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## HERO helicopter safety device wins award

**Sydney-based defence equipment design specialist Tricon Defence Pty Ltd has won the inaugural Aerospace Australia Limited Defence Industry SME Innovation Grant for 2013.**

Announced at a ceremony at the Australian International Air Show and Aerospace and Defence Exposition Avalon, the award recognises Tricon Defence's achievements in developing its highly innovative **Helicopter Emergency Release Operator (HERO)** device.

Designed to improve the survivability of helicopter crews and occupants in the event of a crash into the sea, HERO is a dual-purpose personnel restraint/release survivability aid developed in response to the fatal crash of an Australian Army Black Hawk helicopter off the coast of Fiji in 2006.

Equally applicable to civil and military operators, HERO can be fitted to any helicopter regardless of make or type and is currently in the final stages of certification with the Australian Civil Aviation Safety Authority (CASA).

In an Australian Defence Force context, HERO is compatible with both the **Black Hawk** and new **MRH90** helicopters.





## JP2008: Terminal rumblings continue

Tom Muir

Back in July last year *ADM* pondered why the RFT for JP2008 phase 5B was released so far ahead of the requirement and whether this seemingly deferred

acquisition had been caught up by the government's push for a budget surplus in 2013. Were the satcom acquisitions under JP2072 also going to be pushed back? And has Defence thereby killed off the possibility of acquiring more up-to-date systems that may now be entering the market?

But there are other rumblings. As *ADM* reported then under JP2008, two phases (3H and 5B) are involved with the acquisition for the Army of transportable wideband satcom terminals in three sizes ie Small (<one metre); Medium (1.2-2.4 metres); and Large (2.4-3.9 metres). The acquisition strategy for Phase 3H is to focus on the early acquisition of one type from the family of terminals planned to be acquired under Phase 5B, optimising the early use of the WGS system by acquiring WGS pre-certified satellite communications terminals.

The Phase 3H requirement, for which **L-3 Nautronics** (now **L-3 Communications Oceania**) was selected as preferred tenderer last year (but without any formal announcement) is for 45 medium-size terminals with an initial supply of 10 terminals by December 2012 and the remainder by July 2013. Terminal size was left to tenderers based on meeting throughput performance criteria – we assume that L-3 proposed their WGS-capable NCW-1200 1.2 metre flyaway terminal. And thereby hangs a tale.

Because of the preference for this medium-sized terminal under the earlier Phase 3H requirement, (selected from a significant number of respondents to the RFT) which is a precursor to the family of interoperable terminals under Phase 5B, the writing was on the wall for those bidding the smaller terminal for 5B - it virtually had to be L-3s small sub-1 metre terminal, perhaps their TRM-1000 or equivalent, since that was already interoperable with their medium 1.2 metre Ku-band transportable transit-cased terminal which was the likely choice for the medium-sized terminals to be acquired under 5B.

On the assumption that L-3's medium-sized terminal would also be acquired for the medium-sized requirement under 5B, we believe the three main bidders for 5B, **BAE Systems Australia**, **NEC Australia**, and **Raytheon Australia**, and possibly **EM Solutions** with **ViaSat**, were keen to offer L-3's small and medium sized terminals along with their own offerings for the large (2.4-3.9m dish) terminal requirements.

Why the interest in L-3's smaller terminal? It seems the word was out that the LNIC, Defence's very clever Land Network Integration Centre in Fyshwick, gazed kindly upon L-3's small SOTM terminal and it had 'family' connections with L-3!

But hang on, basking perhaps in the advantageous sales position it was now finding itself in 3H and more than likely in 5B, L-3 is reported to have indicated that the vending of its small terminal to the other bidders was conditional on their taking the larger terminal as well - that is we believe, the 3.9-metre quadband (QST) terminal, (two of which have recently been purchased by **DSTO**) with Melbourne-based **TC Communications** providing all the support that Defence might require! This being the case, the upshot would be Defence presented with little variation in the hardware for Phase 5B's family of terminals.





