BEYOND KARGIL : A VIEWPOINT PAGE 05

SP's
AN SP GUIDE PUBLICATION

ISSN 2230-9268

₹55.00 (INDIA-BASED BUYER ONLY)

MAi

ONLY FORTNIGHTLY ON
MILITARY
AEROSPACE
INTERNAL SECURITY

www.spsmai.com

Vol: 2 Issue 15 | August 1-15 • 2012

President of India, Pranab Mukherjee inspecting the Guard of Honour after the swearing-in ceremony on July 25

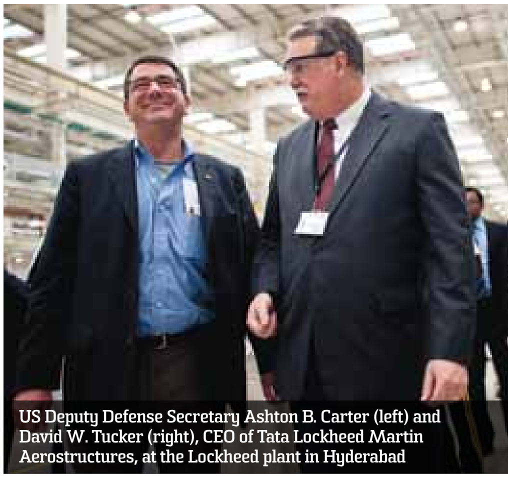
PAGE 11

New Supreme Commander of the Indian Armed Forces

Lt General D.S. Siddhu

Interview with DG, Mechanised Forces

PAGE 6



US Deputy Defense Secretary Ashton B. Carter (left) and David W. Tucker (right), CEO of Tata Lockheed Martin Aerostructures, at the Lockheed plant in Hyderabad

US Deputy Defense Secretary's India visit

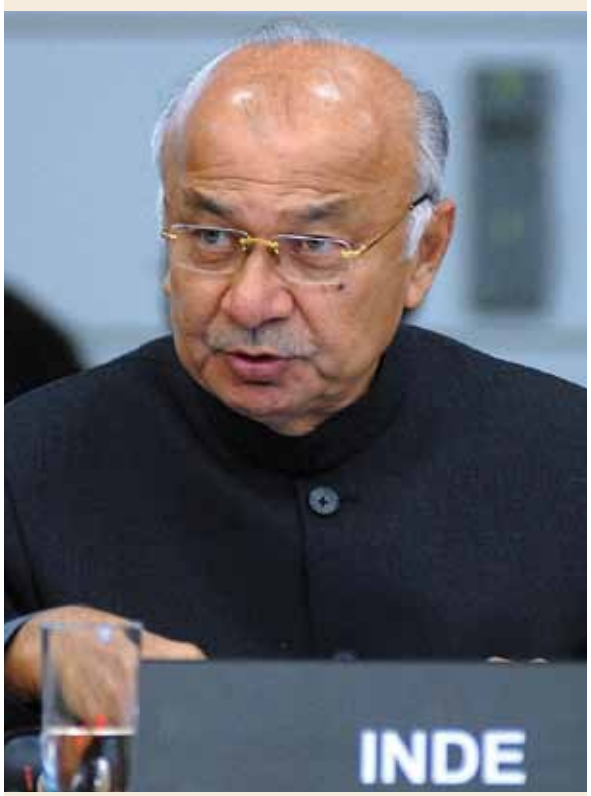
PAGE 9

DELENG/2010/34651

Sushil Kumar Shinde new Home Minister

Following the election of Pranab Mukherjee as the 13th President of India and the Finance Minister's slot opening up, the Prime Minister has effected a minor cabinet reshuffle. The finance portfolio has gone back to P. Chidambaram, while Sushil Kumar Shinde has been made the Minister for Home, moving from the Power Mministry.

Shinde began his career first as an office assistant in a local court and then as a police sub-inspector in Mumbai. Shinde graduated with honours in arts from



PHOTOGRAPH: PIB

the Dayanand College and then obtained a law degree from Shivaji University.

It was Sharad Pawar who brought Shinde in to active politics in 1971. While Pawar parted ways with the Congress, Shinde remained loyal. He won his first election in 1974 from Karmala and became a minister. From then on, Shinde never looked back and went on to win four successive elections. In 1992 and 2006, he was elected to the Rajya Sabha. In 2003, he became Maharashtra's first Dalit Chief Minister. In 2004 after the Congress won elections in Maharashtra, Shinde was made the Governor of Andhra Pradesh which he held for about a year. SP

Cover:
Pranab Mukherjee, President of India and also the Supreme Commander of Armed Forces, inspecting the guard of honour on July 25.

Cover image: PIB

PUBLISHER AND EDITOR-IN-CHIEF
Jayant Baranwal

ASSISTANT GROUP EDITOR
R. Chandrakanth

SR TECHNICAL GROUP EDITORS
Air Marshal (Retd) B.K. Pandey
Air Marshal (Retd) V.K. Bhatia
Lt General (Retd) Naresh Chand
Lt General (Retd) V.K. Kapoor
R. Adm (Retd) S.K. Ramsay

SPECIAL CONTRIBUTOR
Lt General (Retd) P.C. Katoch

SR COPY EDITOR & CORRESPONDENT
Sucheta Das Mohapatra

CHAIRMAN & MANAGING DIRECTOR
Jayant Baranwal

PLANNING & BUSINESS DEVELOPMENT
Executive Vice President: Rohit Goel

ADMIN & COORDINATION
Bharti Sharma

DESIGN & LAYOUT
Senior Art Director: Anoop Kamath
Designers: Vimlesh Kumar Yadav, Sonu Bisht
Research Assistant - Graphics: Survi Massey

SALES & MARKETING
Director: Neetu Dhulia
General Manager Sales: Rajeev Chugh

SP'S WEBSITES
Sr Web Developer: Shailendra P. Ashish
Web Developer: Ugrashen Vishwakarma

ANNUAL SUBSCRIPTION
Inland: ₹1,320 • Foreign: US$ 325

E-mail: subscribe@spsmai.com

LETTERS TO THE EDITOR
editor@spsmai.com

FOR ADVERTISING DETAILS, CONTACT:
advertise@spsmai.com
guidepub@vsnl.com
neetu@spguidepublications.com
rajeev.chugh@spguidepublications.com

SP GUIDE PUBLICATIONS PVT LTD
A-133 Arjun Nagar,
(Opposite Defence Colony)
New Delhi 110 003, India.

Tel: +91 (11) 24644693,
24644763, 24620130
Fax: +91 (11) 24647093
E-mail: guidepub@vsnl.com

REPRESENTATIVE OFFICE
204, Jal Vayu Vihar
Kalyan Nagar
Bangalore 560043
Tel : +91 (80) 23682204

Owned, published and printed by Jayant Baranwal, printed at Kala Jyothi Process Pvt Ltd and published at A-133, Arjun Nagar (Opposite Defence Colony), New Delhi 110 003, India.

Indo-US cooperation should go beyond trade

First, let us all congratulate the new President and the Supreme Commander of the Indian Armed Forces, Pranab Kumar Mukherjee, who we believe will be more than a titular head. As Minister of Defence between 2004 and 2006, Mukherjee was responsible for the 10-year Indo-US Defence Framework deal.

While the Indo-US relationship has grown from strength to strength, there have been niggling issues which need to be ironed out. These issues have been taken up with senior US officials at regular meetings, and as latest last week when the US Deputy Defense Secretary. Ashton B. Carter was in India.

Underlining defence cooperation, Carter said "We want to get to a place where we continuously discover new opportunities to make innovative investments that benefit both countries for generations. The only limit to our cooperation should be our independent strategic decisions and not bureaucratic red tape. The relationship has come a long way in the past decade. Our goal is to make it even stronger. We need to define where we want to go and then make it possible to get there."

Indeed, well said. However, we have to reiterate here that India is looking at a meaningful relationship and not just being a market. When I pointed out that India's main concern was that US would transfer old technology, Carter responded "that was true in the past, but not in the future". Substantiating the past stance, he said, "In the Cold War, the US bureaucracy was designed to protect a wide swath of technologies. With the commercialisation of the global marketplace, we now recognise that defence technology controls should be more focused." US would cooperate with India on high-value technologies, he did assure and we hope that the US understands India's predicament of growing its own defence and aerospace industry.

The aerospace and defence sector is booming and we have giants such as Reliance Industries Limited (RIL) making forays into the sector. RIL, which last year roped in Dr Vivek Lall, one of Boeing's top executives, has ambitious plans, though it has not made public its plans as yet.

In this issue, we have an interview with the Director General of Mechanised Forces, Lt General D.S. Siddhu, who outlines how the Mechanised Forces are developing capabilities to fight and decisively influence the outcome of operations across the entire spectrum of conflict. The forces are concentrating on widening employability to include operating in high-altitude areas, counter-insurgency, counter-terrorism, etc.

And giving his frank and forthright views is Lt General (Retd) P.C. Katoch on how bureaucratic bunglings have adversely impacted the armed forces. The failure of the intelligence agencies in giving inputs on Pakistani intrusions and the government not heeding the advice of the Army have been glaring, at the cost of the soldier. On Kargil Vijay Diwas, we did pay tributes to the soldiers who had laid down their lives for the motherland. Isn't it time that the government sets rights the conditions for the soldiers, in terms of pay and allowances, while equipping him or her with the best of equipment.

Jayant Baranwal
Publisher and Editor-in-Chief

INS Sahyadri commissioned

Naval warship Sahyadri berthed at the Naval Dockyard, Mumbai, before being commissioned as INS Sahyadri

The Defence Minister A.K. Antony, flanked by Minister of State for Communications and Information Technology Sachin Pilot and Milind Deora, Member of Parliament, releasing the Special Cover

The Defence Minister interacting with the media onboard the INS Sahyadri after the commissioning ceremony. Also seen is Admiral Nirmal Verma, Chief of the Naval Staff.

