IGNORING GROUND REALITY : A VIEWPOINT PAGE 18

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MILITARY
AEROSPACE
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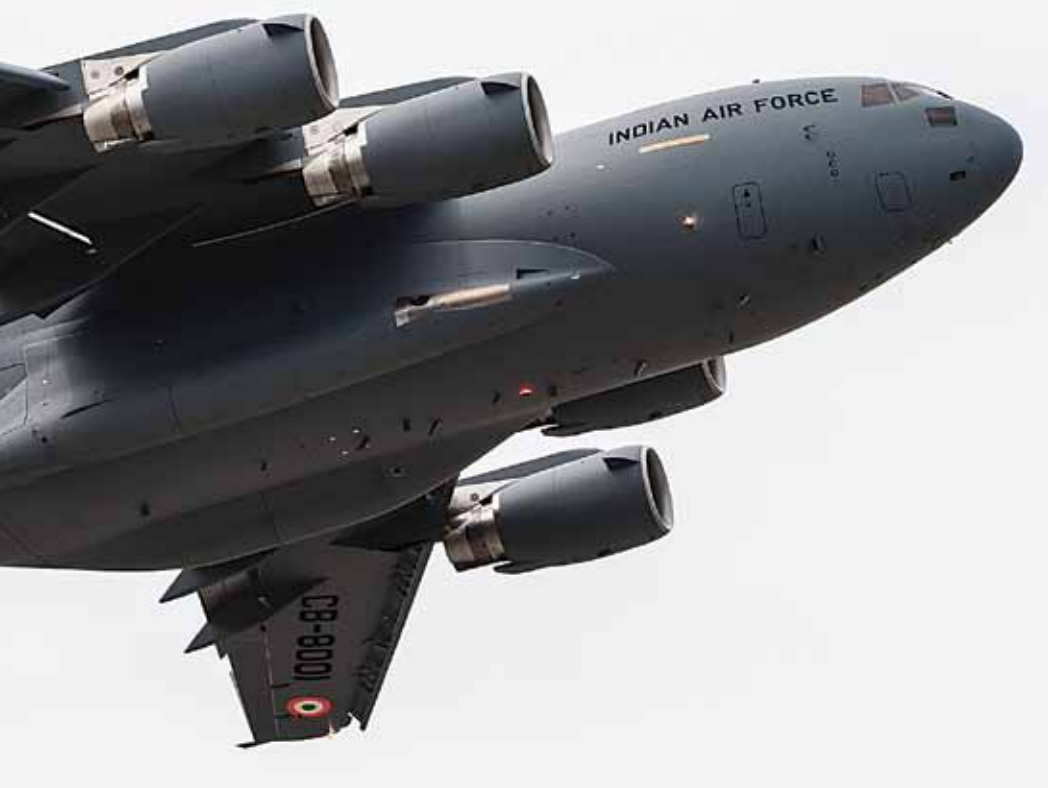
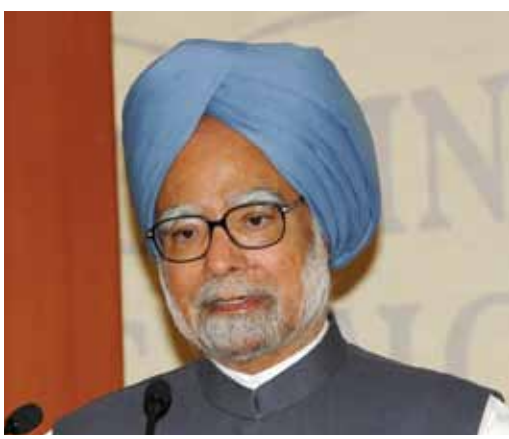
Indian Air Force gets the first C-17 transport aircraft

PAGE 4





PM reiterates two-pronged strategy to deal with LWE

PAGE 19

New Defence Procurement Procedure comes into force

PAGE 8

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Bell Boeing gets contract for 99 V-22 Osprey aircraft

The Bell Boeing V-22 programme, a strategic alliance between Bell Helicopter Textron Inc. and Boeing, has been awarded a five-year US Naval Air Systems Command (NAVAIR) contract for the production and delivery of 99 V-22 Osprey tiltrotor aircraft, including 92 MV-22 models for the US Marine Corps and seven CV-22 models for the US Air Force Special Operations Command.

Valued at approximately $6.5 billion, the contract is structured to provide nearly $1 billion in savings to the US Government compared with procurements through single-year contracts. The contract also includes a provision permitting NAVAIR to order up to 23 additional aircraft.

"Signing this contract speaks volumes towards the confidence our services have in the V-22 Osprey," said Marine Corps Colonel Greg Masiello, V-22 Joint Program Office Program Manager. "Since 2007, the V-22 has been continuously forward-deployed in a range of combat, humanitarian and special operations roles. Ospreys continue to transform our Marine Corps Air

PHOTOGRAPH: US Navy

Ground Task Force and Air Force Special Operations by enabling missions not possible with conventional aircraft, and helped save lives where others could not."

The V-22 Osprey is a joint service, multi-role combat aircraft that uses tiltrotor technology to combine the speed and range of a fixed-wing airplane with the vertical performance of a helicopter. With its nacelles and rotors in vertical position, it can take off, land and hover like a helicopter. Once airborne, its nacelles can be rotated to transform the aircraft into a turboprop airplane capable of high-speed, high-altitude flight.

"The versatile V-22 Osprey is the ideal aircraft for an era when global militaries are being asked to do more with less," said Vince Tobin, Executive Director, Bell Boeing V-22 programme. More than 200 V-22 Ospreys are currently in operation and the worldwide fleet has amassed more than 1,85,000 flight hours, with half of those hours logged in the past three years. SP

Cover:
Boeing will support the Indian Air Force C-17 fleet through the Globemaster III Integrated Sustainment Program (GISP) Performance-Based Logistics contract. The GISP "virtual fleet" arrangement ensures mission readiness by providing all C-17 customers access to an extensive support network for worldwide parts availability and economies of scale.

Cover images: Boeing, PIB

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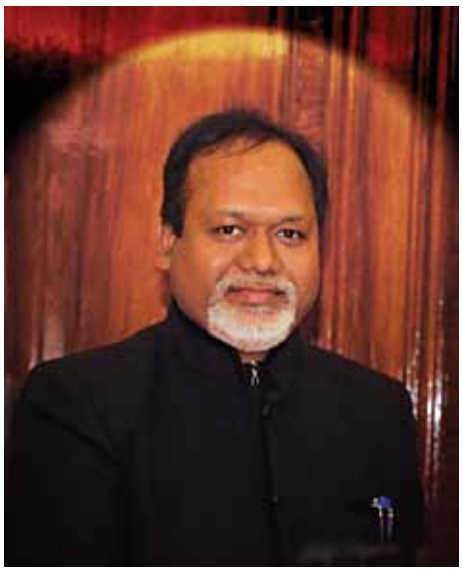


Quell LWE with a firm hand

The regularity with which left-wing extremists (LWE) are targeting politicians, officials, police and security personnel has disturbed the internal security fabric of the nation. The recent attack in Chhattisgarh, which claimed several lives including that of former Union Minister V.C. Shukla, has shaken up the government. While all major political parties have condemned the attacks and termed the CPI (Maoist) an unlawful organisation, the Prime Minister Dr Manmohan Singh has called for coordinated efforts between the Centre and the States to deal with the Naxal menace. At a recent meeting on internal security of Chief Ministers, the Prime Minister reiterated the two-prong strategy of the government to quell Naxalism.

The strategy is to continuously conduct proactive and sustained operations against Maoist extremists while addressing development and governance issues in Naxal-affected areas. There is no gainsaying the fact that these efforts have to be intensified, accelerated and quick, before the LWE lure lot more vulnerable sections of the society into their fold. In hinterland India, issues of governance stare people in their faces, frustrating them and LWE have been promising utopia by overthrowing established governments. This is not going to happen, but what is disturbing is that the internal security situation becomes fragile.

It is sincerely hoped that the governments, irrespective of political affiliations, will strengthen the security and intelligence apparatus in these areas and at the same time invest in development programmes.

In his frank and forthright analysis, Lt General (Retd) P.C. Katoch has called for total control by the Home Ministry with a 24x7 operations centre to counter Maoist operations, besides a cohesive strategy encompassing politico-economic-socio aspects of the problem. The Central Armed Police Forces are not geared to take on the Maoists and he suggests that these units should be reorganised, officered, manned, equipped and trained like the Rashtriya Rifles or the Assam Rifles.

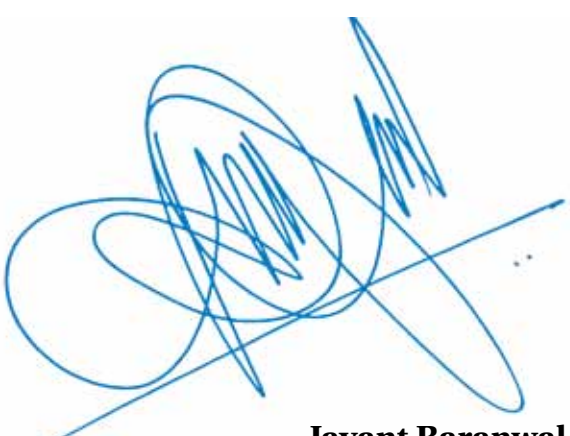
Away from LWE, we have good news with the Indian Air Force going to take delivery of C-17 Globemaster III heavy-lift transport jet. The aircraft is versatile and it will equip the IAF with strategic and humanitarian capabilities. Compared with the IL-76, the C-17 is said to be easier to handle and its ability to operate from short and rough airstrips gives it added edge. The aircraft can be used to fight terrorism and in low-intensity warfare.

The other good news is that the new Defence Procurement Procedure (DPP) 2013 has been promulgated. It is hoped that it will promote indigenisation and create a level playing for the Indian defence industry which has started looking up only now. There are makings of a strong defence industrial base, but the path is fraught with challenges.

India's defence spending has grown manifold since the country announced its first defence budget in 1950. India currently imports approximately 70 per cent of it equipment needs, but the Government's aim is to reverse this balance.

Indeed, Indian defence industry has a long way to go.

Happy reading!



Jayant Baranwal
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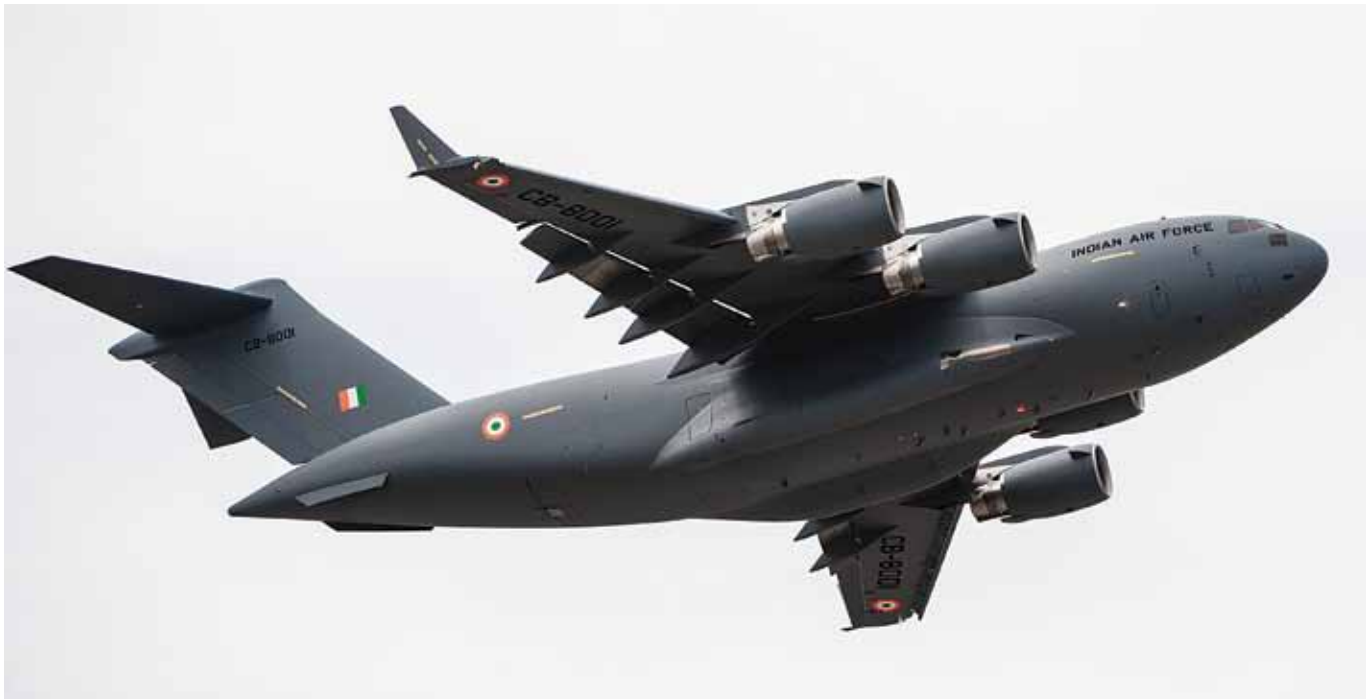


First C-17 takes off for India

Flown by an Indian crew, the first Indian Air Force (IAF) C-17 Globemaster III heavy-lift transport jet is now on its way to India. Following a ceremony at Long Beach, California, the aircraft—the largest ever operated by the IAF—will make several stops before landing on the morning of June 17 at Hindon on Delhi's outskirts, where it will share squadron space with the 77 Veiled Vipers C-130J squadron.

