



DEFENCE WEEK

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Welcome Kelly, farewell Clare

February 4, 2013 Dr Mike Kelly AM, Member for Eden Monaro, was appointed Minister for Defence Materiel, replacing Jason Clare, now Cabinet Secretary and continuing as Minister for Home Affairs and Justice, who has twice served as Defence Materiel Minister.

Defence Minister **Stephen Smith** congratulated Mike Kelly on his elevation to the Ministry.

"Mike has served as Parliamentary Secretary for Defence assisting on Afghanistan transition, and brings to his new role more than two decades of experience in the Australian Army, and I look forward to working with him in this area," Smith said.

Mike Kelly joined the Army in 1987 and has extensive military experience including a number of operational deployments, finishing his career at the rank of Colonel. He served in Somalia (for which he was awarded the Chief of the General Staff's Commendation and made a Member of the Order of Australia); and was seconded to the International Committee of the Red Cross in Bosnia Herzegovina and Croatia. He deployed on a successful hostage recovery mission to Kenya; and was a member of the UN Peacekeeping Force in East Timor, where he was awarded the Force Commander's Commendation.



He also served with the Coalition Provisional Authority in Iraq from 2003-2004. His last full posting with the Army was in Strategy Group where he was involved in the management of the 2006 crises in Timor Leste and Lebanon.

Last month Mike Kelly addressed the United Nations Security Council in New York on Monday, before the 15-member body unanimously endorsed a resolution calling for a “multidimensional approach” to peacekeeping—the first such resolution in more than 10 years.

Dr Kelly—who himself wore a “blue helmet” as a UN peacekeeper during his 20-year military career—spoke on behalf of Australia, which has now taken up the non-permanent seat on the Security Council it won last October. He highlighted the need to integrate the military and civilian aspects of peacekeeping, and stressed the importance of helping governments in areas of conflict take the lead to build peace and eliminate corruption. The ultimate aim of peacekeeping missions, Dr Kelly said, is that, “they must constantly be focused on their own redundancy”.

Dr Kelly has been a regular speaker at military training programs and conferences around the world and is a leading expert on peace and stabilisation operations, post conflict reconstruction and counter-insurgency. He has published two books along with numerous articles and chapters in books. His research led to the awarding of a PhD from the University of New South Wales in 1997.



New Zealand still considering ex-Aussie Super Seasprites

The NZ Ministry of Defence (MoD) is undertaking a final review of SH-2G Super Seasprite

helicopters that were previously rejected by the Australian government, in support of a formal bid for the aircraft. Des Ashton, deputy secretary of Defence (Acquisition) in the MoD, told IHS Jane's that the assessment, a final evaluation of the helicopters' airworthiness, was under way January 31 before the submission of a proposal to government to procure the helicopters NZ purchased five SH-2Gs at the same time as Australia.

However, NZ opted for new-build airframes that were outfitted with different avionics. The SH-2G purchase was completed at NZ\$12 million under the \$338 million budgeted (excluding GST). The first RNZN SH-2G was delivered in mid-2001 and the last was delivered February 2003. The Royal NZ Navy (RNZN) operates the type from its two Anzac class frigates, two Protector class offshore patrol vessels, and HMNZS Canterbury Multi Role vessel. They were initially operated by the Naval Support Flight of No. 3 Squadron RNZAF, but now from No. 6 Squadron RNZAF.

In May 2012, Defence Minister Jonathan Coleman announced that Cabinet had given Defence officials approval to negotiate with Kaman Corporation for the 11 helicopters and flight simulator from the cancelled Australian SH-2G Super Seasprite project. It is thought the 11 helicopters, worth NZ\$1.4 billion in 2008, would cost NZ between NZ\$130 million to NZ\$230 million.





Darwin consultation: Rotational deployment of US Marines

This week public forums were held in Darwin as part of the consultations on the Social and

Economic Assessments of the impacts associated with the proposed rotational deployment of 1100 US Marines to northern Australia in 2014.