Dignitaries onboard INS Sahyadri

As the government gets set to sanction the monumental Project 17 Alpha programme at a cost of approximately ₹50,000-odd crore, the third Project-17 stealth frigate built indigenously by Mazagon Dock Ltd (MDL), F49 INS Sahyadri entered service with the Indian Navy on July 21 in Mumbai. INS Sahyadri is armed with a formidable array of surface, sub-surface and air-defence weapons. These include long-range anti-ship missiles, anti-aircraft missiles and anti-missile defence systems, which can detect and engage the enemy at extended ranges, thereby giving her significant combat power.

The two multi-role helicopters that are embarked on Sahyadri provide enhanced surveillance and attack capability. "This class of ships will be the mainstay frigates of the Indian Navy in the first half of the 21st century. The incorporation of numerous new design features aboard INS Sahyadri effectively reduces the probability of her being detected at sea," said the Navy in a statement. The ship is propelled by two gas turbine engines, which enable her to generate speeds in excess of 30 knots (or over 55 kmph), and two diesel engines for normal cruising speeds. The ship's electric power is provided by four diesel alternators, which together produce four megawatts of power—enough to light up a small town.

The ship's requirement of fresh water is met through two reverse osmosis plants, while a fully automated galley, ensures that the crew can be fed a variety of cuisines. The accommodation for the 35 officers and 250 crew members of INS Sahyadri incorporates advanced ergonomic design and ensures crew comfort and space management. SP

FOR MORE, LOG ON TO:
www.spsmai.com

PHOTOGRAPHS: Indian Navy

LT GENERAL (RETD)
P.C. KATOCH

Beyond Kargil

If government were to be asked one question post Kargil, it is how long does it expect the military to win purely on soldier grit? But then expecting implementation of the Kargil Review Committee recommendations in letter and spirit was naïve in the first place. Failure to take action against intelligence lapse of such magnitude speaks for itself. If we could not detect such mass enemy mobilisation in POK, what use is external intelligence?

The Cabinet Committee on Security should have been briefed biweekly if not daily on Pakistani intrusions and assessment of enemy intentions. Why was the government not shamed when the then Army Chief said, "We shall fight with whatever we have". We are status quo or worse off – recently leaked letter of a former Army Chief to the Prime Minister. To say that the MoD is not mired in corruption is naïve too – La affaire Tatra says it all and what of the facade of banning whole lot of defence firms on bribery charges?

Such blacklisting is fine provided military needs are fulfilled from elsewhere. Latter is a massive unending void with an excruciatingly unfocused and unaccountable DRDO and PSUs supported by equally wooly and unaccountable polity and bureaucrats, not to mention politics of setting up new military cantonments and defence PSUs with sole criteria being the defence minister belongs to that area.

How come the Prime Minister could not reply to Maniben Naik's letter saying, "Defence Production (MoD) Joint Secretaries and Secretaries of Defence Ministry are on the Boards of all PSUs – sickest of sick units you can think of who cannot take out one conventional submarine in 15 years .... and bulk of the time we resort to imports out of no choice..."

The alarmingly widening gap between the PLA and our military appears to be of little consequence to the powers that be. Government may appreciate late K. Subramanyam for his remarkable strategic thoughts but never heeded his life-time repeated assertions for chalking out a national security strategy. There has never been a holistic strategic defence review. The higher defence planning set up continues to lie defunct sans requisite military participation.

The V.K. Singh episode and its aftermath gives clear indication of sustained attempts to undermine the institutional integrity of the armed forces, success already having been achieved in other government and non-governmental organisations. The paid media is fully exploited in this vicious drive. Not only is the MoD-MEA construct disjointed, it appears that jointness in the military is deliberately not being encouraged as the divide and rule policy suits both the polity and the bureaucrats completely disregarding grave danger to national security. This is possibly with the perception no matter how many soldiers are killed there will be no dearth of volunteers.

Government response to pay, prestige and other grievances of the military indicates a deliberate effort to drive a wedge between the officers and the soldiers. The government body to look after the veterans has not a single veteran or serving member. The newly appointed committee by the Prime Minister to look into pay and other grievances is not looking into 'all issues', does not have a single veteran or serving military member and in fact constitutes the very same individuals because of whom these anomalies occurred and were allowed to linger on.

There is much speculation that Prime Minister may make some announcement in this regard on August 15. That would be surprising as in the last two years he has failed to or deliberately not made 'any' mention of the military. More significantly, even if he does make any promises it should not be expected to go beyond a political statement – hasn't the government already stonewalled many Supreme Court decisions regarding pay and anomalies of armed forces? So, when the civil-military relations are at the lowest ebb and the even the Supreme Commander hostage to politics, where do we go? Politics and lobbies apart, we need to first get the higher defence set up re-engineered post haste, failing which the dark clouds on the horizon will start unloading. 21st century threats cannot be answered purely on soldier grit especially when the grit itself is being undermined. SP

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

Not only is the MoD-MEA construct disjointed, it appears that jointness in the military is deliberately not being encouraged as the divide and rule policy suits both the polity and the bureaucrats completely disregarding grave danger to national security

PHOTOGRAPH: Photo Curry / Wikipedia

PHOTOGRAPH: Anoop Kamath / SP Guide Pubns

DGMF in sync with ever-changing battlefield scenario

In an interview with ***SP's M.A.I., Lt General D.S. Siddhu,*** *Director General, Mechanised Forces, Indian Army, who has wide experience in commanding armoured units and formations in all types of terrain in our border areas, spoke about the roles and modernisation status of the Mechanised Forces which comprise both armour and mechanised infantry.*

***SP's M.A.I.* (SP's): What is the role of your Directorate with regard to the designing of future tanks and ICVs for the Armoured Corps and Mechanised Infantry?**
Director General Mechanised Forces (DGMF): The DGMF is the nodal agency for propagating the General Services Qualitative Requirement (GSQR) for designing tanks and ICVs. We endeavour to tailor the mechanised force and the equipment to remain current with the ever-changing futuristic battlefield scenario and achieve the desired operational capabilities.

SP's: In the context of the changed nature/character of war, have any new roles been defined for the Mechanised Forces?
DGMF: To remain operationally relevant in the changing scenario, there is a need to constantly develop, evolve and adapt to the changing threat spectrum. With this as the focus, Mechanised Forces are developing capabilities to fight and decisively influence outcome of operations across the entire spectrum of conflict. In addition to our traditional role in conventional operations, we are concentrating on widening our employability to include operating in high altitude areas (HAA), counter-insurgency, counter-terrorism, out of area contingency situations and the United Nations (UN) mandated operations.

SP's: Has any thought been given to the indigenous development of the future main battle tank (FMBT)?
DGMF: The FMBT will be an indigenous tank. The development model would be based on the guidelines of the Defence Procurement Procedure (DPP) and indigenous industry would be involved to the extent possible.

SP's: It seems that the T-90 will be our MBT for the next decade or so. How are we catering for the digitisation of the battlefield in the future?
DGMF: As the mainstay of the armoured fleet, the T-90 Tank is slated to receive state-of-the-art upgrades to maintain its dominance on any future battlefield. These modernisation schemes include an active protection system, improved Commander's thermal imaging sights providing true 'hunter-killer' capability, an advanced muzzle reference system for retention of zeroing both by day and night and necessary software upgrades to optimise the capabilities of the fire control system. As regards digitisation of the future battlefield, we plan to fit the digital control harness. In addition, the army is considering introduction of a software defined radio (SDR) which will ensure real-time data, voice and image transfer.

SP's: Have we identified the light armoured vehicles for the reconnaissance troops and platoons in armour and mechanised units? What type of LAVs are we looking at?
DGMF: The light armoured multipurpose (LAM) vehicles for the reconnaissance elements of the mechanised forces should be agile, adequately protected and have adequate firepower. Major requirements specified for the LAM vehicle are that it should have a maximum weight of eight tonnes, with a minimum payload of 1.5 tonnes. The LAM is a 'Buy and Make (Indian)' project. The request for information (RFI) for the LAM has been issued and responses received. A project appraisal committee has been appointed by the MoD which is in the process of finalising the list of vendors to whom the request for proposal (RFP) will be issued.

SP's: What is the status of the T-72 upgrade and modernisation programme? What is the focus currently and where have we reached?
DGMF: Tank T-72 comprises the majority of our tank fleet today. These are of 1972 vintage and need to be modernised to enhance their mission reliability. With this in view, we are in the process of replacing the existing engine with a more powerful engine, incorporating an auxiliary power unit, fitting a thermal imaging fire control system for the gunner with suitable night enablement for the driver and commander also. Other upgrades include the digital control harness and modernisation of the fire suppression system.

SP's: What is being done with regard to survival of the tank in the future battlefield?
DGMF: We are planning to enhance protection in terms of improved passive armour, reactive armour and incorporation of an active protection system (APS) in our tank fleet. In addition, protection measures for tanks/ICVs while fighting in built-up areas is also being developed in the form of tank urban survival kit and BMP urban survival kit. SP

FOR COMPLETE INTERVIEW PLEASE READ
SP's Land Forces Issue 4/2012

Attack helicopters for Indian Army

The need is for dedicated air crew not only proficient in flying but also associated full time with army manoeuvres, operational thinking and ground tactics, as well as time spend in the field. The present structure is not suited for the short, swift and limited wars envisaged in the future.

Light combat helicopter in flight

PHOTOGRAPH: HAL

[By **Lt General (Retd) B.S. Pawar**]

All major armies of the world, including our adversaries China and Pakistan have full-fledged air wings of their own with all types of helicopters, including attack helicopters and fixed wing aircraft in their inventory. The Government in USA and UK had to intervene to facilitate the formation of a separate Army Aviation Corps, despite strong objections by their respective air force. During the Vietnam War (1959-75), the US Army had more helicopters (rotor wing aircraft) than all of the branches combined (Air Force, Navy, Marines, Coast Guard). However, the Indian Army continues to be denied the rightful ownership of attack helicopters, despite the fact that this flying machine and weapon platform is acquired only for supporting ground forces in the battlefield. Stale arguments are put forward again and again to justify the unjustifiable.