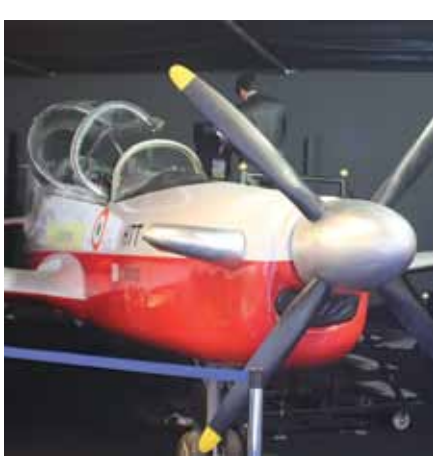
"The C-17 will equip the Indian Air Force with amongst the world's most advanced humanitarian and strategic capabilities," said Air Vice Marshal S.R.K. Nair, Assistant Chief of Air Staff Operations (Transport and Helicopters). Boeing is on schedule to deliver four more aircraft in 2013 and the remaining next year. "Congratulations to the Indian Air Force on this milestone as India joins the worldwide community of C-17 operators," said Tommy Dunehew, Boeing Vice President of Business Development for Mobility, Surveillance and Engagement. "Nations turn to the C-17 for the capability to perform a wide range of operations, from peacekeeping and disaster relief to troop movements from semi-prepared airfields. This aircraft will provide the Indian Air Force with the versatility to augment airlift capability."

C-17s have flown in India on several occasions. Apart from transit and field evaluation trials, C-17s have flown in India for joint exercises and for display duties at the Aero India show. SP

Despite IAF, HAL moves ahead on with HTT-40

Despite the IAF's serious concerns over the prospective cost of the HTT-40 and recommendation that the project be shelved, the Hindustan Aeronautics Ltd (HAL) is powering on with the programme. HAL is rushing to piece together the platform so as not to irk the IAF further.

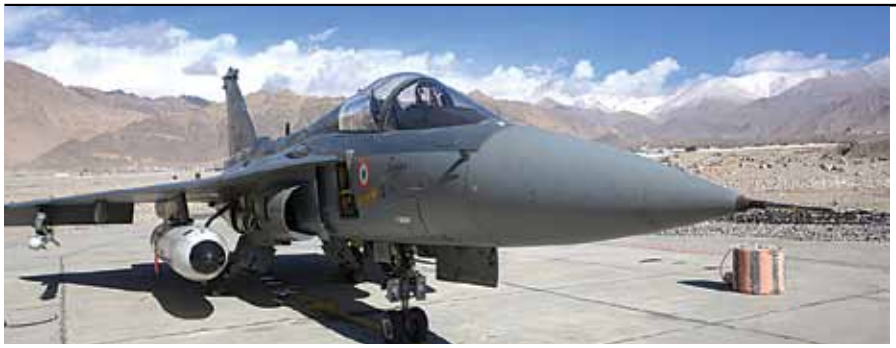
In February, IAF Chief Air Chief Marshal N.A.K. Browne had said there was no need for the HTT-40. Two months later, HAL shows no sign that it is winding down the programme—instead it is reviving things up. Apart from an active competition for its turboprop engine, HAL has called for competitive bids for a



number of systems including primary flight display units, integrated standby instrument system, angle of attack system, engine instrument and crew alert system, hydraulic utility packs, hydraulic pumps, total air temperature probe, air data probe, vapour cycle cooling system, emergency accumulator manifold. The IAF is poised to proceed with follow-on orders of Swiss-built Pilatus PC-7 MkII propeller trainers this year.

Top sources at HAL said the programme was "very much on track" and that there was no question of "scrapping it". They also added that discussions were on with the IAF to make them come around to the view that the indigenous platform would be superior to the Swiss aircraft under induction. SP

PHOTOGRAPHS: Boeing, SPSC



New DRDO Chief pushes emergency button on Project Tejas

The Defence Research and Development Organisation's DRDO new Director General, Dr Avinash Chander, has activated Code Red on Project Tejas, and has called for an immediate emergency plan to get the lumbering programme back on track. Top sources at DRDO and the Aeronautical Development Agency informed *SP's M.A.I.* that Dr Chander, over the last three days, has held video-conference discussions with all top scientists and visited Bengaluru for one-on-one meetings with the team leading the second phase of the initial operational clearance (IOC-2) mission. Things have been distinctly difficult for the programme over the last two years. Following IOC-1 in January 2011, it has been slow-moving.

On May 29, two days before Dr Chander took over as his scientific advisor, Defence Minister A.K. Antony declared that the Tejas would, at all costs, be delivered to the IAF by the end of next year, fully certified and cleared by all agencies concerned. That one announcement has put a huge amount of pressure on the new DRDO Chief, who is now understood to have put together a team of eight persons, including two of his own appointees, to oversee on literally a day-to-day basis functional progress on Project Tejas, including all aspects of certification and compliance. Dr Chander, sources say, will receive an official update either verbally or in report form every alternate day to keep himself abreast of what he considers to be the most crucial and pressing programme in the DRDO pipeline.

A top official of Dr Chander's newly formed team informed *SP's M.A.I.*, "The other programmes are progressing satisfactorily. The light combat aircraft requires special attention. It is for this reason that Dr Chander felt the need to allocate additional resources to supervise this final stretch of the prestigious project. We will be giving it our all to deliver a fine fighter to the customer." Dr Chander's team will similarly continue and oversee the Tejas Mk.2 programme once the Mk.2 final operational clearance is in the bag. SP

Indian Navy for heavy torpedoes for new ASW ships

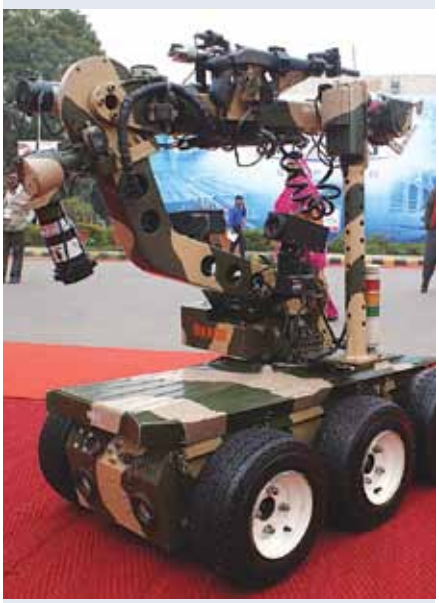
The Indian Navy is in the market for new heavyweight torpedoes with "state-of-the-art technology, of calibre 534.4mm and length not exceeding 7,800mm, to be fired from existing torpedo tubes of ships". The Navy has been looking to acquire new torpedoes for years, and the current acquisition will be in line with that.

The Navy is already on the verge of signing a deal for 98 Finmeccanica WASS Blackshark heavyweight torpedoes for its Scorpene submarines, a deal that appears now to be delayed by the entire Finmeccanica controversy that's already taken a toll on the AgustaWestland VVIP copter contract progress. The Indian Navy needs the new heavyweight torpedoes for its P28 class of anti-submarine warfare corvettes, the first of which is to be delivered to the Navy by the end of this year. The DRDO's own heavyweight torpedo Varunastra is undergoing trials at this time and is likely to be ready for integration on platforms only by 2016. SP

PHOTOGRAPHS: ADA, SPSC, Atlas Elektronik

Indian Navy for bomb displosal robots

The Indian Navy has announced interest in procuring four remotely-operated vehicles (ROV) for explosive ordnance disposal (EOD) purposes. Declaring its interest, the Navy has said it requires these EOD ROVs for "safe disposal/neutralisation of improvised explosive devices found within naval shore/afloat establishments".



The Navy has stipulated that the ROV should be versatile with high manoeuvrability to allow operation in built-up areas and field terrain and confined spaces such as in ships, aircraft, buses and trains. In addition it should be able to climb stairs (stair height 8"). Like most modern ROVs deployed in field areas in West Asian theatres, the Navy wants its prospective bomb-disposal robots to be fitted with a manipulator arm with a gripper claw, should be wheel driven with replaceable and removable tracks. It should also have the capacity to fit water disrupter barrels with mounting bracket.

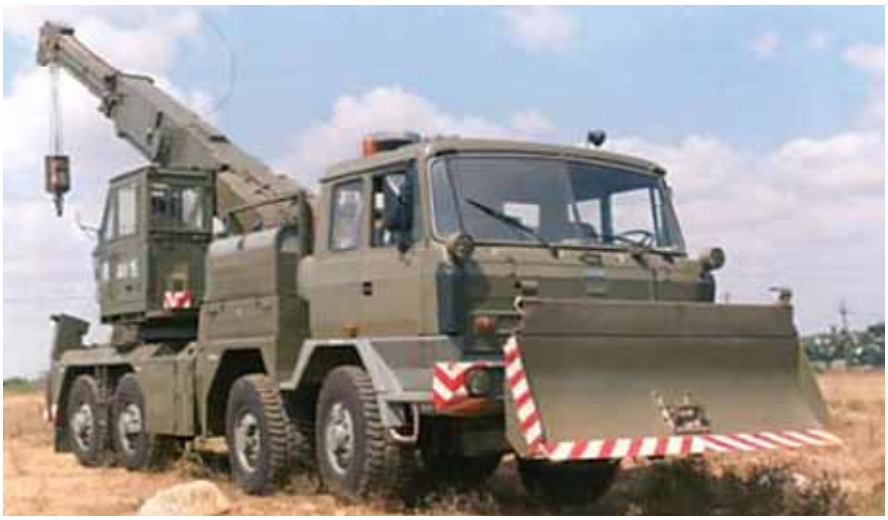
Importantly, it should be capable of picking up explosives weighing at least 6-kg and up to half a metre in length. The Indian Army has already chosen to buy 20 DRDO Daksh IED handling ROVs of a limited series production line. The Indian Navy is likely to consider the Daksh as part of its current effort too. SP

HAL's LUH making progress

With the choice of engine locked (Turbomeca Ardiden 1U Shakti), the Hindustan Aeronautics Ltd (HAL) is moving forward with other aspects of the light utility helicopter (LUH) for the three services. HAL has begun procurement processes to acquire an active flight control system, inertial navigation system, passive vibration isolation system (PVIS), emergency locator transmitter, dual mode anti-collision light, oxygen system, fuel pump, cargo hook system and hydraulic pumps.

