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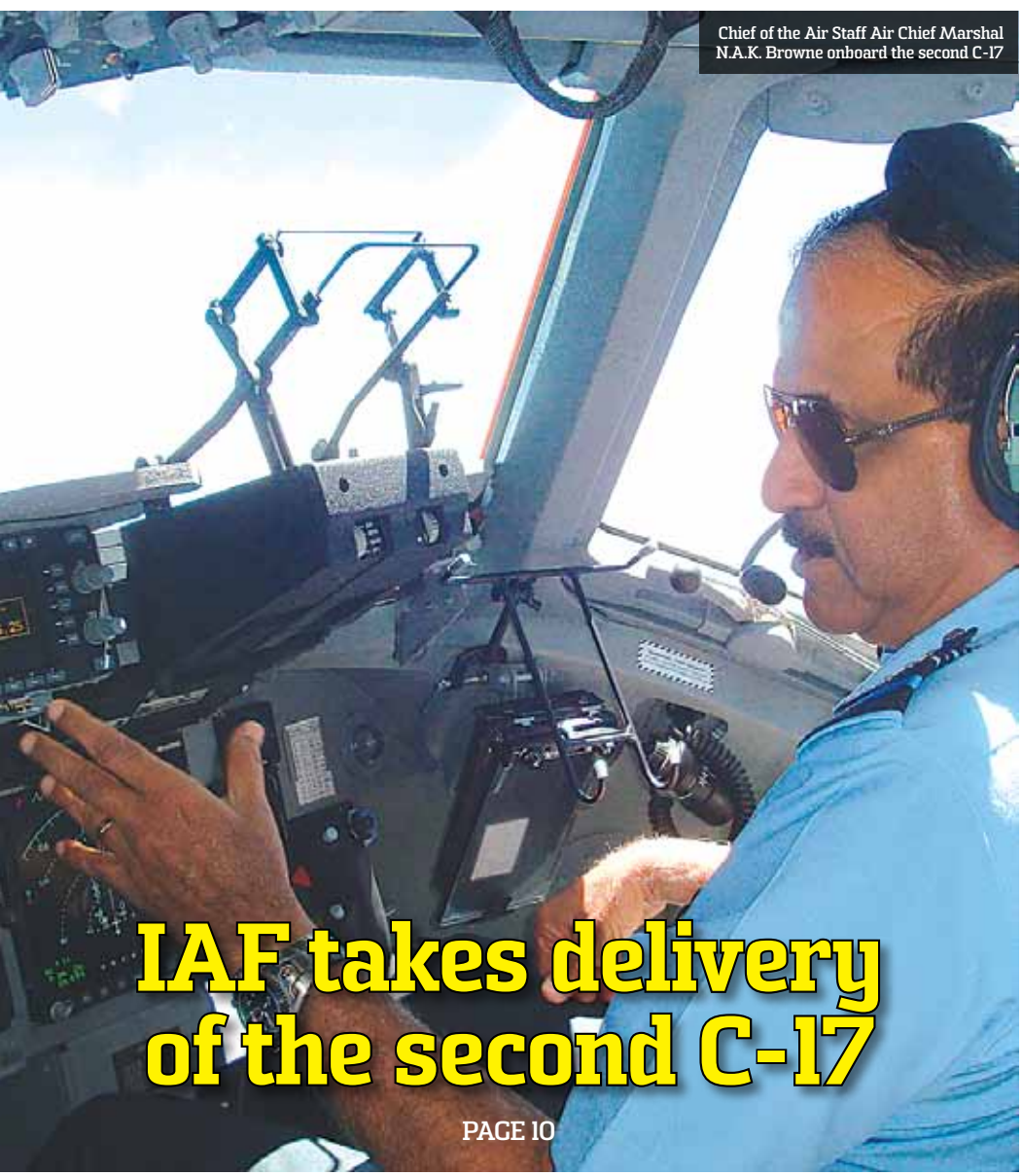

Chief of the Air Staff Air Chief Marshal N.A.K. Browne onboard the second C-17

IAF takes delivery of the second C-17

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Commander-in-Chief, Myanmar Navy on four-day visit to India

Vice Admiral Thura Thet Swe, Commander-in-Chief, Myanmar Navy, commenced a four-day visit to India by laying a wreath at the Amar Jawan Jyoti. The Admiral was received by Admiral D.K. Joshi, Chief of Naval Staff at the South Block lawns, where he inspected a Guard of Honour.

Admiral Thet Swe called on Admiral D.K. Joshi, Chief of the Naval Staff, and discussed various proposals to further strengthen the Navy-to-Navy cooperation in operations, training and materiel support and take the existing relationship to another plane and promote capacity building and capability enhancement.

Interacting with media at the lawns of the South Block, Admiral Joshi said: "Myanmar is one of our

closest neighbours. We share a land border as well as a maritime border with them. On the Navy-to-Navy front we have had extremely cordial relations." Admiral Joshi added that the Indian Navy was looking forward to taking the existing excellent interaction to the next level. Admiral Thet Swe reemphasised the special relationship between the Myanmar Navy and the Indian Navy.

Admiral Thet Swe also called on General Bikram Singh, Chief of Army Staff, R.K. Mathur, Defence Secretary and Air Marshal Arup Raha, Vice Chief of Air Staff. The Admiral visited the Southern Naval Command, where he visited various naval training schools and facilities in Kochi. The Admiral also visited the Eastern Naval Command on July 31. SP

PHOTOGRAPH: Indian Navy

Cover:
Chief of the Air Staff Air Chief Marshal N.A.K. Browne on a four-day tour to the US, took the delivery of the second C-17 Globemaster III from Boeing in Long Beach, California.

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IAF, PIB, Indian Navy

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Hasten defence acquisitions

In July this year, a MiG-21 Bison fighter aircraft of the Indian Air Force (IAF) crashed, killing the pilot, triggering off a debate yet again on its safety and also a court case. Wing Commander Sanjeet Singh Kaila, survivor of a near fatal MiG-21 crash, became the first pilot to move court demanding scrapping of the MiG-21 fighters from the IAF. His contention is that flying a MiG-21 violated his right to work in a safe environment.

The MiG-21 has been in service for over 50 years in the IAF and of the 946 acquired, 485 have crashed killing 131 pilots and the aircraft has been called 'flying coffins'. Can they be scrapped? The answer is yes, but not till the medium multi-role combat aircraft (MMRCA) programme materialises. The need to hasten the process of acquisition and also accelerated indigenisation of military equipment is urgent and it is hoped that the political leadership takes into account the gravity of the situation. The Defence Minister A.K. Antony himself has admitted that "New procurements have commenced…but we are still lagging by 15 years. It is not late to step on the accelerator of modernisation of the armed forces."

On the transport side, the good news is that the IAF has taken delivery of its second C-17 Globemaster III. The Chief of the Air Staff Air Chief Marshal N.A.K. Browne has underlined that the C-17 Globemaster programme is an excellent example of multi-dimensional relationship between India and the US. The Air Chief has said that the Globemaster was specifically chosen to address Indian capability enhancement needs and that the IAF had undertaken a major modernisation drive, fully aligned with its mandate of providing India critical capabilities. Indeed the modernisation programme has to take into account the entire gamut of flying…from training to operational issues.

In his frank and forthright column, Lt General (Retd) P.C. Katoch has put a poser to the officials of the Ministry of Defence on how they are going to provide the Indian military with the operational capabilities that they need or whether the Service Chief will have to repeat what the Army Chief said during the Kargil conflict, "We will fight with what we have."

In another viewpoint, Lt General (Retd) Katoch has dwelt on this subject stating that China needs to re-examine its policy of silent demographic invasion since it offers too many soft targets and may result in creation of outfits like Junood ul-Hifsa in other regions of the world to deal with this problem.

Considering the threats in the north and north-eastern frontiers, there is a move to beef up the region with men and machines. In line with this thinking, the Cabinet Committee on Security has cleared the proposal of setting up a new Mountain Strike Corps which is expected to incur an expenditure of ₹62,000 crore spread over the next seven to eight years. It is a welcome move as it fills a long-standing demand for a conventional force in the Northeast where China is flexing its muscle.

We look forward to your feedback as to help us sharpen our coverage of news and analysis.

Happy Reading !

Jayant Baranwal
Publisher & Editor-in-Chief

SP's EXCLUSIVES By SP's Special Correspondent

Cabinet clears new Mountain Strike Corps

After six years, the Indian Army has finally obtained approval from the Cabinet Committee on Security to begin setting up a brand new Mountain Strike Corps in the Northeast as a principal formation against the Chinese. The corps is likely to be headquartered in West Bengal's Panagarh, and involve an expenditure of ₹62,000 crore spread over the next 7-8 years.

Sources indicate the formation will need a recruitment of 45,000 more soldiers, across two infantry divisions, an artillery division and, interestingly, two independent armoured brigades. The strike corps will also have at its command air assets of the IAF, including a fleet of mid-air refuellers, the A330s, that will be stationed in the city of the corps headquarters, Panagarh, as well as the follow-on fleet of C-130J Super Hercules transports.

The Army is also expected to induct assault helicopters in specialised newly-raised aviation brigades under the corps. The Army had been pushing for the formation for years, though it had been stuck between the Defence Ministry and Finance Ministry in view of the enormous cost involved in setting up an all-new strike corps. The new formation will be the principal offensive formation for the Tibetan Autonomous Region, and fills a longstanding demand for a conventional force in the Northeast that isn't committed largely to counter-insurgency and assymetric warfare, but specifically for mountain warfare. SP

MiG-21 in safety spotlight once again

The MiG-21, the backbone of the Indian Air Force's fighter fleet, is back in the headlines. Shortly after a young IAF pilot, Flt Lt Shikhar Kulshreshtha, was killed in a crash at Uttarlai, a pilot who survived an earlier MiG-21 accident in 2005, Wing Commander S.S. Kaila, has petitioned the Delhi High Court, pleading that flights in MiG-21s violate a pilot's fundamental right to life.

