LIGHT BEYOND THE TUNNEL : A VIEWPOINT PAGE 7









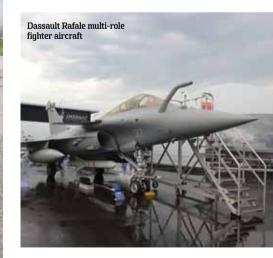
Vol: 3 Issue 13 🛛 July 1-15 • 2013

INDIAN AIR FORCE

ONLY FORTNIGHTLY ON **MILITARY AEROSPACE INTERNAL SECURITY**



India's first C-17 lands at the Hindon Air Base PAGE 16



Show report: Paris Air Show 2013 PACE 17

	INTERNAL SEG	CURITY	PLUS	
15 16	News	20	Corporate News	21
19				

www.spsmai.com

2 0 2 0 2 0 1 1 10.00 PAGE 9

DELENG/2010/34651

FROM THE EDITOR'S DESK SP'S EXCLUSIVES **SECURITY BREACHES**

MILITARY

Interview / Textron Interview

3

4

22

Updates

AEROSPACE 8

14

- Interview 11 Developments
 - Unmanned

SPOTLICHT

DPSUs need to be globally competitive: Antony

he Defence Minister A.K. Antony has said that the defence public sector undertakings (DPSUs) need to compete not just with private organisations but also with global companies, to get orders.

Addressing a meeting of the Consultative Committee attached to his Ministry, Antony said where we need to be globally competitive, we need to take a long-term view about the current levels of productivity and how the present production levels can be enhanced.

"If the DPSUs want to be truly competitive, they must enhance productivity, reduce costs, increase product quality and align production processes to meet the increasing demands of the defence forces.... The emphasis must be on working harder and more importantly, in the right direction," he said.



Referring to the Defence Procurement Procedure (DPP), which was amended recently, Antony said it has undergone a sea change and it has been revised with a view to bring about further improvements in the procurement process and to strengthen defence manufacturing infrastructure within the country. Hoping that the recent amendments in the DPP would bring in greater participation of Indian industries, Antony said, the only way forward in the current environment is to meet

the increasing defence requirements through indigenous products. He said the Ministry of Defence (MoD) is gradually reducing the quantum of orders with the DPSUs through nomination.

The MoD places great emphasis on transparency and probity not only in procurement but in every aspect of the working of organisations under the MoD. The DPSUs are no exception, he said.

Taking part in the discussion, Members of Parliament (MPs) wanted the DPSUs to be more competitive. They also sought greater participation of the private sector in meeting the requirements of the Services. One member suggested that the DPSUs should try to get third party certification for modernising their production facilities. The MPs expressed their appreciation for the outstanding service rendered by the armed forces in the floodravaged Uttarakhand.



Cover:

The Indian Air Force launched 'Operation Rahat' while the Indian Army named 'Operation Surya Hope' to massive rescue and relief operations in the hill states of Uttarakhand and Himachal Pradesh where thousands of pilgrims were stranded in difficult terrain and in hostile weather conditions.

Cover images: IAF, Dassault Aviation

PUBLISHER AND EDITOR-IN-CHIEF Jayant Baranwal

> ASSISTANT GROUP EDITOR R. Chandrakanth

EDITORIAL ADVISER Air Marshal (Retd) Anil Chopra

SR TECHNICAL GROUP EDITORS Air Marshal (Retd) B.K. Pandey 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

ASSISTANT EDITOR Sucheta Das Mohapatra

CHAIRMAN & MANAGING DIRECTOR Jayant Baranwal

PLANNING & BUSINESS DEVELOPMENT Executive Vice President: Rohit Goel

> ADMIN & COORDINATION Bharti Sharma

DESIGN & LAYOUT

Creative 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

© SP Guide Publications, 2013

SUBSCRIPTION/ CIRCULATION

Annual Inland: ₹1,320 • Foreign: US\$ 325 E-mail: subscribe@spguidepublications.com subscribe@spsmai.com

LETTERS TO THE EDITOR editor@spsmai.com

FOR ADVERTISING DETAILS, CONTACT: advertise@spsmai.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: info@spguidepublications.com

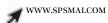
REPRESENTATIVE OFFICE

204, Jal Vayu Vihar Kalyan Nagar Bengaluru 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. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, photocopying, recording, electronic, or otherwise without prior written permission of the Publishers.



SP GUIDE PUBLICATIONS www.spguidepublications.com





Commendable rescue and relief operations by the Indian armed forces

t is a national calamity. The massive floods, dubbed as the 'Himalayan tsunami' in Uttarakhand and Himachal Pradesh, have claimed over 900 lives, according to the Union Home Minister Sushilkumar Shinde, while over a lakh people have so far been evacuated. At the forefront of the rescue and relief operations are the personnel from the Indian armed forces, helping the state governments in what is termed as one of the largest rescue and relief operations in recent history. Making the rescue and relief operations really difficult have been several factors including the hostile terrain and inclement weather.

Despite these hindrances, the personnel of the armed forces, along with the government agencies and non-governmental organisations, are tirelessly working almost round the clock to evacuate thousands of pilgrims stranded in the mountainous region.

The Indian Air Force (IAF) has pressed into service several helicopters and other aircraft, including the latest induction the C-130J for reconnaissance purpose. Called 'Operation Rahat' the IAF has been able to evacuate thousands of people and also provide relief material in the region. The risky operation has taken the toll of five IAF personnel along with men belonging to paramiliatry forces when their helicopter crashed. Undeterred by this tragedy, the IAF personnel have responded to the call of duty admirably. The IAF has deployed 37 helicopters, while the Army has pressed into service 13 helicopters, all on continuous sorties to rescue people. The Army has deployed more than 8,000 troops, the Border Roads Organisation over 3,000 personnel and so on. We salute all these personnel who have selflessly rendered humanitarian work on a warfooting.

This brings to the fore the question of disaster management. The need of the hour is that the governments, both at the Centre and states, have to come up with disaster management preparedness programmes. The Uttarakhand disaster has exposed glaring inadequacies in the way we have been handling calamities.

It is over seven years since the Disaster Management Act, 2005 (NDMA) was passed, but there is no National Plan for Disaster Management yet in place. Do we have to wait for the governments, irrespective of the political denomination, to wake up only after thousands of lives have been lost? We hope not. In this issue, we have covered extensively the various relief operations, besides a show report from the Paris Air Show which saw the dominance of Russian aircraft, in the absence of American combat aircraft strapped by the budgetary considerations.

In an interview, Air Marshal D.C. Kumaria, the outgoing Vice Chief of the Air Staff, IAF, has talked about IAF's move towards acquiring cutting-edge technologies and also how the IAF had the lowest rate of accidents last year. In yet another interview, Lt General Narendra Singh, Deputy Chief of Armed Forces (P&S), Indian Army, has updated on the status of the different acquisition programmes of the Indian Army.

In his fortnightly column, Lt General (Retd) P.C. Katoch has suggested that the government take a call and bifurcate what should be developed by the private sector and what should be by the DRDO-PSUs in order to give the required impetus to focused defence production.

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

Happy reading!



Publisher & Editor-in-Chief

SP's EXCLUSIVES By SP's Special Correspondent

Mi-17 proves itself in Uttarakhand ops

The June 26 crash of a brand new Indian Air Force (IAF) Mi-17 V5 helicopter during a rescue mission in Uttarakhand cast a pall of gloom over the force, especially the 157 Helicopter Unit in Barrackpore under the Eastern Air Command. The tragedy was a deep one, with the loss of 20 souls, including five air warriors. But the tragic accident aside (and a court of inquiry is probing the causes of the accident), the performance of the Mi-17 in both variants, the 1V and V5 has been exemplary in rescue and relief operations in flood-affected state. The workhorse helicopter has proved to



be rugged and dependably in inclement weather situations that have suddenly caught pilots unaware. The navigation system on the new V5s have also proved to be extremely useful. The chopper has delivered high availability rates and generated an impressive number of sorties in the small flying windows available to pilots operating from Dehradun, Gauchar, Guptkashi, Uttarkashi, Gaurikund and other landing grounds. With an attentive crack maintenance team on ground, the over 20 Mi-17s deployed in the state for airlifting operations have established their reputation as no-nonsense machines for humanitarian operations. The IAF is contemplating more Mi-17 V5s, as the numbers presently in service are still not quite adequate.



140 hours till LCA achieves IOC-2

By September, the LCA Tejas will achieve initial operation clearance 2 (IOC-2) and begin moving towards production, according to DRDO Chief Avinash Chander. Revealing that approximately 140 hours of test-flying remained to sort out the residual test-points, the Aeronautical Development Agency (ADA) has been asked to stick to a September deadline for IOC-2 and speedily move towards final operational clearance 14 months later.

Starting October this year, the Tejas platforms will be put through a literally endless

routine of weather and weapons trials across the country. The Tejas programme was also recently given a non-negotiable ultimatum by Defence Minister A.K. Antony calling for induction into the IAF by next year. As a result, the programme has willy-nilly become the highest priority of the DRDO, and additional resources may be allocated to the programme in terms of manpower, to ensure that it does not stray from its path for even a moment. It has also been recently reported that in an effort to speed up delays in the production, a series of steps to augment production of aircraft will be undertaken from this year itself, instead of next year as was the original plan.

HAL, Sagem to cooperate

Bolstering existing cooperation with the Safran group, which includes several areas, the Hindustan Aeronautics Limited (HAL) has entered into contract with Safran group company Sagem to set up manufacturing and depot level maintenance facilities for automatic flight control system (AFCS) line replaceable units (LRUs) including sensors at HAL, Hyderabad towards in-house manufacture and depot level maintenance of AFCS and LRUs for the ALH Dhruv and HJT-36 Sitara intermediate jet trainer programmes.

