CHINA'S DEADLY PROXY : A VIEWPOINT PAGE 8

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Final operational clearance for LCA Tejas next year: Antony

Defence Minister A.K. Antony has expressed optimism that the country's indigenously developed fighter aircraft—LCA Tejas—will get final operational clearance (FOC) of the Indian Air Force (IAF) by the end of next year. Speaking at the annual awards functions of the Defence Research and Development Organisation (DRDO) in New Delhi, he said, all stakeholders including the DRDO, IAF and the Hindustan Aeronautics Limited (HAL) must put their energy together in a focused manner to achieve this objective.

Referring to the expansions of domestic defence industry, Antony said this has to be achieved through public and private sector initiatives. He said there is ample scope for joint ventures also. "All the stakeholders in the defence sector—DRDO, armed forces and the industry—must work in tandem and develop trust and confidence in each other's capabilities."

The Minister complimented DRDO for their magnificent achievements in 2012. He referred to the first flight of Agni-V, two successful tests of our ballistic missile defence programme in February and November 2012, first flight of LCA Navy, establishment of a cyber-forensics laboratory, initiation of production of NBC systems, transfer of technology (ToT) for composite armour for helicopters and investment casting of aero engine components and said these are just some of the many accomplishments.

PHOTOGRAPH: PIB

He, however, asked the scientists not to be complacent. "The DRDO must keep its focus trained on the areas of core competence and not fritter away its energy and resources. In today's world of cut-throat competition, the choice is very clear, 'perform, or perish.' From designing stage to the stage of final production, timelines must be strictly adhered to," he said.

The function was attended among others by the Minister of State for Defence Jitendra Singh, Chief of the Air Staff Air Chief Marshal N.A.K. Browne and Chief of the Naval Staff Admiral D.K. Joshi. SP

Cover:
Minister of State for Defence Jitendra Singh along with Air Chief Marshal N.A.K. Browne, Chairman, Chiefs of Staff Committee (COSC) and Chief of the Air Staff (CAS) and Air Marshal Rajinder Singh, Air Officer Commanding-in-Chief, Training Command, after a sortie in Pilatus PC-7 MkII at the Air Force Academy in Dundigal, Hyderabad.

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It is basic..... We need to ensure high-level training

First, it is good news that the Indian Air Force (IAF) has inducted finally the much needed basic trainer – Pilatus PC-7 MkII. Without a basic trainer for a couple of years, after the grounding of the HPT-32 Deepak, there was yawning gap in training of pilots and the issue of plane accident rate cropped up in many a debate.

The Ministry of Defence which released figures recently in the Parliament mentions that the IAF loses the equivalent of one fighter squadron (16-18) fighters in crashes every two years. In the last five years (ending March 31, 2013), a total of 50 IAF aircraft have crashed, killing in all 17 pilots and 18 service personnel. Obviously, this threw up questions on appropriate training, as 'human error' appeared top on the list of probable causes.

The IAF, till now, has been managing with the aged HJT-16 Kiran for both Stage-I and Stage-II fighter training, while there was a clamour for focusing on basic training standards of young fighter aircrew. Following the induction of Pilatus PC-7 at IAF's premier Academy, located at Dundigal, Hyderabad, the first batch of IAF pilots will begin basic training in July. This trainer is expected to provide a solid foundation and facilitate a seamless transition from ab initio stage through intermediate and advanced stages into full-fledged operational flying for all streams. The IAF now has in place basic trainers, intermediate and advanced jet trainers (British Hawk AJTs) which we believe will enhance the training standards of the pilots to subsequently fly highly advanced combat jets.

The Defence Minister A.K.Antony has rightly said that with the unveiling of the trainer, India 'ushers in a new era.' "The induction of PC-7 MkII as basic trainer aircraft in the IAF is a very important landmark in our nation's quest to modernise its armed forces."

In pursuit of the modernisation goal, India and Japan moved a step closer to the signing of the amphibious aircraft deal. The Prime Minister Dr. Manmohan Singh took this decision during his visit to Japan recently. "We attach particular importance to intensifying political dialogue and strategic consultations and progressively strengthening defence relations, including through naval exercises and collaboration in defence technology," Dr. Singh noted.

Another heartening aspect has been that the foundation stone was laid for the Indian National Defence University (INDU) at Binola, Gurgaon, near Delhi. INDU should help in defence policy formulation.

General Atomics of USA recently made a presentation on the capabilities and features of its electromagnetic aircraft launch system (EMALS) and advanced arresting gear (AAG) in New Delhi. A report on it by Rear Adimral (Retd) Sushil Ramsay has been included in this issue.

United Nations approved the first-ever global Arms Trade Treaty (ATT) with an aim to regulate the $70-billion arms trade. India abstained from voting and India's Ambassador argued in the UN General Assembly that the treaty falls short on many counts and will not attract universal adherence. Air Marshal (Retd) Anil Chopra analyses the pros and cons of the treaty.

In his frank and forthright column, Lt General (Retd) P.C. Katoch has talked about the proxy war that China is onto in the Indian territory, even while diplomatic postures keep happening to show 'everything is all right.' It is not. However, we would like your feedback on the issues we cover as to sharpen our coverage of events and analysis.

Jayant Baranwal
Publisher & Editor-in-Chief

MiG-21: 50-year journey

The venerable Mikoyan-Gurevich MiG-21 continues to be the backbone of the Indian Air Force's air defence force since its arrival in 1963. Sprinkled across squadrons mostly in the West and South-west, the MiG-21 is expected to receive a two-year extension that will see over 100 MiG-21 Bisons see service till 2017. This has been necessitated by steadily depleting squadron numbers as well as delays in asset addition programmes, including the indigenous LCA Tejas and MMRCA, that's expected to see a concluded contract this calendar year. The type may mark five years, but it is also true that the platform has seen continuous upgrades and improvements in Indian service, making it more an Indian aircraft than Russian. Of the 874 MiG-21s that India has operated over the years, 264 still fly today across a host of frontline squadrons.

Apart from operations in all conflicts starting with the 1971 war, the MiG-21 is also credited with the only peacetime kill of an adversary aircraft (the shooting down of an intruding Pakistan Navy Atlantique over the Gulf of Kutch in 1999 after the Kargil conflict). It was recently revealed by the Chief of the Air Staff that the platform would receive new life in the form of a life extension that will see at least five squadrons operating up to 2017 and perhaps beyond. SP

PHOTOGRAPHS: DPR Defence

Seagull squadron gets its first P-8I

The Indian Navy has proudly welcomed its newest beast: a gleaming Boeing P-8I (unofficially designated Neptune, but yet to receive its official Indian name), the first of eight aircraft that will be the frontline of the Navy's eyes in the sky over water, in all weather day or night for extended missions. The Indian Navy is also considering exercising options for four more aircraft (Boeing itself has determined a market for at least 30 aircraft going by the Navy's requirements).

Based out of a squadron at INS Rajali in Arakkonam, Tamil Nadu, the brand new aircraft, bearing the squadron's Seagull insignia, will be broken into operations next month. It will be joined by the next two aircraft this year, followed by the remaining five spread across 2014-15. That the P-8I was handed over to the Navy ahead of schedule has brought in a much needed feel-good factor, and its only auspicious that the platform was delivered as the Navy just completed celebrations of Naval Aviations's 60th year.

A team from Boeing will be stationed at Arakkonam, as per contractual requirements, to oversee the setting up of infrastructure and begin operationalisation of the platform with the Indian Navy. SP

₹8,000 crore ICV upgrade plan on

The proposed ambitious upgrade of the Indian Army's entire fleet of infantry combat vehicles (ICVs) was fleshed out by Defence Minister A.K. Antony in Parliament recently. "Based on operational requirement, the entire ICV fleet of the Indian Army is being modernised to enhance their capability," Antony said. It has been revealed that armament and firepower capabilities are being upgraded with the latest generation fire control system, twin-missile launchers and Commander's thermal imaging panoramic sights, along with the latest generation anti-tank guided missiles and automatic grenade launchers.

"The ICV proposal for the Armament upgrade of BMP-2/2K to BMP-2M and new

power pack for BMP-2/2K will cost an estimated Rs. 8,000 crore," Antony said. The process is currently on. The Army is already in the market for other types of vehicles, including light strike vehicles and is currently involved with the Defence Research and Development Organisation (DRDO) in the development of an unmanned tracked vehicle for troop rescue. SP

PHOTOGRAPHS: Boeing, Anoop Kamath, SPSC

Priority re-think on Project AMCA

Major and ongoing delays in the light combat aircraft programme have finally reached a point where the Defence Ministry has put a dam on the AMCA fifth generation fighter effort, calling upon the DRDO labs involved to direct every last bit of energy into ensuring that there are no further slippages in the Tejas programme. With the eight limited series aircraft taking to the skies recently, confidence is finally back in the drifting programme, but budget sanctions and manpower projections of the AMCA forced the MoD to bite the bullet and take a hard decision.

