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Page 7

The challenges facing the new Defence Minister



Red zone over Kashmir Valley by Air Chief Marshal P.V. Naik (Retd) PAGE 10



India & US: New phase in defence partnership PAGE 12

FROM THE EDITOR'S DESK 4
SECURITY BREACHES 22

MILITARY
Viewpoints 14, 15, 19
Updates 16

AEROSPACE
Developments

CORPORATE
News 20

21



“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 (*message received in 2014)



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[**SP's @ 53** PURSUING EXCELLENCE OVER FIVE DECADES SINCE 1964]

Successful development trials of astra missile

The final development flight trials of Astra – beyond visual range air-to-air missile (BVRAAM) were successfully conducted over the Bay of Bengal, off the Coast of Chandipur, Odisha from September 11 to 14, 2017. A total of seven trials were conducted against pilotless target aircraft (PTA) successfully.

The missions included engagement of target at very long range, engagement of high manoeuvring target at medium range and multiple launches of missiles in salvo to engage multiple targets. All the sub-systems including the indigenous RF Seeker performed accurately, meeting all the mission parameters and objectives. Two missiles were also launched in the combat configuration with warhead and the targets were neutralized.

This effort for building a state-of-the-art BVRAAM by Defence Research and Development Organisation (DRDO), together with Indian Air Force (IAF) has



completed the development phase of the weapon system successfully. The Hindustan Aeronautics Limited has played a role in modifying the aircraft for weapon integration. More than 50 public and private industries have contributed in building the Astra weapon system. Dr S. Venugopal, Programme Director led the launch operations and flight trials along with the teams from multiple organisations.

The Defence Minister Nirmala Sitharaman congratulated DRDO, IAF, Defence Public Sector Undertakings (DPSUs) and industries for the successful trials of Astra missile. The Chairman, DRDO, and Secretary Department of Defence (R&D), Dr S. Christopher congratulated the 'Team Astra' (DRDO, IAF, DPSU & Industries) for developing and flight testing such a formidable class of weapon system. The Director General, Missiles and Strategic Systems Dr G. Satheesh Reddy, said the technologies developed under the programme will be the building blocks for development of more variants of air-to-air and surface-to-air missiles. **SP**



Cover:

The new Defence Minister Nirmala Sitharaman, who took charge on September 7, 2017, faces multiple challenges. But being a seasoned politician and given the pragmatism displayed by her in handling the Ministry of Commerce & Industry, there is no reason that her handling of the defence should not show systemic progress of above issues.

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Onerous tasks ahead for the woman at the helm

First and foremost, we would like to congratulate Nirmala Sitharaman for taking the helm at the defence ministry. She is the second woman in the history of India to hold the portfolio of defence. It goes without saying the enormous confidence the Prime Minister Narendra Modi has in Nirmala Sitharaman who showed her mettle as Commerce and Industry Minister. Yes, she has onerous tasks before her and she has already made her intent known on how she is going to go about managing the ministry.

Her first message as Defence Minister was on four issues: first, Armed Forces be endowed with and equipped to perform their duties with best available equipment; two, major role for 'Make in India,' India being major defence procurer; three, welfare of soldiers and families ensuring soldiers in toughest borders and challenging zones remain assured their interests are being taken care of, and; four, address all long-pending issues.

In an analysis, Lt General P.C. Katoch has said that Nirmala Sitharaman holding charge of Ministry of Commerce & Industry had overview of the pathetic state of equipping of the military; the chapter on defence on official website of Ministry of Commerce & Industry in 2014 reading 50 per cent of equipment held by the our military obsolete and 33 per cent provided by the Defence Research and Development Organisation (DRDO) sub-standard. With defence neglected, the Defence Minister has multiple challenges before her. The military needs synergised reorganisation horizontally and vertically, taking into account threats to national security and suiting hybrid warfare requirements.

The Minister had a recent meeting with the US Defence Secretary, James Mattis and the former came out trumps when she made it clear that India will not send troops to war-torn Afghanistan, but pledged to help the troubled country build infrastructure and stamp out terrorist safe havens. The announcement clears the government's stand in the backdrop of President Donald Trump's speech where he had urged India to assist efforts to restore security in Afghanistan. "There shall not be boots from India on the ground in Afghanistan," Mrs. Sitharaman had said.

In this issue, we have an exclusive interview with the Chief of the Air Staff, Air Chief Marshal B.S. Dhanoa who has stated that the Indian Air Force has got the top of the line high end systems, medium technology and also low technology aircraft like MiG-21. All the medium technology platforms that India got in early 1980s like - MiG-29, Mirage, and the Jaguar have been upgraded and they are comparable to any fourth-generation aircraft as far as avionics is concerned. "Now India was going in for cutting edge technology. We already have the cutting edge technology in Rafale, S400 and MRSAM. The India Air force has a mix of all three technologies."

In an article, the former Air Chief, Air Chief Marshal P.V. Naik (Retd) has stated that the single thought that must prevail in our minds is that Kashmir is an integral part of India and it is our sacred duty to restore the Valley to its pristine condition. "Hard decisions will have to be taken, some out of the box, but our resolve must not waver. I have mostly spoken of things military but the situation demands strong political will and public support. It demands improving outreach to people and improved governance. It demands something which other people feel we as a nation lack - Ruthlessness."

These articles and more in this issue. Happy reading !

A handwritten signature in blue ink, appearing to read 'Jayant Baranwal', with a large circular flourish.

Jayant Baranwal
Publisher & Editor-in-Chief

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Tribute to an Icon

The Late Marshal of the Air Force Arjan Singh, a rare gift of God to the nation, is tragically no more with us; but his memory will live on forever!

On the evening of September 16 this year, Marshal of the Air Force Arjan Singh Padma Vibhushan, DFC, an iconic figure and one of most celebrated soldiers of independent India who was and continues to be the pride of not only the Indian Air Force (IAF), but of the nation as well, passed away at the age of 98 at the Research and Referral (R&R) Hospital of the Indian armed forces located in Dhaula Kuan, New Delhi. He was admitted in the R&R Hospital earlier in the day following a cardiac arrest.

Born on April 15, 1919 in Lyalpur, a city in Punjab of undivided India, now Faislabad of modern day Pakistan, he completed his school education from Montgomery. At the age of 19 when he was still in college, he was selected for training as an air force pilot at Royal Air Force (RAF), Cranwell. On successful completion of training in 1939, he was commissioned as an officer and was posted in No 1 Squadron of the Indian Air Force (IAF) where he flew Westland Wapiti biplanes and took part in operations against the tribal forces in the North Western Frontier Province. Graduating to Hawker Hurricanes, during the Second World War, he flew battlefield air support missions during the Imphal Campaign and provided air support for the advance of the allied forces into Rangoon in Burma. For his role in successfully leading the Squadron during combat, in 1944, he was awarded the Distinguished Flying Cross (DFC), a rare honour for a young pilot in the IAF. In 1947, he took over command of Air Force Station Ambala, a premier fighter base and then in 1949, moved on to head Operational Command at Delhi which was later renamed as Western Air Command (WAC). He headed WAC for a total of seven years spread over two tenures, thus setting a record for leading for the longest period, the most important Command in the IAF.

After the Sino-Indian conflict of 1962 in which the IAF was not employed, he was appointed as the Deputy Chief of the Air Staff and in 1963 as the Vice Chief of the Air Staff. On August 01, 1964, he

was promoted to the rank of Air Marshal and appointed as the Chief of the Air Staff (CAS) of the IAF. Under his inspiring leadership, the IAF came out with glory in the war with Pakistan in 1965, the very first large scale conflict the IAF of independent India was involved in. The rank of the CAS was upgraded and Arjan Singh became the first officer in the history of the IAF to hold the rank of Air Chief Marshal. On retirement from service in July 1969, he was appointed Ambassador to Switzerland. Subsequently, in January 2002, he was conferred the rank of the Marshal of the Air Force in recognition of his unparalleled contribution to the nation. So far, he has been the only officer of the IAF to hold this five-star position.

