

SP's



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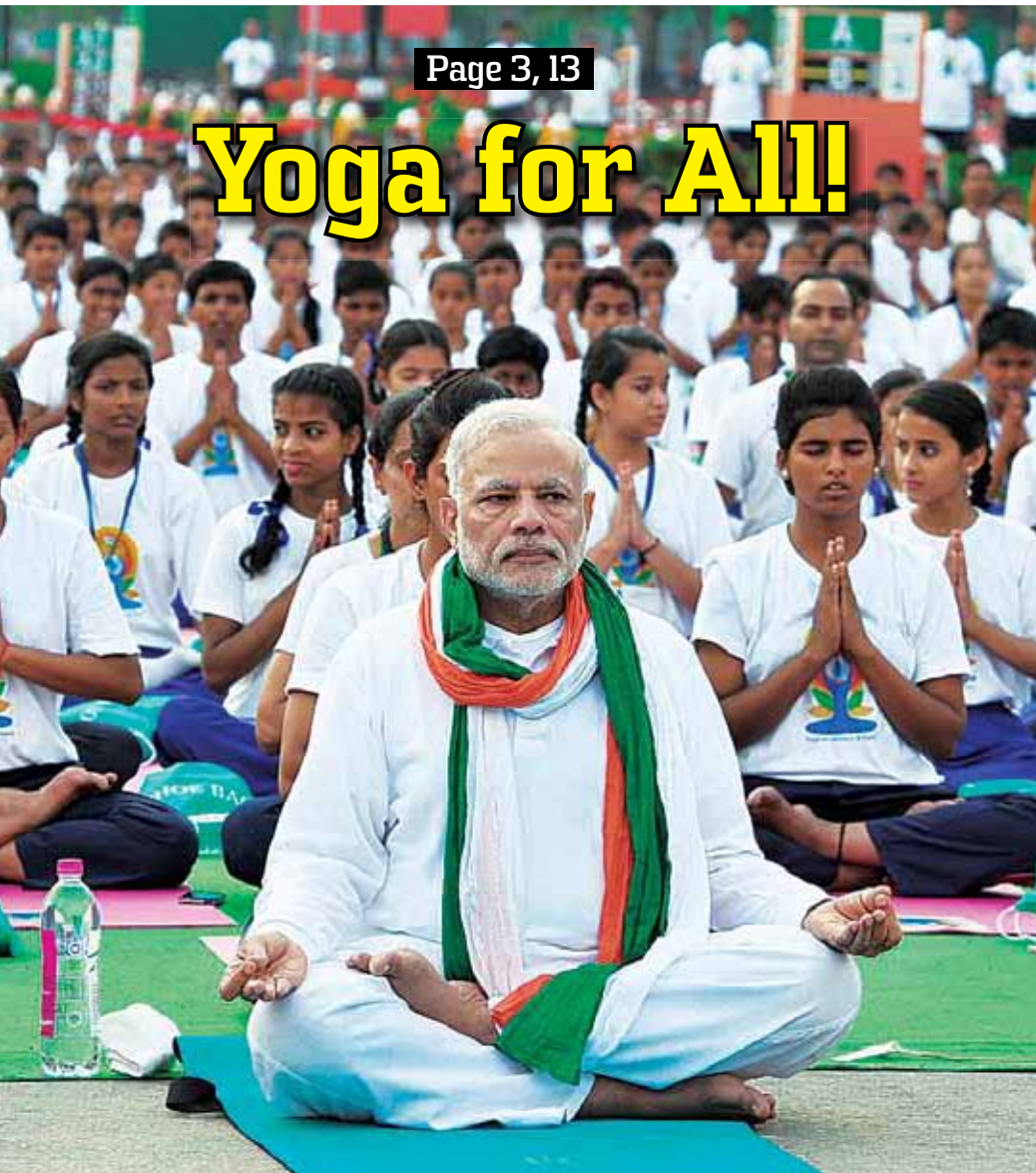
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# SP's MAI

ONLY FORTNIGHTLY ON **MILITARY AEROSPACE INTERNAL SECURITY**

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## Yoga for All!



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In a country like India with limited support from the industry and market, initiating 50 years ago (in 1964) publishing magazines relating to Army, Navy and Aviation sectors without any interruption is a commendable job on the part of SP Guide Publications. By this, SP Guide Publications has established the fact that continuing quality work in any field would result in success. ”

Narendra Modi, Hon'ble Prime Minister of India



While we at SP's cherish our journey started in 1964, founded by our Founder Editor and Founder Publisher Shri S P Baranwal; we do believe that the entry into 51st year and beyond is just a beginning for us. We therefore look forward to constantly evolving and expanding our qualitative efforts during coming years and coming decades.

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## NCC creates record of yoga participants

The International Yoga Day was celebrated at various Air Force and Army establishments in Shillong and North East region. At Headquarters Eastern Air Command, Air Force Shillong, Air Marshal S.B. Deo, Air Officer Commanding-in-Chief, Eastern Air Command, Indian Air Force, was present on this occasion.

The National Cadet Corps (NCC), the premier youth organisation of the nation, created a record for the largest yoga performance simultaneously by a single uniformed youth organisation at multiple venues



on June 21. The cadets performed the asanas as per the protocol given by the Ministry of Ayush from 7.00 a.m. to 7.35 a.m. at all venues. The performance of yoga by NCC cadets on International Day of Yoga was pan India at more than 1,460 venues, including Leh in the North, Dwaraka in the West, Tezu (Arunachal Pradesh) in the East, Nagarcoil (Kanyakumari) in the South and in the islands of Andaman and Nicobar and Lakshadweep. Under the aegis of NCC Directorate North-eastern region Shillong, more than 56,000 cadets participated at 169 venues across the entire North-eastern region. **SP**



### Cover:

The first International Yoga Day was celebrated across the world on June 21 with Prime Minister Narendra Modi presiding over a record gathering of officials, students and others performing asanas at Rajpath in Delhi.

Cover images: PIB, AgustaWestland, Wikipedia

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## Yoga is a de-stresser in the armed forces

**W**hile it is certainly urgent and necessary to equip our soldiers with the latest of equipment, it is equally important to ensure that the soldiers are in the right frame of mind and also of good health. Yoga and meditation are major de-stressers. Yoga goes beyond religion and has therapeutic value, particularly to a soldier whose work environment, invariably, is harsh.

When the country celebrated June 21 as the International Yoga Day, personnel of the armed forces participated in large numbers, indicating that yoga and meditation have enormous health benefits. The rallying force behind International Yoga day was the Prime Minister Modi who performed asanas at a huge gathering in New Delhi.

Even as the government takes such a holistic approach to health related issues, the media is now obsessed with the news of possibility of Modi meeting his Pakistani counterpart Nawaz Sharif on the sidelines of the annual summit of Shanghai Cooperation Organization (SCO) in Russia next month. The expectations are hyped because of Modi's recent telephonic call to Nawaz Sharif extending best wishes on the occasion of Ramzan while noting that there was a need for having 'peaceful' and 'friendly' bilateral ties between the two countries. Lt General P.C. Katoch (Retd) makes his observation on the possible talks.

In another viewpoint Lt General Katoch talks about China's support to Nepalese and Indian Maoists, PLA in Manipur, hobnobbing with Naga insurgents, support to ULFA, creation of the United Liberation Front of West, South, East Asia (WSEA) and lethal arming of personnel.

The recent visit by the National Security Advisor (NSA) Ajit Doval to Myanmar to tie up joint Indo-Myanmar operations against the Naga and other insurgents lodged inside Myanmar territory did not get the expected response from the Myanmar Government. Myanmar authorities reportedly told the NSA that while NSCN was confined to border areas, the hot pursuit by the Indian Army forced them to move further inside the country, which affected Myanmar security, writes Lt General Katoch.

Air Marshal B.K. Pandey (Retd) states that cancellation of the contract on account of misdemeanour on the part of individuals is

counterproductive as it would adversely affect the modernisation programme of the armed forces.

A court in Italy that was dealing with the allegations of wrongdoing by senior functionaries of Finmeccanica in the execution of the ₹3,600-crore contract signed with the Indian Ministry of Defence (MoD) for the supply of 12 AW-101 AgustaWestland helicopters for VVIP travel has delivered its final judgement in the case. The Italian court has stated unequivocally that no corruption was found in Italian company AgustaWestland's chopper deal with the Indian Air Force. Specifically, the court has found no evidence of any corruption by Air Chief Marshal S.P. Tyagi (Retd), the former Chief of the Air Staff, writes Air Marshal B.K. Pandey.

The Indian army requires bullet proof jackets. The delay is causing all the harm. Red tape and lack of accountability of the MoD that even with Defence Minister Manohar Parrikar himself announcing in 2014 that 50,000 bullet proof jackets would be procured as 'emergency procurement', it does not appear materialising for another six months.

We also have some interesting coverage of the Paris Air Show in this issue.

Happy reading!

A handwritten signature in blue ink, appearing to be 'Jayant Baranwal'. The signature is stylized and somewhat abstract, with several loops and a long horizontal stroke at the end.