The MiG-21 has been caught in legal wrangles before—most notably in the Flt Lt Abhijit Gadgil case—but this is the first time that a court has called upon the Ministry of Defence and the Hindustan Aeronautics Limited to furnish full details of the aircraft platform, its performance in the Indian context and accident history. The proceedings could be potentially embarrassing considering that details of manufacturing defects and quality control during the license manufacture in India could also come out. It was recently revealed that as a result of a combination of factors, including delays in the LCA and medium mult-role combat aircraft (MMRCA) programme, the MiG-21 fleet (just under 200 aircraft currently in IAF service) would be kept operational till 2017 at least, with all the platforms in the Bison upgrade configuration. SP

PHOTOGRAPHS: IAF

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LT GENERAL (RETD)
P.C. KATOCH

Caution time China

June 23 this year was a red letter day that China should mark in its little red book. At the base camp of Nanga Parbat in Gilgit-Baltistan (GB), some 10 to 14 terrorists shot nine foreign tourists and one guide. The killed tourists included three Chinese nationals. The fourth Chinese national and the second guide got saved because they were tucked away from the rest and probably not discovered by the attackers. The fact that it was a preplanned attack aimed to just kill was apparent since the terrorists did not take any belongings of anybody whatsoever. Considering the altitude, the terrorists were obviously acclimatised but what foxed the authorities is the ease with which they could come through carrying arms, shot the trekkers and melted away without a trace in an area where there's a large, covert and overt presence of intelligence personnel and their informers. They could obviously circumvent any questioning and frisking, as any outsider would have been subjected to. It is no secret that the GB area has been the scene of violence and instability because the predominant Shia population has been subjected to institutionalised killings and massacres.

Pakistan has also been trying to change the Shia face of the area since 2004 when major Sunni terrorist camps were shifted into the area but this has caused more resentment. It is for the same reason that Pakistan has ostensibly leased the area to China for 50 years. The situation now is that Chinese, aside from the purported development projects, are busy digging some 22 tunnels in the area, obviously to house their missiles underground and no local is permitted to venture even close to the area. The Tehreek-e-Taliban Pakistan (TTP) has taken responsibility for the attack. What is more significant is that the TTP have announced their newly set up wing (Junood ul-Hifsa) undertook the killings and will continue to attack foreigners.

The June 23 killings have a number of lessons for China. First, that terrorist couldn't care less about growing Chinese comprehensive national power. Second, China's 'higher than the mountains, deeper than the sea' relationship cannot protect its nationals being target when the Taliban regard all Shias, Ismailis, non-Pashtuns, moderate Pashtuns as infidels who deserve to be massacred. Third, the silent demographic invasion that China has been executing globally is causing commensurate increase in resentment whether in Russia, Central Asian Republics and Myanmar. It is matter of time that this resentment will catch up in Pakistan as the Chinese make further ingress into Baluchistan. In fact, the repercussions may be faster that China expects with increasing radicalisation where TTP and affiliates will give the call of 'all foreigners out'. Fourth, China needs to re-examine her policy of silent demographic invasion since it offers too many soft targets and may result in creation of outfits like Junood ul-Hifsa in other regions of the world to deal with this problem. Fifth, and the most important is China's dirty war including in concert with Pakistan: arming, supporting, using terrorist organisations including Taliban, Nepalese and Indian Maoists, ULFA of India, PLA of Manipur, Kachin rebels and United State Wa Army of Myanmar to quote some.

It is well known that the China-Pakistan terror nexus goes back to the 1960s when Chou-en-Lai advised Ayub Khan to raise irregular forces for fighting in India's backyard. Then was the close cooperation in arming Taliban during the Soviet occupation of Afghanistan followed by added support in terms of arms and advisors to help Taliban fight US/NATO forces.

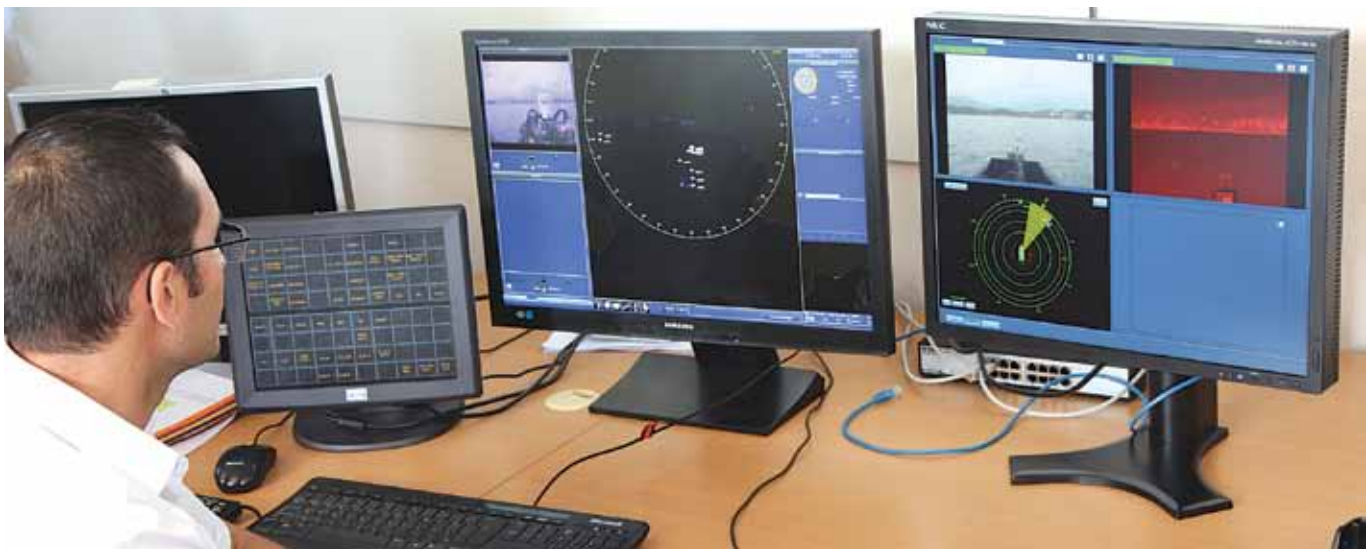
But then the dividing line between friend and foe in such matters does not exist. Not only will Pakistan say it has no control over TTP and Junood ul-Hifsa, they will continue to be not able to find the 600-strong special unit of East Turkistan Islamic Movement (Etim) hiding inside Pakistan. So if China plans to continue its terror war, the chickens will come home to roost. The poultry in Pakistan is already overflowing. SP

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

China needs to re-examine her policy of silent demographic invasion since it offers too many soft targets and may result in creation of outfits like Junood ul-Hifsa in other regions of the world to deal with this problem

ILLUSTRATION: Anoop Kamath

DCNS launches 'Eye to See'



[By **Lt General (Retd) Naresh Chand**]

DCNS' has launched I2C (pronounced as 'Eye to See'), which stands for "integrated system for interoperable sensors and information sources for common abnormal vessel behaviour detection and collaborative identification of threat" campaign.

Marylin software suite

DCNS has vast expertise in the development and integration of complex data systems dedicated to the naval defence domain which it has applied in the area of maritime security involving coast-guard, police, customs and other agencies responsible for maritime security. Marylin is one such system which is designed to improve the coordinated effectiveness of sea search and rescue missions amongst multiple agencies. This system has just been installed in all regional surveillance and rescue operational centres (CROSS – Centres régionaux opérationnels de surveillance et de sauvetage) of the Department of Maritime Affairs in metropolitan France and will soon begin work at CROSS centres in French overseas departments and territories. The suite significantly enhances the efficiency of maritime SAR missions while improving coordination with the various agencies involved in state actions at sea, including Navy, Department of Maritime Affairs, law enforcement, civil security and customs agencies. Marylin is a software suite which was developed in close collaboration with CROSS operational teams to meet requirements identified by the Department of Maritime Affairs. With the new software suite, CROSS personnel can quickly analyse all the data available for each SAR situation. Marylin also helps to improve response team coordination and interaction. The solution monitors all the types of situations faced by CROSS centres and helps personnel to organise the most appropriate response as quickly as possible.

I2C Campaign

DCNS along with its partners (European Union, Le Pôle-Mer PACA, Rockwell Collins, IRIT, Kongsberg, Sofresud, Joint Research Centre of the European Commission, Intuilab, Clear Priority, Armines, Airship Vision, Meteosim, Astra, Ajeco, Onera, Zeppelin, Eric Van Hoodonik Advocaten and Ecomer) carried out the first I2C1 coordinated campaign from July 17-23 in the bay of Toulon to test the efficacy of the system in live conditions. I2C allows the dynamic analysis of vessel trajectories and activities, database access and automatic alerts as a function of the standing operating procedures rules in consultation with the operational authorities. Zeppelin® aerostat, maritime patrol aircraft, surface drone and coastal surveillance stations were deployed during the campaign. The aim was to evaluate the I2C system and its vessel surveillance performance in the exclusive economic zone (EEZ), which extends up to 200 nautical miles (about 320 kilometres) from the coastline.

Practically, the system must ensure the monitoring of the movement of almost 50,000 vessels of all sizes which is facilitated by the automatic identification System which is mandatory to be carried by all commercial vessels. I2C aims to be complementary to existing national surveillance systems and offers the continuous correlation of many other streams of maritime information originating from multiple sources such as weather and sea-state forecasts, vessel identity and history, geographical data, port movements, intelligence, etc.

These multiple sources of information are exploited by a powerful algorithmic simulation software tool. For each alert, it provides precise hypotheses concerning the nature of the illegal activity. Furthermore, the operator may himself apply "detection rule" settings to detect any particular type of suspicious or hostile situation. The DCNS teams are also coordinating the European research project I2C, supported by the European Union. This project is supported by the European Union through the Framework Programme for research of the maritime chapter of EUROpean SURveillance (EUROSUR). It aims to develop a common (multinational and interoperable) border surveillance system.