During his three-decade long service with the IAF, he worked relentlessly to nurture and strengthen the foundations of the service, displayed exemplary leadership and emerged as a role model for every air warrior. During his career, he had flown more than 60 different types of aircraft and had played a major role in transforming the IAF into one of the most potent air forces in the world. In recognition and appreciation of his exceptional and distinguished service as also his selfless devotion and contribution to the nation, in 1965, he was conferred the second highest civilian award of Padma Vibhushan by the Government of India. Even after handing over charge of the IAF, he continued to serve and support the organisation through the creation of a Trust funded entirely by his personal resources, for the welfare of serving and retired personnel of the IAF and their families. To honour and perpetuate his memory, in a touching gesture on its part, the IAF has named a newly established air base at Panagarh in West Bengal as "Air Force Station Arjan Singh".

The Late Marshal of the Air Force Arjan Singh, a rare gift of God to the nation, is tragically no more with us; but his memory will live on forever! SP

—By Air Marshal B.K. Pandey (Retd)

During his three-decade long service with the IAF, he worked relentlessly to nurture and strengthen the foundations of the service



Taking Charge: Nirmala Sitharaman is India's new Defence Minister



LT GENERAL
P.C. KATOCH (RETD)

The challenges facing the new Defence Minister

In her first message after taking charge as Defence Minister, Nirmala Sitharaman has focused on four issues: first, Armed Forces be endowed with and equipped to perform their duties with best available equipment; two, major role for 'Make in India', India being major defence procurer; three, welfare of soldiers and families ensuring soldiers in toughest borders and challenging zones remain assured their interests are being taken care of, and; four, address all long-pending issues in concert with

the Prime Minister and Cabinet Committee on Security. Earlier, Sitharaman holding independent charge of Ministry of Commerce & Industry had overview of the pathetic state of equipping of the military; the chapter on defence on official website of Ministry of Commerce & Industry in 2014 reading 50 per cent of equipment held by the our military obsolete and 33 per cent provided by the Defence Research and Development Organisation (DRDO) sub-standard. With defence neglected past decade plus, the Defence

Minister has multiple challenges, some of which are highlighted in succeeding paragraphs.

Start Point – NSS and CDR

The start point for planning and organisation of defence must be the National Security Strategy (NSS) and Comprehensive Defence Review (CDR), both periodically reviewed. In absence of these, procurements and development remain patchy. On two different occasions, two different NSA's during UPA II were briefed at HQ Integrated Defence Staff (IDS) how military can assist in defining the NSS, but were met with crass indifference. The Defence Minister would do well to initiate this process, especially when without the NSS, even tasking of intelligence agencies can hardly be holistic.

Higher Defence Organisations

The reorganisation of Higher Defence Organisations (HDO) including the MoD are long overdue. Without adequate military representation, gaps in strategic policy formulation and matters military will persist. Currently, some 20 middle-level appointments in MoD are being identified for manning by military officers. Concurrently, Cabinet has approved creation of seven posts of Principal Directors (PDs) and 36 posts of Director on regular basis of in the AFHQ Civil Service, MoD. Unless there is 50 per cent military representation 'at all levels' in MoD, nothing will likely change. The solution is merging HQ Integrated Defence Staff (IDS) with MoD which was the premise on which latter was raised but stymied by bureaucracy. Participation of the Service Chief in the CCS and selected military officers in NSCS, NSAB, SPD, MoD too are need of the hour, in addition to the Defence Minister meeting Service Chiefs individually every month.

CDS

The CDS recommended by the Kargil Review Committee and follow up Group of Ministers, appears shelved even now. Besides, the CCS note on which HQ IDS was raised reads, "As and when the CDS is established, he will have equal voting rights as the Service Chiefs, and if two Service Chiefs disagree, MoD will arbitrate", implying the CDS can hardly speak as one voice to the government. The CDS is required more to ensure military synergy and oversee the much needed Revolution in Military Affairs (horizontally and vertically) under directions of the political authority.

Defence Allocations

Erstwhile Defence Minister Jaitley recently said military power is key to a nation's rise to super power status, but military power cannot be built on 'negative' defence budgets; the current and previous one being in that category. Besides NSS and CDR that would ensure allocations based on operational needs, we need to review pre-budget procedure bring the Parliamentary Standing Committee on Defence in the loop, similar to the US; let military present budgetary requirements to the Committee based on present and required operational capability, and let the Committee project requirements to the government/Parliament. Where the US President goes to the Senate for funds, why should we continue with the defence budget based on arbitrary cuts by the Finance Ministry? Adhoc measures like allotting ₹20,000 crore for making up part ammunition deficiency in face of Doklam standoff, and enhancing financial powers to chiefs, vice chiefs with overall 'negative' defence budget don't mean much.

The start point for planning and organisation of defence must be the National Security Strategy (NSS) and Comprehensive Defence Review (CDR), both periodically reviewed. In absence of these, procurements and development remain patchy.

Responsibility for Defence of India

Under existing Government of India AOB and TOB Rules 1961, the responsibility of defence of India is with the Defence Secretary, not the Defence Minister. Also the Services HQ are officially "Attached Offices", as in British era, which has been resulting in authority without accountability on part of the MoD. This must change.

Military Reorganisation

The recent measures approved for as 'army reorganisation' including shutting down 39 Military Farms and redeploying 57,000 personnel including 31,000 civilian-defence employees can at best be termed knee jerk. Combatising civilian-defence employees would actually cost the government less and improve functioning. Performance audit of non-combat organisations under MoD and making organizations like Defence Estates, Defence Accounts, DGQA, Ordnance Factory Board (OFB), DRDO accountable is inherent responsibility of MoD, and cannot be classified reforms. Similarly, 'Roll On' plan for fresh acquisitions to overcome 'sur-rendering' funds at the end of every FY is misnomer, as it still leaves loopholes. The requirement is for 'unutilised' defence budget to be carried forward to next FY. This is happening because at every stage, we resort to reinventing the wheel. Even if there was need to order a fresh study, the start part should be the most recent study done by the military on the issue. Similarly, five comprehensive studies on Theatre Commands are gathering dust in HQ IDS. With centre of gravity of conflict veering towards the Indian Ocean Region, there is also need to review the case for a Marine Brigade buried in MoD past 20 years. The military needs synergised reorganisation horizontally and vertically, taking into account threats to national security and suiting hybrid warfare requirements. The Defence Minister may also seriously consider combatising civilian-defence employees, enhancing military synergy and reducing civil-military acrimony.

Man Behind the Machine

The Defence Minister has already laid emphasis on 'Make in India'. However, as far as procurements go, the emphasis all along is on big-ticket weapon systems. But, at the cutting edge where daily battles are being fought daily, the soldier is completely neglected - ill-armed and under equipped, downgraded in pay and allowances, even humiliated indirectly to certain extent. This must be corrected.

Defence-Industrial Complex

Despite Joint Secretaries on all the boards of DRDO-DPSUs-OE, their output has been far from satisfactory - leaving aside patchy bright spots like the recent ATAGS (Advanced Towed Artillery Gun System). One major reason for this is that the user (the military) does not have representation at the planning, design and decision making levels in these organisations. This needs to be looked into by the Defence Minister.