As reported earlier by *SP's M.A.I.*, HAL is under great pressure to speed up the programme, given that the reconnaissance and surveillance helicopter (RSH) acquisition remains in limbo, with the Defence Acquisition Council yet to take a final call on how to proceed with the procurement of 197 helicopters, currently being contended by Eurocopter and Kamov. Unlike the Israeli collaboration on the glass cockpit for the ALH Dhruv, HAL will be investing in a fully indigenous glass cockpit for the LUH that involves only Indian companies and joint ventures. Marketing for the LUH will also be an entirely Indian effort. Top IAF sources said, "The helicopter concept is promising, but it remains to be seen whether HAL can stick to timelines. That will be the real test. The IAF would prefer to induct indigenous platforms rather than import." SP

PHOTOGRAPHS: BEML, Philippines Navy, SPSC



Indian Army for heavy recovery vehicles

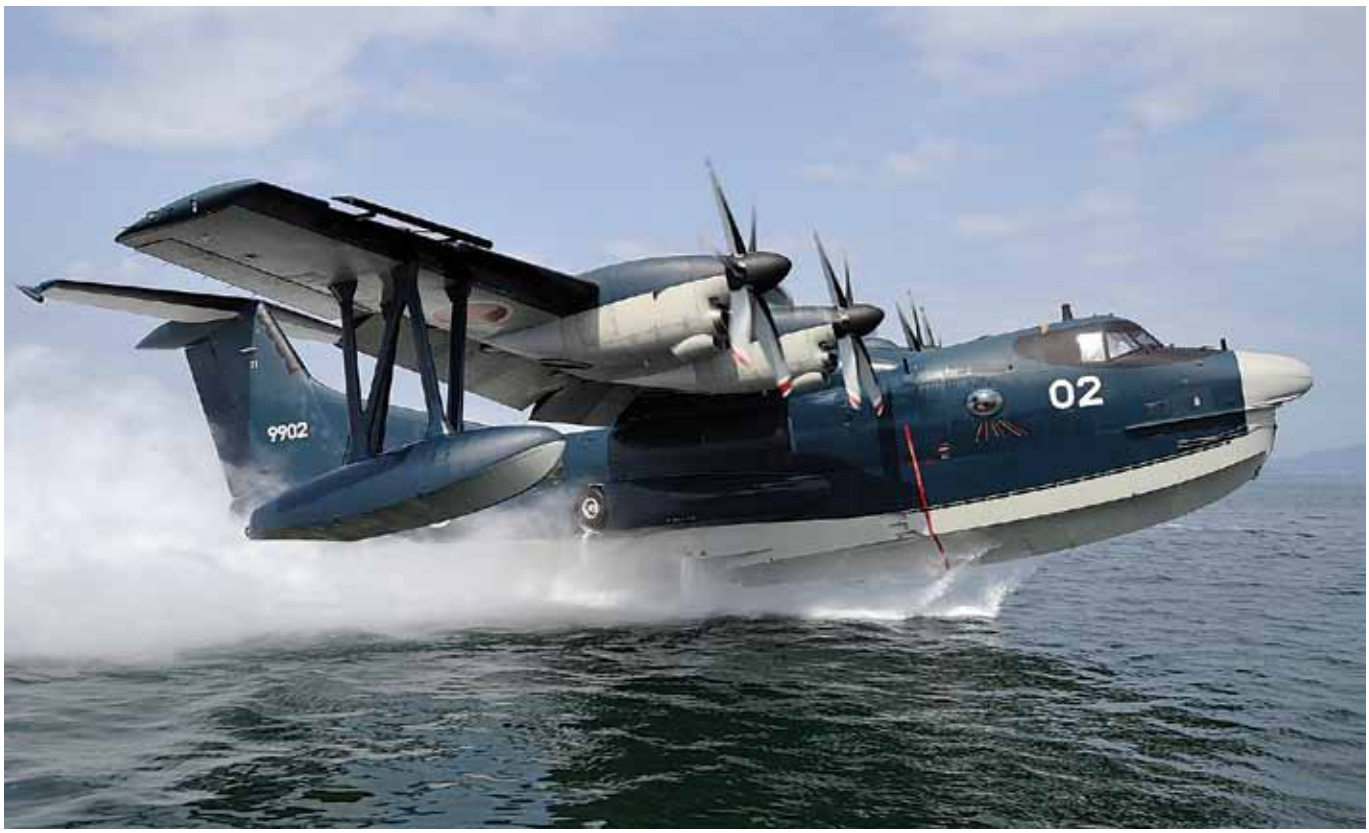
The Indian Army is looking to procure an unspecified number of heavy recovery vehicles to recover stalled, overturned or broken down heavy or armoured vehicles of the forces. The Army is looking for a vehicle capable of providing recovery cover for vehicles over 15 tonnes in all terrain (desert, plains, marshy ground, rocky ground and to a limited extent in mountains up to 4,500 metres above sea level).

It needs to be capable of un-ditching, up-righting, extricating and pulling wheeled vehicles up to 26 tonnes. It needs to have a lifespan of over 1,00,000 km. With a great deal of inductions ahead of heavy and armoured vehicles, the Army requires a great deal of back-up crash support in all theatres. BEML's HRV AV-15 (photo') will be a contender in any competition that is announced. As reported earlier by *SP's M.A.I.*, the Army is in the process of inducting over 7,000 new vehicles: 3,500 light bullet proof vehicles (LBPV), 2,500 infantry mobility vehicles, an unspecified number of light-armoured multi-purpose vehicles, 500-600 light specialty strike vehicles and 228 light strike vehicles, in addition to tanks and utility trucks. SP

Indian Navy flotilla in Philippines

As maritime tensions intensify between China and the Philippines, four Indian warships are now on a goodwill visit to the latter nation in what is being interpreted as a subtle message to Beijing. Coming shortly after Defence Minister A.K. Antony's visit to Singapore, Thailand and Australia, preceded by Prime Minister Manmohan Singh's visit to Japan and Thailand, the Indian Navy's maritime diplomatic mission is seen to be topping off goodwill and ties in the Indian Ocean as a counter to China's growing assertiveness in the maritime domain.

After a previous stop in Vietnam, also a nation facing off with China in the maritime sphere, the four Indian ships—guided missile destroyer INS Ranvijay, guided missile stealth frigate INS Satpura, Kora-class guided missile corvette INS Kirch and fleet replenishment tanker INS Shakti—docked in Manila on a five-day visit. Under the command of Flag Officer Commanding (Eastern Fleet) Rear Admiral P. Ajit Kumar, the fleet will be in the Philippines when the Indian Navy's Flag Officer Commanding-in-Chief, Eastern Naval Command, Vice Admiral Anil Chopra arrives in Manila for an official visit on June 15. SP



PHOTOGRAPH: ShinMaywa

India and Japan home in on US-2

On May 29 in Tokyo, India and Japan decided to establish a Joint Working Group (JWG) to explore modality for the cooperation on the US-2 amphibian aircraft. The landmark agreement, which sees Japan for the first time agree to consider exporting dual-use equipment for use by the Indian military, does not specify a user, but it is well known that the Indian Navy has been in the international market since January 2011 for at least 15 amphibian aircraft. The Shinmaywa US-2, pitched as the most capable amphibian around, is costlier than comparable competitors, and comes with it the export restrictions that are part of Japan's constitution. However, negotiations have led to the company and the Japanese Government agreeing to work with India on hammering out the modalities. India's own track record in use of military equipment has gone a long way in achieving this. The Indian Navy requires amphibious aircraft for operations in its island territories in the Arabian Sea and Bay of Bengal for the entire gamut of operations, including surveillance, reconnaissance, maritime search and rescue, interdiction and anti-piracy/counter-terror. The flexibility and capabilities of the US-2 offer the Indian Navy the first ever such capability in the history of its air arm.

The Japan Maritime Self-defense Force (JMSDF) operates nine US-2s that have been dispatched over 900 times for search and rescue missions so far. The US-2 is capable of taking off from water in 280 metres and landing in 310 metres—far less than any rigid runway requirement, giving the platform excellent STOL qualities. The US-2 has an operational range of 4,500 km and a cruising speed of 480 kmph.

Says Yasuo Kawanishi, General Manager, Business Development & Contract Department, Aircraft Division at Shinmaywa, "Only three countries can make amphibian aircraft: Japan, Canada, and Russia. However, only the US-2 can meet all of the diverse performance requirements in the market, namely, the capability to land on the ocean, carry a large number of people, and cover long distances. As a manufacturer of the US-2, we need to further reduce manufacturing costs. Because this aircraft was developed using national assets, we believe that it is necessary to expand its applications in Japan first. One of our suggestions is to equip the US-2 with a firefighting function. This is not only useful for extinguishing frequently occurring forest fires, but also enables firefighting in areas that cannot be reached by fire engines or helicopters in the wake of a large-scale disaster. The US-2 can make a big difference. Another thing that you can do with the US-2 is send an 'ambulance amphibian' to collect acute patients on remote islands where one cannot use a helicopter to send a doctor. The possibilities will be even greater for applications that take advantage of its capability to take off and land on either land or water. Preserving the safety and welfare of those living on remote islands will lead to the protection of this country. After all of these plans have been made a reality, we hope to begin exporting the US-2 in the near future as a model case of our contributions to society through engineering prowess." SP

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New Defence Procurement Procedure 2013 comes into force

The Ministry of Defence has promulgated the Defence Procurement Procedure 2013 on June 1. The new procedure aims to balance the competing requirements of expediting capital procurement, developing a robust indigenous defence sector and conforming to the highest standards of transparency, probity and public accountability, while laying a strong emphasis on promoting indigenisation and creating a level playing field for the Indian industry.

Defence Minister A.K. Antony has expressed hope that the defence industry as well as the procurement agencies will find the DPP 2013 to be a 'progressive step' aimed at giving impetus to indigenisation, creating a level playing field between the private and public sector and expediting the procurement process as a whole.

A higher preference has now been accorded explicitly to the 'Buy (Indian)', 'Buy and Make (Indian)' and 'Make' categorisation, besides bringing further clarity in the definition of the 'indigenous content' and simplifying the 'Buy and Make' (Indian) process. Besides this, the validity of the acceptance of necessity (AoN) has been reduced from two years to one year with a stipulation to freeze the service qualitative requirements (SQRs) before the accord of the AoN. A higher delegation of financial powers to the Service Headquarters and the DPB has also been made. Together, these measures are expected to make the procurement procedure more efficient and reduce delays.

Other significant changes include incorporation of the new offset policy guidelines which were promulgated in August 2012 and revision of the chapter on shipbuilding which had been introduced in the DPP 2011. The Ministry has also undertaken the exercise of further simplification of the Make procedures and revision of the fast-track procedures which is likely to be completed in the near future. SP

India offers Thailand collaboration in defence production

PHOTOGRAPHS: PIB

The Defence Minister, A.K. Antony recently offered to discuss with Thailand possible areas of cooperation and collaboration in defence production. During talks with his Thai counterpart Air Chief Marshal Sukumpol Suwanatat in Bangkok, Antony said India has, over the years, developed a well-established defence industry which can meet varying requirements of the Thai Armed Forces.

He said India would welcome the visit of Thai teams to various defence production facilities. Antony said conscious planning, hard work by our scientists and support by the government is resulting in the growth of a strong defence industrial base in the country.

The talks between the two ministers covered a wide range of issues including regional security concerns. Antony said both countries have large stakes in the maintenance of peace and stability in our immediate neighbourhood and in the wider Asia-Pacific region. He said trade is dependent on the sea lanes. Hence, security of the sea lanes and freedom of navigation is critical to economic and overall security. India supports the freedom of navigation in accordance with the principles of international law.

Antony said India's view is that peace and stability is in the interest of all countries in the region. "We support the resolution of differences and disputes through the process of dialogue and consensus between the parties to such disputes. All countries must exercise restraint and resolve issues diplomatically, according to the principles of international law".

Antony said New Delhi has been of the consistent view that ASEAN is central to any security architecture for the region. "India is committed to efforts of ADMM Plus, ARF and the East Asia Summit for promoting dialogue and consensus building among all countries of the region." SP

Patriot's successful integration of PAC-3 MSE missile

Raytheon Company's combat-proven Patriot air and missile defence system successfully test fired the PAC-3 MSE (missile segment enhancement) missile at White Sands Missile Range, recently.

"Patriot continues to successfully demonstrate its advanced capabilities of integrating new technologies," said Sanjay Kapoor, Vice President of Integrated Air and Missile Defense at Raytheon's Integrated Defense Systems business. "This is the seventh time Patriot has test fired Lockheed Martin's PAC-3 MSE missile, which will allow Patriot to take on the more sophisticated threats from rogue nations that threaten the safety and security of our warfighters and allies."

Patriot is the world's most capable air and missile defense system, providing protection against a full range of advanced threats, including aircraft, tactical ballistic missiles, cruise missiles and unmanned aerial vehicles. It is the system of choice for 12 nations around the globe. SP

British Army receives its first 'drive-by-wire' and remotely controlled combat engineer vehicle

BAE Systems' Terrier combat engineer vehicle has been officially accepted into service by the British Army. Terrier is the most advanced combat engineer vehicle – delivering uncompromising performance from a medium weight chassis. It is also the first UK combat vehicle to enter service designed with an integrated electronic architecture which facilitates 'drive-by-wire' and remote control making the vehicle highly capable, survivable and adaptable.