In October 2012, Defence released the outcomes of **Social and Economic Assessments** of the impacts associated with the initial company-sized rotational deployments of 200 to 250 US Marines to Darwin in 2012 and 2013. Those Assessments found the social impacts to be minimal or negligible, with a small, positive economic benefit associated with rotations of 200 to 250 US Marines. It was also announced that, as a next step, assessments would be undertaken of the social and economic impacts associated with the proposed next rotational deployment of 1100 US Marines to northern Australia. These assessments will help inform Australian Government consideration about the size, nature and timing of the next increment of possible future rotations of US Marines.

The 1100 figure is based on the next standard US Marine Corps formation above a company of US Marines. Rotations of this size normally consist of three rifle companies, a weapons company, together with logistics support including vehicles, equipment and aircraft. The types of vehicles and equipment could potentially include all-terrain vehicles, light armoured vehicles, trucks and artillery. The types of aircraft could potentially include helicopters and tilt rotor aircraft such as the MV-22 Osprey, tankers and transport aircraft.

All of these matters are subject to advised Australian Government decisions.

Deloitte Access Economics has been engaged by Defence to undertake the assessments and public consultation process. The assessment process will involve community polling, public forums and public submissions. Defence has asked Deloitte to deliver the assessments by the end of March.

Got a great app idea winner

Scott Wilson has won the Tectonica Australia Got a Great App Idea competition.

Wilson's idea for a mobile application containing pre-enlistment information for family and friends of new recruits has been awarded \$5,000 and will be developed by Tectonica over the coming months.

Wilson described his idea as providing the family and friends of a new recruit with generic training information to inform them about life in the military.

Wilson revealed, "The idea came as a result of spouses mentioning at the Defence Community Organisation Defence Families' Forum, that they often had no prior knowledge of the culture and lifestyle they were joining with a partner in the ADF."



The idea was awarded the winning prize for its potential to help partners, family, and friends more easily understand the unique nature of Defence life. It hopes to help reduce family-related issues that could eventually lead to discharge.

The competition challenged the Defence Community to enter Defence related App ideas.

Tectonica received a great response, demonstrating the many opportunities for Defence related Apps to improve capability.

“With DMO releasing a tender for secure mobile devices in October 2012, we couldn’t have timed this competition better,” managing director of Tectonica, **Miles Partridge** said.

“As part of Defence Industry it falls to us to support DMO in the acquisition of any technology that can make the ADF as capable as possible.”



ADM Online: Weekly News Summary

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

This week it was announced that contract negotiations for the **sale** of up to 12,000 Army non-combat vehicles

and trailers are now complete.

Prime Minister Julia Gillard announced a Cabinet reshuffle with **Dr Mike Kelly** taking over from Jason Clare as Defence Materiel Minister. Clare being promoted to Cabinet Secretary.

Also, an exposure draft of the **Defence Trade Controls Regulation 2013** was made available for public consultation.

International



UK's Defence Equipment Plan

For the first time, the UK Government has set out what it terms a fully-funded Defence Equipment Plan totalling almost £160 billion. The publication of the equipment plan follows the UK Defence Secretary's announcement last year that the Defence

Budget had been balanced for the first time in more than a decade and that the MOD was taking a new approach to financial planning.

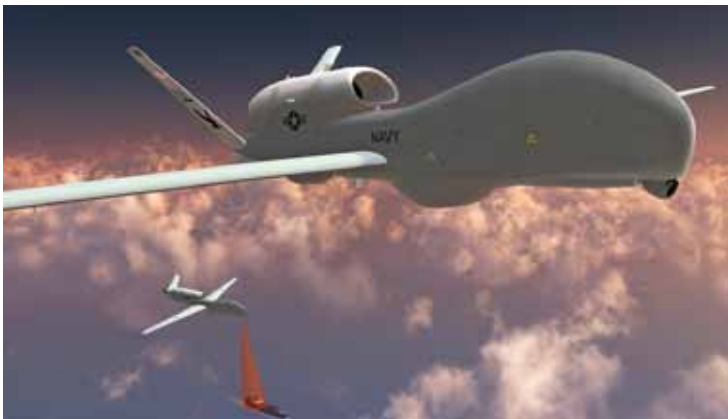
The equipment and equipment support budget of around £160 (A\$106) billion over the next ten years, includes for the first time a contingency of £4.8 (A\$3.2) billion to manage cost variation and to protect existing projects. In addition, within the £160 billion, £8 (A\$5.3) billion is currently unallocated. This will be allocated as new



equipment priorities emerge over the decade and once the MOD is confident that they are affordable and therefore deliverable. Here priorities will be decided by the Armed Forces Committee, chaired by the Chief of the Defence Staff.

