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MILITARY
AEROSPACE
INTERNAL SECURITY

Chief of the Naval Staff Admiral D.K. Joshi at Amar Jawan Jyoti in New Delhi on August 31, 2012

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Chinese Defence Minister in India

China's Defence Minister General Liang Guanglie is on a five-day visit to India. His visit, the first by a Chinese Defence Minister in eight years, since General Cao Gangchuan's trip in March 2004, comes at a time when the two Asian giants are aiming at getting a firm grip across the continent for resources.

The Minister who arrived in Mumbai on September 2, visited Mahatma Gandhi's memorial 'Mani Bhawan,' and is scheduled to arrive in New Delhi on September 4. He is expected to allay New Delhi's concerns over Chinese military infrastructure build-up along the border and discuss the revival of joint military exercises halted four years back. He will meet Defence Minister A.K. Antony to discuss issues related to strengthening military-to-military cooperation.

PHOTOGRAPH: USAF

According to sources in the Defence Ministry, the two sides are expected to exchange views on putting in place more confidence building measures which includes resuming the joint army-to-army exercises which had started in 2007 but were put on hold after New Delhi froze all bilateral defence exchanges with Beijing in 2010.

It may be mentioned that the two sides have a long-pending boundary problem along the 4,000 km-long line of actual control (LAC). Special representatives of the two countries have held 15 rounds of talks on the issue but not much progress has been made in this regard. SP

Cover:
Admiral Devendra Kumar Joshi took over as the 21st Chief of the Naval Staff of independent India and the 19th Indian to take command of the Indian Navy on August 31, 2012.

Cover image: DPR

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Buoyant helicopter market in India

A raft of helicopter makers such as Boeing, Sikorsky Aircraft Corp, Bell Helicopter, Eurocopter and AgustaWestland are aggressively pursuing the Indian market, both civil and military. The fact that the Indian armed forces are upgrading their ageing fleet and also the huge ramp-up that is expected to happen in the civilian segment, augurs well for the helicopter industry.

In fact, the civil helicopter market in India has come alive thanks to the armed forces. The offset obligations are set to spur further deals which will have a bearing on both military and civil segments. The military sector continues to represent the biggest business opportunity even while the other government sector, i.e. Homeland Security, is expected to boost the requirement of helicopters. The Indian helicopter market will be a favourite hunting ground for all global aerospace majors manufacturing rotary-wing machines.

In SP's Exclusives, we have a couple of stories related to the helicopter segment starting with the report on the arrival next month of the first of the 12 AgustaWestland AW101 helicopters for VVIP transport acquired for the Air HQ Communication Squadron. The new helicopters will replace the old Mi-8/17s, currently used as executive transport for the President, Prime Minister, senior functionaries of the government and visiting dignitaries.

Alongside, we have a report on how the recently floated Naval Utility Helicopter programme is likely to be fought closely with as many as five contenders. Indeed, the going is good for the helicopter industry and there is anticipation that the government would take positive steps on easing restrictions on procurement of helicopters specifically for the civilian segment.

Away from helicopters, the Indian Air Force (IAF) got its first of three modified Embraer EMB 145 Airborne Early Warning and Control System aircraft last week. The aircraft flew in with mission system external components developed by DRDO including the platform's primary sensor, an active electronically scanned array (AESA) antenna with passive electronics fitted on the aircraft. This platform will be a true force multiplier and will add a new capability to the IAF.

In his frank and forthright column, Air Marshal (Retd) B.K. Pandey has talked about the defence procurement procedures. As brought out by him that while the DPP may have been crafted with the noble and laudable objective of eliminating all possibility of manipulation or misdemeanour in the acquisition of defence hardware, there is an imperative need to balance its rigid framework with the required degree of flexibility to obviate undue delay in the interest of national security. Indeed, there is urgent and unquestionable need to cut delay in the finalisation of deals for weapon systems such as that of Rafale MMRCA which is so critical to national security.

Lt General (Retd) P.C. Katoch has given his views on the Naresh Chandra Committee's recommendation for setting up a separate Special Forces Command.

Talking about national security, there is a report from the government that there has been a marginal decline in incidents of damage to economic infrastructure by left-wing extremism in the country during the last three years. Such incidents have come down in the current year (up to July 31) also, compared to the corresponding period of 2011. That is good, but more needs to be done on the ground, development-wise and security-wise, to improve the situation.

Jayant Baranwal
Publisher and Editor-in-Chief

New VVIP choppers begin arriving next month

The first of 12 AgustaWestland AW101 helicopters for VVIP transport will arrive in India next month to begin duties with the Air HQ Communication Squadron based at Palam Air Force Station in Delhi. The new helicopters will replace the old Mi-8/17 copters currently used for executive transport of the President, Prime Minister, senior government leaders and visiting dignitaries. The €560-million deal signed in February 2010 includes five years of extensive logistics support service and training of pilots, which began earlier this year.

The AW101 is said to be the largest helicopter in its class, sporting a cabin for 30 passengers plus a rear baggage bay. A 1.83-metre-high cabin provides stand-up head room and low levels of vibrations, due to an active vibration reduction system—one of the features that made it a chosen platform for Indian VVIP transport. The VVIP chopper deal is AgustaWestland's first military sale in India. The company is currently awaiting the results of the Navy's multi-role helicopter (MRH) programme, where it is looking to supply (as part of its joint venture with Fokker Eurocopter and Fokker), the NH90. SP

PHOTOGRAPH: AgustaWestland

Indian Army for large IP radio order

The Indian Army is in the market for an unspecified number of Internet protocol (IP) radios. Providing prospective vendors with the procurement premise, the Army has said, "Security forces have traditionally relied on the need for radio communications for coordination and conduct of operations. These radios have conventionally been used for command and control, primarily for voice communication but with limited amount of data capability while utilising a single channel. Advancement in the field of radio technology and rapid improvements in digital communications coupled with IP networks etc have led to traditional single channel radio becoming obsolete. Recent developments in the field of IP networks and the radios have led to the emergence of a new concept of 'Combat radios with an IP Interface' for carriage of IP data and voice on the same single channel radio." The new radios, to be deployed with field units are understood to be part of the overall acquisition strategy to empower smaller level units with modernised communication and intelligence gathering kits, alongside hand-held thermal imagers and ELINT intercept receivers. SP

Apache on top of attack competition pack

The Indian Government is expected shortly to officially declare Boeing AH-64D Apache Block III the winner in the IAF's 22 attack helicopter competition, beating out the Russian Mi-28NE Night Hunter. A formal $1.3 billion contract will be announced shortly, sources say. The decision comes at a time when Boeing and Team Apache suppliers worldwide are welcoming a new milestone for the US Army AH-64 Apache helicopter fleet that has just surpassed 3.5 million flight hours. The Army's aviation programme office said that the milestone of endurance and reliability was reached in June as Apache crews flew combat missions in Afghanistan, participated in exercises in South Korea, and trained with the new AH-64D Apache Block III—the variant that was fielded in the Indian competition. "Achieving and surpassing 3.5 million flight hours is a very significant milestone for the Apache, and I am incredibly proud of the soldiers who fly and maintain this helicopter," said Col. Jeff Hager, Apache project manager for the US Army. "I am also pleased for the opportunity to work with dedicated and diligent men and women in government service and industry who design, build and continue to modernise an aircraft that delivers proven capabilities and cutting-edge technologies." Boeing assembles Apaches at its facility in Mesa. Since the first production aircraft was delivered two months ahead of contract schedule in September 1983, Apaches have effectively fulfilled the demands of battlefield commanders. The newest and most advanced Apache, the AH-64D Apache Block III, features composite main rotor blades, a composite stabilator, 701D engines with an enhanced digital electronic control unit, and an improved drive system that enhances the rotorcraft's performance. SP

India, Russia firm up R&D phase for FGFA

India and Russia have finalised a $10-billion contract that will herald the most crucial phase of the joint fifth generation fighter aircraft (FGFA) project. With three single-seater Sukhoi T-50 prototypes already flying, IAF chief Air Chief Marshal N.A.K. Browne had an opportunity to inspect the aircraft and receive briefings on progress. India will begin putting together its version of the FGFA, a twin-seat multi-role stealth jet on the lines of the F-22 Raptor, starting late 2013. HAL, lead integrator on the Indian side, will send teams to Russia to qualify on the most fundamental areas of stealth fighter building, before they begin on the Indian prospective multi-role fighter (PMF). Both countries intend to induct a mix of twin- and single-seat fighters. SP

PHOTOGRAPHS: Boeing, Eurocopter, Sukhoi

Eurocopter pitches Panther for Naval Utility Helicopter

The recently floated Naval Utility Helicopter (NUH) programme is likely to be fought closely, with as many as five choppers that fit the bill and expected to throw their hat in the ring. Eurocopter, currently awaiting a decision on India's reconnaissance and surveillance helicopter (RSH) competition for 197 helicopters for the IAF and Army, will be pitching its AS565 MB Panther for the NUH bid. The AS565 MB Panther is the military version of Eurocopter's multi-role, twin-engine Dauphin family – whose largest civilian operator is Pawan Hans Helicopters Ltd. The mission equipment and systems integrated on these rotorcraft include anti-ship missiles, search torpedoes, surveillance and weather radars, electro optical system (EOS) with FLIR & TV sensors associated with laser range finder, glass cockpits.