With the Tejas to complete all clearances by the end of next year and enter squadron service the year after that, a thought process within the Defence Ministry is to pre-empt any further damage to a programme that has already seen massive time and cost overruns. In this matter, the DRDO Chief has been unofficially overruled, given that the AMCA is being pushed as a flagship aeronautical effort, in many ways to divert attention from the deep problems of the Tejas. For now, funding and manpower will be temporarily eased off pending completion of all parameters and delivery of the Tejas. SP

Second Nirbhay missile test likely by November

Following the partial success of the Nirbhay subsonic cruise missile on its March 12 debut test, the development team has managed to identify the glitch in the inertial naviation system (INS) that forced them to push the kill button 17 minutes into the flight, following a perfect launch sequence. Defence Minister A.K. Antony confirmed in the Parliament that the problem had been identified and was in the process of being fixed.

DRDO sources reveal that fixing the problem was a learning process, given that the Nirbhay is almost entirely Indian, with all major systems and electronics fully indigenous. They also revealed that a crucial second test could take place by November this year, if all goes well. The March 12 debut test was a partial disappointment since the Nirbhay test was already delayed by at least two years. The Nirbhay will be tested till 2017, following which it will be inducted into the armed forces. An air-launched and ship-launched version will also be developed and tested in tandem. SP

PHOTOGRAPHS: Boeing, HAL, DRDO

First C-17 to arrive in India shortly

The Indian Navy isn't the only service that gets the bask in the glow of a brand new American-built bird. The IAF will soon welcome to India its first Boeing C-17 Globemaster-III heavy-lift transport aircraft, due to arrive shortly. The window of arrival is May-June, so teams are all set to ferry the first bird back to homebase, Hindon Air Force Station.

All 10 aircraft will be delivered by the end of 2014, by which time operations will already be in full swing. Batches of Indian pilots and loadmasters have been undergoing training with the US Air Force at Altus, Oklahoma, and will be the lead teams that bring in the C-17 into Indian service. Once deliveries begin this month or the next, the Indian Air Force will rapidly begin a process to determine whether it plans to buy 6-10 more aircraft from Boeing. Such a decision will need to be quickly made since manufacturing operations will begun winding down at Boeing's Long Beach facility towards the end of 2014, and it will need firm orders to keep such a massive facility open. Sources indicate the IAF has already conveyed to the government that it would require at least 20 C-17s for meaningful operations on the type, and given its responsibilities. SP

HAL and BrahMos agree to forge partnership

With synergies simply waiting to be exploited between the two aerospace majors, and with the hypersonic BrahMos-2 speeding up on the drawing board, the Hindustan Aeronauitcs Limited (HAL) and BrahMos have forged a partnership for long-term support towards all variants of BrahMos programmes. Under the new understanding, HAL will install and augment required facilities under the technical support of the Defence Research and Development Organisation (DRDO) laboratory Research Centre Imarat (RCI) to meet the current and the future programme expectations. The two sides also agreed to partner and enhance indigenous content of the BrahMos programme.

The BrahMos-A is expected to be tested from a Su-30MKI later this year for the first time, while BrahMos is already contemplating a modified miniaturised anti-ship missile for use off all IAF fighter types, including the MMRCA when production begins. HAL and BrahMos have already worked extensively together in modifying the Su-30MKI airframe to house a BrahMos-A on a belly pylon. Future synergies and joint programmes are likely too. SP

Turbomeca to power HAL's light copter

After a protracted effort to identify a suitable engine for the in-development light utility helicopter, HAL has finally chosen the Turbomeca 1U Ariden, a close variant of the 1H1 Shakti that powers the ALH Dhruv and light combat helicopter. The Shakti beats out the Honeywell-Rolls Royce LHTEC CTS-800 that was also in contention.

It may be rememebered that the Shakti, which had been nearly the default choice initially, was set aside and a competitive process taken up following disagreements over licensing for the LUH. HAL choice appears to suggest that any problems with Turbomeca have since been sorted out. A first ground test vehicle is like to be tested by the middle of 2014, with a first flight in 2015. HAL is developing the platform to meet a 187 helicopter requirement for the Army and IAF. With the 197 reconnaissance and surveillance helicopter (RSH) hanging fire with no guidance or decision, the pressure on HAL to speed up the programme and deliver is even higher. The LUH will have a full glass cockpit and be developed in three different variants to meet requirements. The platform will move straight from prototype to series production, with no intervening limited series production phase, reveal sources. SP

Project Nirdesh moves ahead

The country's indigenous shipbuilding infrastructure and know-how will be consolidated soon, with the Nirdesh project moving swiftly ahead. Tenders have been floated for the master-plan and detailed project report (DPR) for NIRDESH, short for the proposed National Institute for Research in Defence Shipbuilding at Chaliyam near Kozhikode.

According to the Defence Ministry, "The selected consultant will be required to prepare a Master Plan for the entire site and DPR for setting up the first phase of infrastructure. The Master Plan will be prepared in such a manner that Nirdesh grows into an environment-friendly, green campus, without disturbing the livelihood of the nearby villagers. Role specific parks will be set up at Chaliyam, for efficient functioning of Nirdesh. Infrastructure in these parks are planned to be set up in three phases. The first phase will be completed in about three years, subject to statutory clearances. Even as the infrastructure plans for Nirdesh are progressing at a fast clip, the institute conducted its first course for Shipyard Engineers in March this year at its premises. The Executive Committee of Nirdesh has also approved a research and development (R&D) project of developing an underwater robot in collaboration with IIT, Mumbai." SP

PHOTOGRAPHS: SPSC, EADS

RFP out for major Avro-replacement programme

After an abortive attempt to make it an indigenously-led modernisation effort that could set an example for future procurements, the Indian MoD has finally released its request for proposal for 56 medium-lift transport aircraft that will replace the Indian Air Force's fleet of HS-748 Avro propeller transports.

The request for proposal (RFP) demands that 16 aircraft be supplied in flyaway condition by the selected global vendor, and the remaining 40 built in India under a partnership with an Indian company. The RFP stipulates that the modalities of this partnership need to be hammered out and set down in bids within the next five months. In transport aircraft terms, this could be one of India's largest, running into close to over ₹25,000 crore.

EADS CASA C-295 aircraft

As earlier reported by *SP's*, likely contenders for the deal include the EADS CASA C-295 or the Alenia C-27J Spartan. Other companies that have received the RFP include Ilyushin, Antonov, Lockheed-Martin and Boeing. The company conspicuous by its absence in this entire effort is, of course, the Hindustan Aeronautics, which is building a multi-role transport aircraft (MTA) in partnership with UAC and Ilyushin. SP

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China's deadly proxy

Like all visiting Chinese visitors, Chinese Premier Li Keqiang smiled through his visit to India and mentioned Panch Sheel portraying peace and harmony. But China's proclivity to wage sub-conventional has never really been hidden. Spawning extremist movements like the New People's Army of Philippines, the Khmer Rouge in Cambodia, Japanese Red Army, Shining Path in Peru and Maoist movements in Burma and Nepal as part of ideology spread was just one early form.

China was already providing training to Taliban while the American invasion was still on in Afghanistan. Subsequently, China has been providing training, military advisors and arms including shoulder-fired air defence missiles (QW-1 manpads) to the Taliban for fighting US/NATO forces. China had also supplied the QW-1 manpads to the Iraqi Shia militants.

As for India, China not only is supplying weapons to Indian Maoists but has also provided them with arms manufacturing capabilities. The Chinese have deep relations with ULFA, having provided them sanctuary on Chinese soil, training and arms. China did not hesitate to show her support to Pakistan's anti-India jihad by vetoing at the United Nations actions against Pakistani terror acts.

Over the years, what China has been using against India are its multiple proxies posing irregular threats: Pakistan; Pakistani proxies that include Al-Qaeda-Taliban-LeT-JuD-HuM and the like; Nepalese Maoists; and Kachen rebels of Myanmar, to whom also China has provided arms and arms manufacturing capabilities and through whom sophisticated arms and communication equipment are being pumped into India, particularly to Maoists and PLA of Manipur.

