

PREMIUM EDITION

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24 May 2012
Issue 206

Industry Forum - Project Land 53 Phase 1 B-R (Night Fighting Equipment Replacement)

The Department of Defence, Land Systems Division, will hold an Industry Forum at Defence Plaza Melbourne on Wednesday 6 June 2012 (9.00am-12.00pm) to provide an overview of Project Land 53 Phase 1 B-R (Night Fighting Equipment Replacement).

The forum aims to confirm the requirements of the provisional technical specification; obtain company profiles, rough order of magnitude production costs and delivery lead times; discuss any constraints relating to international licensing; and obtain industry feedback on product evolution pathways.

To attend the Forum, you use the RSVP form which is available on www.tenders.gov.au (ref LSD-1BR). This must be emailed to the Enquiries Officer by 30 May 2012.

Full details can be found in this week's [Tenders_24May2012.pdf](#), accessed via the final story in DWP 206.

Pre-Release Notice – Provision of Soldier Combat Ensemble - Protection Elements

The Department of Defence, Land Systems Division, is providing advance notice of plans to release an ITR (ref DMOLSD/ITR0111/2012) for the supply of Soldier Combat Ensemble – Protection Elements, to the market in early June 2012. Soldier Combat Ensemble – Protection Elements includes Soft Armour Inserts (SAI), hard ballistic plates and Stab & Spike inserts.

Potential suppliers are cautioned that the information provided in the Notice and any attachments are provided as a guide only and is subject to change until the publication of the actual RFT.

The Request for Tender will include information classified up to RESTRICTED level. The upcoming Invitation to Register will provide an opportunity for poten-

tial tenderers without an appropriate security clearance to identify up to two personnel to undergo Defence security clearance process. Interested parties are encouraged to make contact with Brian Harrison, Project Director Land 125 Phase 3B (email: brian.harrison2@defence.gov.au), who will consider sponsoring clearances prior to the release of the Invitation to Register.

Potential tenderers who do not successfully obtain a BASELINE clearance before the Invitation to Register evaluation process is complete may not be short-listed to receive the RFT.

The proposed timeline for the procurement is:

Invitation to Register Release - June 2012

Invitation to Register Close - August 2012

Deadline for Security Clearance to be achieved - Prior to RFT Release

Request for Tender Release - October 2012

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Full details can be found in this week's Tenders_24May2012.pdf, accessed via the final story in DWP 206.

DSTO tests new camouflage patterns

Camouflage patterns for military uniforms have been developed to trick the human eye so that soldiers are indistinguishable from the background, whether desert, sky or woodland.

Designing camouflage for a wide variety of terrains, and testing it to see how effective patterns are across the visual, ultraviolet, infrared and radar bands of the electromagnetic spectrum is therefore crucial to increase survivability of service personnel.

For two weeks in March, DSTO participated in an international trial in far north Queensland to test the effectiveness of up to 18 types of current and experimental camouflage uniforms in hot and humid conditions.

Chief of DSTO's Human Protection and Performance Division Dr Simon Oldfield said seven members of the NATO and Australia took part in the trial.

"The trial, and our membership of the NATO task group looking at camouflage, enables Australia to have access to knowledge, tools and methodologies that will inform future camouflage requirements," Dr Oldfield said.

"We will also be able to gather a more realistic threat assessment of hot and humid environments that will help us develop assessment methods for camouflage."

Researchers used multispectral image recording and panoramic photography

techniques to measure camouflage effectiveness during the trial.

Ten volunteers from the Australian Army's 3rd Brigade modelled the uniforms for the trial which took place at the Army Jungle Training Centre in Tully.

Counterfeit parts found on C-27J and C-130J

A Senate Armed Services Committee report detailing the use of counterfeit parts in US military aircraft has been getting wide coverage in US and international media this week.

The report, 'Inquiry Into Counterfeit Electronic Parts in the Department of Defense Supply Chain', details a committee investigation that found 1,800 cases of suspect counterfeit parts in just a section of the military supply chain between 2009 and 2010.

Nearly 70 percent of these parts came from China, and could be found in platforms such as the Navy's SH-60B helicopter, the Air Force's C-130J and C-27J military cargo planes and the Navy's P-8A Poseidon aircraft, the committee writes.

Yet, in many instances, DOD did not know that these counterfeit parts were installed until the committee's investigation, the panel writes.

To download a PDF of the report, go to <http://www.australiandefence.com.au/home/reports>

MilCIS 2012 Call for Presentations (closing 4 June 2012)

The 2012 Military Communications and Information Systems (MilCIS2012) Conference will be held at the National Convention Centre, Canberra from 6 – 8 November.