Likened to a combat 'Swiss Army Knife', Terrier is one of the most versatile, agile and adaptable combat vehicles and can carry out multiple roles in the most demanding battlefield conditions. Typical applications include providing mobility support (obstacle and route clearance), counter-mobility (digging of anti-tank ditches and other obstacles) and survivability (digging of trenches and armoured fighting vehicle slots). With a flying weight of 32 tonnes, which allows it to be transported in the A400M airlifter, Terrier provides strategic air transportability as well as being extremely mobile on the ground on all terrains, reaching speeds of up to 70 kmph and with a road range of 600k.

Terrier is the first combat vehicle with drive-by-wire technology and "special to role" computers which manage the automotive and combat engineer systems respectively allowing electronic signals sent by the vehicle's computers to perform functions. Physical connections are maintained between the driver and the essential automotive systems for safety and survivability reasons, but the vehicle is capable of being fully controlled via the commander's joysticks through the drive-by-wire systems and the front loader and the excavator arm hydraulic systems are fully controlled through the databus.

Moreover, the vehicle can be operated by wireless remote control up to 1km away, using a gaming type controller and remote cameras. The remote control interface would be readily recognised by any computer gamer, making this capability easy for new recruits to learn.

David Bond, Managing Director of Combat Vehicles (UK), said: "Terrier is a superb capability and the latest combat engineer vehicle from BAE Systems, joining the Titan bridge layer and Trojan obstacle breacher already in UK service, demonstrating our unique specialist skills in combat engineering. Terrier represents a step change in vehicle design with its use of the most up to date advances in technology and is the most complex yet easy to use combat vehicle currently in service with the British Army."

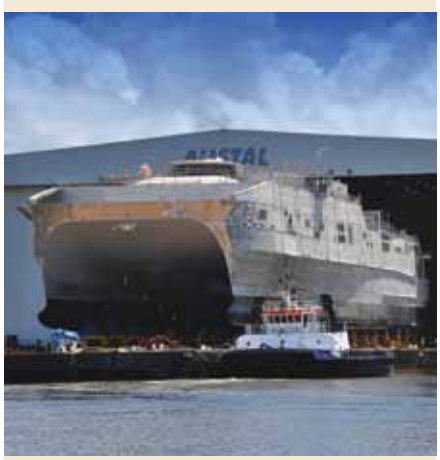
Sixty vehicles are being delivered under the programme which are being built in Newcastle. The final vehicle will be delivered to the British Army by January 2014, five months ahead of schedule. SP

PHOTOGRAPHS: BAE Systems, Austal

US Navy's third joint high speed vessel launched

USNS Millinocket (JHSV 3) was successfully launched from the Austal USA shipyard in Mobile, Alabama, recently. The third joint high speed vessel is a versatile, non-combatant, transport ship that will be used for fast intra-theatre transportation of troops, military vehicles and equipment.

"This launch is an important achievement for the programme, as it's the first time the ship has entered the water," said JHSV Programme Manager Capt. Henry Stevens. "Launching signifies a ship is ready to enter into the final phase of construction including test and activation of major equipment such as the propulsion plant."

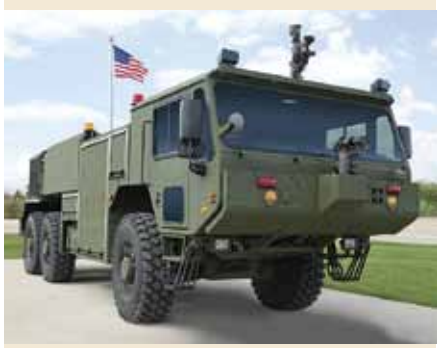


Millinocket will now prepare for a series of trials conducted by the shipbuilder, testing overall system performance underway prior to demonstration to the Navy's Board of Inspection and Survey later this year.

Each JHSV is designed to commercial standards, with limited modifications for military use. These vessels can transport 600 short tonnes 1,200 nautical miles at an average speed of 35 knots and can operate in shallow-draft ports and waterways, providing US forces added mobility and flexibility. The ships also have an aviation flight deck to support day and night air vehicle launch and recovery operations. JHSVs have berthing space for up to 104 personnel and airline-style seating for up to 312. SP

US Marine Corps selects Oshkosh Defense for next-gen aircraft rescue fire-fighting vehicle

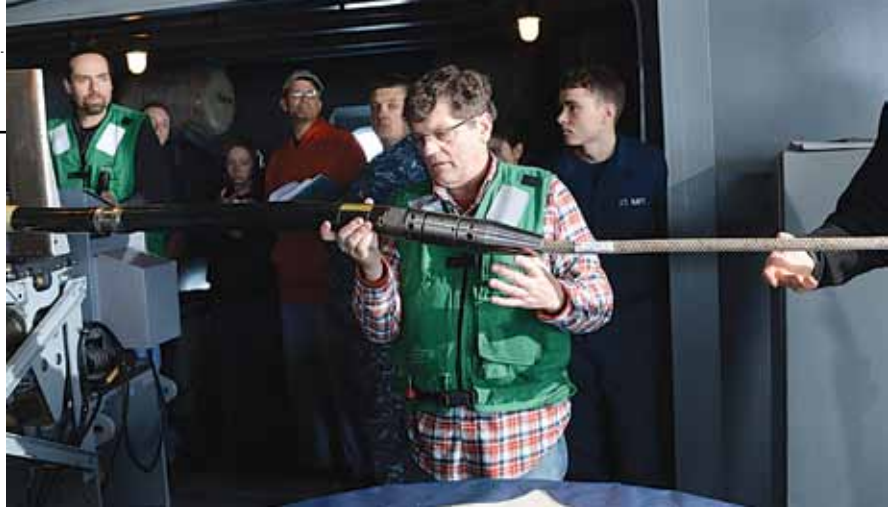
The US Marine Corps has selected Oshkosh Defense, a division of Oshkosh Corporation, to deliver its new fleet of P-19 replacement aircraft rescue and fire fighting (ARFF) vehicles. The Oshkosh P-19R will be the Marines' first-response vehicle in aircraft fire emergencies at military bases and expeditionary airfields. This next-generation vehicle will provide more advanced on-road and off-road firefighting capabilities to Marines and replace their current fleet of Oshkosh P-19 ARFF vehicles as the vehicles reach the end of their service lives.



"Oshkosh has been supporting the P-19 ARFF fleet for more than 30 years, and we are honoured that the US Marine Corps has selected Oshkosh to provide a new generation of emergency response capabilities," said John Urias, Oshkosh Corporation Executive Vice president and President of Oshkosh Defense. "Oshkosh leveraged product and engineering expertise from both our Defense and Airport Products teams to respond to the P-19R solicitation. The Oshkosh P-19R delivers a modern, expeditionary platform with advanced fire-fighting capabilities for the highly volatile situations Marines might face."

The P-19R ARFF vehicles, support and sustainment contract was awarded to Oshkosh Defense by the US Marine Corps Systems Command. The total estimated contract value is $192 million. Work will be performed by Oshkosh beginning in June 2013 and is expected to be completed by May 2018. SP

PHOTOGRAPHS: US Navy, Oshkosh Defense



First carrier countermeasure anti-torpedo launched

USS George H.W. Bush (CVN 77) conducted the first aircraft carrier-borne end-to-end at-sea test of the surface ship torpedo defence (SSTD) system, the US Navy has announced.

The SSTD system combines the passive detection capability of the torpedo warning system that not only finds torpedoes, but also classifies and tracks them, with the hard-kill capability of the countermeasure anti-torpedo, an encapsulated miniature torpedo.

The countermeasure anti-torpedo is being developed by the Pennsylvania State University Applied Research Laboratory (PSU-ARL). It is designed to locate, home in on and destroy hostile torpedoes. Over the four-day testing period, Bush engaged seven torpedo-like targets with seven countermeasure anti-torpedoes.

"These tests are a culmination of a very focused effort by the Navy including the programme office, Bush's crew, Norfolk Naval Shipyard and our academic and industrial partners. With all seven of our shots doing what they are designed and built to do, it validates our work and significantly enhances our current capabilities," said Capt. Moises DelToro, the Undersea Defensive Warfare Systems Programme Manager.

The US Navy currently plans to equip all aircraft carriers and other high-value units with the SSTD system by 2035. SP

DDG 51 multi-year procurement contract awarded

The US Navy awarded two contracts for the DDG 51 fiscal years 2013-17 multi-year procurement (MYP) for DDG 51 Arleigh Burke class destroyers.

General Dynamics Bath Iron Works (BIW) is being awarded a $2,84,33,85,450 fixed-price incentive firm target (FPIF) contract for the design and construction of four DDG 51 class ships, one in FY 2013 and one each in FY 2015-17. This award also includes a contract option for a fifth ship.

Huntington Ingalls Industries (HII) is being awarded a $3,33,14,76,001 fixed-price-incentive firm target (FPIF) contract for the design and construction of five DDG 51 class ships, one each in FY 2013-17.

These multi-year procurement awards are for a total of nine ships, with an option for a tenth ship. The Navy's objective is to procure the tenth ship as part of the planned FY 2013-2017 MYP. The Navy will work with Congress to resolve funding shortfalls resulting from sequestration reductions before contracting for the tenth ship.

"These contract awards represent great value to the taxpayer and will ensure our warfighters have the ships and systems they need to prevail in any situation," said Secretary of the Navy Ray Mabus. "By leveraging competition in the DDG 51 class shipbuilding programme, these shipbuilders will continue their proud histories in delivering these highly capable ships to the fleet while meeting critical operational requirements for integrated air and missile defence capability." SP

Eurofighter marks 75th Anniversary of 36th Italian Air Force Wing

On May 31, 2013, Eurofighter honoured the 75th Anniversary of the 36th Italian Air Force Wing by presenting to its X Squadron, declared combat ready on Typhoon, with a special Eurofighter Sword to a ceremony at the unit's base in Gioia Del Colle, Italy.

On behalf of the Eurofighter consortium, Maurizio De Mitri, Senior Vice President of the Military Aircraft Sector at Alenia Aermacchi and Chairman of the Supervisory Board of Eurofighter GmbH, presented the Sword to Base Commander Col. Vito Cracas at Gioia Del Colle where the Sword will remain as a recogition of the achievements of the 36th Italian Air Force Wing and the relationship with the Eurofighter community.

Speaking at the ceremony, Maurizio De Mitri said: "It is a great honour for me to hand over this Sword in recognition of this landmark anniversary and the remarkable achievements of

the 36th Italian Air Force Wing. The Eurofighter Typhoon Sword symbolises the collaborative strength and partnership in the Eurofighter community. It symbolises the qualities of precision and excellence that we, industry, seek to embody in the core of the weapon system, and that the Air Force has so successfully employed in operations."

At the Sword Handover Ceremony, 36th Wing Commander said: "We fully appreciate the significance of this honour as it means a great deal to all of us in Base. The Eurofighter Typhoon is at the heart of the work that we do here at Gioia Del Colle and performs a vital role in the Italian Air Defence system. We are extremely proud to be celebrating this 75th Anniversary and we look forward to working with Eurofighter."

The first swords were initially presented to the Chiefs of Air Staffs of the four partner nations: Germany, Italy, Spain and the United Kingdom at the aircraft Type Acceptance in 2003. Ever since this event, the Swords have been presented for each new squadron to symbolise the long-lasting, successful partnership between industry and air forces across the Eurofighter community. SP

PHOTOGRAPH: Alenia Aermacchi

Soloy portable heliports

A product has been launched by SOLOY LLC & its channel partner **365DESIGN in India** to support the defense and private aviation industry to increase safety when landing helicopters in remote sites. Because helicopters are called upon to land in all types of terrain they are often at risk, with the help of the Soloy portable heliports the risks can be mitigated to the lowest possible levels. They are currently being operated by various government agencies for safe wilderness helicopter operations in which environmental impact and dependability are critical issues.

The portable helipads can be used on many missions & in all kinds of industry. Rescue missions to combat operations, high altitude landing zones to swamp and river bed landings. It's a must requirement for army, navy, coast guard, air force as well as private industries oil & gas pipeline construction, infrastructure projects in remote locations & charted helicopter service companies.