The success of the Marylin and I2C programme has positioned DCNS as a leading player in maritime surveillance systems at a time when many nations across the globe including India are looking for this type of solution for their coastal surveillance and protection of EEZ. SP

PHOTOGRAPH: DCNS

India and France decide to broaden defence cooperation

At the invitation of the Minister of Defence of India, the French Minister of Defence Yves Le Drianis was on an official visit to India from July 25 to 27.

A.K. Antony and Jean-Yves Le Drian held detailed and useful talks on regional and international security challenges of mutual interest. They also reviewed the status of various measures for bilateral defence cooperation and the progress in various areas pursuant to their discussions in February 2013, during the State visit of the French President to India.

The Ministers noted that defence cooperation is an important pillar of the strategic partnership between both countries and that the ongoing dialogue and cooperation is mutually beneficial. The Ministers also noted that the range and depth of defence exchanges and interactions between the Ministries of Defence and the armed forces of both sides are being steadily enhanced in areas of mutual interest and in a spirit of mutual understanding, respect, trust and support, taking account of respective security interests.

The Ministers agreed that exchanges between respective defence institutions and armed forces should continue, including in the areas of military education and training and through the conduct of military exercises.

In this respect, the Ministers welcomed the upcoming bilateral exercise 'Shakti' in September 2013 in France between both Armies. The Ministers noted with satisfaction that the Navies of both countries are working towards finalising the schedule for the conduct of exercise 'Varuna' off the coast of India and also that the next Air Force exercise 'Garuda' would be held during the first half of 2014. With regard to training exchanges, the Ministers noted with satisfaction that officers of the Indian and French Armed Forces have been attending courses in each other's institutions, including at the French War College in Paris and the National Defence College and Defence Services Staff College in India. It was agreed that such exchanges were beneficial to the building of relations between the armed forces of both sides and should continue.

The Ministers had detailed discussions regarding current and future cooperation in the areas of defence equipment and technology collaboration. They agreed that such cooperation should continue to the mutual benefit of both countries, including in high technology areas involving joint research and development and transfer of technology.

The Ministers tasked the High Committee on Defence Cooperation (HCDC), which is scheduled to meet in France in October 2013, to follow up the above points and to finalise practical measures to expand and deepen the bilateral partnership in defence.

The French Minister also conveyed that on the 100th anniversary of World War I, France is planning various projects to pay tribute to Indian soldiers who were killed in France during the War. The Indian side appreciated the same.

The Ministers also exchanged views on issues relating to UN peacekeeping operations and maritime security. The French Minister also presented France's new White Paper on Defence and National Security. SP

Rheinmetall wins €1 billion Australian truck order

The Australian Minister for Defence Materiel Dr Mike Kelly AM MP has announced that up to 150 Australian jobs are expected to be created as a result of contracts. The contracts are related to Phase 3B of Project LAND 121 – 'Project Overlander' and were signed by Rheinmetall MAN Military Vehicles Australia and Haulmark Trailers (Australia) for the supply of the Australian defence force's next generation of trucks and trailers.

A contract signature ceremony was held at Damascus Barracks in Brisbane hosted by the Head of the Defence Materiel Organisation's Land Systems Division, Major General Paul McLachlan AM CSC.

Dr Kelly said the new vehicles, modules and trailers to be delivered under LAND 121 Phase 3B would see Defence acquire the next generation of vehicles in protected and unprotected configurations – representing a significant increase in safety, capability and protection for the Australian defence force (ADF).

The 2013 Defence White Paper outlined the requirement to provide around 2,700 protected and unprotected medium and heavy vehicles, together with trailers and specialist modules, under Project LAND 121 Phase 3B. These will include medium and heavy recovery vehicles; medium and heavy tractors; heavy integrated load-handling vehicles (self-loading hook lift trucks); and medium-weight tray variants (with cranes and tippers).

"The vehicles will have enhanced performance and protection representing a significant increase in safety, as well as providing consistency across the fleet, ensuring improved efficiency in operator training and simplifying logistic support to land forces," Dr Kelly said. SP

PHOTOGRAPHS: PIB, Rheinmetall

India's IAC to be launched on August 12

The Vice Chief of the Naval Staff, Vice Admiral R.K. Dhowan held a press briefing on August 1, as a curtain raiser prior to the launch of the indigenous aircraft carrier (IAC)- Project-71. The aircraft carrier to be launched on August 12 by Elizabeth Antony, wife of Defence Minister A.K. Antony, is unprecedented in terms of size and complexity compared with other indigenous warship projects. With this project, India has joined the select club of nations capable of designing and building 40,000 tonne aircraft carriers.

Designed by the Directorate of Naval Design, the ship has a length of 260 m and breadth of 60 m. It would be propelled by two shafts, each coupled to two LM 2500 gas turbines developing power sufficient to attain speeds in excess of 28 knots. The ship has an extensive endurance and a complement of 1600. The ship would have two take-off runways and a landing strip with three arrester wires, capable of operating short take-off but arrested recovery (STOBAR) aircraft mix including the indigenous LCA, as well as a range of helicopters, with hangar facilities. The carrier is designed with a very high degree of automation for machinery operation, ship navigation and survivability. The carrier is planned to be armed with long-range surface-to-air missile system with multi-function radar and close-in weapon system. The ship would be equipped with the most modern C/D Band early air warning radar, tactical air navigational and direction finding systems. The carrier would also have carrier control approach radars to aid air operations. Integration of all weapon systems onboard the carrier would be through an indigenously developed combat management system.

The IAC is being built at Cochin Shipyard Limited (CSL) since November 2006. The ship is being constructed using high strength steel developed indigenously with the help of Defence Research and Development Organisation (DRDO) and Steel Authority of India Limited (SAIL). The keel of the ship was laid by the Defence Minister on February 28, 2009. All major pre-launch equipment such as propulsion gas turbines, reduction gearboxes, diesel alternators and other auxiliary machinery have already been lowered in the ship for installation.

After the launch of the ship, the ship would be re-docked in the larger repair dock at CSL for facilitating erection of island superstructure and for completion of balance underwater work. Major outfitting work of the ship is scheduled for completion by 2016, after which basin trials and extensive sea trials of the ship would be progressed prior to delivery in 2018. SP

PHOTOGRAPH: Indian Navy

Comparison of few aircraft carriers of the world

	IAC (Vikrant)	HMS Queen Elizabeth	USN Gerald Ford	FNS Charles de Gaulle
Construction began	February 2009 (2005 steel cut)	July 2009 (first steel cut)	Spring 2007	April 1989
Launched	August 12, 2013	2014*		May 1994
Commissioned	TBC	2018-2020*	2016*	May 2001
Type	STOBAR	STOVL	CATOBAR	CATOBAR
Class	Vikrant	Queen Elizabeth	Gerald R Ford	Charles de Gaulle
Displacement	32,000/40,000	65,000	1,00,000	42,000
Length	260m	285m	337m	261m
Beam	60m	70m	77m	65m
Draught	8.4m	11m	12m	9.4m
Propulsion	4 x LM 2500, Gas Turbines 2 shafts	Full Electric	Nuclear	Nuclear (PWR)
Speed	30+ kts*	25+*	30+	27 kts
Aircraft	MiG 29K LCA (Navy) Ka 31 ALH Chetak/NUH	F 35B Merlin Apache Chinook	F/A 18, F-35C EA-18G Growler C-2 Greyhound SH 60 Seahawk X-47B	Rafale M Super Etendard E 2C Hawkeye Dauphin EC 725 Caracal AS 532 Cougar

Source: Indian Navy **Tentative figure*

LT GENERAL (RETD)
P.C. KATOCH

Stonewalling military modernisation

PHOTOGRAPH: BAE Systems

The question that MoD officials need to ask themselves is can they provide the Indian military with the operational capabilities that they need or will the Service Chief have to repeat what the Army Chief said during the Kargil conflict, "We will fight with what we have"?

A report in the *Times of India* dated July 29, 2013, states that the Ministry of Defence (MoD) is conducting an internal probe into allegations of irregularities involving a top retired army officer in the proposed procurement of 145 x M-777 ultra-light howitzers from the US in a direct government-to-government deal worth $847 million.

It is not difficult to gauge whom the allegations are against as the officer was present at the stand showcasing the US M-777 ultra-light howitzer during a previous Defexpo at New Delhi. But that is not the point. The issue is whether the anonymous letter can succeed in further delaying the procurement of the M-777 ultra-light howitzers that the Army has fully trial evaluated in accordance with a comprehensive trial directive and selected, and even result in cancellation of the deal and forcing an open tender – implying delay of another decade or so. This is very much possible with MoD seeking comments of the Army, which in turn implies another probe. The timing of the anonymous letter is perfect when as per MoD, the deal was on 'the verge of finalisation'.

Nothing has really changed over the past three decades plus. In 1980, 17 x 5.56 assault rifles from 11 countries were tried out to equip the then three PARA (Commando) battalions and three PARA battalions of the Parachute Brigade. While MoD was on the 'verge of finalising the deal' after an excruciation delay (going through procedures), the Defence Minister received an anonymous letter alleging the Corps Commander under whom the trial had been conducted had been paid $10,000 to facilitate the G 41 of Germany come first. The result was that the money set aside to equip the above-mentioned six battalions in the Army's Sixth Plan lapsed, the 17 assault rifles were given to the Defence Research and Development Organisation (DRDO) who took 15 years to produce the current 5.56 INSAS which is nowhere close to state-of-the-art and the Army is forced to go for import of 66,000 assault rifles – a shame to our defence industry, which may yet be stymied by another anonymous letter. Through such delays, we are actually playing into the hands of our adversaries which may well be by design or inadvertent—both cases making China and Pakistan clap their hands in glee.