The equipment plan includes the following major investments in military capabilities and their support over the next ten years:

- £35.8 (A\$23.8) billion on submarines and the nuclear deterrent, including a total of 7 Astute Class attack submarines, and developing a replacement for Vanguard Class ballistic missile submarines;
- £18.5 (A\$12.3) billion on combat air power, including Lightning II and Typhoon fast jets and unmanned aerial vehicles;
- £17.4 (A\$11.6) billion on ships, including 2 Queen Elizabeth Class aircraft carriers, 6 Type 45 destroyers and the development of the Type 26 Global Combat Ship;
- £13.9 (A\$9.27) billion on aircraft for air-to-air refuelling, passengers and heavy lift, such as Voyager and A400M;
- £12.3 (A\$8.2) billion on armoured fighting vehicles, including Warrior, Scout and other land equipment;
- £12.1 (A\$8.1) billion on helicopters, including Chinook, Apache, Puma and Wildcat;
- £11.4 (A\$7.6) billion on weapons, including, for example, missiles, torpedoes and precision guided bombs



US Navy establishes first BAMS Patrol Squadron

The Chief of Naval Operations (CNO) has recently issued a formal directive which establishes the first of two US Navy MQ-4C Triton unmanned drone patrol squadrons. The squadron, designated Unmanned Patrol Squadron 19 (VUPRON 19), will be activated on October 1, 2013 at Naval Air Station Jacksonville, Florida. Also to be established on October 1 will be a remote operating detachment of the squadron at Point Mugu, California.

Under development for the past four years, the Triton's manufacturer, Northrop Grumman, unveiled the aircraft for the first time on June 14, 2012 at its Palmdale, California plant. With a range of 2,000 nautical miles, the Triton has many of the same performance characteristics as its cousin, the **RQ-4B Global Hawk** unmanned drone, which is flown by the US Air Force. The principal difference is that the Triton's principal sensor, the AN/ZPY-3 radar, is designed specially for broad-area ocean surveillance, i.e. monitoring ship and submarine movements and activities, and can cover an area of 2.7 million square-miles in a single mission. This is roughly the equivalent of being able to cover the entire Mediterranean Sea and its littoral area in a single mission.

Operating from land bases here in the US and overseas, the MQ-4C Triton drones



of VUPRON 19 will provide high altitude, broad area ocean surveillance capabilities to USN forces in the Atlantic, Pacific, and Mediterranean. Sources report that a second squadron will be formed in 2014 and based on the island of Guam in the Pacific.



Will we see USN Tritons here?

As part of the US' "pivot" to the Asia-Pacific region, the US Navy is working towards reinforcing its maritime surveillance capability in the Pacific Ocean arena. Existing plans call for the new Boeing P-8A Poseidon Maritime Patrol/Anti-

Submarine Warfare aircraft to be deployed as a replacement for the Navy's venerable Lockheed Martin P-3C Orion maritime patrol aircraft.

The P-8A Poseidon is designed to operate with the Navy's new MQ-4C Triton in an anti-submarine warfare (ASW) role that includes the interdiction of maritime shipping and performance of electronic intelligence (ELINT) functions. The P-3 has been in service with the navies of many nations since 1962 and is nearing retirement. The P-8s are expected to begin replacing some of the aging P-3s assigned to stateside squadrons next year.

Existing plans call for the acquisition of 68 Tritons and 117 Poseidons to replace the P-3C Orions still operational. By pairing the MQ-4C Triton BAMS drone with the P-8A Poseidon in the Pacific, the US Navy will be able to maintain a continuous long-range surveillance over a wide expanse of the Asia-Pacific region to an extent the P-3C Orions cannot match.