There are many examples of accidents due to operation on poorly constructed or remotely located heliports; A Bell 206B was working positioning forest management personnel. While attempting to take-off with just the pilot on board, a bear paw snagged under a rock. The aircraft rolled onto its right hand side and sustained substantial damage. The pilot was taken to hospital with minor injuries.

A Bell 206L-1, was departing a portable landing pad at a remote drilling site after refueling. The right skid became entangled in one of the pad's slinging cables as the helicopter lifted off. The helicopter rolled over and was substantially damaged. The solo pilot was not injured.

Portable heliports are 100% proven and all the safety risk assessment has been considered. The modular system installation of portable heliports includes telescopic legs which are adjustable on any terrain. These portable heliports are available in three (3) developed sizes; various custom sizes are also possible.

In additional to portable Heliports, Soloy's Turbine Powered Cessna T206H Mark II Sentinel is a complete operational surveillance platform which can be equipped with a multitude of specialty units based on the needs of the operator for surveillance, it can accomplish 90% of the task performed by a helicopter at half the price is also available **SOLOY & 365DESIGN** comes together to give robust advance technology products to defense and private sector worldwide. SP

For further Information or Enquires, contact *info@365design.in*
www.365design.in , www.soloy.com

1964

Our Journey Starts as Guide Publications was founded by its Founder Publisher & Founder Editor Shri S P Baranwal...

Apart from many publications written, edited and published by the Founder, Military Yearbook is introduced in 1965...

1974

Military Yearbook continues relentlessly with collective support from dignitaries including the Prime Ministers and Presidents of India...

1984

50

JUST 1 STEP SHORT OF

2014

WE SHALL BE 50 THIS YEAR

Guide Publications is rechristened as SP Guide Publications offering tribute and gratitude to its Founder...Also envisioned is the path of introduction of a few magazines...

2013

SP's Airbuz, SP's M.A.I. follows the intensity of magazines introduction...

2004

SP's Aviation, SP's Land Forces, SP's Naval Forces are launched starting from '98 and within a span of a few years...

1994

Military Yearbook is rechristened as SP's Military Yearbook conveying gratitude to Founder Publisher...

50 YEARS

1964 - 2014 50 YEARS

SP GUIDE PUBLICATIONS

Boeing receives US Army contract for up to 215 Chinook helicopters

In an agreement that will save the US Government more than $800 million, the US Army and Boeing have signed a $4 billion multi-year contract for 177 CH-47F Chinook helicopters, with the Army holding options that could increase its total buy to 215 aircraft.

Deliveries from the agreement, which is a cost-effective alternative to annually contracting for the aircraft, begin in 2015.

"This multi-year contract provides unprecedented savings for the US Army and American taxpayers," said Colonel Robert Barrie, US Army project manager for Cargo Helicopters. "But the most important benefit is the continued support these aircraft will provide to soldiers in the field and civilians in distress."

The tandem-rotor Chinook is the backbone of combat, logistics and humanitarian operations for the US Army and 18 other operators around the world. This order would eventually bring the Army's CH-47F total procurement close to its target of 464 aircraft, including 24 to replace peacetime attrition aircraft. The Army's current inventory stands at 241 F-model aircraft.

There are 15 Army active duty and National Guard units operating the CH-47F, and a 16th is currently being equipped. CH-47F units have logged more than 86,000 combat hours in Afghanistan, maintaining an operational readiness rate of over 80 per cent while conducting air assault, transport, and medical evacuation and support missions.

"The Army is benefitting not only from the efficiencies of a multi-year contract but also from the production efficiency gains Boeing and our suppliers have made," said Chuck Dabundo, Vice President, Boeing Cargo Helicopter Programmes. "That includes the $130 million investment we made to modernise the Chinook factory. This contract will enable Boeing and our partners and suppliers in 45 states to bring stability to the workforce and to invest in production tooling, processes and other capital improvements." SP

New light multi-role Ka-226T demos in mountains of Kazakhstan

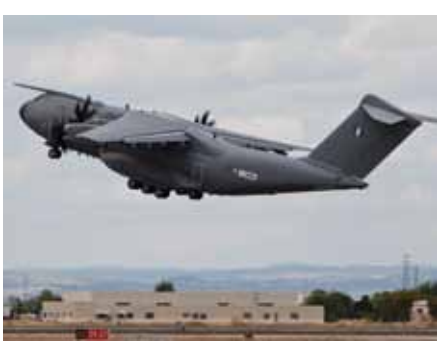
Russian Helicopters, a subsidiary of Oboronprom, part of State Corporation Rostec has launched the first demonstration flights of the light multi-role Ka-226T in Kazakhstan.

Organised by Russian Helicopters, the demonstration tour is aimed at potential Ka-226T customers in Kazakhstan, including the airborne divisions of the Ministry of Emergency Situations, Interior Ministry, Ministry of Health and other law enforcement and environmental authorities, as well as commercial helicopter operators.

Flights were conducted over flat and mountainous terrain around Öskemen (Ust-Kamenogorsk). The new Russian helicopter, with a maximum load capacity of 3,600 kg, showcased the unique advantages of its coaxial rotors by demonstrating its external cargo mounting system and hoisting capability in flight. The Ka-226T also undertook a special flight at the request of the Aviation Division of East Kazakhstan Province, hovering and landing at an altitude of 2,500 metres above sea level in a practice evacuation. The helicopter's coaxial rotors enabled it to take off with confidence and make precise landings in mountainous terrain on missions for government and commercial operators in Kazakhstan, who were all present to view the demonstration.

Russian Helicopters Director of Marketing Mikhail Dubrovin said: "We see significant potential in the Kazakh helicopter market and are fully able to meet demand. As we introduce new models to the global market, we begin by presenting them in CIS countries. Today we are pleased to demonstrate the Ka-226T on the ground and in flight to our Kazakh partners. We look forward to hearing their feedback and are prepared to consider localisation of production of certain Russian Helicopters models, including the new Ka-226T, in Kazakhstan." SP

Second production Airbus Military A400M maiden flight



The second production A400M aircraft, with French Air Force markings and temporary French civil registration, took off for its first flight on June 10. Known as MSN8, the aircraft made its first flight from Seville, Spain, the location of the A400M final assembly line on June 7.

It is scheduled for delivery to the French Air Force in the third quarter of the year. MSN7, which flew for the first time at the beginning of March this year, will be delivered to the French Air Force in the coming weeks. SP

PHOTOGRAPHS: Defense.gov, Airbus Military, Russian Helicopters

Sikorsky receives US Navy award to build CH-53K operational test helicopters

Sikorsky Aircraft Corporation has received a $435 million US Navy contract to build four production-representative CH-53K helicopters for the US Marine Corps. Designated as system demonstration test articles (SDTA), the four aircraft will enable the Marines to conduct operational evaluation of the new helicopter system in support of Initial Operational Capability in 2019.

"The four SDTA aircraft are based on the configuration of the fourth and final flight test aircraft currently being assembled on the prototype production line," said Dr Michael Torok, Sikorsky's CH-53K Program Vice President.

The Navy has included the SDTA helicopters as an additional line item under the existing $3.5 billion system development and demonstration (SDD) contract initially awarded to Sikorsky in April 2006. The contract schedule requires that Sikorsky deliver the first SDTA aircraft in 39 months, and the fourth by the end of March 2017, when the Marines will begin operational evaluation. The contract's cost-plus-incentive fee arrangement incentivizes Sikorsky to deliver early. Sikorsky will perform final assembly of the SDTA aircraft at the company's Florida Assembly and Flight Operations facility in West Palm Beach.

Sikorsky has delivered two of the seven SDD CH-53K aircraft—the ground test vehicle and the static test article – into the test programme, and is finalising assembly of the four flight test aircraft and the fatigue test article. First flight of a CH-53K prototype aircraft is expected in late 2014.

Once the SDTA aircraft enter operational evaluation in 2017, the Marine Corps will verify the CH-53K helicopter's capability to carry 27,000 pounds over 110 nautical miles under "high hot" ambient conditions, nearly tripling the external load carrying capacity of the current CH-53E Super Stallion helicopter. SP

ITT Exelis completes technology maturation phase of US Jammer programme

ITT Exelis (XLS) has successfully completed the 33-month technology maturation phase of the US Navy's next-generation Jammer (NGJ) programme. Installed on the US Navy's EA-18G electronic attack aircraft, the Jammer will allow US forces to defeat integrated air defence systems and disable an enemy's electronic communications, command and control capabilities.

"The NGJ will provide US and allied fighting forces with the tool they need to dominate the electromagnetic spectrum on even the most advanced battlefield," said Rich Sorelle, President of Exelis Electronic Systems. "During the past 33 months, Exelis has worked closely with the US Navy to ensure our technology is ready for the next stage of this important programme."

During the course of the technology maturation phase, Exelis successfully designed, developed and tested a number of subsystems critical to the next-generation Jammer. SP

Eurocopter's X3 creats aviation history

The Eurocopter X3 hybrid helicopter has opened the frontiers of aviation by attaining a speed milestone of 255 knots (472 kmph) in level flight on June 7. Several days before this accomplishment, the X3 reached a speed of 263 knots (487 kmph) during a descent. With these two successes, the X3 surpasses the unofficial speed record for a helicopter.

Eurocopter achieved the historic 255-knot speed milestone with the X3 flying at an altitude of around 10,000 feet during a 40-minute test flight over southern France near Istres. It marks the latest in a growing list of achievements for the X3, which is Eurocopter's technology demonstrator for an advanced, cost-effective vertical take-off and landing (VTOL) transportation system that offers the speed of a turboprop-powered aircraft and the full-flight capabilities of a helicopter.

"It's no exaggeration to say that the X3 is clearly in its element at high speeds." said Eurocopter test pilot Hervé Jammayrac. "While flying at both 255 knots and 263 knots, the X3 performed exactly as it has throughout its flight envelope, exhibiting outstanding stability and providing a low vibration level without any anti-vibration system."

The X3 configuration utilises a pair of RTM 322 turboshaft engines to power a five-blade main rotor system with two propellers installed on short-span fixed wings. This state-of-the-art design and architecture engine family combines power and growth potential. The RTM 322 variant, powering the X3, is based on the

RTM 322 powering the NH90. It incorporates a FADEC adapted to the requirements of this high-speed demonstrator.

"Based on the X3 technologies, Eurocopter will continue setting the standard on future helicopters – offering our customers new levels of performance in terms of speed, range and mission capabilities at competitive costs," said CEO of Eurocopter, Guillaume Faury. "The outstanding X3 achievements result from the commitment and excellence of our teams. I want to recognise everyone involved in the demonstrator's development." SP

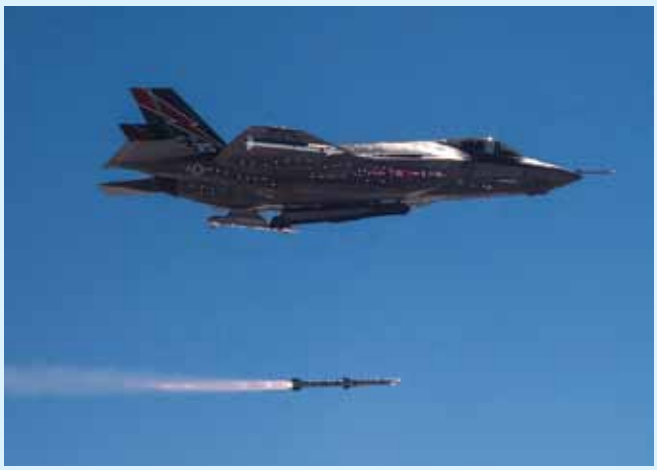
PHOTOGRAPHS: Sikorsky, Eurocopter

F-35A completes first in-flight missile launch

An F-35A conventional take-off and landing aircraft completed the first in-flight missile launch of an AIM-120 over the Point Mugu Sea Test Range on June 5. It was the first launch where the F-35 and AIM-120 demonstrated a successful launch-to-eject communications sequence and fired the rocket motor after launch – paving the way for targeted launches in support of the Block 2B fleet release capability later this year.