The next China-Pakistan collusive irregular threat is under orchestration in Maldives which the Al-Qaeda and LeT have already infiltrated. But what is emerging now is that China has been surreptitiously creating her deadliest proxy in the USWA (United State Wa Army) in Myanmar. The Wa Tribe is the brain and heart that controls the drug trade in the famed 'Golden Triangle,' much like the Taliban did during their 10-year rule in Afghanistan. The Wa Tribe was the muscle of the original Burmese Communist Party. Despite the close political, economic and military relations between China and Myanmar, China had been steadily arming the USWA who have large tracts of Myanmar territory under their control as 'liberated' zones in north and east Myanmar, particularly in Shan State. The obvious Chinese aim was to ensure that the USWA remain its proxy, Myanmar Military is unable to regain this territory and China can use the USWA as the trump card to keep Myanmar subservient to China in China accessing the Indian Ocean, permit energy supplies through Myanmar and establish the Chinese navy in ports of Myanmar of Chinese choosing.

In recent years Chinese support to USWA from assault rifles and machine guns was upgraded to supply of rocket launchers, anti-tank weapons, shoulder-fired QW-1 manpads and even armoured troop carrying vehicles. However, in the months of February and March this year, China has supplied two Mi-17 'Hip' medium transport helicopters armed with TY-90 air-to-air missiles to the USWA (three more are to follow), creating a proxy that will be even deadlier than the LTTE. In a bid to deceive, China flew in these helicopters via a third country.

The intrusion made by China 19-30 kilometres deep into Indian territory in April this year pointedly violated the principle of 'mutual and equal security' clearly enunciated and established by the 1993 Agreement on "confidence building measures in the military field". While more intrusions aimed at nibbling away more territory can be expected from the Chinese python, what we should not gloss over is the asymmetric war that China is waging in India's heartland tying down our economy, development work and security forces in the process. There is every possibility that China will raise the stakes under cover of deniability. SP

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

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PHOTOGRAPH: PIB

Minister of State for Defence Jitendra Singh along with Air Chief Marshal N.A.K. Browne and other officials after inducting Pilatus PC-7 MkII

IAF inducts Pilatus PC-7 MkII

The Indian Air Force's (IAF's) premier Academy located at Dundigal, Hyderabad, on May 31, 2013, witnessed the unveiling of Pilatus PC-7 MkII, by Minister of State for Defence Jitendra Singh. Three PC-7 MkII aircraft got airborne in a vic formation led by Group Captain R.S. Nandedkar to put up a brief display for the audience. This marked the first formal flight of the basic trainer aircraft over the skies at the Air Force Academy in Hyderabad. This was followed by handing over of technical documents of the aircraft by Air Commodore Nagesh Kapoor, Chief Instructor (Flying) to Singh.

After unveiling the new basic trainer aircraft, the Minister said, "The induction of PC-7 MkII as basic trainer aircraft in the Indian Air Force is a very important landmark in our nation's quest to modernise its armed forces. As part of the ongoing transformation, IAF is being equipped with cutting-edge technology and state-of-the-art aircraft and systems. However, the need to train our ab initio pilots on modern trainers is crucial to prepare them for the exacting requirements of combat flying.

"With unveiling of basic trainer aircraft, we usher in a new era. Imparting high quality flying training to our budding pilots will ensure proficient handling of more sophisticated aircraft in their demanding roles. PC-7 MkII and its associated training infrastructure comprising of simulators and training modules promises higher safety standards while developing the critical skills in military aviation. The aircraft, with its excellent handling characteristics, user-friendly onboard instrumentation and modern navigation systems, is ideally suited for IAF's training requirements.

"On behalf of the government, I assure the nation that no effort will be spared to equip IAF with the latest training aids and infrastructure. Funds will never be an impediment and today's induction is one such instance to prove this."

Noting the induction of PC-7 MkII as IAF's basic trainer aircraft to be a proud moment, the Air Chief said, "This event is a significant milestone in IAF's transformation into a modern multi-spectrum strategic force. It is my responsibility to ensure that our pilots and technicians operate the best trainer in the world, the nation can afford. Pilatus will prove to be the ideal platform that will train the ab initio trainees about the nuances of basic flying and expose them to modern avionics and navigation aids. This trainer will provide a solid foundation and facilitate a seamless transition from ab initio stage through intermediate and advanced stages into full-fledged operational flying for all streams. I take this opportunity to thank the government and in particular the Defence Minister for recognising IAF's urgent training requirements and for extending a very prompt response to the same. A special mention of MoD for providing an active interface with all stakeholders and facilitating fruition of the project in record time."

Minister Singh reciprocating the salute as he goes for a sortie in the PC-7 MkII with Air Commodore Nagesh Kapoor at Dundigal

The PC-7 MkII aircraft would be used for basic training of all pilots of the IAF, in addition to the pilots of the Indian Navy and the Coast Guard. Till now, this role was performed by the reliable but ageing workhorse, the HJT-16 Kiran aircraft. Ready to receive the new basic trainer that will bring in a much awaited augumentation of IAF's training capacity, a comprehensive infrastructure upgrade is already under way at the Air Force Academy.

A total of 75 aircraft have been contracted from Pilatus, Switzerland. The procurement of PC-7 MkII was approved by the government in May 2012 and the first batch of PC-7 MkII arrived at the Academy in February this year as part of an accelerated induction plan. The first batch of Flight Cadets would start their training on PC-7 MkII from July onwards.

Also present on the occasion were service and civil dignitaries including Chief Secretary Andhra Pradesh Dr P.K. Mohanty, Ambassador of Switzerland Linus Van Castelmur and Air Officer Commanding-in-Chief, Training Command Air Marshal Rajinder Singh. SP

PHOTOGRAPHS: IAF

New Air Force Station at Thanjavur dedicated to nation

On May 27, Defence Minister A.K. Antony dedicated the new Air Force Station at Thanjavur to the nation. Speaking to reporters, Antony said the operationalisation of the Air Force Station Thanjavur would strengthen the air defence capabilities of the Indian Air Force (IAF) in general and the Southern Command, in particular. He said various sensitive, strategic, industrial, aerospace and economic assets are coming up in the Southern Peninsula and the station will play a vital role in providing protection to those assets.

The event was attended among others by the COSC and the Chief of Air Staff Air Chief Marshal N.A.K. Browne and the AOC-in-C Southern Air Command Air Marshal R.K. Jolly. Antony said the station will also help protect our island territories and sea lines of communication in the Indian Ocean Region (IOR). He said even though we are a peace-loving nation, we have to protect our national interests from threats such as piracy and terrorism. He said the IOR is increasingly becoming more and more active. "In the emerging security scenario, the presence of fighter planes in Thanjavur will not only guard our interests but also give a feeling of safety to our neighbours."

Thanjavur airbase is poised to become a premier airbase in Southern Air Command. The status of the airbase as the pride of Southern Air Command befits the city of Thanjavur, which was a jewel in the crown of the Chola and Pandya kingdoms. The airbase was first constructed in 1940 by the Royal Air Force.

The airbase has been used extensively for relief operations whenever the southern peninsula was affected by natural calamities. During heavy floods in Tamil Nadu in November 2008, the IAF helicopters operating from Thanjavur dropped 15,000 kg of relief material in Papanasam, Mulanguri and Pandalenur areas. Earlier, on his arrival at the Thanjavur Station, Antony was presented a guard of honour. He unveiled a plaque marking the dedication of the station to the nation. Two SU-30MKI aircraft took off from the station.

Defence Minister A.K. Antony unveiling the plaque to dedicate the Air Force Station Thanjavur to the nation. Chief of the Air Staff Air Chief Marshal N.A.K. Browne and AOC-in-C Southern Air Command Air Marshal R.K. Jolly are also seen

Speaking on the occasion, Air Chief Marshal Browne said, "In the years ahead, the strategic importance of the Thanjavur Air Station will grow in stature". He thanked the Defence Minister for settling issues relating to the relocation of some villagers for the expansion of the station. Antony thanked successive governments of Tamil Nadu for their help and support to the activities of IAF and the Ministry of Defence. SP

R.K. Mathur takes over as Defence Secretary

R.K. Mathur is the new Defence Secretary of India. Mathur who took over as the Defence Secretary on May 25, replaced Shashi Kant Sharma who has taken charge as the new Comptroller and Auditor General (CAG) of India.

A 1977 batch Indian Administrative Service (IAS) officer of the Manipur-Tripura cadre, Mathur did his B.Tech from IIT Kanpur, M.Tech from IIT Delhi and MBA from International Centre for Public Enterprises, Ljubljana.