RMA

The RMA is needed across the board and the 'hollowness' in defence needs to be made up on priority. This should include reorganisation of the higher defence step and the MoD, synergising the military, optimising cyber, space, information warfare, electromagnetic, modern systems using state-of-the-art technologies,



Hands On: (Left) Defence Minister in Naliya Air Base, Gujarat and (right) in the cockpit of a Mirage fighter at Air Force Station in Gwalior.

robotics, artificial intelligence, stealth, precision fire, and ability to hit the adversary deep inside its territory through the entire spectrum of conflict, including the sub-conventional. It is imperative that the military be closely integrated into the national space and cyber programs, not kept aside as is the case presently.

Armed Forces Tribunal

The Armed Forces Tribunal (AFT) have recently been put under MoD, contravening a Constitutional Bench judgment of the Supreme Court which directed the placement of tribunals under the Law Ministry. Can there be anything more absurd when MoD is the one against which most orders of the AFT are to be passed. The Defence Minister needs to review this, as it is directly linked to justice for the petitioners.

Welfare

The Defence Minister has dwelt on welfare of the soldiers and families. Military veterans must not be left out despite acrimony due to OROP protests. On September 3, Defence Minister mentioned to media she had intense exchange of views with her brother-in-law (Navy veteran) during OROP protests. Being a lady, the Defence Minister would understand the deep scars left on psyche of the soldiers watching live the police baton charge on 'peacefully protesting' veterans at Jantar Mantar wearing regimental caps and medals – many having wards serving in military. Unfortunately there was no response from the government beyond sending a Delhi Police representative to apologize later. Ironically, a delegation of veterans meeting then Defence Minister Manohar Parrikar was told that they would not get their dues till the time they held a gun to his head. But with 60,000 military personnel retiring annually, is it right for the government to penalise the entire veteran fraternity because some protest at Jantar Mantar? Finance Minister Arun Jaitley's contention OROP cannot be reviewed annually is laughable in this computing age, especially when this is being done for others.

The military needs synergised reorganisation horizontally and vertically, taking into account threats to national security and suiting hybrid warfare requirements. The Defence Minister may also seriously consider combatising civilian-defence employees, enhancing military synergy and reducing civil-military acrimony.

Some other issues that need attention by the Defence Minister are:

- All Zila Sainik Welfare Offices need to be digitally linked up with the MoD and Services HQ, with cases taken up by soldiers and families on the web portal, and progress reports made mandatory; as being done by Police for FIRs.
- When Army voted in the UP State elections during 2007, a special cell was opened by civil administration within the DC Office in Mathura (where the Strike Corps HQ is located) to look at grievances of soldiers and families. The Defence Minister may consider the following: one, make voting compulsory for all serving soldiers – already authorised in their place of posting by the Election Commission, and; two, take up case for opening special cells looking into grievances of soldiers and families at district level in all states.
 - The anomalies of the 5th, 6th and 7th CPC need to be addressed speedily. 7th CPC is a case of crass injustice to the military. When announced, all three Service Chiefs represented it should be implemented only after the anomalies are addressed. So MoD waited for them to retire and then issued 'special instructions' for implementing 7th CPC which was the prerogative of the Army, Navy, Air Force.
 - The Department of Ex-Servicemen Welfare (DESW) has no veteran representation and is the biggest hurdle to welfare – compelling war widows, war wounded and disabled soldiers into prolonged litigation. The case of No. 29611361 Sepoy Chatter Singh, who is fully handicapped, bed-ridden and blind, denied 'war disability' by the government despite Court orders – with details on social media is national shame.

Conclusion

It can be seen from the above that the Defence Minister faces multiple challenges. But being a seasoned politician and given the pragmatism displayed by her in handling the Ministry of Commerce & Industry, there is no reason that her handling of the defence should not show systemic progress of above issues. **SP**



AIR CHIEF MARSHAL
P.V. NAIK (RETD)

Red zone over Kashmir Valley

The thought that must prevail in our minds is that Kashmir is an integral part of India and it is our sacred duty to restore the Valley to pristine condition.

*"Agar firdaus bar ruhezaminast
Haminasto,haminasto, haminasto"*

Amir Khusrau, the great poet, coined this beautiful couplet in the 13th century. Many years later, in 1998, I was the Air Officer Commanding (AOC), Air Force Station, Srinagar. Thanks to the then Chief of the Air Staff (CAS) who acceded to my request for the Suryakiran Aerobatic Team to perform over Srinagar. A crystalline morning with a trace of cirrus clouds to provide the backdrop, the venue for the air display was the Dal lake. The Chief Minister (CM) of Jammu and Kashmir (J&K) had invited us over at Shalimar for watching the display with a full-scale Kashmiri breakfast as added incentive. As usual, the Suryakirans pulled off a fabulous display. The tricolour lingering in the skies after the Bomb Burst filled one's chest with pride. The CM asked me, "Isko kya kahen AOC sahab?" I said, "Sir, Indian tricolour over the skies of Srinagar for the first time.....?" He said, "No, no, no, no. The tricolour has always been in our hearts. Nothing new." Suitably chastened, I concentrated on the bakarkhani roti and rogan josh. A few hours later, on TV, I suddenly found the CM grabbing headlines with one of the most patriotic quotes of all times. "What can I say? The Indian tricolour over the skies of Srinagar....."

I have been familiar with the Valley since the mid 1970s when I went for Jungle and Snow Survival course there. How lovely the Valley was! Mother nature at her most picturesque; some of the most beautiful picnic spots; the best flowers and fruits and, of course, unsurpassed female beauty. The people were friendly and laid back. But, even then, they thought of India as a foreign country, in a benign sort of a way. Suddenly in 1989 the situation changed dramatically and kept going from bad to worse. Aided and abetted by Pakistani ISI, Wahabi terrorism encroached upon the Valley. Many people and Governments mistook the attacks and the violence and the bandhs as an 'Azadi Movement'. Little by little, after witnessing the demographic shift and ethnic cleansing of Pundits, we realised that the whole game was of Islamisation and had nothing to do with Azadi except in the initial stages.

At present, the whole nation is wondering what the Government is going to do to resolve the Kashmir issue. Today even a common citizen blames the people concerned about Article 370, about taking the Kashmir issue to the UN, about returning the hard won Haji Pir pass, about going soft on the separatists and about releasing Kashmiri terrorists from jails. I would like to submit that it is very easy to

be wise after the event. Retrospective criticism is, in fact, the hobby of a large section of intelligentsia residing in and around Lutyen's Delhi. One needs to put oneself in those times, in that environment. One needs to sense what the pressures were under which such decisions were taken. Know the mistakes, by all means, but now think of solutions rather than recriminations and move forward. This article is not entirely about solving the Kashmir imbroglio; it is about how better to use the medium of air and space to contribute to a solution.

The Kashmir valley is, paradoxically, designed for peace. The land is extremely fertile, thanks to the silt which Jhelum deposits regularly. No one is abysmally poor. You will not find a Kashmiri without a roof over his head. When peaceful tourist trade thrives and traditional businesses of Shikaras, carpets, silver jewellery and Akrod woodwork flourish. Other than in these areas, there are no jobs. Thanks to Article 370, no one is keen to establish industries in the Valley. The Indian Government has been subsidising J&K since

1947. The Abdullas and their ilk ensured that the aid never reached the intended recipients. Governance was extremely poor. Governance. This, along with advent of Wahabi Islam and, of course, the ISI fuelled people's anger. The culmination was the killing of Burhan Wani and the pent-up anger and violence exploded landing us in the present situation.