Presentations are invited from researchers and practitioners on all aspects of military communications and information systems, in the following streams:

Paper Session. The refereed paper sessions provide an opportunity for researchers and practitioners in academia, government and industry to present the results of their investigations associated with government and military communications and information systems and network centric warfare.

Update Session. A presentation in the update stream provides a non-commercial update of key technologies and/or issues associated with government and military communications and information systems and network centric warfare.

Product Session. A presentation in the product stream provides a brief on a

commercial product or capability associated with government and military communications and information systems and network centric warfare.

Tutorial Session. The aim of the tutorial stream is to provide a non-commercial introduction to key technologies associated with government and military communications and information systems and network centric warfare.

For details on the submission of presentations for all streams, please contact www.milcis.com.au.

Clarification: CTD vs PIC Innovation programs

With the cancellation of Round 16 of the Capability and Technology Demonstrator (CTD) program, announced as part of the latest Defence budget cuts, we suggested that perhaps the CTD program, described by Defence as their flagship technology innovation program, which funds the development of technology that may enhance Defence capability, might be replaced by the Priority Industry Capability (PIC) Innovation program, which offers matched funding to commercialise new defence technologies.

Since the programs are concerned with opposite ends of the technology development cycle, one cannot replace the other.

Indeed it has been pointed out to us that CTDs pick up innovative ideas and new technologies at Technical Readiness Levels (TRLs) between 2-4 for demonstration, while PIC IP pick up products or near products at TRLs of at least 7-8 but more like 9, with a key selection criterion being ...'Commercial, Export and Market Development - having a good prospect for driving commercial work, including domestic and/or overseas markets'.

Interestingly two of the eight PIC IPs announced are results of CTD investment - **Secure Systems Pty Ltd (WA)** and **Sentient Vision systems (VIC)** were both funded by the CTD Program over several years.

Sentient has enjoyed five years and several millions in funding under the CTD and CTD Extension Programs to develop its technologies.

Support was also given to sell licences in the US.

So DWP wishes both programs well - they operate in different spaces and can be real supports to each other.

CTDs can feed PIC IPs and PIC IPs can help provide a transition path for CTDs.

Round 17 of the CTD Program which opened on May 5 and closes on July 03, 2012, is funded and now underway. Proposals should address an area of Defence capability priority and are required to demonstrate the capability potential of a technology within three years.

Commercial ship repair focus for Williamstown yard

BAE Systems recently completed a four week repair docking for the platform supply vessel (PSV) the *Lady Kari-Ann* in its Williamstown shipyard.

Owned by Australia's largest ship operator, Farstad Shipping, the *Lady Kari-Ann* is the first commercial ship repair project undertaken in the yard since 2009.

Work on the vessel included a 30-year survey, paint work on the hull, superstructure and tanks as well as underwater valves and other mechanical work associated with the ship's propulsion.

Director of BAE Systems Maritime, Bill Saltzer, described the project as major push by the company to re-enter the commercial ship repair business at Williamstown. Mr Saltzer said BAE Systems had invested heavily in both its Williamstown and Henderson (WA) yards and in its people to develop the types of skills that are critical to successfully competing in the commercial shipbuilding and maintenance market.

Lovitt wins Super Hornet wing parts contract

Victorian-based Lovitt Technologies has won a contract with Boeing valued at nearly \$1 million for wing parts for the worldwide F/A-18 Super Hornet fleet.

The company specialises in machining, assembly and testing of aero structures. It recently won another contract with Boeing to supply machined parts for the V-22 Osprey.

Lovitt is one of several Australian companies that have, in recent months, been successful under the Global Supply Chain (GSC) program in penetrating the overseas export market. It has been engaged in the Australian Government's Global Supply Chain Program since the program's launch in 2009.

Six global defence prime contractors - **Boeing, Raytheon, Thales, Northrop Grumman and more recently BAE Systems and Lockheed Martin** – are now actively engaged in the Global Supply Chain program. The value of export contracts won to date that have been facilitated through the Global Supply Chain Program is now more than \$446 million.

Australia to host Lessons Learned Conference

Parliamentary Secretary for Defence, Dr Mike Kelly, has announced a call for papers for the 8th International Lessons Learned Conference, which will be

hosted by Australia in Sydney from December 3-6, 2012.

The conference is held in a different country each year and provides a forum for discussion and debate about the issues that impact on the planning and conduct of operations including conflict, peacekeeping and disaster response missions. This is the first time the conference will be held in Australia.

The focus of the 2012 Lessons Learned Conference is on transitions – providing civil-military practitioners from around the world with a dedicated forum in which to discuss what has been learned from conducting peacemaking operations such as those in Afghanistan, Iraq, Solomon Islands and East Timor, as well as disaster response missions in Haiti, Pakistan and Indonesia.