With night vision goggle compatibility, a Link II data link that couples the helicopters' sensors to shipboard mission systems, as well as countermeasures suites with missile/radar/laser warning receivers and chaff & flare dispensers. SP

SP's EXCLUSIVES By SP's Special Correspondent

Archer 155mm self-propelled howitzer

Indian Army floats tender for wheeled self-propelled guns

In its third attempt to procure wheeled self-propelled 155mm guns, the Indian Army has floated a fresh global tender for 180 guns. The Army has stipulated that manufacturers must mention if the new guns being fielded are 45 or 52 calibre, capable of firing standard and assisted ammunition in sustained, intense and burst rates of fire. The Ministry of Defence has held trials on two earlier occasions, last in 2010, but has decided to re-tender the bid. The Army will be looking for new generation howitzers with high endurance platform vehicles capable of operations at high altitudes. As part of its field artillery modernisation plan, the acquisition of new wheeled guns will serve as a major push, though it still remains dwarfed by the Army's requirement for towed howitzers which top more than 1,000 guns. Companies likely to participate in the wheeled bid include Samsung Techwin, Konstrukta Defence, Soltam and BAE Systems. SP

Delayed Project 75 India submarine tender out soon

Already constrained with dwindling submarine numbers and availability – and facing systemic delays in the initiation of the ₹50,000 crore Project 75 'India' for six brand new diesel-electric attack submarines fitted with air-independent propulsion, to be built mostly in country, the MoD is finally ready to float the elusive tender, nearly two years after the RFI was issued in September 2010. The platforms likely to compete for the line, which will involve two submarines built at OEM shipyards, and four in country, include the Rubin Design Bureau Amur 1650, German HDW Class 214, Spanish Navantia S-80, French DCNS Scorpene and the Swedish Kockums A26. With the existing Scorpene line at the Mazagon Dock Ltd running slightly behind schedule, the Navy is under pressure to get the RFP as soon as possible. While outgoing Navy Chief Admiral Nirmal Verma played down the delays in floating the tender, it is understood that several modalities over configuration took vast amounts of time, creating delays between the RFI and RFP process. SP

First EMB 145 AEW&C aircraft lands in India

The first of three modified Embraer EMB 145 airborne early warning and control (AEW&C) aircraft for the Indian Air Force landed in India on August 23. The aircraft flew in with mission system external components developed and built by DRDO including the platform's primary sensor, an active electronically scanned array (AESA) antenna with passive electronics fitted on the aircraft. The aircraft will now begin to receive the fully indigenous DRDO developed mission system, followed by development flight trials in India beginning of 2013. Much rides on the success of trials that will be conducted first in Bangalore, before trials in other parts of the country, including in desert and high altitude conditions. The Centre for Airborne Systems (CABS) and CEMILAC will conduct the trials in coordination. The second aircraft is likely to land in India early next year. SP

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PHOTOGRAPHS: BAE Systems, DRDO, Navantia

Admiral D.K. Joshi at the helm

'For the Navy to fulfill its mandate as a maritime power for national prosperity, 24 x 7 attention would need to be paid at all levels to ensure that there are no gaps in our security preparedness'

The outgoing Chief of Naval Staff, Admiral Nirmal Verma handing over the Chief of the Naval Staff Telescope to the new Chief of Naval Staff, Admiral D.K. Joshi in New Delhi

PHOTOGRAPH: DPR

[By **Rear Admiral (Retd) Sushil Ramsay**]

Admiral Devendra Kumar Joshi took over as the 21st Chief of the Naval Staff (CNS) of independent India and the 19th Indian to take command of the Indian Navy on August 31. Outgoing CNS Admiral Nirmal Verma ceremonially handed over the Chief's telescope to the new CNS Admiral D.K. Joshi.

On assuming office, Admiral Joshi sent his maiden message to the Navy saying he was "in gratitude for having been given the honour and privileged opportunity to Command the Navy". Admiral Joshi promptly indicated his priorities as the new Naval Chief and stated, "For the Navy to fulfill its mandate as a maritime power for national prosperity, 24x7 attention would need to be paid at all levels to ensure that there are no gaps in our security preparedness." He further emphasised, "To achieve security-related objectives, the man-machine interface is crucial and the Navy would need to professionally re-audit, train and consolidate its preparedness to optimise the existing capabilities as well as harness the full potential of the transformational new capabilities being inducted."

Admiral Joshi is a specialist in anti-submarine warfare. He has served in a variety of Command, Staff and Instructional appointments. Admiral Joshi's Sea Commands include guided missile corvette INS Kuthar, guided missile destroyer INS Ranvir and the aircraft carrier INS Viraat. Subsequently he commanded the Eastern Fleet as the Flag Officer Commanding.

After his elevation to Flag rank, he has served in the Integrated Headquarters, MoD (Navy) in all nodal Branches—in the Personnel Branch as the Assistant Chief of Personnel (Human Resource Development), in Warship Production and Acquisition as the Assistant Controller of the Aircraft Carrier Programme, and thereafter in the Operations Branch both as Assistant Chief of Naval Staff (Information Warfare and Operations) and as the Deputy Chief of Naval Staff.

Before taking over as the Flag Officer Commanding-in-Chief, Western Naval Command, he significantly contributed towards inter-service integration, first as the Deputy Chief of Integrated Defence Staff (Doctrine, Organisation & Training) and then as the Commander-in-Chief of the Andaman and Nicobar Command, the only tri-service integrated Command of the country. He later served as the Chief of Integrated Defence Staff to the Chairman, Chiefs of Staff Committee.

Admiral Joshi is a graduate of the Naval War College, USA, an alumnus of the College of Naval Warfare, Mumbai, and the prestigious National Defence College, New Delhi. Earlier in his career, he was the Defence Advisor in the Indian High Commission in Singapore with concurrent accreditation to the Philippines from 1996 to 1999. He is a recipient of PVSM, AVSM, YSM, NM, VSM and ADC. SP

Commissioning of Indian Coast Guard Ship Rajkiran

Indian Coast Guard Ship Rajkiran, the third of the series of eight Inshore Patrol Vessels (IPVs), designed and built by the Garden Reach Shipbuilders and Engineers Limited, Kolkata, was commissioned on August 29 at Visakhapatnam by Vice Admiral Anil Chopra, Flag Officer Commanding, Eastern Naval Command.

The 50-metre indigenous IPV displaces 300 tonnes and can achieve a maximum speed of 34 knots, with an endurance of 1,500 nautical miles at economical speed of 16 knots. Equipped with state-of-the-art weaponry and advanced communication and navigational equipment, it makes an ideal platform for undertaking multifarious close-coast missions such as surveillance, interdiction, search and rescue, and medical evacuation. The special features of the ship include an Integrated Bridge Management System (IBMS), Integrated Machinery Control System (IMCS) and an integrated gun mount with indigenous Fire Control System (FCS).

ICGS Rajkiran, literally meaning "Royal Light", will be based at Haldia and will be under the administrative and operational control of the commander, Coast Guard Region (North-east).

In his address during the commissioning ceremony, vice Admiral Anil Chopra assured that the Indian Navy and the Indian Coast Guard are working in tandem to achieve the overall objective of India's maritime and coastal security. He also stated that there are numerous stakeholders involved in coastal security and building synergy amongst all of them is extremely important to achieve the common goal of national security.

The Flag Officer Commanding, Eastern Naval Command, Vice Admiral Anil Chopra commissioning the Indian Coast Guard Ship Rajkiran, the third of the series of eight Inshore Patrol Vessels (IPVS), at Visakhapatnam on August 29, 2012

The ship is commanded by Lt Cdr Sumanta Roy, who is a specialist in anti-submarine warfare, in the presence of Inspector General S.P. Sharma, Commander, Coast Guard Region (East) and other senior dignitaries of the Central and state government. The ship has a crew of five officers and 30 enrolled personnel. SP

JV with Russia for indigenous production of Smerch rockets

Ordnance Factory Board signed a memorandum of understanding for a joint venture with Rosoboronexport, Russia and Splav "SPA", Russia to manufacture five versions of Smerch Rockets based on the technology received from Russia.

The Smerch rockets are technologically superior having a range of 70-80 kms.

The MoU duly approved by the Defence Minister was signed by three parties recently in New Delhi. After indigenising the technology of Smerch Rockets, OFB will attain new heights in manufacturing of advanced rocket system. SP

Prithvi-II successfully test-fired

The Strategic Forces Command has successfully test-fired the surface-to-surface Prithvi-II missile from Chandipur in Odisha's Balasore district on August 25.

The missile with a strike range of 350 km lifted off from a road-mobile launcher at 11.04 a.m. Prithvi-II, a single-stage missile using liquid propellants, can carry a 500-kg warhead and is meant for deep interdiction. SP

Vice Admiral Shekhar Sinha appointed FOC-in-C, Western Naval Command

Vice Admiral Shekhar Sinha, currently Chief of Integrated Defence Staff to Chairman, Chiefs of Staff Committee (CISC), has been appointed as the next Flag Officer Commanding-in-Chief (FOC-in-C), Western Naval Command, with effect from August 31, 2012, when Vice Admiral D.K. Joshi will take over as the Chief of the Naval Staff.

Born on August 10, 1954, Vice Admiral Sinha was commissioned on June 1, 1974, in the Executive Branch of the Indian Navy as a fighter pilot. He has served in a variety of command, staff and instructional appointments. Vice Admiral Sinha, a qualified flying instructor, has over 2,700 hours of flying on 18 different types of aircraft.

Admiral Sinha has held a wide array of appointments such as Flag Officer Naval Aviation (FONA), Assistant Chief of Naval Staff Air [ACNS(Air)], the Flag Officer Commanding Western Fleet (FOCWF) and Controller Personnel Services (CPS) before taking over as the Chief of Integrated Defence Staff to Chairman, Chiefs of Staff Committee (CISC).

He is an alumnus of the Defence Services Staff College, the College of Naval Warfare, Mumbai and the National Defence College, New Delhi. He is a recipient of PVSM, AVSM, NM and Bar and he is one of the Honorary ADCs of the Supreme Commander.

Vice Admiral S.P.S. Cheema has taken over as Chief of Integrated Defence Staff to Chairman, Chiefs of Staff Committee from Vice Admiral Sinha. SP

PHOTOGRAPHS: PIB, SP Guide Pubns

US Army and Marine Corps pick JLTV winners

The US Army and Marine Corps awarded Oshkosh, AM General and Lockheed Martin 27-month contracts to compete in the engineering and manufacturing development phase of the Joint Light Tactical Vehicle (JLTV) competition — the last round before a winner is selected to build the Humvee replacement fleet.

The three winners will have 27 months to build 22 prototype trucks to be judged by the services. Army and Marine Corps leaders have stipulated the per vehicle truck price must fall under $2,50,000. Adjusting the price ceiling to under $2,50,000 was one of the major breakthroughs that kept the JLTV programme alive when many thought it might be replaced by the Humvee recapitaliaations programme.

The Army plans to buy at least 50,000 vehicles and the Marine Corps plans to buy 5,000 more in one of the largest contracts available to defence companies as the Defense Department shrinks its modernisation budget along with other planned spending cuts.