Missions

The primary mission of Army Aviation is to fight the land battle and support ground operations. It operates in the tactical battle area (TBA) as a combined arms team expanding the ground commander's battlefield in space and time. Its battlefield leverage is achieved through a combination of mobility and firepower, that is unprecedented in land warfare and hence it is the centrepiece of land force operations. Its greatest contribution to battlefield success is the fact that it gives the commander the ability to apply decisive combat power at critical times virtually anywhere in the battlefield. This may be in the form of direct fire from aviation manoeuvre units (attack/armed helicopters) or insertion of ground forces at the point of decision. This versatility is the essence of Army Aviation due to which it can be effectively employed right from commencement of offensive till conflict termination. The assets required for the above manoeuvre, the attack and assault helicopters, must be at the beck and call of a field force commander and also piloted by men in olive green who fully understand the ground situation, are from the same background and speak the same language. This will ensure the optimum utilisation of the battle winning resource.

Oft repeated arguments

In a recent article in *The Times of India*, Pune edition titled "The War Within: Army vs IAF in New Turf Battle", the author has dwelt on the old and tedious arguments of the Air Force as to why Army should not have attack helicopters? Perhaps the author is not aware of the fact that this issue was first raised by the Army in 1963 and the so-called turf war unfortunately continues to rage till date. I would like to highlight two issues raised in the article, purportedly the views of the Air Force. Firstly, the remark that Army does not have an aviation culture and therefore is not capable of operating and maintaining attack/heavy helicopters is not only shocking and condemnable but

ALH Dhruv in action

needs to be treated with utter disdain. The second issue pertains to the reference to the Joint Army-Air Instruction of 1986, which supposedly permits the Army to only operate helicopters of less than five tonne weight. In the light of the above, there is a need to highlight a few facts to de-mystify the deliberate attempt to create a haze.

Army Aviation Corps (AAC) perspective plans

The AAC is a thoroughly professional force and has an aviation culture as good as or even better than the Air Force. It operates the largest fleet of helicopters in India (Cheetah, Chetak and advanced light helicopter—ALH) to the extreme limits of man, machine and terrain. It is the lifeline of troops deployed in Siachen. The AAC already has in its inventory the lancer gunship (armed Cheetah) complete with a sighting system, gun and rockets and has been bloodied in operations in counter-insurgency environment. The armed version of the ALH (Rudra) is purely an Army project and is being inducted into the AAC by the end of this year. In addition to the gun and rockets, the Rudra has air-to-air and air-to-ground missiles, akin to any state-of-the-art attack helicopter in service today. In fact, the light combat helicopter (LCH) being developed by HAL will have the same weapon complement as the Rudra. As per the AAC Perspective Plans (future plans), the Rudra units will form part of the Pivot/Holding Corps and will play a crucial role in any future conflict. It would be pertinent to mention here that the Army Aviation test pilots and flight test engineers were totally involved in the selection and integration process of all the weapon systems in the Rudra project. This should put aside any fears/apprehensions regarding the capabilities of the Army to operate and maintain armed/attack helicopters that my colleagues in IAF may have.

With regards to the second issue, both the ALH and Rudra are above the five tonne category. Hence the repeated reference to this issue defies logic. Secondly, today the entire threat perception and security environment has undergone a drastic change since 1986. Indian Army faces a two-front threat and anticipates hybrid nature of operations in the future and has embarked on the road to modernisation and transformation to keep pace with the emerging threats and challenges. The other two services also a part of this process and their acquisition plans speak for themselves. The Air Force needs to focus more on its strategic role and leave the TBA for the Army to handle, keeping in mind the nature of future conflicts. There is a tacit need for the Air Force to have a re-look at the 1986 document and move away from a rigid mindset.

Enhance the overall goal and capability of the land forces

The role that Army Aviation needs to perform in support of land battle requires equipment, personnel, air crew and organisations enhancing the overall goal and capability of the land forces commander. The need is for dedicated air crew who are not only proficient in flying but are associated full time with army manoeuvres, operational thinking and ground tactics, as well as time spend in the field. The present structure is not suited for the short, swift and limited wars envisaged in the future.

Turf battles are part of every nation's defence forces, but the experience of other nations clearly illustrate that each service needs a viable integral aviation component for it to retain the capacity to meet future challenges on the ground by using aerial manoeuvre and attack as part of its response to the dynamics of an ever changing battlefield. The control and ownership of attack helicopters and medium-/heavy-lift helicopters by the army is an operational imperative due to the need for integration of all elements of Army Aviation (combat and combat support) into a cohesive combat organisation.

The time for decision is now. SP

PHOTOGRAPH: SP Guide Pubns

High-value technologies cooperation on the anvil: US Deputy Defense Secretary

[By **Sucheta Das Mohapatra**]

Only a month after the successful visit of US Secretary of Defense Leon Panetta to India, the Deputy Secretary, US Department of Defense, Ashton B. Carter was on a three-day visit to the country to strengthen defence ties between the two counties. Addressing an interactive session on "US-India Defence Cooperation: The Way Forward" organised by the Confederation of Indian Industry (CII) in New Delhi, Carter said the US wants to develop a joint vision for the US-India defence cooperation.

"We want to get to a place where we continuously discover new opportunities to make innovative investments that benefit both countries for generations. The only limit to our cooperation should be our independent strategic decisions and not bureaucratic red tape. The relationship has come a long way in the past decade. Our goal is to make it even stronger. We need to define where we want to go, and then make it possible to get there."

He further said that the US wants to knock down all bureaucratic hurdles that come in the way of defence cooperation. "Secretary Panetta and I are committed to reforming the Department of Defense's internal processes. India has been very frank in expressing its concerns with US export controls and technology security policies. We are taking real steps to address India's concerns."

India's stand that it is no more interested in a 'buyer-seller' relationship with US and wants more in the form of transfer of technology (ToT), reflected in Carter's words who emphasised on the jargon 'defence cooperation', while Panetta used 'defence trade'. "It is an evolution in our understanding of the point," said Carter.

"Our partnership with India is a key part of our rebalance to the Asia-Pacific region. You are an economic power with an increasing military capability; and your leadership in civil discourse and democracy is critical to the political stability of South Asia. Our military-to-military engagement has increased steadily over the years, to include a robust set of dialogues, exercises, defence trade, and research cooperation."

On being asked by Jayant Baranwal, Editor-in-Chief, *SP's M.A.I.* about India's concern about transfer of old technology from the US, Carter said that it was true in the past but not in the future. "We can share technology with India to the greatest possible extent. It is a relationship of trust and defence cooperation is the principle reason for my visit." Earlier during his speech, Carter said, "In the Cold War, the US bureaucracy was designed to protect a wide swath of technology. With the commercialisation of the global marketplace, we now recognise that defence technology controls should be more focused. We want to cooperate with you on high-value technologies." Likewise, on the query about sale of F-35s to India, the Deputy Secretary said that India has not asked for it yet.

To another question put by the Editor-in-Chief, *SP's M.A.I.* on what high-end technologies India would be getting from the US, he said "all kinds of technologies". Carter said that they want to move beyond defence trade, towards cooperative research and development and co-production with India. "We have moved DRDO and ISRO off the Commerce Department Entity List. We can conduct research and co-develop technologies together—like batteries, and micro-UAVs.

"India was our second largest FMS customer in 2011, with $4.5 billion in total foreign military sales (FMS) and we delivered six C-130Js on time. We think our defence technology is the best quality on the market. Whether through direct commercial sales (DCS) or FMS, India will get exceptionally high-quality technology and there would be a high degree of transparency."

Carter tours a Sikorsky Aircraft Corp. facility in Hyderabad on July 24, 2012

PHOTOGRAPH: DOD Photo

Giving his introductory remarks, Dr V. Sumantran, Chairman, CII National Defence Council and Vice Chairman, Ashok Leyland, said that we can have a similar and promising relationship with the US as we have been having with Russia. "The US should also ease restrictions on ToT to India, keeping in mind India's history of non-proliferation," he said. Along with a raise of foreign direct investment from 26 per cent to 49 per cent in India, the US Government should also encourage US companies to participate in FMS. He also reiterated India's stand that the buyer-seller relationship is not sustainable in the long-term and there should be focus on cooperation.

Besides meeting with Indian officials, Carter also visited Tata Advanced Systems Limited and Lockheed Martin joint venture in Hyderabad, where parts for the C-130J will be manufactured soon. "From now on, every C-130J around the world will contain parts made in Hyderabad," said Carter. SP

'Raytheon has many solutions to meet the need of Indian services'

***Tim R. Glaeser**, Vice President and Business Development Executive for Integrated Air and Missile Defense (IAMD), Business Development and Strategy, Integrated Defense Systems (IDS), in an interview with SP's M.A.I., spoke in detail about Raytheon's missile defence systems. Excerpts:*

***SP's M.A.I.* (SP's): Can you tell us about Raytheon's Patriot, Hawk XXI and the national advanced surface-to-air missile system (NASAMS)? Are they being offered to India?**
Tim R. Glaeser (Glaeser): As the OEM of Patriot, Hawk XXI and NASAMS, we are proud of the reputation as the "best in class" for each of the market sectors these programmes support. We are working with our many international partners to continue to enhance the effectiveness of the systems and reduce the total cost of ownership. Specific public release information on each can be provided based on the requirements stated in the RFI. We are reviewing all RFIs released by the Indian Army, Air Force and Navy.

SP's: Can you give us details of Raytheon's very short-range air defence (VSHORAD) and short-range surface missile (SRSAM) systems?
Glaeser: Raytheon has many solutions to meet the need of Indian services for VSHORAD and SRSAM. Our platform launched Stinger and Javelin are well known in the Indian armed force community. For SRSAM, we have both Hawk XXI as well as NASAMS that are capable of meeting and exceeding the requirements stated by the Indian Air Force and Indian Army.

ESSM take off

PHOTOGRAPHS: Raytheon

Tim R. Glaeser joined Raytheon in August 2004, after a 24-year career in the US Army. Prior to his retirement, he served as Commander, 11th Air Defense Artillery Brigade. During Operation Iraqi Freedom, he commanded the US and Kuwaiti Patriot forces. As the Vice President and Business Development Executive for IAMD, Business Development and Strategy, IDS, Glaeser is responsible for developing customer-focused marketing strategies and the growth of domestic and international markets. Glaeser has also previously served as Vice President, IAMD, Patriot Programs.