"The possibility of fitting AFCS LRUs on LCH and LUH platforms is being explored. The facilities at Hyderabad are expected to be established in two years to cater to the Indian customers," said HAL in a statement. Other areas of cooperation between HAL and Safran include the Turbomeca Shakti engine for the Dhruv and light utility helicopter, technology in the Mirage 2000 upgrade programme, and future cooperation on the Rafale programme.



SP's EXCLUSIVES By SP's Special Correspondent

Indian Army announces mounted gun competition

Collowing a generic request for information (RFI) issued in August last year, the Indian Army has announced a fresh and more specific request for information to meet the Army's requirement of 814 mounted gun systems—a 155mm/52cal artillery gun mounted on a wheeled vehicle. The procurement is likely to be worth about ₹9,000 crore.

The Army has stipulated that the gun needs to be supplied by an Indian vendor. The RFI comes as only the latest in a retinue of competitions in various stages to give the Army's artillery regiments their first guns in a quarter century. The Army has active



processes on to acquire towed guns, ultralight howitzers (the BAE Systems M777) and tracked guns. Tata Strategic Electronics Division (Tata SED) last year unveiled its first mounted gun system on a wheeled Tata truck. Other Indian competitors are Mahindra Defence, L&T and Bharat Forge.

Uttarakhand flood operations put spotlight on heavy-lift chopper requirement

he Indian Air Force (IAF) currently has 45 aircraft, both helicopter and fixedwing, committed to flood relief operations in monsoon-ravaged Uttarakhand. While its fleet has acquitted itself remarkably well so far, there are pressures that the IAF cannot ignore. While the force has over 20 workhorse Mi-17 choppers deployed, it has only one giant Mi-26 heavy-lift helicopter operating in the flood-torn state. As it happens, the IAF doesn't have a choice. All indications suggest that the IAF has only three Mi-26s left in its fleet, all based out of Chandigarh, and only one of them is serviceable at any given time. The Uttarakhand operations have emphasised the need for heavy-lift helicopters for humanitarian and disaster relief operations, especially in the difficult Himalayan terrain, where the effects of flashfloods and cloudburst frequently take on morbid proportions.

The Mi-26 is a formidable force multiplier, and has served the IAF well, however it is entirely unsuited for mountain operations, especially where landing grounds are small and frequently marred by superstructures and obstacles like rocks and terrain outcroppings. It is therefore with a sense of relief that the IAF will note that its selection of the Boeing Defense CH-47 Chinook last year is in its final stages of contract negotiation, with the deal likely to be signed before the end of this year. The deal for 15 Chinooks will meet a welldefined requirement by the IAF, with the Uttarakhand operations only stressing them further. The Chinook's performance in recent regional disasters was one of the compelling factors in the selection, including the floods and earthquake in Pakistan, at which time Chinooks were deployed from Afghanistan for disaster relief and humanitarian rescue and evacuation. The Chinooks for India will be built at Boeing rotorcraft facility in Philadelphia. 📴



Dhruv shines in the largest humanitarian rescue

roving its mettle as a supremely flexible and agile platform for humanitarian operations, the indigenous Dhruv helicopter was deployed with a remarkable degree of confidence by the Army Aviation Corps and the Indian Air Force in Uttarakhand. The helicopters, which first saw themselves deployed for evacuation operations in Haryana following the rising level of the Yamuna, have acquitted themselves extremely well in the remotest parts of Uttarakhand. Apart from Dhruv copters already deployed with units, the IAF pitched in with platforms



from the Sarang display team too, adding another dimension to the requirement. Highly agile and already proven in highaltitude operations-making it one of the most versatile copters in its class in the world-the Dhruv played a major role in rapid evacuations from Harsil, Uttarkashi, Gaurikund and other zones. The Dhruvs were also used to insert specialised mountain rescue teams and commandos into areas, especially the forbidding Junglechatti zone and the Hemkund axis, where landing was impossible. An Army Dhruv pilot said, "There was no doubt about the Dhruv's flying attributes, but it has proven itself once again as a very able platform for humanitarian relief and rescue operations. We will need them in greater numbers in the years to come. It is undoubtedly one of the finest helicopters in the world today, and we are very proud it is indigenous." 📴

SP's EXCLUSIVES By SP's Special Correspondent

INS Trikand stealth frigate commissioned

Whith the commissioning of the INS Trikand stealth frigate, the follow-on Talwar class acquisition is complete. The Trikand was commissioned into the Navy in Kaliningrad, Russia by Vice Admiral R.K. Dhowan, the Vice Chief of the Naval Staff. Trikand's sister ships INS Teg and INS Tarkash entered service last year and are deployed operationally with the Navy's Western Fleet based out of Mumbai. The keel of INS Trikand was laid on June 11, 2008, and the ship was launched on May 25, 2011.

Information supplied by the Navy says, "INS Trikand carries a state-ofthe-art combat suite which includes the supersonic BrahMos missile system, advanced surface-to-air missiles



Shtil, upgraded A190 medium-range gun, electro-optical 30mm close-in weapon system, anti-submarine weapons such as torpedoes and rockets and an advanced electronic warfare system. The weapons and sensors are integrated through a combat management system 'Trebovanie-M', which enables the ship to simultaneously neutralise multiple surface, subsurface and air threats. The ship also incorporates innovative features to reduce radar, magnetic and acoustic signatures, which have earned this class of ships the sobriquet of 'Stealth' frigates. The ship is powered by four gas turbines and is capable of speeds in excess of 30 knots. The ship can carry an integrated Kamov 31 helicopter which is best suited for airborne early warning roles."



HAL & Dassault set aside differences

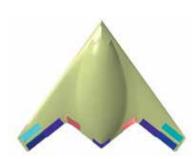
fter a brief period of turbulence over the medium multi-role combat aircraft (MMRCA), in which both the Hindustan Aeonautics Limited (HAL) and Dassault almost publicly expressed grievances over the stipulations in the procurement RFP and the manner in which technology transfer would take place contractually, HAL and Dassault made sure to give out a positive signal at the Paris Air Show recently. The meeting between the top brass of the two companies was a cordial affair, ending with a statement, saying, "On the occasion of the Paris Air Show, HAL top brass met top executives of Dassault Aviation to review the progress in ongoing projects. Both the teams expressed satisfaction on the work already achieved by the integrated teams and renewed their commitment towards successful completion of the various projects."

While both HAL and Dassault already have steady dialogue on all existing cooperation, it was impressed upon both companies to send out a cordial signal in Paris to quell speculation of bad blood between the two corporations, and that is precisely what the photo opportunity was organised for.

Stealth programmes for specialised software

s the Aeronautical Development Agency (ADA) progresses on two key stealth platforms, the advanced medium combat aircraft (AMCA) and unmanned strike air vehicle (USAV), it has

identified a need for specialised new software to help the process. Among the key enabling technologies necessary to move forward substantively on both programmes, will be radar and infrared signatures on both platforms. Top sources reveal that ADA has called for interest from India's IT sector to develop new software for specialised analysis of airframe cross section and heat signagtures. The software will require full-scale simulation capabilities, including scenario modelling in terms of radar threat, target and sensor trajectories, lock-on range, etc. The new software



needs to have its own scripting language so that aeronautical scientists and developers can build in new modules according to development requirements.

> FOR MORE INFORMA-TION, LOG ON TO: **WWW.Spsmai.com**



LT GENERAL (RETD) P.C. KATOCH

and bifurcate what should be developed by the private sector and what should be by DRDO-PSUs in order to give the required impetus to focused defence production

PHOTOGRAPH: US Armv

Government

to take a call

actually needs

Light beyond the tunnel

he Defence Procurement Procedure (DPP) 2013 is a breath of fresh air, opening to the private sector after decades of suffocating confinement in the Defence Research and Development Organisation (DRDO)-PSUs solitary cell. Our defence-industrial complex has degenerated to such an extent that 77 per cent of defence equipment is imported and even assault rifles and carbines have to be imported. It is not that the Army is trying to be fanciful, as some people think.

The Central Reserve Police Force (CRPF) personnel supporting Israeli X-95 carbines are visible in Jammu and Kashmir. The Border Security Force (BSF) has signed a contract with Italy's Beretta for buying 68,000 submachine guns worth over ₹400 crore. Earlier, the CRPF had signed for purchase of 12,000 X-95

Tavor carbines from Israel costing over ₹1 lakh apiece. Force One of the Maharashtra Police, created post-26/11, is armed with Colt M-4 carbines from the United States, Brugger and Thomet submachine guns from Switzerland, MP-5 submachine guns from Germany and AK-47 variants from eastern Europe.

Why the security forces are resorting to imports is simply because the indigenous weapons are substandard and one cannot have a situation where the terrorists and insurgents have better

arms. That we are unable to produce state-of-the-art individual small arms should be a matter of shame. Hopefully, we will make better weaponry by following the privatising route with the Finance Minister hinting likelihood of more FDI in defence sector. Coming back to DPP 2013, it still needs to be refined further to specifically address the requirements of information and communication systems as the procedures are so extended that technology will get outdated by the time these are fielded.

The delays are primarily because of the DRDO-PSUs inadequate capacities and in order to buy time, stonewalling private sector participation. The project to re-energise the Army Strategic Operational Information Dissemination System (ASTROIDS) being developed by the Institute of System Study and Analysis (ISSA) under DRDO since 2006 has perforce been foreclosed now because ISSA could not deliver on the requirement despite delays of so many years.