The three industry teams that entered the technology development phase of the competition included General Tactical Vehicles (General Dynamics and AM General); BAE Systems and Lockheed Martin; and Navistar and BAE Systems. Oshkosh announced its intentions to bid on the EMD phase of the contract months before the March deadline. SP

Thales launches Australian Munitions

Thales Australia has officially launched Australian Munitions – a business dedicated to providing a wide range of munitions that deliver a battlefield advantage to Australia's warfighters. This will enable better access to capabilities, increased flexibility, and greater cost-effectiveness in meeting the customer's munitions requirements.

Australian Munitions is part of Thales's global network of explosive ordnance expertise, which includes Thales Advanced Weapon Systems, Thales Missile Electronics, Junghans Microtec, TDA Armements and Forges de Zeebrugge (FZ).

It also comprises a team of renowned strategic partners: US-based General Dynamics Ordnance and Tactical Systems, Norway's Nammo and Winchester Australia.

This team represents world-class organisations committed to delivering international quality locally, adding significant depth to Australia's domestic munitions production capacity. Australian Munitions brings a broad product portfolio encompassing the majority of the Australian Defence Force's non-guided munitions product requirements from small, medium and large calibre ammunition through to bombs, demolition stores and pyrotechnics. Australian Munitions will lower the cost of Australia's explosive ordnance capability, while continuing to deliver world-leading safety performance in Australia's strategically critical ordnance sites.

Thales Australia CEO Chris Jenkins said: "With this business we are building the future of explosive ordnance manufacturing in this country. As a team we are dedicated to ensuring the Australian Defence Force has the best munitions the world has to offer, especially when it comes to US and NATO interoperability. SP

PHOTOGRAPHS: Lockheed Martin, www.defense.gov

Bradley upgrades continue

BAE Systems received a $306 million contract modification to upgrade 353 Bradley fighting vehicles—one of the most survivable and reliable combat systems in theatre. This production contract is in addition to $340 million in funding the company has received to purchase upgrade materials for the Bradley programme, bringing the full contract total to $646 million. The upgraded Bradleys will be provided to the Minnesota and Pennsylvania National Guard units. The company will also provide upgraded vehicles for Combined Armed Battalions to the Kansas, South Carolina and Ohio National Guard units.

"Our Bradley fighting vehicle has served alongside army soldiers, helping them to accomplish their missions for more than two decades," said Joe McCarthy, Vice President and General Manager of Combat Vehicles at BAE Systems. "The Bradleys we are producing today provide

the National Guard with enhanced survivability and interoperability on today's digital battlefield. Our team continues to produce a quality product on-time to meet the needs of the soldier."

As the systems integrator, BAE Systems will upgrade Bradley Operation Desert Storm M2A2, M3A2 and M7 Bradley fire support team vehicles to Operation Desert Storm Situational Awareness (ODS-SA) configurations. The Bradley ODS-SA upgrade integrates the latest digitised electronics providing Soldiers with optimal situational awareness, network connectivity and enhanced communication hardware. Its proven durability and commonality of design reduces logistics burden, while enhancing battlefield performance to meet a variety of mission requirements in close-combat, urban scenarios and open-combat situations. SP

Oshkosh delivers 10,000 FMTVs to the US Army in two years

The US Army and Oshkosh Defense recently commemorated the production of the 10,000th Oshkosh-built Family of Medium Tactical Vehicles (FMTV) truck – less than two years after Oshkosh began producing FMTVs under a contract awarded in October 2009. September 30, 2012 will mark a production milestone for Oshkosh Defense as the company will manufacture more vehicles for the FMTV Program than it has ever produced in a single fiscal year.

The US Army and National Guard rely on the FMTV at home and abroad in tactical and combat operations, relief efforts and unit resupply missions. Over the life of the contract, Oshkosh will deliver upwards of $2 billion in cost savings to the Department of Defense through relatively lower priced vehicles that still offer quality and reliability improvements.

"Our number one priority is providing soldiers with very high quality vehicles that meet the Army's needs," said Mike Ivy, vice president and general manager of Army Programs for Oshkosh Defense. "Delivering the 10,000th vehicle within two years of starting production demonstrates Oshkosh Defense's commitment to our nation's defence. The FMTV programme is one in a long history of programmes that represent our unparalleled support to the men and women in uniform."

Oshkosh has delivered unprecedented vehicle quality and value through its flexible assembly lines that allow the company to build different vehicles for different programmes at any given time. Oshkosh also operates an enterprise-wide supplier network for multiple defence and commercial programmmes to provide economies of scale across its vehicle portfolio. SP

PHOTOGRAPHS: Oshkosh, Nexter

BEL, Thales to make high-tech radars

Bharat Electronics Ltd. (BEL) and Thales have signed a memorandum of understanding to make high-tech radars for military and civilian use.

"Following the signing of the memorandum of understanding on November 17, 2009, public sector company, Bharat Electronics Limited (BEL) and Thales are delighted to announce that the Boards of both companies have approved the formation of a joint venture company (JVC) subject to statutory approvals of the Government of India and the French Government," Thales said.

The joint venture will design, develop and market the radars. BEL would hold a 74 per cent equity stake in the joint venture, putting in around $10 million, while Thales would take the remaining 26 per cent. SP

France entering final qualification phase for Nexter Munitions

France is entering the final qualification phase for Nexter Munitions' and Junghans' first artillery system with trajectory correction. After the successful precision firings in 2011, the DGA notified Nexter Munitions/Junghans T2M/Zodiac Data Systems (Zodiac Aerospace Group) consortium of the SPACIDO system qualification contract.

SPACIDO is a trajectory correction system for artillery shells after firing. SPACIDO is independent of the GPS and is a completely stand-alone system that uses real shell velocities during the first minutes of flight using the Doppler radar already fitted on existing artillery. The trajectory is corrected by the in-flight extension of an air-brake integrated into a multi-function rocket.

SPACIDO is compatible with all existing 155mm and 105mm artillery and ammunition. SPACIDO increases firing precision by a factor of 5. This drastically reduces the amount of ammunition necessary to process a threat, and at the same time reduces risks of collateral damage and improves efficiency.

It is planned to introduce the SPACIDO system into operational use in the French Armed Forces after qualification in 2014. Many Armed Forces in other countries have already shown a keen interest in this solution. SP

DRS Signal Solutions unveils nextgen SDR

DRS Technologies has announced that its DRS Signal Solutions business unit has unveiled the Picoflexor, a next generation high-performance, software-defined radio (SDR).

Building on the success of its predecessor, the Picoceptor, the Picoflexor is the industry's first SDR containing the Xilinx Zynq-7000 EPP devices. This enhancement is facilitated by the combination of iVeia's Atlas small form factor, low-power processing modules, and the proven high-performance RF technology of DRS.

The Picoflexor's inclusion of next generation digital processing technology enables users to integrate more of their application in the radio to create a tactical device with unparalleled performance. Additionally, the Picoflexor supports enhanced development tools and options for embedded GNU Radio and SCA based frameworks that enable rapid inclusion of existing open source and industry developed waveforms.

"iVeia's close relationship with Xilinx facilitated an early release of the Zynq™-7000 EPP technology to us," explained Jim Shea, Vice President of DRS Signal Solutions. "We are well known for high-performing, low size, weight and power (SWaP) RF products on the market. Our development effort with iVeia and Xilinx to integrate the Zynq-7000 devices into our Picoflexor solidifies this leadership position."

"By providing a complete, dual ARM Cortex-A9 MPcore processor system tightly integrated with programmable logic and high-speed I/O resources, the Zynq™-7000 EPP provides system integrators such as DRS with an ideal processing platform for applications like software defined radio," said Lawrence Getman, Vice President of Processing Platforms at Xilinx. "These devices enable massive parallel processing capabilities on top of endless customisation opportunities for developers to balance software and hardware programmability optimised to specific application requirements."

"We are pleased to be part of this exciting new product," noted Michael Fawcett, Chief Technology Officer for iVeia. "Zynq7000 EPP offers great value for our applications, as these devices consume considerably less power than two-chip processor plus FPGA configurations for the same use." SP

AIR MARSHAL (RETD)
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Uncalled for delays

It was over a decade ago that the Indian Air Force (IAF) first projected a requirement of six squadrons (126 aircraft) of light-weight air defence fighters in the 15-20-tonne weight category. This requirement was projected essentially to fill the void in its combat fleet anticipated due to the retirement of the air defence version of the MiG-21 aircraft. The proposal gradually metamorphosed into the requirement for 126 medium multi-role combat aircraft (MMRCA) of heavier weight, i.e. 25 tonnes. Though not officially stated in explicit terms, the IAF indicated its preference for twin-engine and two-seat platform to conform to its newly formulated doctrine.

After a delay of six years, an elaborate 211-page request for proposal (RFP) was issued in 2007. Thereafter, it took a couple of years for the response to the RFP to be collated. What followed was a detailed technical evaluation, gruelling field trials to check compliance with the 660 technical parameters at a variety of operational conditions and locations as also a preliminary commercial evaluation, the entire process lasting for over five years. Finally, end-January this year, the IAF made public its preferred aircraft, the Rafale, fielded by the French aerospace major Dassault. The Rafale was selected by the IAF from amongst six contenders, others being the Eurofighter Typhoon, Boeing F/A18-E/F Super Hornet, Lockheed Martin F-16IN Super Viper, Saab Gripen and the Russian MiG-35.

On account of the inordinate delay in the acquisition process attributable to a large extent to the infinitely complex Defence Procurement Procedure (DPP) that demands high degree of procedural discipline, competitiveness, transparency and fairness, the value of the contract initially in the region of $10.4 billion (₹57,200 crore), has escalated and the revised estimate is nudging at $20 billion (₹1,10,000 crore). As and when the deal finally goes through, it will go down in the history of defence procurement as the largest deal under the "open tender" system not only in India but in the world.

Since end-January 2012, when the selection of the preferred vendor was made public, the acquisition process has moved to the next stage; that of detailed commercial negotiations between the Indian Ministry of Defence and the French aerospace major Dassault. This round of interaction would include computation and verification of data on life cycle costs, finalisation of offset arrangements, transfer of technology and fixation of the final price. After scrutiny by the Ministry of Finance, the case will be considered for approval by the Cabinet Committee on Security before the contract is finally inked.