**Jayant Baranwal**  
Publisher & Editor-in-Chief



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LT GENERAL  
P.C. KATOCH (RETD)

## Modi-Sharif meet in offing – but outcome?

**M**edia is agog with news of possibility of Prime Minister Narendra Modi meeting his Pakistani counterpart Nawaz Sharif on the sidelines of the annual summit of Shanghai Cooperation Organization (SCO) in Russia next month. The expectations are hyped because of Modi's recent telephonic call to Nawaz Sharif extending best wishes on the occasion of Ramzan while noting that there was a need for having 'peaceful' and 'friendly' bilateral ties between the two countries. Modi had also conveyed India's decision to release detained Pakistani fishermen on the 'pious' occasion of Ramzan.

While India and Pakistan presently have observer status in SCO since 2005, full membership for both countries is well on the cards. Modi's call to Nawaz Sharif was obviously in good faith in backdrop of diplomatic civility at the personal level, but nothing seems to have changed in Pakistan's hostile stance towards India. The recent anti-India resolution passed by the Pakistani Parliament adds up to many similar ones in the past. Unprovoked cross-border firings, infiltration bids and terrorist training in camps in the Pakistan occupied Kashmir (PoK) continues unabated. The ISI, in conjunction LeT and HuM is galvanising Hurriyat hardliners and terrorists in Jammu and Kashmir (J&K); BSNL towers being attacked, Pakistani and ISIS flags periodically waived in the Valley, new terror outfit Tehrik-e-Taliban (TeT) displaying ISIS-like flags and posters in Sopore cautioning public not to use mobiles, not watch television and womenfolk not to move about without the veil. To top this, a rabid faction of the HuM too has been issuing similar diktats.

The fact that HuM support helped the People's Democratic Party's (PDP) electoral win helps more. But what about Pakistan itself? According to Pakistani sources, the ISIS is gaining strength in Pakistan. According to MQM chief Altaf Hussain, "The Tehrik-i-Taliban Pakistan (TTP) and Al Qaeda are merging with ISIS and may challenge Pakistan's integrity and stability." In fact, the ISIS is also firming both in Pakistan and Afghanistan, challenging the writ of Taliban in Afghanistan, the repercussions of which on Pakistan are obvious. This would increase the instability within Pakistan especially because different narratives in the country appear out of control, with sections of the polity and administration in league with terrorist organisations over and above the military and the ISI. This is unlikely to diminish with terrorist organisations continued to be viewed as strategic assets. The Country Reports on Terrorism 2014 released by the US Bureau of Counterterrorism in June 2015 states that Lashkar-e-Taiba (LeT) and its alias organisations continued to operate freely in Pakistan, and there were no indications that Pakistan took significant enforcement actions against the group.

The report categorically states that the attack on the Indian Consulate in Herat, Afghanistan, on May 16, 2014, was done by the LeT. In February 2014, Pakistan promulgated a National Internal Security Plan

(NISP) aimed at combating terrorism and addressing the drivers of violent extremism but by December 2014, most of the policies laid out in the NISP had not been implemented. Also, in Pakistan UN-designated terrorist organisations continued to skirt sanctions by reconstituting themselves under different names, often with little effort to hide their connections to previously banned groups, and the government does not prosecute CFT (countering financing of terrorism) cases.

At the personal level, Nawaz Sharif appears to be in a Catch-22 situation with his own military, with ties coming under more strain. Pervez Musharraf has been issued with non-bailable warrant for murder charge by the court but the military does not want him to be prosecuted as they view prosecution of a former army chief degrading, diminishing the military's clout, besides possibility of cases opening up against other military officials. But more than this are the rising tensions between the Pakistani military and the PPP. Recently, the Director General of Rangers in Karachi made an extraordinary set of allegations focusing on the multibillion-rupee nexus between politics and crime in Karachi. Thereafter Major General Bilal Akbar's paramilitary forces raided the Sindh Building Control Authority offices in search of proof of the vast alleged land-related irregularities in the province. An editorial in the *Dawn* dated June 16 reported a heavy verbal attack by PPP's Asif Zardari (former President) against the military leadership, suggesting that the PPP will not suffer in silence. The editorial wondered if Zardari was responding to the military's attempt to try and disrupt or sever the alleged links between the PPP leadership in Sindh and the phenomenally lucrative financial, land and other rackets in the province. According to the editorial, Major General Akbar's allegations were in essence a political charge sheet as was earlier Karachi corps commander General Naveed Mukhtar's dilation on the city's decades-long drift towards lawlessness. The write-up also wonders if the Sindh provincial government will remain mute spectator to the initiative taken by the Rangers, ostensibly at the military's behest. The Rangers in Karachi can only serve in the city so long as the provincial government endorses their stay there.

The paper questioned the military intruding into the civilian domain but then when has the Pakistani military not intruded into the civilian domain? Zardari's outburst may just be rhetoric because he knows who holds the cards. On becoming President of Pakistan he had issued orders to bring the ISI under the Ministry of Interior but the military made him eat his own words within 24 hours. Then he was also known as Mr 10 per cent, graduating to Mr 40 per cent when Benazir became Prime Minister, so his cupboard would be full of skeletons. But all told, Nawaz Sharif's difficulties are mounting and he is unlikely to defy what his military wants – continued hostility with India. The bottom line is that the prospects of an olive branch by Pakistan are remote. Therefore, should the Modi-Sharif meeting take place in Russia, the latter may just formally seek resumption of cricketing ties. **SP**



AIR MARSHAL  
B.K. PANDEY (RETD)

# Clean chit for AgustaWestland

**Cancellation of contract on account of misdemeanour on the part of individuals is counter-productive as it would adversely affect the modernisation programme of the armed forces. Such a decision would clearly be unwise and certainly not in the best interests of national security.**

PHOTOGRAPH: AgustaWestland



AW-101 AgustaWestland helicopter for VVIP travel

*The UPA Government had a strong inclination for ordering investigations into processing of tenders for defence procurement at the slightest hint of wrongdoing*

**A**s per recent reports in the media, a court in Italy that was dealing with the allegations of wrongdoing by senior functionaries of Finmeccanica in the execution of the ₹3,600-crore contract signed with the Indian Ministry of Defence (MoD) for the supply of 12 AW-101 AgustaWestland helicopters for VVIP travel, has delivered its final judgement in the case. In a document that runs into 145 pages, the Italian court has stated unequivocally that no corruption was found in Italian company AgustaWestland's chopper deal with the Indian Air Force. Specifically, the court has found no evidence of any corruption by Air Chief Marshal S.P. Tyagi (Retd), the former Chief of the Air

Staff (CAS) of the Indian Air Force (IAF). The court has thus categorically and firmly acquitted the former CAS of any charge related to wrongdoing in the processing of the tender and award of contract for the AgustaWestland helicopters.

The Central Bureau of Investigation (CBI) in India that had been tasked by the UPA Government to carry out investigations independently against a number of individuals alleged to be involved in wrongdoing including Air Chief Marshal S.P. Tyagi, is yet to close the case and submit its final report. It is understood that despite all effort, the CBI has not been able to find any evidence of misdemeanour on the part of the former CAS.

## Procurement of VVIP Helicopters

The sordid saga of the ill-fated helicopter deal began in February 2010 when the MoD concluded a contract with AgustaWestland, a company under the Finmeccanica conglomerate, for the purchase of 12 AW-101 helicopters for the transportation of VVIPs. For this task, the IAF had been operating a fleet of Russian MI-8 helicopters that had already been overtaken by obsolescence. The IAF had informed the MoD that the fleet of MI-8 helicopters would have to be retired from service in the near future after which there would be no rotary-wing aircraft available with the IAF that would meet with the standards required for VVIP travel. The case for procurement of new helicopters for VVIP use had therefore acquired a degree of urgency.

In February 2013, three years after the contract with AgustaWestland was concluded, the deal was suddenly mired in controversy when the Italian authorities alleged that bribes were paid to certain Indian officials by the company to clinch the deal for the 12 AW-101 VVIP helicopters. Unfortunately, Air Chief Marshal Tyagi, who had been the Chief of the Air Staff when the tender was being processed, but had retired some six years before the controversy broke, was also dragged into it as one of the possible beneficiaries of the kickbacks. The total pay out to the parties in India was alleged to have been to the tune of ₹360 crore. On the face of it the matter appeared extremely serious as the Italian authorities had arrested Giuseppe Orsi, the Chief Executive Officer (CEO) of Finmeccanica, the parent company of AgustaWestland. The reaction of the UPA Government came by way of A.K. Antony, the Minister of Defence, freezing the contract and ordering an investigation by the CBI into the allegations the day after the arrest of the CEO of Finmeccanica. Meanwhile, the Indian Government had already paid 30 per cent of the value of contract and the IAF had received three of the 12 machines ordered.

## Cancellation of Contract and its Implications

Without waiting for the final report on the findings by the CBI or of the Italian court, in January 2014, the Indian Government cancelled the ₹3,600-crore contract with AgustaWestland. The reason for the cancellation of contract as stated by the government was "Breach of the Pre-Contract Integrity Pact and the agreement by AgustaWestland International Ltd".