The projects of the battlefield surveillance system (BSS) and the command information dissemination system (CIDS) being handled by the Bharat Electronics Limited (BEL) are proceeding at excruciating slow pace. The fact is that both the DRDO and PSUs have limited in-house capability and resort to outsourcing to private sector most of the time. Even the Centre for Artificial Intelligence and Robotics (CAIR) under DRDO admits it is not a developer. The current stipulation that security solutions of confidential and above classification can be developed only by CAIR is ridiculous considering CAIR is actually outsourcing development of such security solutions.

The answer lies in making all the Information and Communication Technology (ICT) intensive projects

as 'Make' projects with full private sector participation. Then is the crying need to simplify and shorten the 'Make Procedure'. It would be prudent for MoD to add such provisions as an addendum to DPP 2013 or at least incorporate them in DPP 2014. Going by past experience, future ICT projects like the tactical communication system (TCS), BMS and reenergising ASTROIDS should have 'full' private sector participation. It is equally important for the

It is equally important for the government to overhaul the DRDO, Ordnance Factory Board (OFB) and

PSUs, ushering true accountability, make them more focused and give clear directions of what is required to be done by them laying down strict timelines. A system of roll on development, monitoring, periodic checks, feedback and midcourse corrections needs to be instituted. Government must spell out a Weapons, Equipment and Technology Development (WETD) roadmap on a 10-, 15-, 20-year basis and make R&D allocations accordingly grouping DRDO-PSUs and private sector. This roadmap must include specific plans and measures to be adopted for leapfrogging technology. Government actually needs to take a call and bifurcate what should be developed by the private sector and what should be by DRDO-PSUs in order to give the required impetus to focused defence production.

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



MILITARY Interview



Textron committed to develop close relations with Indian companies

Inderjit Sial who took over as the President and Managing Director of Textron India in November last year, spoke to **SP's M.A.I.** on the company's varied plans and programmes for the Indian armed forces. Excerpts:

SP's M.A.I. (SP's): Could you please outline the history, track record and achievements of Textron India since it was incorporated?

Inderjit Sial (Sial): Global Technology Centre (GTC) of Textron Inc was inaugurated in August 2004 with 71 engineers to undertake design and development work for various Textron business units spread across the globe. From this humble beginning, GTC has continued to grow in strength and capabilities to reach more than 400 engineers today. The GTC is a captive engineering centre only for Textron business units and undertakes latest design work for aviation and industrial segment of Textron's business portfolio.

Business development activities at this centre commenced in December 2006 and sourcing activities in July 2007. All the three functions namely design, business development and sourcing were brought under a single entity as Textron India Private Limited (TIPL) in 2008.

The achievements of TIPL during its brief existence have been significant. In design space, the capabilities of our engineers have grown in leaps and bounds in all fields like airframe design, design of mechanical systems, electrical systems, NC programming and tool design, electronics design, weights analysis, fatigue and damage tolerance analysis, manufacturability analysis, stress and load analysis and interior design for both aircraft and helicopters. Our engineers are now engaged in sustaining existing programmes and supporting advanced programmes of Bell and Cessna. In the industrial segment, we have commenced limited production of hand tools and exploring setting up of production facilities for other products.

TIPL has developed a wide vendor base across India for sourcing of critical aviation and aero engine parts as well as multitude of industrial components. The vendor base has continued to grow at a very satisfactory pace. The business development team succeeded in securing major orders from the Indian Air Force (IAF) and increasing the market share of Bell and Cessna in India. TIPL helped Cessna in setting up three Cessna Pilots Centres (CPC) in India for pilot training as a first ever initiative in Asia. Textron business units are deeply engaged with Indian paramilitary forces and Ministry of Home Affairs for modernisation of homeland security environment in India. TIPL is engaged with multiple Indian industry members to offer cutting edge technology to the Indian military through collaborative ventures in India.

SP's: What is your vision for the company?

Sial: We are committed to develop a highly qualified engineering talent pool so that greater quantum of advanced programmes is handled at TIPL. We are also fully committed towards developing close industrial relationships with Indian companies for business development as well as sourcing.

SP's: What are the salient features of the company's business strategy with particular reference to India?

Sial: The salient features of the strategy for Textron is to be engaged with Indian customers (both commercial and military), the Indian industry and the Indian Government, on sustained long-term basis by growing our engineering talent pool and by providing proactive support to our vast and diversified customer-base in aviation, defence and industrial segments.

SP's: What is your perception of the market potential in India?

Sial: As mentioned earlier, Textron wishes to engage with various Indian stakeholders on sustained long-term basis as we are keen to participate in India's growth story. Indian general aviation market potential is substantial and we have excellent products from both Bell and Cessna to meet the future demand. Both Bell and Cessna already have major market share in their respective segments. We strongly believe that the Indian military and paramilitary will continue to upgrade their capabilities and we shall be happy to be their partner in this process. Our cutting edge technology can provide force multiplier benefits to the military and central police forces.

SP's: Which are the areas in which you are collaborating or propose to collaborate with the Indian defence establishment?

Sial: Textron Defence Systems has been contracted to supply sophisticated air launched weapons for fighter aircraft of the IAF. The project is currently under way. We are in discussions with IAF, the Indian Navy, Defence Research and Development Organisation (DRDO), Ministry of Home Affairs (MHA) and public sector undertakings (PSUs) for various products including precision munitions, unmanned systems, software analytical tools, armoured vehicles and helicopters.

SP's: Tell us about the proposed Textron-Dynamatic deal?

Sial: Bell Helicopter has concluded a memorandum of understanding (MoU) with Dynamatic Technologies Limited (DTL) for sourcing of major airframe structures for Bell 407. The cooperation between Bell and DTL is growing rapidly and we hope to have greater volume of sourcing going forward. Responsibility of TIPL has been to facilitate Bell over last several years to develop this mutually beneficial relationship with DTL. TIPL continues to support Bell for all its sourcing initiatives.

SP's: What are TIPL's major ongoing programmes?

Sial: TIPL is a captive engineering centre exclusively for Textron. TIPL resources are fully committed for Textron business units in aviation, defence and industrial segment.



MILITARY Report

Largest rescue and relief operations by the Indian armed forces



t is considered as the one of the largest rescue operations of the Indian armed forces, evacuating civilians affected by the floods in Uttarakhand and Himachal Pradesh which has claimed thousands of lives.

The Indian Air Force launched 'Operation Rahat' while the Indian Army named 'Operation Surya Hope' to massive rescue and relief operations in the hill states of Uttarakhand and Himachal Pradesh where thousands of pilgrims have been stranded in difficult terrain and in hostile weather conditions.

Operation Rahat

Since June 17, the IAF has airlifted more than 20,000 people and dropping tonnes of relief material and equipment. On June 16, following flash floods due to heavy rains, the state governments sought assistance from the IAF. The Western Air Command (WAC) promptly responded to the requests and undertook simultaneous task in the sectors of Yamunagar, Kedarnath-Badrinath axis, Rudraprayag valley and the Karcham-Puh axis.

The Sarsawa Air Force Station was made the hub with helicopters convering from Bhatinda and Hindon. Several medium lift helicopters including the newly inducted Mil Mi-17 V5 were pressed into service. On June 19, the IAF deployed 20 aircraft including 8 Mi-17 helicopters, 10 advanced light helicopters (ALH), one An-32 transport aircraft and one HS-748 transport aircraft to carry out missions, covering Phata, Guptakashi, Gaurikund, Kedarnath in Dehradun and Rampur, Karcham, Reckong Peo, Sangla in Himachal. An IAF C-130J flew over flood affected areas in Dehradun–Uttarkashi, Kedarnath and Joshimath to identify critical areas in the region to help prioritise disaster relief operations and facilitate further rescue missions. Four ALH of the Sarang display team were also deployed for relief operations.

The IAF has its aircraft on standby at Ambala, Sarsawa, Bareilley, Gorakhpur and Agra for prompt missions towards providing continuous humanitarian aid to the flood-affected regions and is in constant touch with the district authorities for coordinating missions.

C-130J pressed into action

The first C-130J aircraft landed at Dharasu (a landing ground only 1,300 metres long) in the early morning today for the first time despite inclement weather. On landing the aircraft defuelled 8,000 litres of fuel into an empty bowser which was airlifted from Sarsawa by a Mi-26 helicopter. With the availability of additional fuel now at Dharasu, the extraction, evacuation and rescue operations have picked up pace and the available helicopters are now able to make more number of trips.

Apart from the carrying fuel to Dharasu, the first C-130J on its return trip carried about 40 and the second about 100 injured and stranded pilgrims to the safer plains of Air Force Station Hindon. An emergency medical centre has been set up at Air Force Station Hindon for the medical check-up of all the arriving tourists for immediate attention.

MILITARY Report



Assistance provided by the Army

- The army has deployed 8,100 troops which includes medical teams, engineer task force and signal detachment.
- Two JCBs, 19 boats and nine helicopters have been already pressed into service.
- Approximately 10,500 persons have been rescued so far by road and army helicopters.
- One ropeway at Govindghat, one foot bridge at Village Dharali, Harsil and improvised crossing being constructed at damaged bridge location at Govindghat.
- Ten specialised mountaineering teams for Kedarnath-Soumang area have been deployed.
- The Army has established relief camps at Harsil, Joshimath, Rudraprayag and Gauchar advanced landing ground (ALG).
- Medical camps have been established at Harsil, Rudraprayag, Joshimath, Govindghat, Gothi, Dharchula and Gwaldam.

Assistance provided by IAF

- Over 20,000 kg relief material dropped.
- Four ALH and two MI-17 IV operating in Gaurikund area.
- 17 Mi-17-IV/V5 and 11 ALH are operating in Jolly Grant, Shimla, Pithoragarh and Sarsawa
- One MI-17 IV is heli-lifting ATF barrels from Jolly Grant to Gauchar helipad.
- Fuel positioned at Shimla and Rampur
- One Cheetah from Hindon is tasked for undertaking a recce to check the feasibility of C-130J landing at Gauchar and Dharasu ALGs.