All civil and military practitioners and lessons learned experts are invited to submit an abstract for possible presentation at the conference.

As well, because there are continuing lessons around all facets of peace operations, papers on other areas in which lessons might be learned are welcomed.

Information about the conference and details about the call for papers is available at <http://internationallessonslearned.org>.

US Army to follow USMC rotations in Oz?

Welcoming new Marine rotational deployments in Australia and Navy rotations planned for Singapore, the top US Pacific Command officer said he'll seek similar arrangements, possibly to include the Army, that expand US presence in the region without the need for more permanently based forces.

US Navy Admiral Samuel Locklear noted the arrival of about 200 US Marines in Darwin, last month for the first six-month rotations serving alongside the Australian Defence Force.

"It's only a small group thus far, but over the next several years, we would like to grow that to about 2500," he said during an interview here with American Forces Press Service.

Based at Australia's Robertson Barracks outside Darwin, the Marines are bolstering US theatre engagement in the Asia-Pacific region – a major goal in the new defence strategic guidance – without the need for new infrastructure or permanent US bases, Locklear noted.

The Marines provide "an increase in your ability to be forward, which provides a tremendous ability to work with our partners and build those relationships," he said.

Meanwhile, the Navy's new littoral combat ship, *USS Freedom*, is scheduled for its first 10-month rotational deployment to Singapore beginning next spring. If Singapore agrees, Locklear said, he ultimately would like to expand the arrangement to include additional littoral ships.

All, he said, will be positioned alongside a strong, reliable partner near the strategic Straits of Malacca that links the Indian and Pacific oceans.

“It will give us a unique, credible combat credibility for our maritime security, particularly in one of the largest choke points in the world,” he said.

Locklear said he’d like to build on these models as he implements the new strategic guidance that emphasizes the importance of Asia and the Pacific.

Already, the Army has approached him with an interest in rotating units into Asia and the Pacific as operations wind down in Afghanistan.

That makes sense, he added, noting that five of the world’s largest armies are in the region.

Rotational forces provide “an uptick in presence” that he said complements that provided by the 330,000 service members permanently based within the US PACOM area of responsibility — *Defpro.com*

Backpack radar for perimeter surveillance

US minature radar specialist, SpotterRF, has announced availability of the Spotter Radar Backpack Kit (RBK).

The world’s first complete radar backpack kit takes only 3 minutes to set up from ‘pack to track’ and weighs less than 20 pounds, including: two M600C radars, a Network Hub, tablet, 2590 battery, tripod, cables and a three-day backpack. This breakthrough compact surveillance radar system provides wide area intrusion detection of more than 150 acres and 90 degrees per radar unit regardless of weather conditions or visibility.

To achieve such rapid setup, SpotterRF’s new Network Hub automatically detects and manages attached radars for 360 degree coverage, and provides a secure Web-based user interface compatible with PCs, Android tablets and smart phones. Setup time is further decreased by a new Digital Compass option that automatically determines the radar’s orientation.

SM-6 missile order for Raytheon

The US Navy has awarded Raytheon Company a \$313.8 million contract for low-rate initial production of Standard Missile-6 all-up rounds.

SM-6 leverages the legacy Standard Missile airframe and propulsion elements, while incorporating the advanced signal processing and guidance control capabilities of Raytheon’s Advanced Medium-Range Air-to-Air Missile.

This order is a milestone for the program. FY 2012 was intended to be the shift into SM-6 Full-Rate Production, after 3 LRIP lots. This may be LRIP Lot 4,

but as the order's size indicates, this is where the transition to SM-6 production really begins for the US Navy.

To date, Australia has also committed to the missile for its Hobart Class destroyers.

Combining a modified AMRAAM active seeker onto the proven Standard Missile airframe, SM-6 will provide an extended range anti-air warfare capability both over sea and overland.

With integrated fire control support, SM-6 will provide the surface Navy with an increased battlespace against Anti-Air Warfare (AAW) threats over-the-horizon, taking full advantage of the kinematics available to Standard Missile.

They will also have limited ABM capability with Raytheon earlier confirming that SM-6 would be able to fulfill the sea-based terminal ballistic missile defence requirement, as a last line of defence behind the SM-3s.

Smartphone into a mobile bomb/ IED sniffer

With unexploded ordnance and land mines remaining a serious global problem, there have been many efforts to develop new technology to detect these dangers.

But instead of relying on the development of new technology, some students at the Military University of Technology in Warsaw have sought to use an existing one in a new way with the development of their SAPER explosives detection app for smartphones.