MoD's emphasis on propriety is understood but the penchant to ban firms at the drop of the hat without alternate arrangements to fulfill voids in time is senseless and amounts to disloyalty to the nation. While impropriety must be dealt with and individuals punished, it is criminal to stonewall military modernisation with enlarging China-Pakistan collusive threat and the widening gap between the PLA and Indian military. The armchair warriors in South Block need to shake up from their reverie. No fresh gun has been inducted into the artillery since the Bofors scandal of the 1980s. The DRDO sat on the designs of the Bofors gun for three decades and has just about woken up.

Hopefully, this anonymous letter is not aimed to stalling procurement of the M-777 ultra-light howitzers from the US till the indigenous Bofors is developed and then kill the import altogether though going by the INSAS, an indigenous Bofors is a tall order sans accountability. Defence Minister A.K. Antony himself admits, "New procurements have commenced... but we are still lagging by 15 years." Ironically, anonymous letters hold the power to multiply this lagging 15 years many times over. Then is the question of enormously multiplying costs for the same equipment due to delays. Army's Air Defence equipment is almost completely obsolescent – L-70 40mm AD gun system, ZSU-23-4 Schilka (SP) AD gun system, SAM-6 (Kvadrat) and SAM-8 OSA-AK all need urgent replacement. The indigenous Akash (meant to replace the Schilka) failed miserably in army trials and has been given to Air Force in static role as part of layered air defence of vulnerable areas/vulnerable points. The BMP-1 and BMP-2 of the Mechanised Infantry too need to be replaced. Aside from state-of-the-art assault rifles and carbines, the Infantry equipping in terms of mini UAVs, shoulder-fired missiles, BFSRs, HHTIs, sensors to boost surveillance, battlefield management system, battlefield surveillance system and the like need to be speeded up. Then is the need to boost operational capabilities of Army Aviation, engineers, signal communications, reconnaissance, surveillance and target acquisition. The need for establishing the tactical communications system was never more urgent. The question that MoD officials need to ask themselves is can they provide the Indian military with the operational capabilities that they need or will the Service Chief have to repeat what the Army Chief said during the Kargil conflict, "We will fight with what we have"? SP

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

IAF takes delivery of second C-17

A month after the Indian Air Force's (IAF) first Boeing C-17 entered service, IAF has taken delivery of its second C-17 Globemaster III on July 22, 2013. This second C-17 will also immediately enter service. Chief of the Air Staff Air Chief Marshal N.A.K. Browne on a four-day tour to the US, took the delivery of C-17 from Boeing in Long Beach, California.

"C-17s have an important role in supporting unique Indian Air Force operations in remote locations such as the Himalayas and desert environments," said Nan Bouchard, Boeing Vice President and C-17 Programme Manager. "The C-17 provides the versatility to complete any mission, anywhere. We look forward to working with the Indian Air Force and the US Air Force (USAF) as we deliver the remainder of India's fleet."

The Air Chief said: "I feel extremely honoured to be here to accept the second C-17 Globemaster for the Indian Air Force. The delivery of India-2 this afternoon marks an important milestone in the Indo-US global strategic partnership.

"From where I see things on the other side of the globe, India and the United States are witnessing a defining phase in their relationship. Spurred by a convergence of interests, our nations have ongoing cooperation on a wide range of issues. I believe that as the two largest democracies, we share common values of freedom and peaceful coexistence. Our shared belief in equality underpins the strong desire for international peace and stability.

"The complementary strengths of India and United States provide a solid foundation for developing mutually beneficial strategic responses in the 21st century. Close bilateral military engagements form a crucial element in this global partnership. The growing defence cooperation has fostered greater understanding and appreciation about our commonalities as well as unique security imperatives.

"The C-17 Globemaster programme is an excellent example of our multi-dimensional relationship. The programme re-affirms our faith in strong bilateral ties and productive exchanges. The Globemaster was specifically chosen to address Indian capability enhancement needs. As you are aware the IAF has undertaken a major modernisation drive, fully aligned with its mandate of providing critical capabilities to our nation. The enhancement in IAF's operational potential will enable us to secure our national interests and protect our people. Following the successful induction and operationalisation of C-130 J Super Hercules, the procurement of 10 C-17 aircraft will provide a tremendous boost to our strategic airlift capability. I am told that the Globemaster project will make IAF the second largest operator in the world after the United States.

"The C-17 brings with it a proven track record and significant combat capabilities. The platform's ability to rapidly deploy at long distances with large payloads gives the Indian Air Force tremendous flexibility in supporting our combat operations. The enhanced reach and versatility will support operations in an extremely challenging terrain that spans from the Himalayas in the north where we have bases at an altitude of 11,000-13,000 ft to the Indian Ocean region in the South. With its ability to operate from short landing strips, the aircraft will also be a crucial enabler in humanitarian assistance and disaster relief (HADR) within our borders and beyond.

"I wish to place on record my appreciation for the US Government for facilitating the Globemaster programme. I thank them for critical support and oversight that assisted in expeditious completion of the process. I also thank USAF for providing comprehensive training to our crew. The training for 20 pilots and 10 loadmasters

has been completed successfully. The project will see a total of 30 pilots, 15 loadmasters and 96 technicians being trained on all aspects of operations and maintenance. The exposure to CONOPS and operational indoctrination by USAF will contribute immensely in early operationalisation of the fleet.

"I also compliment Boeing for honouring the delivery schedule and ensuring a fast track induction plan. The company is scheduled to deliver three more C-17s this year and remaining five in 2014. I am confident of Boeing's commitment to future timelines and I look forward to a strong professional association between Boeing and IAF. As we look at new areas of cooperation, I find tremendous potential in Boeing's capacity and expertise for IAF's ongoing capability enhancement. The upcoming programmes on Chinook and Apache are ideal examples of this potential.

"I commend the IAF C-17 crew who through their hard work and professionalism have made early operationalisation a reality. As they prepare to fly India-2 out of Long Beach, I wish them happy landings. Their arrival is keenly awaited in India." SP

PHOTOGRAPH: IAF

Indian Navy's Boeing P-8I's maiden landing at Visakhapatnam

Boeing P-8I long-range maritime reconnaissance and anti-submarine warfare aircraft of the Indian Navy made its maiden landing at INS Dega airfield on July 17. Piloted by the Squadron Commander-designate, Commander H.S. Jhajj, Callsign IN 321 was welcomed to the fold by Vice Admiral Bimal Verma, Chief of Staff, Eastern Naval Command.

The aircraft that had arrived in India in May this year is the first of the eight Boeing P-8Is that have been procured under a contract signed in 2009. It is based at Indian Naval Air Station Rajali, Arakkonam, Tamil Nadu, and will operate under the administrative and operational control of the Eastern Naval Command.

P-8I aircraft is the Indian Naval variant of the P-8A Poseidon that Boeing has developed for the US Navy. The aircraft is equipped with both foreign as well as indigenous sensors for maritime reconnaissance, anti-submarine operations and for electronic intelligence missions. The aircraft is fully integrated with state-of-the-art sensors and highly potent anti-surface and anti-submarine weapons. The induction of these aircraft into the Indian Navy would greatly enhance India's maritime surveillance capability in the Indian Ocean Region. SP

A400M Military certification

The CQC (certification and qualification committee), a group of experts from the seven partner countries, has recommended that the A400M military transport aircraft be awarded its military certificate of airworthiness. The technical authority, that is to say France's Directorate General of Armaments (DGA), will thus be able in the coming days to establish a military type certificate.

The expert panel includes a representative from each nation and is chaired by a chief engineer (Lt Col.) from DGA. The committee's main task is to ensure that military safety standards are maintained, and that the aircraft meets the performance standards submitted by Airbus Military. The committee bases its conclusions on the work of 15 working groups, one for each of the certification areas (avionics, human factors, electronic warfare, etc.).

Military certification is a preliminary step to the delivery of the first A400M to French Air Force. It is part of a process which also includes civil certification, which was granted by the European Aviation Safety Agency. SP

US Navy awards Northrop Grumman contract for E-2D Advanced Hawkeyes

Following the decision earlier this year to proceed with full-rate production, the Navy has awarded Northrop Grumman Corporation (NOC) a $113.7-million advance acquisition contract for long lead materials and related support for five full-rate production Lot 2 E-2D Advanced Hawkeye aircraft.

"This contract award, along with OSD's full rate production decision, is a testament to the commitment and dedication of the entire E-2D team to deliver on its promise of a mature, capable and effective E-2D Advanced Hawkeye," said Bart LaGrone, Vice President, E-2/C-2 programmes, Northrop Grumman Aerospace Systems. "In today's challenging defence budget environment, it is imperative that we remain focused on providing the US Navy with a more affordable airborne early warning, command and control solution."

With the Navy's E-2D programme of record at 75 aircraft, this contract award is another step forward in bringing the total current procurement of E-2D aircraft, including low-rate initial production and full-rate production aircraft, to 30.

Last month, Northrop Grumman delivered the 10th E-2D Advanced Hawkeye to the US Navy, having delivered the first nine aircraft on or ahead of schedule. There are currently an additional 10 aircraft in various stages of manufacturing and pre-delivery flight testing at the company's Aircraft Integration Center of Excellence in St. Augustine, Florida. Initial operational capability with the US Navy remains on track for 2015. SP

PHOTOGRAPHS: Indain Navy, Northrop Grumman, Airbus Military

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50

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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

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Dyess AFB receives final C-130J Super Hercules

The final Lockheed Martin C-130J Super Hercules designated for the 317th Airlift Group was ferried to Dyess Air Force Base (AFB), Texas. General Paul Selva, commander, Air Mobility Command, Scott AFB, Ill., flew the aircraft to Dyess AFB from the Lockheed Martin Aeronautics facility.

With the arrival of this aircraft, Dyess AFB is officially the largest C-130J Super Hercules operator in the world with a fleet of 28 aircraft.