The first two C-130J aircraft carried fuel to Dharasu while the third is carried a medical team of the IAF to attend to sick people at Dharasu itself before they are moved out to safer place.

Having paved the way for fixed-wing aircraft landing at Dharasu, the IAF pressed it's An-32 aircraft also into action. These aircraft are carried disaster communication equipment vehicle, some more aviation fuel, Sudan pumps for refuelling the helicopters and 4,200 kgs of bridging equipment of BRO. The heavy-lift Mi-26 helicopter will also be airlifting the heavy equipment of BRO to facilitate road repair and construction work.

While the fuel bridging has given impetus to rescue operations, increased flying activity in the narrow valleys is posing a new challenge to traffic management and safe flying. IAF has inducted additional personnel to ensure smooth planning, coordination and execution of flying operations, be it Air Force, Army or civilians.

Operation Surya Hope

The Indian Army put in place and commenced execution of 'Operation Surya Hope' with the aim of providing succor, hope, humanitarian assistance and logistic needs in Badrinath, Hemkund and Kedarnath regions. In first phase, Army teams carried out reconnaissance of area and air evacuation of isolated pockets along Govindghat-Badrinath road and Ghagriya-Hemkund track on June 19 and concentrate isolated people at Badrinath and Ghagriya by June 20.

In the second phase, Army focused on the Kedarnath region. After reconnaissance of the area, troops have concentrated relief efforts at Sonprayag and Kedarnath. In both Badrinath and Kedarnath sectors, Army inducted soldiers using helicopters and stationed them at every 2 km all along the roads to enable them to contact isolated people. Soldiers were providing leadership, succor, medical air and organising engineering efforts to clear road. Army inducted over 12 medical teams and opened emergency medical helpline. Besides it is providing stranded civilians' access to Army communications to facilitate them to contact their families.

The Army so far inducted 5,600 personnel to carryout relief and rescue operations. About 15 Army helicopters have been pressed into service. At the time of writing this report, the Army so far evacuated 1,610 civilians in Uttarkashi district and provided shelter, food and medical aid to 1,300 people. In the Joshimath sector, 3,034 civilians have been evacuated to Joshimath so far and shelter, food and warm clothing have been provided to 1,276 people. In Kedarnath region, Army has been able to establish contact and distribute food packets to 250 people at isolated places. It had evacuated 1,550 people from Govindghat, inducted four more medical teams on Badrinath and Hemkund axis, distributed more than 5,000 food packets in Govindghat, Pandukeshwar, isolated locations in Badrinath and Kedarnath regions.

Lt General Anil Chait, Army Commander, Central Command, along with core team of officers are now located in the forward area of Uttarakhand to personally take stock of the situation, coordinate and ensure effective implementation of the plan with the sole aim of providing relief and rescue to stranded population.

ITBP at work

The Indo-Tibetan Border Police (ITBP) has evacuated all victims from Kedarnath Mandir area. However, victims from Rambada area are being evacuated on foot to Kedarnath area from where they are being airlifted. Teams of the National Disaster relief Force (NDRF) and ITBP is now searching for victims in nearby areas. ITBP airlifted 350 victims from Gaurigaon and 275 victims from Rambada. A major breakthrough came on Badrinath axis where more than 10,000 people are stranded. ITBP was able to make a rope bridge at, what used to be the Lambagad bridge over the river Alaknanda. One rescue party of the ITBP evacuated about 400 victims from Badrinath on foot, who were brought to Pandukeshwar.

Three battalions and personnel of Mountaineering & Skiing Institute are carrying out rescue and relief operations. These teams are well trained for mountain rescue. They are acclimatised and equipped with specialised equipments used for relief and rescue work at high altitude mountainous areas. These teams are trained for such types of relief and rescue work as ITBP does most of the search and rescue work in high Himalayas.

BRO working overtime

The Border Roads Organisation was working overtime having deployed over 3,000 of its personnel and various equipment to clear roads. It has diverted its resources, personnel and equipment for projects such as Shivalik, Deepak and Hirak for clearing roads and to rescue the affected people. All bulldozers, JCBs, excavators, compressors and other platforms have been deployed for the rescue and restoration work.



MILITARY Interview



'DPP has evolved as a comprehensive, and robust compilation'

In an interview with **SP's Senior Technical Group Editor** Lt General (Retd) V.K. Kapoor, Deputy Chief of Army Staff (P&S), Lt General Narendra Singh, gave updates about the different modernisation programmes of the Indian Army. Excerpts:

SP's M.A.I. (SP's): DCOAS (P&S) has been assigned far greater responsibilities. How is the system functioning?

Deputy Chief of Army Staff (P&S) (DCOAS): The reconstitution of responsibilities in the Army Headquarters (HQ) has made the functioning smoother for all line duties as well as for the DCOAS (P&S). Having said that, I would say that there has not been any paradigm change of responsibilities or the hierarchy. As the DCOAS (P&S), I am responsible for the modernisation of the Army and managing the capital budget. The system facilitates consolidating requirements which are common to all the line directorates and projecting consolidated cases for modernising the Army.

SP's: Can you update us on the 155mm guns; 155mm/39 calibre ultra-light weight howitzers; 155mm self-propelled guns?

DCOAS: The Army is looking at equipping the Indian Artillery with state-of-the-art firepower platforms. Several initiatives to procure various types of 155mm guns for varied operational roles are at various stages of fructification. A three-pronged approach is being adopted, wherein the immediate requirement would be procured ex import; the medium-term requirements would be manufactured after absorbing technology transfers; while the long-term requirements would be met by indigenous developments.

SP's: What is the status of Arjun Mk II?

DCOAS: MBT Arjun has been in operational service with the Indian Army since 2007. For an emerging world power, we have to be self-reliant, with a strong indigenous defence industry. Therefore, MBT Arjun is a step in the right direction. We are now focusing on introducing an improved MBT Arjun Mk II with upgrades, to make it a truly world-class tank. The Army has clearly articulated its long-term perspective plan for induction of tanks.

SP's: The overhaul of the T-72 tank is behind schedule. How are we planning to get over this issue?

DCOAS: As you are aware, our T-72 fleet is being overhauled along with the upgrades. Our present overhaul capacity is also being enhanced. All these steps will ensure that the complete mid-life overhaul of the tank, along with the upgrades, is completed in an acceptable time frame which meets our operational requirement.

SP's: What is the status of future main battle tank (FMBT)?

DCOAS: The FMBT will be an indigenously designed and developed tank. All stakeholders would be brought onboard as the project progresses. It would be based on the guidelines of the DPP and indig-

enous industry would be involved to the extent possible. The developmental project will be monitored in all stages of development, from the PSQR stage to the bulk production, so that we get a state-of-the-art tank, comparable to/better than any futuristic tank of the world.

SP's: Is the capital budget allotted to the Army adequate?

DCOAS: Though the initial allocations this year are low, there has never been a constraint of capital budget for modernisation and induction of new technologies. Adequate budgetary support has been promised for the new schemes as well as committed liabilities.

SP's: What are your views on the DPP?

DCOAS: Defence Procurement Procedure (DPP) has evolved as a comprehensive, representative and robust compilation based on the experiences gained while undertaking defence procurements in the past. The DPP has recently been reviewed. An important aspect of the review is the preferred order of categorisation for all capital procurement cases. In this, "Buy Indian" and "Buy & Make (Indian)" will be the preferred categorisation.

SP's: When will Cheetah and Chetak helicopters be replaced?

DCOAS: Army Aviation Corps, since its raising has transformed itself into a full-fledged arm and is poised to further grow exponentially, in tune with the capability development plan of the Army. The inherent knowledge of the Army aviators of ground warfare; and their affinity for troops on ground, makes Army Aviation a battle winning quotient for effect-based operations and tactical battle centric operations. In the medium and long term, Army Aviation will have varied capability of reconnaissance, utility, armed and attack helicopters to respond swiftly and effectively to the Field Force Commander's requirement. As regards the Cheetah and Chetak helicopters, Cheetal and advanced light helicopter (ALH) are being inducted into the armed forces.

SP's: What is the status of the project F-INSAS?

DCOAS: Project future infantry soldier as a system (F-INSAS) perceives the soldier as a system—a situation aware soldier capable of performing multiple roles in battle. We have moved from concept stage to execution stage of the project. In the initial phase, priority is being accorded to weapon systems, enhancing night vision, protection and battlefield mobility capabilities. The weapons and equipment are at various stages of procurement process and the project is progressing well.

For the complete interview, log on to www.spslandforces.net

1964

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

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

1974

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



WE SHALL BE 50 THIS YEAR

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

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

50 YEARS

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

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

50 YEARS

<u> 1964 - 2014</u> **GUIDE PUBLICATIONS**

MILITARY Updates

MBDA starts MMP integration tests

BDA has started integration tests with MMP (Missile Moyenne Portée – Medium Range Missile) which the company has been developing under its own funding since 2009 to equip the French Army with a new ground combat weapon to be available as of 2017.

À risk reduction contract, notified by the French DGA (Direction Générale de l'Armement) in December 2011, served to validate the technical choices behind the critical equipment involved with the missile and its firing post. The capability of the missile's non-cooled infrared seeker to guide it towards the target in "fire and forget" mode, the electro-optical performance of the latest generation cameras in the firing post as well as the dynamic behaviour of the fibre optic connection necessary for "man in the loop" operation were also able to be confirmed.

l,000th Mercedes-Benz G-Wagon delivered to Australia

he Minister for Defence Materiel Dr Mike Kelly AM MP has announced the delivery of the 1000th Mercedes-Benz G-Wagon under Project LAND 121 Phase 3A.