## JSF: Only six F-35s for Foreign Partners so far

The US Defense Department has put a down payment on six Joint Strike Fighters for foreign partners that have contributed to the jet's development, fewer than expected for the eighth early production run.

The DoD awarded **Lockheed Martin** a \$US333.8 million deal that will allow the company to order long-lead items for low-rate initial production (LRIP) Lot 8, which is slated to include 35 aircraft.

Notably, the deal covers commitments from just two partner nations: Norway, which wants two jets, and the UK, which plans to purchase four. That total matches the number of international orders in Lot 7: three for Italy, one for the UK and two for Norway.

However, the total number of non-US fighters in the Lot 8 batch could grow, according to DOD.

"We anticipate it being more," a spokeswoman for the F-35 program office said-*Inside Defense*.



## Levett receives order for first F-35 Lightning II engine parts

Pratt & Whitney has announced that **Levett Engineering** has delivered their first engine components that will be installed into F135 engines for the F-35 Lightning II aircraft.

Levett Engineering was awarded a contract in 2008 to manufacture second and third-stage turbine vane tubes and covers for the F135 engine.

"We have a truly global supply chain strategy for the F135 engine, and Levett Engineering is a key supplier for the program in Australia," **Howie Chandler**, vice president, Military Engines, business development at Pratt & Whitney said.

"We are only in the early stages of our partnership with Pratt & Whitney, but we're looking forward to a relationship that will extend well into the future," **Paul Levett**, managing director, Levett Engineering said.

The installation of the first Australian-manufactured F135 engine components marks a significant milestone in the program.





## CAE Australia to support and upgrade AP-3C simulator

CAE has announced it has recently been awarded a contract from Australia to provide maintenance and engineering support services for the Royal Australian Air Force's AP-3C Advanced Flight Simulator (AFS).

Following a competitive tender, CAE Australia was selected to provide the on-site maintenance and support services for the AP-3C AFS, which is located at RAAF Base Edinburgh in Adelaide, South Australia and used to train RAAF aircrews. In addition, CAE expects to provide a range of simulator upgrades, including a comprehensive upgrade of the visual environment.

"CAE Australia is an Authorised Engineering Organisation (AEO) and already performs a range of service, support and engineering upgrades on in-service simulators for the Australian Army, Navy and Air Force, including the RAAF's AP-3C Operational Mission Simulator used for mission crew training," **Peter Redman**, managing director of **CAE Australia Pty Ltd** said.

CAE Australia currently provides turnkey training support services for the Australian Defence Force's **S-70B Seahawk simulator** at HMAS Albatross, Nowra; the S-70A Black Hawk simulator at Army Airfield Oakey; the **C-130J simulator** at RAAF Base Richmond; the **KC-30A simulator** at RAAF Base Amberley; and will deliver the support services for the **MRH90** training systems when delivered.



## SYPAQ new rep for UTC Aerospace Systems technology

Australian systems integrator SYPAQ Systems Pty Ltd has signed an agreement with UTC Aerospace Systems to act as the Australia and

**NZ representative for its family of advanced unmanned aerial systems (UAS). These systems, including the Vireo and Optio systems, provide reliable, high-performance aerial imaging at low total ownership cost.**

The Vireo and Optio systems are low-weight electrically powered hand-launched systems that utilise a common open-system architecture, autopilot, avionics suite, communications subsystems, and user-friendly tablet-style ground control station. Both systems are designed as highly modular, flexible platforms that readily support a variety of plug-and-play imaging payload options as well as integration of new technologies as they become available. Common applications include law enforcement



and security, first response, search and rescue, precision agriculture, aerial survey and infrastructure inspection.

The Vireo UAS is a three-pound, hand-launched system that provides one hour of endurance and can be equipped with a variety of imaging payloads. Imaging payloads include best-in-class high-resolution, actively stabilised visible (EO) and thermal (Long Wave Infrared) micro gimbal imaging sensors, as well as ultra-high resolution still cameras and multi-spectral imaging sensors. The Optio shares the same advanced avionics suite as the Vireo UAS but offers an increased payload capacity and an endurance of up to three hours.