In 2007, the Australian Government gave initial approval to acquire the Poseidon, and initially contributed \$150 million to join the P-8A program, subsequently adding a further \$100 million. Late last year Australia invested \$73.9 million to complete its investment and enter the US Navy P-8A development program as a partner.

"We will ultimately replace our Orion P-3s with the P-8 (but) that is a long-term project," Minister for Defence **Stephen Smith** said

He added that "the P-3 Orions have served Australia well, the Orions are expected to remain in service until the end of this decade or the start of the 2020s. But we have committed ourselves to further work on the P-8 project in collaboration with our United States colleagues."

The RAAF currently operates 19 Lockheed AP-3C Orions which entered service in the mid-1980s. They have been progressively upgraded with advanced radar and camera systems and can perform maritime and overland surveillance, search and rescue missions and also hunt for submarines - *Defense Update/TM*

ADM Congress 2013



Date: 12-13 February 2013, Hyatt Hotel Canberra

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Email: Jamie.burrage@informa.com.au

USN buys Knifefish-variant AUV

Janes reports that Bluefin Robotics is to supply a variant of its Knifefish heavyweight autonomous underwater vehicle (AUV) to the US Navy's Naval Research Laboratory (NRL). The NRL will use the vehicle to support the development of low-frequency broadband (LFBB) payload technology and facilitate basic and applied research in other areas of undersea warfare, according to the Massachusetts-based AUV specialist

Knifefish is a heavyweight class Mine Countermeasure (MCM) Unmanned Undersea Vehicle (UUV) that is designed for deployment off the **Littoral Combat Ship (LCS)** to detect, avoid and identify mine threats. It will reduce risk to personnel by operating in the minefield as an off-board sensor while the host ship stays outside the minefield boundaries.

The MCM UUV provides the fleet mine warfare commander enhanced mine-hunting capability by detecting, classifying and identifying buried mines and mines in high clutter environments. Knifefish gathers environmental data to provide intelligence support for other mine warfare systems.

A critical element of the LCS MCM mission package, which is comprised of many different mine warfare platforms including Knifefish, is its common open systems architecture design. Such modularity of the mission package allows for platform flexibility and quick reconfiguration of the whole mission package in response to evolving and dynamic mission requirements the fleet will encounter day-to-day.

Kestrel delivers wide-area surveillance for FOBs in Afghanistan

The US Army has begun upgrading aerostats outfitted with Logos Technologies' electro-optical and infrared Kestrel wide-area persistent surveillance system to protect forward operating bases (FOBs) in Afghanistan. The company delivered its first Kestrel sensor - daytime only - to the US Army in September 2011 for use on Lockheed Martin's Persistent Threat Detection System (PTDS) deployed in Afghanistan.

Kestrel is the only 360-degree persistent surveillance system for aerostats capable of scanning a city-sized area at once, making it virtually impossible to sneak up to, or through, a protected area.

When the system detects a target within its field of view, it cues a high-powered, full motion video camera that can focus on the suspicious activity. Unlike other systems, Kestrel can also record every event that happens in a monitored area for up to 30 days.

Developed within 12 months, Kestrel represents a nimble systems engineering approach to customer needs. Kestrel is currently employed on both the Persistent Threat Detection System and Persistence Ground Surveillance System in Afghanistan. But it also has applications for border patrol, counter-trafficking and other homeland security missions.





Different Kestrel - similar mission

When the Australian Defence Force (ADF) began looking into ways to enhance its UAV airborne surveillance capabilities, speed of deployment was a large influencing factor on the available options. Back in January 2011, the Royal Australian Air Force (RAAF) deployed the Kestrel Land moving target indicator (MTI) aboard the Heron UAS in Afghanistan.

Developed by **Sentient**, the Kestrel computer vision system for EO/IR sensors assists warfighters by analysing ISR imagery captured by the Heron, and processes the data in real time, automatically detection and tracking small moving targets within the sensors' FOV.