The remarkably swift action by an otherwise lethargic government to cancel the contract with AgustaWestland for the supply of 12 AW-101 VVIP helicopters merely on unsubstantiated reports of wrongdoing in the processing of contract for the military helicopters, did signal the seriousness of the intent of the government to the global aerospace and defence industry that in the procurement of military hardware, India would not accept malpractices associated with the employment of middlemen such as the payment of bribes or kickbacks to influence decision makers in order to secure lucrative high value defence contracts. However, while this action by A.K. Antony, Minister of Defence, would appear ethically correct and noble, it left the IAF high and dry with plans for revamping the rotary-wing fleet for VVIP travel gone completely awry. The IAF was literally left 'holding the baby' with three AW-101 helicopters already delivered by the company. Procured at considerable expense, these three machines are gathering dust at IAF Station, Palam as in the absence of product support from the original equipment manufacturer (OEM) AgustaWestland, these will be of little use to the IAF as these can neither be used for VVIP travel nor for routine operational deployment. Consequently, the IAF was left with no option but to divert few of the latest acquisitions of the MI-17V5 from operational squadrons to be refitted and dedicated for VVIP

travel. Undoubtedly, this would have dented the operational potential of the rotary-wing fleet of the IAF apart from the MoD saddled with a legal battle in Italian courts to recover the advance paid to the Anglo-Italian company.

The cancellation of the contract for the AgustaWestland helicopters is of little military significance as these machines were meant solely for the transportation of VVIPs and were not being procured for operational tasks. However, what is and ought to be a matter of concern is the callous disregard by the government for the deleterious impact of such ill-considered decisions on the operational potential of the armed forces. The UPA Government had a particularly strong inclination for ordering investigations into processing of tenders or award of contracts for procurement of military hardware, blacklisting of firms and cancellation of contracts at the slightest hint of wrongdoing. In the wake of allegations of misdemeanour, manufacturers of military hardware of global repute from Israel, Switzerland, Russia, Singapore and South Africa were blacklisted leading to supply chain problems for the Indian armed forces that continue to depend on foreign suppliers for around 70 per cent of their requirement of military hardware. The tender for artillery guns for the Indian Army was cancelled five times and that for 197 light utility helicopters was abrogated twice following allegations of wrongdoing and finally scrapped leaving the troops deployed in the high mountains of North India without the required level of logistic support.

## Restructure the Defence Procurement Procedure

Part of the problem lies with the Defence Procurement Procedure (DPP) which was promulgated after the emergence of a unipolar world following the end of the Cold War. The objective of the DPP was to provide the armed forces with a wide choice in the global market, to obtain the best value for money and to enhance the capability of the indigenous aerospace and defence industry through offsets. The DPP provided a framework that was rather rigid with no room for any of the functionaries in the armed forces or the bureaucracy in the MoD to exercise discretion. It also had in-built provision for litigation. Over the years, the DPP has been revised periodically and with every revision, it became increasingly inflexible. Today, the DPP has been reduced to being merely a clerical exercise as over last decade-and-a-half, it has totally failed to address the imperatives of national security. This is abundantly clear from the fact that so far only one tender, that for the Pilatus PC-7 MkII basic trainer aircraft from Pilatus of Switzerland, had been successfully completed.

Fortunately, the government of the day appears to be aware of the limitations of the DPP as was evident in the briefing by Manohar Parrikar, the Minister of Defence, to the media after the tender for 126 medium multi-role combat aircraft (MMRCA) had been scrapped. The MMRCA tender floated under the DPP, after eight years of effort, had come up against an insurmountable roadblock and had to be replaced by a direct deal with the government of France for purchase of 36 Rafale combat jets. Now that the government has embarked on an exercise to restructure the DPP, hopefully, the armed forces will be able to induct weapon systems to restore its operational edge over the adversaries in a respectable time frame.

A restructured DPP must necessarily incorporate a procedure to separate offence from contract and deal with the guilty without jeopardising the contract itself. Cancellation of contract on account of misdemeanour on the part of individuals is counter-productive as it would adversely affect the modernisation programme of the armed forces. Such a decision would clearly be unwise and certainly not in the best interests of national security. **SP**





LT GENERAL  
P.C. KATOCH (RETD)

# Respecting national security

**A**s per media reports, the recent visit by the National Security Advisor (NSA) to Myanmar to tie up joint Indo-Myanmar operations against the Naga and other insurgents lodged inside Myanmar territory did not get the expected response from the Myanmar Government. Myanmar authorities reportedly told the NSA that while NSCN was confined to border areas, the hot pursuit by the Indian Army forced them to move further inside the country, which affected Myanmar security.

This response is despite the NSA having held comprehensive talks with Myanmar President U Thein Sein and top defence brass on security cooperation in Myanmar during his visit to the country. The NSA's visit was post-June 9 raid by Indian Special Forces inside Myanmar pursuant to the ambush of an army convoy in Manipur that resulted in the loss of 18 personnel. India's June 9 raid was with Myanmar concurrence, hence, Myanmar declining joint operations was not expected especially when joint operations of the two militaries have been conducted in the past. But, Myanmar has been in the throes of civil unrest because of many radical outfits with a national reconciliation remaining elusive. It is also obvious that China with her defence and economic ties with Myanmar must be exerting enormous pressure on Myanmar to decline joint operations with India, especially with Chinese intelligence having created the United Liberation Front of WSEA only in April and having instigated the NSCN(K) to abrogate its 14-year-old ceasefire; all to destabilise India's North East. Besides, China holds her proxy the UWSA (United Wa State Army) over the Myanmar Army. However, Myanmar is a sovereign country and is expected to take its own decisions.

What could have been behind the Myanmar's no to joint operations with India could well be the public opinion, more prominent because of the approaching elections. Witness that when details of the June 9 raid first emerged, Myanmar declined it had given the permission to undertake raids in its territory. This is a normal reaction by any country including India if the hot pursuit was by Myanmar into Indian territory with India's concurrence. It is obvious that post the Manipur ambush, the army had to strike hard, which it did. But the official army statement post the raid though was in only outline, it could have left out the reference to Myanmar,

which is a friendly country unlike Pakistan sponsoring terrorism in India. Government of India's policy makers need to take a call on why was it necessary to embarrass Myanmar. But if this was not enough, our media went totally overboard in speculation and giving out each and every detail of the raids. Where was the need to blow the issue out of proportion and put Myanmar Government in an awkward position? What is most relevant here is that a covert operation has been laid bare open.

As a nation, where is our sense of national security. Obviously, the hierarchy is blissfully unaware that detailed exposures like this would adversely affect similar future operations. It is not the first time that we have conducted cross-border raids but never has been such open chest thumping. It would not be out of context that China would have probably jailed if not executed her journalists for similar default. It is no secret that we lack strategic culture mainly because the military is kept out of policy decisions on national security and matters military but our media is sans any sense of national security. And this is not the first time it has happened. It is well documented that during the 26/11 Mumbai terrorist strike, the senseless running commentary by our media proved a boon to the terrorists and their handlers. During the 9/11 terror strike on twin towers in New York City the media was not permitted anywhere close to ground zero for days. In our case, post the attack on Parliament, detailed descriptions with sketches and photographs giving which minister and parliamentarians occupy which rooms in Parliament kept on filling our newspapers and magazines. Post the periodic Strike Corps exercises, you find pincers being drawn where and how deep they will go - little wonder fidgety Musharraf keeps rattling his nuke toys.

In China, every journalist must be a member of the All-China Journalists Association. Periodic training capsules for them are conducted in batches for them; ranging from one day to week-long capsules. We are a free democracy but the government needs to instill a sense of national security in our media with measures in place to deal with defaulters. This should be one of the major responsibilities of the Government of India's Principal Information Officer assisted by the HRD Ministry. Would the Modi Government take note? **SP**

**We are a free democracy but the government needs to instill a sense of national security in our media with measures in place to deal with defaulters**



REAR ADMIRAL  
S. RAMSAY (RETD)

# Chinese submarines on the prowl in Indian Ocean region



**China's first-ever deployment of a Yuan class submarine to Pakistan acquires greater significance in the context of emerging reports that China will be selling some eight Yuan class submarines to Pakistan in the near future. Four submarines of this project will reportedly be manufactured indigenously in Pakistan**

**R**ecent reports of a conventional Chinese submarine entering Karachi harbour in the last week of May and spending one week for replenishment and logistics turnaround has caused much consternation in the Indian security establishment. This was the second incidence of presence Chinese submarine in the backyard of India, the first being Chinese submarine visiting Colombo cargo terminal some nine months ago during September 2014. The major difference between the two visits was that in the first case India could lodge an official protest with the Sri Lankan Government for breach of a bilateral agreement between the two countries. However, in the instant case lack of similar instrument does not offer any option to India.