The new G-Wagons, along with Australian-made trailers, are being rolled out to Army and Royal Australian Air Force units as part of LAND 121 'Project Overlander,' a \$7.5-billion programme delivering more than 7,500 protected and unprotected vehicles to the Australian Defence Force (ADF) over the next decade.

"The new G-Wagons will help prepare ADF personnel for operations and provide the flexibility to undertake a wide range of tasks in difficult off-road conditions, while ensuring that Australian soldiers are better prepared and equipped," Dr Kelly said.

The new variants are used as tactical





The configuration of the missile and its associated equipment have been fixed, allowing the programme to enter the integration phase at the beginning of 2013, with the first functional models being integrated and tested. At the same time, environmental testing of a full model have enabled MMP's sub-assembly environmental specifications to be established. This will allow progress towards the shock and vibration testing phase.

> Tests with the warhead against the latest generation of explosive reactive armour have been successfully carried out. New trials were also able to start in recent weeks to verify the weapon's behaviour in its anti-infrastructure mode to finalise development of the multi-functional warhead.

> At the same time, the ergonomics of the firing post as well as its modular architecture were also validated, confirming also the solution intended for the integration of MMP on the CT-40 canon turret for which studies have already started with Nexter.

training vehicles and for a wide range of support tasks. "G-Wagon variants include utility, ambulance, surveillance and reconnaissance, mobile command post variants, and even a canine variant to transport military working dogs and their handlers," Dr Kelly said.

A total of 2,146 G-Wagons are being rolled out to ADF units between July 2012 and June 2016. 52

Lockheed Martin's JLTV rolls off assembly line

The final Lockheed Martin joint light tactical vehicle (JLTV) produced for the programme's engineering, manufacturing and development (EMD) phase has rolled off the assembly line, joining a fleet of previously completed vehicles that will be delivered to the US Government testing and evaluation this summer.

The Lockheed Martin team produced a total of 22 JLTV test vehicles, which were manufactured at BAE Systems' Sealy, Texas, manufacturing facility, a world leader in the production of military and severe-duty wheeled vehicles. Delivery to the US Army and Marine Corps for long-term testing and evaluation is scheduled for August 22.

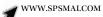
"Lockheed Martin is committed to providing our soldiers and Marines with a vehicle of unequalled capability and dependability, and one that is affordable both to buy and to operate," said Scott Greene, Vice President of ground vehicles for Lockheed Martin Missiles and Fire Control. "We are excited to get these vehicles into the hands of the customer. Early



break-in testing is under way, and we are confident that our JLTV design will serve our servicemen and women well."

Following successes in the programme's technology development phase, the US Army and Marine Corps awarded Lockheed Martin a \$65-million contract in August 2012 to continue developing JLTV through the EMD phase. Initial tests demonstrated that the Lockheed Martin design provided blast protection equivalent to much larger mine-resistant vehicles in service today.

The Lockheed Martin JLTV balances the "iron triangle" of protection, performance and payload while maintaining affordability. Compared to general-purpose vehicles currently in service, it will provide greatly improved crew protection and mobility, lower logistical support costs, superior fuel efficiency and state-of-the-art connectivity with other platforms and systems. The team's current JLTV design maintains the proven force protection, transportability and reliability of the earlier Technology Development model, while significantly reducing weight and cost.





'All 75 PC-7 Mk-II are expected to be delivered by August 2015'

Air Marshal D.C. Kumaria, the outgoing Vice Chief of the Air Staff, IAF, in conversation with **SP's M.A.I.**, spoke about IAF's modernisation plans, new inductions, RFPs, joint exercises, etc. Excerpts:

SP's M.A.I. (SP's): How do you view your tenure as the Vice Chief of Indian Air Force (IAF)?

Vice Chief of the Air Staff (VCAS): My tenure as the Vice Chief of the Indian Air Force has been exceptionally enriching. I look back with a sense of achievement and pride. The IAF is confidently moving on the path towards acquiring cutting-edge technologies and the progress in operationalisation has been good. Our modernisation plan is a continuous process with new inductions and upgrades of the legacy platforms. As far as aerospace safety is concerned, the last year had the lowest rate of accidents than ever before.

The IAF conducted two major exercises within the last year viz. Exercise Iron Fist and Exercise Livewire. The first was a demonstration of the current potential of the IAF and displayed all the roles that are envisaged for it. The recently inducted C-130J demonstrated its capabilities during the firepower demonstration. The indigenous package, comprising the light combat aircraft (LCA)-Tejas, the advanced light helicopter (ALH)-Dhruv and the light combat helicopter prototype put up spirit displays, showing good potential capacity. Over the past year, we have consolidated our strategic reach by inducting new squadrons of Su-30MKI. We are working on jointmanship with the sister services and refinement of doctrines.

SP's: Will delay in the process of procurement of the medium multi-role combat aircraft (MMRCA) have a negative impact?

VCAS: The procurement of MMRCA is an important induction that merits the highest priority. The scheme is currently at the stage of contract negotiation with the vendors and all efforts are being made to ensure its timely induction. The scope of the MMRCA contract is vast and complex with licence manufacture of 108 profile with the Hindustan Aeronautics Limited (HAL) as the 'lead production agency' and many other Indian production agencies. The contract needs to capture the work share arrangements between the original equipment manufacturer (OEM) and Indian production agency (IPA). MMRCA project includes 50 per cent offsets. The L1 vendor was identified in January 2011 after a long and exhaustive selection process as per the DPP. The contract negotiations actually started only in February, 2012. It is expected that the contract negotiations will be concluded in the next few months paving the way for obtaining the Cabinet Committee on Security (CCS) approval prior to the signing of the contract. The contract is expected to be signed in the current financial year 2013-14. IAF's combat fleet strength today stands at 34 squadrons. With this strength, we have the requisite combat potential to handle our future security contingencies. Currently, we are operating a mix of stateof-the-art aircraft like the Su-30 as well as some legacy systems. We have also embarked upon a major upgradation plan for increasing the combat relevance of our other fleets like Jaguar, MiG-21/27/29 and M-2000. We have adequate combat capability. The LCA would start joining IAF in the Twelfth Five Year Plan period and the fifth generation fighter aircraft subsequently thereafter.

SP's: When do you foresee the finalisation of Jaguar upgrade?

VCAS: Avionics upgrade of Jaguar aircraft to DARIN-III standards is being undertaken by HAL. The first flight of the D&D aircraft was achieved on November 28, 2012, and the series modification is expected to be completed by 2017. The upgrade will incorporate new systems including a mission computer, multi-mode radar, electronic warfare (EW) suite and an autopilot. The re-engining of the Jaguar aircraft with F-125 IN engine from Honeywell is also being undertaken in order to overcome the limitations of the existing engines.

SP's: How many basic trainers we are likely to get from Pilatus?

VCAS: Deliveries of PC-7 Mk-II are in progress and all 75 aircraft are expected to be delivered by August 2015. Under the 'Option Clause' of the main contract, Air Headquarters has initiated a case to procure additional 38 aircraft.

SP's: What kind of response do you foresee from private sector in the context of Avro replacement?

VCAS: The IAF is processing a case to procure 56 aircraft through "Buy and Make" route with 16 aircraft in flyaway condition from the OEM and 40 aircraft through transfer of technology (ToT) by an Indian Production Agency (IPA) from private industry sector. The IPA is proposed to be selected by the OEM. The RFP was issued on May 8, 2013. The private industry is a marginal player in the aerospace sector today. Considering the growing needs of the armed forces and aviation sector in general, it is imperative that a boost be given to the private industry to increase their participation thus enhancing their contribution.

SP's: Which all joint exercises are likely to come up?

VCAS: The joint exercises that are likely to be conducted include: Ex Eastern Bridge III (October 6-13, 2013) - Indo-Oman Joint Exercise to be held in Oman; Ex Indra-Dhanush-IV (2014) - Indo-UK exercise, to be held in UK; Ex Garuda-V (2014) - Indo-France Exercise to be held in India. The Indo-US Red Flag exercise has been called off by the United States Government.

For the complete interview, log on to www.spsaviation.net

IAF's C-17 Clobemaster's maiden flight to Port Blair

he first of the ten Boeing C-17 Globemaster III of the Indian Air Force (IAF) landed at the Hindon Air Base on June 18. It was received by Air Marshal S. Sukumar, Deputy Chief of the Air Staff at the Hindon Air Base, where it would be based.

With the training of the air crew and the ground crew being conducted by the United States Air Force (USAF), the Indian Air Force had accepted the delivery of the aircraft on June 11, 2013, at Long Beach, California.

The aircraft also has made its maiden flight to the Andaman and Nicobar Islands on June 30, 2013. Climbing an altitude of 28,000 feet with an unrefuelled range of 2,400 nautical miles, the aircraft landed at Port Blair to induct the rotational Infantry Battalion into the Andaman and Nicobar Islands.



Israel receives first C-130J Super Hercules 'Shimshon'

ockheed Martin delivered to Israel its first C-130J Super Hercules airlifter during a ceremony recently at its aeronautics company's production facility here. This is first of three C-130Js currently on order for the Israeli Air Force (IAF), which has operated legacy C-130s since 1971.

The IAF has bestowed the nickname "Shimshon" on its C-130Js. Shimshon is Hebrew for Samson, who was a judge and leader for the people of Israel. Samson's mother called him Shimshon, which is derived from the Hebrew word for sun, because she felt he was destined to be as bright and mighty as the sun and would deliver the Jewish people from their enemies.

"Israel's new C-130J builds on the tradition of its predecessors and offers the IAF unique capabilities that are not only proven, but without equal," said George Shultz, Vice President and General Manager, C-130 programmes at the Lockheed Martin Aeronautics Company. "With its glass cockpit and modern digital avionics, the C-130J has proven it



performs in all environments: hot, cold, dirt and sand. Shimshon will serve the IAF as the C-130 always has — anywhere, anytime."