SP's: Tell us about Raytheon's medium-range surface-to-air missile (MRSAM) and long-range surface-to-air missile (LRSAM) programmes? How do they fit into the Indian Army's requirement for providing air defence (AD) to mobile and semi-mobile assets?
Glaeser: For MRSAM class of system, we are confident that Patriot continues to be the golden standard for defence against air breathing threats, cruise missiles, tactical ballistic missiles and many other types of threats. We are also proud to say that 12 other nations have embraced Patriot as their primary defence structure against these threats. Mature, battle-proven and continuous technology upgrade to system capability keeps Patriot as the pack leader in the MRSAM class of system in the world. We consider LRSAM as an architecture rather than a system that is comprised of early warning radar, sensors, C4ISR node, integrated air missile defence and family of effectors. In the LRSAM class of system, Raytheon has vast number of systems and elements that can be specifically tailored to meet the need of LRSAM requirements. We have not seen any requirements in the area of MRSAM and LRSAM from the Indian Army. We have provided approved information in these weapon class systems to the Indian Air Force. Patriot is known to protect mobile and semi-mobile assets as proven in two wars. Based on the request for information (RFI) seen, we feel Hawk XXI and NASAMS are the right solution set for the Indian Army.

SP's: Has surface-launched advanced medium-range air-to-air missile (SLAMRAAM) been successful in the US Army?
Glaeser: As you know, internationally, we have renamed SL-AMRAAM as NASAMS (national advanced surface-to-air missile system). The US Army National Guard currently mans NASAMS in the National Capital Region. NASAMS is fielded globally in six countries. The US

Army selected NASAMS for the National Capital Region in 2004 and it was installed and operational within 90 days of the decision and has till date protected the critical assets in and around the nation's capital with an extremely high operational readiness (OR) rate. NASAMS can affordably protect large areas with an aggressive horizontal keep out radius, high OR, low sustainment costs, and low manpower operating requirements.

SP's: Do you have specific systems for the navy and the air force as well?
Glaeser: We are confident that our family of surface-to-air missile defence solutions are well suited for Indian Air Force as well as Indian Navy. We are yet to see any requirements from the Indian Navy.

SP's: Are there any air defence (AD) battle management systems being offered?
Glaeser: Each of our systems and solutions come with a battle management system. The offer will depend on which solution and system the Indian armed forces will acquire.

SP's: Are you planning for joint ventures with DRDO, especially in the field of ballistic missile defence?
Glaeser: Our sister division, Raytheon Missile Systems, is engaging DRDO in the area of ballistic missile defence at a level they are approved by the United States Government. We are actively trying to engage DRDO with respect to approved technology projects in the area of endo surface-to-air missile defence.


ESSM GBAD BTV

SP's: Do you have any plans to participate in joint ventures with Indian defence public sector undertakings (DPSUs) and/or private companies?
Glaeser: Like everyone, Raytheon continues to evaluate Indian defence and homeland security market to seek appropriate partners and team members. As appropriate opportunity is presented, Raytheon is fully committed to take the necessary steps to explore and act on these requirements.

SP's: What are your plans for offsets and transfer of technology (ToT)?
Glaeser: Raytheon has successfully executed offsets and transfer of technology requirements under the FMS route and/or the DCS route around the world with various countries and companies. We will embark on these requirements on a case by case basis by working closely with the US Government, Government of India and our industry partners in India.

SP's: Can you share some of the recent success stories? We shall appreciate if you can elaborate on the reasons for such achievements?
Glaeser: Raytheon continues to take pride in providing capable, proven, technically unmatched and best value solutions to our customers worldwide. In the area of air and missile defence, our recent contracts from Saudi Arabia, Taiwan, and UAE, to name a few, shows that our customers have chosen the right system solution to protect their critical infrastructures and their homeland, which I would attribute to our engineers, our company values, our customer focus and our capable systems. SP


The President of India Pranab Mukherjee signing the register at President's office at Rashtrapati Bhavan, on his arrival from the Central hall of Parliament after the swearing-in ceremony on July 25

PHOTOGRAPH: PIB

Pranab Kumar Mukherjee, 13th President of India and the Supreme Commander of the armed forces

Pranab Kumar Mukherjee became the 13th President of India and the Supreme Commander of the Armed Forces on July 25, 2012. Prior to his election as President, Mukherjee was the Union Finance Minister and the Congress party's top trouble-shooter.

In a political career spanning six decades, Mukherjee has been a senior leader of the Indian National Congress and occupied several ministerial portfolios. In 2004 when Congress came to power, Mukherjee was made the Minister of Defence, a post which he held till 2006. It was during this tenure that Mukherjee had inked the 10-year Indo-US Defence Framework deal.

Mukherjee began his career as an upper-division clerk in the office of the Deputy Accountant General (Posts and Telegraph) in Calcutta. In 1963, he began teaching political science at the Vidyanagar College in South 24 Parganas and he also worked as a journalist with the *Desher Dak* (Call of Motherland) before entering politics.

Mukherjee got involved in the politics of the Indian National Congress in 1969. He had managed the successful election campaign for independent candidate Krishna Menon during the by-elections in Midnapore. The then Prime Minister and Congress leader Indira Gandhi recognised his talent and made him a part of the Congress Party and there has been no looking back. Mukherjee first became a Rajya Sabha member in July 1969 and was re-elected in 1975, 1981, 1993 and 1999. He was elected to the Lok Sabha in 2004 and 2009 from Jangipura in West Bengal. SP

Kargil heroes remembered

On July 26, India paid rich tributes to the martyrs of armed forces on the occasion of Kargil Vijay Diwas. The Minister of Defence A.K. Antony who headed the Vijay Diwas memorial said: "Not only for the forces, it is a historic day for the country as a whole. Today, we are paying homage to the sacrifices made by our jawans and officers to protect the honour of the country."

Referring to demands by the armed forces for a war memorial in the national capital, Antony said progress was being made on the proposal.

The main function on the day was held in Drass sub-sector in Ladakh region. Senior Army officers, war veterans and wives of soldiers who were killed in the 1999 conflict offered floral tributes at the war memorial to mark the 13th anniversary of India's victory.

Wreaths were laid by General Officer Commanding-in-Chief Northern Command Lt General K.T. Parnaik, General Officer Commanding of Ladakh-based 14 Corps Lt General Rajan Bakshi and GOC 8 Mountain Division Major General Raymond Noronha.

The war to flush out well-armed and stocked Pakistani intruders began in May 1999 and lasted for more than two months. The counter-offensive on the icy heights of Kargil in Jammu and Kashmir resulted in India taking back all the positions that had been occupied by the Pakistani intruders and army men.

India lost nearly 500 soldiers and officers and Pakistan more than 700 men. Kargil Vijay Diwas has been named after the success of Operation Vijay. SP

DCNS and SEC Industries milestone on Scorpene submarine

SEC Industries and DCNS have inaugurated new workshop facilities and delivered, after successful factory acceptance tests, the cofferdam doors coamings for the Indian P75 Scorpene submarines.

The facilities were inaugurated by M.M. Pallam Raju, Minister of State for Defence, in the presence of the French Ambassador to India, François Richier.

In September 2011, DCNS India signed a contract with SEC Industries for the manufacture of high technological equipment for the P75 Scorpene submarines. A second contract was signed in May 2012 for additional items. These contracts cover an extensive transfer of technology, running at full speed. The contract is part of the indigenisation programme implemented by DCNS India under the P75 Mazagon purchased materials (MPM) contracts. SP

INS Baaz commissioned

The Naval Air Station at Campbell Bay on Great Nicobar Island was commissioned as Indian Naval Ship 'Baaz' by Admiral Nirmal Verma, Chairman Chiefs of Staff Committee and the Chief of the Naval Staff. INS Baaz is situated at about 300 nm from Port Blair and is the southernmost air station of the Indian armed forces.

Speaking on the occasion, Admiral Nirmal Verma said that "the archipelago, separated as it is by more than 650 nm from our mainland, offers a vital geo-strategic advantage to India. Not only do they provide the nation with a commanding presence in the Bay of Bengal, the Islands also serve as our window into East and South East Asia". He added that "they also sit astride some of the busiest shipping lanes of the Indian Ocean, most carrying strategic cargo for East Asian economies".

Bringing out that the Navy has been progressively increasing the number of warships based in the Andaman and Nicobar Command, Admiral Nirmal Verma said that Port Blair will be home to amphibious platforms, naval offshore patrol vessels and fast attack craft as the Navy's robust acquisition plans progress.

INS Baaz is currently equipped to operate light to heavy aircraft capable of short field operations from the runway of about 3,500 feet. The runway will be progressively lengthened to enable unrestricted operation of all category of aircraft including heavy aircraft. The base will also be bolstered with modern airfield instruments and navigation aids.

The commissioning ceremony was attended by Lt General Naresh Marwah, Commander-in-Chief Andaman and Nicobar Command, Vice Admiral Shekhar Sinha, Chief of Integrated Defense Staff to Chairman Chief of Staff Committee, Commanding Officer, Commander S.K. Singh Deo and many other senior naval officers. SP

PHOTOGRAPHS: PIB, esdpa.org, Indian Navy

PHOTOGRAPH: IAF

Crisis period to be over with induction of Pilatus PC-7 Mk-II

*In an interview with **SP's M.A.I., Air Marshal Rajinder Singh**, AOC-in-C, Training Command, Indian Air Force (IAF), spoke about the training pattern in the IAF and the status of the trainer aircraft. Excerpts:*

***SP's M.A.I.* (SP's): What is your broad vision of training in the IAF?**
AOC-in-C: Keeping pace with the changing times, we have taken giant leaps in inducting advanced technology into the Air Force. Our main challenge today is to develop the human resources for absorbing the technology and proficiently utilising it as a weapon system to accomplish the objectives of the IAF. While flying and ground training forms the core curriculum of training, key result areas (KRAs) for this Command also include enhancing flight safety awareness, inculcating pride and soldierly attributes among all trainees and improving the quality of life of our air warriors.