'Saper' is the Polish term for 'minesweeper' and, at the same time, an acronym for 'Sensor Amplified Perception for Explosives Recognition'.

The aptly named application uses the magnetometer - normally responsible for the phone's compass-like functionality - to detect minute disturbances in the magnetic field around an explosive material.

Forty different kinds of explosive materials can be sniffed out from 30 cm away. Before the suspected area can be inspected, the application, which has been successfully field tested, needs a short while to calibrate to the environment.

Once that's done, all you need to do is wave the phone in the air as if painting a grid measuring a maximum of 30 cm by 30 cm, no further than 30 cm away from the potential threat source (the distance can be increased with an out-stretched arm - or with a stick, for that matter).

The app connects to a cloud-based server and compares the recorded magnetic disturbance signature with other signatures in the database.

If a threat is detected, the app returns a warning message and identifies the likelihood of there being a certain type of explosive material in the sampled area. GPS connectivity is used to pinpoint the site and to immediately alert the

authorities. The threat alert message can also be automatically pushed to social networks.

“We do not intend for SAPER to replace mine detection devices, but only to provide additional help when none are available”, says Mariusz Chmielewski, the mentor of the student team behind the app.

A Polish entry to Microsoft’s Imagine Cup competition, the application has been developed exclusively for the Windows Phone operating system, but it is to be made available on other platforms shortly.

Other planned developments include an external wireless magnetometer that will allow for the remote detection distance to be increased to one meter (3.28 feet) — *Gizmag/Jan Belezina*

NATO orders Global Hawks for Joint ISR operations

Northrop Grumman has signed a \$1.7 billion contract for NATO’s Alliance Ground Surveillance (AGS) system.

Operating under NATO command, AGS is expected to be the major data source for NATO’s system for Joint Intelligence, Surveillance and Reconnaissance (JISR).

The contract is intended to provide for the purchase and initial operation and maintenance of five Block 40 Global Hawk unmanned aircraft equipped with an advanced ground surveillance radar sensor — the Multi-Platform Radar Technology Insertion Program (MP-RTIP).

Under the contract, European industry contributors will be responsible for development and delivery of the transportable ground stations suitable for in-theatre support directly to commanders of deployed forces, mobile ground stations for close support to moving operations, and remote workstations for higher echelon commands.

The trans-Atlantic multinational contract supports NATO’s intelligence, surveillance and reconnaissance requirements for multinational theatre operations, peacekeeping missions and disaster relief efforts.

The main operating base of NATO AGS will be located at Sigonella, Italy, and will be co-located with the U.S. Air Force Global Hawks as well as the U.S. Navy Broad Area Maritime Surveillance unmanned aircraft systems.

No CEC for RN Type 45s

The UK MoD has dropped a GBP500 million plan to acquire the US Navy’s Cooperative Engagement Capability (CEC) for integration into the Royal Navy’s

Type 45 destroyers and future Type 26 frigates.

The decision, taken as part of the MoD's PR12 budget planning round, comes after 12 years of study, integration and demonstration activity addressing the planned integration of UK CEC into various RN surface ships—JDW

USS Freedom fails pre-INSURV inspection

The US Navy's first Freedom-class Littoral Combat Ship (LCS) has failed a pre-inspection assessment, with evaluators declaring the vessel a 'no go' for the next level of inspections in its current state.

According to a naval inspection report on May 7, USS Freedom (LCS 1) was assessed as a 'high risk' and unlikely to pass more comprehensive trials set for later in the month—JDW

UK seeks next gen nuclear submarine

The UK MoD is expected to announce a GBP 350 million deal for the design of a new Trident nuclear submarine system later this week, according to the *The Financial Times*.

The current Vanguard-class submarines, of which the UK has four, were due to be replaced in 2022 but this is now likely to be pushed back following another Strategic Defence and Security Review in 2015.

That could mean the new generation of Trident is not in service until 2028. That's 16 years away, but with the design, testing and manufacturing process set to take decades, decisions on the UK's nuclear capability must be taken now.

The £350 million contract signals the beginning of the design phase of the Trident programme as well as what is likely to be a passionate and protracted debate on the need for such a sophisticated nuclear system in the post-Cold War world.

British Prime Minister David Cameron's Liberal Democrat coalition partners are strongly opposed to the Trident system and have been scrabbling to find other cost-effective alternatives.

The announcement due this week, along with Defence Secretary Philip Hammond's fervent and continued commitment to the Trident system, is likely to dampen any hopes the Lib Dems hold of pushing for an alternative nuclear deterrent.

It's thought the deal will secure 1900 jobs in the submarine-building industry. Among the companies likely to win the contract include BAE Systems and Rolls Royce —*Defence IQ*