Israel ordered its C-130Js through a foreign military sale (FMS) contract with the US Government. Upon delivery, this aircraft will move into a modification programme and receive Israeli-unique systems. An incountry delivery for this C-130J is scheduled for spring 2014.

First Italian Army ICH-47F Chinook's maiden flight

gustaWestland announced that the first ICH-47F Chinook for the Italian Army successfully accomplished its maiden flight on June 24 at Vergiate in Italy. The aircraft took to the air for 15 minutes, performing as expected whilst carrying out basic handling tests and main systems checks.

This ICH-47F Chinook is the first of an order for 16 units plus four options placed by the Italian Ministry of Defence procurement agency ARMAEREO. The contract also includes a five-year logistic support service. The delivery of the first aircraft is planned in early 2014 with final deliveries in 2017.

The ICH-47Fs will be operated by the Italian Army Aviation 1st Regiment "Antares" and they will replace the 40 CH-47C Chinooks that have been in service since 1973.

Under a joint industrial agreement with Boeing, AgustaWestland is prime contractor for the Italian ICH-47F programme, with responsibility for systems integration, final assembly and aircraft delivery to the Italian Army. In addition AgustaWestland is also being qualified by Boeing to produce the entire drive systems.



Boeing Rotorcraft Systems builds the fuselage at its Ridley Park, Pennsylvania, facility in the United States whilst final assembly is carried out at AgustaWestland's Vergiate plant in northern Italy.

Alessandro Parrini, Senior Vice President Italian Government Business Unit, AgustaWestland said: "This is an exciting moment for us and our customer. The Italian Army will soon fly the latest variant of the proven heavy-lift platform that will give it new capabilities. This maiden flight confirms that the strategic partnership between the company and the service is providing a significant contribution to the modernisation of the Italian Army helicopter fleet."

The ICH-47F customised version incorporates a secure communications system, self-protection system and advanced datalink system. This new ICH-47F Chinook variant has a maximum all up weight (MAUW) of 23 tonnes, is equipped with two Honeywell T55-GA-714A engines giving it excellent "hot and high" capability and is suitable for all-weather operations.

The Joint Industrial Agreement between AgustaWestland and Boeing also includes a licensing arrangement that enables AgustaWestland to market, sell and produce these "Chinooks" for other countries.



AEROSPACE Show Report / Paris Air Show

Russian aircraft take to French skies in the absence of US military aircraft





Russian Helicopters' Ka-52 Alligator attack helicopter

[By R. Chandrakanth]

ne expected the 50th Paris Air Show (Golden Jubilee Year) held at Le Bourget from June 17 to 23 to be an exceptional event, but it was not to be so. There were no earth-shaking deals. However, the future of aviation was on show, particularly in the realm of defence.

Though the sheen was missing with American military jets skipping the biennial event due to federal budget cuts known as sequestration, there were others who grabbed the opportunity to showcase their products and cutting-edge technologies. The US Defense Department has scaled back its presence at air shows everywhere and Paris is no exception.

The absence of US military aircraft opened up space for Russians and the host country France to showcase their latest planes, helicopters and drones. Also this year the notable themes were electric and hybrid-electric planes, as well as carbon-graphite construction—improvements aimed at creating light, strong, sustainable planes in the face of high fuel prices.

The cynosure of all eyes was the Russian Sukhoi Su-35 fighter as it was flying first time in French skies, while the other European aircraft have done the rounds here. The Su-35 showcased its prowess doing various manoeuvres, including the famous Pugachev Cobra where a plane flies straight up and then seems to curl back in on itself. Russia, like the US and European companies, is keen on wooing the international buyer, not just from the Middle East and Asia (India having been one of its major buyers).

The defence market is quite fluid with several developed nations slashing defence budgets. However, there is a growing trend for unmanned aircraft along with manned aircraft.

Le Bourget gave a peek into the development. Foremost was the Piaggio Aero HammerHead which has been transformed from a business jet into a drone, with surveillance equipment and remote flying systems. Piaggio Aero's Chief Executive Officer Alberto Galassi said the HammerHead is an "insight into what an advanced unmanned aerial system of the future will look like." Piaggio intends to get approvals of the same for use by 2014. Elsewhere at the venue Iomax's ArchAngel, a border patrol aircraft designed to provide 'airborne surveillance for intelligence and security' was showcased. The aircraft was originally designed as an agricultural crop-duster, thus reflecting how the industry is reinventing itself due to economic pressures.

Here are some of the announcements at Le Bourget from a wide spectrum of defence operations.

Elettronica unveil self-protection suite

Elettronica, the leading electronic warfare (EW) solution house, unveiled the self-protection suite for combat search and rescue helicopters. All the key Elettronica's technological breakthroughs and advanced solutions were showcased: Virgilius, the integrated EW-architecture system and ELT/572 DIRCM the winning response to MANPADS threats in the E/O spectrum. Other core solutions included the DASS POD of the Eurofighter Typhoon and the ELT/568 system with a specific Escort Support Jammer solution ALQ-703.

Elettronica also signed a memorandum of understanding (MoU) with PSATRI from Saudi Arabia. The MoU is for research and development of new solutions in the field of electronic warfare.

Selex ES systems onboard V-22 Osprey

Selex ES, a Finmeccanica company, announced that Boeing Defense, Space & Security had selected it to supply its SRT-200 high-frequency radio communication systems to the V-22 Osprey Programme. The SRT-200 system is the latest lightweight and compact outcome of a research and development activity carried out by the company within the high-frequency sector. It provides voice/data radio communications for avionic applications with ALE2 technology.

Selex ES also announced that it had bagged a contract worth €5 million (£4.2 million) by Germany's Federal Ministry of Defence to supply a number of Titan 385ES-HD turrets for German Navy (Deutsche Marine) Sea Lynx Mk88A helicopters. The Titan 385ES-HD (enhanced stability-high definition) turrets will allow German Navy pilots to see their environment clearly while navigating and performing surveillance missions at night and in conditions of poor visibility.

AEROSPACE Show Report / Paris Air Show



MBDA's futuristic solution to reshape surface combat

MBDA unveiled the CVS302 HOPLITE that is designed to supply an indirect precision attack capability for land and naval artillery in 2035 and beyond. This represents the fourth and latest of MBDA's annual Concept Visions projects, demonstrating once again the company's position as a thought leader in envisaging how innovation in missile systems could dominate the future battlefield.

The HOPLITE system consists of a mission control system, and two missile variants, HOPLITE-S and HOPLITE-L, both of which can fly 70 km in under two minutes at low altitude or up to 160 km at high altitude in under four minutes when the way is clear. HOPLITE's one shot one kill precision implifies operations while reducing collateral damage risk and mission cost.

A400M on static display

The A400M which is being delivered this summer to the French Air Force (FAF) and the first FAF A400M were on static display. The ability of the A400M to carry C-17 type loads to the point of attack, as does the C-130, will be a significant game changer for the airlift market. The other element of a global fleet built around Airbus Military aircraft is the A330MRTT.

The plane is built on the foundation of the very successful A330 commercial aircraft, which is used widely and globally. When the A330 MRTT was built, Airbus Military went back and redesigned the plane around new computer-based designed tools and a new and even more robust plane emerged crafted for the tanking mission.

HAL orders navigation systems kits from Sagem

Indian aircraft manufacturer, the Hindustan Aeronautics Ltd (HAL), has ordered 107 Sigma 95 navigation systems kits from Sagem (Safran) for the Indian Air Force's combat aircraft. Developed and produced by Sagem, Sigma 95 is an autonomous hybrid inertial navigation system combining laser gyros and GPS/Glonass satellite navigation. It ensures high-precision navigation and broad operational flexibility for both combat and special-mission aircraft.

Two-thirds of the systems in this order will be manufactured in India by HAL, further cementing the partnership agreeement on navigation systems signed by Sagem and HAL.

Beechcraft presents light attack aircraft

Beechcraft Defense Company said that it expects the growth in international defence budgets to lead to demand for its trainer and light attack aircraft. Although most Western nations saw defence cuts in 2012, military spending rose by 7.8 per cent in North Africa, 8.4 per cent in the Middle East and 4.2 per cent in Latin America.

Since deliveries of its T-6 military trainer began in 2000 to the



US Air Force and Navy, Beechcraft has expanded into international markets, with customers including NATO Flying Training, Canada, the Hellenic Air Force of Greece, the Israeli Air Force, the Iraqi Air Force, the Royal Moroccan Air Force and the Mexican Air Force.

"We are seeing growing interest in the T-6 and AT-6 from defence departments around the world who are looking for proven reliability and cost-effective solutions," said Russ Bartlett, President, Beechcraft Defense Company. "The capabilities of these aircraft are second to none, and allow pilots to be trained to the highest standards, and for air forces to operate highly flexible, light attack aircraft."

The AT-6 is an affordable and capable multi-role, multi-mission aircraft system tailored for initial pilot training, weapons training, operational net-centric ISR and light attack capabilities for irregular warfare. The AT-6 leads the light attack market with purpose-built capability, affordability, sustainability and interoperability for the most demanding of scenarios.

Alenia Aermacchi ties up with Italian Defence

Alenia Aermacchi and the Secretariat General of Defence/National Armaments Directorate of the Italian Ministry of Defence signed an agreement to jointly define the operational specifications and collaborate on the development of a new basic-advanced trainer, the M-345 high efficiency trainer (HET) and expected to enter service between 2017 and 2020.

The new HET will be a further development of the M-345 jet trainer, the latest solution proposed by Alenia Aermacchi for the basic advanced phase of military pilot training.