Were it up to me to seek a solution to the Kashmir problem, I would go about it like so:

- Ensure the situation meets all requirements to impose Governor's Rule. Once it is imposed, it must remain in vogue for at least six months. In fact, it must be made abundantly clear to all stake holders that Governor's Rule will remain for as long as required, until the situation is deemed to be normal and free elections can be held with active participation from all. In fact, we had Governor's Rule for almost six years in the 1990s when the situation was really bad. During the Governor's rule now, isolate the separatist leaders like Geelani and jail them outside J&K, ostensibly for their own safety. Give the Armed Forces full freedom to operate under full AFSPA protection. The military must be cautioned that any abuse of these powers would invite swift deliverance of justice. On the other hand, the public also must be cautioned about anti-national and anti-Constitutional activities. These must invite strict action.
- As of last count, there are about 250 foreign terrorists operating in the valley. Use the special forces with a clear mandate to seek and eliminate them. This would only be possible if the Indian Army re-establishes the intelligence framework involving the

Aided and abetted by Pakistani ISI, Wahabi terrorism encroached upon the Valley

locals. A few months of Governor's Rule should facilitate this activity.

- The Kashmir issue cannot be resolved by the military alone. Governance also has to be improved. I would select and depute a special team headed by a Special Secretary to look after this aspect under the Chief Secretary. Their task would be to streamline working of Government Departments, ensure high efficiency and outreach to people. There should be special importance for developing our own 'Kathanak' or Narrative to combat the existing propaganda spewed by anti-nationals. The team needs to control the media and ensure that derogatory and inflammatory programmes are not aired.
- There will be considerable opposition to all this. The peaceniks would be crying hoarse. The entire world opinion may turn against us. I do not think it would invite sanctions; but a lot of political mileage will have to be used up if we are to succeed in this endeavour. All this requires tremendous political will and public support. This is where our Narrative will come in handy.

One area which I feel is under-utilised is the use of the potential of military air power. Surveillance of trouble spots and preventing infiltration across the Line of Control (LoC) are key areas in the search for a solution. This cannot happen overnight. It needs considerable planning and specialist resources. Let us have a brief look at what is involved.

Intelligence. This is the primary requirement. Networks both sides of the border need to be reenergised. Sources need to be actively pursued. Intelligence sources within the Valley are dwindling. This state must be reversed on priority. We need to create a single agency which will collate and manage intelligence from different agencies centrally. A central data base needs to be created with easy and quick access to intelligence teams. Identification remains a key, but elusive area. Face matching, DNA matching, fingerprint matching facilities will be needed.

Centralised Planning. This is essential. We must have a central agency involving the military and para-military forces, police, R&AW, IB and representatives from the State Intelligence agencies working together from a single, secure, protected location.

Communications. These are extremely vital. We have to go in for data link, SATCOM, laser and other forms of efficient communications. This is the backbone. The network must be able to deliver filtered, precise, timely intelligence to the lowest in the chain on demand.

Hardware. This will comprise UAVs, attack helicopters, fixed-wing aircraft on the lines of AC-130s of US Air Force and Special Forces Teams as boots on the ground.

Command and Control. This is vital for such combined operations to succeed. It must be unified and transcend inter-service boundaries. It must have a flat structure for quick decision making. Authority and on-line decision protocols must be in place.



Red Zone Declaration. This is something that is mandatory for this scenario to succeed. I remember, during my tenure as the CAS, some pressure tactics were employed to use air power offensively against Naxals. I had flatly rejected the suggestions and was caught a bit of a flak because of the refusal. My reasons were two. One was unreliable intelligence leading to blue-on-blue or fratricide or killing innocent civilians. The other was the collateral damage inherent to aerial weapons. I feel there is an intrinsic difference between the Naxals/Maoists and the terrorists/separatists. The former have arisen because of absence

of governance. They are still within the constitution and do not want to separate from the Union whereas the latter want to separate from the Union. In the Valley, we need to declare Red Zones in infiltration-prone areas near the LoC. Each Zone should be a bubble ten km in depth and include airspace above. This is the zone in which any unauthorised movement will be treated as inimical and prosecuted. These would be promulgated and publicised. Offensive options would be permitted freely in Red Zones.

The scenario would go something like this. The resources would be C-130 aircraft modified with radar controlled 20mm gun and a 105mm howitzer similar to the AC-130 of US Air Force. HALE UAVs on station covering either the Red Zones or on demand over trouble spots. Attack helicopters would be on standby during the day for any contingency. SF teams ready along with Mi-17 V5 helicopters to move them. Data link and seamless communication among air and ground resources must be provided. In a classic case the UAV spots targets which appear on the screens of the C-130 that tracks and neutralises these. In Red Zones, no clearance would be required except to ascertain that they are not own troops. The same method could be used when large mobs gather. Here we could transport SF if required to contain the situation. Of course, offensive use of weapons would not be called for.

The above scenario appears simplistic; but is not. It will take considerable planning, long lead-time, intensive training and practice. It will consume a heavy resource including manpower. Some capabilities already exist and some will need to be acquired. But we must start thinking along these lines if we are to be effective in controlling terrorism in the Kashmir valley.

I have left several things unsaid. These cannot be discussed in public domain. The single thought that must prevail in our minds is that Kashmir is an integral part of India and it is our sacred duty to restore the Valley to its pristine condition. Hard decisions will have to be taken, some out of the box, but our resolve must not waver. I have mostly spoken of things military but the situation demands strong political will and public support. It demands improving outreach to people and improved governance. It demands something which other people feel we as a nation lack – Ruthlessness. *Et voila.* **SP**

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

Command and Control is vital for combined operations to succeed. It must be unified and transcend inter-service boundaries

India & US: New phase in defence partnership

To win Indian hearts and minds, Mattis talked of steadily expanding defence cooperation, underpinned by a strategic convergence based on common objectives and goals in the region



Forging Ties: Defence Minister Nirmala Sitharaman with the US Secretary of Defence James Mattis in New Delhi

[By **Ranjit Kumar**]

After India-US defence relations reached its astounding heights at the fag end of Obama administration, both the countries saw a lull in high level contacts creating a perception that the new Trump administration believes more on transactional relationship than sharing something critical to India's defence needs. The Trump

administration could afford to send its Defense Secretary to India only after completing eight months in the first year of its four year tenure. Nonetheless, this long overdue visit of the US Defense Secretary James Mattis is expected to revitalise and give a new push to the India-US Strategic and Defence partnership, especially in view of the new Afghan strategy of the Trump administration, which is much closer to India's hearts.

Though after the September 26 talks in the South Block at Raisina

Hills, Indian Defence Minister Nirmala Sitharaman bluntly refused to agree to the wishes of the Trump administration to contribute more in terms of strengthening security in the violence ridden country, the two sides discussed how to mutually assist the democratically elected government of Afghanistan, which is an anathema to the Taliban and Pakistan. Mattis did not press for Indian troops presence in Afghanistan as the US side perhaps recognises the sensitivities of the Indian government to ask its troops to land on the thorny grounds of Afghanistan.

With convergence of views on Afghanistan, Indian Ocean and the Indo-Pacific region, it was natural for the US side to agree to the Indian needs of cutting edge defence technologies, which will ultimately balance the main rival of United States. As China is trying to restrict the strategic space for the only super power i.e. US from the Indian Ocean to Pacific Ocean, the United States, during Obama administration found it incumbent on them to grant India the status of Major Defence Partner, which will enable the Pentagon to share its top end defence technology with India. With this view, the US side had also entered into a specific agreement called the Defence Technology and Trade Initiative (DTTI).

Nirmala Sitharaman disclosed that during the talks with James Mattis, both sides discussed how to refocus and re-energize the DTTI as a mechanism to promote technology sharing as well as co-development and co-production efforts. Under the DTTI umbrella the US side expressed their willingness to share cutting edge platforms, which would enhance India's defence preparedness to meet current and emerging threats. Since there has been concerns in Indian side regarding the fate of the DTTI, this issue was discussed during the Mattis-Nirmala meeting. Though, Indian concerns were addressed to a large extent when the Trump administration cleared the National Defence Authorisation Act of 2017 (NDAA 2017), which institutionalised the DTTI mechanism.