## More traction in DMO's GSC program

**The DMO has signed a Global Supply Chain cooperation agreement with Italian company Finmeccanica.**

Deputy CEO DMO, Harry Dunstall, signed the agreement with the general manager of Finmeccanica's Group Services, Riccardo Napolitano, at the 2013 Avalon Airshow in Melbourne.

The signed agreement is part of a wider contractual architecture made up of:

- a Deed, which formalises the collaboration between the DMO and Finmeccanica;
- an Annex, which details the content of the operational activities.

These documents fine tune the initial deed which was **signed at the Land Warfare Conference last year** with then Minister for Defence Materiel Jason Clare



*Left to right: Alumni Director John Griffiths, Network Co-ordinator Brady Downes and Commander AAFC Group Captain Ken Given at the website launch*

## Australian Air Cadets Alumni is airborne

**Former air cadets and staff now have the opportunity to re-establish lost friendships and share memories from their past thanks to the launch of the Air Cadets Alumni.**

Following an overwhelming response from former members of the Air Training Corps which was first formed in 1941 and its successor

organisations, the AirTC and Australian Air Force Cadets, the **AAFC National Council** took the decision to support the establishment of an Alumni. Over 700 former cadets and staff have so far signed up to participate in the Alumni. They include the current and former Air Force Chiefs and a handful of former cadets from the early 1940s.

The Alumni will be managed with the help of a number of volunteers and an on-line administrative website and facebook page.

"The Alumni website has a Bulletin Board to keep members informed of further developments, along with important National AAFC events and Wing and Squadron activities," The chairman of the AAFC National Council Air Vice Marshal **David Dunlop**



(Retd) said. "It will also provide a facility for members to make contact with each other, allow members to interact through a FaceBook page and share photos from their air cadet training days in the Photo Gallery."

The Alumni went live on February 22, 2013. This date was chosen because on that day in 1941 Federal Cabinet approval was given for the formation of the Air training Corps.

If you would like to join or find out more about the Alumni, you can by going to [www.aircadetsalumni.org.au](http://www.aircadetsalumni.org.au).

## Engineering work placement

**An exciting opportunity for 3rd and 4th year Engineering students and Small to Medium sized Enterprises, (SMEs) sponsored by the Defence Materiel Organisation has been announced.**

The **Defence Engineering Internship Program (DEIP)** is intended to increase engineering students' interest in the defence industry, particularly with SMEs. DEIP will pair 30 selected engineering students undertaking the practical component of their coursework with defence industry SMEs from around Australia. To be eligible for the internship, students must be Australian citizens and eligible for a security clearance.

DEIP will provide Australian defence SMEs with the opportunity to market defence and national security industry as an innovative, interesting and viable career path to engineering students who undertake a sponsored work placement in their firm.

Placements will be managed by AITEC, an experienced educational project management organisation and the Australian Defence and Industry Network.

Eligible students are invited to submit an application to be considered for a 12 week placement with a Defence focussed SME. Successful applicants will be remunerated at the rate of \$700 per week based on for the 12 weeks placement. Up to 30 positions are available nationally.

Applications will open on Monday 28 May and close on Friday 22 June 2012.

To apply visit [www.aitec.edu.au/deip](http://www.aitec.edu.au/deip)



*Minister Kelly with MOTION RACING, from Engadine High School NSW, the 2013 F1 in Schools National Champions (Professional Class).*

## Schools Formula One competition winners

**Defence Materiel Minister Dr Mike Kelly has congratulated teams from across Australia who have been crowned as National Champions in the F1 in Schools competition. The winning teams represented Brighton Secondary School from South Australia and Engadine High School from New South Wales.**

The finals of the F1 in Schools competition were held in conjunction with the **Avalon International Air Show** and the Australian National Champions will now



progress to the World Championships to be held in Texas in November this year.

The F1 in Schools program is an international initiative that encourages high school students to design, develop and build futuristic model Formula One race cars.