The Air Force F-35A variant has seen significant development in training and operations recently including the beginning of pilot training at Eglin Air Force Base, Florida, the delivery of the first operational test aircraft to Edwards and Nellis Air Force Base, Nevada, the first operational aerial refuelling and the completion of high angle of attack testing.

"It's a testament to the entire military-industry test team," said Lt Colonel George "Boxer" Schwartz, F-35 Integrated Test Force Director, who also piloted the flight. "They've worked thousands and thousands of hours to get to the point where we are today. It's fantastic to see that it's all paid off. We're rolling into a lot of additional weapons work in the coming months to put that expanded capability on the aircraft."



The F-35A fifth-generation fighter is designed to carry a payload of up to 18,000 pounds using 10 weapon stations. The F-35A features four internal weapon stations located in two weapon bays to maximise stealth capability. The CTOL aircraft can also utilise an additional three external weapon stations per wing if required. SP

Eurocopter UK bags support contract for 24 Royal Air Force Puma Mk2 helicopters

Eurocopter UK's role in maintaining the United Kingdom's military helicopter capabilities has been further expanded with the award of a three-year support contract for the fleet of 24 Royal Air Force Puma Mk2 helicopters being upgraded by the company to extend their life, enhance performance, mission capability and operational safety.

The contract – valued at approximately 60 million euros – further reinforces Eurocopter UK's footprint as on-shore service provider to the UK armed forces. Eurocopter UK's support activity for the Puma Mk2 will be coordinated through its headquarters at Oxford, England, which is close to the RAF's Puma main operating base.

"As a major onshore supplier to the UK Government and its agencies, we are proud to further expand our services in the military environment with this latest contract," explained Markus Steinke, the Managing Director of Eurocopter UK. "We intend to leverage our significant support expertise from Britain's civil helicopter hub at Oxford, which is proven to be highly reactive and cost effective, and introduce this into SP

First Tiger AD delivered

The first Tiger helicopter of the HAD variant (Hélicoptère d'Appui-Destruction, or Support and Destroy Helicopter) has been delivered to the French army aviation base at Le Cannet des Maures, in the Var district of south-eastern France.

The HAD is the second variant of the Tiger attack helicopter to enter French army service, after the now worldwide well-known Tiger HAP (Hélicoptère d'Appui Protection, or escort and support helicopter) whose armament mostly consists of a 30mm cannon and 68mm unguided rockets.

Intended to replace the Gazelle Viviane helicopters in the day/night attack and anti-tank mission, the Tiger HAD is armed with Mistral air-to-air missiles and AGM-114 Hellfire air-to-ground laser-guided missiles.

Tiger's HAD variant also features improved ballistic protection against small arms fire, as well as a new electro-optical sensor and sight package. The first Tiger HADs will be deployed by the 1st Combat Helicopter Regiment, based in Phalsbourg, beginning in 2014. SP

Boeing EMARSS aircraft completes first test flight

A US Army and Boeing team completed the first flight of the first of four enhanced medium altitude reconnaissance and surveillance system (EMARSS) engineering, manufacturing and development aircraft on May 22.

The aircraft was in the air for more than four hours and completed all first-flight test objectives, including evaluation of aerodynamic handling qualities, aircraft systems performance, and autopilot functions.

The flight took place at the Beechcraft facility in Wichita, Kansas, following ground tests that included a high-speed taxi. This milestone is a key event on the path to Limited User Tests and the Milestone C low rate initial production decision.

EMARSS will provide the army the ability to detect, locate, classify, identify, and track surface targets in nearly all weather conditions, day or night, with a high degree of timeliness and accuracy. SP

PHOTOGRAPHS: USAF, Boeing, Eurocopter

French Harfang UAVs fly 100th sortie over Mali

During the night of June 5-6, 2013, a Harfang UAV carried out the 100th sortie in support of Operation Serval, France's current military mission in Mali. Deployed since January 17 in support of French operations in Mali, the Harfang detachment of UAV Squadron 1/33 "Belfort" has flown a total of a little over 1,600 flight hours, by day and night.

Since the start of operations in Mali, Harfang drones are regularly engaged in operations supporting French ground forces. Providing a substantial contribution to the collection of information on the theater through its sensors and its persistence in the area, Harfang also contributes to the acquisition of targets by air force and navy aircraft.

The detachment has taken part in all the different phases of Operation Serval, throughout the entire theatre. It has flown over one hundred operational flights in a broad spectrum of missions and has contributed significantly to the tactical successes of Operation Serval. SP

Controp awarded for developing stabilised miniature payloads for small UAVs

Controp has recently been awarded by Technologies for Technological Innovation in Aerospace for development of the STAMP family of stabilised miniature payloads for small UAVs. This prize was awarded in recognition and appreciation for Controp's contribution to the success of the STAMP project and its significant contribution to national security. The STAMP family incorporates a wide range of miniature stabilised payloads mainly developed for mini tactical UAVs.

Prior to this, Controp's stabilised miniature payloads—the STAMPs, were selected by the Israeli Ministry of Defense (MoD) as the sole supplier—the only EO/IR payloads for the Israeli tactical SUAV Sky Rider programme. The STAMP payloads are operational in Israel and worldwide onboard a large variety of different SUAVs and VTOLs.

Hundreds of CONTROP's STAMPs, including the new M-STAMP—a gyro stabilised multi sensor payload for small UAVs and small A/C—were recently procured by a European country for a large scale SUAV programme. The M-STAMP has a CCD with continuous zoom lens, uncooled IR camera with dual FOV lens and laser pointer. A future option for this revolutionary payload will be the uncooled IR camera with continuous optical zoom lens.

The M-STAMP payload with multiple cameras has already been provided to satisfied customers in Europe and the United States as well as others due to its proven quality and reliability. Controp is also presenting an operating HD-STAMP camera payload—the first and only known high definition (HD) gyro stabilised camera for small UAVs. The new HD-STAMP provides new opportunities for SUAVs, including surveying of power lines and other requirements where a high definition image is required.

Controp has brought both the M-STAMP and the HD-STAMP operating cameras to the Paris Air Show 2013, together with four other operating camera systems, in order to provide visitors with hands-on operation of these unique, prize winning "chosen payloads". The STAMP family of gyro stabilised miniature payloads also includes the D-STAMP with a CCD camera for daylight applications, the U-STAMP with an uncooled IR dual field-of-view camera for night-time applications and the U-STAMP-Z with a continuous zoom lens. SP

Elbit showcases self-protection system for UAS at Paris Air Show

Elisra will launch at the Paris Air Show a self-protection electronic warfare (EW) system, well suited for unmanned aircraft systems (UAS). Improving the UAS' survivability, the SPS-65V5 system is based on Elbit Systems EW and SIGINT – Elisra's vast experience in the development of systems installed onboard other platforms such as fighters, helicopters and utility aircraft, already in operational

use by the Israeli Air Force and other customers worldwide.

Edgar Maimon, General Manager of Elisra, commented: "The increased global use of UAS is accompanied by a growing demand for survivability capabilities for these platforms, enabling protection of both the mission and the platform itself, as well as the unique and valuable sensors carried onboard."

Maimon added: "The range of sensors included in this new protection system will also contribute to and enhance the UAS' intelligence gathering capabilities. Like other UAS-related systems developed by Elisra, the new protection system complements other Elbit Systems' developments, thus providing customers with a suite of generic solutions for survivability and intelligence needs.

The UAS Self-Protection system is based on the modular SPS65-V5, allowing for the addition/removal of capabilities based on the operational requirements set by the user and mission restrictions. The system is adjusted to UAS use in terms of Size, Weight and Power (SWaP) and it can be installed onboard a variety of UAS platforms, ranging from tactical to HALE. SP

PHOTOGRAPHS: USAF, Elbit Systems

LT GENERAL (RETD)
P.C. KATOCH

Ignoring ground reality

The audacious attack by Naxals on the Congress motorcade killing 27 including 10 policemen and injuring some 36 on May 25 in Chhattisgarh yet again exposed our inability to come to grips with the Maoist insurgency and failure to learn from previous incidents. Over 200 Maoists ambushed a convoy of Congress leaders in the dense forest of Jagdalpur in Chhattisgarh. The killed included former Union Minister V.C. Shukla, Chhattisgarh Congress Chief Nand Kumar Patel, senior leader Mahendra Karma and ex-MLA Uday Mudliyar.

The National Investigation Agency is probing why this happened. What may eventually get released to media may have various compulsions but the facts on ground are crystal clear. The fact is that no road opening was done in the first place and this was not possible either with the Congress motorcade deciding on its own to return along the same route. Sending a vehicle along the road in an hour or so in advance can under no circumstances be considered road opening. In any event, considering the distances, adequate number of security forces were unlikely available to do road opening along the entire route.

However, it was possible to do selective picketing including essentially covering all the likely ambush points but this can only be undertaken by a well trained force that sites itself tactically that can deter possible attack in large numbers. Ironically, this was a wonderful ambush site with curving stretch of roads with dominating heights providing long distance observations. Only respective PSOs of the politicians were accompanying the motorcade with some carrying the ancient 7.62mm SLRs dwarfed by the fire of the Maoists automatic weapons. The vehicles were moving bumper to bumper under the misperception that the numbered closeness would draw strength from each other. This actually provided the most lucrative target to the Maoists who blew up the second lead vehicle through an IED blast, followed by heavy firing and cold blooded murder. How many weapons of the accompanying PSOs were taken away by the Maoists have not been revealed but it has emerged that Maoists could have ensured that there are no survivors were they not looking for only selected kills.

The Maoists, many of them women, were calm, methodical and unaffected by killings – akin to the LTTE. If this was a motorcade, in many previous incidents, particularly in Dantewada, Garhchiroli and Latehar, even CRPF columns on foot have suffered heavy casualties moving bunched up in a single file along roads and tracks. This was a motorcade that fortunately had less numbers killed only because the Maoists were in merciful mood. Even earlier incidents have shown little or no coordination between the civil police and the CRPF. The real intelligence has to come from ground level with top down intelligence only add on but the hard fact is that you cannot leave everything to chance in insurgency affected areas despite tactical pauses in hostilities.

A dispassionate analysis would show there are ample indications that the Maoist insurgency is on the rise. Raising more police forces and dishing out more central forces to the states with periodic warnings (read intelligence) to be on the alert has been a failure and will continue to be so. Customary Centre-State blame game and politicising every incident is of no use. The Home Ministry must take full control with a 24 x 7 operations room and coordinate the counter Maoist operations including implementation of a cohesive strategy encompassing the politico-economic-socio aspects of the problem. It is time to acknowledge that our existing Central Armed Police Forces are not geared to take on the Maoists. These units must be reorganised, officered, manned, equipped and trained like the Rashtriya Rifles or the Assam Rifles. They must have officers from their own cadre who should lead them from the front. It is reported that at least 1,000 more police forces have been rushed to Bastar area. Caution is needed to avoid collateral damage and innocent killings at all costs. SP

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

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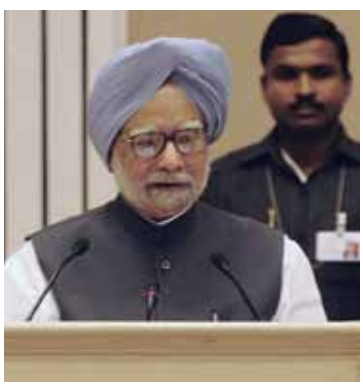
PM reiterates two-pronged strategy to deal with LWE

Addressing a Conference of Chief Ministers on Internal Security, Prime Minister Dr Manmohan Singh called for coordinated efforts on the part of the Centre and the states to deal with the Naxal menace. He said: "We are meeting in the aftermath of the brutal and inhuman attack by left-wing extremists (LWE) on Congress leaders and workers and their security personnel in Chhatisgarh a few days back. Such violence has no place in our democracy."



The challenge of Naxalism, he mentioned, has received the government's serious attention for quite some time now. "We have adopted a two-pronged strategy to deal with the challenge: conducting proactive and sustained operations against Maoist extremists; and, addressing development and governance issues in left-wing extremism-affected areas. These include strengthening the security apparatus, improving road connectivity in 34 most left-wing extremist-affected districts, relaxation of norms of various development schemes in the affected areas, and the Integrated Action Plan for 82 selected tribal and backward districts."

I must also emphasise here that the two-pronged strategy that we have followed so far needs to be strengthened and pursued with rigour. Even as we intensify our efforts to strengthen the security and intelligence apparatus in areas affected by Maoist violence, we should be able to ensure that people residing in left-wing extremist-affected areas are able to live in an environment of peace and security and derive full benefits of our development efforts."