Under the DTTI, both sides have nominated DRDO and US defence laboratories as lead agencies to fructify the selected projects and plan joint work on other futuristic projects. Under the DTTI, the two sides are discussing the development of Next Generation Individual Protection Ensemble, Mobile Electric Hybrid Power Source, Digital Helmet Mounted Display and the Joint Biological Tactical Detection System. The first two projects have reached the agreement stage whereas the last two are in discussion stage. These four projects under DTTI were announced during President Barak Obama visit to India as Chief Guest for the 2015 Republic Day parade.

These projects under DTTI were decided during the Obama regime. Under the Trump administration the two sides are still waiting for the next round of DTTI meeting planned to be held in Pentagon. Under the DTTI, the US side had proposed bilateral development of Future Vertical Lift Helicopter (FVLH). The American side had also proposed to the Indian Ministry of Defence that the two sides work on an agreement for US made fighter F-16 or F-18 under DTTI but Indian side declined the offer. However, since the IAF has invited Lockheed Martin along with SAAB of Sweden for their single engine fighters, the US Defense Secretary is believed to have raised this issue with Nirmala.

According to reports, the US side is still pressing Indian leaders to accept one of the two US fighters to be made in India for the Indian Air Force. Though, the US arms companies have many concerns regarding the Strategic Partnership policy of making front line fighters for IAF or submarines for Indian Navy in India. The US defence company Lockheed Martin has already written to the Indian defence ministry regarding

the concerns relating to majority stake in the joint venture company to be set up in India besides issues relating to technology transfer. Significantly, Mattis disclosed that he discussed with Nirmala ways to further deepen the robust Defence Trade and Technologies through the Defence Technologies and Trade Initiative. He emphasized that cooperation in these areas will improve the capabilities of both our militaries and reinforce the foundation for an enduring partnership.

In this context Defence Minister Nirmala said that both agreed on the need to expand on the progress already made by encouraging co-production and co-developmental efforts. Nirmala reiterated India's deep interest in enhancing defence manufacturing in India under Prime Minister's 'Make in India' initiative. She thanked Mattis for his supportive position in this regard and looked forward to working closely with him to realize joint projects.

The US arms majors have tasted the fruits of Indian defence modernization during last one decade with over \$15 billion deals. They are now eyeing over \$200 billion worth of arms acquisition plans during next one and half decades. They cannot afford to miss the Indian armed forces modernization bus. The rival European and Russian defence firms are offering every thing under the sky to win the Indian contract.

To win Indian hearts and minds, Mattis talked of steadily expanding defence cooperation, underpinned by a strategic convergence based on common objectives and goals in the region. In this backdrop Mattis referred to grant of Major Defence Partner to India reflecting the progress made in strengthening our cooperation. According to Mattis, grant of Major Defence Partner status recognizes India as a pillar of regional stability and security. This also reflects our desire for a long-term strategic partnership in the 21st century.

Mattis said that in the wide ranging new relationship, security is one of the key strategic pillars. This will help expand US-India cooperation in building partnerships, across the region. In this context Mattis talked of convergence of views on Afghanistan and lauded India's invaluable contributions to Afghanistan and welcome further efforts to promote Afghanistan's democracy, stability and security. He also assuaged India's concerns on terrorism, without naming Pakistan, by stating that there can be no tolerance of terrorist safe heavens.

Various pronouncements of Mattis after talks with Nirmala Sitharaman gave the impression that the US side is very eager to deepen its maritime partnership with India which will help in balancing and countering China not only in Indian Ocean but also in South China Sea.

In this backdrop, Mattis also talked of India's vital role to play in supporting South East Asia's regional institutions - particularly ASEAN - and building partnership capacity across the region. He also appreciated India's leadership role in the Indian Ocean and both sides seeking to work together to build a regional architecture.

Mattis said that expanding maritime engagement is among his top priorities. The two sides are already holding annual maritime dialogue which according to Mattis is an important mechanism to develop shared understanding of the challenges we face and opportunities for cooperation in addressing them. Mattis referred to US-India annual maritime naval exercise with Japan, which he described as an example of deepening operational cooperation. Satisfied with the visit Sitharaman commented that India and US are entering a new phase in bilateral strategic defence partnership. **SP**

The writer is a defence analyst.

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security**



LT GENERAL
P.C. KATOCH (RETD)

Indo-Japanese Strategic Partnership boosted

Indo-Japanese relations have always been special. Even during the recent Doklam standoff, it was Japan's envoy to India Kenji Hiramatsu who said there should be no attempt to change the status quo on the ground by force; categorizing the crisis as dispute between China and Bhutan, he said India's actions were in keeping with bilateral security arrangements with Bhutan. It is in this backdrop that Japanese Shinjo Abe was arriving at Ahmedabad on a three-day visit commencing September 13 for bilateral talks with Prime Minister Modi.

Prior to Abe's visit, Foreign Secretary S. Jaishankar addressing an Indo-Japan colloquium said the India and Japan are set to take their cooperation in civil nuclear and defence technology to the next level, adding, "Japan's openness to supply India with military technology reflects the high-level of confidence that the two countries have developed in each other.... "The growing convergence of views between Japan and India has the capacity to drive Asia's economy and development and stimulate the global growth. ... (we) have agreed to cooperate closely to promote connectivity, infrastructure and capacity building in the regions that occupy the inter-linked waters of the Indo-Pacific. It is obvious that the interaction now has a significance beyond the bilateral. The Asia-Africa Growth Corridor is just one example."

The landmark civil nuclear cooperation deal between the two countries came into force in July 2017, having been signed last November during Prime Minister Modi's visit to Tokyo. Modi received Abe at Ahmedabad airport on September 13 and both visited the Sabar-mati Ashram. The ground-breaking ceremony of the 'high speed' rail network (worth Rs 1,00,000 crore) between Ahmedabad and Mumbai was presided over by both Prime Ministers on September 14. Ground-breaking ceremony for infrastructure and industrial projects worth over ₹25,000 crore was also held, as well as meeting of business and country delegations. Modi and Abe held wide ranging talks. Post signing the joint statement, Prime Minister Shinzo Abe said, "We have just signed a joint statement which will serve as a milestone to open a new era for Japan-India relationship... based on that we will strongly promote Japan-India special strategic and global partnership to drive peace and prosperity for Indo-Pacific region and the whole world."

The two countries signed 15 MoUs on September 14 that include: one, cooperation and collaboration in disaster risk reduction; two, Japanese language education in India; three, India Japan Act East Forum to enhance connectivity and promote developmental projects in the northeastern region of India; four, between India Post and Japan Post on administrative instruction for the implementation of 'Cool EMS' service; five, India-Japan