At the time the selection of Rafale was made public, it was estimated that it would take another four to five months for the contract to be signed. But seven months have gone by and there is no indication that the process is nearing completion or even moving forward. Delay in the finalisation of the contract is undoubtedly frustrating for the IAF as its plans to check the rapidly eroding operational potential through induction of new aircraft are unlikely to materialise in the required time frame. The pace at which the process has progressed so far, the chances of the contract being concluded during the current financial year are beginning to appear rather slim, raising serious doubts about the possibility of induction of the first batch of Rafale aircraft procured from the original equipment manufacturer (OEM) in a fly-away condition, beginning 2015. Plans for the commencement of manufacture of the aircraft by the Hindustan Aeronautics Limited by 2017-18 may therefore not materialise and would have to be pushed back further.

Delay in the decision-making process compounded by absence of credible information on the progress of the last stage in the processing of the tender has been giving rise to speculation amongst other players eliminated from the race earlier on. Arms trade agencies both in the East and the West see the delay as an indication of the possibility that the MMRCA tender may have run into trouble and could well be cancelled paving the way for a fresh tender in which they would happily participate.

While the DPP may have been crafted with the noble and laudable objective of eliminating all possibility of manipulation or misdemeanour in the acquisition of defence hardware, there is an imperative need to balance its rigid framework with the required degree of flexibility to obviate undue delay in the interest of national security. In the instant case, there is undoubtedly a compelling urgency to finalise the MMRCA deal without further delay to ensure that for the IAF, Rafale is a reality and that the MMRCA tender does not continue to remain an exercise in chasing a mirage! SP

While the DPP may have been crafted with the noble objective of eliminating manipulation in the acquisition of defence hardware, there is an imperative need to balance its framework to obviate undue delay in the interest of national security

'Boeing sees great value in partnering with India'

***Dennis D. Swanson** is now the International Business Development Vice President for Boeing Defense, Space and Security in India. In an interview with **SP's M.A.I.**, Swanson spoke at length about Boeing's plans to deepen its presence in the country through long-term and strategy partnerships.*

SP's M.A.I. **(SP's): Congratulations on being appointed Vice President of Defense, Space and Security Unit in India. Could you define what would be your role(s) in the new assignment?**
Dennis D. Swanson (Swanson): I was put in this position back in April 2011 with the objective of growing and repositioning Boeing's defence, space and security business in India. As part of my role, I am also responsible for new sales opportunities, ensuring delivery on customer commitments and strengthening engagement with our industry partners. I do believe that Boeing can provide great value not just within the platforms we can sell but the relationships that we can invest in. This is going to be a time of tremendous growth for the Indian aerospace sector and Boeing is privileged to partner with India for the long term.

SP's: Although Boeing's presence in India dates back more than seven decades, its entry into India's defence sector has been relatively recent. Could you briefly cover Boeing's ongoing programmes related to the defence sector in India?
Swanson: Boeing enjoys a long-term relationship with India and has had a presence in the country for 70 years. Boeing Defense, Space & Security (BDS) started pursuing opportunities six to seven years ago. In that short time, BDS has enjoyed successes with the sale of eight P-8I aircraft to the Indian Navy, 10 C-17 Globemaster aircraft to the Indian Air Force and business jets. We have fielded Boeing's AH-64 Apache in India's attack helicopter competition and if selected, India will receive the latest technology in the form of the Block III AH-64 Apache. The US Army took delivery of the Block III aircraft in November 2011. The CH-47 Chinook is positioned in the heavy-lift helicopter and we believe its ability to carry high payloads in high-altitude areas will make it an ideal choice for India.

The Defense, Space & Security portfolio also extends to C4ISR platforms, airborne early warning and control systems, unmanned airborne systems, and services and support.

Our long-term business strategy is to work closely with our customers on their defence and security requirements, execute flawlessly on our current campaigns and deepen our presence in the country through long-term and strategy partnerships.

SP's: Could you give an update on the Indian Navy's P8I project? When would the Navy be able to field its first 'Poseidon'? Are there any indications of a repeat order?
Swanson: The P-8I programme is progressing very well and we are on track to deliver the first aircraft to the Indian Navy in 2013.

In July this year, we witnessed two key milestones of the P-8I programme. The first flight of the second aircraft that India will receive took place in Seattle. The first P-8I aircraft for the Indian Navy began its official flight test programme, which includes mission tests of sensors and communication systems.

The team will transition to 'stores' tests during which the P-8I will carry inert weapon shapes under its wings to demonstrate that the aircraft is capable of carrying all the weapons the Indian Navy will use during regular missions.

P-8I flight and weapons testing follows on the heels of similar testing for the US Navy's P-8A Poseidon. P-8I is a variant of the Poseidon.

In order to efficiently design and build the P-8I and the P-8A, the Boeing-led team is using a first-in-industry, in-line production process that draws on the company's Next-Generation 737 production system.

The P-8I features open system architecture, advanced sensor and display technologies, and a worldwide base of suppliers, parts and support equipment. The P-8I aircraft are built by a Boeing-led industry team that includes CFM International, Northrop Grumman, Raytheon, Spirit AeroSystems, BAE Systems and GE Aviation.

We are proud that a series of Indian suppliers such as the Hindustan Aeronautics Limited (HAL), Bharat Electronics Limited (BEL), Avantel, Electronics Corporation of India (ECIL), Dynamatic Technologies and Tata Advanced Materials Limited (TAML) are contributing to components that will be integrated on P-8 and P-8I.

- HAL builds P-8I weapon bay doors, identification friend or foe transponder (IFFT) and tail cones.
- BEL builds data link, identification friend or foe interrogator (IFFI) and finger printing equipment for the P-8I.
- Avantel delivers the mobile satellite systems for the P-8I.
- ECIL builds speech secrecy systems for the P-8I.
- Dynamatic Technologies (DTL) provides P-8I power equipment cabinets and mission equipment cabinets. TAML is a sub tier supplier to DTL and provides composite materials.
- Tata builds APU door fairings and radomes.

Boeing was selected to provide eight P-8I long-range maritime reconnaissance and anti-submarine warfare aircraft to the Indian

Navy in January 2009. India is the first international customer for the P-8 and Boeing believes that there are numerous other opportunities for international sales to countries currently operating P-3s or similar maritime patrol aircraft.

On follow-on options, the P-8I's baseline contract had a provision for four follow-on aircraft. Any additional information regarding contract negotiations for the four additional aircraft will need to come from the Indian Navy at this time.

SP's: The IAF's acquisition programme for 10 C-17 Globemaster III aircraft appears to be in full swing from what appears from reports emanating from Boeing's aircraft manufacturing facility in Long Beach, California. Could you provide first-hand information on its progress? Are there any firm indications of a repeat order from the Indian side?

Swanson: Boeing recently announced that it has completed the major join of the C-17 aircraft which involved the integration of the forward, centre and aft fuselages and the wing assembly. On July 31, the embassy, senior Indian Air Force and local elected officials drove ceremonial rivets into the first C-17 aircraft for India as they celebrated the achievement of this key programme milestone.

The C-17 programme for the Indian Air Force is on track for the deliveries in 2013 and 2014. The teams are working on aircraft build,

C-17 Globemaster III aircraft

sustainment and site activation, training and offset commitments.

India's Ministry of Defence signed an agreement with the US Government on June 15, 2011, to acquire 10 C-17 airlifters, making India the largest C-17 customer outside the US.

On a follow-on order, I would not like to make any comments as it would be more appropriate for our customers to comment.

SP's: What is the latest on the IAF's programme to acquire 22 Apache Longbow AH-64D attack helicopters from Boeing? Could you give details of the programme including delivery schedules, etc?

Swanson: Boeing responded to the RFP by the Indian Air Force (IAF) for 22 attack helicopters. If India selects the AH-64 Apache, the IAF will receive the latest Block III configuration. This is the configuration that the US Army took delivery of in November 2011. The Block III has the latest technology insertions that make it a lethal attack helicopter. The AH-64 Apache is the only available combat helicopter with a spectrum of capabilities for virtually any mission requirement. It is uniquely suited to meet the commander's needs, including reconnaissance, security, peacekeeping operations, and lethal attack—in both land and littoral environments—all without reconfiguration.

Boeing is deferring all questions about the status of the competition and delivery schedules to the Ministry of Defence for comment.

SP's: Could you give details of the Boeing's endeavours for creating opportunities/partnerships in India to effectively discharge its responsibilities towards offsets, if any, in the ongoing defence deals as well as future programmes?

Swanson: Boeing has an unmatched reputation for delivering world-class industrial partnership programmes. We have brought benefits valued at more than $42 billion to nearly 40 countries over the past 30 years. We will leverage this success to deliver offset programmes to India that are in line with India's defence procurement policies and that meet the Indian Government's goals to strengthen indigenous aerospace and defence capabilities, enhance its self-reliance and national security, and position Indian industry for growth in the global market.

We continue to work with private sector, government sector and industry to expand our partnerships. Boeing sees great value in partnering with India. HAL is currently contracted to manufacture the F/A-18 gun bay door, F/A-18 wire harnesses, P-8I weapons bay doors, P-8I tail cones, and P-8I identification friend or foe transponder (IFFT). The Bharat Electronics Limited (BEL) has delivered the Indian-designed Data Link II for the P-8I, a communications system that will enable exchange of tactical data and messages between the Indian Navy aircraft, ships and shore establishments. BEL has also delivered the identification friend or foe interrogator (IFFI), a battle management system that will enable P-8I aircraft to distinguish friendly aircraft and forces. Finally, BEL is on contract to provide F/A-18 cockpit panels and has already started delivering on that contract.

Boeing has also partnered with BEL to establish the Boeing Analysis & Experimentation Center (A&E Center) in February 2010. Based in Bangalore, the centre provides defence experimentation and decision support services to understand the future warfighting needs of the Indian armed forces. The centre is staffed with former Indian military personnel and modelling and simulation engineers from Boeing. The Boeing team works hand-in-hand with BEL personnel, with plans to create a BEL node in the future.

In addition to defence public sector undertakings (DPSUs), private industry companies play a large role in Boeing's industrial strategy. Dynamatic Technologies and Tata Advanced Materials Limited have already delivered P-8I power and mission equipment cabinets and TAML is on contract to provide P-8I auxiliary power unit (APU) door fairings. Avantel has delivered the P-8I mobile satellite systems.

Beyond direct work placement, Boeing collaborates with Indian industrial partners on lean manufacturing techniques and Boeing's programme management and supplier management best practices. Boeing also is looking at ways to partner with several small and medium enterprises throughout India.