Targets as small as 2x2 pixels can be detected by the system, which – depending on the FOV – may be individual vehicles or dismounts. The system enables wider areas of ground to be observed, and increases the productivity of the Heron, giving consistent, reliable detections.

Simon Olsen, sales and marketing manager for Sentient, worked closely with the RAAF on defining the Kestrel requirements for the **Heron** deployment. He spoke to UV about the company's work on the project.

'The ADF recognised that they had a capability shortfall in their ability to automatically detect targets from airborne ISR missions. The Kestrel software is algorithm-based, and works to identify changes in pixels within moving full-motion video, reducing the workload of the operators and analysts,' he explained. 'It's very difficult for the human eye to detect these changes within full-motion video. Before Kestrel, the forces on the ground were relying on human operators to literally watch full-motion video and detect operational threats.'



Uh-oh: F-35A still weaponless

Delivery of the Joint Strike Fighter's more advanced blocks of capability remains years away, yet Air Force officials are beginning to develop operational tactics for the fifth-generation aircraft and are laying the groundwork for the beginning of operational testing in 2015.

The military services that will operate the **F-35** are hamstrung in putting together operational tactics for the jet at this point because of altitude, speed and maneuver limits placed on it, and perhaps more importantly, because some of the JSF's critical capabilities - like its sensor fusion and weapons employment qualities - won't be available for several years. Nonetheless, the Marine Corps has already stood up its first



operational unit, and various Air Force entities are taking important steps to prepare for the service's own operational standup, according to Air Force officials involved in the F-35A's development—*Inside Defense*



Intense flight testing for small diameter bomb

The US Air Force's second Small Diameter Bomb is undergoing crucial flight tests, according to prime contractor Raytheon, who is currently evaluating the performance of the missile system's touted tri-mode seeker against Michigan's wintry weather.

2012 was a year full of testing for the missile and, according to Raytheon's SDB II program director

John O'Brien, this year will be no different. To date, the company has completed four control test vehicle flights, five captive flight tests, and two guided test vehicle tests in 2012 and 2013. The current testing of the tri-mode seeker – a centrepiece of the system designed specifically for the Air Force to track and destroy moving targets in adverse weather conditions – involves a series of captive flight tests that measure the system's performance in winter conditions.

"Since SDB II is designed to operate in adverse weather conditions and environments, we will use the Michigan captive flight test series to operate the multi-mode seeker in winter conditions and backgrounds," O'Brien told *Inside the Air Force*.

"During the test sequence we'll use a UH-1 [helicopter] to fly the multi-mode seeker in a number of simulated engagements against our target set. The UH-1 provides a very cost-effective way to gather large amounts of data in a short period of time without expending a test asset – *Inside Defense*



Iran unveils new fighter

Iranian State TV recently showed an unveiling ceremony for what the Iran Defense Ministry claims is a new Iranian designed and built combat aircraft. Defense Minister Ahmad Vahidi said the single-seat Qaher F-313 (Dominant F-313) can operate at low altitudes and was constructed from "advanced materials"



that contribute to the aircraft's "very low radar cross section."

Iran's state-owned English language Press TV says that although the aircraft resembles the F-5E/F Tiger II, it is said to be similar to the F/A-18. It follows in the footsteps (or flightpath) of Iran's first domestically manufactured combat jet fighter, the HESA Azarakhsh (Lightning) and its follow up, the HESA Saeqeh (Thunderbolt).

The aircraft was unveiled by President Mahmoud Ahmadinejad on the 34th anniversary of the Iranian Revolution, who said the aircraft demonstrates Iran's will to "conquer scientific peaks" and was built for deterrence rather than expansionism.

Independent verification of the aircraft's stealth capabilities, or for that matter any capabilities, is unlikely to be forthcoming with Iran not in the habit of releasing technical details of its arsenal. If true, however, the Qaher F-313 would join a very select list of manned stealth aircraft—*Iran Defence Ministry*



Rheinmetall to supply seven Fuchs/Fox armoured vehicles for clearing IEDs

Elbit Systems has teamed with Windward to offer integrated maritime solutions for the Indian authorities. The joint solution

combines Windward's innovative satellite-based maritime analytics system, MarInt, with Elbit Systems' wide range of solutions for maritime domain awareness, including Hermes 900 maritime patrol unmanned aircraft systems (UAS).

