FIRMING WEST OF INDIAN OCEAN : A VIEWPOINT PAGE 11

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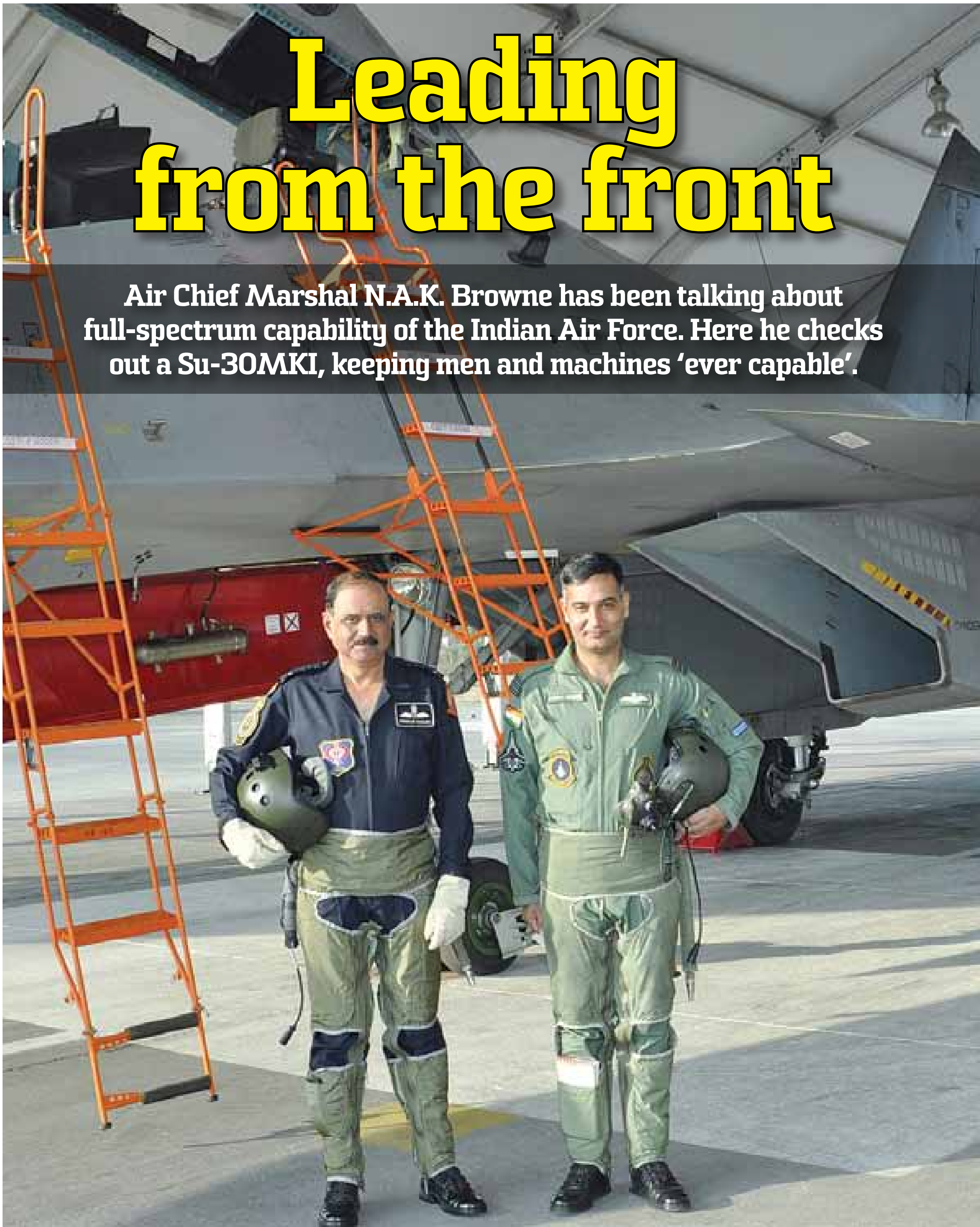

Leading from the front

Air Chief Marshal N.A.K. Browne has been talking about full-spectrum capability of the Indian Air Force. Here he checks out a Su-30MKI, keeping men and machines 'ever capable'.

US Air Force awards Northrop Grumman JSTARS contract

The US Air Force has awarded Northrop Grumman Corporation a 30-month, $540 million contract for total system support responsibility (TSSR) of the E-8C joint surveillance target attack radar system (Joint STARS) fleet. This covers TSSR period 11.5 to 13 which began May 1, 2011 and concludes on October 31, 2013.

"For over a decade, Northrop Grumman has been providing comprehensive and integrated performance-based logistics support to the 116th Air Control Wing, in the United States and at its forward operating locations, enabling top level performance of the Joint STARS weapon system," said Dale Burton, Vice President of the intelligence, surveillance, reconnaissance and battle management command and control business which leads the Joint STARS programme.

PHOTOGRAPH: Northrop Grumman

The 17-aircraft Joint STARS fleet is the only all-weather, long-range, real-time, wide area surveillance and battle management and command and control weapons system in the world. Joint STARS offers battlefield commanders real-time situational information, while simultaneously transmitting target locations to aircraft and ground strike forces. Joint STARS is the only platform in the US arsenal that combines accurate wide-area moving target detection with synthetic aperture radar imagery to locate, classify and track ground targets in all-weather conditions from standoff distances. SP

Cover:
Air Chief Marshal N.A.K.Browne has been talking about full-spectrum capability of the Indian Air Force. Here he checks out a Su-30MKI, keeping men and machines 'ever capable'.

Cover image: PIB

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Ring out extremism!

2011 has gone by and has been quite eventful. If we look at 2011 from a global security perspective, the biggest story, of course, is that of the US finally killing the dreaded terrorist Osama bin Laden in a spectacular raid by the US Navy Seals. What was surprising to the US, though not to India, was that he was operating in the backyard of Islamabad in Pakistan. India has repeatedly pointed out to the international community how Pakistan has been a safe-haven for terrorists. The kingpin of the Al-Qaeda network holed up in Pakistan, vindicated India's stance.

The infiltrations continue into India, though concerted efforts have been made to check such moves in the Valley. And with China-Pakistan acting in cohesion, India has to keep a tab on not just two fronts but also on home-grown terrorism, spawned from across the borders.

For the defence and security industry, these are challenges and opportunities. In the recently concluded security event in Delhi, the focus was on optimising technological solutions to secure the nation. It is a gargantuan effort and the government has started investing in defence modernisation and internal security and rightly so. As the market for defence and security solutions is growing, the importance of information, events etc become critical and the Defence Ministry has announced the holding of Defexpo in March 2012.

The threat-perception from the two aforementioned countries is real. In his fortnightly column, Lt General (Retd) P.C. Katoch warns of the dangers that are lurking in the Indian Ocean. He mentions how a naval build up with increased submarine proliferation is occurring quietly in the region. That China is setting up a military base in Seychelles at the latter's invitation is something to worry about.

Another news which is disconcerting is that of China expanding its armed forces and also its reach. It is estimated that it currently holds over 90 submarines, including some 36 Soviet-designed second-generation submarines. The number of nuclear-powered submarines is around 20. General Katoch mentions that this capability has to be viewed together with Chinese plans to deploy by 2016 at least three aircraft carriers to dominate sea lines of communications (SLOC) including through the Indian Ocean Region.

In this issue, we have carried a report from the Stockholm International Peace Research Institute (SIPRI) of how arms flow in Africa continues unabated affecting stability in the region.

In its endeavour to provide information, *SP's M.A.I.* in its section—SP's Exclusives—has focused on the Presidential Fleet Review which showcased India's marine capabilities. In the same breath, we look at the efforts to refurbish INS Vikrant, although delayed.

Similarly, the section dwells on the Indian Air Force's plans to invest in an advanced nationwide war-gaming centre, to give an added edge to combat.

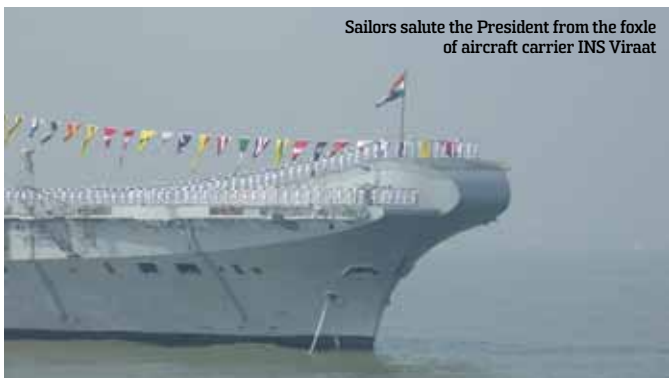
As we commence the New Year by ringing out the old and ringing in the new, *SP's M.A.I.* hopes that it will be an incident-free 2012.

Happy New Year!

Jayant Baranwal
Publisher and Editor-in-Chief

[By **SP's Special Correspondent**]

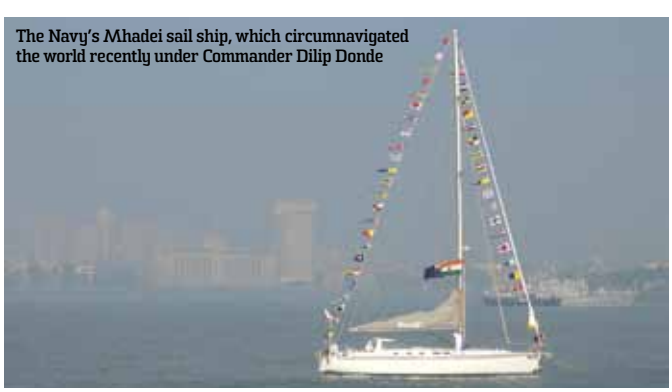
HDA class-209 submarine INS Shankush, one of two of the types that was on display



Sailors salute the President from the foxle of aircraft carrier INS Viraat

Delhi class destroyer INS Mumbai, one of the flagships on parade for the President

INS Deepak, one of two new Italian-built replenishment tankers, commissioned into the Navy



The Navy's Mhadei sail ship, which circumnavigated the world recently under Commander Dilip Donde

Stealth frigate INS Shivalik, the lead ship in its class, and the newest indigenous element to the fleet

PHOTOGRAPHS: SP's Spl. Correspondent

A tribute to India's self-reliance

The Presidential Fleet Review may be a legacy from the British Raj, but the 2011 iteration of the ceremonial event was an emphatic tribute to the substantial self-reliance India has gained in building a diverse range of formidable warships. In fact, the only lingering British embellishment remains the INS Viraat aircraft carrier.