He has held many important positions in the Government of Tripura, has served as Principal Secretary in the Agriculture, Rural Development and Finance Departments of the Government of Tripura. He was also Chief Secretary of Tripura. SP

PHOTOGRAPHS: PIB

DPP 2013 comes into force

The Ministry of Defence has promulgated the Defence Procurement Procedure 2013 on June 1. The new procedure aims at balancing 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 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

Foundation stone of Indian National Defence University laid

Prime Minister Dr. Manmohan Singh laid the foundation stone for the Indian National Defence University (INDU) at Binola, Gurgaon, Haryana, on May 23. The event was attended among others by the Governor of Haryana Jagannath Pahadia, Defence Minister A.K. Antony, Minister of External Affairs Salman Khurshid, Minister of Social Justice and Empowerment Selja Kumari, Minister of State for Defence Jitendra Singh, Chief Minister of Haryana Bhupinder Singh Hooda and the three service chiefs.

Spread over more than 80 hectares of land, the proposed Indian National Defence University will be set up as a fully autonomous institution to be constituted under an Act of Parliament and will be fully functional in 2018. While the President of India would act as the visitor, the Defence Minister will be its Chancellor.

It may be recalled that after the Kargil conflict, the government had set up a Review Committee, headed by eminent strategic expert K. Subrahmanyam, which had recommended the establishment of an university to exclusively deal with defence and strategic matters. The aim of INDU would be to provide military leadership and other concerned civilian officials knowledge based higher education for management of the defence of India, and keeping them abreast with emerging security challenges through scholarly research and training. The INDU would develop and propagate higher education in defence studies, defence management, defence science and technology and promote policy-oriented research related to national defence.

Prime Minister Dr Manmohan Singh addressing at the foundation stone laying ceremony of the Indian National Defence University

The think tanks of the university would provide inputs for policy formulation. The university would prepare officers for high level leadership, staff and policy responsibilities. The National College of Defence Studies (NCDS), Indian Institute of Defence Technology (IIDT), Indian Institute of Defence Management (IIDM) and the Defence Institute of Distance and Open Learning (DIDOL) would be the constituent colleges and institutions of the INDU. SP

OPV ICGS Vaibhav commissioned

Indian Coast Guard ship Vaibhav, the third in the series of 90 meters class offshore patrol vessel (OPV) was commissioned at Tuticorin by Vice Admiral Anurag G. Thapliyal, Director General Indian Coast Guard, on May 21, in the presence of Commander Coast Guard Region (East), senior dignitaries of the Central, state government and shipyard officials. 'Vaibhav' meaning "Grandeur" is a projection of Indian Coast Guard's will and commitment "To serve and protect" the vast maritime interest of the nation.

This 90-metre OPV has been designed and built indigenously by GSL and is fitted with state-of-the-art navigation and communication equipment, sensors and machineries. The ship's features include an integrated bridge system (IBS), integrated machinery control system (IMCS), power management system (PMS), high power external fire fighting system (ABS Fi-Fi Class-1) and one indigenous close range naval gun (CRN-91) along with an optical fire control system. The ship is designed to carry one helicopter and five high speed boats for search and rescue, law enforcement and maritime patrol. The ship is also capable of carrying pollution response equipment to combat oil spill at sea.

The ship will be deployed extensively for the exclusive economic zone (EEZ) surveillance and such other duties as enlisted in Coast Guard Charter. The vessel will be exploited extensively in the Eastern region, more so, in the sensitive Gulf of Mannar and up to the International Maritime Boundary Line (IMBL) with Sri Lanka, to safeguard the maritime interests of India. ICGS Vaibhav will be manned by 10 officers and 84 men under the command of Deputy Inspector General Sanjiv Trikha, and will be based at Tuticorin under the administrative and operational control of the Commander Coast Guard Region (East). SP

PHOTOGRAPHS: PIB, Indian Coast Guard

L-3 WESCAM unveils MX-LVSS

L-3 WESCAM has unveiled its new land vehicle surveillance system, the MX-LVSS, at CANSEC, Canada's largest defence and security trade show. Based on L-3 WESCAM's industry-leading MX Series of multi-spectral, highly stabilised imaging systems, the MX-LVSS is a modular and rugged solution consisting of low-risk, battle-proven, commercial-off-the-shelf subsystems currently operating in the world's harshest terrains and climates.

L-3's MX-LVSS consists of mast-mounted and remote-mounted surveillance suites with an integrated vehicle operator control station. The rugged system, adaptable to a wide range of platforms, obtains timely and accurate surveillance data on surrounding terrain and adversaries, day or night, while the host vehicle is stationary or on-the-move, mast-mounted or dismounted, in all weather conditions.

"As a turnkey ground vehicle ISR solution, the MX-LVSS provides state-of-the-art stability technology to ensure agile, responsive and adaptive surveillance. This greatly expands mission capability in real-world scenarios where the host vehicle is moving," said Paul Jennison, Vice President of Government Sales and Business Development for L-3 WESCAM. "The system's scalable design supports a full range of surveillance capability and complexity, providing our customers around the world with system-level solutions, customised to their precise specifications and budget. The new system is ideally suited for multiple platforms, such as the upcoming Canadian light armoured vehicle recce surveillance system ." SP

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 O

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

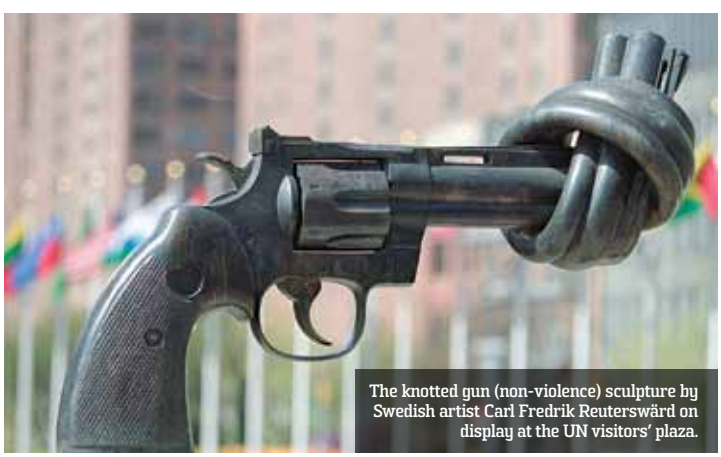
SP GUIDE PUBLICATIONS

Arms Trade Treaty: Implications for India

[By **Air Marshal (Retd) Anil Chopra**]

On April 2, 2013, the 193-member United Nations approved the first-ever global Arms Trade Treaty (ATT) with an aim to regulate the $70 billion arms trade. The official UN tally showed 154 votes in favour, three against and 23 abstentions. Iraq, Syria and North Korea opposed. China, Russia, India, Cuba, Indonesia, Sri Lanka and Egypt were among those who abstained.

The treaty is based on the Article 26 of Charter of United Nations that seeks to promote international peace and security and least diversion of armaments, with the explicit aim of preventing and eradicating illicit trade in conventional arms. Arms and ammunition transfer costs vastly exceed the initial financial profits of selling weapons. The United Nations Peacekeeping costs the world $7 billion per year and the global annual burden of armed violence stands at $400 billion. Targeted at terrorists, the treaty recognises the legitimate political, security, economic and commercial interests of states, including sporting and recreational activities. The treaty expects all to respect Universal Declaration of Human Rights and reduce human suffering. Each state is expected to regulate arms trade. The Treaty shall apply to all conventional arms including battle tanks, armoured combat vehicles, large calibre artillery, combat aircraft, attack helicopters, warships, missiles and missile launchers, and small arms. There is no restriction of movement of arms for use by owner nation as is the case in international peacekeeping or enforcement operations including Iraq and Afghanistan.



The knotted gun (non-violence) sculpture by Swedish artist Carl Fredrik Reuterswärd on display at the UN visitors' plaza.

There are restrictions on transfer/sale also of parts and components that can be assembled to make arms. Diversion of arms for use against civilians is also prohibited. The treaty prohibits states from transferring conventional weapons if they violate arms embargoes or if they promote acts of genocide, crimes against humanity or war crimes. Each signatory country is expected to make national legislation on these lines. The treaty will be ready for signatures by individual states from June 3, 2013 onwards. Members have the right to record reservations on individual points without countering the basic purpose of the treaty. The treaty will come into force when 50 countries ratify it.

Many countries, led by India, which also abstained, felt that the treaty gives undue leverage to exporting over importing states. USA, the world's biggest arms exporter, drove the treaty against major opposition from its powerful 'National Rifle Association' which feels the domestic sales would get affected in spite government assurance to the contrary. China and Russia, two major arms exporters, who also arm some rouge states, are not part of the treaty yet. With such significant players not keen to join it, the treaty's effectiveness could be in question.