Russian Helicopters' Ka-52 Alligator

Russian Helicopters, a subsidiary of Oboronprom, part of State Corporation Rostec and a leading global designer and manufacturer of helicopters, and Rosoboronexport showcased the latest Ka-52 Alligator combat helicopter. The helicopter made its international debut on the first day of Le Bourget with a spectacular display full of aerobatic manoeuvres.

The Ka-52 Alligator is an all-weather, day-night combat helicopter. It is designed to destroy armoured and unarmoured ground targets, low-speed aerial targets and enemy front line and tactical reserve troops, and to undertake reconnaissance missions and coordination of groups of military helicopters. The Alligator is equipped with stealth technologies and active IR and electronic jammers, and is designed to Russian and international standards for combat helicopters and their operation.

Despite the absence of big military aircraft contracts, the Paris Air Show continues to hold on to its marquee status. What if the markets are down, they are sure to bounce back.





GA-ASI to develop Predator B variant to meet NATO/European airworthiness standards

eneral Atomics Aeronautical Systems, Inc. (GA-ASI), a leading manufacturer of remotely piloted aircraft (RPA), is undertaking independent research and development (IRAD) effort to develop a variant of its Predator B RPA that is fully compliant with the airworthiness requirements of the US Air Force and anticipated NATO foreign customers, as well as offers enhanced capabilities for integration into domestic and international airspace.

It is envisioned that the system solution will be a multi-nation, certifiable, exportable configuration built upon the company's Block 5 Predator B aircraft capabilities and advanced cockpit ground control station (GCS) layout.

"Predator B is the most cost-effective and best-valued RPA in its class and continues to draw significant interest from our NATO allies," said Neal Blue, chairman and CEO, GA-ASI.

Piaggio Aero unveils PIHH "HammerHead"

Piaggio Aero Industries has unveiled the Piaggio Aero P.1HH "Hammer-Head" unmanned aerial system (UAS) at the Paris Air Show. A new state-of-the-art unmanned aerial system (UAS), the Piaggio Aero P.1HH HammerHead has been designed for intelligence, surveillance and reconnaissance (ISR) missions whose combination of performance and operational characteristics is at the very top end of the UAS MALE category.

The P.1HH HammerHead technological demonstrator was designed and built in less than one year and it has already successfully completed low speed taxi tests demonstrating Piaggio Aero's ability to deliver an efficient UAV platform integrating state-of-the-art Selex ES SkyISTAR mission management system.

The P.1HH HammerHead development programme proceeds with the demonstration/validation phase through an extensive campaign of laboratory and ground tests aimed at supporting the first flight. After the first engine start and the runway taxi that took place on February 14, 2013, at an Ital-



ian Air Force base, the programme has now entered the final phase of test where, the aircraft systems in flight configuration will be tested at all levels in accordance with the build-up approach taken on the UAS.

Barracuda: 10 years of development in unmanned flight tech

assidian looks back over what is now 10 years of test flight experience with its Barracuda UAS demonstrator, a time in which the company gathered unique know-how. Barracuda forms one of the elements of Cassidian's comprehensive UAS capabilities, which make the company the European leader in this high-tech segment.

"With this unique unmanned demonstrator in Europe, Cassidian is in a position to forge ahead with technological development in unmanned aerial systems," explains Rolf Wirtz, head of Cassidian's Mission Systems unit and one of the initiators of the Barracuda programme.

Barracuda allows Cassidian to explore all of the key questions of unmanned flight. This also includes the development of the TCAS collision avoidance system for UAS and various aspects of automation. Today's research activities focus mainly on two points: network-centric operations and the integration of unmanned aerial systems into controlled airspace. Since the development of the demonstrator began in 2003, Barracuda has completed more than 540 ground tests and 13 flight tests. And the results from Barracuda testing are directly incorporated into the development of future UAS by Cassidian.



The Barracuda demonstrator is over eight metres long, has a wingspan of more than seven metres and a maximum take-off weight of around three tonnes. It is propelled by a jet turbine from Pratt & Whitney Canada, which delivers 14 kN thrust, and operates entirely autonomously during the test flights, only being monitored for flight safety purposes. The unmanned aerial vehicle's structure consists entirely of carbon-fibre composites (CFC). Apart from the landing gear, Barracuda is an innovative "electrical airborne system" that, in contrast to conventional aircraft, dispenses with hydraulic components and uses electro-mechanical actuators instead.

In May 2006, Barracuda took off for its maiden flight in Murcia, Spain. Since 2009, the flight tests have been carried out from the Canadian Goose Bay military airport. In this context, Barracuda has been used for flights to test the Bundeswehr's unmanned flight procedures as part of the research and development programme "Agile UAV in Network Centric Environment" by the German Federal Office of Bundeswehr Equipment, Information Technology and In-Service Support (BAAINBw). Further campaigns are already being planned.

Tripartite meeting with ULFA

Tripartite meeting involving the representatives of Government of Assam, and United Liberation Front of Assam (ULFA) was held recently under the chairmanship of outgoing Union Home Secretary R.K. Singh to review the progress made in talks with ULFA and also to discuss their demands. The ULFA delegation was led by Arabinda Rajkhowa, Chairman, ULFA.

Among other issues, ULFA leaders requested that additional measures are needed to be taken for effective guarding of Indo-Bangladesh border to check illegal infiltration from across the border. The Union Home Secretary stated that the government is committed to take all possible measures to control the illegal influx. He added that measures already taken along international border have helped in curbing illegal infiltration from across the border.

The Secretary reviewed the progress made in talks with ULFA delegation. After detailed discussion, it was decided to follow up on a few specific steps on some issues. He also stated that a meeting was required with the heads of various Central Ministries and Government of Assam, in connection with the different issues raised by the delegation.

ULFA representatives requested that genuine grievances of the people of Assam need to be addressed on priority. Union Home Secretary responded by emphasising that the government attaches highest priority and importance to address the grievances of the people of the country including Assam.

Anil Coswami takes over as Home Secretary

nil Goswami has taken over as Union Home Secretary. He succeeds Raj Kumar Singh who has retired from service. Anil Goswami is an IAS officer of 1978 batch and is from the Jammu and Kashmir cadre. Before joining the Ministry of Home Affairs (MHA) as Officer on Special Duty (OSD) on April 27, 2013, Goswami was Secretary, Ministry of Social Justice and Empowerment. He has served in the Centre in various capacities including Additional Secretary in the Union Ministry of Home Affairs.

Krishna Chaudhary appointed DG of National Disaster Response Force

rishna Chaudhary has been appointed as Director General of the National Disaster Response Force and Civil Defence (NDRF&CD).

LWE apprehended

nderjeet alias Kapil Yadav, operation commander of eastern regional bureau company of CPI (Maoist) and a close associate of Arvindji alias Deo Kumar Singh, Central Committee Member of the CPI (Maoist), operating in the Koel Sankh area of Jharkhand and bordering areas of Gaya in Bihar, was apprehended recently when he was undergoing treatment.

He was injured during an encounter on June 12, 2013, in which there was a heavy exchange of fire in an area near Kumandih railway station under Manika police station limits in Latehar district, between the Maoists and troops of 209 COBRA, 11th Batallion of CRPF and Jharkhand Jaguars. The security forces regrouped and stayed in the area till the morning of June 13, duly returning the fire in which four Maoists were injured. Inderjeet had been operating as an 'Operation Commander' of Maoists and was reportedly involved in major incidents of Naxal violence in Jharkhand.

US Senate passes sweeping immigration bill

he US Senate recently approved a sweeping immigration overhaul bill, the most important immigration measure since the

1986 Immigration and Reform Act (IRCA). The measure offers a path to citizenship to about eleven million illegal immigrants currently in the United States and allocates billions of dollars to bolstering border security.

The bill faces uncertain fate in the House, with Speaker John Boehner (R-Ohio) saying he will not bring legislation to a vote that lacks support of the majority of the Republican caucus.

UK raises budget to counterterrorism

he UK agencies responsible for fighting terrorism — MI6, MI5, and Government Communications Headquarters (GCHQ) will see a significant increase in their combined £1.9 billion budget, an indication of the David Cameron Government's concern about the growing terrorism threat the United Kingdom.

George Osborne, Chancellor of the Exchequer, announced the government's spending plans for the 2015-16 fiscal year. In addition to increasing the budget of the intelligence services, the budget also shows that police spending on counter-terrorism will be protected and will rise in line with inflation.

Osborne and the Prime Minister Cameron have said the agencies need more resources to tackle the growing terrorist threat from sub-Saharan Africa and Syria, and the rising problem posed by cyber terrorism.

US and Canada announce first-ever binational border infrastructure investment plan

The US Secretary of Homeland Security Janet Napolitano, along with Ray LaHood, Secretary of the United States Department of Transportation, Denis Lebel, Minister of Transport, Infrastructure and Communities, Minister of the Economic Development Agency of Canada for the Regions of Quebec and Minister of Intergovernmental Affairs, and Vic Toews, Minister of Public Safety, released the first-ever joint United States-Canada Border Infrastructure Investment Plan (BIIP). The development and release of this initiative fulfills a commitment made under the 2011 United States-Canada Beyond the Border Action Plan.

"An integrated, bilateral approach to border investment is critical to both the US and Canadian economies," said Secretary Napolitano. "The Border Infrastructure Investment Plan offers enhanced security along our shared US-Canadian border, while reducing wait times at major border crossings—increasing the flow of traffic across the border while ensuring safe and secure trade and travel."

The BIIP is an interagency and binational planning mechanism developed to establish a mutual understanding of recent, ongoing, and potential border infrastructure investments. It outlines the approach that the United States and Canada will take to coordinate plans for physical infrastructure upgrades at small and remote ports of entry. This initiative will be updated and disseminated annually.