An overwhelming percentage of the 81 warships on display this year off the coast of Mumbai were designed in India and built in Indian shipyards. The Project 17 stealth frigates INS Shivalik and INS Satpura were two new additions to a legacy of indigenous achievement that includes the fearsome Godavari and Brahmaputra class frigates, Delhi class destroyers, Khukri and Kora class guided missile corvettes, Magar class landing vessels and Aditya class replenishment tankers. When the navy holds its next fleet review, at least five years from now, the percentage of indigenous strength could go up dramatically. Unless delivery delays play spoilsport, the next Presidential Fleet Review could see the Kolkata class destroyers, the indigenous aircraft carrier being built at Cochin Shipyard Limited, the Project 28 anti-submarine warfare corvettes and improved versions of the P17 frigates.

In terms of the air element, the navy will also have its first few Boeing P-8I Neptune long-range maritime reconnaisance aircraft for the next event. SP

SP'S EXCLUSIVES

[By **SP's Special Correspondent**]

Decade later, hope for INS Vikrant

The INS Vikrant aircraft carrier was decommissioned 14 years ago, and remains an unmissable presence at the Naval dockyard in Mumbai. But disuse and worse, indifference from the establishment, has worn away the once forbidding warship, reducing it to a true relic of the past. Efforts to convert it into a museum ship, preserving its long operational history both with the Royal Navy and Indian Navy, have so far resulted in nothing apart from a tentative effort to make it accessible to the public. But all that could change soon, with two private sector firms now competing to infuse as much as ₹500 crore into the Vikrant, to convert it into a full-fledged museum ship-cum-commercial space.

The effort will be part of a public-private partnership model, with the investment and profits shared between the private sector companies, Maharashtra's state-run urban infrastructure development authorities and, of course, the navy. One of the big challenges will be moving the ship to a separate location once work actually begins, since it currently occupies prime space in the Mumbai dockyard—space that the navy could easily use to dock serving warships. The INS Viraat, India's sole operational aircraft carrier, is on her last legs, with decommissioning expected later this decade.

The ship has undergone two major refits and life-extensions at the Cochin Shipyard, but now sees limited deployment to sea. In a year, India will receive and commission the INS Vikramaditya (rechristened Admiral Gorshkov) from Russia, while it hopes to induct its first indigenous aircraft carrier, the second INS Vikrant by 2015.

If Viraat is operational, then India will have the distinction of operating three aircraft carriers, an ideal situation as per current doctrine, which dictates deployment of a carrier each on either seaboard, with one in refit/maintenance. SP

Army wants CornerShot capability for pistols, grenade launchers

The Indian Army is looking to acquire a system that allows it to mount in-service 9mm pistols enabling firing from around a corner—a capability widespread with tactical special units in the US and Israel. The Army is understood to be seeking the capability specifically for its Rashtriya Rifles units deployed in Jammu and Kashmir, units regularly involved in firefights with militants holed up in residential areas.

After expressing initial interest in such a capability in 2009, the Army is now understood to be interested in giving this capability to its standard-issue 9mm pistols, which include the Austrian Glock 17, Italian Beretta 92 and German-Swiss SIG Sauer P226. The capability involves an enhancement kit integrated with an existing weapon system with a certain degree of dismantling. A video camera and monitor allows the user to point the weapon at a fulcrum around a corner and use the weapon to survey, target and fire accordingly. The Army also wants the cornershot capability for use with in-service under-barrel grenade launchers (UBGLs). The US-Israeli firm CornerShot is understood to have demonstrated the capability to the Indian Army on at least two occasions.

The Indian paramilitary forces, particularly those engaged in anti-Maoist operations, have also evaluated the capability. SP

IAF wants high-tech war-gaming centre

As part of its expanding role, modernisation and network centric backbone, the Indian Air Force has announced plans to invest in an advanced nationwide war-gaming centre, basically a nationwide network of high-performance computers and systems capable of simulating virtually any type of conflict scenario. As always, the IAF wants the best. For instance, the IAF has stipulated that the system should be able to generate scenarios and simulation at both the "strategic and operational levels", and be capable of processing scenarios where the military and civil authorities need to cooperate.

While all current assets of the IAF – aircraft, space elements, missile systems – need to be simulated elements within the war gaming framework, it has also asked for modular infrastructure that allows the introduction of fresh assets as and when they come in. For instance, these would include the MMRCA aircraft, Indo-Russian FGFA, the indigenous AMCA, LR-SAM, MR-SAM, new battlefield radars and other new sensors. Interestingly, the IAF also wants the system to be able to process out-of-area contingencies, which is why it specifies that the system should be capable of painting scenarios "anywhere in the world" and of handling multiple teams and neutrals with "provision to increase the number of teams in the future".

The war-gaming solution will basically allow the IAF to test-bed its doctrinal concepts in a virtual space before much more expensive air exercises. The IAF has come round to the philosophy that lengthy and numerous air exercises through the year is unsustainable from an economic standpoint, and has also been impressed by the advancement of computer design, artificial intelligence and simulation capabilities employed by Western militaries, particularly the US forces, to war-game everything from the smallest urban tactical ops to larger strategic campaigns. With aerospace infrastructure expected to ramp up in the coming years, the IAF is keen that its space elements are an embedded part of all war-gaming infrastructure. SP

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PHOTOGRAPHS: SP's Spl. Correspondent, Cornershot

Defexpo from March 29

The next Defexpo will be held in New Delhi from March 29-April 1, 2012. The seventh Defexpo-2012, billed to be the largest of its kind in Asia, is expected to be attended by official delegations from 90 countries. The biennial international defence exhibition on land and naval systems is organised by the Department of Defence Production on behalf of the Ministry of Defence.

The Defexpo is a hugely attractive event for global defence hardware manufacturers and suppliers. An Indoor Shell Scheme in Defexpo is available for foreign exhibitors at a premium of $709 per square metre (psm) in comparison to Euro 330 psqm (or $431) for indoor raw space that was available at a similar trade show, the 11th Auto Expo, slated to be held at the same venue, Pragati Maidan, from January 7-11, 2012.

The Defexpo-2010 was visited by official delegations from 74 countries. The Federation of Indian Chambers of Commerce and Industry (FICCI) will be the event manager for Defexpo-2012. SP

Arms flows to Africa – small volume, big impact: SIPRI

Arms flows to sub-Saharan Africa (excluding South Africa) are small, at only 1.5 per cent of the total volume of global arms transfer. Yet even small amounts of arms can have a significant impact on peace and security in the region and need to be controlled. Greater transparency in arms exports and procurement is essential to ensure that such controls can be improved, according to a Stockholm International Peace Research Institute (SIPRI) report.

With virtually no arms industry of their own, states in sub-Saharan Africa have received major arms through legal transfers from a wide variety of countries worldwide. During 2006-10 China accounted for 25 per cent, Ukraine for 20 per cent and Russia for 11 per cent of the volume of major arms supplied to the region. Significant numbers of small arms and light weapons were also supplied to both governments and rebel forces in the region. For example, at least 2,20,000 assault rifles were delivered to at least 34 countries in the region.

There is no hard evidence that there were widespread large illegal supplies from outside the region in 2006-10, but there have been regular instances of illegal weapons flows inside the region.

"A key challenge to understanding the motives for and impact of arms procurement in sub-Saharan Africa is the lack of transparency by arms suppliers and recipients," states Pieter Wezeman of the SIPRI Arms Transfers Programme, the lead author of the report. "We cannot have a meaningful debate about African military needs and arms control when states are so secretive."

Based on a survey of recent arms supplies to conflict areas, the report underlines the uncertainty about the impact of arms supplies to the region. Arms supplies may have contributed to efforts to restore stability, in particular when helping to improve the capabilities of international peacekeepers. However, the supply of arms can also be an incentive for the recipients to try to achieve their goals via violence instead of dialogue, the arms can fuel human rights violations, and arms recipients often cannot secure their stockpiles and many weapons have been lost or stolen, including by rebel groups.

The report finds that most transfers to sub-Saharan African countries are not reported by the importers to the United Nations as part of established confidence-building measures between states. SP

India-China differ on LAC

The Defence Minister A.K. Antony has said in Parliament that as there was no commonly delineated line of actual control (LAC) between India and China, there are a few areas along the border where India and China have different perceptions of LAC. Both sides patrol up to their respective perceptions of LAC due to perceived differences in alignment of LAC.

On July 13, 2011, a PLA patrol attempted to cross a 200 feet wall of loose stones constructed 250 metres on the Indian side of LAC in Yangtse area of Tawang which was prevented by our troops. The stone wall was partially damaged by PLA which has been reconstructed. As per the established mechanism with China, a strong protest was lodged with the Chinese side on the action of the PLA patrol in a Flag meeting. SP

DRS Technologies contract for IBAS

DRS Technologies, a Finmeccanica Company, announced that the US Army has awarded the company's Reconnaissance, Surveillance and Target Acquisition (RSTA) Group a $24.5 million contract to provide engineering services and support activities for the improved bradley acquisition subsystem (IBAS).

The new federal contract was awarded by the Close Combat Weapon Systems Project Office of the Aviation and Missile Command at the Army's Redstone Arsenal. Under the contract, RSTA

PHOTOGRAPH: SP Guide Pubns

will provide level-of-effort (hours-based) support for programme management, engineering, logistics, field service, repairs, product assurance, procurement and subcontract activity to support IBAS sustainment requirements.