SP's: Can you please update our readers on the training pattern being followed now?
AOC-in-C: We faced serious crisis when HPT-32 aircraft had to be grounded for safety issues, in July 2009. The entire flying training pattern had to be modified based on the training needs vis-a-vis the resources available. Optimisation of flying training was undertaken in phases. Our first priority was to ensure ab initio flying training continued unhindered, albeit on jet aircraft, as against the IAF philosophy of propeller and jet combination. Towards this, the Qualified Flying Instructors Course (QFIC) held at the Flying Instructors School, Tambaram was curtailed and all Kiran Mk-I aircraft were shifted to Air Force Academy and Air Force Station Hakimpet for pre-commissioning training. The syllabus also had to be pruned down, especially in ab initio training phase. Subsequently, Kiran Mk-II aircraft of Surya Kiran Aerobatic Team (SKAT) were allotted to FIS for continuation of QFIC.

In order to maintain the quantum of flying for each trainee in the face of dwindling Kiran Mk-I assets, for the first time in July this year, we have bifurcated the ab initio flying trainees in to fixed wing (jet trainers) and rotary wing (helicopters), even before a trainee commences flying.

And now with the contract signed for induction of 75 Pilatus PC-7 Mk-II aircraft into the IAF, we will once again revert back to propeller and jet aircraft combination for pre-commissioning flying training and also enhancing the flying training syllabus to original status, starting from July 2013.

SP's: What is the induction plan for the Pilatus PC-7 basic trainer fleet?
AOC-in-C: We are happy that the crisis period for flying training is going to be over soon with the induction of Pilatus PC-7 Mk-II aircraft. Our pilots, engineering officers and technicians are going for training to Switzerland in November this year, following which the aircraft is planned to be inducted at the Air Force Academy, Dundigal, Hyderabad, from January next year. This aircraft is very capable and a proven trainer aircraft which is being used for training in many air forces around the world. We have already commenced infrastructure development for inducting the aircraft and plan to undertake the flying training of ab initio trainees on this new fleet starting from July 2013.

As regards the indigenous equivalent of the basic trainer aircraft (BTA), there is a proposal by the HAL to provide equitable number of aircraft with similar air staff quality requirements (ASQRs). The production plans are at a nascent stage and the timelines for induction cannot be commented upon at the moment.

SP's: What is the status of the Hawk advanced jet trainer fleet?
AOC-in-C: Sixty six Hawk aircraft have been inducted into the IAF till date to fill the void of advanced jet trainers (AJT), replacing the MiG-21s. Out of these, 24 were delivered by BAE Systems and 42 have been delivered by HAL, last one being handed over in June this year. The aircraft has, since its induction in February 2008, trained many fighter pilots of the IAF in the art of combat flying. It is a wonderful training aircraft. However, there were a few teething problems initially, most of which have been resolved with time. Some remaining issues are being addressed through regular joint project review meetings with BAE and HAL. We have also placed an additional order for 40 aircraft with the HAL, which will be located at Air Force Station Kalaikunda in West Bengal.

SP's: What are the plans for replacement of the Kiran fleet?
AOC-in-C: We are aware of the fact that the Kiran fleet is aging and accordingly plans for induction of intermediate jet trainer (IJT) aircraft from the HAL was approved by the Ministry of Defence (MoD) quite some time back. As per original schedule, this aircraft should have been flying in the IAF by now. However, due to certain unforeseen delays in the design and development of the project, the timelines have slipped. SP

FOR COMPLETE INTERVIEW PLEASE READ
SP's Aviation Issue 8/2012

MV-22 Osprey arrives in Japan

Twelve MV-22 Osprey tiltrotor aircraft were off-loaded from a civilian cargo ship at Marine Corps Air Station (MCAS) Iwakuni, recently, marking the first deployment of the MV-22 in Japan. The aircraft will be stationed aboard Marine Corps Air Station Futenma in Okinawa, Japan, as part of Marine Medium Helicopter Squadron 265 (HMM-265).

MCAS Iwakuni features both an airfield and a port facility, making it a safe and operationally feasible location to offload the aircraft. "We are obviously pleased to demonstrate the capacity of this co-located deep water harbour and aerial port of operations. It clearly highlights Iwakuni's position as a logistical lynchpin in the strategic alliance between the United States and Japan here in the Western Pacific," said Col James C. Stewart, Commanding Officer of Marine Corps Air Station Iwakuni.

Deployment of the MV-22 Osprey to Japan marks a significant step forward in modernisation of Marine Corps aircraft here in support of the US-Japan Security Alliance. Throughout the Marine Corps, Ospreys have been replacing CH-46 Sea Knight helicopters, which made their Marine Corps debut during the Vietnam era. SP

Boeing delivers second production P-8A Poseidon aircraft to US Navy

Boeing has delivered the second production P-8A Poseidon aircraft to the US Navy. The P-8A is one of 13 low rate initial production (LRIP) maritime patrol aircraft that Boeing is building for the Navy as part of two contracts awarded in 2011.

"We're proud to be able to meet our commitment and deliver another Poseidon to the fleet," said Chuck Dabundo, Boeing Vice President and P-8 programme manager. "Navy crews have had a couple of months of training with the first plane, and their feedback has been positive."

Overall, the Navy plans to purchase 117 of the Boeing 737-based P-8A anti-submarine warfare, anti-surface warfare, intelligence, surveillance and reconnaissance aircraft to replace its P-3 fleet. SP

Thales delivers four maritime patrol aircraft to Turkey

Thales has completed delivery of initial standard maritime patrol aircraft under the Meltem II programme for Turkey, with four aircraft entering service between February and June 2012.

Pierre Eric Pommellet, Executive Chairman of Thales Systèmes Aéroportés, officially handed over the aircraft during a ceremony

at the Tusas Aerospace Industry (TAI) facility in Ankara attended by representatives of the Turkish Undersecretariat for Defence Industries (SSM), the Turkish Naval Command, the Turkish Coast Guard Command, the local contractors involved in the programme – TAI, Aselsan, Havelsan and Milsoft – the French defence procurement agency (DGA) and the French Embassy in Ankara.

Thales is prime contractor for the Meltem II programme, which calls for delivery of six maritime patrol aircraft for the Turkish Navy and three maritime surveillance aircraft for the Turkish Coast Guard. The aircraft are based on modified CASA CN-235 platforms. The programme also includes the provision of 10 additional maritime patrol systems for integration on ATR 72 aircraft in service with the Turkish Navy. Seven of these have already been delivered to the SSM. The 19 mission systems are based on Thales's AMASCOS solution (airborne maritime situation & control system). SP

Lockheed Martin delivers another Super Galaxy

Lockheed Martin delivered the fifth production C-5M Super Galaxy to the US Air Force at Robins Air Force Base, Georgia. The Super Galaxy is the eighth overall C-5M for the Air Force and will undergo internal paint restoration at Stewart Air National Guard Base, New York, before traveling to its permanent home at Dover Air Force Base, Delaware.

The Super Galaxy is America's premier global direct delivery weapon system and the only strategic airlifter capable of linking the homeland directly to the warfighter in all theaters of combat without refuelling. SP

PHOTOGRAPHS: pacom.mil, Boeing, Airbus Military, Lockheed Martin

Boeing completes major integration of India's first C-17 airlifter

Boeing has integrated the forward, centre and aft fuselages and the wing assembly of India's first C-17 Globemaster III during the airlifter's "major join" ceremony in Long Beach. The Embassy, senior Indian Air Force and local elected officials drove ceremonial rivets into the aircraft as they celebrated the achievement of this key programme milestone.

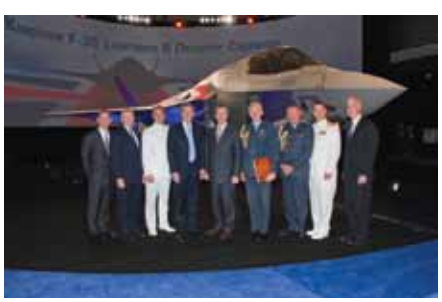
India's Ministry of Defence signed an agreement with the US Government on June 15, 2011, to acquire 10 C-17 airlifters, making India the largest C-17 customer outside the US. Those governments finalised the foreign military sales (FMS) contract for the airframe alone on June 6.

"The defence relationship between India and the United States is an important dimension of our strategic partnership," said Ambassador N. Parthasarathi, Consul General of India, San Francisco. "This momentous occasion, where we see India's first C-17 take shape, further strengthens our growing relationship. As India strives to become a global reservoir of highly skilled and technologically sophisticated manpower, we will witness an escalating technology transfer, collaborative joint research and development, and co-production of defence items between the two countries."

"This is a proud day for the highly skilled Boeing workforce and our newest customer to celebrate a major production milestone," said Bob Ciesla, Boeing Airlift Vice President and C-17 Program Manager. "We are preparing for India's first C-17 to enter flight test on schedule early next year, and we look forward to providing for India's current and future needs and continuing to support the C-17s long after they are delivered." SP

Ambassador N. Parthasarathi, Consul General of India, San Francisco, drives a rivet into the first of the 10 C-17 Globemaster III aircraft being built for India's Ministry of Defence during a ceremony in Long Beach, California

UK accepts first international Lockheed Martin F-35



The United Kingdom accepted the first international Lockheed Martin F-35 Lightning II aircraft recently. Philip Hammond, UK Secretary of State for Defence, and Frank Kendall, US Undersecretary of Defense for Acquisition, Technology and Logistics, represented their governments.

"We are here to celebrate an important 'first' among so many milestones associated with the F-35 programme," said Bob Stevens, Lockheed Martin Chairman and Chief Executive Officer. "It's fitting that our first delivery to an international partner is to the United Kingdom, because without sustained British innovation over many generations, we would not have an event to celebrate today."

The UK was the first of eight international partners to join the F-35 programme and plans to acquire the F-35B short takeoff and vertical landing (STOVL) aircraft. Lockheed Martin is developing the F-35 with its principal industrial partners, Northrop Grumman and BAE Systems. SP

Finmeccanica contracts with Israel

In the framework of a collaboration agreement between the Italian and Israeli Governments, Finmeccanica announced that it has signed contracts worth approximately $850 million through the operational companies Alenia Aermacchi, Telespazio and SELEX Elsag.