The C-130J Super Hercules worldwide fleet recently surpassed one million flight hours; missions flown by Dyess AFB C-130J crews and aircraft contributed to this milestone. SP

South Korea to reopen fighter jet competition

South Korea will be reopening bidding for its 8.3 trillion won purchase of 60 next generation fighter jets. The Korean Defence Acquisition Programme Administration (DAPA) had suspended the auction earlier as none of the entries, Lockheed Martin Corp's F-35, Boeing Co's F-15 and EADS's Eurofighter Typhoon, submitted bids meeting the required price. DAPA may increase the budget.

"We have decided at the defence project committee meeting to resume bidding for the F-X project," DAPA spokesman Baek Youn-hyeong told a briefing. SP

Sikorsky delivers 400th MH-60 Seahawk helicopter to US Navy

Sikorsky Aircraft Corp., a subsidiary of United Technologies Corp., has delivered the 400th MH-60 Seahawk helicopter to the US Navy. The milestone consists of 166 MH-60R anti-submarine and anti-surface warfare helicopters, and 234 MH-60S utility/armed helicopters.

MH-60S ("Sierra") helicopters carry supplies and sailors between ships, and protect U.S. ships from surface threats in an armed configuration. Sierra aircraft are expected to take on an airborne mine countermeasures role starting in 2014.

MH-60R ("Romeo") helicopters employ radar, acoustic sonar, communications links, torpedoes and air-to-surface missiles for the anti-surface and anti-submarine warfare roles.

Sierra aircraft, which entered US Navy service in 2002, will remain in full rate production through 2015 as part of a currently planned production run of 275 aircraft. Romeo helicopters, operational since 2006, are currently scheduled to remain in production through 2017 to meet the Navy's 291 intended aircraft buy. The two aircraft models have accumulated a combined 660,000 flight hours to date.

Sikorsky produces the MH-60R/S Seahawk aircraft models on separate production lines at its final assembly facility in Stratford, Connecticut. Avionics prime contractor Lockheed Martin performs all mission systems integration for Romeo aircraft at its Mission Systems and Training facility in Owego, New York, and also produces the digital cockpit common to both Romeo and Sierra models. SP

Airbus Military welcomes Cameroon as new operator

Airbus Military has delivered to the Cameroon Air Force a CN235 medium transport. The handover makes Cameroon the 16th sub-Saharan nation to operate Airbus Military´s family of light and medium aircraft, underlining the range´s suitability for the challenging operating conditions found in the region.

Altogether 61 countries now operate the Airbus Military light and medium family of airlifters and surveillance aircraft – the C212, CN235 and C295. The CN235 is a robust aircraft with a six tonne payload that is well-proven in hot, dusty and humid conditions and on unprepared runways. SP

100th F-35 in production

The 100th Lockheed Martin F-35 Lightning II, the first aircraft destined for Luke Air Force Base in Glendale, Ariz., has entered the last stage of final assembly. This conventional take-off and landing (CTOL) aircraft, known as AF-41, is scheduled to arrive at the base next year.

In June, the US Air Force announced its decision to increase the number of squadrons at Luke AFB to six with 144 aircraft, which will make it the largest F-35 base worldwide. In addition to training US pilots, Luke will also serve as an F-35A International Training site. Currently, Luke's economic impact on the state of Arizona is $2.17 billion. With 14 F-35 suppliers in the state of Arizona, the programme has an additional economic impact of $98 million. SP

PHOTOGRAPHS: Lockheed Martin, US Navy, Airbus Military

HAL delivers pilotless target aircraft Lakshya to BDL

The Hindustan Aeronautics Limited (HAL) delivered the first Lakshya-1 (pilotless target aircraft) to Bharat Dynamics Limited (BDL), Hyderabad, at a function held recently. K. Naresh Babu, HAL's Managing Director (Bangalore Complex) handed over the delivery documents to Director (Production) BDL, Air Vice Marshal (Retd) P.K. Srivastava.

"The aircraft has been delivered ahead of schedule in record 15 months against 24 months of normal manufacturing cycle time," said Dr R.K. Tyagi, Chairman, HAL.

HAL is the only company in the country producing UAVs like pilotless target aircraft. The company has so far produced 39 Lakshya-1 aircraft at its Aircraft Division, Bengaluru. These aircraft are used by Indian Air Force, Indian Navy and DRDO.

Lakshya-1 is originally designed and developed by Aeronautical Development Establishment and is fully indigenous UAV. It is a training aid high performance reusable target system. It realistically simulates enemy aircraft for air-to-air and surface-to-air weapon system operators and permits proficiency assessment and improvement of weapon crew in live fire engagement.

It is powered with PTAE-7 Engine which is the first ever aero gas turbine engine designed and developed in India at HAL facility (Aero Engine Research & Development Centre, Bengaluru) and

successfully inducted into the services. This engine credits itself for being the only flight worthy engine produced in India.

Further HAL is planning to take up the manufacturing of next generation version of pilotless target aircraft, Lakshya-2 which is also designed and developed by Aeronautical Development Establishment. SP

KC-46 critical design review nearing completion

The US Air Force and Boeing successfully conducted the KC-46 critical design review, or CDR, from July 8-10 at the Boeing facility in Mukilteo, Wash. The KC-46 weapon system CDR was the culmination of nine months of component and sub-system design reviews, which blended the best practices of both the commercial and Department of Defense frameworks.

Currently, the CDR still has a few actions to finish, but the process is scheduled to be completed well in advance of the September 24 contractual date.

"The efforts by the combined Boeing and Air Force team to get to this point in the programme development have been tremendous," said Major General John Thompson, the Programme Executive Officer for tankers. "For the warfighter, completion of this milestone is a big step forward toward beginning the recapitalisation of the air force's legacy KC-135 fleet, delivering advanced and improved multimission capabilities to the fight on day one." SP

PHOTOGRAPHS: HAL, UIA, af.mil

Lockheed Martin's successful launch of new military communications satellite

The second mobile user objective system (MUOS) satellite built by Lockheed Martin for the US Navy is responding to commands after being launched from Cape Canaveral Air Force Station, Florida. The Lockheed Martin-led initialisation team is now commanding the satellite from the Naval Satellite Operations Center located at the Naval Base Ventura County, Point Mugu, California.

The MUOS constellation replaces the legacy ultra high frequency (UHF) follow-on system and delivers secure, prioritised voice and data communications, a first for mobile users who need high-speed mission data on the go.

"MUOS is providing capability for mobile users that never existed before," said

Iris Bombelyn, Lockheed Martin Vice President of Narrowband Communications. "We look forward to testing and delivering the second satellite of the MUOS constellation to our Navy customer. This on-orbit testing will prove the MUOS system capabilities and allow us to deliver the full suite of services available through the MUOS payloads, on MUOS-1 as well as MUOS-2."

The first MUOS satellite, launched in 2012, has been providing high quality legacy voice communications for users, and terminals are already testing using the advanced payload that enables data exchanges. More than 20,000 existing terminals are compatible with and can access the MUOS legacy payload, and with the release of the new waveform developed for increased data-handling capacity, many of these terminals can be retro fitted to access the wideband code division multiple access payload. SP

Afghan woman pilot makes history

Afghan Air Force 2nd Lt. Niloofar Rhmani, Kabul Air Wing pilot, added another feather to her cap of firsts after she completed the first fixed-wing combat mission flown by a female on July 18.

Rhmani was the first female to complete undergraduate pilot training, and earn the status of pilot, in May. The combat mission she flew from Kabul International Airport, Afghanistan, included transport of Ministry of Defence officials to Kandahar in support of government outreach operations.

"When I'm flying a mission with passengers, I'm not worried about myself," Rhmani said. "I care more about making sure they are safe."

Rhmani explained why she felt reaching this milestone was important to Afghan history. "Before, there were no female Afghan pilots," she said. "I'm trying to change the old culture for my people, and stand up for my people."

Captain Aaron Marx, 438th Air Expeditionary Advisory Group executive officer and pilot advisor, flew with Rhmani for her inaugural flight. "It's a great feeling for me," Marx said of being a part of the historical moment. "It's a great time to be a woman in the Afghan Air Force. They're making so much progress with gender integration here, and it's rewarding to see the pilots we're advising taking an active role in the operational transition."

Rhmani attributes much of her success to the support of her family. "My family has always been very supportive of me," she said. "They have always helped me do what I wanted to do, and I'm very proud of them and the support they've given me."

Rhmani's flight marked another step in the continued development and growth of AAF capabilities. SP

Northrop delivers 100th CNI system for F-35

Northrop Grumman Corporation (NOC) has delivered its 100th AN/ASQ-242 communications, navigation and identification (CNI) system to Lockheed Martin Corp. for integration into the F-35 Lightning II.

"The CNI system is a critical part of the F-35 mission systems suite, and we're proud of the excellent performance of the AN/ASQ-242 in flight tests and ongoing pilot and maintainer training activities," said Mike Twyman, Vice President and General Manager of the Defense Systems division of Northrop Grumman Information Systems. "This milestone underscores our commitment to advanced design, quality manufacturing, affordability and supportability.

Northrop Grumman's integrated CNI system provides F-35 pilots with the capability of more than 27 avionics functions. By using its industry-leading software-defined radio technology, Northrop Grumman's design allows the simultaneous operation of multiple critical functions while greatly reducing size, weight and power demands on the advanced fighter. These capabilities include identification friend or foe, precision navigation, and various voice and data communications, including the Multifunction advanced data link, which was approved by the US Department of Defense Joint Requirements Oversight Council for use on all low-observable platforms. SP

PHOTOGRAPHS: af.mil, Lockheed Martin

Lockheed Martin delivers upgraded Orion

Lockheed Martin has achieved an unprecedented milestone by delivering a US Customs and Border Protection (CBP) P-3 Orion aircraft in 10 months—and 78 days early—on July 18.

This is the eighth of 14 aircraft in the programme to receive mid-life upgrade (MLU) modifications and phased depot maintenance. It will soon join the CBP P-3 MLU fleet conducting homeland security and drug interdiction missions.