“Australian teams have an enviable record in the World Championships and I am sure this year’s teams will do us proud on the world stage,” Dr Kelly said. Australian teams have been crowned World Champions for the past two years running, and three times in the event’s short history.

Dr Kelly said F1 in Schools, run in Australia by the **Re-Engineering Australia Foundation**, has proven to be a great way to get Australian students interested in engineering as a career path. The program is team-based and has involved thousands of high school students from across Australia in a structured engineering design project based on the development of a model Formula One Racing Car. The DMO has been the national sponsor of the F1 in Schools program since 2008, he said.

“Australia needs engineers and other technical specialists to design, produce and maintain the equipment that our Australian Defence Force needs,” Dr Kelly said. “That’s why Defence is proud to sponsor this exciting program.”



## 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, prime contractors involved in Air 9000 Phase 7 offering the **EC135** were sent an interesting letter from Rear Admiral Tony Dalton. The letter has raised some interesting questions beyond the HATS program.

The Defense Security Cooperation Agency notified Congress of a possible **Foreign Military Sale** to Australia for up to 12 F/A-18E/F Super Hornet aircraft and 12 EA-18G Growler aircraft and associated equipment, parts, training and logistical support for an estimated cost of \$3.7 billion.

Also, **Vector Aerospace** celebrated the grand opening of Vector Aerospace Engine Services-Atlantic’s newest engine repair and overhaul facility, located in Brisbane, Australia.

The inaugural **Aerospace Australia Defence Innovation Scholarship** was awarded to scientist and engineer Luke Vandewater of Swinburne University.

Australian Aerospace Limited and the Historical Aircraft Restoration Society (HARS) entered into a partnership to support two flying examples of the venerable **Caribou** military transport aircraft.



## International

### F-35 Joint Program office statement: Flight operations restored



**F-35 flight operations have been cleared to resume following engineering analysis of the turbine blade which developed a crack.**

This decision concludes a cautionary flight suspension that began on February 21 after a 0.6 inch crack was found on a 3rd stage turbine blade of a test aircraft at the Edwards Air Force Base F-35 Integrated Test Facility during a routine inspection.

Comprehensive tests on the blade were conducted at the **Pratt & Whitney** facility in Middletown, Connecticut.

The engine in question is part of the F-35 test aircraft fleet and had been operated for extended time in the high-temperature environment in its mission to expand the F-35 flight envelope. Prolonged exposure to high levels of heat and other operational stressors on this specific engine were determined to be the cause of the crack.

No additional cracks were found during inspections of the remaining F135 inventory. Within the current DoD inventory, 17 F-35s are employed in test and development at Patuxent River Naval Air Station and Edwards Air Force Base; the remaining aircraft are assigned to Eglin Air Force Base and Marine Corps Air Station Yuma, and comprise the initial F-35 training fleet.



### Sequestration could endanger JLTV

The US Army's top acquisition executive said that a schedule delay expected to impact the Army-Marine Corps Joint Light Tactical Vehicle as a result of sequestration could ultimately derail the entire program. Heidi Shyu, the Army's acquisition chief, said the budget cuts resulting from sequestration could delay the



**JLTV program by as much as two years - something Marine Corps officials have said might cause them to rethink their commitment to the program and fund other pressing priorities.**

The Army plans to purchase 20,000 JLTVs, while the Marines expect to buy 5,500. **Oshkosh Defense, Lockheed Martin, and AM General** are all competing in the JLTV's engineering and manufacturing development phase and expect to deliver prototypes this summer. "Clearly sequestration is going to stretch out the program," Shyu told *Inside the Army* in a brief interview on February 28 after she appeared before the House Armed Services tactical air and land forces subcommittee.

Also on the vehicle front, the US Army has made updated **Ground Combat Vehicle** requirements available to industry, but a looming fiscal crunch brought on by sequestration and the possibility of a year-long continuing resolution has cast a shadow of uncertainty on the service's premiere vehicle modernisation program.