"This latest contract awarded to DRS Technologies reflects the Army's longstanding confidence in our joint efforts to continuously improve the IBAS subsystem, enhance its reliability and ensure a growing level of effectiveness," said RSTA President Terry Murphy. "As the prime contractor for IBAS, DRS is exceptionally well-positioned to manage the full range of IBAS-related support activities with cost-effective solutions."

IBAS is an upgraded target-acquisition and missile-control subsystem for the M2A3 Bradley fighting vehicle. Its technology includes a second-generation forward looking infrared camera, a daylight television camera, direct view optics, aided dual-target tracking, an eye-safe laser rangefinder and a two-axis stabilised head mirror. The improved subsystem offers greater reliability while reducing maintenance time and logistics costs when compared with previous systems.

The engineering services contract extends over five years, and began in September 2011. RSTA, based in Melbourne, Florida; and Dallas, Texas, earned the contract based on experience and cost competitiveness. SP

Javelin anti-tank missiles for UAE

The Defense Security Cooperation Agency has notified Congress of a possible foreign military sale (FMS) to the United Arab Emirates of 260 Javelin anti-tank guided missiles and associated equipment, parts, weapons, training and logistical support for an estimated cost of $60 million.

The UAE Government has requested a possible sale of 260 Javelin anti-tank guided missiles, tripods, Javelin weapon effects simulators, enhanced basic skills trainers, containers, rechargeable and non-rechargeable batteries, battery chargers and dischargers, battery coolant units, support equipment, spare and repair parts, publications and technical documentation, personnel training and training equipment, US Government and contractor engineering and logistics support services, and other related elements of logistics support.

The prime contractor is a Javelin joint venture of Lockheed Martin in Orlando, Florida, and Raytheon in Tucson, Arizona. SP

Saab signs an extension contract for Carl-Gustaf ammunition

Defence and security company Saab has received an extension contract for ammunition to the Carl-Gustaf M3 weapon system. The order sum is MSEK 126 and deliveries will begin late 2012 and end during the first quarter 2013.

"We are very proud of the confidence our customer place in the Carl-Gustaf system and are satisfied to have been able to secure an additional order for the system." said Tomas Samuelsson, head of business area dynamics.

The Carl-Gustaf system has a long and successful history, but still proves itself to be a highly modern and capable ground support weapon. The system has successively been modernised and adapted to meet new requirements. With the Carl-Gustaf M3 version Saab offer state-of-the-art capability for demanding customers investing in the future. SP

PHOTOGRAPHS: Lockheed Martin, Textron Systems

DRS Technologies award for reset of M1200 Armored Knight systems

DRS Technologies announced that it received a follow-on FY11 reset contract valued at up to $22.8 million from TACOM life cycle management command (LCMC).

This contract is to provide the Programme Executive Office Ground Combat Systems (PEO GCS) with reset services for M1200 Armored Knight Systems for use by the US Army Field Artillery units.

This order is a follow-on award to the inaugural FY10 M1200 reset programme where more than 80 M1200 Armored Knights were successfully reset and deployed to Field Artillery units.

This work will be executed by the company's DRS Sustainment Systems Inc. (SSI) business unit at its facilities in St. Louis and West Plains, Missouri with completion expected in April 2013. As part of the contract, DRS SSI has entered into cooperative relationships with Textron Marine and Land Systems (TMLS) for the reset of the M1200 Armored Security Vehicle (ASV) chassis and Raytheon for the reset of the fire support sensor subsystem (FS3).

Additionally, DRS will also provide logistic fielding and training services for operation and maintenance of the M1200 system.

The M1200 Armored Knight is used as a precision targeting fire support vehicle developed specifically for the Combat Observation Lasing Teams (COLT) in both the heavy and medium divisions by the US Army Field Artillery Units. The Armored Knight system increases force protection over legacy systems by combining DRS-SSI fire support mission equipment package (MEP) into a modified ASV chassis which uses the fire support sensor subsystem (FS3) as its primary optical sensor. Armored Knight provides the COLTs with an automated enhanced surveillance, target location/designation, self-location/command, and control/communications package. SP

Sagem modernises Seoul's submarines

The world specialist in inertial navigation, particularly for warships, Sagem (Safran) has been awarded the contract to modernise South Korean submarines. This latest success reinforces the company's leadership in the field of precision inertia.

Under water, there is no point relying on GPS for guidance. Inertial navigation is therefore particularly important to submarines. To modernise the navigation system on board its Chang Bogo-class KSS-1 submarines and meet its precision requirements, the South Korean Navy has selected Sagem to supply its latest-generation system.

A submersible will be equipped with two Sigma 40XP inertial navigation units, and once the retrofit has been checked in operation, five more vessels in this class will in turn be upgraded.

"Seoul is already using around 50 of our laser gyro inertial reference units on surface vessels," said Fabrice Delhaye, Director of Sagem's Navigation Department. "With the contract we have just signed, we are now making headway into the submarine fleet where technical constraints are even greater."

The Sigma 40XP ("eXtended Performance") inertial system due to equip South Korean submarines is the high-end variant of the best-selling Sigma 40, designed for surface vessels, 600 of which have been sold across the world.

French (DCNS) and German (HDW) shipyards are making the system available on new vessels while a number of countries are opting for this equipment in their fleet modernisation programmes.

In a part of the world where submarine forces are growing fast, India and Vietnam have joined South Korea in making this choice. In France, the Sigma 40XP laser gyro inertial navigation system has been selected for the renovation of nuclear attack submarines while the version due to be fitted on the future Barracuda will offer even greater performance. SP

PHOTOGRAPH: Sagem, BAE Systems

BAE Systems bags two armoured vehicle contracts

BAE Systems Land & Armaments has received two contract awards totalling more than $150 million to provide RG31 and RG32M vehicles to the United Arab Emirates and Sweden.

"These awards mark a significant success in our land business," said Chris Chambers, Vice President and General Manager of Tactical Wheeled Vehicles for BAE Systems. "The RG31 and RG32M have consistently delivered superior levels of protection from mines, improvised explosive devices and other threats to many customers worldwide and mark a standard of operational effectiveness."

The RG31 is a mature, combat proven mine protected armoured personnel carrier designed, developed and manufactured by BAE Systems in South Africa. In total, over 2,166 RG31 vehicles have been delivered.

The RG32M, which is extensively in service with the Swedish Armed Forces, has various military and non-military applications to fulfill a wide spectrum of command, liaison, scouting, patrol and peacekeeping roles. SP

Cassidian signs simulation contract with Spanish Army

Cassidian Spain recently signed a contract for the development of a new constructive simulator architecture for the Spanish Army. The simulator's objective is to support training in command and control tasks up to brigade level, enabling the course of planned operations to be visualised with the aid of models that simulate troop movements in the field.

Enrique Barrientos, CEO of Cassidian Spain, commented: "We are honoured that the Spanish Army has placed its trust in our capabilities in the constructive simulation field. We have committed ourselves to ongoing innovation in order to meet our customer's needs." SP

Navistar Defense receives $134 million for fleet support

Navistar Defense recently announced that it received a $134 million delivery order for field service representatives (FSRs). The order from the US Marine Corps Systems Command renews the company's in-theatre FSR service contract to support International maxxPro mine resistant ambush protected (MRAP) vehicles.

"I'm proud to say that Navistar will not sell a truck if we can't support it in theatre," said Archie Massicotte, President, Navistar Defense. "Sustainment of our vehicles is key—especially when vehicle lifecycles may run between 15 and 20 years. With our fleet of vehicles now growing beyond 32,000 trucks, fleet support will continue to be a critical piece of our business." SP

PHOTOGRAPHS: Ingalls

Ingalls Shipbuilding delivers San Diego to the US Navy

Huntington Ingalls Industries has delivered the company's sixth amphibious transport dock, San Diego (LPD 22), to the US Navy.

"This delivery exemplifies the unique skill and craftsmanship of our shipbuilders," said Doug Lounsberry, Ingalls Shipbuilding's Vice President and Program Manager, LPD 17 programme. "What we are accomplishing collectively in the LPD programme with the Navy and our Supervisor of Shipbuilding partners proves the value of our shipbuilding knowledge. This shipbuilding programme, which includes vendors and businesses from 39 different states, demonstrates a solid business plan which continues to progress."

The US Navy sailors and Marines will have a safe, extremely reliable vessel built with pride and a deep commitment to our war fighters to provide them the most capable ships in the fleet in which to perform their diverse mission. I wish the crew good luck, and I want to congratulate our shipbuilders. This is a great way to end the year." LPD 22 is scheduled to be commissioned in the spring of 2012 in San Diego. It is the fourth ship named in honour of the military town and largest navy base in the Pacific. SP

Raytheon to modify DDG 1000

Raytheon Company has been awarded a $254 million contract modification for the completion of software development for the DDG 1000-class destroyer programme.

Under the contract, Raytheon Integrated Defense Systems (IDS) will perform development engineering activities for total ship computing environment (TSCE) infrastructure integration, ship control systems, as well as associated mission systems equipment software development and integration.

The contract modification includes development, test and delivery of DDG 1000 TSCE software for self-defence test ship, post-delivery availability, post-shakedown availability, SPY-3 volume search software and firmware development, as well as software maintenance in support of the Zumwalt-class destroyer programme.

Raytheon's TSCE encompasses all shipboard computing applications, including the combat management system; command, control, communications, computers and intelligence elements; ship machinery control systems; damage control; embedded training; and support systems.

Under the Navy's DDG 1000 detail design and integration contract awarded in 2005, Raytheon IDS serves as the prime mission systems equipment integrator for all electronic and combat systems for the DDG 1000 programme. Working with the Navy and a team of industry leaders, Raytheon is leading the effort to transform the Navy's ship requirements to reality. Work on the DDG 1000 programme is performed by more than 800 Raytheon employees, as well as by approximately 1,800 subcontractors and supplier partners in 43 states across the country. SP

US Army aims for vehicle-based common operating environment

On the dynamic and complex battlefield, the common operating environment will streamline communications between soldiers in vehicles and higher headquarters, creating seamless interoperability between the computers, sensors and applications they use.