J&K Situation

"The year 2012 saw a significant improvement in the security situation in Jammu and Kashmir. Our strategy to prevent cross-border infiltration by militants and our intelligence-based counter-terrorism operations in Jammu and Kashmir have resulted in a decline in the level of terrorist violence by about one-third in 2012 as compared to 2011. In fact, terrorist violence parameters in 2012 have been the lowest since the upsurge in terrorist activities two decades ago.

Complex Situation in Northeast

The security situation in the Northeast continues to be complex, with insurgency, extortion and agitations being the main disruptive elements in the hands of the insurgents. However, there has been considerable progress in dialogue with several insurgent and ethnic separatist groups in the Northeastern region. A memorandum of understanding has been signed with both factions of Dima Halam Daogah of Dima Hasao in Assam. Three Metei insurgent groups have signed a memorandum of understanding in February 2013. Talks with the National Socialist Council of Nagaland are continuing.

The Gorkhaland Territorial Administration (GTA) has been set up as an autonomous body in August 2012 to administer the Gorkhaland region and ensure its all-round development. The Centre is committed to providing financial assistance of ₹200 crore per annum for three years for projects aimed at developing the socio-economic infrastructure in the GTA areas.

Crimes against Women and Children

The second issue which requires our collective action is that of crimes against women and children. We have recently enacted several laws providing stringent punishment for such crimes and more sensitive treatment of victims during investigation and trial. These include the Criminal Law (Amendment) Act, 2013; the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 and the Protection of Children from Sexual Offenses Act, 2012.

Capacity building and modernisation of state police forces are absolutely essential for meeting the emerging challenges to internal security which range from terrorism to urban policing. The Centre remains committed to supporting States in this regard. The scheme for modernisation of state police forces has been extended for a further period of five years with a total outlay of about ₹12,000 crore. An amount of ₹433 crore has been additionally provided for Mega City Policing in the six cities of Kolkata, Mumbai, Chennai, Bengaluru, Ahmedabad and Hyderabad.

I also believe that time has now come to view the challenges of terrorism, communal violence and left-wing extremism in a holistic manner. I think each one of us needs to be completely objective in our approach to these issues, acting in national interest rising above narrow political and ideological divides. I would appeal to all political parties and all sections of society to work together to find effective ways and means of meeting these grave challenges.

The Home Minister Sushilkumar Shinde said the internal security situation in the country during the year 2012-13 has remained largely under control, with Jammu and Kashmir particularly showing marked improvement since 2010. In the current year, there have been two major bomb blasts, first in Hyderabad and second in Bengaluru. Though, there was no casualty in the incident at Bengaluru, 18 innocent persons lost their lives in the Hyderabad bomb blast.

At the same time, India continues to face serious challenges to its internal security scenario from Jehadi terrorists. It has been noticed that the terror groups are taking advantage of communication channels which have become more sophisticated over a period of time. From mobile phones, terrorists today have moved on to use of satellite phones, Thuraya sets, use of spoofed IDs and coded transactions over e-mail and chat sessions, besides voice over Internet protocol to communicate across the border.

Jehadi tanzeems in Pakistan with affiliation to LeT, JeM and IM have set up channels for transfer of funds from Pakistan to India via Gulf and Nepal, besides using Western Union Money Transfer and Hawala channel. Moreover, ex-SIMI cadres and similar militant elements based in Gulf have also been observed collecting money for causing destruction in India. However, the cross border terrorist infrastructure is intact. The training camps continue – as do the infiltration attempts. Nepal route continues to be exploited for infiltration of militants. SP

PHOTOGRAPH: PIB

EUROJET celebrates delivery of 1,000th EJ200 production engine

EUROJET Turbo GmbH, the European consortium behind the EJ200 engine project is celebrating the delivery of its 1,000th EJ200 production engine. The landmark engine was assembled at the facilities of Industria de Turbo Propulsores S.A. (ITP) in Madrid, Spain, and delivered to the Spanish Air Force on May 23, 2013, to power the Eurofighter Typhoon fleet.

Philip Dunne, MP, Parliamentary Under Secretary of State for Defence Equipment, Support and Technology, United Kingdom stated: "This is a major milestone for this project and together the EJ200 and Eurofighter are a real and powerful example of what we can achieve together."

Clemens Linden, Managing Director of EUROJET, added in his closing statement: 'This is a European collaboration journey of success!'

The EUROJET consortium is responsible for the management of development, support and export of the new generation EJ200 engine system. EUROJET's shareholders comprise Avio S.p.A. (Italy), ITP S.A. (Spain), MTU Aero Engines AG (Germany) and Rolls-Royce plc (UK). The engine represents outstanding and innovative technology which continually demonstrates exceptional performance in the Eurofighter Typhoon. With its unprecedented performance record, combined with multi-role capability and highest availability at low life-cycle costs, the EJ200 engine is perfectly set to meet the air forces' demands of today and the future.

EUROJET is contracted to produce over 1,500 EJ200 engines to power a total of 719 Eurofighter Typhoon multi-role combat aircraft on order by seven nations. With 789 engines already in service in Eurofighter Typhoon fleets operated by the Air Forces of Germany, the United Kingdom, Italy, Spain, Austria and the Kingdom of Saudi Arabia, the EJ200 has amassed over 3,90,000 Engine Flying Hours. More than 1,00,000 jobs in 400 companies are secured by the EUROJET and Eurofighter programme. SP

Thomas Kirchmaier appointed President of General Dynamics Advanced Information Systems

General Dynamics has announced that Thomas W. Kirchmaier has been elected Vice President of the corporation and appointed as President of General Dynamics Advanced Information Systems, reporting to David K. Heebner, Executive Vice President of the company's Information Systems and Technology group. Kirchmaier succeeds Lewis F. Von Thaer, who resigned in April.

Kirchmaier, 56, has been the Senior Vice President and General Manager of the Intelligence Solutions division of General Dynamics Information Technology since 2007, leading a worldwide organisation with more than 4,600 professionals which provides high technology solutions for the US intelligence community, selected DoD commands and agencies, their coalition partners and NATO. Previously, he was Senior Vice President of General Dynamics Information Technology's Global Information Services, providing network and IT solutions to commercial, public safety and international customers. He joined General Dynamics through the acquisition of GTE Government Systems in 1999.

With a bachelor's degree in electronic engineering from Cornell University and a master's degree in business management from Pepperdine University, Kirchmaier is also a graduate of the Defense Acquisition University's Federal Acquisition Management and Program Management School. SP

General Dynamics and Sentient join hands for automatic target-detection plug-in

General Dynamics Mediaware and Sentient Vision Systems Pty Ltd. have created a technical partnership which combines Sentient's Kestrel Land and Maritime target-detection software with General Dynamics Mediaware's D-VEX next-generation tactical video-exploitation system. This plug-in feature provides surveillance system operators and analysts with improved real-time situational awareness and strengthens post-mission forensic analysis and intelligence reporting.

"While working together on the Australian Defence Force's Shadow 200 tactical unmanned aerial systems programme, it was clear to us that Sentient's Kestrel software integrates easily and strengthens the end-to-end video exploitation capabilities of our D-VEX system," said Dr. Kevin Moore, Chief Technology Officer at General Dynamics Mediaware. "Combining these two technologies creates a powerful tool for detecting, analysing and reporting moving targets in both the maritime search and rescue and battlefield environments."

D-VEX is a video exploitation system that captures and manages full-motion video, providing operators with intuitive tools for enhancing, streamlining and analysing live and recorded video. When coupled with Sentient's Kestrel real-time automatic detection software, which allows users to identify small, hard-to-find moving targets in electro-optical and infrared aerial live video streams, mission operators and analysts can quickly transform raw video data into actionable intelligence. Leveraging the companies' extensive experience in advanced full-motion video, the combined systems simplify the post-mission forensic analysis of video. SP

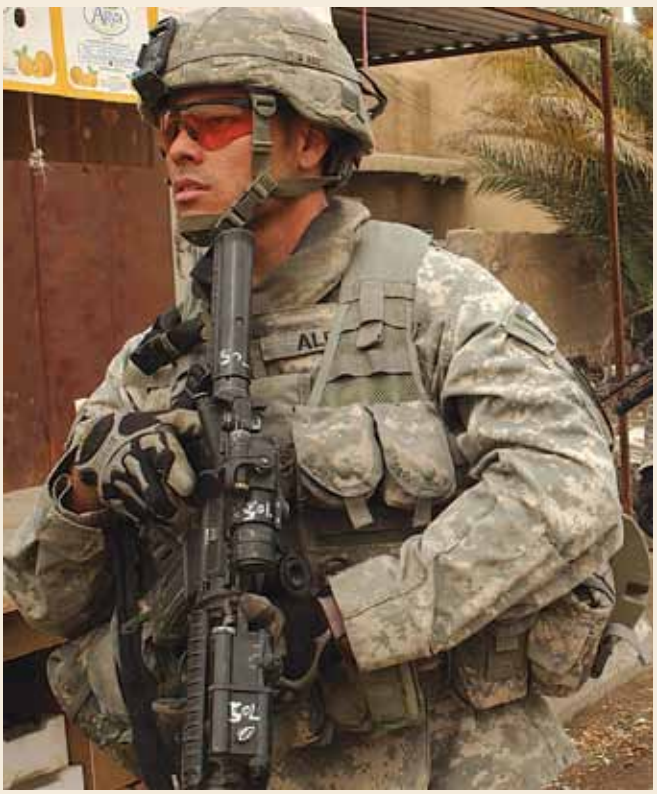
PHOTOGRAPHS: Eurofighter, General Dynamics

Warrior Web helps soldiers carry heavy loads

A Soldier carries a 61-pound load while walking in a prototype DARPA Warrior Web system during an independent evaluation by the US Army. Warrior Web seeks to create a soft, lightweight under-suit that would help reduce injuries and fatigue common for Soldiers, who often carry 100-pound loads for extended periods over rough terrain. DARPA envisions Warrior Web augmenting the work of Soldiers' own muscles to significantly boost endurance, carrying capacity and overall warfighter effectiveness–all while using no more than 100 W of power.

The US Army Research Laboratory Human Research and Engineering Directorate (ARL HRED) is nearing completion of a five-month series of tests to evaluate multiple Warrior Web prototype devices. The testing evaluates how each prototype incorporates different technologies and approaches to reduce forces on the body, decrease fatigue, stabilise joints and help Soldiers to maintain a natural gait under a heavy load. The testing uses a multi-camera motion-capture system to determine any changes in gait or balance, a cardio-pulmonary exercise testing device to measure oxygen consumption and a variety of sensors to collect force, acceleration and muscle activity data.

The Warrior Web programme consists of two related programme tasks. Currently under way, Task A seeks to develop a mix of core technologies deemed critical for the programme's success. Scheduled to commence in fall 2013, Task B aims to develop and fabricate an integrated suit that would eventually undergo real-world testing to evaluate its performance. SP



PHOTOGRAPH: DARPA

SARL's future computing capabilities

The US Supercomputers Army Research Laboratory engineers rely on to influence the direction of future armour solutions and other unprecedented capabilities for the soldier moved into a space large enough to house five supercomputers each with 4,000 to 20,000 processors each. In the next four years, the centre will quadruple its computing capacity.

Army researchers use the centre's supercomputing systems, also known as high performance computers, to design and develop military technologies, such as future armour systems and other unprecedented capabilities for the soldier.

The centre will provide key enabling computational technologies in support of ARL's cyber security collaboration research alliance with academia, industry and other government research organisations to develop a fundamental understanding of cyber phenomena, including aspects of human attackers, cyber defenders and end users, so that fundamental laws, theories, and theoretically grounded and empirically validated models can be applied to a broad range of Army domains, applications and environments.

ARL Director Dr Thomas Russell's said the role laboratory researchers played in the modern computer age is part of the basic research laboratory's historical contributions in hardware, software, advanced networking and computational science research.

"If we look back to 1992 and the state of computing then compared to today, we can only imagine what computational capability the future will bring that will take discovery and innovation to heights yet unseen," Russell said. The new facility has over 20,000 square foot of supercomputing room space, which will house up to six large supercomputing systems by fiscal 2016.