Alenia Aermacchi will supply of 30 M-346 advanced trainer aircraft. The agreement has a total value—including aircraft, engines, maintenance, logistics, simulators, and training—of approximately $1 billion, of which approximately $600 million pertaining to Alenia Aermacchi.

The new aircraft will replace the A-4 Skyhawks currently in service with the Israeli Air Force. The delivery of the first unit is scheduled for mid-2014.

Telespazio, will supply high-resolution optical military satellite system for earth observation, called OPTSAT-3000, for more than $200 million. Telespazio will be responsible for supplying the entire system: from the satellite to the ground segment, from the launch services and placement in orbit to the preparation and execution of the operational and logistical activities, as well as in-orbit testing and the commissioning.

The construction of the satellite, whose delivery is planned for 2015, will be entrusted to the company Israel Aerospace Industries/MBT Space Division;

Selex Elsag will supply identification, communications and computer systems for flight control of the 30 M-346 advanced trainer aircraft, and the supply, for approximately $41 million, through the company ELTA Systems Ltd, of the NATO-standard sub-systems for communications, tactical links, and identification for two CAEW (conformal airborne early warning) aircraft for the Italian Air Force. SP

PHOTOGRAPHS: Boeing, Alenia Aermacchi, UK MoD

France and UK enhance Watchkeeper cooperation

The UK and France have moved a step forward in demonstrating their commitment to defence cooperation under the 2010 Lancaster House Treaty with the announcement that France will undertake operational assessments and trials of the Thales Watchkeeper unmanned air system (UAS) in 2012 and 2013, with a view to cooperating with the UK on Europe's most advanced tactical UAS system.

The announcement was made after a bilateral meeting in London between UK Secretary of State for Defence Philip Hammond and French Defence Minister Jean-Yves Le Drian.

Victor Chavez, Chief Executive of Thales UK, said "The battle-winning operational edge that UAVs bring to operations is well understood and these systems are rightly a central pillar of UK-French defence collaboration. The announcement today that France will undertake trials of Watchkeeper demonstrates both nations commitment to cooperation on the battlefield and in the development of this strategically important sector."

Pierre Eric Pommellet, SVP of Thales Defence Mission Systems added "Collaboration offers perspectives for widespread benefit for both nations—shared support costs, joint development of enhancements to what is already one of the world's most advanced tactical UAV systems, the ability to harness the capabilities and innovation of both British and French industry, and most importantly the provision of world leading intelligence capabilities for British and French Armed Forces. Joint technological, industrial and interoperability advances were at the heart of the Anglo-French Treaty, and today's announcement demonstrates concrete progress towards those aims."

"The treaty has also already delivered much more than cooperation on systems—the twinning of the British Royal Artillery 32nd Regiment and the French Artillery's 61st Regiment, whose relationship will only be deepened by joint operation of Watchkeeper, are the embodiment of the human links which are being formed across the Channel."

Watchkeeper is Europe's largest tactical unmanned air system (UAS) procurement programme. The delivery of Watchkeeper equipment to the British Army is on track and over 200 hours of flying trials have taken place.

Watchkeeper will replace the Hermes 450 UAS, a Thales tactical UAV service provided as an urgent operational requirement, which has already flown more than 65,000 hours in Afghanistan and Iraq, providing life-saving intelligence and reconnaissance. SP

US Army awards contract for upgraded RQ-7B Shadow drones

PHOTOGRAPHS: Thales, US Army

The Army Program Manager for Unmanned Aircraft Systems has awarded AAI a $358 million contract to furnish a fleet of 45 upgraded RQ-7B Shadow tactical unmanned aircraft systems that will be used by the Army and Marine Corps.

Under the contract, AAI will enhance the ground and support systems for the RQ-7B Shadow and will deliver 43 systems to the Army and two systems to the Marine Corps in late 2013.

Among the planned upgrades to the RQ-7B Shadow are extending its endurance from six to nine hours, extending its wing to carry external stores and payloads, providing an electronic fuel injection engine and integrating a tactical common data link for digital dissemination and encryption.

The upgrade also includes use of universal ground control stations and data terminals. SP

Falco EVO completes maiden flight

Selex Galileo has successfully performed the maiden flight of its latest member of the market leader Falco tactical unmanned aerial system (TUAS) family, dubbed Falco EVO.

The Falco EVO has a payload capacity of up to 100 kg and an extended endurance of up 18 hours. It has flown exceptionally well in its maiden flight and has experienced a smooth touch down after 40 minutes in the sky.

The Falco EVO is an upsize version of the Selex Galileo's successful Falco UAS, which is now in service with 4 international customers and has delivered quite effective missions and proven extremely reliable in operation.

"Because the Falco EVO adopts the airframe, avionics and engine configuration from the existing Falco, the new UAS is already showing itself to be a remarkably robust platform," said Fabrizio Boggiani, Selex Galileo's marketing lead for the Falco UAS, adding: "We're looking forward to it being embraced by the market just as the Falco has been so far."

The Falco EVO can integrate a vast range of payloads that are already in use on other Falco aircraft. It is also fully compatible and interoperable with the current Falco-family ground control segment, further boosting a customer's ability to perform persistent surveillance. SP

Insitu ScanEagle set for Australian Navy

Insitu Pacific will install and run several of its ScanEagle unmanned aircraft vehicle systems on Australian Navy frigates starting in September. Insitu Pacific, the Australian affiliate of Boeing's Insitu Inc., said the naval installations expand a similar contract with the army for land-launched ScanEagle systems.

"These trials will enable the navy to examine the issues affecting an embarked UAS capability and to determine the installation requirements on board our vessels," the navy's development project manager Lt. Cmdr. Bob Ferry said.

"The navy's endorsed aviation vision, NA2020, is to have a UAS-dedicated unit by 2020 and these UAS trials are an important step towards achieving that vision."

"The Australian Army has successfully operated ScanEagle for more than 45,000 hours in support of land operations in Iraq and Afghanistan," Insitu Pacific Managing Director Andrew Duggan said. SP

Tekever's UAS stars in BBC show

The AR4 Light Ray, Tekever's UAS launched into the global market at the Farnborough Air Show 2012, was presented by the BBC journalist Anita Rani, in a prime time live broadcast from Farnborough, as "the example in Farnborough of the growing importance of unmanned aerial systems".

BBC's "The One Show", featured a segment of the video footage produced by the AR4 while in flight, showing Farnborough's Airport, the exhibition area and the many aircraft in the airfield.

The attention given by the British media to the Portuguese UAS is coherent with the enormous interest the aerospace industry and aeronautics professionals have expressed in regards to this first aeronautical product from the Tekever Group, which surprises for its effectiveness, flexibility and total ownership cost.

Farnborough 2012 sets Portugal's entry into the world market of autonomous aerial systems, for the four public flights performed by the AR4 Light Ray, from July 9 to 13, have attained high-performance levels, in spite of the intense rain and 25-knot wind weather conditions.

Being the first fully autonomous UAS to perform outdoor flight demonstrations at Farnborough, the AR4 Light Ray has gained the attention of clients, partners, government officials and media throughout the entire week.

Ricardo Mendes, Tekever Group's Administrator, confirms in the meantime the advanced stage of negotiations with different organisations in several continents, with the Tekever Group being able to initiate deliveries from the end of the year. SP

Cassidian accomplishes test flights with Barracuda unmanned technology test bed

Cassidian has successfully carried out a series of test flights with its Barracuda UAS (unmanned aerial system) technology demonstrator at Goose Bay military airfield in Canada.

This year, the unmanned aerial test bed completed five test flights in June and July 2012 in the context of the research and development programme "Agile UAV in a network centric environment" .

These involved the Barracuda technology demonstrator flying in combination with another unmanned aerial vehicle, which was simulated by a converted Learjet. The two aircraft flew missions where they each had different role profiles that were autonomously coordinated and synchronised with one another.

"With these latest successful flights by our UAS technology demonstrator, we have made another great leap forward in our developments for the world's most promising future markets in our industry," said Cassidian CEO Stefan Zoller after the flying test bed had landed safely at Goose Bay Canadian air force base. SP

US Navy carriers prepare for X-47B arrival next year

The Navy is one year away from landing its first unmanned jet aircraft aboard a carrier after completing the most recent round of surrogate tests aboard USS Harry S. Truman (CVN 75).

In early July, members from the unmanned combat air system demonstration (UCAS-D) carrier integration team engaged in extensive software testing aboard Truman to validate the concept of autonomous UAV operations around an aircraft carrier and prepare for the X-47B unmanned aircraft's arrival on a carrier next year.

"Demonstrating our concept of operations and making sure the Carrier Segment is performing as advertised is a huge milestone for the programme," said Capt. Jaime Engdahl, Navy UCAS Programme Manager. "The crew, equipment, and programme team performed exceptionally well during all planned test events and the Harry S. Truman is ready for our next phase of X-47B testing." SP

PHOTOGRAPHS: Boeing, Cassidian, Northrop Grumman

CIA, FBI add to Olympics security

US intelligence agencies – the CIA (Central Intelligence Agency) and the FBI (Federal Bureau of Investigation), have established a 'threat integration centre' in association with security agencies of the UK to make the London 2012 Olympics 'safe and secure.

This was announced by the National Counterterrorism Centre. "For the past two years, NCTC, in coordination with our intelligence community and British partners, has been leading the US effort to make sure that we are collecting and analysing and sharing all potential threat information relating to the Olympics and that we are in a position to respond quickly to prevent any possible plotting tied to the games," Matthew Olsen, Director of the NCTC has said.

"In particular, NCTC, with our intelligence community partners, established a threat integration centre, designed to operate around the clock providing real-time situational awareness and threat analysis," Olsen said.

The threat analysis centre is staffed by officials from the CIA, NCTC and the FBI as well as other US intelligence services to review threat information and quickly share it with British Security officials from Scotland Yard, MI-5 and MI-6.