The COE is a set of computing technologies and standards. They are designed to enable secure and interoperable applications to be rapidly developed and executed across a variety of environments. The mounted computing environment, or CE, is one of six computing environments that support this goal.

"Through this Army-wide effort to collapse capabilities and integrate them into vehicles, Soldiers can communicate more seamlessly with upper echelons," said Peter Dugan, a systems engineer with the Army's Programme Executive Office for command, control and communications-tactical, known as PEO C3T.

Dugan explained PEO C3T's role in leading the Mounted CE November 10, during a panel at MILCOM 2011, an annual international conference focused on military communications and networks held at the Baltimore Convention Center in Baltimore, Maryland.

The Mounted CE is a standard in which systems are set inside vehicles that have large amounts of processing power, but contain much less bandwidth than a tactical operations centre. "Its existence," Dugan said, "will be seamless to the user."

"The end-user should not be aware of the fact that there is a CE out there," Dugan said. "The COE and the CE should allow developers to quickly build their applications onto this environment, and then they just need a good capability with a common map and common infrastructure," he said.

Dugan outlined how the Mounted CE would bridge the computing divide. The application includes three classes of capabilities: the first involves transmitting small messages connected to a host; the second includes integrating more functionality and sharing data at the local level; and the third concerns adapting to the new environment.

Michael Anthony, chief of the Mission Command Division for the US Army Communications-Electronics Research, Development, and Engineering Center (CERDEC), Command and Control Directorate, known as C2D, said employing a common set of standards into a OE on the tactical network would enable users to "copy and paste" information across separate tactical applications. SP

UK invests £400 million in new counter-IED kit

The Defence Secretary, Philip Hammond, has announced a £400 million package of protected vehicles and counter-improvised explosive device (C-IED) technology to further improve the protection of British Forces in Afghanistan.

IEDs are the single greatest threat to our forces in Afghanistan. Improving the protection of our forces on the front line is the military's number one priority, and these investments mark another major step forward in the battle against the Taliban, he said.

The package includes around 100 additional Foxhound protected patrol vehicles. Foxhound is at the cutting edge of protected patrol vehicle technology and will provide unprecedented levels of blast protection for its size and weight.

The announcement will take the total number of Foxhound vehicles available to our armed forces to around 300. The first of the 200 Foxhounds already ordered by the Ministry of Defence are due to be delivered for military training over the next month, and will be available for deployment to Afghanistan during 2012. This announcement also includes over £200 million of advanced C-IED technology, giving British Forces a major boost in the battle against the insurgency. SP

PHOTOGRAPHS: Lockheed Martin, MoD UK

RMMV minehunting system meets reliability milestone

Lockheed Martin completed 500 hours of reliability testing on the US Navy's remote multi-mission vehicle (RMMV), marking a critical testing milestone. The system will provide mine reconnaissance capabilities to the Littoral Combat Ship (LCS).

RMMV is an unmanned, semi-submersible, semi-autonomous vehicle that tows a variable-depth sensor that can detect and identify undersea threats.

"RMMV is critical to the Navy's mine countermeasures," said Richard Holmberg, Vice President of Mission and Unmanned Systems at Lockheed Martin's Mission Systems & Sensors business. "As this testing demonstrates, we are making significant progress towards the system's operational use aboard the littoral combat ship."

The testing, completed ahead of schedule, was conducted offshore near Palm Beach, Florida, and concludes the first of three planned development and testing cycles aimed to improve system reliability and operational availability for the remote minehunting system (RMS). SP

BAE Systems wins JIEDDO role

BAE Systems will provide a range of services to support the US Department of Defense' Joint Improvised Explosive Device Defeat Organization (JIEDDO) as part of a new indefinite delivery/indefinite quantity support contract. The company will participate in bids for a series of task orders over the next five years. The total potential value is approximately $900 million for all companies involved.

BAE Systems and a team of subcontractors will offer services including research, analysis, training, operations support and the sustainment of information technology. These services will aid JIEDDO's efforts to counter terrorist and other organisations from using improvised explosive devices.

"This contract is critical to protecting our uniformed men and women in harm's way," said Scott Black, Vice President and General Manager for Global Mission Solutions at BAE Systems Support Solutions. "We have a strong record of performance serving JIEDDO, and we're ready to continue to support its mission as needed." SP

General Dynamics to upgrade Canadian light armoured vehicles

The US Army TACOM Life Cycle Management Command has awarded a $126 million contract modification to General Dynamics Land Systems-Canada for 73 light armoured vehicles (LAVs) for a foreign military sale (FMS).

With this latest contract modification, the original contract, announced on January 4, 2011, is now valued at $264 million for 155 LAVs. SP

LT GENERAL (RETD)
P.C. KATOCH

Firming west of Indian Ocean

The recent Chinese announcement of establishing her first military base in Seychelles was commented with consternation in the Indian media. Why should Indians be surprised? The biggest embassy in Seychelles for the past 15 years has been of China. In late 1990s, China signed an agreement with Seychelles to build refuelling facilities in the numerous uninhabited outlying islands of Seychelles, for use by China, Seychelles and their friends; 'friends' being an euphemism that will obviously be dictated by Chinese perceptions.

The agreement portrayed strategic forethought as seen through the recent announcement that PLAN fleets "may seek supplies or recuperate at appropriate harbours in Seychelles...as needed during escort missions." Considering that the agreement had been signed in 1990's, development of the base must be in advanced stages with significant number of PLA soldiers present in garb of development workers – akin to their presence in Hambantota in Sri Lanka.

Chinese strategic designs on the oceans were more than apparent in the expelling of some 3,500 Indian families from Fiji years back (China engineered?) and same number of Chinese families quietly slipping into Fiji, half of which were probably PLA. Similar would be the PLA presence in Myanmar, Bangladesh and Pakistan including Pasni, Karachi and Gwadar.

The Indian Ocean is the third largest water body in the world and borders nearly three dozen states, covering around 73.6 million sq km. A naval build up with increased submarine proliferation is occurring quietly in the region. While Seychelles Foreign Affairs Minister Jean-Paul Adam says his country has 'invited' China to set up a military base on the archipelago to beef up the fight against piracy, the text in between the lines is unambiguous.

Off the coast of Somalia, the PLAN presence over the years has been a complete flotilla that is turned over every few months, facilitating exercising PLAN, keeping IOR under surveillance and periodically doubling presence for short periods on pretext of turnover. PLAN base(s) on the Seychelles archipelago will without doubt have elaborate surveillance facilities (akin to Coco Island in Bay of Bengal) to serve as a listening-cum-surveillance post covering the western end of the IOR. Significantly, the announcement states that the base is intended to not only re-supply PLAN but also facilitate 'recuperation' during escort missions.

Despite Chinese shrouds of secrecy, it is estimated to currently hold over 90 submarines including some 36 Soviet-designed second-generation submarines. The number of nuclear-powered submarines is around 20 and focus for additions are on this variety with three-four already in advanced stages of building. This capability needs to be viewed together with Chinese plans to deploy by 2016 at least three aircraft carriers to dominate sea lines of communications (SLOC) including through the IOR. Other than the already unveiled first aircraft carrier Varyag procured from Ukraine, China acquired two semi-finished aircraft carriers from Russia (akin to Gorshkov class) some six years back.

There are estimates that future Chinese aircraft carriers could be twice as fast as existing ones, perhaps with twin decks for speedy launch and landings and stealth technology that China stole from the US. These aircraft carriers can hardly be expected to traverse the high seas individually but will be complete Carrier Battle Groups comprising the aircraft carrier, guided missile destroyers, cruisers, submarines, frigates for anti-submarine warfare and oil tankers. China has already cemented its foothold in the Indian Ocean by gaining rights to explore polymetallic sulphide ore deposit in a 10,000-square-km international seabed in the Indian Ocean over next 15 years. Countries in the IOR need to take note. SP

The views expressed herein are the personal views of the author.

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LT GENERAL (RETD)
P.C. KATOCH

Tickling youth nationalism

Concerned by manpower shortages in the defence forces in 1996, a veteran Japanese Admiral asked a group of youngsters why they were not considering volunteering and what would happen if someone attacked Japan. He was aghast at their response that since modern-day wars are short, the youngsters planned to simply locate themselves abroad for duration of the war. That may have been a joke but consumerism and craving for easy life by the youth is hitting India increasingly.

It has had its effect on the defence forces with over 14,000 officer shortages in the Army alone, with little prospects of filling the voids. Core of lack of nationalism perhaps lies in our education curriculum that is focused solely on imparting 'education'. There is little emphasis on morals, ethics and imbibing a sense of nationalism. Pre-independence history in school curriculums centres mainly on the Moghul and British periods. Then come negative political influences like while some 2000 Indian soldiers had lost their limbs fighting the LTTE in Sri Lanka, the then Chief Minister of Tamil Nadu was terming the IPKF traitors for fear of disturbing his vote bank. So much for the talk of political impetus in reviving nationalism.

Core of lack of nationalism perhaps lies in our education curriculum that is focused solely on imparting 'education'. There is little emphasis on morals, ethics and imbibing a sense of nationalism.

It is in this backdrop that the recently concluded seven-day-long 14th Rashtra Katha Shibir (translated as National Stories Camp), attended by an unbelievable number of some 15,000 children of 8 to 18 years age group (50 per cent girls) from various parts of the country came as a big pleasant surprise to first time speakers. These camps are run by the Shri Vedic Mission Trust with its Founder and inspirer in the charismatic Swami Dharmabandhu – a 32-year-old who could have lived in luxury as an IAS officer but chose instead to revive nationalism in the youth.

Mention the Shri Vedic Mission Trust to anyone and the first reaction is that it must be a 'f ront for the RSS' until you apprise them that the Chairman of the Trust is General V.P. Malik (former COAS) and the trustees are K.P.S. Gill (former DGP, Punjab), Arun Bhagat (ex-DG IB & BSF), Joginder Singh (former Director CBI) and Suresh Sharma (DIG Police, Punjab). Eminent personalities, other than the Chairman and trustees, that have addressed these camps in the past are Dr A.P.J. Abdul Kalam, Wajahat Habibullah, Dr K. Kasturirangan, Professor A.R. Rao, Dr Kailash Swaminathan, G. Parthasarthy, Admiral L. Ramdas, Ajit Doval, Prashant Mishra, Prakash Singh, General Jagjit Singh Aurora, J.N. Dixit, Dr Farooq Abdullah, Jaswant Singh, Narendra Modi, Arif Mohammed Khan, M.S. Bitta plus other Governors, Chief Ministers, scientists, educationists, social workers, etc.