India, the world's largest importer of military equipment, is worried that the treaty could complicate its efforts to import military equipment. Apprehension is that arms exporters could use the treaty as a pretext not to provide equipment in case they fail to fulfill conditions of a contract. Although implementation is years away and there is no specific enforcement mechanism, proponents say the treaty would for the first time force sellers to consider how their customers will use the weapons and to make that information public. Interestingly the major thrust for defence indigenisation in India coincided with the finalisation of this treaty. In spite of years of effort, the Nuclear Non-Proliferation Treaty is yet to succeed. Treaties for greater threats like global environmental treaty have still to get acceptance. The US has unilaterally run arms embargoes in the past and also armed insurgency movements including the Taliban. In spite of very good intentions, many feel the treaty will succeed in the breach.

India's Ambassador Sujata Mehta, argued in the UN General Assembly that the treaty falls short on many counts and will not attract universal adherence. India stressed that the ATT should ensure a balance of obligations between exporting and importing states. The treaty was weak on terrorism and non-state actors. Further, India could not accept the treaty as it could be used as an instrument in the hands of exporting states to take unilateral force majeure measures against importing states without consequences. Moreover, importing states were liable to fairly intrusive questioning relating to end use of the imported weapons. The treaty will not hinder Pakistan's supply of arms to terrorist outfits within the country. Mehta highlighted that there are no curbs on arms flow to religious extremists. As a result, even if the ATT is signed and ratified by the members of UNGA, it will not help control the menace of religious extremism and terrorism. Russia and China too have suffered this menace. India's concerns have been put forth. Physical positions will emerge in due course. SP

PHOTOGRAPH: UN Photo / Pernaca Sudhakaran

Prime Minister Manmohan Singh with the Prime Minister of Japan, Shinzo Abe; Shinmaywa's US-2 amphibian aircraft

India & Japan to set up JWG on US-2 aircraft

Moving a step closer to the signing of the amphibious aircraft deal, India and Japan on May 29 decided to establish a Joint Working Group (JWG) to explore modality for the cooperation on the US-2 amphibian aircraft. In a joint statement issued by Prime Minister Manmohan Singh and his Japanese counterpart Shinzo Abe, the governments laid down the course of cooperation over the US-2 amphibian aircraft. The decision was taken during the Indian Prime Minister's visit to Japan from May 27-30 for the Annual Summit of the Prime Ministers.

The US-2 amphibious aircraft developed by Shinmaywa Industries has the capability of landing on and take-off from the outer sea. It can carry out missions ranging from constabulary, humanitarian assistance, disaster relief and logistic support missions.

Applauding the commemorative events held to celebrate the 60th anniversary of the establishment of diplomatic relations between the two countries in 2012, Prime Minister Singh and Prime Minister of Japan Shinzo Abe expressed their resolve to further consolidate and strengthen the strategic and global partnership between India and Japan in the years ahead, taking into account changes in the strategic environment. They held extensive talks on bilateral, regional and global issues and expressed satisfaction at the steady growth of political exchanges, dialogue and policy coordination at all levels. They evaluated the ministerial-level annual dialogues and exchanges, particularly the Foreign Ministers' Strategic Dialogue and the Ministerial Level Economic Dialogue and also noted the successful outcomes achieved during the "2 plus 2" dialogue, the Foreign Secretary level Dialogue, the Foreign Office Consultations, the Defence Policy Dialogue, the Trilateral Dialogue between India, Japan and the United States, as well as other key interactions on various areas including cyber, counter-terrorism and economic partnership. They welcomed the launch of the bilateral Maritime Affairs Dialogue, the first meeting of which was held on January 29, 2013, in New Delhi.

Both the Prime Ministers expressed satisfaction at the expanding defence relations between the two countries based on the Joint Declaration on Security Cooperation between India and Japan, as well as the first bilateral exercise between the Indian Navy and the Japan Maritime Self-Defense Force (JMSDF) held in June 2012 off the coast of Japan. They decided to conduct more such exercises on a regular basis with increased frequency.

Singh said: "Our discussions were guided by the fundamental belief that at a time of global uncertainties, change and challenges, India and Japan are natural and indispensable partners for advancing prosperity in our two countries and for a peaceful, stable, cooperative and prosperous future for the Asia-Pacific and Indian Ocean regions. The Joint Statement reflects our mutual understanding and the steps we are taking to advance our relationship. We attach particular importance to intensifying political dialogue and strategic consultations and progressively strengthening defence relations, including through naval exercises and collaboration in defence technology. Cooperation in high technology, space, energy security and rare earth minerals will also add rich content to our strategic partnership."

They reiterated the commitment of India and Japan to the freedom of navigation and unimpeded commerce based on the principles of international law, including the 1982 United Nations Convention on the Law of the Sea (UNCLOS). They noted ongoing bilateral exchanges on maritime security including counter-piracy activities, participation in bilateral and multilateral exercises as well as sharing of information, and in this context, welcomed the joint exercises between the Coast Guards of India and Japan held off Chennai in January 2012 and in Tokyo Bay in November 2012. They expressed their expectations to further promote bilateral and multilateral cooperation on maritime issues and also welcomed the successful first meeting of the expanded ASEAN Maritime Forum.

Singh and Abe agreed on the need to adopt a holistic approach that ensures zero tolerance towards terrorism and expressed satisfaction at the meetings of the India-Japan Joint Working Group on Counter-terrorism. They agreed to finalise and adopt the Comprehensive Convention on International Terrorism in the United Nations. Further they reaffirmed their shared commitment to the total elimination of nuclear weapons. Prime Minister Abe stressed the importance of bringing into force the Comprehensive Nuclear Test-Ban Treaty (CTBT) at an early date. They also supported the strengthening of international cooperation to address the challenges of nuclear proliferation and nuclear terrorism. Abe recognised India's sound non-proliferation record. Both sides expressed their commitment to continue to work to prepare the ground for India to become a full member in the international export control regimes: the Nuclear Suppliers Group, the Missile Technology Control Regime, the Australia Group and the Wassenaar Arrangement. SP

PHOTOGRAPHS: PIB, Shinmaywa

The F-35C Integrated Test Force at NAS Patuxent River, Maryland, concludes the first round of catapult testing for the F-35C

General Atomics come calling

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

Buoyed by their path-breaking success in designing and developing a high-end technology successor of the currently in use steam generated catapult system for launching aircraft from the aircraft carriers, General Atomics of USA proudly presented capability, significant features and potential of electromagnetic aircraft launch system (EMALS) and advanced arresting gear (AAG) in Delhi May 22, 2013.

Worldwide experience of operating steam-driven catapults for launching aircraft from the aircraft carriers has been quite challenging, stressful, if not harrowing. To surmount the perennial difficulties several alternative technologies have been developed and tried out with limited successes. Vertical & short take-off & landing (V/STOL) and short take-off but arrested recovery (STOBAR) were two parallel developments to catapult take-off but arrested recovery (CATOBAR), with the latter still being the preferred option for the sake of larger payload for ordnance and endurance. Development of EMALS is seen as the true game changer which its original developers, General Atomics Electromagnetics have pronounced as launching a new era in the naval aviation. EMALS has all the right ingredients to emerge as a worthy replacement for the currently and widely in use steam catapults. Besides, EMALS promises to substantially reduce the operating costs, reduced manpower to operate, improve catapult performance and expand the range of manned and unmanned aircraft for carrier borne operations.

In late 1999, General Atomics (GA), San Diego, California, was awarded one of the two preliminary design and risk reduction (PDRR) contracts to build and test a prototype EMALS for the US Navy at the Naval Air Systems Command (NAVAIR) land-based test facilities in Lakehurst, New Jersey. EMALS is a multi-megawatt electric power system involving generators, energy storage, power conversion, a 1,00,000 HP electric motor and an advanced technology closed-loop control system with diagnostic health monitoring. In 2004, GA was awarded the follow-on system development and demonstration (SDD) contract to build a full-scale EMALS at NAVAIR's test site and perform system validation tests. The joint GA and government team has successfully commissioned the test site using dead-weights representing various aircraft weights and have completed 134 manned aircraft launches across five different types of naval aircraft, culminating with the launch of the F-35C, Joint Strike Fighter. Encouraged by the stupendous success achieved by GA, beginning with the USS Gerald R. Ford (CVN 78) EMALS would be the standard fit for all US Navy aircraft carriers in the future.

In tandem with EMALS, during 2003 GA launched a R&D mission for a replacement of the traditional arresting gear in use today. Relentless pursuit of the mission for nearly a decade resulted in the development of Advanced Arresting Gear (AAG). One of the two contracts to develop the AAG was awarded to GA in 2003. Since then, GA has completed more than 5,600 simulated arrested recoveries on full-scale electrical components in its facility in San Diego, California. A single-wire AAG has been installed at NAVAIR's Jet Car Track Site land-based test facility in Lakehurst, New Jersey. This system has been commissioned by arresting dead-loads simulating various aircraft weights. System performance verification testing is currently in progress.