SP's: What is your reaction to the Indian Government's recently announced revised guidelines under the defence offset policy; making transfers of technology or acquisition of technology by Indian companies eligible for offsets? Are you satisfied with the changes or do you feel a lot more needs to be done to make them more user-friendly from the foreign vendors' point of view? Please comment.

Swanson: Boeing supports the Indian Government as their offset policy continues to evolve. Boeing remains committed to delivering offset programmes that are in line with India's Defence Procurement Procedure (DPP) and that meet the Indian Government's goals to strengthen indigenous aerospace and defence capabilities, enhance its self-reliance and national security, and position Indian industry for growth in the global market. SP

PHOTOGRAPH: af.mil

RAF surveillance aircraft clock up 20,000 flying hours

Surveillance aircraft based at RAF Waddington have notched up a collective total of 20,000 flying hours protecting British and other ISAF forces in Afghanistan.

The high-tech, state-of-the-art Sentinel R1 aircraft of No 5 (Army Cooperation) Squadron and Shadow R1 aircraft of 14 Squadron have each clocked up 10,000 hours on Operation HERRICK.

While based in Britain aircraft from both units have been permanently patrolling the skies above Afghanistan since 2009 gathering vital intelligence on insurgent activities.

RAF Waddington Station Commander Group Captain Al Gillespie said:"The search capabilities of Sentinel and Shadow have provided UK and coalition partners with an unprecedented insight into the unique operating environment of Afghanistan. The ability to search vast areas and provide real-time information to others has led to more efficient and effective application of other military capabilities such as remotely-piloted air vehicles, coalition helicopter-borne forces, light-armed reconnaissance vehicles and combat aircraft.

"Its superb capabilities, with its ground-mapping radar and ability to detect personnel and vehicle movements from many miles away, have led to some ground forces describing it as a 'go/no-go' asset for their operations– meaning that without Sentinel they would not continue."

On August 14, 2012, Sentinel hit the milestone of 10,000 operational hours in support of British and coalition troops, with more than half of these hours clocked up since May 2011. SP

Sweden confirms sale of Gripen to Switzerland

The sale of 22 Gripen fighter jets from Sweden to Switzerland was confirmed on August 28 for a price of more than three billion Swiss francs ($3.1 billion).

The first delivery will take place in mid-2018, with all 22 planes to be delivered by 2021 at a cost of 3.126 billion Swiss francs.

The deal for the Gripen E/F – or Super JAS – planes was officially signed with Ulf Hammarström of the Swedish Defence and Security Export Agency.

The move to buy the planes was hotly contested in Switzerland where the parliamentary security commission found that the "choice of jet made by the Federal Council carries the most risks: technically, commercially, financially and in respect of the delivery date", Swiss news agency ATS reported. The members of the commission, all appointed by the Swiss parliament's National Council of representatives, nonetheless voted 16 to 9 against demanding that ministers put a halt to the deal.

Sweden intends to purchase between 40 and 60 of the jets. SP

Lockheed delivers final three F-16s to Morocco

Three Block 52 F-16s for the Royal Moroccan Air Force line up for take-off for the final delivery flight to Morocco on August 22, 2012, from NAS Fort Worth JRB.

The Kingdom of Morocco purchased the aircraft in 2008. The sale included the aircraft, mission equipment, support equipment, and a spares and technical support package.

Morocco is the 25th nation to operate the F-16. SP

T-50s complete trials of initial approach to a flight refuelling aircraft

Sukhoi Company has completed trials of T-50s (5th generation fighter aircraft PAK FA) initial approach to a flight refuelling aircraft.

Aircraft T-50-2 made nine approaches to an Ilyushin Il-78 tanker accompanied by a Su-25UB aircraft.

T-50-2, Sukhoi's second prototype, is undergoing a range of flight trials to test the new plane's flight envelope in subsonic and supersonic regimes and in different configurations.

The first prototype, T-50-1, is being prepared for a flight test programme involving flight at super-critical angles of attack and super-manoeuvrability. Flight tests of the T-50-3 with a unique on-board active phased array radar system were started earlier this month.

In the course of the ground and flight tests of the T-50-3 prototype the radar "air-to-air" and "air-to-surface" test modes in the first experiments demonstrated a stable and effective performance comparable with the most advanced existing radar systems. The further development of these capabilities was confirmed. The optical channels tests have begun.

The radar developed by the Moscow-based Tikhomirov Scientific Research Institute of Instrument Design allows to increase the target detection range in simultaneous air-to-air and air-to-surface modes, recognise and classify group and single targets, and simultaneously attack several targets with precision-guided weapons, and perform electronic warfare functions.

A fourth T-50 will join the test programme later this year. SP

PHOTOGRAPHS: UK MoD, Saab Group

Royal Thai Army 480B deliveries complete

Enstrom Helicopter Corporation recently completed delivery of 16 480B turbine training/utility helicopters for the Royal Thai Army (RTA). The deliveries were completed on budget, and ahead of contracted requirements.

"I am extremely proud of our team," said Enstrom's President & CEO, Jerry Mullins. "From contract signing to final delivery we completed this programme in just 19 months, and that included engineering, developing, testing, building and delivering 16 of the most advanced turbine training helicopters in the world." The RTA 480Bs are equipped with state-of-the-art Cobham EFIS systems, dual Wulfsberg RT-5000 transceivers, Honeywell radar altimeters, and dual electronic/analog flight instrumentation. "It's an incredible accomplishment. I think we've shown a small company , can do big things."

"The RTA has been a great partner to work with on this programme," said Tracy Biegler, Enstrom's Director of Sales and Marketing. "They are already putting their new helicopters to good use, not only for training, but for other utility missions as well. It made our workforce proud to hear that there were 480Bs flying overhead every day in support of the rescue efforts required during the terrible flooding in Bangkok last year. We look forward to supporting the RTA and their 480B fleet for a long time to come."The RTA is acquiring the 480Bs to provide entry level, turbine, training for its pilots. According to the company, the helicopters are already in use for training and utility operations. SP

Cirrus Aircraft chosen for French Air Force

Cirrus Aircraft announced today that Cirrus SR20s and SR22s have been selected by Cassidian Aviation Training Services (CATS) in a public tender for the French Air Force and Navy.

A fleet of 13 Cirrus SR20s will be dedicated for training pilots at the French Air Force base of Salon de Provence. An additional fleet of seven Cirrus SR22s will be dedicated to training flights of navigating officers arm systems (NOSA) and liaison flights, in particular to accompany the French Air Force's aerobatic team.

Cirrus Vice President, Global Fleet and Special Mission Aircraft Sales, Jon Dauplaise said, "The French Air Force and CATS are committed to the highest quality of flight training. By using our SR20s and SR22s – aircraft that set the standards for training and advanced performance – they are setting the standard for the highest quality air force." SP

Acquisition of the Growler electronic attack capability

Australian Government has decided to acquire the Growler electronic warfare system for the Super Hornet, at a cost of around $1.5 billion.

In acquiring this capability, Australia will be the only country in the world, other than the United States, operating Growler aircraft.

Growler is an electronic warfare system that gives the Super Hornet the ability to jam the electronics systems of aircraft and land-based radars and communications systems.

Electronic threats are an inherent part of modern combat and Growler will provide options for the Air Force to undertake electronic threat suppression operations in support of Australian Defence Force (ADF) operations, including land and sea forces. The Growler capability can also undertake intelligence, surveillance and reconnaissance.

Australia has 24 F/A-18F Super Hornets. The Super Hornet is a highly capable, battle-proven, multi-role combat aircraft currently in service with the US Navy.

The Growler is a specialised version of the Super Hornet and is also currently in service with the United States Navy. The Growler electronic warfare aircraft was used very effectively by the United States Navy during air operations in Libya last year. SP

Airbus Military ferries first C212 to Vietnam Marine Police

Airbus Military has delivered to Vietnam the first of three C212-400 maritime patrol aircraft ordered by the Vietnam Marine Police.

The aircraft, manufactured in Seville, Spain was handed over at Gia Lam (Hanoi) at the end of a 10-day ferry flight from Skavsta, Sweden following installation of its mission system. It was formally delivered last year prior to the conversion work in Sweden.

The flight, commanded by ferry pilot Capt Alejandro Grande supported by two co-pilots, two flight engineers and a technical representative, staged through: Kosice, Slovakia; Sitia, Greece; Luxor, Egypt; Riyadh, Saudi Arabia; Muscat, Oman; Ahmedabad and Kolkata, India; and Chiang Mai, Thailand; en route to Hanoi.

The three aircraft will be used for a range of missions including coastal patrol, search and rescue, anti-pollution operations, and law enforcement against smuggling of goods or people.

A second aircraft is under conversion in Sweden and the third will be transferred from Seville by the end of the year. A total of 478 C212s have been ordered by operators in 42 countries worldwide. SP

PHOTOGRAPHS: Enstrom Helicopters, Cirrus Aircraft, Airbus Military

Piramal Enterprises picks up 27 per cent stake in Bluebird Aero Systems

Piramal Enterprises, of the Ajay Piramal-led group, joins the list of Indian companies that see a growing opportunity in the defence sector.

It has picked up a 27.83 per cent stake in Bluebird Aero Systems, an Israel-based unmanned air systems manufacturer, for about ₹40 crore ($7.2 million). Bluebird is set to bid for contracts in India.

Piramal's deal with Bluebird Aero Systems is considered unique as the company is an initiative of former engineers of the Israel Defence Forces. Bluebird has an agreement with Bangalore's Dynamatic Technologies for manufacturing and marketing mini and micro tactical, unmanned aerial vehicles in India. SP

Israel's long-range UAV is ready for action

The Israel Air Force's most advanced unmanned aerial vehicle (UAV), the Heron TP, known as the Eitan, is back in the air after being grounded for over seven months. The extraordinary decision to ground all Eitan UAVs was taken after one crashed in late January during a test fight of its payload.

The Eitan is a long-range UAV, capable of reaching Iran, but it did not get far on that January test flight. A rolling breakdown caused a wing to break, resulting in a crash from high altitude, which shattered the UAV in an orchard on the Coastal Plain.

The Air Force and Israel Aerospace Industries Ltd. (IAI) struggled to understand the cause of the crash to one of the Air Forces' operational workhorses. For years, the Air Force has been expanding its UAV fleet and missions, which now carry out a quarter of all missions – a proportion that is likely to grow.