This time speakers at the 14th camp run at vilage Pransala in District Rajkot (Gujarat) included Anil Kakodkar, Prashant Mishra, M.S. Bitta, Lt General Nirbhay Sharma, Lt General P.C. Katoch, Maj General G.D. Bakshi and Cmde Uday Bhaskar and others. The camp is run akin to the Army with MBA students volunteering to oversee the administration. The children have a busy schedule with exposure to national integration, communal and social harmony, disaster management, spiritualism, patriotism, culture and civilisation, personality development, yoga, health, martial arts, horse riding, shooting sports, computer training, environment, etc.

Such camps should actually be an annual feature in all states of India considering 65 per cent of our population is of 14 years and below age group. If youth are not channelised correctly, youth power can become a great disadvantage. The defence forces, particularly the Army needs to patronise such events and provide assistance like karate instructors, etc. besides deputing speakers. Talks by Service Chiefs, Vice Chiefs, others will help tickle the nationalist nerve in the youth. SP

The views expressed herein are the personal views of the author.

PHOTOGRAPH: SP Guide Pubns

Air Chief flies Su-30MKI

Air Chief Marshal N.A.K. Browne, Chief of the Air Staff, flew a one-hour sortie in a Su-30MKI at Pune airbase recently.

Addressing the station, he said, "I wanted to be here to not only fly the Su-30MKI but also to meet all of you and assure you that our Su-30 fleet is in good and capable hands. Our boys have been doing an excellent job and the momentum of building up the new Su-30MKI squadrons needs to be maintained. Our people should remain our highest priority because it is then, that a cohesive team translates itself into a success story."

The Air Chief was on a working visit to this base, which he had previously commanded as the Air Officer Commanding (AOC), from 2001 to 2003. During his visit he interacted with the squadron pilots, engineers and all the station personnel and met the key appointments of the station. SP

IAF accomplishes long-range special operations mission

Recently, the Indian Air Force (IAF) simulated a piracy contingency at Campbell Bay in Nicobar Islands (the furthermost Island territory of India) based on an intelligence input that an Indian merchant ship had been hijacked with hostages. The mission simulated launching of a Para Special Forces team into the objective area using C-130J as airborne platform.

The aircraft returned to Air Force Station Hindon after a non-stop mission of 12 hours 3 minutes without refuelling enroute. The simulated launch of long-range special operation mission was successfully accomplished. SP

Pratt & Whitney contract for Boeing C-17s sold to India

Pratt & Whitney, a unit of United Technologies Corp., recently received a contract to produce the first four F117-PW-100 engines that will power the Boeing C-17 Globemaster III for the Indian Air Force. The engines will be delivered in the second quarter of 2012.

Earlier this year, the Ministry of Defence signed a letter of offer and acceptance with the US Government to acquire 10 C-17s. India will take delivery of its first C-17s in early 2013.

"We are delighted the Indian Air Force has selected the C-17 with Pratt & Whitney F117 engines to support its airlift mission," said Bev Deachin, Vice President, Military Programmes and Customer Support, Pratt & Whitney. "The F117 is suited for a wide range of operating environments and conditions and it has demonstrated superb performance and reliability from the Antarctic to the deserts of the Middle East. We look forward to helping strengthen India's aerospace capabilities and humanitarian efforts."

Four F117s provide exclusive power for the C-17 Globemaster III – the world's premier heavy airlifter. The F117-PW-100 is the sister engine of Pratt & Whitney's PW2037 commercial engine powering the Boeing 757. With more than 50 million hours of proven military and commercial use, the F117/PW2037 has consistently proven itself as a world-class dependable engine. Pratt & Whitney's ongoing investment in product improvements has enabled the engine to continuously surpass established goals for time on wing, in-flight shut downs and support turnaround time. SP

India to buy 42 'upgraded' Sukhoi Su-30MKIs

India has signed a fresh agreement with Russia for the licensed production of 42 Sukhoi fighters for which the Russians will provide technical and equipment support. The deal was among the five pacts signed after delegation-level talks between visiting Prime Minister Manmohan Singh and Russian President Dmitry Medvedev.

The agreement was signed by Defence Secretary Shashikant Sharma, who was part of the Prime Minister's delegation, and Russian Federal Service for Military-Technical Cooperation Director M.A. Dmitriev.

The deal, estimated at more than ₹20,000 crore, will be operational in three years with the first delivery expected in 2014 and the last by 2018. Once the 42 aircraft are inducted, the total strength of Su-30MKI fleet will go up to 272. SP

PHOTOGRAPHS: PIB, IAF

Japan picks F-35 Lightning II

The Japan Ministry of Defense has announced its selection of the Lockheed Martin F-35 Lightning II as the Japan Air Self Defense Force's (JASDF) next generation fighter aircraft, following the F-X competitive bid process. The F-35A conventional takeoff and landing variant (CTOL) was offered by the United States Government with participation from Lockheed Martin. The initial contract will be for four jets in Japan FY 2012, which begins April 1, 2012.

Japan picked the F-35 jet as its next mainstay fighter, choosing the aircraft over combat-proven but less stealthy rivals, as concern simmers over North Korea and as China introduces its own stealth fighters.

The decision came as Japan and the United States stressed that their security alliance was tight in the face of worry about an unstable North Korea after the death of its leader, Kim Jong-il.

Defence Minister Yasuo Ichikawa said the decision to buy 42 of the stealth aircraft, valued by analysts at more than $7 billion, would help Japan adjust to a changing security environment after announcement of the death of the 69-year-old North Korean leader.

The security environment surrounding future fighter jets is transforming. The F-35 has capabilities that can firmly respond to the changes, Ichikawa told reporters.

Mitsubishi Heavy Industries has been selected by Air Staff Office, Japanese Ministry of Defense, as a potential domestic contractor to participate in manufacturing and after-servicing of Japan Air Self-Defense Force (JASDF)'s F-X.

Test F-35s have been ordered by Britain and the Netherlands and according to Lockheed, Australia and Italy have committed funds for purchases. SP

First flight of fifth Airbus Military A400M

The fifth Airbus Military A400M airlifter has made its first flight, marking the end of a highly successful year for the programme and meaning that the full fleet of Grizzly development aircraft is now in the air, completing the flight-test programme

Known as Grizzly 5, the aircraft took off from Seville, Spain, with a take-off weight of 125 tonnes at and landed back at Seville 2 hours 10 minutes later.

Experimental Test Pilot Christophe Marchand captained the flight, supported by Experimental Test Pilot Etienne Miche-de-Malleray. The crew also included Test Flight Engineer Jean-Paul Lambert and Flight Test Engineers Ludovic Girard and Cesar Gonzales-Gomez.

Grizzly 5 is the final member of the fleet which has now completed more than 2,500 hours of the 3,700 hour flight-test programme leading to first delivery. It carries a light flight-test instrumentation load and will be primarily dedicated to electromagnetic interference (EMI)-testing, cargo development, operational demonstrations and extreme cold weather trials. SP

Australia to buy C-27J aircraft

The US Defense Security Cooperation Agency has notified Congress of a possible foreign military sale to Australia for 10 C-27J aircraft and associated equipment, parts, training and logistical support for an estimated cost of $950 million.

The Government of Australia requested a possible sale of 10 C-27J aircraft; 23 AE2100D2 Rolls-Royce engines; 12 electronic warfare self protection suites; 12 AAR-47A(V)2 missile warning systems; 12 ALE-47(V) threat adaptive countermeasures dispensing systems; 12 APR-39B(V)2 radar warning receivers; 13 AN/APN-241 radar systems; 44 AN/ARC-210 warrior very high frequency/ultra high frequency communication systems; 12 KY-100 units; 12 HF 9550 radios; 12 APX-119 identification friend or Foe (Mode 4); 14 blue force trackers; 12 portable flight mission planning systems; support and test equipment; repair and return; spare and repair parts; aircraft ferry and tanker support; personnel training and training equipment; publications and technical data; operational flight simulator, fuselage, and maintenance trainers; US Government and contractor representative engineering, logistics, and technical support services; and other related elements of logistics and programme support. SP

PHOTOGRAPHS: US Navy, Airbus Military, Alenia Aeronautica

US Navy receives X-47B

Northrop Grumman's tailless X-47B unmanned combat air system has been delivered to the US Navy following a year of testing. The US Naval Air Systems Command said the aircraft – the first fixed-wing unmanned aerial system designed for use from an aircraft carrier – was tested at Edwards Air Force Base in California and then trucked to the Naval Air Station at Patuxent River, Maryland.

"The transition to Pax River is a highlight for the programme," said Captain Jaime Engdahl, Navy UCAS Programme Manager. "We are working towards demonstrating the aircraft's ability to operate on and around an aircraft carrier."

The X-47B is 38.2 feet long and has a wingspan of 62.1 feet. It is powered by a Pratt and Whitney engine, cruises at subsonic speed, has a range of 2,100 nautical miles and can fly as high as 40,000 feet. It also features two weapon bays for ordnance. The X-47B first took to the air in February.

The Navy said the aircraft will undergo carrier suitability testing, including use with catapult and arresting gear. SP

Robonic delivers drone catapult to Cassidian

Robonic has delivered its eighth Robonic Kontio (type MC2555LLR) pneumatic launcher to Cassidian. According to the company, the system is part of an ongoing programme to support Cassidian's DT family of systems.

One of the most significant features in the launcher is its large speed and mass envelope, with this readily adaptable in field conditions to enable swapping between target types. This was confirmed earlier in the year when Robonic demonstrated that the Kontio launcher can launch air vehicles of up to 110 kg mass with a 70 m/s exit velocity.