The centre holds two machines in the top 100 fastest computers in the world. The IBM iDataPlex 'Pershing' and 'Hercules' systems are the 62nd and 81st fastest computers in the world, respectively. In total, the centre will have a cumulative computational capability of more than 1.2 petaflops of processing power. That's 12 trillion floating point operations per second. By 2016, the center's capacity will grow to 4.8 petaflops.

That kind of processing power enables the kinds of simulations and calculations that were difficult – and sometimes impossible – to realise before HPC, said David Kleponis, who leads the Passive Hybrid Armour Team within ARL's Multi-Threat Armour Branch.

"Armour design is a product of the knowledge we gain from a scientific and engineering process," which includes high performance computing," Kleponis said. "This knowledge is greatly enhanced by HPC and is gained by observing processes that occur in microseconds, namely how armour actively disrupts and disperses a penetrator, like an improvised explosive device, for example. The insight we gain through computation is a multi-dimensional view inside very complex and violent physical events so we can learn from those observations and design very efficient armour solutions which ultimately save lives."

Had they used desktop computers, it would have taken research engineers 17 centuries to compute what HPCs did in about a month.

Spinoffs from that project resulted in armours for route clearance vehicles including Husky, Buffalo and RG31 and also launched the MRAP Expedient Armour Programme (IED armour) and the MRAP Spiral Armour Programme (IED armour) for the RG-33, IMG MaxxPro Plus and Caiman; and the quick reaction armour support (including development and analysis) to theatre. SP

Post-Laden raid security lapse

Much after the US Navy SEALS had conducted one of the most stealthy operations to take out dreaded terrorist Osama bin Laden, the then CIA Director and presently Secretary of Defense, Leon Panetta, inadvertently revealed the name of the raid commander.

According to a report of the US Defense Department, Panetta revealed the name of the commander in a speech attended by the writer of the film *Zero Dark Thirty*. As per security rules, the commander's name was not to be made public. Panetta was addressing an audience at CIA headquarters without realising that a member of the public (in this case the writer of the film) was among the audience. Since it was inadvertent revelation, reports said he was not violating any rule.

The unpublished draft report was first disclosed by the Project on Government Oversight and confirmed by Rep. Peter King, who asked for the investigation nearly two years ago. King said he has not seen the draft report but was briefed on some of its contents. He said it confirmed his suspicion that the Barack Obama administration cut corners on security in its dealings with Hollywood executives eager to produce a film about the May 2, 2011, raid on bin Laden's compound in Pakistan. SP

Venezuelan President gets pushed at inaugural ceremony

The newly elected Venezuelan President Nicolas Maduro began his innings as President with a security incident. While he was delivering the inaugural address, an onlooker by the name of Henry rushed to the podium, interrupting Maduro's speech.

A visibly shaken President acknowledged the security breach and said, "He could have shot me here." However, that did not deter the successor of Hugo Chavez to continue his address. The dramatic incident came as post-election tensions began to calm thanks to a promise by officials to audit the vote that put Maduro into power.

Before the inauguration, red-shirted supporters marched through the streets, shouting and blowing trumpets, to celebrate the swearing in of the former bus driver at the national assembly later today. Latin American leaders flew in to demonstrate their solidarity. SP

Chhattisgarh CM admits security lapses

Chhattisgarh Chief Minister Raman Singh has admitted the "security lapses" that had led to the killing of key Congress leaders by Naxalites recently. He however rejected the opposition charge that adequate security was not provided to the leaders. "The charge that we did not provide adequate security is not correct. The government did make arrangements to ensure the safety of leaders who were on the yatra. But definitely there are some security lapses. An inquiry has already been ordered to fix the responsibility," Singh said.

He said strict action will be taken against those found responsible for the lapses on the basis of the inquiry report which will go into the circumstances leading to the May 25 Maoist attack on Congress leaders' convoy. The attack killed 27 people including former State Home Minister Mahendra Karma, an architect of 'Salwa Judum' (anti-Naxal vigilante groups) and State Pradesh Congress Committee Chief Nand Kumar Patel and his son Dinesh. Former Union Minister V.C. Shukla who was injured in the attack died subsequently. SP

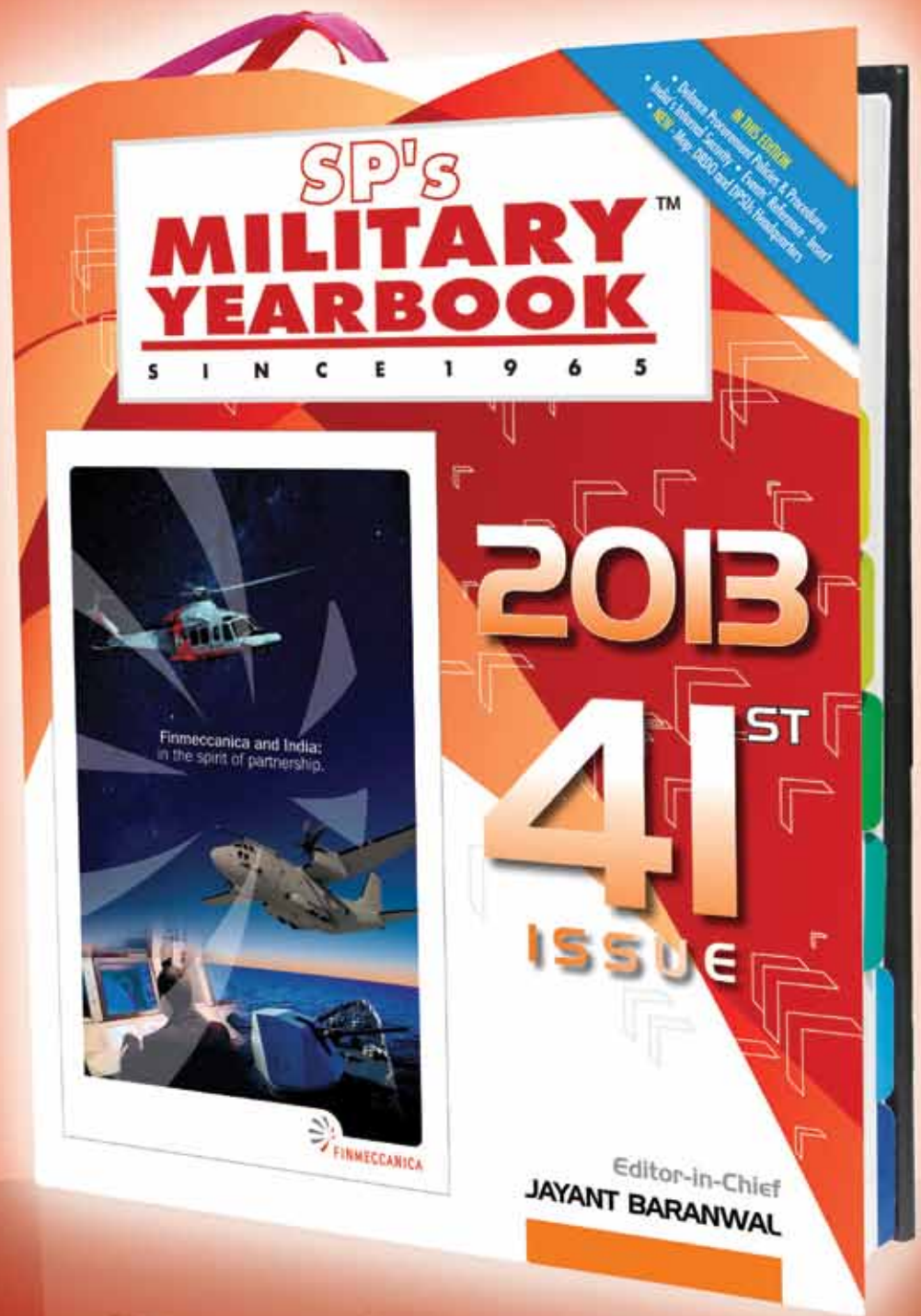
Chewbacca actor stopped at airport

The US Transportation Security Administration (TSA) agents in Denver briefly stopped *Star Wars* franchise actor Peter Mayhew recently as he was boarding a flight with a cane shaped like one of science-fiction's most iconic weapons. Airport officials inspected the huge walking stick before allowing Mayhew on the plane. Mayhew who is about 7 feet tall tweeted "Giant man need giant cane".

"Because of the unusual weight of the passenger's cane, a security officer alerted a supervisor. Less than five minutes later the passenger and cane were cleared to travel. Social media played no role in the determination," the TSA said. SP

PHOTOGRAPH: Defense.gov, nbclosangeles.com, greenlight.com.ng

INDISPENSABLE



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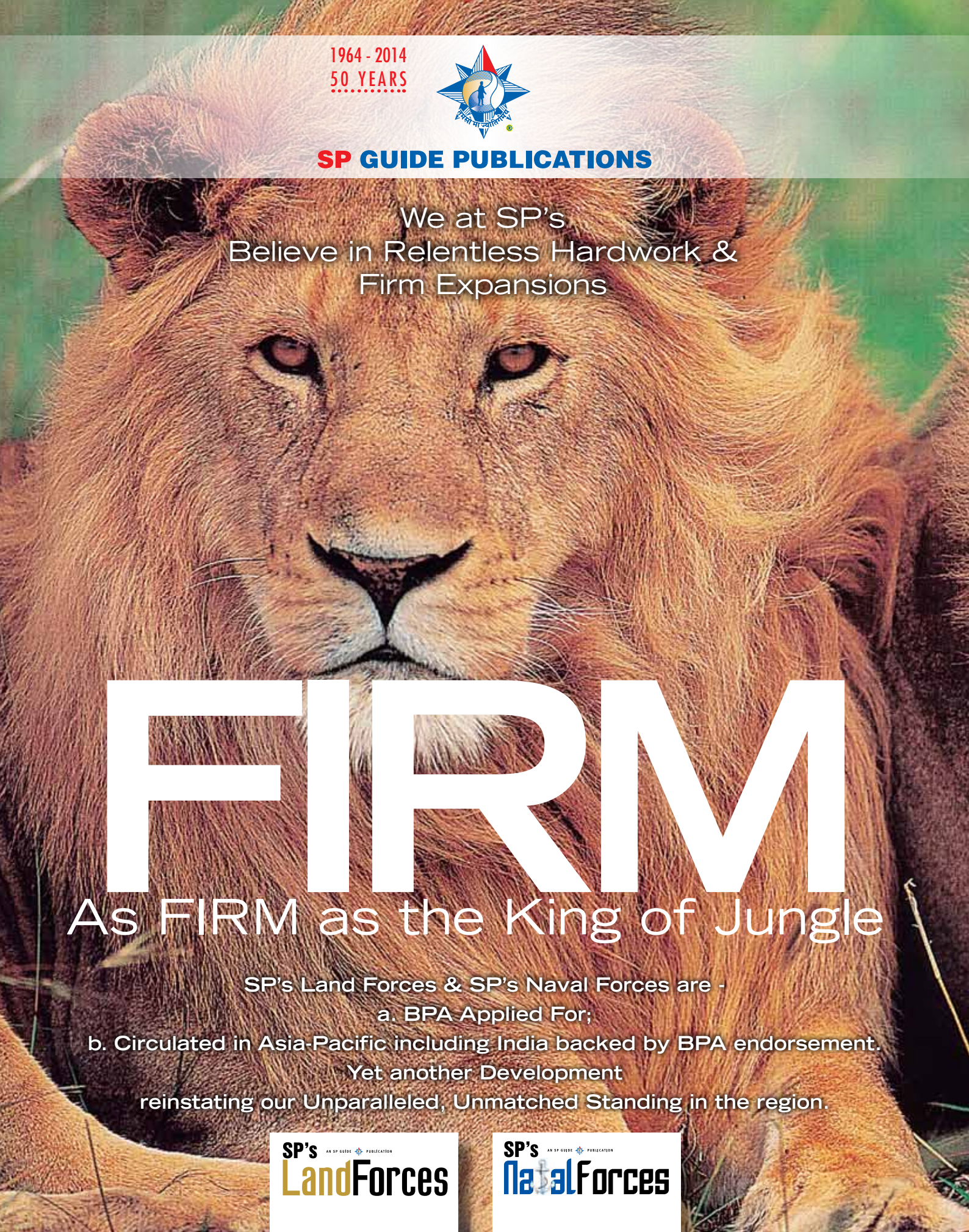

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