The AAG programme with an electric motor-based system that will replace the currently in use Mk-7 hydraulic system for aircraft deceleration during recovery operations will be the standard fit for the US Navy aircraft carriers. AAG allows arrested recoveries of a broader range of aircraft, reduces manning and maintenance, and provides higher reliability and safety margins. GA's design replaces the mechanical hydraulic ram with rotary engines using simple, proven energy-absorbing water turbines coupled to a large induction motor, providing fine control of the arresting forces.

Production contracts for full ship-sets of both AAG and EMALS equipment were awarded to GA in 2009. Both systems are under production and began delivery to the shipyard in 2011. These systems are symbols of revolutionary advancements in carrier launch and recovery operations and offer a less stressful environment for shipboard operators, aircrews and aircraft. SP

PHOTOGRAPH: Lockheed Martin

Team Spartan competing for Royal Canadian Air Force's FWSAR programme

Alenia Aermacchi, General Dynamics Canada, and DRS Technologies Canada Ltd (TCL) have signed a comprehensive teaming agreement to compete for the Royal Canadian Air Force's (RCAF) upcoming fixed-wing search and rescue replacement (FWSAR) programme.

The team will offer a market variant of the C-27J Spartan, Alenia Aermacchi's best-selling medium tactical military aircraft. The offering will leverage Alenia Aermacchi's international success with the C-27J, General Dynamics' system integration experience, and DRS' training expertise.

Alenia Aermacchi will serve as the prime contractor and will provide the green aircraft platform, including engineering support and avionics. The aircraft will be modified, missionised, and supported in Atlantic Canada by General Dynamics Canada. DRS TCL will provide long-term training support for the fleet. General Dynamics Canada will act as the team's mission system integrator. It will be responsible for modifying the aircraft to accept high tech sensors and the computers that manage them, increasing the search and rescue crew's ability to detect rescue targets. In addition, it will serve as the in-service support (ISS) integrator for the C-27J.

In close collaboration with Alenia Aermacchi, it will work with the RCAF to maintain the high level of fleet availability demanded by search and rescue operations. The DRS training development team will design, oversee and manage the creation and maintenance of all courseware and training aids for the duration of the contract. The training will support the operational mandate of the FWSAR fleet by making maximum use of electronic learning and simulation to optimise availability of the FWSAR aircraft for operational employment.

"This teaming agreement reaffirms our commitment to the Canadian market and to providing the Royal Canadian Air Force with the most capable, best value solution for the fixed-wing search and rescue replacement programme," said Ben Stone, President and Chief Executive Officer of Alenia Aermacchi North America. "Alenia is exceptionally proud to be working with these two Canadian defence companies who collectively have over 100 years of experience supporting Canadians and armed forces around the world. Our team has the right experience, expertise, and platform to best support Canada's search and rescue programme."

The agreement will support new long-term, high-tech jobs, across Canada as well as investments in infrastructure and technology, making it an outstanding economic stimulus for Canada's aerospace sector. Additionally, Team Spartan is well-positioned to strengthen the Canadian economy as its two Canadian companies have a history of tapping into the skills and resources of Canadian suppliers, developing Canada's industrial base, and supporting research and development at the country's leading universities. SP

F-35B completes first vertical take-off

A Lockheed Martin F-35B short take-off/vertical landing (STOVL) Lightning II test aircraft recently completed the first-ever vertical take-off (VTO) on May 10.

VTOs are one of the many capabilities required for the fielding an F-35B aircraft. While not a combat capability, VTOs are required for repositioning of the STOVL in environments where a jet could not perform a short take-off. In these cases, the jet, with a limited amount of fuel, would execute a VTO to travel a short distance. SP

PHOTOGRAPHS: SP Guide Pubns, Lockheed Martin

EADS offers investments to develop Korean indigenous fighter programme

By offering an investment of $2 billion and joint development if South Korea picks the Eurofighter Typhoon, seen here in Spanish colours, EADS says it expected "to cause a shock wave in Korea."

Following Eurofighter's promise to assemble 53 Eurofighters in Korea if the aircraft is selected as Korea's next generation fighter, global aerospace company EADS said that it will "invest $2 billion and its technology in the KF-X to help Korea to become a fighter jet producer."

If Eurofighter produces 53 out of 60 fighter jets in Korea and EADS invests $2 billion in the KF-X programme, the industrial and economic impacts is expected to be monumental. The Eurofighter programme secures more than 1,00,000 jobs in 400 companies in Europe.

If the assembly of Eurofighter and the KF-X programme are conducted at the same time, it will bring economic effect worth dozens of trillions of KRW and create 50,000 jobs in Korea. The development of the Korean Utility Helicopter, SURION, by KAI which secured technology from Eurocopter is a recent successful case of collaboration between Korea and EADS. The SURION raised Korea to the 11th helicopter manufacturer in the world. The SURION brought technical effect worth about 14 trillion KRW and created more than 25,000 jobs in Korea.

In addition, Airbus, one of EADS subsidiaries, has chosen KAI as the supplier of main parts of Airbus aircraft from 1998. SP

Russian Military orders six Be-200 amphibious planes

The Russian Defense Ministry has signed a contract with the Beriev Aircraft Company for the purchase of six Beriev Be-200 amphibious planes, according to Russia's United Aircraft Corporation (UAC). The contract is worth 8.4 billion rubles [$268 million].

"The first two planes will be basic Be-200ChS models, while the following four will be the Be-200PS version without firefighting equipment," UAC said. It is the first purchase of Be-200 planes by the Russian Military. The Defense Ministry may order eight more planes in the future, according to UAC.

Be-200 is the world's largest multi-purpose amphibious aircraft, designed for firefighting, search and rescue, maritime patrol, cargo and passenger transportation. The plane can carry 12 tonnes of water or 7.5 tonnes of cargo, or up to 72 passengers. At least five Be-200ChS firefighting planes are currently in service with the Russian Emergencies Ministry. SP

Airbus Military and Pratt & Whitney Canada Mark delivery of 250th PW127G engine

At a special ceremony in Montreal, Airbus Military and Pratt and Whitney Canada marked the delivery of the 250th PW127G engine to Airbus Military. Hosted by Pratt & Whitney Canada's President John Saabas, the ceremony took place at Pratt and Whitney Canada's Longueuil plant, and was followed by a tour for executives from Airbus Military.

The PW127G is used to power Airbus military's C295, the market leader in military Search and rescue (SAR), maritime patrol, and medium transport. The C295 is a candidate for Canada's ongoing fixed-wing search and rescue (FWSAR) aircraft programme.

"Airbus Military is very proud to celebrate this important milestone in our partnership with Pratt and Whitney Canada," said Antonio R. Barberan, Senior Vice President for Airbus Military. "Every single C295 that has been sold has engines that were assembled here in Quebec. This investment ensures highly skilled jobs in Canada, but also brings the product of Canadian skills and expertise to the rest of the world." SP

Second Airbus Military A400M for French Air Force runs engines

The second production Airbus Military A400M has successfully completed its first engine runs as it begins final preparation for its maiden flight later this month. The aircraft, known as MSN8, is now undergoing taxying trials outside the A400M Final Assembly Line in Seville, Spain.

Airbus Military expects to complete four A400M aircraft in 2013 and will deliver MSN8 to the French Air Force in the third quarter of the year. SP

Japan acquires four new helicopters from Eurocopter

Eurocopter Japan recently signed contracts with Japan's National Police Agency for a total of four helicopters. Comprising two medium-class and two twin-engine light helicopters, the new acquisitions will be deployed to Hyogo Prefectural Police (EC155 B1), Hiroshima Prefectural Police (AS365 N3+), Osaka Prefectural Police (EC135 P2e) and Fukuoka Prefectural Police (EC135 P2e), as replacements for ageing aircraft in the respective fleets.

The brand new EC155 B1 from Eurocopter's Dauphin family will be the National Police Agency's (NPA) first acquisition of this helicopter type. Incidentally, it is also the first Eurocopter rotary-wing aircraft to be operated by Hyogo Prefectural Police, with delivery planned for 2015. Hiroshima Prefectural Police's AS365 N3+ will also be delivered in 2015; while Osaka and Fukuoka will receive their EC135 P2e in 2014.