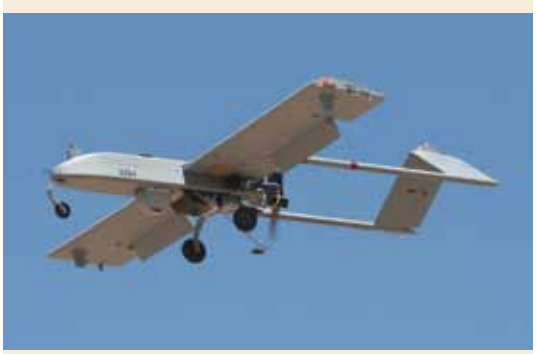
The system has also been designed for rapid deployment and rapid reload. One of the design criteria was that the launcher would fit into a 20-foot sea container and that it is air transportable. SP

PHOTOGRAPHS: US Navy, Robonic, US Army

Australia selects Kestrel MTI

The Australian Army has selected the Sentient Kestrel land moving target indicator (MTI) for the Shadow 200 tactical unmanned aerial vehicle (TUAV) systems being acquired under the Defence Capability Plan Joint Project (JP) 129 Phase 2. Under the contract, Sentient will provide the automated target detection solution to support the Shadow systems in intelligence, surveillance and reconnaissance (ISR) missions.

To be operated by the 20 Surveillance and Target Acquisition (STA) Regiment, Kestrel Land MTI will assist Australian forces in analysing ISR imagery from the AAI Shadow 200. The software processes the imagery in real time, automatically detecting small, moving targets such as dismounts and vehicles within the TUAV sensors' field of view.



Equipped with cutting-edge payload technology including advanced electro-optical and infrared sensors the Shadow TUAV will transmit real-time, full motion video (FMV) to the ground control station (GCS) and remote video viewing devices. The Kestrel system analyses the video footage and provide a real-time cue to operators on moving objects within the field of view. This capability will enable the Army to effectively detect and respond to enemy targets, and thus protect Australian forces.

According to the company, the Army has purchased three Kestrel Land MTI licences for 20 STA Regiment, which will be deployed with the Shadow in Afghanistan early next year. Sentient has been working closely with 20 STA Regiment and AAI over the past years and has successfully demonstrated Kestrel's automated target detection capability with the Shadow.

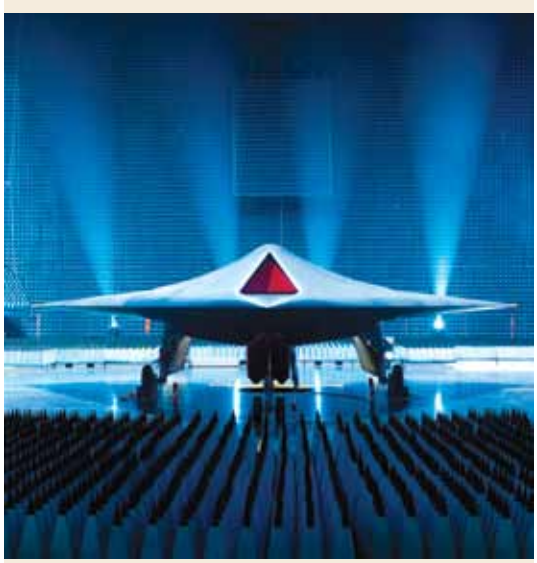
Kestrel is currently supporting the Australian Army on board the ScanEagle which will remain in service in Afghanistan during the transition-in of the Shadow. SP

UK invests in future combat air systems

The Ministry of Defence (MoD) has signed a new £40 million contract with BAE Systems to ensure that the UK retains a leading edge in the next generation of combat air systems.

The four-year future combat air system (FCAS) focused research contract aims to sustain and develop the UK's critical technology and skills in this field. It will inform the MoD's unmanned air system strategy over the coming decades to ensure that the best use is made of these new technologies.

Currently, the vast majority of unmanned aircraft flying is surveillance and reconnaissance in support of the front-line troops, providing them with vital intelligence and helping to save lives in Afghanistan.



Following the announcement, a significant amount of the funding is expected to go to small and medium-sized enterprises across the UK, widening the supplier base and ensuring that the MoD has access to the best national and international technologies.

Minister for Defence Equipment Support and Technology, Peter Luff, said: "I am committed to providing sustained support for science and technology across all aspects of defence. As part of our ongoing investment, the Ministry of Defence has and will continue to invest in aerospace sector projects like this to ensure that we develop and maintain the UK's formidable strengths in this specialist field." SP

PHOTOGRAPH: Raven Industries, BAE Systems

Raven balloon systems used in UAV flight testing

Raven Industries Aerostar aided the Naval Research Laboratory (NRL) Vehicle Research Section on achieving successful unmanned aerial vehicle (UAV) flight tests for the autonomous deployment demonstration (ADD) programme.

The flight demonstration series, located at Yuma, Arizona, consisted of eight high altitude balloon releases at altitudes of up to 57,000 feet. The balloon demonstration facilitated close-in cover autonomous disposable aircraft (CICADA) vehicles to come to rest within 15 feet from their intended landing targets.

The ADD programme equipped small UAV's with sensor payloads, launching them from balloons or aircraft. The ADD field trials successfully demonstrate that the CICADA can perform a precision delivery of a notional payload after being carried aloft by a hand-launched balloon.

Throughout the testing, the UAV package was lifted to altitude using hand-launched balloons manufactured and operated by Aerostar International. SP

Successful test firing of RAM Block 2 missile against a UAV

The first guided test firing of the rolling airframe missile (RAM) Block 2 missile under development was carried out successfully. With the direct hit achieved in the test, it was demonstrated that the system is able to detect, track and destroy a flying target to be engaged.

A modern passive radar seeker head with enhanced sensitivity and improved target discrimination, a larger rocket motor and an upgraded flight control system with four control surfaces (so far two) for higher agility and an improved range are being developed.

The test firing took place San Nicolas Island, California. The telemetrised RAM Block 2 missile was fired against a BQM-34S unmanned aerial vehicle fitted with infrared and radar emitters that simulated an attacking anti-ship guided missile. A first quick analysis performed on site confirmed that all test objectives were achieved. Further evaluations will be done in the days ahead by Raytheon Missile Systems, LFK-Lenkflugkörpersysteme and Diehl BGT Defense (DBD). The guided test-firing of another two missiles in the course of the development process is scheduled for 2012.

The RAM guided missile is designed for ship-based short-range air defence. The RAM programme has been pursued bilaterally for more than 30 years with the USA on the basis of 50:50 shares and joint rights. The industrial partners are Raytheon Missile Systems (USA) and RAMSYS (Germany). Upon completion of the development phase, the new missile is planned to be procured starting in 2013. SP

Internal security capacity expansion

The Indian Government has taken several measures during 2011 to build capacity to meet the challenge to internal security. Thanks to such efforts, there has been marked improvement in the situation in Northeast where various insurgent outfits signed agreements with the Centre.

There has been significant decline in the incidents of violent killings of the civilians and the security forces in the North-eastern states due to the consistent efforts by the Ministry of Home Affairs. Dialogues/negotiations with underground outfits have been held and suspension of operations (SoO) have been signed.

The Government said the situation in J&K showed considerable improvement with far fewer incidents of violence, as compared to the last year. Left-wing extremism (LWE) and terror remained major concerns. Maoists were kept engaged with one of their top leaders Kishenji getting killed in an encounter. Additional capacity building measures were put in place to reduce threats to internal security.

Naxal violence contained

Naxal violence has declined as compared to the corresponding period last year. In 2011 (till November 2011) 1,554 naxal incidents took place causing 542 death as compared to 2,006 incidents with 932 deaths during corresponding period of 2010.

A total amount of ₹132.17 crore has been released to the nine LWE affected States. Under the Security Related Expenditure (SRE) Scheme during 2011, a total of ₹167.76 crore was released, it was stated in the Parliament.

NATGRID

NATGRID (National Intelligence Grid) has been set up under the Ministry of Home Affairs for improving India's capability to counter internal security threats. Cabinet Committee on Security (CCS) has given 'in-principle' approval of the DPR and Planning Commission has approved its operationalisation as a Central Plan Scheme.

Coastal Security Scheme (Phase-I)

Implementation of Coastal Security Scheme Phase-I, including supply of interceptor boats was expedited has been completed. During the year, ₹173.13 crore (25 per cent) as second and final installment, including additional demand was released to the 17 border States under Border Area Development Programme, whereas ₹691 crore (100 per cent of total allocation at RE stage) were allocated under BADP against the scheme of 2010-11.

To strengthen the Intelligence set up, the government approved setting up of National Intelligence Academy-cum-Regional Training Centre of IB at Dwarka, New Delhi at a cost of ₹77.78 crore, along with creation of 138 posts. Government approved establishment of three Recruit Training Centres (RTCs) and one Counter Insurgency and Jungle Warfare School (CIJW) in ITBP for providing training to newly recruited constables and specialised training to ITBP officers/personnel. SP

Terror funding template created

The Minister of State for Home Jitendra Singh has informed the Parliament that a terror funding template (TFT) has been prepared by the National Investigation Agency (NIA) in consultation with the Central Intelligence Agency. This template is comprehensive and captures information which could be helpful in leading to the sources of funding for terrorist activities. This template has been circulated to all states and union territories for adoption for capturing data from the terrorists/terror suspects. SP

Army constructs infiltration obstacle in Valley

The Indian Army has constructed an anti-infiltration obstacle system (AIOS) in Kashmir Valley and Jammu region close to the line of control to check cross border illegal activities including terrorism. The government has sanctioned 2,043.63 km of border fencing and 2,009.52 km of floodlighting along the Indo-Pakistan border; out of which 1,940.72 km of border fencing and 1,878.92 km of floodlighting has been completed.

The Border Security Force (BSF) has 609 existing Border Out Posts (BOPs) along the Indo-Pakistan border. The government has sanctioned, 126 additional BOPs (including reconstruction of 38 existing BOPs in Jammu) along this border at an estimated cost of ₹350.60 crore, according to the Minister of State for Home Mullapally Ramachandran.

