF Air Power Conference

DATE: 12 - 13 March, 2014, Canberra
ENQUIRIES: Web: www.airpower.airforce.gov.au

The Royal Australian Air Force will be conducting its biennial Air Power Conference over the period 12-13 March 2014 in Canberra at the National Convention Centre. The theme for the 2014 Conference is A Century of Military Aviation 1914 - 2014 and will focus on the grand narrative of air power development over the past one hundred years through an examination of key air power campaigns

ADM will
be in
attendance

The Submarine Choice: ASPI's International Conference

DATE: 8 - 10 April, 2014, Canberra
ENQUIRIES: Lynne Gozzard, Ph: 02 6270 5109;
 Email: lynnegozzard@aspi.org.au

Join distinguished international and Australian speakers for two days of debate on Australia's Future Submarine choice. Topics include: The Strategic Context; the Navy's Perspective; Regional Perspectives; Design Options; Industry and Economics; Project Management; Lessons from Abroad.

ADM will
be in
attendance

3rd annual ADM Cyber Security Summit

DATE: 19 - 20 June, 2014, Canberra
ENQUIRIES: ADM Events - Adam Wiltshire, Ph: 02 9080 4342;
 Email: adam.wiltshire@informa.com.au
 Web: www.admevents.com.au

Over the last 2 years, the summit has gathered 150+ senior Defence, National Security and Industry executives to address current and emerging cyber threats to Australia's security.

ADM will
be in
attendance

Defence and Industry (D+I) conference 2014

DATE: 29 - 30 July, 2014, Adelaide

ENQUIRIES: Defence Materiel Organisation

Email: DMO.Communication@defence.gov.au

The Conference is an opportunity for Industry to discuss with Defence officials acquisition and sustainment investment opportunities.

ADM will
be in
attendance

SimTect 2014

DATE: 25 August, 2014, Adelaide

ENQUIRIES: Web: <http://www.simtect.com.au/>

SimTect is the annual Simulation Technology and Training Conference held by Simulation Australia. Since its inception in 1996, SimTect has grown to become Australasia's premier simulation conference for industry, government and academia.

ADM will
be in
attendance

Land Forces Conference 2014

DATE: 22 - 26 September, 2014, Brisbane

The Land Forces 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. More details to come.

ADM will
be in
attendance