According to officials, the threat integration centre, which is housed at the US Embassy in London is fully operational. " We are, as part of our routine and ongoing and longstanding coordination with our close ally, we'll have some liaison personnel that will be in country during the Olympic Games. They won't directly be providing security. That's what the UK authorities will be doing. But they'll be providing some routine liaison capability," Patrick Ventrell said at a US State Department briefing. SP

PHOTOGRAPHS: London 2012, Indian Army

Border area management along with infrastructure development

Addressing the Members of Consultative Committee attached to the Home Ministry, P. Chidambaram, the Union Home Minister, informed that border area management is possible only when economic and infrastructural development takes place in the border areas. He mentioned that the guarding of borders is a very complex task as it depends upon several factors.

Referring to the Border Area Development Programme (BADP), the Minister informed that ₹990 crore has been allocated for BADP for the year 2012-13 which is ₹90 crore more than the last year's allocation. The BADP covers 358 blocks of 96 border districts of 17 states located along the international land border. The programme is a 100 per cent centrally-sponsored scheme. Funds are provided to the states as a non-lapsable special central assistance for execution of projects relating to infrastructure, livelihood, education, health, agriculture and allied sector. Funds are released to the states in two installments i.e. first installment of 90 per cent and the second of 10 per cent amount of the allocation.

Chidambaram informed the Committee that in pursuance of the Group of Ministers' recommendation to reduce inter-border out post (BOP) distance to 3.5 km, the Government has approved construction of additional 509 BOPs—383 on Indo Bangladesh Border and 126 on Indo-Pakistan border. The Home Minister said that increased number of BOPs will help in effective monitoring of the border. He said that the work is targeted to be completed by 2013-14. He also mentioned that the BOPs are now provided better communication and infrastructural facilities.

The Minister informed that the Government was exploring use of modern technology in border management by proper fencing, flood lights and other latest technologies available in this field. He further stated that the experiences of advanced countries are also being studied for better management of borders. The Minister said that the constraint of resources could be a problem for border management earlier but now adequate resources are being provided and low-cost technology and better management is being explored for better management.

The Home Minister informed that fencing of the borders had helped a lot in checking the infiltration but added that fencing repairs were needed as in several places it is damaged by the sand dunes in Rajasthan sector and snow in J&K. SP

Coast Guard station Karaikal commissioned

Coast Guard Station Karaikal, the fifth CG station on the Puducherry-Tamil Nadu coastline, was commissioned by Vice Admiral M.P. Muralidharan, Director General of Indian Coast Guard at Karaikal recently. Inspector General S.P. Sharma, the Commander Coast Guard Region (East), and senior officials from the Puducherry Administration witnessed the commissioning ceremony.

The station is part of ongoing efforts by the Coast Guard to strengthen coastal security along the Indian coastline. The station at Karaikal will help augment patrolling along the east coast and prevent illicit activities such as infiltration, smuggling and illegal fishing.

Vice Admiral M.P. Muralidharan said the need for maintaining continuous vigil along the nation's coastal and maritime borders was urgent and called for continued synergy and coordination between various agencies involved in coastal and maritime security. He further stated that the Coast Guard had initiated several far-reaching projects to augment force levels as also manpower to meet existing and future maritime challenges.

Coast Guard Station Karaikal will function under the administrative and operational control of the Commander Coast Guard Region (East) through the Commander Coast Guard District Headquarter-5 located at Chennai. Commandant P.R. Lochen has been appointed as the Commanding Officer of the station. SP

Heads of Asian Coast Guard agencies to meet in Delhi

The 8th Heads of Asian Coast Guard Agencies Meeting (HACGAM) will be held in October 2012 in New Delhi. This is the first time the HACGAM meeting is being held in the South Asian region.

HACGAM is an apex forum facilitating congregation of all the major Coast Guard Agencies of Asian region. This initiative was developed initially in 2004 to discuss cooperation among the member organisations to combat piracy in the region. However, the scope of discussions has been expanded to include law enforcement, maritime security, disaster prevention and relief and capacity building. Presently, there are more than 20 member organisations from 17 countries that are part of the initiative.

The process of cooperation amongst the Asian Coast Guard Agencies was initiated by Japan consequent to the capture of the pirated vessel M.V. Alondra Rainbow by the Indian Navy and Coast Guard in November 1999. Subsequently, a series of regional senior experts meetings of coast guard agencies of Asia were held on combating piracy and armed robbery against ships. Accordingly, the first HACGAM was held in Tokyo, Japan in 2004. At present, the initiative consists of 17 countries and one region. These include Bangladesh, Brunei, Cambodia, China, India, Indonesia, Japan, South Korea, Laos, Malaysia, Myanmar, Pakistan, Philippines, Singapore, Sri Lanka, Thailand, Vietnam and Hong Kong. Further, it was also agreed that the scope of discussions may not be restricted only to piracy issues, but may also include all Coast Guard related issues. SP

TSA's pre-screening airport initiative crosses two million travellers

The Transportation Security Administration (TSA) announced the agency has screened over two million travellers through the TSA Pre✓ pre-screening initiative. TSA Pre✓ is currently available for US citizens travelling in the United States who are members of US Customs and Border Protection (CBP) trusted traveller programmes and select frequent travellers of participating airlines at many of the busiest airports across the country.

TSA Pre✓ allows passengers to volunteer information about themselves prior to travelling domestically to expedite their checkpoint screening at participating airports. The initiative is part of the agency's broader effort to implement risk-based concepts that enhance aviation security by focusing more on travellers the agency knows the least about and allowing known travellers the opportunity to expedite their travel through security checkpoints.

"As TSA Pre✓ continues to expand to additional airports and passenger populations, we are seeing exponential growth in participation," said TSA Administrator John S. Pistole. "We are on track to bring TSA Pre✓ to 35 airports by the end of 2012 and even more next year."

TSA Pre✓ is available at 19 airports and operational with five airlines, including Alaska Airlines, American Airlines, Delta Air Lines, United Airlines and US Airways. TSA will continue to add more airports and airlines to the highly acclaimed programme.

Eligible passengers include US citizens of frequent traveller programmes on participating airlines and current members of CBP Trusted Traveller programmes, including Global Entry, SENTRI and NEXUS. Individuals interested in participating can apply by visiting www.globalentry.gov.

As part of TSA's broader risk-based security effort, TSA is in the process of testing and implementing several new screening concepts, which include an expedited screening programme for flight crews, expanded behaviour detection techniques, modified screening procedures for travellers 12 and younger and 75 and older, and expanding TSA Pre✓ screening benefits to US military active duty members. SP

PHOTOGRAPHS: PIB, INVC Group

Reliance forms aerospace and security solutions companies

Reliance Industries Limited (RIL), India's top ranking company's quest for organic and non-organic growth continues in different sectors. The latest is its entry into the booming aerospace and defence industry, the plans of which are slowly unfolding.

Early July 2012, RIL applied for an industrial licence with the Department of Industrial Policy and Promotion (DIPP) to 'design, develop, manufacture, equipment and components, including airframe, engine, radars, avionics and accessories for military and civilian aircraft, helicopters, unmanned airborne vehicles and aerostats." RIL has created two new entities: Reliance Aerospace Technologies Pvt Ltd and Reliance Security Solutions Ltd.

Reliance Industries sees enormous potential in the defence and aerospace sector as the total offset opportunity is expected to surpass $12 billion over the next 10 years, driven by defence procurement plans. India's defence budget in 2012-13 was over $42 billion. India is the world's largest arms importer with plans to spend $100 billion on weapons over the next decade.

RAL to invest $1 billion

The new company is expected to invest close to $1 billion over the next few years in aerospace sector. RIL last year had roped in Dr Vivek Lall who was heading Boeing's Defense, Space and Security unit in India, to give shape to RIL's entry into aerospace and defence.

Dr Lall over the past few months has been busy cobbling up the venture, finalising the business plans and going on a talent-hiring spree both in India and overseas. Sources said the new aerospace unit will create about 1,500 jobs forthwith.

The company will also undertake research and produce new aerospace technologies, materials, components and equipment and test and carry out their certification.

Dr Vivek Lall heads Reliance Aerospace Technologies & Reliance Security Solutions

RIL has signed an MoU with Dassault Aviation. The French defence company's Rafale has been been selected for the IAF's MMRCA programme.

PHOTOGRAPH: Dassault Aviation

The company will partner with global majors to bring in sophisticated civil and military aerospace technologies into the country. Earlier this year, RIL had entered into a memorandum of understanding (MoU) with Dassault Aviation for 'pursuing strategic opportunities for collaboration in the area of complex manufacturing and support in India'. Dassault manufactures Rafale combat jets (which won the deal to provide Indian Air Force 126 Rafale fighter jets) and Falcon business jets.

According to media speculation, the hub could be in Nashik, Maharashtra. Creating a manufacturing hub is at the heart of Mukesh Ambani's ambition in the aerospace business, an unnamed Mumbai consultant has been quoted in the media. "He seems to be focusing on aircraft parts in the short term and on developing new technologies in the long term," the consultant said.

The defence market in India is largely dominated by offset contracts. The government has an offset clause in defence procurement contracts with foreign firms, which requires for the foreign company that gets a weapons deal over ₹300 crore has to plough back at least 30 per cent of the value into India.

Industry experts feel the RIL may emerge as the biggest Indian player in various defence projects like combat aircraft, military systems and homeland security in near future. Mukesh Ambani's new ventures of defence, aerospace solutions and homeland security may overtake his existing businesses in years to come.

The rapid rise of Reliance Industries Limited as India's most valuable company by market value is not surprising at all. From a largely petrochemicals giant, RIL has forayed into several sectors and now is ranked 99th in Fortune Global 500 companies. And now with RIL entering the defence and aerospace sector, the sky is the limit for Mukesh Ambani's growth. SP

DRDO on a sanitation mission

The Defence Research and Development Organisation (DRDO) has entered into a memorandum of understanding (MoU) with the Ministry of Drinking Water and Sanitation to set up bio-digester toilets across gram panchayats in the country. The Ministry of Drinking Water and Sanitation has earmarked ₹400 crore for this programme which will be undertaken in phases, wherein each phase would involve an investment of ₹150 crore. The bio-toilets originally developed by the DRDO for soldiers deployed in high-altitude areas, can convert human waste into usable water and gases in an eco-friendly manner. While the gas can be used for cooking purposes, the water can be used for irrigation purposes.