In addition, the government has also sanctioned construction of earthen bund, metalled road and naka-cum-fighting bunkers along the home side of existing security fence over 179 km length of border at an estimated cost of ₹341.00 crore in Jammu sector along the Indo-Pakistan border. SP

Arms factory belonging to IM unearthed

An arms factory belonging to the Indian Mujahedeen (IM) has been unearthed in Delhi recently, according to the Minister of State for Home Affairs Jitendra Singh.

In November 2011, a special team of the Delhi Police with the help of Central Intelligence Agency, West Bengal Police, Bihar Police and Tamil Nadu Police, have apprehended an IM module consisting of seven members including one Pakistani national.

As per reports, two AK-47 rifles along with 50 cartridges, one 9mm pistol,14 live cartridges, 1.4 kg of black explosive material, five detonators and fake Indian currency notes worth ₹2 lakh and other incriminating material have been recovered. Besides this recovery, a factory manufacturing arms and ammunition being run by this IM module in Delhi was unearthed. A stockpile of weapon parts i.e. fully and half assembled weapon, explosives and tools have been recovered. SP

Reliance-Raytheon homeland security JV soon

Reliance Industries Limited (RIL) is in the advanced stage of talks with American defence contractor, Raytheon, to form a joint venture (JV) which will look at opportunities for developing homeland security solutions in India and abroad.

Through the partnership, Raytheon will provide Reliance Industries access to high-end security products and electronics engineering solutions for building a strong homeland security system. In doing so, RIL will have access to advanced resources to innovate and develop key security technologies for India and perhaps other countries as well, while Raytheon will be able to gain access to one of the fastest-growing markets for homeland security solutions.

Currently being headed by Dr Vivek Lall, the Reliance Industries' homeland security and aerospace division is looking to gather high-end resources in order to develop an advanced security solutions system which is likely to benefit the country a great deal. RIL has also entered into a joint agreement with Siemens AG, a Germany-based engineering conglomerate to develop intelligent electronic security solutions with mutual cooperation. As per the official statement released by RIL, RIL's subsidiary 'Reliance Security Solutions' and Siemens have signed a memorandum of understanding (MoU) to develop smart security solutions for safe, secure and smarter cities and highways in India. The JV has also been shortlisted by the Maharashtra government to support an initiative that aims at securing Mumbai city by installing homeland security systems, such as video surveillance cameras, command and control centres and data servers across the city. SP


Dr Vivek Lall

Ajay Chadha appointed Internal Security Secretary

Ajay Chadha, a senior IPS officer, has been appointed as Special Secretary (Internal Security), Ministry of Home Affairs. The appointment will be effective from the date of his taking over the charge of the post until his superannuation on August 13, 2013, or until further orders, whichever event takes place earlier. SP

Accenture's biometric system

The Department of Homeland Security (DHS) has awarded Accenture Federal Services, a 13-month, $71 million contract to further enhance the capabilities of its immigration and border management functions.

The contract supports the United States Visitor and Immigrant Status Indicator Technology (US-VISIT) programme, a biometric and biographic identity management system that helps federal, state and local officials determine if travellers can legally enter or remain in the US. Work will include increasing the number and types of biometrics used in identification and adding technical services and capabilities to support users of the system.

Biometrics are unique physical characteristics, such as fingerprints, that can be used for automated recognition. Biometrics forms the basis of US-VISIT identification services because they are reliable, convenient and virtually impossible to forge, said a news release issued by Accenture. US-VISIT currently uses digital fingerprints and photographs. A pilot programme included in the contract will test facial and iris voluntary identification enrollment and matching. SP

Boundaries of Security report released

The Boundaries of Security report from Future Fibre has been released. The 110-page annual report was originally published in 2010 by Future Fibre, a designer and manufacturer of fibre optic intrusion detection technologies.

The report "has quickly become a 'must-have' resource for all forward-thinking security consultants and industry professionals," said Future Fibre, in a news release it issued on December 22.

The new 2012 edition has been updated to include the latest market research and emerging industry trends from IMS Research, best practice recommendations for designing effective perimeter security systems for infrastructure and high-value asset protection, as well as an examination of the important role that signal processing plays in intrusion detection. The report also features clear explanations of the latest intrusion detection technologies, including C-OTDR fibre optics, Fiber Bragg Grating sensors, and ground-based radar systems. SP

Finmeccanica and Northrop Grumman team to meet NATO's cyber security needs

Finmeccanica, through its Finmeccanica Cyber Solutions team, and Northrop Grumman Corporation announced that they have signed a teaming agreement in order to respond to the proposal for the NATO computer incident response capability (NCIRC) – full operating capability (FOC). This extensive managed service aims to provide information assurance to around 50 NATO sites and headquarters throughout 28 countries worldwide.

The NCIRC will provide the capability to detect and respond to cyber security threats and vulnerabilities rapidly and effectively. The project is intended to meet the level of ambition of NATO Head of States as set out during the Lisbon Summit in November 2010.


Mike Papay


Alberto de Benedictis

"This is a strong partnership which combines the capabilities, resources and expertise of both organisations spanning the UK, US and Italy and resulting in a superior proposal which best meets the requirements of this key NATO programme", said Alberto de Benedictis, Chief Executive Finmeccanica UK and Responsible for Finmeccanica Cyber Solutions.

"Northrop Grumman has a strong track record of providing the most advanced, integrated cyber security solutions across all domains for the US military, civilian government and private industry," said Mike Papay, Vice President of Cyber Initiatives, Northrop Grumman Information Systems.

"Protecting networks from the growing cyber threat is a global challenge and we look forward to bringing to this industry partnership the resources, experience and expertise from across our company to ensure the best possible solution for the customer in this strategically important NATO programme." SP

India keen on curbing financial crimes

No single agency has been set up to probe all financial crimes, however, the Government of India is committed to curb financial crimes.

Accordingly, it has constituted a separate cell i.e. Cell for Combating of Funding of Terrorism (CFT Cell) in the Ministry of Home Affairs. Further, MHA has also constituted a Terror Funding & Fake Currency Cell (TFFC) in the National Investigation Agency (NIA) in 2010 to focus on Terror Funding and Fake Currency cases.

As regards money laundering, the Enforcement Directorate is the designated statutory authority under the Prevention of Money Laundering Act, 2002.

The Financial Intelligence Unit-India (FIU-IND) under the Ministry of Finance was set up in 2004 as the national agency for receiving, processing, analysing and disseminating information relating to suspect financial transaction. FIU-IND receives prescribed reports from various entities in financial sector under the Prevention of Money Laundering Act, 2002 and disseminates information to relevant intelligence/investigation agencies and regulators of financial sector.

This information was given by the Minister of State, Home Affairs, Jitendra Singh in Parliament. SP

SANS Institute cyber award to DHS

The SANS Institute announced that the DHS National Cyber Security Division and Idaho National Laboratory have won the 2011 US National Cybersecurity Innovation Award for building cybersecurity skills needed to defend the power grid and other control systems. The Controls Systems Security Programme (CSSP) at DHS and Idaho National Laboratory have created a series of training programmes for managerial and technical people in the industries using control systems (power, oil and gas, power, water, and several others. These training programmes are packed with up-to-date information on cyber threats and mitigations for vulnerabilities.

The goal is to reduce industrial control system risks within and across all critical infrastructure and key resource sectors by coordinating efforts among federal, state, local and tribal governments, as well as industrial control systems owners, operators and vendors, explains a news release issued by the SANS Institute. The CSSP coordinates activities to reduce the likelihood of success and severity of impact of a cyber-attack against critical infrastructure systems through risk-mitigation activities. SP

PHOTOGRAPH: NorthropGrumman, Finmeccanica, Sans Institute

RFI/RFP/TENDERS

Indian Army

Tender: **Unit Load 155 Charge M4A2**
Army Ordnance Corps
Publication date: October 18
Last date: January 13

RFI: **Electronic bird deterrent system**
Army Aviation
Publication date: December 5
Last date: January 20

RFI: **Thermal Imaging Sight for 7.62mm light machine gun**
Infantry Directorate
Publication date: December 9
Last date: January 10

RFI: **Weapon system for shooting around the corner**
DGRR
Publication date: December 23
Last date: January 31

RFI: **Large scale maps**
DGIS
Publication date: December 16
Last date: February 15

Indian Air Force

Tender: **Repair/overhaul of aggregates of MI26 helicopter**
Air Hqrs
Publication date: December 7
Last date: January 16

RFI: **Search and rescue equipment**
Air Hqrs
Publication date: December 23
Last date: January 23

Indian Navy

RFI : **Information for Infrastructure development of Naval Aircraft Yard (Kochi)**
Ministry of Defence (Navy)
Publication date: December 9
Last date: January 10

Rotorcraft beyond current capabilities

The Vehicle Technology Directorate of the Army Research Laboratory (ARL) led a workshop with Defense Advanced Research Projects Agency (DARPA) recently to develop a cohesive plan that incorporates government, industry and academic interests in maturing plasma actuation into a new technology that will advance the Department of Defense rotorcraft performance beyond current capabilities.

ARL is looking into the use of plasma-actuation, which could impact DARPA's Mission Adaptive Rotor (MAR) programme's ongoing investigation of smart structures and aerodynamic flow control approaches to improve rotorcraft capabilities.

Workshop planner Dr Bryan J. Glaz, an ARL research aerospace engineer, said that plasma actuators appear to immediately address some key attributes of on-blade actuation. "They're lightweight, have low to no volume, and are durable. These are critical aspects since technologies that add too much weight interfere with blade structural dynamic design, or that cannot survive the loads that rotor blades are subjected to will not buy their way onto mainstream fleet vehicles. In addition to enhancing rotor thrust, they could also potentially be used to reduce vibratory loads or acoustic signature since they have high bandwidth performance far above rotor rpm, or revolutions per minute.