From China's maritime perspective the deployment of a Yuan class 335 conventional submarine, equipped with torpedoes, anti-ship missiles and the air-independent propulsion (AIP) system which enhances the stealth features and underwater endurance of a conventional submarine, is of great strategic significance. China has been aspiring to demonstrate its maritime capability in the South China Sea, Malacca Strait, its adjoining waters and now the Indian Ocean region (IOR) through the Gulf of Aden in the garb of anti-piracy campaigns. In that context China now has its proven doctrine. This is yet another indicator of the fast transformation of the People's Liberation Army-Navy, which operated close to its shores in the profile of Brown Water Navy, into a 'Blue Water' force with long legs that is expanding its presence in the IOR. China has claimed that such replenishment stopovers on way to the Gulf of Aden for escort and anti-piracy operations were a 'common practice' for navies around the world. While there is no dispute over the claim, it is now an open secret that China is honing skills of long-range deployments of its nuclear and conventional submarines.

However, justifying such overseas deployments on anti-piracy missions should be viewed as blatant disclaimers of its actual intent. China's first-ever deployment of a Yuan class submarine to Pakistan acquires greater significance in the context of emerging reports that China will be selling some eight Yuan class submarines to Pakistan in the near future. Four submarines of this project will reportedly be manufactured indigenously in Pakistan.

Fully loaded and equipped Chinese submarine reportedly spent a full week in Karachi port in the last week of May with entire crew of at least 65 on board. While such deployments are not unusual, it certainly accentuates China's increasing defence cooperation with Pakistan.

India presently has just 13 operational submarines as against China's 60. Pakistan, a much smaller country, has eight operational submarines as of now. China is racing ahead in adding more submarines to its fleet and should have 75 submarines by 2020. The emerging developments can only be countered by India rejuvenating her own indigenous 30-year submarine capability building plan. The prestigious Scorpene project is already beleaguered and the first platform of the line is expected to be delivered only towards the end of 2016. The delivery of the subsequent submarine is expected at an interval of nine months each with the completion of the project stretching to 2020.

In the recent past the Defence Acquisition Council has approved a request for information for six more conventional submarines with AIP capability. Request for proposal and tendering process is still far out on the horizon. The Project 75I submarines are expected to be bigger than the 1,800-tonne Scorpene class currently under construction at the Mazagon Dock Limited (MDL), Mumbai. The AIP systems will enable greater underwater endurance besides incorporating stealth, land-attack missiles capability and other technological advancements. Optimistically speaking the first Boat of Project 75I could be available not before 2025. The government has allocated \$8.1 billion for the six submarines to be acquired.

Recently, Cabinet Committee on Security has approved plans for the indigenous development and construction of six nuclear-powered submarines. The plan to add six nuclear submarines is a modification of government's decision taken last year for Project 75I. This initiative is an amalgamation of six nuclear submarines into 30-year submarine force building and modernisation perspective plan.

Taking serious note of these developments Admiral Robin Dhowan, Chief of the Naval Staff, had recently said that the Indian Navy was "minutely and continuously monitoring" the presence of Chinese warships in the region to ascertain "what challenges they could pose for us." **SP**


 LT GENERAL  
 P.C. KATOCH (RETD)

# Bullet proof jackets – Army's continuing void

*One only wonders if the establishment wants serving soldiers also to go on hunger strike for basic weapons and protection – akin to veterans on hunger strike at Jantar Mantar for OROP denied to them past 40 years*



**Such is the power of the red tape and lack of accountability (or shall we say shame) of the MoD that even with Defence Minister Manohar Parrikar himself announcing in 2014 that 50,000 bullet proof jackets would be procured as 'emergency procurement', it does not appear materialising for another six months.**

**T**he media has for the umpteenth time in past few years pointed out the lack of bullet proof jackets in the Army; the Army is yet to get light-weight modular jackets almost a decade after it first demanded them, and six years after the proposal was cleared by the government. Such is the power of the red tape and lack of accountability (or shall we say shame) of the Ministry of Defence (MoD) that even with Defence Minister Manohar Parrikar himself announcing in 2014 that 50,000 bullet proof jackets would be procured as 'emergency procurement', it does not appear materialising for another six months. In fact, the media quotes a MoD source saying, "The selection/procurement process is underway after the government sanction.... It will take at least another six months". So, if 'emergency procurement' implies more than one year, you can imagine the rest.

What the media did not bring out is that after Parrikar's statement of emergent procurement of bullet proof jackets, MoD went ahead and surrendered ₹6,000 crore from the defence budget on March 31, 2015. Why was it not possible to pick up 50,000 modular bullet proof jackets commercially off-the-shelf on emergent basis using a portion of the surrendered ₹6,000 crore only indicates lackadaisical approach to loss of soldiers' lives and limbs.

But then we have had naval vessels including INS Sindhurakshak lost at sea because of lack of sanction for months on end of batteries available within the country and dead bodies lying in their watery graves for months without any urgency to return the remains to their kith and kin. One can only wonder if the Defence Minister can fathom anything wrong here or continue with the 'chalta hai' attitude of his predecessors. It was in October 2009 that the Defence Acquisition Council (DAC) had cleared the acquisition of 1,86,138 such bullet proof jackets since the Army was short of that number from its authorised holding of 3,53,765 jackets. But the case has not progressed further while the Army's existing old and bulky jackets, which provide inadequate protection and reportedly are fast-approaching the end of their shelf-life in a year or so. The new jackets, coupled with proper ballistic helmets, were

supposed to effectively protect the head, neck, chest, groin and sides of soldiers as well as allow them to move with greater agility during counter-insurgency operations. The modular bullet proof jackets would weigh less than 4 kg with trauma pad with all-around soft armour plate and weight 11.5 kg, with hard armour plates for front, rear, sides, upper arms, groin and throat, in turn, for high-risk missions; meant to withstand six rounds of 7.62mm x 39mm mild steel core ammunition fired from an AK-47 from 10-metre distance. The bigger case for 1.86 lakh jackets is still at the trial evaluation stage. Each jacket's estimated cost was put at around ₹50,000 when the project was approved, making it a total of around ₹930 crore. All these jackets were to be inducted by 2012, with another 1.67 lakh jackets to be ordered in the second round. However, revision of technical parameters and re-floating of tenders as well as convoluted defence procurement procedures and politico-bureaucratic apathy have put paid to those plans despite several parliamentary committees for defence taken adverse view of this 'critical shortage' of bullet proof jackets. What an irony that a country that sends a mission to Mars at a fraction cost of what global powers do, cannot produce a modular bullet proof jacket for its soldiers. In fact in 2007, the Northern Army Commander returned huge consignments of the normal camouflage jackets produced by Defence Research and Development Organisation's (DRDO) Ordnance Factory Board because their disjointed shape hindered the arm movements of soldiers. Three years back the Comptroller and Auditor General of India (CAG) had objections as to why the Northern Army Commander was importing bullet proof jackets under his special powers. The former apparently had no idea that the governmental defence-industrial complex has failed to meet the requirements of the Army in this regard. Ironically, the media warns that the hunt for a requisite assault rifle is also going to be lost, even abandoned, in the sea of red tape. One only wonders if the establishment wants serving soldiers also to go on hunger strike for basic weapons and protection – akin to veterans on hunger strike at Jantar Mantar for One Rank, One Pension denied to them past 40 years. **SP**



LT GENERAL  
P.C. KATOCH (RETD)

# Protecting Lakhvi – China reaffirms she is no friend of India

**China's support to Nepalese and Indian Maoists, PLA in Manipur, hobnobbing with Naga insurgents, support to ULFA, creation of the United Liberation Front of West, South, East Asia (WSEA) and lethal arming of the United Wa State Army (UWSA) in Manipur shows China will indeed be a thorn in the flesh of India**

**W**riting in the *Nikkei Asian Review* on June 11, Katsuji Nakazawa wrote that Chinese President Xi Jinping is haunted by fears of assassination. He writes that tensions have been running high within the Communist Party in early March following a major reshuffle of security officials responsible for protecting Xi and other leaders, and that in a sign that he feared for his own safety, Xi abruptly replaced top officials of the Chinese Communist Party's (CCP) Central Security Bureau and the Beijing municipal bureau of public safety.

Nakazawa, quoting a person close to the matter, said, "In the past few years, there were nearly 20 occasions in which Xi encountered possible assassination attempts". The sudden and sweeping reshuffle indicates Xi's fears albeit it was Xi's vigorous efforts to topple political foes, in the name of anti-corruption campaign, that have left him distressed and sleepless. Earlier, it was also being rumoured that the Chinese Border Guards incursions into Indian territory were local actions, not with concurrence of the Chinese hierarchy albeit this appeared deliberate misinformation since China's Border Guard Divisions are under command the PLA and like any other organisation in China are closely monitored and orchestrated by the CCP representatives posted within each organisation. China's strategy has always been replete with ambiguity and deceit despite her peace homilies.