"Our Greenville team continues to demonstrate a high level of excellence in the complex work associated with maintenance, repair and overhaul," said Ray Burick, Lockheed Martin Vice President for Modification, Maintenance, Repair and Overhaul, Greenville Site and Field Team Operations. "This is the seventh CBP P-3 the Lockheed Martin team has delivered ahead of or on schedule from its facility in Greenville, South Carolina, since July 2010, a truly remarkable accomplishment for this team and our CBP customer."

During fiscal year 2012, the CBP P-3 fleet continued its anti-smuggling success by seizing or disrupting more than 1,17,765 pounds of cocaine valued at more than $8.8 billion, totalling 21.1 pounds seized for every flight hour, valued at $1.5 million for every hour flown.

The MLU replaces all fatigue life-limiting structures with enhanced-design components; and incorporates a new metal alloy that is five times more corrosion resistant than the original material, greatly reducing the cost of ownership for P-3 operators. The MLU solution removes current aircraft flight restrictions and extends the structural service life of the P-3 up to 15,000 hours, adding more than 20 years of operational use. SP

Roche sustainment award to Air Force Global Hawk team

The US Air Force RQ-4 Global Hawk unmanned aircraft programme was officially awarded the 2012 Dr. James G. Roche Sustainment Excellence Award during a ceremony at Wright-Patterson Air Force Base in Dayton, Ohio. Northrop Grumman Corporation is the prime contractor for the high-flying fleet of Global Hawks.

Presented by General Mark A. Welsh III, Air Force Chief of Staff, the Global Hawk team received the coveted award for demonstrating superior improved performance in aircraft maintenance and logistics readiness from October 2011 through September 2012.

"During this period, the Global Hawk has made significant improvements in aircraft availability, mission capability and total non-mission capability for maintenance and supply in support of worldwide operations," said Welsh. "In addition, the team simultaneously fielded an additional seven Global Hawks and implemented two key reliability and maintainability initiatives that have made significant impacts. This would not have been possible without the hard work, professionalism and commitment of the men and women of the Global Hawk programme."

The Global Hawk has been in high demand with warfighters, flying more than 13,400 hours last year and approximately 94,000 total flight hours to date. The Global Hawk's mission-capable rate rose from approximately 52 per cent in fiscal year 2011 to nearly 78 per cent in 2012, and has now exceeded the Air Force's goal for 24 consecutive months. SP

First upgraded MQ-8C Fire Scout delivered to US Navy

The US Navy got its first look at the upgraded MQ-8 Fire Scout unmanned system when Northrop Grumman Corporation delivered its first MQ-8C system this month. Northrop Grumman is the Navy's prime contractor for the MQ-8 Fire Scout programme of record. The company delivered the first MQ-8C aircraft to the Navy in early July in preparation for ground and flight testing.

"The endurance upgrade doubles the time on station of the MQ-8 system and will help reduce the workload for the ship's crew by cutting the number of times the crew will need to be in flight quarters," said George Vardoulakis, Vice President, medium-range tactical systems for Northrop Grumman. "Ground and flight testing are the next steps in meeting the urgent requirement for maritime intelligence, surveillance and reconnaissance. Testing on the Naval Air Systems Command test range provides us with extended air space to conduct and demonstrate long endurance and systems testing in a maritime environment."

The upcoming tests will be used to validate and mature the upgraded MQ-8 system for operational use. Initial ground testing will ensure that the systems work properly and communicate with the ground control station prior to conducting first flight. The MQ-8 system with the upgraded MQ-8C aircraft will share proven software, avionics, payloads and ship ancillary equipment with the MQ-8B aircraft.

The upgraded Fire Scout responds to an urgent need to provide the Navy with increased endurance, range and payload. Using a modified commercially available airframe, the upgraded MQ-8 system can provide commanders with three times the payload and double the endurance at extended ranges compared to the current MQ-8B variant.

The MQ-8B aircraft currently operates on Navy frigates and in Afghanistan, where it provides intelligence, surveillance and reconnaissance capabilities to maritime and ground commanders.

The first deployment of the upgraded MQ-8 system with the MQ-8C Fire Scout aircraft will be in 2014. SP

PHOTOGRAPHS: defense.gov, US Navy

Heron 1 logs 15,000 flight hours in Afghanistan

At the beginning of July, the Heron 1 UAS logged its 15,000th operational flight hour. The three systems, which are operated by Cassidian subsidiary Airborne Solutions on behalf of the Luftwaffe, are stationed in Mazar-e-Sharif in north Afghanistan where they are serviced by an experienced team of engineers, pilots and UAS specialists.

The Heron 1 unmanned reconnaissance system's sensors deliver useful information round the clock for preparing and carrying out military operations. The integrated satellite datalink thereby enables the Bundeswehr and its NATO partners to monitor the entire northern half of Afghanistan, whose surface area of more than 300,000m² almost equals the size of the Federal Republic of Germany. Heron thus makes a meanwhile invaluable contribution to protecting soldiers and the civilian population in the theatre of operations.

The unmanned reconnaissance system's availability for monitoring ongoing operations from the air via real-time video has in the meantime become an essential criterion for carrying out operations. The Heron 1's acceptance and unrestricted operational readiness is ensured by an onsite maintenance team from Cassidian, which guarantees the three aircraft and two ground segments' readiness 24/7. SP

India Bangladesh Home Secretaries meet

The 14th meeting of the Home Secretaries of India and Bangladesh was held in New Delhi from July 19 to 22. The Indian delegation was led by Anil Goswami, Union Home Secretary and the Bangladesh delegation was led by C.Q.K. Mustaq Ahmed, Senior Secretary, Ministry of Home Affairs.

The two secretaries noted that the bilateral cooperation in the field of security and border management has been strengthened with the signing of four agreements pertaining to security cooperation including the Extradition Treaty.

They took note of the outcome of the 13th JWG meeting on Security issues held on July 18, 2013, wherein the two sides discussed issues such as security, border management, incidents of deaths due to firing on the border, implementation of agreements, ratification of the land boundary agreement, visa and consular related matters, capacity building, etc.

The Indian Home Secretary conveyed the appreciation of Government of India to Government of Bangladesh for extending cooperation for addressing the security concerns of India. The two Home Secretaries reaffirmed their commitment not to allow the territory of either country to be used for any activity inimical to each other's interests. Both sides expressed satisfaction at the smooth operation of coordinated border management plan (CBMP) and agreed to increase the frequency of coordinated patrolling with a view to curbing criminal activities along the border.

They noted with satisfaction that the implementation of the CBMP has resulted in reduced number of border incidents. Agreeing that it is a joint responsibility, both Home Secretaries expressed confidence that increased number of coordinated patrolling would enhance cooperation between the border guarding forces of the two countries, and enable them to prevent the movement of criminals and manage the identified vulnerable areas with a view to prevent criminal activities, acts of violence and loss of lives along the border areas. As an additional measure for better border management, both sides welcomed the recent conference between Brahmanbaria district of Bangladesh and West Tripura district of India. They agreed to have regular consultations between the senior officers of border districts for resolving local issues. They agreed to sensitize the media about ground realities of border management.

They agreed to further intensify the activities of the different nodal points in different areas of cooperation such as human trafficking, drugs, INTERPOL, etc. They expressed satisfaction at the regular interaction of different bilateral mechanisms, including BGB-BSF DG level meetings, Narcotics DG level meetings, JWG on Security issues etc., and noted that these regular exchanges helped to enhance understanding and resolve issues to mutual satisfaction.

Both sides agreed to extend cooperation for apprehension of wanted criminals and fugitives. The Bangladesh Home Secretary urged for immediate tracking, arresting, and handing over the killers of Bangabandhu, the Father of the Nation of Bangladesh, Sheikh Mujibur Rahman. The Indian Home Secretary assured that India will continue to extend all possible assistance in this regard.

They expressed satisfaction at the level of cooperation in the seizure and prevention of trafficking of drugs. Bangladesh side also appreciated the decision of the Indian Government to invoke the provisions of the NDPS Act to contain the trafficking of Codeine based syrups like Phensedyl. It was also agreed to expand and strengthen further cooperation in sharing actionable intelligence in real time.

They noted that the implementation of three agreements (mutual legal assistance in criminal matters, agreement on transfer of sentenced persons and combating terrorism, organized crime and illicit drug trafficking) signed during the visit of Prime Minister Sheikh Hasina to India in 2010 has been satisfactory.

Both sides welcomed that the Joint Task Force on fake currency notes has been set up and agreed that the first meeting may be convened soon to develop a mechanism to deal with the menace. SP

Rajan Gupta DG of BPR&D

Rajan Gupta of the 1978 IPS batch (Punjab Cadre) has taken over as Director General (DG) in Bureau of Police Research & Development (BPR&D). He is to head the BPR&D in these transitional times when BPR&D is expected to play a crucial role in near future as expectations from police are soaring. SP