According to DARPA's website, the MAR programme seeks to dramatically improve system performance, operational availability, sustainability, and survivability of rotorcraft, including reduction in acoustic susceptibility and rotor vibration while increasing useful payload fraction and range. The goal is to develop and demonstrate the capability to achieve these improvements through the use of technologies that enable adaptation of the rotor throughout military missions and/or mission segments.

Glaz said: "Although aerodynamic flow control has long been recognised as necessary for achieving substantial breakthroughs in rotor blade aerodynamic performance, no on-blade flow control technologies are currently fielded because they weigh too much, consume too much power, and/or are ineffective at full-scale aerodynamic conditions."

ARL's Vehicle Technology Directorate is interested in a new way of using plasma actuators that shows potential for working under the aerodynamic flow conditions associated with full-scale rotor blades.

"The ideas that VTD is interested in are new and have not yet been fully investigated. There is substantial work that needs to be done in order to determine if plasma will be a new active rotor technology," Glaz said. "So we are working with DARPA and other government agencies (Army, Navy and NASA) to determine how we can combine resources to mature this technology. There is substantial interest from the other government agencies, industry, and academia because everyone recognises the impact to future rotorcraft capabilities if successful." SP

Combat wounds in Iraq: study

An abstract presented recently at the American College of Surgeons annual Clinical Congress provided a comprehensive look at all combat wounds in Iraq and Afghanistan during 2005-09. The research showed that 0.4 per cent of the almost two million service members deployed to Iraq and Afghanistan during this time period were injured, according to data from the US Army Institute of Surgical Research's Joint Theater Trauma Registry (JTTR). The abstract data reveals the percentage of combat casualties resulting from explosive mechanisms continues to increase.

"Having JTTR data available to analyse not only provides a historical record of the evolving nature of the conflicts, but also helps shape army medicine's response and highlights future areas for study," said Captain Brendan J. McCriskin, MD, one of the study's authors and an Army resident in the orthopedic surgery and rehabilitation department at William Beaumont Army Medical Center/Texas Tech University Health Sciences Center in El Paso.

Lt Colonel Philip J. Belmont Jr., MD, Captain Ryan Sieg, MD, Colonel Robert Burks, MD and Major Andrew J. Schoenfeld, MD, also participated in the study. SP

Safran and Thales sign optronics partnership agreement

Through this joint venture Thales and Safran will be combing their respective areas of expertise in optronics, and expand their offering of products and services to cover emerging needs for new defence systems, including both modernisation programmes and original equipment. The new systems under consideration include the optronics pod for the modernised Atlantique 2 maritime patrol aircraft, the imaging system for the upcoming French-British MALE (medium altitude, long endurance) drone, modular optronics systems for army land vehicles, and optronics for tomorrow's helicopters. The partnership will be in the form of a joint venture covering technical, commercial and programme aspects, with the industrial assets remaining under the control of the two parent companies.

Thales Chairman and CEO Luc Vigneron paid tribute to "a win-win partnership which will deliver best-in-class technologies to our customers, and bolster our position in international markets."

Safran Chairman and CEO Jean-Paul Herteman added: "I am delighted to sign this future-looking partnership, which enables us to avoid duplicating major funding, and also brings together the top skills in this field, fostering dynamic synergies between our teams." SP

General Dynamics acquires Force Protection

General Dynamics has announced that it has completed the acquisition of Force Protection in a deal worth approximately $360 million. Force Protection and its blast- and ballistic-protected platforms that support the armed forces of the United States and allies will now become part of General Dynamics Land Systems.

Force Protection's portfolio includes the Buffalo mine clearance vehicle, the Cougar mine resistant ambush protected (MRAP) and the smaller Ocelot light patrol vehicle. These vehicles are designed specifically for reconnaissance and urban operations and to protect their occupants from land mines, hostile fire and improvised explosive devices. The company has delivered more than 3,000 vehicles under the US military's MRAP vehicle program, and also provides its vehicles to foreign customers including the United Kingdom Ministry of Defence. Combined with General Dynamics Land Systems, the company will increase its global service network footprint to support the full vehicle fleet. SP

Oricopa Millog subsidiary

Patria's subsidiary Millog Oy intends to acquire the company that comprises Oricopa Oy and business of Insta Def Sec Oy. The new company will continue to operate under the name of Oricopa Oy and become a fully-owned subsidiary of Millog Oy.

The operational sites of the company are located in Tampere, Orivesi and Kuopio. The company has an annual turnover of approximately €20 million and employs 82 people. The transaction will be completed by the end of January 2012.

"Substantial synergy and centralisation benefits will be gained with regard to integration and modernisation projects for weapons systems, equipment, and weapon maintenance, for instance. The transaction forms an excellent foundation for business growth and enables operations as a flexible, cost-efficient partner," said Aarne Nieminen, President of Millog. SP

Tyco acquires Visonic of Israel

Tyco International has completed the acquisition of Visonic Ltd, a developer and manufacturer of electronic security systems and components, for approximately $100 million in cash.

A provider of advanced wireless technology for the security industry, Visonic's portfolio includes wireless communications technologies that offer increased range and secure communications. These technologies are in use in more than one million wireless installations around the world.

"The addition of Visonic to the Tyco Security Products portfolio advances our strategy to provide our global customer base with broad-based, best-in-class security solutions," said Mark VanDover, President of Tyco Security Products. SP

SECURITY EVENTS

International Preparedness & Response to Emergencies and Disasters
15-19 January
David International Hotel,
Tel Aviv, Israel
www.ipred.co.il

Integrated Missile Defense Summit
17-18 January
Los Angeles
http://www.iqpc.com/Event.aspx?id=613932

Joint Forces Simulation & Training
24–25 January
Grange City Hotel, London
www.jointforcestraining.com

Border Security Asia Pacific
30–31 January
Singapore
www.bordersecurityasiapacific.com

Defence Exports Asia-Pacific
1–2 February
Grand Copthorne Waterfront Hotel,
Singapore
www.defence-exportsasia.com

International Armoured Vehicles 2012
20–23 February
FIVE, Farnborough
UK
www.iqpc.com/Event.aspx?id=518778

Defence & Security 2012
5-8 March
Impact Exhibition Centre,
Bangkok, Thailand
http://www.asiandefense.com/

Iraq Defence & Security Summit 2012
24-25 March
Erbil Rotana Hotel, Erbil, Kurdistan, Iraq
www.iraqstability.org/aboutsummit.aspx

Celebrity passport applications breach

A US Government passport office employee was arrested for using her computer passport security privileges to gain access to the confidential passport data and passport applications of over 100 celebrities and their families.

What was at first thought to be a passport security breach of 100 or so celebrity passports has now turned into a breach of over 500 confidential passport application files of famous Americans. The former passport employee, Brooke E. Reyna, a 28-year-old woman from Barrington, New Hampshire, pleaded guilty in federal court to making false statements.

The passport investigation began when it was determined that the passports of then-presidential candidates Barack Obama, Hillary Rodham Clinton and John McCain had been accessed.

Reyna was formerly employed at the National Passport Center in Portsmouth, New Hampshire, and it determined that is the location where the celebrity passport security breaches took place. SP

Largest vault break-in

An industrious guerrilla force used the civil disorder in Beirut during January 1976 as the perfect opportunity to rob the vaults of banks.

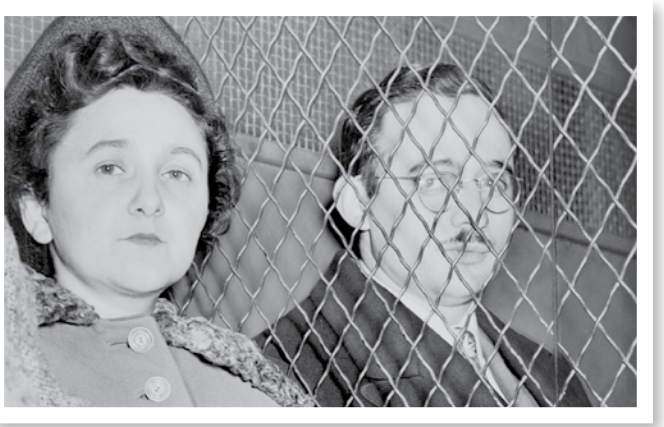
On January 20, members of the militant group Force 17 blasted through an exterior wall to gain access to the vaults of the British Bank of the Middle East in Bab Idriss. Gold bars, stocks, jewellery and currency were stolen from safe deposit boxes at a total estimated between $20 million and $50 million, considered the largest safe deposit box robbery in history by the Guinness Book of World Records. SP

Lawsuit claims security breached

Virginia company with offices in Butler County that contracts with the federal government to conduct background and security checks sued three former employees and accused one of them of taking confidential military documents. US Investigations Services filed the lawsuit against Susan Callihan of Chicora, Butler County, Sarah Baucom of Parker, Armstrong County, and Sharon Vernick of Butler, saying they took proprietary information to competitors.

The company claims that the three used information or documents from US Investigations Services to help new employers secure a business contract with the federal government, according to the lawsuit.

Among the claims are that Callihan, who had a top secret federal security clearance, e-mailed to her personal address a "highly confidential" military operations manual along with Excel spreadsheets that contained "detailed proprietary information" including names of people being investigated and their military branch. SP



Rosenbergs passed on nuclear secrets

Julius and Ethel Rosenberg were American communists who were executed for passing nuclear secrets to the Soviet Union. They met in the Young Communist League in 1936, where Julius was a leader. Julius was recruited by the KGB in 1942 and was regarded as one of their top spies. He passed on classified reports from Emerson Radio, including a fuze design which was later used to shoot down a U-2 in 1960.

Julius also recruited many people sympathetic to the cause to assist the KGB. He provided the KGB with thousands of documents from the National Advisory Committee for Aeronautics including a complete set of design and production drawings for the Lockheed's P-80 Shooting Start.

A former machinist at Los Alamos (the US Nuclear Development area), Sergeant David Greenglass confessed to having passed secret information on to the USSR, and in doing so, implicated his brother-in-law Julius Rosenberg. SP

PHOTOGRAPHS: Wikipedia

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Photo: United States Air Force/Staff Sgt. Quinton Russ

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