The ability to meet varying customer needs with a wide range of products, coupled with the availability of a total support system in the country, have enabled Eurocopter Japan to increase its market share in the law enforcement sector over the years. NPA is currently operating a fleet of 29 Eurocopter light-twin and medium-class helicopters across the country, used for police activities including crime-prevention, investigative search and security patrols. SP

PHOTOGRAPHS: Beriev, Airbus, Eurocopter

X-47B accomplishes first-ever carrier touch-and-go aboard CVN 77

The Navy's X-47B unmanned combat air system demonstrator (UCAS-D) has begun touch and go landing operations aboard the aircraft carrier USS George H.W. Bush (CVN 77).

For UCAS-D, this represents the most significant technology maturation of the programme. Ship relative navigation and precision touchdown of the X-47B are critical technology elements for all future unmanned carrier aviation (UCA) aircraft.

Don Blottenberger, UCAS-D Deputy Programme Manager, commented, "This landing, rubber hitting deck, is extremely fulfilling for the team and is the culmination of years of relative navigation development. Now, we are set to demonstrate the final pieces of the demonstration."

The UCAS-D test team and CVN 77 worked together to successfully complete the first ever launch of an unmanned aircraft from an aircraft carrier proving the importance of introducing unmanned aviation into the already powerful arsenal of aircraft squadrons.

"We are proud to be a part of another historic first for Naval Aviation. The landing was spot-on and it's impressive to witness the evolution of the Carrier Air Wing," said Captain Brian E. Luther, Commanding Officer USS George H.W. Bush (CVN 77)

The various launch and landing operations of the X-47B on the flight deck of George H.W. Bush signify historic events for naval aviation history. These demonstrations display the Navy's readiness to move forward with unmanned carrier aviation operations.

Captain Jaime Engdahl, Programme Manager for Unmanned Combat Air Systems Programme Office, said, "When we operate in a very dynamic and harsh carrier environment, we need networks and communication links that have high integrity and reliability to ensure mission success and provide precise navigation and placement of an unmanned vehicle."

The UCAS-D programme plans to conduct shore-based arrested landings of the X-47B at NAS Patuxent River in the coming months before final carrier-based arrestments later in 2013. SP

Northrop Grumman, US Navy complete Triton's first flight

The Northrop Grumman Corporation-built MQ-4C Triton high-altitude unmanned aircraft successfully completed its first flight recently from the company's manufacturing facility in Palmdale.

Triton is specially designed to fly surveillance missions up to 24 hours at altitudes of more than 10 miles – allowing coverage out to 2,000 nautical miles. The advanced suite of sensors can detect and automatically classify different types of ships.

"First flight represents a critical step in maturing Triton's systems before operationally supporting the Navy's maritime surveillance mission around the world," said Captain James Hoke, Triton programme manager with Naval Air Systems Command. "Replacing our ageing surveillance aircraft with a system like Triton will allow us to monitor ocean areas significantly larger with greater persistence."

Northrop Grumman is the prime contractor to the Navy's MQ-4C Triton Broad Area Maritime Surveillance programme.

"Triton is the most advanced intelligence, surveillance and reconnaissance [ISR] unmanned aircraft system ever designed for use across vast ocean areas and coastal regions," said Mike Mackey, Northrop Grumman Triton UAS Deputy Program Director. "Through a cooperative effort with the Navy and our industry partners, we successfully demonstrated the flight control systems that allow Triton to operate autonomously. We couldn't be prouder of the entire team for this achievement." Additional flight tests will take place from Palmdale to mature the system before being flown to the main flight test facility at Naval Air Station Patuxent River, Maryland, later this year. SP

US Navy and Marine Corps small tactical UAS enters production phase

The Department of the US Navy has announced that the RQ-21A small tactical unmanned aircraft system (STUAS) received milestone C approval authorising the start of low rate initial production.

With MS C approval, the RQ-21A programme, managed by the US Navy and Marine Corps STUAS programme office (PMA-263) here at NAS Patuxent River, enters the production and deployment phase of the acquisition timeline, according to the PMA-263 Programme Manager Col. Jim Rector.

"This milestone allows us to provide our warfighter with a unique capability – an organic UAS capable of operations from both land and sea," said Rector. "The RQ-21A will provide persistent maritime and land-based tactical reconnaissance, surveillance, and target acquisition data collection and dissemination capabilities."

The Navy awarded Insitu, Inc., an Engineering Manufacturing Development (EMD) contract for STUAS in July 2010. Since then, the government/industry team has executed land-based developmental tests (DT), operational tests at China Lake, California, in December 2012 and conducted the first sea-based DT from USS Mesa Verde (LPD 19) in February.

Concurrently, Marines are flying an early operational capability (EOC) system at Twenty Nine Palms, California, for predeployment preparation. Lessons learned from EOC will be applied to operational missions in theatre. The aircraft is based on Insitu's Scan Eagle UAS, which has flown more than 245,000 hours in support of US Navy and Marine Corps. SP

PHOTOGRAPHS: Navy.mil

Indian Home Minister meets US Secretary for Homeland Security

The Union Home Minister Sushilkumar Shinde, during his recent visit to the United States of America, met senior government functionaries including the Secretary for Homeland Security Janet Napolitano, Attorney General Eric Holder and the Federal Bureau of Investigation (FBI) Director Robert Muller.

In the dialogue with the Secretary, the two leaders emphasized that cooperation between India and the United States in internal security was a key pillar of the India-US Global Strategic Partnership. They also recognised that such cooperation was imperative, in view of commonality of the threats that confront the two countries. They welcomed progress made over the recent past in developing practical steps to enhance the security of the citizens and to prevent the misuse of increasingly-interconnected global financial, transportation and communication systems. Both the countries agreed to enhance cooperation in capacity building programmes and to identify technologies and equipment useful for Indian law enforcement agencies to source in the United States.

During the dialogue two leaders received reports from the six sub-groups that constitute the Homeland Security Dialogue and welcomed progress being achieved in substantive terms. They applauded the fact that specific cooperation programmes were identified and emphasised the need for results from this Dialogue.

Shinde invited Secretary Napolitano to visit India in 2014 to co-Chair the next round of the Dialogue. Both the countries agreed to carry out a review of the process a few months before that, under the stewardship of Union Home Secretary and the US Deputy Secretary of the Department of Homeland Security.

Shinde also met Director of FBI, Robert Muller and reviewed areas of cooperation and issues of interest. The FBI and Indian agencies have remained in close contact, and it was agreed that the process of inter-agency cooperation would be developed further, in this context. SP

Anti-terrorism day observed

Anti-Terrorism Day was observed throughout the country on May 21. Employees in government offices, public sector undertakings and other public institutions in the country took a pledge to oppose all forms of terrorism and violence.

R.P.N. Singh, Minister of State in the Home Affairs, administered the oath to the officers and staff of the Ministry of Home Affairs and Ministry of Personnel, Public Grievances and Pensions.

The objective behind the observance of Anti-Terrorism Day is to wean away the youth from the terrorist/violence cult by highlighting the suffering of the common people and showing how it is prejudicial to the national interest. These objectives are aimed to be achieved by organising debates/discussions in schools, colleges and universities; holding of symposia/seminars, lectures, etc. on the dangers of terrorism and violence and a determined and sustained drive to bring about a mass awakening against terrorism and violence. SP

PHOTOGRAPHS: PIB

NIA begins probe into naxal attack in Chhattisgarh

A team of National Investigation Agency (NIA) has commenced its probe into the Chhattisgarh attack on Congress leaders by Maoists which claimed 27 lives, including that of the Pradesh Congress Committee chief Nand Kumar Patel.

Union Home Secretary R.K. Singh said an official order formally handing over the case to NIA to carry out the investigation had been issued. Home Minister Sushilkumar Shinde had said that the NIA will probe the Maoist attack on Congress leaders and the Centre has received a go-ahead from Chhattisgarh Chief Minister Raman Singh for it.

Heavily-armed Maoists had on May 25 ambushed a convoy of Congress leaders in the state's Bastar district, killing 27 people including PCC chief Patel, his son Dinesh, Congress leader Mahendra Karma and ex-MLA Uday Mudliyar and injuring 32 others, including former Union Minister V.C. Shukla.

The Prime Minister Dr Manmohan Singh has condemned the violent attack on Congress leaders and workers in Chhattisgarh. "I very strongly condemn the violent attack on Congress leaders and workers in Chhattisgarh. My deepest sympathies and prayers are with the families of those who have lost their lives. I wish a very speedy recovery to those who have been injured in the dastardly attack; including senior Congress leader Shukla.

"I have spoken to the Chief Minister of the state and urged him to provide all possible assistance to those who have been injured and to ensure the security and safety of those who have been abducted.