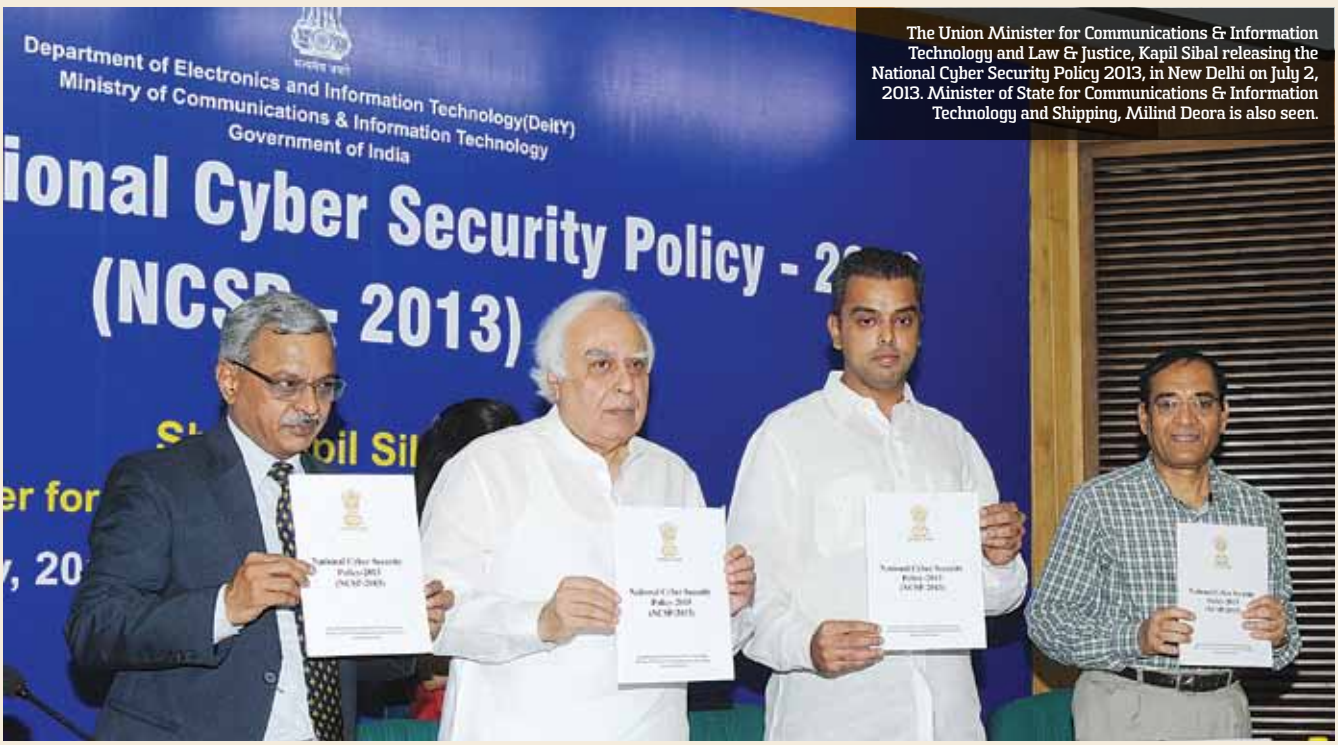
TSA launches application programme for TSA Pre

The US Transportation Security Administration (TSA) announced that it will add a new process allowing more US citizens to enroll in TSA Pre, an expedited screening programme that allows pre-approved airline travellers to leave on their shoes, light outerwear and belt, keep their laptop in its case and their 3-1-1 compliant liquids/gels bag in a carry-on in select screening lanes.

Previously, to be eligible for TSA Pre, travellers had to opt-in through an airline's frequent flier program, or be enrolled in one of CBP's Global Entry, SENTRI or NEXUS Trusted Traveler programmes. To date, more than 12 million travelers have already experienced TSA Pre at 40 airports nationwide, and today's announcement will expand the availability of this program to a larger portion of traveling US.citizens.

Starting later this year, US citizens will be able to apply online and visit an enrollment site to provide identification and fingerprints. TSA will start the programme at two initial enrollment sites — Washington Dulles International Airport and Indianapolis International Airport — with plans to expand to additional enrollment sites nationwide. SP

PHOTOGRAPH: PIB



The Union Minister for Communications & Information Technology and Law & Justice, Kapil Sibal releasing the National Cyber Security Policy 2013, in New Delhi on July 2, 2013. Minister of State for Communications & Information Technology and Shipping, Milind Deora is also seen.

PHOTOGRAPH: PIB

National cyber Security Policy to deal with threats

To better arm itself from the threats emanating from the cyber world, the government announced a National Cyber Security Policy 2013.

The policy, approved in May this year, has proposed to set up different bodies to deal with various levels of threats, along with a national nodal agency, to coordinate all matters related to cyber security.

The government has proposed to set up a National Critical Information Infrastructure Protection Centre (NCIIPC), which will act as a 24x7 centre to ward off cyber security threats in strategic areas such as air control, nuclear and space. It will function under the National Technical Research Organisation, a technical intelligence gathering agency controlled directly by the National Security Adviser in the Prime Minister's Office. The existing agency, Computer Emergency Response Team (CERT), will handle all public and private infrastructure.

"The air defence system, power infrastructure, nuclear plants, the telecommunications system will all have to be protected to ensure there is no disruption of the kind that will destabilise the economy. Instability in the cyber space means economic instability, and no nation can afford this. Therefore, it's essential not just to have a policy but to operationalise it," Communications and Information Technology Minister Kapil Sibal said while releasing the policy.

As part of the policy, the government has proposed to create a workforce of around 5,00,000 trained in cyber security. It also proposes to provide fiscal benefits to businesses to adopt best security practices. SP

Telecom security policy goes before NIB

The telecom department has sought the National Information Board's (NIB) approval on the draft telecommunication security policy. The NIB is India's top policy-making wing on cyber security headed by National Security Advisor Shiv Shankar Menon. The NIB's views are critical since national law enforcement agencies (LEAs) will be closely involved in implementing the telecom security policy with the Department of Telecommunications.

India's draft telecom security policy rues the country's "heavy dependence on imported core telecom equipment," which it claims has made "domestic telephone networks more vulnerable to unforeseen threats as they can be managed remotely". The decision to frame telecom security standards was largely induced by the Home Ministry's concerns about Chinese gearmakers, which had rocked the country's telecoms space three years ago and delayed network expansion plans of several mobile phone companies.

More recently, a government panel had also recommended that India emulate the US model and run detailed audits on hardware and software used in telecom networks, and even undertake periodic checks for unauthorised electronics or suspicious gear capable of duplicating or redirecting data.

The telecom security regulations also build a strong case for creating indigenous capacity of software and electronics used in telecom networks. They even indicate "effective systems, processes and regulations would be in place to arm LEAs to continuously monitor telecom networks for intrusions, attacks or other forms of fraudulent activity." SP

Rafael restructuring, establishes two new divisions

Rafael Advanced Defense Systems Ltd., designer, developer, and manufacturer of leading naval, air and land systems, is announcing a series of organisational changes and re-structuring.

These changes include the establishment of a Land & Naval Division. This division will also be responsible for the Systems Integrated Security (SIS) solutions for Critical Asset and Infrastructure on land and at sea. Rafael's substantial investment in R&D is being bolstered with the establishment of an R&D and Engineering Division. The new division will amalgamate Rafael's entire R&D activity.

Rafael has established a new sector, called Air & C4ISR Systems sector. This new sector will include air-to-ground systems (SPICE), electro-optical systems (litening, reccelite, etc.), communications and intelligence.

Rafael's Air Defense Directorate has been transformed into Air Superiority Systems Sector, and will be responsible for air & missiles defence systems along with the air-to-air product line.

Rafael's President and CEO, Vice Admiral (Retd) Yedidia Yaari, noted: "These changes were made in keeping with our vision to serve as a significant pillar in Israel's security, in addition to serving as its national laboratory, while maintaining our robust financial performance, with sales of over $1.7 billion in 2012, and an order backlog covering more than two years."

Further to these organisational changes, Rafael announces the following appointments: David Stemer, Deputy CEO & COO (in addition to his current role as the General Manager of Rafael's Missile and NCW Division); Giora Katz, Executive VP and Head of the Land & Naval Division; Dr Tuvia Ronen, Executive VP and Head of the R&D and Engineering Division; Yossi Druker, VP and Head of the Air Superiority Systems Sector; and Yuval Miller, VP and Head of the Air and C4ISR Systems Sector. SP

Beechcraft appoints Jim Grant as Senior Vice President, Military Programmes

Beechcraft Corporation has announced the appointment of Jim Grant as Senior Vice President of Military Programmes. In this role, Grant is responsible for the new business initiatives of the company's three military organisations—trainer/attack, special mission and global mission support.

Grant brings a wide range of experience within the aerospace and defence industry. A former Command Pilot with the United States Air Force (USAF), he has more than 5,000 hours flight hours in a variety of combat aircraft. His assignments included command and senior staff positions at Headquarters Air Force, Wing and Squadron level.

Grant has a bachelor's degree from the University of North Alabama and a master's from Pepperdine University. He graduated from the US Army War College and the USAF War College, as well as the Executive Development Programme of the Goizueta Business School at Emory University. SP

General Dynamics' new facility in Healdsburg, California

A ribbon-cutting ceremony and facility tour was held with employees, local business and community leaders, customers and government personnel at General Dynamics Ordnance and Tactical Systems, Healdsburg, California, facility at 190 Foss Creek Circle.

The state-of-the-art facility is designed to meet the rigorous standards of the Missile Defense Agency (MDA) for a 'clean room' production environment. It will house the company's manufacturing operations for advanced electro-mechanical actuation systems used in a variety of guided projectiles and missiles. General Dynamics supplies proportional control actuation systems to a number of defence contractors.

"The opening of this facility is an example of General Dynamics Ordnance and Tactical Systems' continued growth and expertise in developing and producing sophisticated components for next-generation missile programmes," said Dan Paul, Vice President and General Manager of Precision Systems for the company. "This operations expansion reinforces our commitment to serve the missile defence industry using innovative technology combined with a proven and reliable production capability." SP

PHOTOGRAPH: Beechcraft

ST Engineering's Land Systems arm acquires Technicae Projetos e Serviços Automotivos

Singapore Technologies Engineering Ltd (ST Engineering) announced that its land systems arm, Singapore Technologies Kinetics Ltd (ST Kinetics) has, through its wholly owned subsidiary, Mobility Systems Pte Ltd, acquired a 90 per cent equity interest in Technicae Projetos e Serviços Automotivos Ltda. (Technicae) for a purchase consideration of about S$0.6 million. Technicae's remaining 10 per cent equity interest is held by Technicae's existing shareholder.

The consideration was arrived at on a willing buyer willing seller basis, after taking into account Technicae's current projects and growth prospects. Following the acquisition, Technicae becomes a subsidiary of ST Kinetics.