Examination of the remains found that a wing spar broke under a load for which it was not designed to bear, during the test flight. The crash of the UAV, a state-of-the-art machine in global aviation, was a blow to morale and the pocket, as each Eitan is estimated to cost $5 million.

The Eitan's status in the Air Force and its role in building the Air Force's long arm meant that there was no cutting of corners investigation into the January crash. The Air Force insisted on finding out what went wrong, step by step, mainly to avoid the risk of similar crashes of costly UAVs and disrupting training and operational programmes. Such breakdowns should not happen when the Air Force is required to be on high alert to fulfill paramount strategic missions. SP

Rockwell Collins introduces small mission computer for UAS

Rockwell Collins has introduced the GPC-3000, a small mission computer that offers UAS customers advanced mission capabilities with unmatched security features.

"UAS customers will benefit from a host of new capabilities that are housed within the GPC-3000," said Dave Schreck, director of UAS and Control Technologies for Rockwell Collins. "We're leveraging our expertise in open systems architecture, multi-level security and sensor fusion; bringing them to bear into this product offering."

The computational horsepower of the GPC-3000, in conjunction with Rockwell Collins' robust software environment, enables hosting a variety of advanced mission and payload applications, including digital video recording and playback, multi-payload sensor fusion and other applications for intelligence, reconnaissance and surveillance operations.

AAI unmanned aircraft systems' Shadow tactical UAS will be the launch platform for the GPC-3000. Its predecessor, the GPC-2000, is being fielded on AAI UAS most recent Shadow RQ-7B configuration, an upgraded system dubbed Shadow V2 by AAI's US Army customer. SP

UAS Europe acquires IP rights

UAS Europe, Sweden, has announced that they have acquired the intellectual property rights, manufacturing capabilities and airframe stock for two different unmanned aircraft from UAV Services and Systems, Germany. The larger aircraft is called X-SIGHT, has a 4-stroke engine, wingspan of 3.15 metres, a payload capacity of 7 kg and endurance of up to 10 hours.

The smaller hand or catapult launched aircraft, mX-Sight, has an electric engine, wingspan of 2 metres, payload capability of 3.5 kg and endurance of up to two hours. The two aircraft have been renamed Spy Owl 200 and Spy Owl 300.

"We see the acquisition of these two systems as a very strategic step where we now can provide three different types of UAVs. UAV trainer system, portable and reliable hand-launched UAVs and not the least a long endurance system with great surveillance capabilities. UAV Services and Systems has done a tremendous job in assuring superb building quality, long endurance and very reliable UAVs. We are proud to be the new owners of such professional UAV systems," said Henrik Wolkesson, project manager at UAS Europe, Sweden. SP

PHOTOGRAPHS: Bluebird Aero Systems, US Army, Rockwell Collins

LT GENERAL (RETD)
P.C. KATOCH

Special Forces Command

Amongst various recommendations made by the Prime Minister appointed Naresh Chandra committee, a significant one is for setting up a separate Special Forces Command. What will be of relevance is the time frame in which this organisation will come up and more importantly the manner in which it is organised. The emergence of irregular/asymmetric forces with greater strategic value over conventional and even irregular forces in conflict situations over conventional and even nuclear forces in recent years has remained unacknowledged by India.

Consequently, we failed to create deterrence against irregular forces and have relied only on diplomacy, which is not wholly effective since it is not sensitised to the advantages of Special Forces. For instance, after the Anglo-Franco-Israeli assault on Egypt in 1956, the British had been booted out of the Middle East. A few years later the British Foreign Office offered the services of the SAS as "advisers" and experts to help the Middle East regimes quell their insurgencies and meet other security needs. This led to the British regaining their influence in the region and re-emerge as a major foreign affairs player in the energy-sensitive region. Similar initiatives have been undertaken by Special Forces of many countries including US, UK, Russia and Israel.

We have remained at great disadvantage since lack of strategic forethought has deterred us to exploit the strategic potential of our Special Forces. Amy Kazmin wrote in *Financial Times* September 9, 2011, saying, "The instruments of state action have become dysfunctional", says K. Shankar Bajpai, Chairman of India's National Security Advisory Board and former Ambassador to the United States. India's strategic interests extend between the Suez to Shanghai….but we have neither the manpower nor the strategic thinking to handle these challenges".

Pakistan's SSG has been operating in J&K, Afghanistan, Iraq, Nepal and Bangladesh from time to time. Additionally, the LeT (covert arm of ISI) has been linking up with Indian Maoists and the radicals in Kerala. If China aims to stir up NSCN, ULFA, Manipuri PLA and Maoists insurgencies while claiming Arunachal Pradesh, can we rule out covert and proxy involvement of their intelligence agencies and Special Forces? Covert presence of Chinese Special Forces and intelligence agencies in Pakistan, POK, Nepal, Myanmar, Bangladesh, Sri Lanka and India is real possibility.

There is an urgent need to develop publicised overt capabilities and deniable covert capabilities as deterrence against irregular war thrust upon us and the will to selectively demonstrate it to ensure its effectiveness. We need to create macro conditions for Special Forces through measures like a national vision, joint doctrine, joint organisations and integrated intelligence support.

What India needs for coping with irregular/unconventional threats and power projection is Special Forces for strategic tasks including as deterrent against irregular and asymmetric warfare, Commando Forces for within border tasks beyond capabilities of regular infantry and Airborne Forces for rapid reaction and force projection within and outside India. While the Commando Forces should have an integrated tri-Services set up, the Special Forces should be delinked from the military and placed under the highest political authority – the Prime Minister. They should have access to integrated intelligence plus varied insertion and extraction capability and adequate support elements. Their manpower base should be all India including the Military, PMF and CAPF.

Special Forces should be tasked for strategic tasks including surveillance and target designation in areas of strategic interest, shaping asymmetric and conventional battlefield to Indian advantage, deterring opponents exploiting our fault lines, controlling fault lines of adversaries, undertaking information/psychological operations and unconventional warfare, anti hijack, building partner capabilities with friendly countries and providing the cutting edge for strategic force projection. SP

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

While the Commando Forces should have an integrated tri-Services set up, the Special Forces should be delinked from the military and placed under the highest political authority – the Prime Minister

PHOTOGRAPH: Wikipedia

American airports: Morpho streamlines ID checks

The US Transportation Security Administration (TSA) has chosen Morpho (Safran) to develop a solution to optimise ID and boarding pass checks. This mission for the ID specialist is based on trust.

The US TSA chose MorphoTrust USA to develop new technology to improve traveller convenience and security in September 2011. "When travellers arrive at the airport to take a flight, they have to provide their ID and boarding pass together at the security checkpoint," explains MorphoTrust USA Project Manager Chad Crouch. He adds, "Today, the officers in charge of running these checks – Travel Document Checkers – manually check that passenger names on documents and boarding passes match and that the documents are authentic." That is the step that TSA wants to streamline with its CAT/BPSS programme.

More reliable checks

There are no fewer than 1,300 different government-issued ID documents in the US alone which incorporate a variety of security features to prevent forgery (ultraviolet ink, holograms, watermarks, etc.). Chad Crouch explains, "No one person can know all the features on all the documents. The Travel Document Checkers have fairly rudimentary tools to check them so there is a risk of human error." This TSA programme is geared towards developing an IT system that will render pre-boarding authentication and verification operations swifter and smarter.

PHOTOGRAPH: Safran

Three months to develop the pilot project

The system that MorphoTrust USA developed uses a reader that can scan an ID document and provide accurate authentication by liaising with a database containing the existing documents and their authentication features. The reader also picks up the public-record information on the document – contained in the bar code, magnetic strip or electronic chip – and then compares it to the information on the boarding pass, in seconds! Chad Crouch adds, "Once the transaction is complete, the personal information captured from both documents is instantly purged from the system," Chad Crouch explains. He adds, "TSA is very serious about privacy protection."

MorphoTrust USA only took three months to build its system for the pilot. The team used Morpho's B5000 reader, which is already used extensively to authenticate passports. By last April, 10 prototype systems were delivered and six of them were installed in three US airports for operational testing and evaluation. Chad Crouch adds: "We obviously hope this testing stage results in an agreement to start industrial production and large-scale deployment. In any case, we have developed a solid relationship with our customer over the past few years and look forward to expanding it further as the prime contractor responsible for the Universal Enrollment Service (UES) programme." SP

Militant groups of the North-east

There are reports that Indian Insurgent Groups (IIGs) have been using Myanmar territory for safe sanctuary. Manipur-based Meiti insurgent groups like People's Liberation Army (PLA), United National Liberation Front (UNLF), People's Revolutionary Party of Kangleipak (PREPAK); Naga insurgent group like the National Socialist Council of Nagaland/Khaplang (NSCN/K) and United Liberation Front of Assam (ULFA) Anti-talk faction and National Democratic Front of Bodoland (NDFB) have their camps/hideouts in Myanmar Naga Hills (MNH).

The presence of IIGs in Myanmar has been the single most important security issue for India at every bilateral negotiations, i.e. National Level Meeting (NLM) at Home Secretary Level and Sectoral Level Meeting (SLM) at Joint Secretary Level held every year in pursuance of 1994 memorandum of understanding (MoU) between India and Myanmar. Myanmar has always been assuring India that they will not allow their soil to be used by IIGs to carry out activities inimical to India. IIGs continue to use Myanmar territory notwithstanding Myanmar's repeated assurances not to allow its territory for activities inimical to India.

In the recently held NLM between India and Myanmar at Nay Pyi Taw (Myanmar) in January 2012 and SLM held at Kolkata in June 2012, the issue of continued presence of IIG groups in Myanmar was raised again and it has been assured by Myanmar to cooperate closely to address the Indian concerns.

As a result of regular National Level and Sectoral Level Meetings and follow-up of deliberations of NLM and SLM, Myanmar authorities have shown willingness to act against these militant groups and have started some operations against IIGs in Myanmar in recent times.

This was stated by Mullappally Ramachandran, Minister of State for Home Affairs in a written reply to a question in the Lok Sabha. SP

Naxal attack on infrastructure

Since 2009, a total number of around 1,183 incidents of damage to economic infrastructure by the Maoists have been reported from different parts of the country. The infrastructure destroyed includes property belonging to public/private sector units, railway property, telephone exchanges/mobile towers, power infrastructure, roads, school and panchayat buildings etc. The damage in money terms runs into hundreds of crores.