"I appeal to the attackers to release all those who may have been abducted at the earliest. Such incidents go against the democratic values of our country. Government will take firm action against the perpetrators of violence of any kind." SP

Avinash Chander is the new DRDO chief

Dr Avinash Chander has been appointed as the new Scientific Advisor to Defence Minister, Secretary, Department of Defence Research and Development, and Director General of the Defence Research and Development Organisation (DRDO). "I feel honoured to take up this new responsibility. Dr Saraswat has set DRDO on a good course, I have to continue and take it to the next level," said Chander.

Dr Chander is an eminent missile scientist and the chief architect of the long-range ballistic missile system Agni. He envisioned and evolved the strategies for long-range missiles and led the design and development of Agni series of missile systems – Agni A1, A2, A3, A4 and A5 providing cutting edge, decisive strategic weapon systems to the armed forces, leading to the successful development of the nation's pride, 5000-km range Agni-V strategic weapon system propelling India to join the elite club of five advanced nations. Development of Agni range of missiles in highly restrictive International Control Regimes was possible only out of his technology forecast, perspective planning and relentless efforts. He created the infrastructure, industry base, production lines, and integration facilities to produce different classes of Agni missile systems. Today, the Agni A1, A2, A3 missiles occupy the pride of place in the inventories of the Indian armed forces.

His pioneering research in the "Innovative Energy Management Guidance Scheme" has enabled utilisation of Solid Propulsion, the main thrust and the backbone of long-range missiles system. Under his leadership, DRDO carried out extensive research and indigenously developed the critical technologies such as composite rocket motors, re-entry carbon composite heat shield, advanced high accuracy navigation systems, flex nozzle control system, high-end real-time computing techniques. His long-term expertise has been providing the necessary thrust for the Programmes of National importance such as underwater missiles, BrahMos cruise missiles, Nag, air defence systems, etc. He laid the technology roadmap for missile complex laboratories and led the R&D in the advanced navigation systems, onboard computers, servo valves and seekers.

PHOTOGRAPH: DRDO

Avinash Chander had joined DRDO in 1972 after completing graduation in Electrical Engineering from IIT Delhi. He obtained M.S in Spatial Information Technology from Jawaharlal Nehru Technological University, Hyderabad. He is a Fellow of Indian National Academy of Engineers, Fellow of Systems Society of India, Fellow of Andhra Pradesh Academy of Sciences and Vice-President of Astronautical Society of India.

The distinguished scientist has received numerous awards and honours including DRDO Scientist of the Year, Astronautical Society of India Rocketry and related Technologies Award, Dr Biren Roy Space Science and Design Award, Agni Self-reliance Award, Path Breaking Research/Outstanding Technology Development Award, Outstanding Technologist Award by Punjab Technical University, Technology Leadership Award, Distinguished Alumnus Award of IIT, Delhi. SP

Cassidian & Singapore Government to develop security solutions

Cassidian, a worldwide leader in defence and security solutions, together with its local partner NCS, has been awarded the Safe City Test Bed by the Ministry of Home Affairs and the Singapore Economic Development Board (SEDB). The test bed project, a research and development initiative, will be established in Singapore. It includes the development and live testing of innovative technologies and advanced analytics, such as video content, e-sensing and smart city sensors. This will provide added intelligence and operational benefits to the government agencies involved—the police and civil defence forces—as well as public urban transport, environmental and utility agencies, with the objective of keeping Singapore safe and secure.

"This government assisted test bed programme will enable companies like Cassidian and NCS to use Singapore as a unique 'Living Laboratory', creating concepts and solutions which can be commercialised given the growing demand worldwide for Safe City solutions," said Gian Yi-Hsen, Director of the Safety and Security Industry Programme Office from SEDB. "Smart technologies will establish new paradigms on inter-agency coordination and automate processes that traditionally require tedious work. We hope our partnership with Cassidian will drive new standards in safety and security operations with wide public-private application," said Anselm Lopez, Director Capabilities Development and International Partnerships of the Ministry of Home Affairs.

Jens Nielsen, Head of Cassidian's Integrated Systems Business Line stated, "We are proud to be part of this project and its unique concept in making use of live city data by contributing our expertise and solutions, and in collaboration with our local partner NCS, to support SEDB's goals in developing the economy in Singapore".

The goal of this test bed will be to extract value out of existing silo sensors by integrating and building advanced analytics into existing systems. Results from the test bed will be showcased at the World Cities Summit in June 2014 in Singapore. SP

Saab invests in Pipavav

In August 2012 defence and security company Saab announced that a memorandum of understanding (MoU) had been signed concerning a strategic investment in the listed Indian company Pipavav Offshore and Defence Engineering Ltd (Pipavav).

An investment of MSEK 250 has now been made in shares. After the investment, Saab holds approximately 3.3 per cent of the capital and votes in the company. The investment will be financed from Saab's own readily available resources. "We are pleased to announce this partnership and our strategic investment in Pipavav. The investment offers a solid platform for growth for us on the Indian market and Pipavav strengthens their competitive position through Saab's technology. India is an important market for us and the investment will further reinforce Saab's strong position on the global defence and security market," says Lars Olof Lindgren, Head of Market Area, Saab India.

Saab and Pipavav have previously also 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

Amanda Bynes off-boarded a private jet

Who needs a passport when you're a celebrity? Or so thought Amanda Bynes. Sources at Teterboro Airport, in New Jersey, told TMZ that the troubled actress tried to board a private jet to Los Angeles, California, recently, but was rejected for having no form of identification whatsoever.

Bynes, who told the pilot "her driver's licence had been suspended," couldn't fathom how a celebrity such as herself could get rejected over identification and asked that the pilot Google her. She also screamed "I'm Amanda Bynes!" as if that wasn't clear by that point, but to no avail—she was not allowed to fly.

Since moving to New York, the former Nickelodeon star has made headlines repeatedly for inexplicable and worrisome behavior, and for tweeting photos of herself and her transformation. SP

Security bungling in Australia

The Australian Crime Commission – currently embroiled in the drugs in sport saga – is battling soaring numbers of staff risking investigations by misplacing classified documents, identification, secure laptops and other equipment.

The blunders included security drawers being left unlocked, keys left in secure containers, contractors let into buildings unchecked and "highly protected" ACC documents left in recycling bins.

In one breach at a Canberra bar fittingly called Debacle, a group of ACC officers last year pulled out classified documents – marked "Protected" and used to brief ACC Chief Executive John Lawler – to discuss in the open among fellow drinkers.

The secretive ACC recorded 98 security breaches by staff across the country last year—up from 25 the previous year. SP

Guptas 'security breach' probe continues

The South African Government has confirmed that there was no executive authority granted for the landing of an A330 Airbus aircraft belonging to Jet Airways at Waterkloof Air Force Base recently.

This was announced by the Minister of Justice and Constitutional Development, Jeff Radebe. At least 200 passengers on the aircraft had arrived in the country to attend the Gupta family wedding in Sun City.

"Government has no record of a note verbale from the Indian High Commission notifying [the Department of International Relations] of a visiting delegation requiring diplomatic assistance and aircraft clearance and landing rights.

"The Defence Attaché of the Indian High Commission sent a request for aircraft clearance directly to the Air Force Command Unit within the South African National Defence Force (SANDF) on April 24, 2013. The Air Force consulted with the Office of State Protocol at DIRCO and facilitated the clearance of the aircraft without informing the Chief of the SANDF," Radebe said.

He said the involved officials were placed on special leave following an investigation by government into what he described as "a security breach." The officials include the Chief of State Protocol at DIRCO, Ambassador B. Koloane, Officer Commanding Air Force Command post: Brigadier General L. Lombard, Officer Commanding Air Force Base: Brigadier General T.S. Madumane Movement Control Officer: Lt. Colonel C. Anderson from the SANDF and Major General Gela, SAPS Operational Response Services Gauteng Province. SP

Bastar police chief's 'security lapse' led to massacre

Administrative and police records preceding the recent naxal attack in Chattisgarh point to a major security lapse on the part of district-level law enforcement authorities.

Evidence on the ground is pointing to the culpability of Chhattisgarh Police with the district superintendent of police failing to make adequate security provisions for the Congress convoy through Maoist territory.

Sources said no orders were issued by the Bastar Superintendent of Police tying up arrangements to ensure adequate security for Congress leaders as the convoy with Salwa Judum founder Mahendra Karma and state Congress Party chief Nand Kumar Patel was slated to pass through the area.

The absence of additional security apart from personal security officers (PSOs) accompanying the leaders has puzzled political observers as the area has been known to be a Maoist stronghold. SP

PHOTOGRAPH: Wikipedia

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