But all told, Xi Jinping is a powerful leader and much was hoped that in concert with Prime Minister Narendra Modi, he would take the India-China relationship to a new high of peaceful coexistence and economic prosperity for both countries and the region. Both during his visit to India and Prime Minister Modi's visit to China, Xi talked of peace, while the Chinese Ambassador to India too has been harping on peace while selling Chinese wares. However, now with one single stroke Xi Jinping has bared his fangs - through the Chinese action of blocking India's move in the UN for action against Pakistan for the release of 26/11 mastermind Zaki ur Rehman Lakhvi from jail last month. The UN Sanctions Committee, which met at India's request, was to seek a

clarification from Pakistan on Lakhvi's release in the 26/11 trial but China blocked the move on grounds that India did not provide sufficient information. Lakhvi's release was flashed over the international media and he was rearrested after vehement protests by India, so what proof is China talking about?

In fact, Lakhvi's release was viewed with concern in US, Russia, France and Germany. Washington has demanded his rearrest. India's permanent representative to the UN, Asoke Mukherjee, had written to the UN Sanctions Committee terming Lakhvi's release a violation of a UN resolution on terrorist organisations and groups, including the Al Qaeda and the Lashkar-e-Taiba (LeT), wherever located. Lakhvi, close relative of LeT founder and Jamaat-Ud Dawa (JuD) chief Hafiz Saeed, was arrested in December 2006 faces trial, along with six others, over the attack in 2008 in Mumbai, in which 166 people were killed.



However, the case has made little progress since 2006 because of soft-peddling by Pakistan despite India's repeated reiteration that ample evidence has been provided to Pakistan to convict the accused.

On the contrary, both Lakhvi and Hafiz Saeed are heroes in Pakistan with the country reeking in radicalism and institutionalised policy of state terrorism. Though China's 'higher than the mountains, deeper than the seas' friendship with Pakistan is well known, by her latest move to protect Lakhvi at the UN, China has blatantly indicated she has no compunctions in abetting terror. Far from being a friend of India, she would rather remain a snake in the grass. Learning from the West, particularly US and NATO, China is making major investments in sub-conventional warfare.

It is no more the case of only supporting Pakistan's terrorism but China is going proactive for using Taliban in Afghanistan. Her support to Nepalese and Indian Maoists, PLA in Manipur, hobnobbing with Naga insurgents, support to ULFA, creation of the United Liberation Front of West, South, East Asia (WSEA) and lethal arming of the United State Wa Army (USWA) in Manipur shows China will indeed be a thorn in the flesh of India. Earlier, we acknowledge this and take countermeasures the better. **SP**



## Yoga at Siachen, Leh and Kargil

The International Yoga Day was celebrated by Indian Army's 14 Corps on June 21 at Siachen Glacier, Leh, Kargil. The event at Leh was attended by over 500 personnel which included army personnel of the Leh Garrison. Large attendances were also organised at Siachen, Kargil and other forward locations along the borders. At Siachen a central yoga function was organised at the base camp. Soldiers also performed yoga at the forward posts on the Siachen Glacier. Apart from giving an impetus to physical fitness, the events were aimed to popularise yoga and also to spread awareness on benefits of yoga amongst the soldiers. Large number of soldiers showed interest in learning yoga asanas, pranayama and meditation.

The Indian Army has incorporated yoga asanas into the daily routine of the soldier in high altitude areas with harsh climatic conditions. Practice of yoga by soldiers in such an environment has helped them to combat various diseases such as high altitude sickness, hypoxia, pulmonary odema and the psychological stresses of isolation and fatigue. The respiratory adaptations of pranayama help the soldiers to better adapt to the low oxygen environment in high altitude areas. By practising a few minutes of pranayama, gentle asanas and meditation, many of the soldiers have testified to the physical and mental benefits of yoga. A positive, well relaxed and destressed body and mind is the most significant benefit of yoga which in turn assists the soldiers to operate successfully in such a challenging environment. **SP**

## Yoga across the oceans: Indian Navy way



The strength of the Indian Navy is its highly motivated, disciplined and well trained personnel who are ever-ready to serve the nation even in the most demanding situations. Naval personnel sail onboard ships and submarines at sea for extended durations in challenging conditions. This inevitably leads to physical and mental stress, which gets compounded due to the prolonged separation from their families during operational deployments. The

challenge gets accentuated as naval personnel onboard warships and submarines at sea do not have the luxury of open space and equipment to perform regular physical fitness activities. The Indian Navy, therefore, pays special emphasis on the physical well being and mental alertness of its personnel.

Yoga forms an integral part of daily physical training at sea. Physical training instructors (PTIs) in the Indian Navy are imparted training in both the practice and teaching of yoga and are appointed to every ship and submarine at sea. The PTIs oversee the daily conduct of physical training onboard ships, including yoga, which has gained tremendously in popularity over the years.

The Indian Navy has declared 'Yoga across the Oceans' as its theme for the first International Yoga Day and various benefits of yoga were amply demonstrated by the conduct of yoga onboard all Indian naval ships deployed from the South China Sea in the East to the Mediterranean Sea in the this morning.

In New Delhi, a week-long yoga camp was held from June 14 -21, 2015, at INS India and residential area of naval families. Similar exercise was also carried out in all other naval stations spread across the country. In addition to the various yoga camps, a yoga workshop was conducted on June 19, 2015 for the naval personnel along with their families. The workshop witnessed participation by personnel from all age groups including the Chief of the Naval Staff, Admiral R.K. Dhowan. During his interaction with the media after the yoga workshop, the Naval Chief highlighted the importance of yoga for the well-being of naval personnel as the life at sea is very challenging and stressful. He also said that the Indian Navy is actively involved in spreading the message about yoga and its benefits throughout the globe. **SP**

## GRSE launches three follow-on water jet fast attack



**T**hree follow-on water jet fast attack craft (FO-WJFAC) for the Indian Navy were launched recently at the Garden Reach Shipbuilders & Engineers Ltd (GRSE), Kolkata, by Medha Murugesan, wife of Vice Admiral P. Murugesan, Vice Chief of the Naval Staff.

Vice Admiral Murugesan asserted that Indian Navy has been the torch bearer in the drive for indigenous construction of warships and acknowledged the role of GRSE as a reliable partner in pursuing the national goal of 'Make in India'.

These follow-on WJFAC are powered by the latest 4000-series of MTU engines, along with advanced machinery control system and water jets and can attain a maximum speed of 35 knots. The craft would also have the latest communication equipment and radars which would enable effective surveillance. These follow-on ships have higher power generating capacity of 280 kW, enhanced capacity of RO plant from 2 TPD to 4 TPD among many other features as compared to the WJFAC already in service. The indigenous CRN 91 Gun with optronic pedestal gives them the requisite firepower to undertake their basic role of patrolling effectively. Two of these ships are scheduled to be delivered to the Indian Navy in this year.

Launching of FO-WJFACs Yard 2109, 2110 and 2111 (out of the four contracted), designed in-house and built by GRSE for the Indian Navy is yet another milestone in India's quest for self-reliance in shipbuilding. **SP**

## INS Teg reaches Seychelles

**I**ndia has a strong and long-standing relationship with Seychelles of which defence cooperation is a very significant component. The defence cooperation between the two nations includes cooperation in the field of training, hydrography and maritime domain awareness (MDA). India has also provided a fast attack craft and Dornier aircraft to Seychelles as part of its capability development programme.

INS Teg, a stealth frigate of the Indian Navy, is currently on a two-month-long deployment in the South Indian Ocean with an aim to provide surveillance support in the region. This is in keeping with India's national objective of ensuring a secure and stable regional environment to allow unhindered economic and social development, not just in India, but also in the entire Indian Ocean region. The Indian Navy, while shouldering its security responsibilities, is committed to these objectives and has been contributing in capacity building and capability enhancement of friendly foreign countries,



as and when requested by them.

INS Teg is a state-of-the-art guided missile frigate of the Indian Navy and is based at Mumbai. With a displacement of 4,000 tonnes and speed of 30 knots, she is armed with the latest weapons and is capable of accomplishing a wide variety of missions. At the helm of the ship is the Commanding Officer, Captain A.Y. Sardesai. **SP**

## 20 crew members of MV Jindal Kamakshi rescued



**A**t about 11:00 p.m. on June 21, 2015, an Indian flagged, container vessel Jindal Kamakshi sent out a distress alert. The vessel was on passage from Mundra to Kochi with 20 crew members onboard. The merchant vessel was about 100 km from the Mumbai harbour and reported that it was tilting to one side by 20 degrees. Bad weather further aggravated the situation and the ship therefore closed the shore and anchored about 25 km West of Vasai creek. The distress was received by Coast Guard Maritime Rescue Coordination Centre (MRCC Mumbai).

Despite heavy winds, rain, pitch dark night and poor visibility, Indian Navy immediately launched a Seaking Helicopter at 12.45 a.m. on June 22, 2015. The helicopter went overhead the vessel and carried out a visual assessment and when captain of the vessel intimated that immediate assistance was not required, the helicopter returned to Mumbai.