There is a marginal decline in incidents of damage to economic infrastructure by the left-wing extremism (LWE) in the country during the last three years. Such incidents have come down in the current year (up to July 31) also, compared to the corresponding period of 2011. The details of incidents of damage to economic infrastructure by the LWE in the country during the last three years and the current year are mentioned.

'Police' and 'public order' being state subjects, action with respect to maintenance of law and order lies primarily in the domain of the state governments concerned. The Central Government has a holistic approach towards combating LWE wherein it supplements the efforts of the state governments over a wide range of issues including deployment of CRPF, assistance in implementation of development schemes, improving governance and capacity-building by the states in various areas. It is the belief of the Government of India that a combination of calibrated police action, focused development efforts and improvement in governance will yield the desired results against LWE.

This was stated by Jitendra Singh, Minister of State for Home Affairs in a written reply to a question in the Lok Sabha. SP

Saab appoints Lars-Olof Lindgren to lead India business

Saab has announced the appointment of Lars-Olof Lindgren as head of Market Area India from December 1. Lars-Olof Lindgren is the former ambassador of Sweden to India; he held that position for five years before joining Saab. Lars-Olof Lindgren's experience and relationships with the Indian and Swedish governments and industries will further reinforce Saab's long-term commitment to the Indian market.

He succeeds Jan Widerström who has had an important role in building customer relations and developing the business to the status it has today with over 30 employees. Jan Widerström moves on to a new assignment within the Saab Group.

Saab President and CEO, Håkan Buskhe says, "India has been identified to be one of Saab's most important markets and we look forward to welcoming Lars-Olof who, with his considerable experience of India, will enable us to contribute significantly to the country's defence industry, forge new relationships with the Indian private sector and build strong, collaborative partnerships. We are delighted that he will be leading the India team at a crucial juncture where we are looking at significantly scaling up our business in India."

According to Lars-Olof Lindgren, "Sweden and India's defence collaboration has reached an important phase where companies such as Saab have an important role to play. Swedish technology can play a vital role when India continues to develop an indigenous defence industry for the future, supplying both India and the global market with advanced products. In order to accomplish this, we need to continue to forge relationships with Indian partners. I am proud to take on the role as head of Saab's business in the country. During my years as ambassador, I have followed Saab's efforts on this market with great interest. I look forward to be a part of this high technological global company which has been very clear with its increased ambitions in a number of different markets. It will be very interesting and stimulating to lead this work in India."

Lars-Olof Lindgren was the Ambassador of Sweden to India between 2007 and 2012. Before taking office in the Embassy of Sweden in New Delhi, Lars-Olof Lindgren was the State Secretary to the Prime Minister dealing with International Affairs and the European Union. Prior to this, he was the State Secretary for Trade in the Ministry of Trade and Industry.

Lindgren has held various offices of importance in the Foreign Ministry between 1991 and 2004; starting as the Deputy Head of Mission and Minister at Swedish Embassy in Beijing, the People's Republic of China, then as Minister and Deputy Permanent Representative at the Swedish Representation to the European Union in Brussels, Belgium and finally as the Director General for Trade. Prior to the Foreign Ministry, Lindgren was with the Ministry of Finance as the Economic and Financial Counsellor at the Swedish Delegation to the OECD in Paris, France. For four years, Lindgren was with the Swedish Trade Union Confederation, Stockholm, as an Economist, General Economic and Trade Policy Questions. For the next four years, he was the Political Adviser to the Minister for Foreign Trade at the Ministry of Trade and Industry.

A graduate from the Stockholm School of Economics, Lars-Olof Lindgren started his career with the Local Government, Köping, Sweden in the Department of Economic Planning. He is married and has four children. SP

General Dynamics acquires two companies - Fidelis and Gayston defence unit

General Dynamics has completed its previously announced purchase of Fidelis Security Systems, Inc., a market leader in cyber security tools that provide real-time network visibility, analysis and control. It will become part of General Dynamics Advanced Information Systems, a business unit of General Dynamics. The value of the cash transaction has not been disclosed.

Fidelis Security Systems' network security solutions help customers stop advanced threats and prevent data breaches by providing visibility into the complex layers of a network, exposing malicious content in real-time. These products complement General Dynamics' cyber operations and incident response services, allowing customers to detect, defend and react to cyber threats and network breaches.

"I'm pleased to have completed our acquisition of Fidelis Security Systems," said Lou Von Thaer, President of General Dynamics Advanced Information Systems. "Our enhanced portfolio of products, cyber services and incident response capabilities creates a unique offering in the marketplace. We are now better positioned to help our enterprise and government customers combat advanced threats and protect their networks through real-time situational awareness."

General Dynamics has acquired the defence operations of Gayston Corporation, a privately held company that supplies precision metal components used in several munitions programmes. The value of the cash transaction, which General Dynamics expects to be accretive to earnings in 2013, has not been disclosed.

Gayston's defence operations employ 187 people at a state-of-the-art facility in Springboro, Ohio, which is optimised for aluminium impact extrusion manufacturing. Among its products, Gayston manufactures rocket motor tubes for the US Army's Hydra-70 air-to-ground rocket programme. It also provides liners and cartridges for 40mm ammunition rounds and components for 60-120mm mortar rounds to a variety of customers.

"The acquisition of Gayston's defence operations expands our critical manufacturing capability to cost-efficiently produce high-precision parts in large quantities," said Michael J. Mulligan, President of General Dynamics Armament and Technical Products. "The acquisition also provides us with more opportunities to participate in high-performance weapon system programmes." SP

PHOTOGRAPH: www.regeringen.se

DCNS profitable growth continues

DCNS performed very well during the first half of 2012. "Our growth was in line with our target to double Group revenue between 2010 and 2020. The outstanding commitment of all DCNS teams contributed to the further increase of our performance, once again in line with our targets. These achievements improve our competitiveness on our key markets while enabling us to invest in the future. Despite the current economic environment, this is all to our advantage as we strive for success," said Patrick Boissier, Chairman & CEO of DCNS.

In the first half of 2012, orders intake reached €813 million, compared with €1.2 billion in the first half of 2011. Major H1 2012 orders included through-life support for the French Navy's submarines and FREMM multi-mission frigates.

At end June 2012, DCNS' order book was worth €14.2 billion, stable compared to end June 2011. This represents five years of revenue. This strong order book fuels the Group's future growth.

Revenue increased to €1.4 billion, compared with €1.2 billion for the first half of last year, thanks to good progress on industrial programmes for the French Navy (Barracuda submarines, FREMM frigates and through-life support for front-line ships) and in Brazil, India and Russia.

For the first half of 2012, DCNS operating profit before impact

of PPA increased to €98 million, or 7.0 per cent of revenue, compared with €85 million, or 6.9 per cent of revenue, for the same period last year. The Group is reaping the benefit of the transformation programme launched in 2010 as part of the championship strategic growth plan. This strong bottom line will enable DCNS to continue to invest in technological innovation, market development as well as industrial resources and skills. SP

PHOTOGRAPH: DCNS

Saab strengthens position in India

Defence and security company Saab has signed a MoU (memorandum of understanding) regarding a strategic investment in the Indian company Pipavav Defence and Offshore Engineering Co Ltd. In conjunction to this the companies have signed a technical partnership agreement (TPA). The TPA is a continuation of an ongoing cooperation between the two parties and covers details about the format for further cooperation and relevant projects.

These agreements are a step in Saab's strategy to increase the presence in an important and large market and offer business possibilities for several parts of the organisation. The MoU covers an investment by Saab of approximately SEK 250 million through a suitable structure, subject to all necessary approvals, during coming months.

"Saab has a long-term strategy to grow in India and this new agreement is one important step in that direction," said Håkan Buskhe, President and CEO at Saab.

"This agreement has the potential of offering new business opportunities for Saab's naval offer and we welcome the possibilities this presents to further develop our offering to a global market," said Jan Widerström at Saab.

The two companies earlier jointly formed the Combat System Engineering group, which analyses naval combat system design and architecture. The companies are also exploring next generation combat management systems for the Indian Navy and Coast Guard. SP

Restructuring of Denel to sustain the business turnaround

Defence manufacturer, Denel, has initiated a realignment of companies in the group that will lead to savings, increased efficiencies and more effective corporate governance.

"Our objective is for Denel to be managed and perceived as one, integrated business," says the Group Financial Director, Fikile Mhlontlo. He says an integrated Denel will strengthen the company's ability to retain its position as South Africa's premier manufacturer of strategic defence and aerospace products and solutions and a growing player in African and global defence markets.

"Denel is a strategic national asset for South Africa and as a state-owned company we will play a growing role to contribute to national objectives in terms of skills development, research and the growth of a viable high-tech manufacturing industry," he says.