The Army is trying to be more communicative, but that task is difficult, according to Major General **Robert Dyess**, the director of force development (G-8), who said last week that the full acquisition impacts of sequestration and a yearlong CR on acquisition programs have yet to become clear.

## US Navy prepares Poseidon for inaugural deployment



**The US Navy (USN) is preparing its crews for the inaugural operational deployment of its Boeing P-8A Poseidon multi-mission maritime patrol aircraft towards the end of the year, a senior service official announced on 27 February.**

Having already participated in a number of littoral warfare and anti-submarine exercises, the P-8A force is building up its combat readiness ahead of a planned deployment to the Western Pacific in December, said Rear Admiral **Sean Buck**, Commander, Patrol and Reconnaissance Group-*Janes*



## US Air Force cuts aviation support at public events

**As the US Air Force braces for potential sequester, leadership has cancelled all aviation support to public events for at least the**



**remainder of the fiscal year and is standing down the Thunderbirds aerial demonstration team to save flying hours to support readiness needs.**

Effective now, active-duty, Reserve and Guard units will cease all aviation support to the public. This includes the cancellation of support to all air shows, tradeshow, flyovers (including funerals and military graduations), orientation flights, heritage flights, **F-22** demonstration flights and open houses, unless the event includes only local static assets.

Additionally, the Air Force will cancel the Thunderbirds' entire 2013 season beginning April 1.

The Thunderbirds and Heritage Flight crews will complete their certification procedures for safely flying aerial demonstrations in case the budget allows resumption of scheduled events in 2013, but and the Air Force will cease participation in Heritage flights following certification.

The Air Force will reduce flying hours by as much as 18 per cent - approximately 203,000 hours - and impacts will be felt across the service and directly affect operational and training missions.

"While we will protect flying operations in Afghanistan and other contingency areas, nuclear deterrence and initial flight training, roughly two-thirds of our active-duty combat Air Force units will curtail home station training," Air Force Chief of Staff Gen. **Mark A. Welsh III** said.

Since all aerial support to public and military events is flown at no additional cost to the taxpayer using allotted training hours, the Air Force had no choice but to cancel support to these events.

The Air Force will continue to seek additional ways to remain engaged with the American public.

## **FORTHCOMING EVENTS.....page 11**



# FORTHCOMING EVENTS

For a full list of defence and industry events, head to **ADM's** online events page at [www.australiandefence.com.au](http://www.australiandefence.com.au)

## International Maritime Security Conference

**DATE:** 14-16 May 2013, Changi, Singapore

**ENQUIRIES:** More details to be released closer to the date.

**IMDEX Asia Web:** <http://www.imdexasia.com/index.aspx>

IMSC 2013 will bring together Navy Chiefs, Coast Guard Directors-General and academia around the world to discuss threats to maritime security and safety, as well as develop frameworks and solutions to deal with the security challenges that threaten and disrupt sea lines of communication.

## ADM Cyber Security Conference

**DATE:** 12-13 June, 2013, Hotel Realm, Canberra

**ENQUIRIES:** ADM Events - Jamie Burrage, Ph: 02 9080 4321;

**Email:** [Jamie.burrage@informa.com.au](mailto:Jamie.burrage@informa.com.au) **Web:** [www.admevents.com.au](http://www.admevents.com.au)

ADM's 3rd Cyber Security Summit will see stakeholders from Australia's Defence and National Security agencies address the current and emerging cyber threats to Australia's security. More details to be released closer to the date.

## DSEI

**DATE:** 10-13 September, 2013, ExCel, London

**ENQUIRIES:** Web: [www.dsei.co.uk](http://www.dsei.co.uk)

DSEI is the largest fully integrated defence and security show in the world, featuring Air, Naval, Land and Security show content. Based in ExCeL, London every two years, the event provides unrivalled access to key markets across the globe.

## SimTecT

**DATE:** 16 Sep - 19 Sep, 2013, Brisbane Convention and Exhibition Centre, Queensland

**ENQUIRIES:** Web: [www.simtect.com.au](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.