19 Indian crew of the vessel were winched up by the Seaking Helicopter and brought to safety to INS Shikra, the Indian helicopter base at Colaba. The Master of the stranded ship was rescued by the Coast Guard Chetak helicopter launched from Mumbai. **SP**

# FICCI aerospace and air defence business delegation at Paris Air Show



FICCI delegation at Dassault static display

**F**ICCI for the first time mounted a 19-member Indian industry delegation representing both large and MSME players in the aerospace and air defence sector at the International Air Show at Le Bourget, Paris, France. The objective of the delegation was to forge deeper ties between the European and Indian aerospace industry. The ambitious procurement plans of the Government of India coupled with the 'Make in India' campaign provided an ideal platform for the European aerospace industry to seek opportunities for co-development and co-production in air defence technologies and platforms in India.

Apart from business meetings with French majors like Dassault Aviation, Safran, etc, the delegation also interacted with other global majors like SKF, Nexter, besides other important SMEs. The

delegation also met the aerospace clusters of Canada and France. The delegation was hosted by GIFAS on June 17, 2015, where Ashok Gajapathi Raju, Minister of Civil Aviation, and Mohan Kumar, Ambassador of India to France, participated at France-Indo Industry Meeting and exchanged views on co-development and co-production opportunities under 'Make in India'. Speaking on the occasion, Ashok Gajapathi Raju welcomed the French companies to explore the vast opportunities offered by India, not just as a market but also as a manufacturing hub with vast pool of technically qualified skilled professionals. During this occasion, the senior industry leaders from India and France also deliberated on the strengths and opportunities in defence aerospace supply chain and maintenance, repair and overhaul (MRO) in India. **SP**

# Beechcraft highlights ISR platforms



Beechcraft Baron G58 ISR demonstrator

[ By **R. Chandrakanth** in Paris ]

**B**eechcraft, part of Textron Inc. company, showcased the new Baron G58, highlighting ISR (intelligence, surveillance and reconnaissance) platforms at the Paris International Air Show 2015 at Le Bourget. The Baron G58 ISR is a light, twin-engined piston aircraft specifically designed and equipped to perform ISR missions.

Speaking to *SP's M.A.I.*, Dan Keady, Senior Vice President, Special Mission Aircraft, said outside of AT-6 (which was also on display), a multimission aircraft system designed to meet the spectrum of needs for the light attack mission, Textron Aviation has 20 products meeting requirements of special mission. "Whether it is for government or commercial operators, we have airborne solutions for critical missions. Beechcraft products are used for air ambulance, surveillance, maritime patrol, flight inspection among other defence and security applications."

Keady said the company has been focusing on special mission aircraft and that it 'can missionise single engine, twin engine, piston engine and jet' as per customer needs. This versatility gives the company an edge as it is in all engine segments.

The Beechcraft AT-6, he said, has been outfitted with state-of-the-art equipment such as the L-3 Wescam's MX-15Di sensor suite; Lockheed Martin's A-10C-based mission system and CMC Esterline's mission modified cockpit 4000. Besides, the AT-6, Beechcraft had on display a King Air 350ER, Grand Caravan EX and Baron G58 ISR.

The Baron G58 ISR, he said, has the highest dash speed in its class

as to go on surveillance missions at short notice. The aircraft can support six-hour missions with its fuel/payload. Beechcraft has long served the ISR markets with its range of King Air turboprops and first introduced a version of its twin-engine piston Baron G58 aircraft with ISR capabilities. The company delivered the first Baron G58 with an ISR package in 2013 to the Fuerzas Unidas de Rápida Acción (FURA), an agency within the Puerto Rico Police Department that uses the aircraft for law enforcement surveillance missions within the region.

The Baron G58 ISR package includes a FLIR 230-HD electro-optical/infrared (EO/IR) camera system, an operator's console that houses the mapping/mission management computer, a recorder and a multi-band communications radio system and data link for special mission operators. The 230-HD EO/IR camera has the ability to virtually see both day and night, over land and water, in both good and poor weather.

## Indian Scenario

Talking about the Indian market, Keady said that the growth has been 'flat' and the company was hoping that the present government would bring in 'friendly import regulations'. Textron, he said, has been working with various state governments, particularly in the North East where requirements of such aircraft seem to be coming up. The strategy, he said, is to understand the requirements of the state governments and then penetrate the market. Its recent win has been in Uttar Pradesh where the government has purchased a King Air 250. Beechcraft sees opportunity in surveillance in India. The King Air 350ER, he said, had a 270° search radar which could be used for maritime patrol and this aircraft had the capability to drop light crafts. The Grand Caravan EX could be deployed for cargo operations and had capabilities to operate on dirt runways.

## Military Aircraft Delivered

Beechcraft announced at the show that it had delivered four T-6D military aircraft to the United States Army. "We are pleased that the US Army is joining the US Air Force, US Navy and countries around the world in trusting the T-6 to prepare and support their combat flying forces," said Russ Bartlett, President, Beechcraft Defense Company. "This versatile platform comprised of four aircraft will be used in a variety of training and mission support applications."

The Beechcraft T-6D is a hybrid of the T-6B and T-6C trainers. It features new standard avionics, featuring integrated mission computers, upfront control panels, multi-function displays and a heads-up display. The Army T-6D aircraft have a hard point wing to allow carriage of up to six wing-mounted pylons and two external fuel tanks.

## Segment Leadership

More than 7,300 Beechcraft King Air turboprops have been delivered to customers around the world since 1964, making it the best-selling business turboprop family in the world. The worldwide fleet has surpassed 60 million flight hours in its first 50 years, serving roles in all branches of the US military, and flying commercial missions ranging from traditional passenger and cargo transport to electronic and imagery surveillance, air ambulance, airway calibration, photographic mapping, training and weather modification. **SP**



# Slew of offerings from Thales

[ By **R. Chandrakanth** in Paris ]

**F**rench aerospace and defence major Thales used its home turf to great advantage displaying a host of products and solutions, both for the military and civil markets.

Thales began with a bang at the Paris Air Show, unveiling STAR NG, a revolutionary new-generation air traffic control (ATC) radar. STAR NG is an S-Band primary surveillance radar (PSR) which can perform all the operational primary surveillance requirements of both civil and military air traffic control. The technological breakthroughs developed for the STAR NG allow the radar to address some of the key challenges of the industry. Most notably the system provides increased mitigation of windfarms, as well drastically reducing the impact on operational performance caused by the noise of 4G networks.

Thales had some wins with regard to its Avant in-flight entertainment system. On day one, Kuwait Airways newest fleet of A330-200 will be fitted with Avant. The programme is part of a total order of five A330-200. Similarly, Oman Air and Air Caraïbes announced that they had selected Avant for their aircraft. Oman Air order covers 16 B737, 3 A330s and 6 B787, while Air Caraïbes, which is the launch customer in France for A350 XWB, is installing Avant on six of the new fleet.

Passengers will have access to a wide selection of on-demand entertainment and the latest generation of applications on the market including the Thales acclaimed 3D Maps.

## Electronic Flight Bag

Thales launched a new generation TopWings Electronic Flight Bag (EFB) software application suite designed by pilots for pilots. This revolutionary product will be designed in cooperation with IT experts and pilots from Air France and numerous other airlines to gather their insights and understand their operational needs. Air France has announced its intention to cooperate with Thales on the development of this solution. The airline intends to equip its entire fleet with this new EFB software solution. Other airlines of the Air France-KLM group have expressed their interest for the TopWings solution.

“We have designed an aircraft-agnostic EFB system that not only can be fully integrated across the fleet and connected to the ground but also plays the role of a digital assistant to the pilot. We are delighted to work with the group Air France-KLM on this project.” Daniel Malka, Thales Vice President, Avionics Services.

## Military Wins

On the military side, Thales had wins for its I-Master SAR/GMTI radars from the Royal Jordanian Air Force. The selection follows the successful delivery and installation of the radar onto their Royal Jordanian Air Force AC-235 aircraft in 2014.

Thales and Textron AirLand announced that they have successfully jointly integrated Thales’ I-Master radar on to Textron AirLand’s Scorpion Jet(tm). The addition of the radar into the Scorpion’s mission system complements the intelligence, surveillance and reconnaissance (ISR) sensor suite which already includes a high-end EO/IR capability.



New-generation TopWings Electronic Flight Bag

## Joins Forces with DCI

Thales and DCI have joined forces to deliver high-level training in electronic warfare (EW). Through this partnership, the two companies will combine their skills and offer comprehensive and innovative solutions to even better meet the needs and expectations of military customers around the world.

They have developed a catalogue of common training modules focusing on the various aspects of EW today. Thales will contribute its technical expertise. The company develops, delivers and supports state-of-the-art EW systems for more than 50 countries. It also designs EW simulators and provides training in the use and maintenance of these systems worldwide.

Merry Michaux, Vice President for Thales’s military aerospace support and services business, said: “Our complementary skills and flexible approach will ensure our customers benefit from real technical and operational efficiency as they seek to maximise their electronic warfare capabilities. Thales’s presence in 56 countries and close working relations with operational armed forces personnel will further extend the partnership’s international reach to better serve customers and meet their specific national requirements.” **SP**

# FGFA R&D contract to be signed in 2015: UAC President & Chairman



Fifth-generation fighter aircraft

[ By **R. Chandrakanth** in Paris ]

**T**he fifth-generation fighter aircraft (FGFA), a project of Russian and Indian Governments, is progressing well. The contract to develop a preliminary design project of the perspective multi-functional fighter (PMF-FGFA) has been completed. The fighter design has been fully developed, according to Yuri Slyusar, the new President and Chairman of the United Aircraft Corporation (UAC).