Speaking at a function organised at New Delhi, Jayram Ramesh, Minister of Rural Development, Drinking Water and Sanitation, said, "With just the cost of a single Rafael fighter, 1,000 gram panchayats can be rid of open defecation. The Ministry of Defence (MoD) has been allocated ₹1,93,000 lakh crore this fiscal, while the rural development budget is ₹99,000 crore." The Minister for Rural Development however also said that there can be no compromise on spending for defence of the country, but the technologies developed by DRDO should be beneficial to the society. He hoped that the collaboration between the two Ministries will go a long way and as India is a poor country, whatever we spend, we need to spend wisely.

Defence Minister A.K. Antony said that DRDO would undoubtedly provide the technology, but it was up to the Rural Development Ministry to take it further and ensure requisite collaboration from state governments, other local bodies and NGOs. "It is now only a pilot project and can be a successful national programme only when you ensure that all state bodies are onboard. Money provided in the budget for defence is for national security," he said. "Bio-digester which is a spin-off from the DRDO technology is now being intelligently implemented

for societal benefit. This technology is not just eco-friendly but is also cost effective and DRDO will try to further reduce the cost."

During the event, Vilasini Ramachandran, Secretary, Ministry of Drinking Water and Sanitation, and Dr W. Selvamurthy, Offg Secretary, Department of Defence Research and Development, exchanged vows to help gram panchayats do away with human wastes and open defecation. And to start with, under Phase I, ₹150 crore has been sanctioned to provide 1,00,000 bio-digester toilets in 300 gram panchayats of the country. The bio-toilets have already been implemented by DRDO in Siachen and Jammu & Kashmir. The Indian Railways too has already entered into an agreement with DRDO to install bio-toilets in its coaches. Likewise, DRDO has already installed six twin bio-digesters in Jamjhari-Dhamra, close to the Wheeler Island off the coast of Odisha in June this year. SP

Cisco and Thales target global defence and security market

Cisco and Thales have announced a new partnership to address the global defence and security market. The new agreement will combine Thales' global industry expertise with Cisco networking and communications innovations, expand the collaboration globally and accelerate joint go-to-market activities and solution development. The expanded collaboration is built on a long-standing relationship between the two companies in the European market.

The Cisco-Thales collaboration will encompass a number of strategic initiatives, including: Development of Thales solutions based on a range of Cisco technologies; jointly addressing key defence and security market opportunities such as mobile routing or broadband evolution of radio networks; Joint go-to-market activities, closely coordinated at both global and country levels. SP

Sagem and Thales create Optronics JV Optrolead

Sagem (Safran group) and Thales have announced the creation of Optrolead, an equally-owned joint venture for optronics. The official signature creating the new company follows the original memorandum of understanding signed on December 20, 2011.

Optrolead will be responsible for the sale of future optronic systems, especially for defence applications.

The new company is staking out a position in several major programmes, including the optronic payload for the planned upgrade of the French navy's Atlantique 2 (ATL2) maritime patrol aircraft, the imaging system for the future French-British MALE (medium-altitude, long-endurance) drone, modular optronic systems for army combat vehicles, and optronics for tomorrow's helicopters.

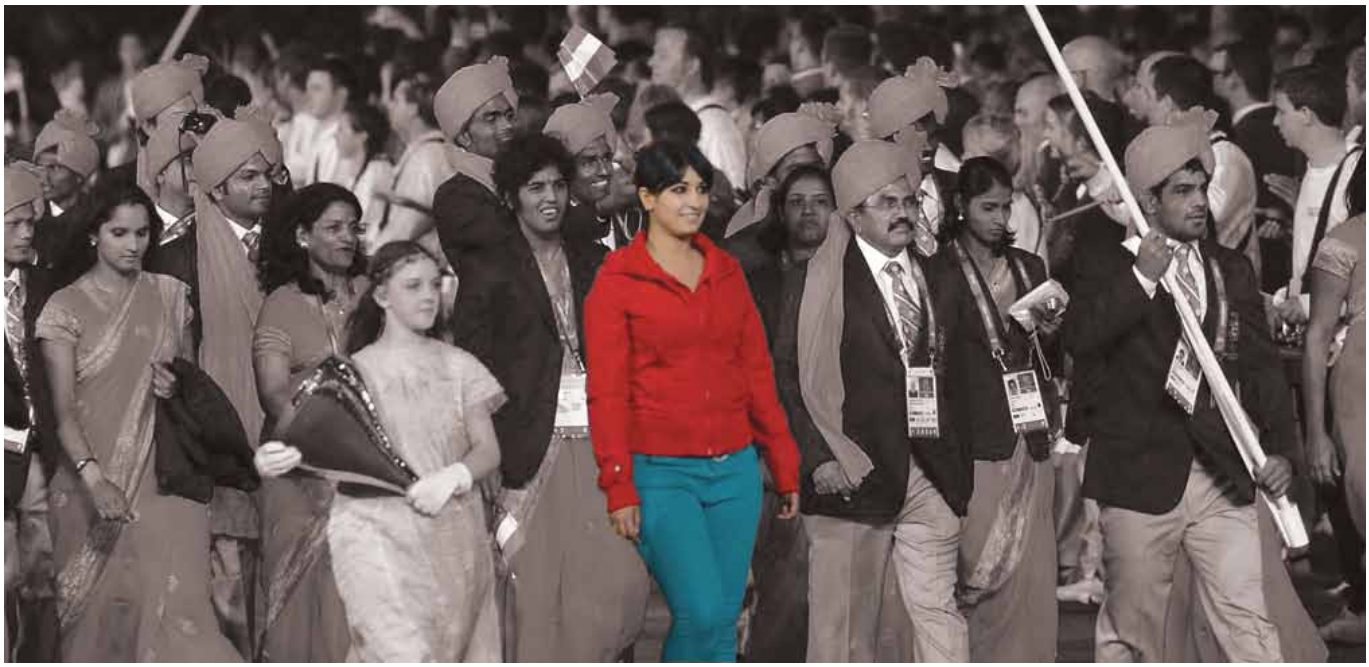
Emmanuel de Roquefeuil of Thales was named Chairman of the new company, with Albert Levionnois of Sagem as Chief Executive Officer. SP

HAL seeks partnership with global vendors

Hindustan Aeronautics Limited (HAL) organised a Global Business Partners' Meet of its vendors recently to apprise them of recent changes within HAL to speed up the process of procurement and make suppliers aware of various procedures, statutory requirements and adherence to Central Vigilance Commission (CVC) guidelines. Eighty-three vendors, 26 foreign and 57 from India, attended the day-long session. R.K. Tyagi, Chairman of HAL, stressed on the importance of integrity pact and introduction of e-procurement initiated by HAL. He called upon the vendors to play a wider role as HAL's partner in progress. "We need to think beyond our relationship as purchaser and supplier."

'Integrity Pact' is a tool to curtail corruption and promote fair practices in each and every large value transaction. Pre-contract 'Integrity Pact' is a binding agreement between HAL and bidders for a specific contract in which the parties promise that they will not resort to any corrupt practices in any stage of the contract. SP

PHOTOGRAPH: PIB



Indian parade at Olympics marred by gatecrasher

A woman who gatecrashed India's parade at the Olympic opening ceremony was a member of the cast from the extravaganza but should not have been with the athletes, London 2012 chief Sebastian Coe has said. Indian officials were incensed by her unauthorised presence.

"She made it into the opening ceremony. She obviously should not have been there. I can now confirm that she was a cast member. She was slightly overexcited."

"How did they allow her in? It was a security lapse. Nobody knows who she was. She looks like an Indian," IOA Vice President Tarlochan Singh said. "She walked along in the front line. Her dress was totally different. She was not wearing an identity card. This should have been noticed at an earlier stage, but nobody bothered." SP

Rome alone: 11-year-old evades airport security

Liam Corcoran Fort, a 11-year-old boy recently flew from Manchester to Rome without a passport or boarding pass. He later said it was easier than doing his homework.

According to media reports, the boy went to Terminal 1 of Manchester Airport, hopping on to an airport bus after finding a ticket on the floor. He got past the body scanner and metal detector without any problem. The surprising part was that he was able to get through security gates onto Jet2.com flight without being asked by anyone to show his boarding card.

"There were lots of people but I didn't speak to anyone. I followed where people were going and then at the barrier I went underneath it. "I didn't have anything on me and and no-one asked me for anything. I just carried on walking."

Cabin crew failed to check if he had a boarding pass. Neither did they do a mandatory headcount before take-off. It was only when the flight was 30,000 feet above Europe that the cabin crew was alerted by passengers about the boy.

After touching down in Rome, Liam was quickly packed on to a return flight to Manchester, but not before the flight was delayed 80 minutes by Italian border police who wanted to know how an 11-year-old with no documentation and no guardian managed to fly 2,400 km across Europe. SP

Bansky artwork stolen from Kate Moss' home

Precious artwork including a £80,000 Banksy portrait was stolen from Kate Moss' home in May 2010. Thieves raided the model's £7 million home in Maida Vale, North London, when Kate, her partner Jamie Hince and mother Linda, were reported to be asleep.

Art works of guerilla artist Banksy have been under attack by thieves many a times. In 2007, 10 prints worth about £10,000 were stolen from a branch of Art Republic in Brighton. Likewise, Banksy prints over £16,000 was snatched by a man and woman from an art gallery in New Compton Street, Central London in May 2010. Banksy has been in news for his recent stencils, "Hackney Welcomes the Olympics" and "Going for Mould", both related to London Olympics. SP

PHOTOGRAPHS: London 2012, The Bulls Press

TREASURE
HOUSE

visit: www.spsmilitaryyearbook.com

Web World of SP's

www.spsmilitaryyearbook.com
www.spsaviation.net
www.spslandforces.net
www.spsnavalforces.net
www.spsairbuz.net
www.spsmai.com

Since 1964

SP GUIDE PUBLICATIONS