Investment Promotion Road map between DIPP and METI to facilitate and accelerate Japanese investments in India; six, between METI and Gujarat on 'Japan-India special programme for 'Make In India' in Mandal Bechraj-Khoraj region; seven, Civil Aviation Cooperation - opens skies between India and Japan; eight, joint exchange program between inter-disciplinary theoretical and mathematical sciences program; nine, joint research contract between the National Institute of Advanced Industrial Science & Technology (AIST), Japan, and the Department of Biotechnology (DBT) to conduct joint research and to establish an international centre; ten, between DBT and National Institute of Advanced Science & Technology (AIST); eleven, international academic and sports exchange between Lakshmbai National Institute of Physical Education (LNPE) and Nippon Sports Science University, Japan (NSSU); twelve, on international academic and sports exchange between the Sports Authority of India and Nippon Sports Science University, Japan (NSSU); thirteen, between LNPE and the University of Tsukuba, Japan to strengthen strategic collaboration, joint research programs; fourteen, between Sports Authority of India and University of Tsukuba, Japan to strengthen strategic collaboration, joint research program and exchanges, and; fifteen, between RIS and IDE-JETRO for promotion of cooperation in research-related activities to promote institutional cooperation. Prime Minister Modi, while addressing a joint press event with Abe, said Indo-Japan ties were not limited to bilateral or regional spheres. The two sides also closely cooperated on key global issues. India and Japan have increased defence cooperation with more bilateral combat exercises, exchanges and collaboration in military and dual-use technologies, in backdrop of increasingly aggressive China. During the recent visit of former Defence Minister Arun Jaitley (before he handed over charge defence portfolio) Japan proposed to field its state-of-art military assets, including the P-1 maritime patrol aircraft with potent anti-submarine warfare capabilities, for the Malabar exercise next year. The two nations will also enhance their cooperation on counter-terrorism, which will include a joint field exercise

between the armies of the two countries in 2018. The two countries also decided to begin technical discussions for joint research on unmanned ground vehicles and robotics, as also carry forward the talks on Japanese US-2i amphibious aircraft. If there was any discussion on these issues during Abe's visit, it was kept under wraps.

In keeping with 'India-Japan Vision 2025', robust bilateral relations have laid the foundation to expand the scope of cooperation in the Indo-Pacific. It is imperative for both India and Japan to engage in forward thinking to accomplish the full potential of this 'Special Strategic and Global Partnership'. SP

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LT GENERAL
P.C. KATOCH (RETD)

Indo-Russian defence ties – Waning is misnomer

Even as the armies of India and US are engaged in joint military two-week exercise 'Yudh Abhyas 2017' to hone their skills in counter insurgency and counter terror operations under a joint brigade headquarters at a military base in Washington, the Indian Military is looking forward to a first ever tri-service joint military exercise with Russia scheduled during October 2017. This will be the first time India will deploy troops, weapon platforms and equipment from the Army, Navy and Air Force with any country – 'Indra' India-Russia joint combat exercise to be held at Vladivostok, Russia from October 19 to 29. Some 350 troops, multi-role stealth frigate, anti-submarine corvette and aircrafts will participate from the Indian side.

For some time, there has been debate whether India-Russian relations are waning, more so because of sale of Russian defence equipment to Pakistan including attack helicopters. However, this needs to be seen in the backdrop of increasing US sanctions on Russia, defence exports contributing to Russian economy, and India diversifying defence procurement. Many may be unaware that India has invested \$5.5 billion in the oil sector in Russia and the largest Russian investment in India stands at \$12.9 billion. The rebooting of bilateral ties is evident from: role played by Russia in the pull-back from Doklam; Russia opening resource-rich Far East to India for trade and investment post recent meet of the Eastern Economic Forum (EEF) at Vladivostok, attended by External Affairs Minister Sushma Swaraj; Indo-Russian joint vision of achieving bilateral trade of \$30 billion by 2025; Zamir Kabulov, President Putin's special envoy to Afghanistan visiting India next month to address Indian concerns including about Russia's role in Afghanistan.

Interestingly, a viewpoint in Pakistani media is that Pakistan must be cautious in facilitating Russia's association with the China-Pakistan Economic Corridor (CPEC) because Pakistan cannot afford to let go 'any' benefits of CPEC, besides Moscow's support to Pakistan may estrange Beijing and Turkey. Coming to defence relations, Arun Jaitley, the then Defence Minister had attended the 17th meeting of the India-Russia Inter-governmental Commission on Military-technical Cooperation on June 21-23 in Moscow, jointly chaired with Russian Defence Minister General Sergey Shoigu. India is moving ahead with its plan to lease a third nuclear attack submarine from Russia for an estimated \$ 2.5 billion. This will include the refit of the vessel at a Russian shipyard followed by 10 year deployment with the Indian Navy.

India is to acquire arms and equipment worth \$10.5 billion from Russia including "five S-400 Triumf advanced air defence missile systems, four Grigorivich-class frigates and 200 Kamov-226T light helicopters according to news reports. An inter-governmental agreement for four frigates through a partnership between Russian and Indian shipyards was signed during Rus-

sian president Vladimir Putin's visit to India in October last year. While two frigates will come from Russia, two others will be constructed at an Indian shipyard with Russian cooperation. The class's original gas turbines were made by Ukrainian state-owned enterprise Zorya-Mashproekt. With tension continuing between the two nations, Ukraine has refused to supply any more engines to Russia. In August this year, the DAC approved the ₹490 crore purchase of Zorya gas-turbine engine sets from Ukraine for two of the Grigorivich-class frigates being built in Russia.

During the Modi-Putin summit in Goa last year, India had agreed to purchase four 4,000-tonne Grigorivich-class guided-missile stealth frigates at cost of \$4 billion from Russia; two of these frigates are half-constructed in Russia due to bilateral Russia-Ukraine problems, the other two will be built in the Goa Shipyard in India. India will now acquire the Zorya gas-turbine engines from Ukraine and then ship them to Russia for the first two frigates. The Russians offered India the S-300/S-300V BMD system as far back as the mid-1990s. During the December 2014 summit meeting between Prime Minister Narendra Modi and President Vladimir Putin, Russia had agreed to supply 12 nuclear power reactors over the next 20 years.

Russia has been a long-standing defence partner of India and both the countries are now eyeing to further deepen the ties. During Prime Minister Narendra Modi's visit to Russia in June, both countries had decided to "upgrade and intensify" defence cooperation through joint manufacture, co-production and co-development of key military hardware and equipment. A vision document, issued then had said that both the countries also decided to work towards a qualitatively higher level of military-to-military cooperation. India has already decided to significantly ramp up its defence capability and has lined up billions of dollars of procurement proposals as part of military modernization. The co-production of the BrahMos supersonic cruise missile is a shining example of Indo-Russian defence cooperation albeit without transfer of technology (ToT) because of which sale of BrahMos to Vietnam hasn't yet come through. ToT remained the bedbug in military-technical cooperation even as aircraft and tanks were manufactured under license in India. But that as per recent media reports is going to be the form with US firms joining the 'Make in India' projects.

Russian help to India during the 1971 Indo-Pak War cannot be forgotten; Indo-Russian friendship has stood the tests of history – both supporting each other in times of duress including at international forums. It is in the interest of both countries to keep the relationship strong because in the geostrategic and geopolitical flat-board of the world, their destinies will remain entwined. **SP**

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



Defence Minister reviews security situation in Valley

The Defence Minister Nirmala Sitharaman visited the Chinार Corps in Jammu and Kashmir (J&K) and reviewed the overall security situation prevailing in the Valley.

Accompanied by the Chief of the Army Staff General Bipin Rawat, the Minister was received by Northern Army Commander Lt General D. Anbu and the Chinार Corps Commander Lt General J.S. Sandhu. She visited the forward areas and was briefed



about the robust counter-infiltration posture along the Line of Control. The Defence Minister was subsequently briefed by the Army Commander in Badami Bagh Cantonment on the prevailing security situation in J&K and was given an overview of the counter-infiltration and counter-terrorist operations undertaken in the recent past.

She appreciated the effectiveness of the intelligence and operational grids and commended the troops for the excellent operational successes, which had contributed significantly towards a secure environment in the State. **SP**

Indo-USA Joint Exercise Yudh Abhyas-2017 concludes

Exercise Yudh Abhyas-2017, a joint military exercise between Indian and US armies commenced on September 14, 2017, at Joint Base Lewis McChord, Washington, USA with a brief and impressive opening ceremony. The US contingent was represented by Company of 5th Infantry Battalion from 20 Infantry Regiment of the US Army while the Indian side was represented by soldiers of Gorkha Rifles from the Surya Command. Major General Willard M Burlesan, GOC 7th Infantry Division, US Army welcomed the Indian soldiers. In inaugural remarks, he highlighted the common shared beliefs of democracy, freedom, equality and justice that are precious to both the nations.