Embraer and Boeing to market KC-390 medium-airlift aircraft

mbraer and Boeing are partnering on the sales and marketing of Embraer's KC-390, a multi-mission mobility and aerial refuelling aircraft with advanced capabilities in the medium-sized airlift market.

Under the agreement, Boeing is the lead for KC-390 sales, sustainment and training opportunities in the US, UK and select Middle East markets. Embraer will manufacture the aircraft and collaborate on sales, sustainment and training.

"The KC-390 is an extremely capable aircraft that continues to attract interest by several nations, and Boeing's military transport expertise is ideal for teaming in the international market," said Luiz Carlos Aguiar, President and CEO of Embraer Defesa & Segurança. "This agreement strengthens the level of cooperation between both companies and the defence industries of Brazil and the United States."

The KC-390 originated as a defence project contracted by the Brazilian Air Force in 2009. The largest aircraft to be manufactured in Brazil, it features advanced capabilities in terms of performance, cargo, capacity, flexibility and life-cycle costs. Initial estimates of the potential market for KC-390 are approximately 700 aircraft, but that number is likely to increase after additional markets are analysed. The project has completed the critical design review and is on schedule.



The announcement builds upon the broad cooperation agreement Boeing and Embraer signed in 2012. The companies are collaborating on aircraft efficiency and safety, research and technology, defence products and sustainable aviation biofuels.

"Our relationship with Embraer continues to grow across Boeing and demonstrates our commitment to Brazil," Boeing Defense, Space & Security Business Development and Strategy Vice President Chris Raymond said at the Paris Air Show. "KC-390 complements our mobility portfolio by providing a versatile, affordable aircraft."

Eurocopter appoints Matthieu Louvot head of support and services

urrently Head of Strategy & Company Development, Matthieu Louvot has been appointed Head of Support & Services within Eurocopter. He will be reporting directly to Dominique Maudet, Head of Global Business & Services.

After having begun his career as an inspector at the General Inspectorate of Finance in the French Finance Ministry, Matthieu Louvot, 38, was then adviser in different ministries before joining the Eurocopter Group in April 2010. Matthieu Louvot is a graduate of the Ecole Polytechnique Engineer-



ing School and the Ecole Nationale d'Administration.

Management appointments at Safran

afran has made several management appointments, effective July 1, 2013:

General William Kurtz has been named Military Advisor to Jean-Paul Herteman, Chairman and CEO of Safran. He replaces Baudouin Albanel, who is retiring. A graduate of the French Air Force Academy and commissioned as a fighter pilot in 1986, William Kurtz started his career as a pilot in the 33rd reconnaissance squadron based in Strasbourg before being named second-in-command of the Patrouille de France aerobatics team in 1993 then Team Leader in 1995. He joined the armed forces Inspectorate General in 2004 as head of the Forces-Operations office, and was subsequently named commander of the air force base in Djibouti in 2006. In 2008, he was named Communications Special Advisor to the Air Force Chief of Staff, and also head of the French Air Force communications and public relations unit, SIRPA. He was promoted to the rank of General in 2011, and served as Commander of French Forces stationed in Djibouti from 2011 to 2013.

Franck Saudo has been named Executive Vice President, Operator Customers at Turbomeca (Safran), replacing Bruno Even, who is now Chief Executive Officer of Sagem. A graduate of the Ecole Polytechnique (2000) and the London School of Economics (2003), named "Ingénieur du Corps des Ponts et Chaussées" (public works engineering corps) in 2003, Franck Saudo started his career in 2003 at the Treasury Department of the French Ministry of Finance as head of financial markets. In June 2007, he was named Financial Sector Advisor to the cabinet of the French Minister of the Economy, Industry and Employment. He joined Safran in 2011 as deputy to the Group's Executive Vice President for Strategy and Development.

David Quancard has been appointed Director of the Space Engines division at Snecma (Safran), replacing Martin Sion, who is now Chairman and CEO of Aircelle. A graduate of the Ecole Polytechnique (1983) and ENSTA (1985) engineering schools, David Quancard started his career in 1985 as deputy to the Ariane 5 Program Director at SNPE Propulsion. In 1990, he was named Vice President, Quality, then Vice President, Engineering and Production at Regulus. From 1999 to 2002, he was Deputy Head of Production at Arianespace, then Vice President for Production. In 2003, he was named Chief Executive Officer of Roxel (equally-owned subsidiary of MBDA and Safran), the European leader in tactical propulsion.

INTERNAL SECURITY Breaches

TV actress sends toxic missives to VIPs

Shannon Rogers Guess Richardson of New Boston, Texas, a small-time television actress, was recently arrested in connection with the mailing of three letters containing a form of the poison ricin to US President Barack Obama; New York City Mayor Mike Bloomberg and the Director of Mayors Against Illegal Guns, Mark Glaze.

Richardson is an actress with minor roles on television shows like *The Walking Dead* and the *Vampire Diaries*. She had a minor role in the movie *The Blind Side*. The Federal Bureau of Investigation (FBI) said the actress first claimed that her husband had sent the letters, but later found out that she was the one who had sent them. Her husband, Nathaniel Richardson, is an Army veteran.

Investigators were probing who sent the three letters, all postmarked May 20, 2013 from Shreveport, Louisiana, and sent without a return address. The letters sent to Obama and Bloomberg were discovered during routine mail screenings processes. The letter to the director of Mayors Against Illegal Guns was opened. "You will have to kill me and my family before you get my guns," the message sent to Bloomberg read, according to reports.



Woman carries knife inside Gujarat secretariat



ast week, a 35-year-old woman got into the new secretariat building of Gujarat with a long knife in her purse. In a major security breach at the ₹150 crore Swarnim Sankul, the woman was able to walk up to the second security barrier.

Zuvera Usman Hafiz, a resident of Surat, got past the first cordon of the high security zone without being detected. Alarm bells began ringing when Hafiz passed through the metal detector at the second security cordon. The guards there detained Hafiz as she did not have the security pass and because she could not give satisfactory answers to their queries. When the woman's belongings were checked, the policemen found the knife hidden in her handbag.

"The woman was not cooperative in the initial rounds of questioning. She refuses to say why she had come to the secretariat. She carried a knife and had eluded security officials. The woman has revealed she bought the knife in Bharuch. That apart, she has not been forthcoming in her replies," said a police official.

Phuket Airport security staffer steals from tourist

hailand police recently arrested a baggage security worker at Phuket International Airport after the officer was found to have stolen \$900 from an Australian tourist's carry-on bag while it was passing through the x-ray machine. The staffer was identified as a 34-year-old woman from Ranong, named Uraiwan Yhobkhaan.

"Australian tourist Andreas Paolo Clappis reported the money missing to airport security officer Montri Perphol," said Lt Colonel Theerawat Leamsuwan. "He said it went missing while his bag was being scanned by the X-ray machine." Ronnarong Joonsawek, Security Director at the airport, called in all staff who were on duty at the time the money went missing. Uraiwan failed to return to the airport, so police went to her rented room.

"She confessed to having stolen the money from the bag while it passed through the X-ray machine. She gave all the money back to Mr Clappis," Col Theerawat said.

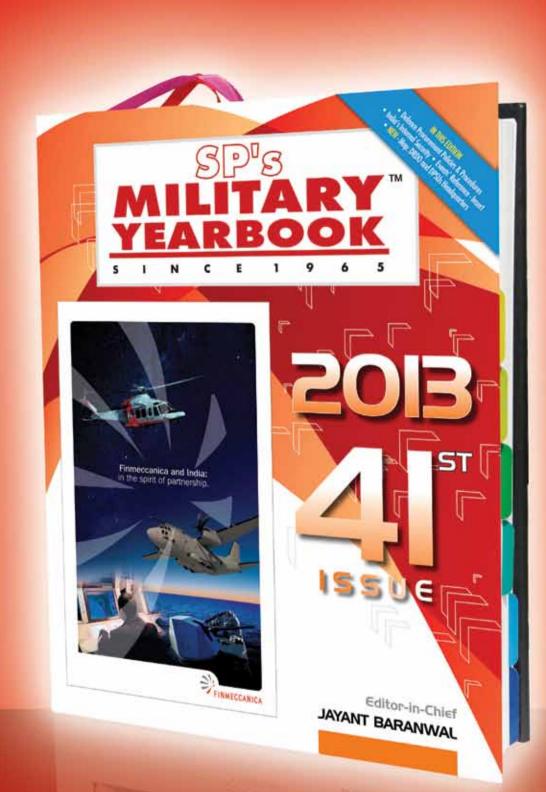
Drones intercepted in Iraq

n 2009, the Pentagon closed a security breach that allowed insurgents to hack into data feeds from pilotless "drone" aircraft that provide real-time video of war zones in Iraq.

It is reported that Shi'ite fighters in Iraq used cheap software to intercept the video feeds of drones, thus allowing them to monitor US military operations. The US military came to know of the problem when they apprehended a Shi'ite insurgent who had digital files of drone video feeds on his laptop. Subsequently, the US military found more files on other militants' laptop.

The US military was quick on its feet and 'fixed' the issue. Pentagon spokesman Bryan Whitman then had defended the use of drones and had said, "Every capability comes with its advantages, disadvantages, benefits as well as potential weaknesses."





SP'S MILITARY YEARBOOK 2013

Please send your requirements, NOW at: order@spsmilitaryyearbook.com

1964 - 2014 50 YEARS



SP GUIDE PUBLICATIONS

We at SP's Believe in Relentless Hardwork & Firm Expansions

As FIRM as the King of Jungle

SP's Land Forces & SP's Naval Forces are a. BPA Applied For; b. Circulated in Asia-Pacific including India backed by BPA endorsement. Yet another Development reinstating our Unparalleled, Unmatched Standing in the region.