As part of the acquisition agreement, ST Kinetics has further subscribed to an additional capital call of approximately S$2.3 million in proportion to its shareholding in Technicae, increasing its investment in Technicae to approximately S$2.9 million.

The acquisition is part of ST Kinetics' strategic plan to establish a presence in Brazil to further its defence business in Brazil, and thereafter grow ST Kinetics' presence in the rest of South America. SP

Next-gen on-the-move communications systems

The US Army Research Laboratory's (ARL) Weapons and Materials Research Directorate, Integrated Electromagnetic Materials Research team was recently recognised with a 2012 Army Research and Development Achievement Award for their technology titled, "A Materials Physics Innovation to Achieve Enhanced and Balanced Material Properties to Enable the Armys Next Generation On-The-Move (OTM) Communications Systems."

The team, led by Melanie Will-Cole, included Samuel (Gary) Hirsch, Clifford Hubbard, Matthew Ivill, Eric Ngo and Ryan Toonen.

"Each member of the team provided an equally significant contribution for this Materials Physics Innovation; our teams research expertise is complimentary to one another, and in this case, the sum of the parts makes the whole," Cole said.

The technology for which Cole and her research team have been recognised is focused on developing complex oxide thin film materials to enable tunable RF/microwave devices for next generation mobile electrically scanned antennas (ESAs).

Cole explained a major "show-stopper" impeding the development of complex oxide-based tunable phase shifters for ESAs is centred on the simultaneous minimisation of the films dielectric loss (minimisation of signal attenuation) in conjunction with maximisation of films dielectric tunability (maximisation of phase shift).

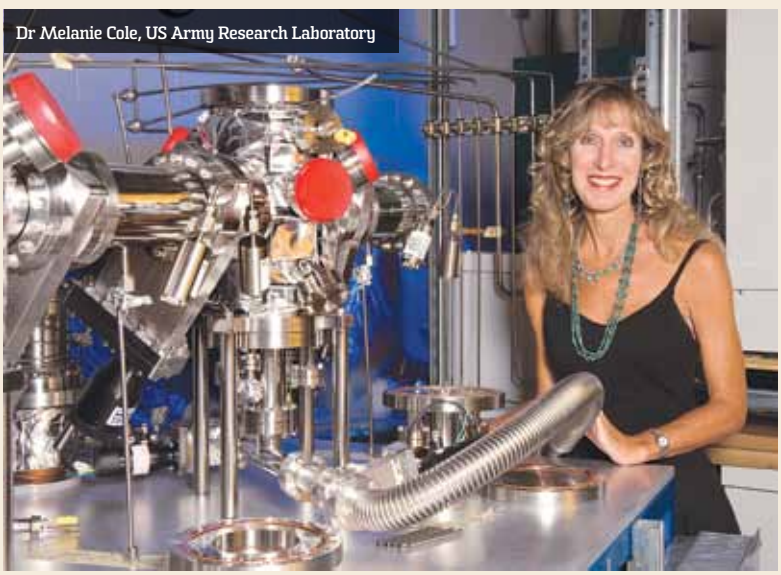
Cole said this is a difficult challenge to overcome as these two properties are tightly coupled and negatively opposed to one another. By developing a fundamental understanding of the loss mechanisms inherent to these complex oxide materials, namely charged defects/oxygen vacancies, the team was able to develop an effective strategy using ultraviolet-photon irradiation to mitigate these defects, hence reduce dielectric loss without degrading the dielectric tunability.

Cole stated that this RDA award research was actually an extension of an ARL Directors Research Initiative award, which she and her group received a few years ago. After completing the DRI effort, the team continued to think about the problems this technology had and they began unraveling the materials physics responsible for both the intrinsic and extrinsic material loss mechanisms. "You could say that the DRI served as the root system, which spawned this RDA award," Cole said.

Describing how this technology will impact the warfighter, Cole said, "This innovation established the scientific foundation, which will help realise affordable, high data rate, beyond line of sight for the Armys next generation on-the-move electronic scanning antennas."

According to Cole, collaboration was a driving force for the team.

"Winning this award means a lot to our research team," Cole said. "It is our teams collaborative nature, in which we work together sharing knowledge, expertise and skills with one another, which has enabled this RDA award. Collaborative research behavior is not only critical, but is the vital ingredient for attaining successful and innovative science necessary to realise future army communications systems."


Dr Melanie Cole, US Army Research Laboratory

Cole and her research team have previously been recognised for research that will utilise enhanced performance tunable devices, which are critical components for the armys next generation of communications systems. SP

DRDO releases single high band transmitter

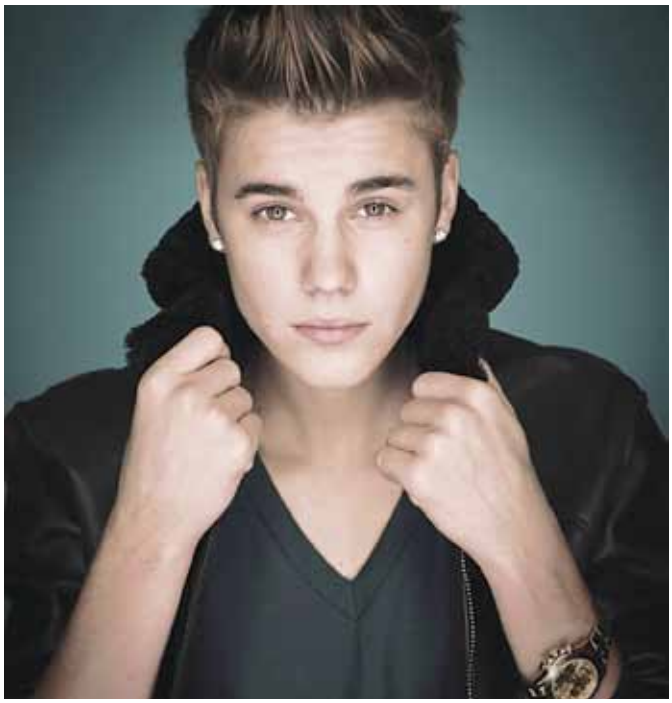
The future weapons are going to be based on microwaves and lasers. The research and development in the high end technology is very complex and I am glad to know that the thoughts in that direction is already underway," said Union Minister of State for Defence Jitendra Singh, while presiding over the release of the Defence of Research and Development Orgainisation (DRDO) product 'single high band transmitter' for airborne applications at the Micro Wave Tube Research and Development Centre (MTRDC), Bengaluru.

The product was handed over by Dr Lalit Kumar, the Director of MTRDC to Mr Soundar Rajan, Director DARE and Dr K. Tamil Mani DS & Chief Controller R&D (Aeronautics).

The Minister appreciated DRDO's initiative in the frontier areas like high power microwaves. The Minister also visited Gas Turbine Research Establishment (GTRE) and witnessed the engine run. The minister stressed that India should initiate the development of aero engines on consortium basis to make the country self-reliant in this area.

He also visited the Centre for Airborne Systems (CABS) and flew in the indigenous airborne early warning & control system (AEW&C) that has been integrated with the "Embraer EMB 145" aircraft. On board the aircraft he witnessed demonstration of the operations of AEW&C such as communication support mission. SP

PHOTOGRAPH: US Army / Rdecom



Popstar Justin Bieber ambushed in Dubai

Popstar Justin Bieber expected hysterical screams from teenage fans, but surely did not expect to get attacked on stage by a crazy fan in Dubai recently during a concert. The unsuspecting twiggy popstar was ambushed by a crazed male.

The incident has sparked major security concerns for the teenager's safety after he was ambushed from behind by the 'fan' midway through a piano performance. In a video uploaded on You Tube, the attacker is seen storming the stage and grabbing Bieber sending the piano crashing over as the pair tussle to the ground. The 19-year-old singer freed himself and fled to the other side of the stage as security lunged at the potentially dangerous stage stormer. SP

Abu Ghraib prison breach

Yet again, Iraqi security recently forces locked down areas around the Abu Ghraib prison in Baghdad to hunt for escaped inmates and militants after daring insurgent assaults set hundreds of detainees free.

The well planned operation ended up however in the death of at least 25 members of the Iraqi security forces with the attackers well equipped with ammunition. Insurgents fired dozens of mortar shells and detonated suicide and car bombs, drawing Iraqi forces into firefights that lasted more than an hour.

The prisons in Abu Ghraib and Taji house thousands of prisoners, including convicted Al Qaida militants. Exactly one year ago, Al Qaida's Iraq arm launched a campaign called "Breaking the Walls" that made freeing its imprisoned members a top priority. SP

Pistol-shaped high-heeled shoes through airport security

Considering we live in an era where the possession of too much hand sanitiser is enough to strike fear in the heart of airport security, you'd think passengers would exercise a little caution when it comes to carry items. You'd be wrong. Recently, a passenger at LaGuardia airport tried to pass through airport security in a pair of pistol-shaped high-heeled shoes.

The shoes were, of course, totally harmless, and since the unnamed woman surrendered the shoes voluntarily, the TSA officers on duty decided to let her go on without question.

The confiscated shoes were tweeted out by TSA's public affairs spokesperson, who regularly posts the cautionary tales of TSA's many transgressors. And apparently, this woman isn't the only one who thinks it's probably a good idea to bring gun replicas through airport security. Either there are a lot of incredibly dumb people in the world, or a few lonely-hearts are looking to get strip-searched in the only way they know how. SP

Leona Lewis punched in the face

A crazed bloke queued for five hours to meet Leona Lewis — then punched her in the face. The vicious attack happened in 2011 when the former X Factor winner was signing copies of her new autobiograhy. After being struck, She clutched her head and burst into tears as she was whisked away from the scene by minders and taken to hospital. Five security guards jumped on the 6 feet 5 inch thug and pinned him to the ground. SP

PHOTOGRAPHS: fanpop.com

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