During the two-week long exercise soldiers from both countries honed their tactical skills in counter-insurgency and counter-terrorist operations under a joint brigade headquarter. Both sides jointly

trained, planned and executed a series of well-developed tactical drills for neutralisation of likely threats that may be encountered in UN peacekeeping operations. Experts from both sides held detailed discussions to share their experience and expertise on varied operational topics.

The initial days of field training comprised of platoon level training on basic manoeuvres, which then progressed towards company level operations. Helicopter-based mobilisation of teams for quick response was also practised.

The two Armies have gained from each other's expertise and experience in conduct of platoon and company level operations. In addition, the Indian contingent got a first-hand experience of operating with the 'Stryker' Infantry Combat Vehicle and the US Army gained an insight on the training of an infantry unit in a mountainous terrain.

The joint exercise, concluded on September 27, 2017. Exercise Yudh Abhyas-2017 achieved all joint training objectives and this shall further reinforce defence cooperation between the two Nations. **SP**





Indian Navy gets the first Scorpene submarine, Kalvari

History was written at MDL on September 21, 2017, with the delivery of the first Scorpene submarine, Kalvari, to the Indian Navy. This historic event reaffirms the giant strides taken by Mazagon Dock Shipbuilders Ltd (MDL) in the ongoing 'Make In India' programme, which is being actively implemented by the Department of Defence Production, MoD. Coming in the 50th year of Indian submarine operations (which is being celebrated as the Golden Jubilee of the Submarine Arm), the occasion



has that extra special significance. Post delivery, the submarine would soon be commissioned into the Indian Navy.

The contract for the construction and transfer-of-technology for six Scorpene submarines in series, with DCNS of France as 'Collaborator' and MDL as 'Builder', was signed in October 2005.

Scorpene submarines can undertake multifarious types of missions i.e anti-surface warfare, anti-submarine warfare, intelligence gathering, mine laying, area surveillance, etc. The submarine is designed to operate in all theatres, with means provided to ensure interoperability with other components of a Naval Task Force. It is a potent platform, marking a generational shift in submarine operations. **SP**

Indian Navy commissions Water Jet Fast Attack Craft

INS Tarasa, a water jet fast attack craft was commissioned into the Indian Navy by Vice Admiral Girish Luthra, Flag Officer Commanding-in-Chief, Western Naval Command at the Naval Dockyard, Mumbai recently. Vice Admiral Luthra expressed confidence that the new INS Tarasa will discharge her duties with élan and resolve, and bring laurels to the Western Naval Command and the Nation.

Complimenting the designers, builders, engineers, overseers, and the officers and the men whose efforts have fructified in the commissioning of the ship, he said that the ship is of proven design, has good endurance, low draught, high speed and manoeuvrability, thus making her most suited for her primary role of extended coastal and offshore surveillance and patrol. He reserved special praise for the ship's crew and the Warship Overseeing Team, Kolkata for ensuring that the ship has been commissioned with all Weapon and Sensor trials completed. The passage of the ship during her maiden voyage from Kolkata to Mumbai, in rough weather, bears testimony to the seaworthiness of the ship.

INS Tarasa is the fourth and last of the follow-on Water Jet FAC's built by the Garden Reach Shipbuilders and Engineers (GRSE), Kolkata. The first two ships of the class i.e. IN ships Tarmugli and Tihayu were commissioned in 2016 and are based at Visakhapatnam; while the third ship INS Tillanchang was commissioned earlier this year at Karwar on March 9, 2017. These ships are an upgrade of the Car Nicobar class Fast Attack Crafts with the Indian Navy, which were also indigenously designed and built by GRSE, Kolkata.



INS Tarasa is 50 metre long and powered by three waterjets which give it speeds of over 35 knots (65 kmph). The ship is armed with a 30 mm main gun indigenously built, and a number of light, medium and heavy machine guns to undertake coastal defence operations. The ship is an ideal platform for missions like coastal and off-shore surveillance, EEZ Patrol, law enforcement as well as non-military missions such as Search and Rescue, Humanitarian Assistance and Disaster Relief. The commissioning Commanding Officer of the ship is Lieutenant Commander Praveen Kumar. **SP**



Raksha Mantri flags off Navika Sagar Parikrama

The Minister of Defence Nirmala Sitharaman, flagged-off Indian Naval Sailing Vessel Tarini (INSV Tarini) with an all women crew from INS Mandovi boat pool, Goa on September 10, 2017. This is the first-ever Indian circumnavigation of the globe by an all-women crew and shall attempt to circumnavigate the globe on Indian Navy's sailing vessel INSV Tarini. The crew is expected to return to Goa in April 2018, on completion of the voyage. The expedition will be covered in five legs, with stop-overs at 4 ports viz. Fremantle (Australia), Lyttleton (New Zealand), Port Stanley (Falklands), and Cape Town (South Africa).

The event was attended by S Manohar Parrikar, Chief Minister of Goa, Admiral Sunil Lanba, the Chief of the Naval Staff, Vice Admiral A.R. Karve Flag Officer Commanding-in-Chief, Southern Naval Command, Vice Admiral R Hari Kumar, Controller Personnel Services, IHQ MoD (Navy) besides other dignitaries.

The Minister said "this is a historic day for the country, which will be marked in the Navigation history of the world, and globally



our women are going to stand out for something which most navies of the world would not have even thought of". She further said that, "For this initiative I appreciate the Indian Navy and the mentors for inspiring, motivating and training these brave and courageous women". She expressed her absolute pleasure for being present at the momentous occasion and felt honoured to be amongst the crew and wished them a successful voyage.

The Chief of the Naval Staff, Admiral Sunil Lanba expressed satisfaction at continuation of the legacy of Indian Navy's Ocean sailing expeditions which commenced in 1988 with expedition 'Samudra'. This was followed by first solo circumnavigation by Captain Dilip Donde (Retd) and non-stop circumnavigation of the globe by Cdr Abhilash Tomy resulting in India joining a select group of nine nations which have achieved such feats. He said that the present circumnavigation by an all women crew is an extension of the above efforts and reflection of the Government's efforts at Women Empowerment - "Nari Shakti".

INSV Tarini is being skippered by Lt Commander Vartika Joshi, and the crew comprises Lt Commanders Pratibha Jamwal, P. Swathi, and Lieutenants S. Vijaya Devi, B. Aishwarya and Payal Gupta. **SP**

Chief of the Naval Staff visits Vietnam

Admiral Sunil Lanba, Chairman Chiefs of Staff Committee and Chief of the Naval Staff visited Vietnam from October 4 to 7, 2017. The visit aimed at consolidating cooperation between the Armed Forces of India and Vietnam and also to explore new avenues of defence cooperation.

Admiral Sunil Lanba held bilateral discussions with Mr Nguyen Xuan Phuc, Prime Minister of Vietnam; General Ngo Xuan Lich, Defence Minister of Vietnam, Senior Lieutenant General Phan Van Giang, Chief of General Staff and Vice Minister of National Defence, Vietnamese Armed Forces, and Rear Admiral Pham Hoai Nam, Commander-in-Chief of the Vietnam People's Navy. In-addition to holding important bilateral discussions, the Admiral also visited the National Defence Academy of Vietnam, where he interacted with student offi-



cers and faculty members and delivered a talk on the 'Importance of Maritime Power'. He also visited Vietnam People's Navy 'Naval Region 4', Vietnam Naval Academy and laid a wreath at the Ho Chi Minh Mausoleum.