The cooperation between the two companies addresses the specific needs of India and its vast and complex maritime arena and will be demonstrated for the first time globally at the upcoming Aero-India 2013. The cooperation makes available a unique system adapted for very large maritime area monitoring, providing authorities with powerful means to control India's waters.

MarInt, Windward's proprietary satellite-based maritime analytics system, maps the global maritime activity in unprecedented details, based on data collected from various sources, such as commercial satellites, open-source data bases and other sensors. Covering any area of interest, regardless of the distance from shore, MarInt delivers maritime domain awareness over littoral or blue water areas, for Exclusive Economic Zone (EEZ) monitoring, fishery control, regional traffic analysis or port traffic management. After the routine maritime patterns are observed and learned, the system performs deep behavior analysis on every vessel spotted in the designated area of interest, in order to detect anomalous and suspicious behavior.

Operating 24/7, MarInt pinpoints "where is the perpetrator you didn't even know was there". This further enables tasking of unmanned assets such as UAS to patrol the designated areas, identify and track the suspicious vessels, significantly optimizing aerial patrol and increasing mission effectiveness while reducing cost.





More CN235 MPAs for US Coast Guard

The US Coast Guard has exercised a contract option to purchase the service's 18th HC-144A Ocean Sentry Maritime Patrol Aircraft from prime contractor EADS North America. The HC-144A is based on the Airbus Military CN235

tactical airlifter. More than 230 CN235 aircraft are currently being operated by 29 countries.

The option is part of a contract awarded to EADS North America in July 2010 for three aircraft, plus options for up to six additional aircraft. Under this contract, EADS North America has already delivered three HC-144As all on budget and ahead of schedule. The rest of the aircraft will be delivered progressively with 18th aircraft planned for delivery by the end of 2014.

The remaining options left on the contract, for up to two additional aircraft, can be exercised during 2014. Coast Guard plans call for acquiring a total of 36 HC-144As.

With the ability to remain airborne for more than 10 hours, the Ocean Sentry is performing a wide range of missions for the Coast Guard, including maritime patrol, drug and migrant interdiction, disaster response, and search and rescue. The HC-144A achieved initial operational capability with the Coast Guard in 2008, and today is operational from Coast Guard air stations in Mobile, Ala., Cape Cod, Mass., and Miami.

EADS North America delivers the HC-144A equipped with a search radar, electro-optical and infrared cameras, an Automatic Identification System for data collection from vessels at sea, and a communications suite.



British troops deploy Black Hornet nano UAV

British troops have deployed the Black Hornet nano unmanned aerial vehicle (UAV) in Afghanistan.

Black Hornet measures around 4 inches by 1 inch and weighs 16 grams; and is designed to provide troops with situational awareness via a micro camera that delivers full motion video

and still images. Images are displayed on a handheld terminal, giving troops the ability to see around corners, over walls and other battlefield obstacles. The system is capable of performing in harsh environments and windy conditions.

The UK Ministry of Defence (MoD) has announced that has acquired the system from Prox Dynamics of Norway as part of a £20 million contract for 160 units with Marlborough Communications Ltd (MCL). As the prime contractor for the nano UAV project, MCL based in Horley, Surrey, will have ultimate responsibility for delivery of equipment, training, spares, publications, logistics and repairs.

FORTHCOMING EVENTS.....next page >>>

FORTHCOMING EVENTS

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

ADM2013: 10th Annual ADM Defence/Industry Congress

DATE: 12 – 13 February 2013, Hyatt Hotel, Canberra

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

Email: Jamie.burrage@informa.com.au **Web:** www.admevents.com.au

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

Avalon 2013: Australian International Airshow and Aerospace & Defence Exposition

DATE: 26 February - 03 March 2013, Avalon Airport, Geelong

ENQUIRIES: Aerospace Maritime Defence Association Ph 03 5282 0500;

Email: airshow@amda.com.au; **Web:** <http://www.airshow.net.au>

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.

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 **Web:** 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