Speaking to *SP's M.A.I.* on the sidelines of the UAC press conference at Paris International Air Show, he said India is a major partner for UAC in the development of two projects - the FGFA and the multi-role transport aircraft (MTA). He said for Sukhoi this is top priority and Indian specialists have been trained with regard to basic data and software to create a single working environment. Both parties, he added, had agreed upon the amount and division of work during the research and development (R&D) stage. The contract for the R&D work will be signed in 2015 itself, he confirmed.

The PMF-FGFA fighter developed by the co-production will have some differences from the Russian prototype due to specific requirements of the Indian Air Force (IAF). As regards the Russian version, he said that three more flying prototypes would be joining the test programme which now has five prototypes undergoing various on-land and flight tests.

Compared to the previous generation fighters, the PAK FA (Russian version) combines the functions of a strike aircraft and a fighter, thus offering a number of unique capabilities. The aircraft will have a new thoroughly integrated avionics package providing superior automatic control and intellectual support of the crew. This considerably reduces the workload on the pilot, enabling the pilot to better concentrate on the tactical functions. The onboard equipment of the new aircraft makes it possible to exchange information in a real

time mode with on-land control systems and airborne teams as well as to act on its own.

## **MTA precontract documentation soon**

With regard to the multi-role transport aircraft (MTA), he said the preliminary design of the aircraft has been completed and that India and Russia are working on precontract documentation. The contract would be signed before the end of 2015.

The MTA project is being developed according to an intergovernmental agreement between the Russian Federation and India. The participants on the Russian side are JSC Rosoboronexport and JSC UAC Transport Aircraft, a UAC subsidiary with the Hindustan Aeronautics Limited on board. The joint venture is registered in Bengaluru. The work to implement the programme is financed on a parity basis.

## **UAC growth curve**

He said UAC revenue for financial year 2014 had touched 285 billion roubles, with over 98,000 workforce. For the last four years, the revenue growth has exceeded 18 per cent per year on average. Deliveries are also growing with two-digit rates in both civil and military segments. In 2014, UAC deliveries to the Russian Ministry of Defence exceeded 90 aircraft.

About 80 per cent of the revenues of UAC was accounted for by military programmes, he said and mentioned that the strategy was being changed and UAC was working towards increasing revenues from civil component, target being equal revenues. Civil and transport aviation programmes, he said, would provide for increased growth in corresponding market segments. In 2014, the SSJ 100 production and delivery rates have been impressive and last year the first Il-76MD-90A large transport aircraft had been delivered. As a result in 2015, revenues from civil and transport aircraft programmes should amount to over 20 per cent in UAC's total revenues. **SP**

## HAL completes hot weather flight trials of LCH

**T**he Hindustan Aeronautics Limited's (HAL) indigenously designed and developed light combat helicopter (LCH) attained a milestone by successfully completing the hot weather flight trials for a nearly one week at Jodhpur recently. "Test flights were carried out in the temperature range of 39 to 42 degree Celsius. These were done with the involvement of customer pilots from Indian Air Force and Army in presence of representatives from RCMA and DGAQA", said T. Suvarana Raju, Chairman and Managing Director, HAL.

LCH had completed cold weather flight testing at Leh in February 2015. Two LCH—one on static and another on flying display—enthralled people at Aero India 2015 held in Bengaluru earlier this year. The LCH is expected to receive initial operational clearance and enter into series production by the end of this year. **SP**



## A400M deliveries to resume



**A**irbus Defence and Space is about to recommence deliveries of Airbus A400M aircraft following the lifting of all remaining flight restrictions on new production aircraft by Spanish regulator DGAM.

As a result, all A400Ms are now cleared for flight provided they have undergone the checks specified by the manufacturer in the alert operator transmission (AOT) of May 19, 2015. Airbus Defence and Space's own three development aircraft, and the 12 aircraft delivered to customers prior to the accident were not affected by the restrictions.

The production plan for the year is under review following the accident but currently is still targeting at least 13 aircraft in 2015, plus up to four more subject to flight-test results due this summer.

Two aircraft which were due for delivery at the time of the accident are expected to be delivered in a matter of days with a number of others to follow in the coming weeks.

Head of Military Aircraft Fernando

Alonso said: "We appreciate the Spanish authorities' timely action in restoring our permission to fly without restriction as well as our customers' patience and support in recent weeks. We are working hard to bring the schedule back on track while continuing to support the investigation." **SP**

## Honeywell to power military training aircraft prototype

**H**oneywell Aerospace has been selected by India's Hindustan Aeronautics Ltd (HAL), to provide the engine for its prototype HTT-40 military training aircraft.

Honeywell's TPE331-12B turboprop engine will enable HAL to simulate a wide range of aircraft types with its new aircraft and demonstrate the platform's ability to deliver improved fuel efficiency, greater reliability and increased performance compared with previous training aircraft.

"Our TPE331-12B is one of the most widely used and capable turboprop engines in service today," said Arijit Ghosh, President, Honeywell Aerospace India. "With our engine at its core, HAL's new, locally developed HTT-

40 will offer pilots rapid acceleration, low fuel consumption, improved reliability and the ability to train for a wide range of missions." **SP**

## Saudi Arabia orders four Airbus C295W aircraft



**T**he Ministry of Interior of Saudi Arabia has purchased in open competition, and after carrying out a complete evaluation, four C295W aircraft to enhance its capabilities. The C295W has been chosen based on its demonstrated excellent operational capabilities in hot and severe conditions and its proven affordable maintenance and operational costs.

"We are very proud that the C295W is joining the Airbus A330 MRTT multi-role tanker transport and AN235 transports previously ordered by Saudi Arabia. We greatly appreciate the confidence shown in the C295W by a nation with long expertise in operating military aircraft in desert conditions," said Antonio Rodríguez Barberán, Head of Commercial for Military Aircraft. **SP**



## RUAG gets under way with military upgrade programmes



Following the successful conclusion of the Super Puma helicopter programme last year, RUAG Aviation is currently pressing ahead with the Cougar prototype upgrade. Although RUAG can build on much of the experience gained from the Super Puma project, the Cougar, a newer generation helicopter, presents a number of its own challenges. RUAG's main task in this latest project is to unify the two different fleets by installing the same cockpit architecture.

The contract for the Cougar prototype upgrade was awarded to RUAG and signed in December 2014. Engineering work on the helicopter is currently ongoing, involving the replacement of hundreds of kilograms of cabling and tens of thousands of point-to-point connections. Thanks to the similarities between the Super Puma and Cougar upgrade programmes, RUAG Aviation has been able to accelerate its decision cycles, avoid delays when drawing up specifications, and even use a number of the same certifications. As part of the project, RUAG is also upgrading the Cougar's integrated self-protection system and mount-

ing a new flare dispenser.

As a maintenance, repair and overhaul (MRO) service provider, RUAG Aviation offers solutions that are tailored to customers' requirements. In this role, RUAG monitors the status of the fleet and understands the individual weaknesses and capabilities of each aircraft. RUAG is also committed to ensuring close collaboration with its customers.

Other projects relating to RUAG's core competencies include providing a cockpit upgrade for all of the Pilatus-6 fleet operated by the Swiss Air Force. The focus here is on integrating an autopilot for the aircraft and updating the largely analogue cockpit, thereby expanding the aircraft's mission capability. Another involves providing MRO and upgrade services for the F/A-18 fleet of the Swiss Air Force, focusing on inspecting and repairing structures and extending the service life of the platforms. **SP**

## Sagem wins contract for AASM Hammer missiles on Rafale



Sagem (Safran) has signed a major contract with the arms authority of the Egyptian Ministry of Defense for AASM Ham-

mer air-to-ground missiles to be deployed by the Egyptian Air Force. This contract follows the acquisition by Egypt of 24 Rafale omni-role fighters from Dassault Aviation.

Developed and produced by Sagem as prime contractor, the AASM Hammer is a new family of precision-guided air-to-ground weapons. In fact, the Hammer system adds a propulsion kit and a choice of guidance kits to standard bombs.

Sagem will deliver the first AASM Hammer missiles by the end of 2016, along with associated support services. The contract with Egypt covers all three versions of the AASM Hammer now in service: hybrid inertial/GPS guidance, inertial/GPS and terminal infrared guidance, and inertial/GPS plus laser terminal guidance. **SP**

## Fourth C-130 touches down in Kabul

A C-130 Hercules touched down at Hamid Karzai International Airport, Kabul, Afghanistan, June 20, bringing expanded flight capabilities to the Afghan Air Force.

After a week-long journey beginning at Little Rock Air Force Base in Arkansas, the arrival of the C-130 in Afghanistan's capital city illustrates a partnership that will provide increased tactical airlift and mobility operations throughout Afghanistan and beyond.