The changes to Denel follow the appointment of Riaz Saloojee as new Group Chief Executive Officer in November 2011. The state-owned company has reported a profit of rand41 million for the 2011-12 financial year and generated cash of rand210 million. SP

Navistar names Lewis B. Campbell Executive Chairman and Interim CEO

Navistar International Corporation has appointed Lewis B. Campbell, former Chairman, President, and Chief Executive Officer of Textron Inc., Executive Chairman of the Board of Directors and interim Chief Executive Officer. Daniel C. Ustian has informed the Board that he is retiring as Chairman, President, and Chief Executive Officer, effective immediately. He is concurrently leaving the Board of Directors. The company also announced that it has promoted Troy A. Clarke, currently President of Truck and Engine operations at Navistar, to the position of President and Chief Operating Officer of Navistar. SP

Dr Andreas Schwer on Executive Board of Rheinmetall Defence

Dr Andreas Schwer, 46, joins the Executive Board of Rheinmetall Defence, the defence technology arm of the Düsseldorf-based Rheinmetall Group. Dr Schwer is responsible for the company's Combat Systems division, which encompasses Rheinmetall's complete array of combat-related products. He takes over from Armin Papperger, who has been Chairman of the Executive Board of Rheinmetall Defence since the beginning of 2012, which he also represents on the Executive Board of Rheinmetall AG. SP

Hiding in plain sight

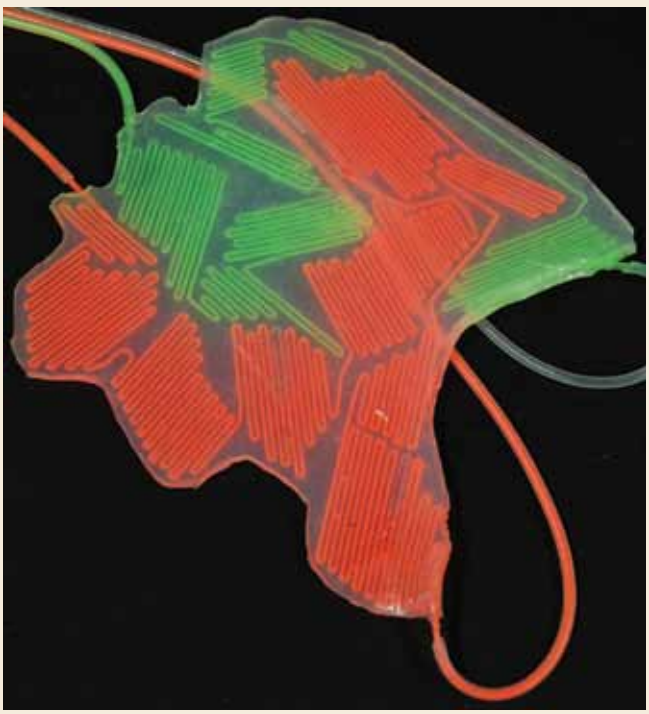
This robot is made of silicone. It can walk, change colour and light up in the dark. It can even change temperature. And it can do all of this for less than $100. In the future, robots like this might be made for just a few dollars.

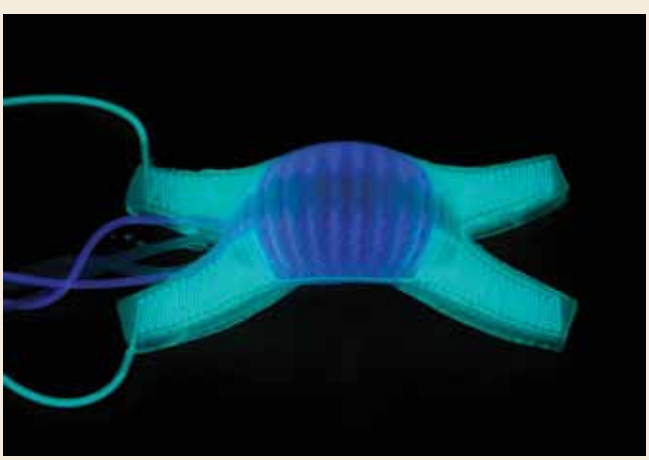
Researchers led by Dr George Whitesides and Dr Stephen Morin at Harvard University's Department of Chemistry and Chemical Biology and the Wyss Institute for Biologically Inspired Engineering demonstrated that microfluidic channels in soft robots enable functions including actuation, camouflage, display, fluid transport and temperature regulation. The work is being performed under DARPA's Maximum Mobility and Manipulation (M3) programme.

Why does this matter to the Department of Defense (DoD)? DARPA foresees robots of many shapes and sizes contributing to a wide range of future defence missions, but robotics is still a young field that has focused much of its attention so far on complex hardware. Consequently, the costs associated with robotics are typically very high. What DARPA has achieved with silicone-based soft robots is development of a very low cost manufacturing method that uses molds. By introducing narrow channels into the molds through which air and various types of fluids can be pumped, a robot can be made to change its colour, contrast, apparent shape and temperature to blend with its environment, glow through chemiluminescence, and most importantly, achieve actuation, or movement, through pneumatic pressurisation and inflation of the channels. The combination of low cost and increased capabilities means DARPA has removed one of the major obstacles to greater DoD adoption of robot technology.

Gill Pratt, the DARPA programme manager for M3, put the achievement in context: "DARPA is developing a suite of robots that draw inspiration from the ingenuity and efficiency of nature. For defense applications, ingenuity and efficiency are not enough—robotic systems must also be cost-effective. This novel robot is a significant advance towards achieving all three goals."

Soft robots are useful because they are resilient and can manoeuvre through very constrained spaces. For this demonstration, the researchers used tethers to attach the control system and pump pressurised gases and liquids into the robot. Tethered operation reduces the size and weight of such robots by leaving power sources and pumps off-board, but future prototypes could incorporate that equipment in a self-contained system. At a pumping rate of 2.25 millilitres per minute, colour change in the robot required 30 seconds. Once filled, the colour layers require no power to sustain the colour. SP





PHOTOGRAPHS: DARPA

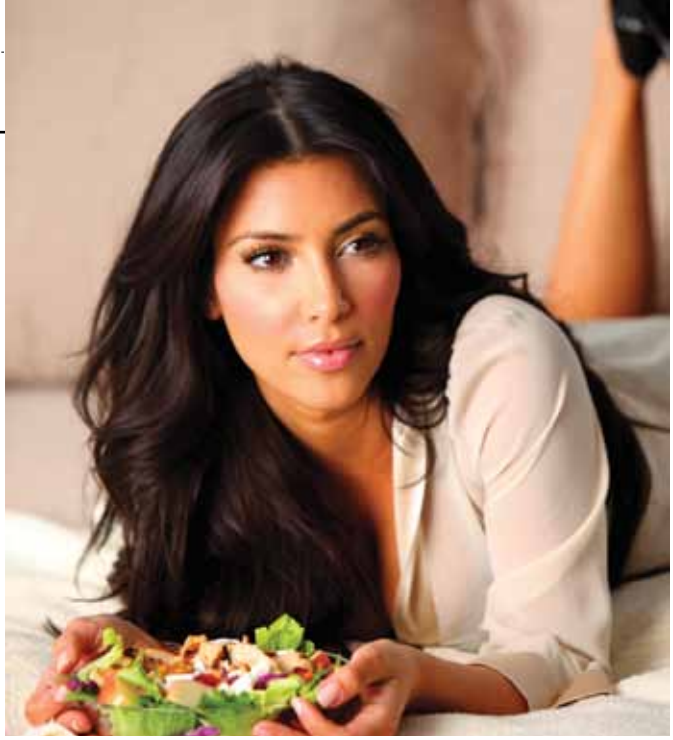
QinetiQ awarded contract by DSTL to lead research

QinetiQ has been awarded a prime contract worth £6.4 million by Ministry of Defence (MOD) scientists following an open competition to deliver key aspects of a four-year, programme of intelligence, surveillance, target acquisition and reconnaissance (ISTAR) research.

Military and security operations rely heavily on quick access to information and intelligence to underpin situational awareness, threat assessment and decision-making. Without this information, known in the military as ISTAR, the commanders' ability to take decisions with an acceptable level of confidence is reduced.

The ISTAR Concepts and Solutions (ICS) programme is driving the next generation of ISTAR developments. This is achieved by applying the best science and technology to demonstrate cost-effective system solutions that will significantly improve the information and intelligence available to UK Armed Forces. This might be through developing new technologies or by other means, such as challenging current operational practice on the battlefield.

Jeremy Ward, MD of QinetiQ C4ISR Division, said of the award: "QinetiQ is delighted to have the opportunity to work with Dstl on the ICS project. We will lead a strong, pan-industry and academia team, which includes some of the UK's most respected scientists, engineers and academics. The team will provide the MOD with access to world leading innovation in C4ISTAR technology and will explore novel ISTAR technologies and processes, which will really make a difference to front line troops in the future." SP



Kim Kardashian pelted with 'flour-bomb'

In March 2012, American reality star Kim Kardashian was pelted with a flour-bomb while stepping out to promote her new fragrance at the London Hotel in West Hollywood. Kim was on the red carpet in West Hollywood when a woman came from behind her and emptied a bag of white flour over her head, shouting what appeared to be "fur hag".

The incident had everyone in Hollywood questioning if this was a random incident or had malicious intent. While most might think it is funny, there is always heavy security around the Kardashian family. Anyone who has been to an event in Hollywood with any member of the family knows there is a routine. SP

UNHCR alarmed over security incidents at Dadaab

Last December, UNHCR stated it was alarmed by a string of recent security incidents targeting the Dadaab refugee complex in northern Kenya. Dadaab is the world's largest refugee settlement and shelters more than 4,60,000 people.

An explosion at the Hagadera camp had killed one person and seriously injured two police officers. Another improvised explosive device went off on later near the market at Ifo camp.

In total there have been four such incidents at Dadaab since October when three aid workers were kidnapped. As a result three Kenyan police officers have been killed and four others wounded. There have also been threats against humanitarian agencies working in Dadaab. "We are deeply concerned for the well-being and safety of Somali refugees in Dadaab, most of whom are women, children and elderly," said António Guterres, the UN High Commissioner for Refugees.

As recently as July, a fire broke out and large quantities of foodstuffs and other goods were destroyed by a fire on July 29 at the main market in one of the camps making up Dadaab refugee complex in eastern Kenya. Officials said that 24 x 7 security monitoring at the camps was needed. SP

PHOTOGRAPHS: carlsjr, msf.org

Youth gains entry into captain's quarters of ship

A 20-year-old Eric Carrero of Yonkers, New York, was apprehended after he was found unauthorisedly in the captain's private quarters of a cargo ship, Andromeda Leader.

The US Coast Guard said that Carrero scaled a fence separating a parking lot from a secure area. Despite not wearing a federal transportation worker ID badge—required for all employees in the area—he did not arouse suspicion until the ship's captain saw Carrero in his room and called authorities.

Carrero was charged with unlicensed entry of a structure and is undergoing a psychiatric evaluation, authorities said. The Coast Guard has completed an investigation into the breach and found the ship's security procedures were inadequate. SP

'Active shooter' sends security in a tizzy

An initial report about a suspicious gunman at Davis-Monthan US Air Force Base in 2011 led to a series of communication breakdowns during a chaotic security incident.

The After Action Report released by the 355th Fighter Wing said that, in Air Force jargon, an unauthorised suspect carrying a gun on a military base is referred to as an "active shooter," even if no weapon has been fired.

So, when a civilian at the Tucson facility mistakenly reported seeing a man with an assault rifle, military responders began talking about an "active shooter," and civilian emergency dispatchers off the base spread word that a man with a gun had opened fire. Finally after nearly nine hours, Davis-Monthan officials declared the emergency over and announced there was no gunman. They declined to explain the false alarm. SP

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