In 2010, coalition partners recognised that C-130s could provide the Afghan Air Force with increased airlift, resupply and casualty evacuation capabilities, and a plan to supply the Afghan Air Force with a fleet of their own was born. Two aircraft arrived in mid-2013, with a third the following summer. The arrival of the fourth and final C-130 from the United States signifies a programme five years in the making, and well worth the wait. **SP**

## KC-390 radar defined

Embraer, which already has a contract for the supply of 28 KC-390 aircraft for the Brazilian Air Force (FAB), signed a contract with the Italian company Selex ES which will supply Gabbiano T20 radars. The equipment will be installed in the nose of the aircraft and will be used, for example, to find boats on the high seas.

The first KC-390 is to be delivered to the air force at the end of next year, and is intended to carry out all the missions currently carried out by the C-130 Hercules. The ability to carry up to 23.2 tonnes of fuel in the wings, allowing it to fly long range missions, and to refuel other aircraft in flight, also makes it possible to use the KC-390 for search missions, and the radar will assist in this task. **SP**



## Bernhard Gerwert, CEO, Airbus Defence and Space, calls on Prime Minister Narendra Modi

**B**ernhard Gerwert, CEO, Airbus Defence and Space, called on Prime Minister Narendra Modi on June 30, 2015. They discussed various projects in India, in the aerospace, defence and civil aviation sectors. Gerwert recalled the Prime Minister's visit to the Airbus manufacturing facility in Toulouse, in April, and the positive atmosphere and interest generated as a result of it. He expressed Airbus's keen interest in becoming a partner in the 'Make in India' initiative, through a cluster approach with regional partners. The Prime Minister welcomed the interest shown by Airbus in India. **SP**



## Airbus Helicopters teams up with India's Mahindra Group

**A**irbus Helicopters is joining hands with Mahindra Group subsidiary, Mahindra Defence, to produce helicopters in India in order to meet the country's military requirements. The strengths of both the companies will ensure a strong partnership to present the best rotorcraft solutions for India's needs and strengthen indigenous industrial capabilities. The teaming represents a significant step forward in the country's 'Make in India' ambition.

"We have an unparalleled track-record of successful industrial collaborations with local partners across the world. We are convinced that with Mahindra we will not only have a mutually rewarding association but one which will offer immense benefits to India," said Guillaume Faury, Airbus Helicopters President & CEO. "The tie-up is in line with our intent to develop an indigenous industrial ecosystem for helicopters.

The joint venture will be dedicated to supplying the Indian armed forces with 'Made in India' state-of-the-art helicopters of high reliability, quality and safety standard based on combat-proven platforms."

Both companies will now get into discussions to finalise the formation of the joint venture which will act as the prime contractor for India's military helicopter tenders including the reconnaissance and surveillance helicopter, the naval utility helicopter and the naval multi-role helicopter procurement programmes.

"This arrangement between two established and trusted industrial players will create a formidable partnership," said S.P. Shukla, Group President, Aerospace and Defence Sector and Chairman, Mahindra Defence Systems Limited. "We have extensive expertise in engineering, automotive and fixed-wing sectors and have made substantial investments in aero components manufacturing, while Airbus Helicopters offers best-in-class rotorcraft platforms. Together, we will produce India's next-generation helicopters that will not only answer our country's defence needs but will also have the potential for exports in the future."

The resulting joint venture aims to become the first private Indian helicopter manufacturer under the 'Make in India' initiative. This will create hundreds of high-tech jobs locally and lead to a flow of cutting edge technologies to India should it be selected in the governmental helicopter tenders.

Mahindra Aerospace has led the Mahindra Group's foray into utility aircraft and aerostructure manufacturing since 2008. Its utility aircraft business, based in Australia, currently produces the Airvan

8, the most capable, rugged and versatile utility aircraft in its class. Certified in 38 countries, over 200 are in service.

Mahindra Defence has companies engaged in catering to needs of all three wings of defence forces – army, airforce and navy. Range includes armoured vehicles, underwater warfare equipment, radars and surveillance equipment's etc. A \$16.9 billion multinational group based in Mumbai, India, Mahindra employs more than 2,20,000 people in over 100 countries. **SP**

## Turbomeca and HAL forge partnership for Indian customers

**T**urbomeca (Safran), and the Hindustan Aeronautics Ltd. (HAL) have signed a memorandum of understanding (MoU) at the Paris Air Show to establish in India a joint venture to support customers in India and other countries. This joint venture will provide maintenance, repair and overhaul for Turbomeca and HAL engines installed on HAL-produced helicopters. Therefore the engine fleet which will be addressed is the TM333 and Shakti engines. Together, Turbomeca and HAL intend to offer their Indian customers a first-class service, with the goal of optimising engine availability.

With a fleet of over 1,000 engines, including 250 TM333 and 250 Shakti, India's armed forces are the largest operator of Turbomeca-designed engines in the country. Shakti is the Indian designation of the Turbomeca Ardiden 1, co-developed with HAL, and produced under licence.

This joint venture will boost the 'Make in India' drive, considering the forecast that around 1,000 Shakti engines will be flying in India over the coming years.

Franck Saudo, Turbomeca Vice President Support & Services, said, "This JV is a new step in a long-lasting and fruitful partnership between Turbomeca and HAL. We are extremely proud of the continued confidence placed in us by HAL. Together with HAL, we are committed to offer world-class support to customers in India and other countries."

T. Suvarna Raju, Chairman and Managing Director, HAL, said: "The partnership reflects the close relationship established over many years between HAL and Turbomeca. This MoU places HAL and Turbomeca on a path of ambitious future partnership towards customer support in the field of engine MRO."

Shakti is fitted to HAL's ALH/Dhruv rotorcraft. Over the past years, the engine has been selected to power the light combat helicopter (LCH) and the new, HAL-designed LUH (light utility helicopter), a three-tonne single-engine aircraft under development. **SP**

## 30 security lapses in five years at Indian airports, reveals RTI

**A** total of 30 security breaches have taken place at Indian airports in the past five years with Mumbai airport topping the list with seven security breaches (2011 and 2012) followed by four security breaches at Delhi (2012 and 2014) and three at Madurai (2011).

The airports that witnessed two security breaches each are Cochin (2011), Chennai (2011 and 2012), Goa (2011 and 2012), Kangra (2012 and 2013), Kolkata (2011) and Nagpur (2012 and 2015) while Udaipur (2011), Guwahati (2012), Coimbatore (2011) and Bhubaneswar (2011) witnessed one security breach each. The latest security breach took place at the Nagpur airport on February 5, 2015, preceded by two security breaches at Delhi on June 20 and 21 in 2014.

The disclosure was made by the Minister of State for Home Affairs H.P. Chaudhary in the Rajya Sabha in a reply to a starred question on February 25 this year. The details were provided by the Ministry of Civil Aviation, the minister said. The reply has featured security breaches that started with the incident at Kolkata airport on February 5, 2011.

Most number of 16 security breaches took place in 2011 followed by 10 in 2012, one in 2013, two in 2014 and one this year. The minister said that the Bureau of Civil Aviation has taken steps to strengthen security arrangements with the time-bound deployment of CISF and Quick Response Team. **SP**



## 45 CCTV cameras, yet actor's house burgled

**T**he 13th-floor south Kolkata flat of actor Rachana Banerjee has been burgled of ₹10 lakh in cash and jewellery, possibly by her domestic help, who has gone missing.

The Bengali actor discovered the burglary herself late at her home on Panditiya Road, near Triangular Park. Her help, a resident of Burdwan who used to work in the flat, has been missing since then. This has led Rachana and the police to believe that her help is responsible for the burglary.

The building in which the actor stays is covered by 45 CCTV cameras, but none of the help's employers had done a police verification before employing her, said police. The actor's father Rabindranath Banerjee, however, told the police that she was in a hurry, and had left the keys to the almirah on the dressing table. The cops surmise that this could have allowed her help easy access to the ornaments that were kept inside. **SP**

## Spy Cables expose South Africa's alarming security failings

**T**he South African Government and security agencies have left secrets exposed at every level and foreign spies have access to all areas of government, according to the intelligence documents obtained by Al Jazeera's Investigative Unit.

A secret security assessment by South African intelligence says foreign espionage is booming, with more than 140 foreign spies estimated to be operating in South Africa—and that the South African state is doing a poor job of protecting itself. They are thought to have gained access to government departments, ministries and 'even the presidency' and are suspected of breaking into nuclear power plants, stealing military blueprints and hacking computers.

The report slams poor security awareness among civil servants, who regularly failing to observe the most basic procedures, leaving classified information unlocked and failing to adequately vet new recruits. In some cases South African citizens, diplomats and civil servants are helping foreign spies "by unwittingly providing them with classified information or by allowing them access to restricted areas." **SP**

## Drunk thief walks into court and steals desktop

**A** drunk thief with more than 30 previous convictions walked into a Magistrates' Court in Norwich, UK, and stole a desktop computer just nine days after being released from prison.

James Vale from Norwich entered the court building looking for a friend when he spotted a suitcase containing the computer and carried it home with him.

The 39-year-old criminal was arrested the following day after he stole two T-shirts from Primark and a mouthwash from Boots. **SP**



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