India has historical linkages with Vietnam that dates back many centuries, though the countries established formal diplomatic relations in 1972. Defence cooperation between India and Vietnam has been robust with the primary focus being Maritime Cooperation. India signed a Protocol on Defence Cooperation Agreement in 1994. The partnership was thereafter elevated to Strategic Partnership in 2007 and a MoU on Defence Cooperation between the countries was signed on 05 November 2009. A 'Joint Vision Statement for 2015-20' was signed by the respective Defence Ministers in May 2015 and the Strategic Partnership was elevated to a Comprehensive Strategic Partnership in September 2016, during the visit of the Prime Minister to Vietnam. **SP**



LT GENERAL
P.C. KATOCH (RETD)

Doklam pullback – Advantage Modi

There is no doubt that the simultaneous pullback from the Doklam standoff by the Indian Military and the People's Liberation Army (PLA) is advantage Prime Minister Narendra Modi. *Asia Times* aptly summed up what India resolutely conveyed to China, "What's certainly clear is that India has no appetite for being pushed around by its increasingly hegemonic neighbour (China)".

The direct impish bullying by Yang Jiechi, China's state counselor to NSA Ajit Doval on July 27 by saying "Is this (Doklam) your territory" was met by the latter's response, "Does every disputed territory become China's by default?" Psyched in an aura of false superiority, Yang must have been stunned.

It is well known that the "disputed" part is forced on Bhutan by China, the Doklam Plateau being private property of the Royal family of Bhutan. Doval reportedly asserted that the territory was part of Bhutan and India was obliged to look after Bhutan's security under an Indo-Bhutanese treaty. China had timed the Doklam intrusion with Prime Minister Modi's visit to the US, hoping for a smooth walk-over. However, it received a shock when Indian troops physically blocked the PLA advance and Bhutan issued demarche to China.

To say that China went berserk and mad would be putting it mildly; threats of attacking for teaching India a lesson, threats and string of lies by Chinese officials and diplomats including the Chinese ambassador and his deputy in New Delhi, large scale military and firepower display in COT (China Occupied Tibet), daily virulent tirade by China's state-controlled media; intrusions on foot and by air in Chamoli district of Uttarakhand, Chinese troops stone-pelting and attacking Indian patrol with rods on August 15 close to Pangong Tso, you name it. Despite all this, diplomatic parleys were continuing.

Eventually, on August 28, the MEA and China's Foreign Ministry issued a simultaneous statement announcing the "expeditious disengagement" by troops on the Doklam plateau that India is treaty-bound to protect. But the Chinese spokeswoman puckishly added that Chinese troops would continue to patrol the Doklam region, China will continue to exercise sovereignty rights to protect territorial sovereignty in accordance with the rules of the historical boundary, and China hopes India respects the historical boundary and works with China to protect peace along the border on the basis of mutual respect of each other's sovereignty. While this may be laughed off as a face saver, the Chinese rhetoric has a deeper aim when read in conjunction with earlier Chinese announcement that India had withdrawn from Doklam, conveying the PLA stayed put.

It is obvious that the joint statement was agreed upon much earlier by both sides, which was simultaneous withdrawal and had been suggested by India at the very beginning of the standoff as the only respectable way out for China. The Chinese reference now to "historical boundary" and that China will keep patrolling the area is mis-

chievous because she has been wrongly referring to the 1890 Treat and the Tri-junction to justify her aggression. India could have repudiated these Chinese assertions and made public the agreement for simultaneous withdrawal but chose to remain silent. The Chinese intrusion also was a diplomatic fiasco at the global level. Not even Pakistan, China's closest ally, supported the Chinese action. On the contrary veteran Pakistani Generals were openly critical on Pakistan TV that India has stymied the Chinese at Doklam, China has threatened to attack India, India has said it is ready for all eventualities, and China has not done anything.

Then there is also the BRICS meet that China hosted in September, attendance of Prime Minister Modi to which had not been confirmed by India. India had already boycotted the conference on One Belt One Road initiative chaired by China, rightfully because China went ahead on the China-Pakistan Economic Corridor (CPEC) through Indian Territory of POK without reference to India. If the Doklam Standoff continued, Prime Minister Modi may not have attended the BRICS summit in China. This would have shown President Xi Jinping in poor light especially with China having clobbered together BRICS as a sequel to the US and the West. Besides, Xi is battling serious internal dissent within the Communist Party of China (CPC) and Modi's absence at BRICS would have lowered Xi's ratings in the forthcoming 19th Congress of the CPC.

Besides, China enjoys an overall \$60 billion trade surplus with India and trade with India is expected to rise to \$300 billion in next five years. In addition china has \$60 billion worth of projects underway in India, with more on the horizon. Conflict would have hit the massively slowing down Chinese economy; Chinese reaction to India imposing anti-dumping duty on 93 products of import is indicative of this. Geopolitically also, China was unlikely to find support in case of conflict – not even from Russia, ASEAN or Nepal. On the contrary, a possible bigger maritime alliance with India included may have been feared in event of growing Chinese militarism. Conflict would also have adversely affected the OBOR and Maritime Silk Route (MSR) of China.

Despite the military and economic might of China, there is no way she can defend against disruption of these gigantic tentacles stretched across the globe. Militarily too, China realises that attack in the mountains requires 5:1 or greater numerical superiority, well-trained Indian Army is better placed strategically and capable of attacking as quid-pro-quo basis, the IAF has adequate weaponry to punish the PLA, and China will face consequence in the Indian Ocean.

But the bottom-line is that the Doklam pullback does not signify any change in China's policies. That is why General Bipin Rawat has warned that there could be many more Doklams. And, India is ready for another Doklam at Doklam too. **SP**

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

EXCLUSIVE

CAS answers to SP's on Air Force Day press conference

Jayant Baranwal, Editor-in-Chief, SP's M.A.I. interacts with the Chief of the Air Staff, Air Chief Marshal B.S. Dhanoa ahead of the celebrations commemorating 85th anniversary of Indian Air Force.

Jayant Baranwal: How do you perceive the standing of our Air Force on the eve of 85th year, in terms of technological advancement and can you also indicate a little on the technology achievements of the Air Force?

Air Chief Marshal (ACM): As far as the technology is concerned, like any other Air Force in world we have got the top of the line high end systems, we have medium technology and we also have the low technology aircrafts like MiG-21 but they are going out soon.

As far as the medium technology aircraft is concerned, all the platforms that we got in early 1980s like – MiG-29, Mirage, and the Jaguar, these all have been upgraded to level up to the avionics and they are comparable to any fourth-generation aircraft as far as the avionics is concerned.

We are going in for the cutting edge technology. We already have the cutting edge technology in Rafale, S400 and MRSAM. The India Air force has a mix of all three technologies.

Jayant Baranwal: How is the moral of our Air Warriors?

ACM: As far as the moral of the IAF people, I would say that the moral of the Air Force is very high! Our people have responded in very timely manner and we have seen that whenever the need arises, our people have



Game Changer: Rafale fighter aircraft

responded in any Humanitarian Assistance and Disaster Relief (HADR) operations way beyond their call of duty.

Jayant Baranwal: While Navy is going for Predator UAVs, 22 in number. The Air Force is willing to look at Avenger. What is the objective behind it, if that is the case?

ACM: As far as the UAVs are concerned, we have not put up any RFI or RFP for any of these two UAVs as of now. IAF will consider Predator, unmanned aerial combat vehicle, in case it is offered by the United States.

Jayant Baranwal: Regarding the strategic partnership model, how realistic it is? Is it really going to give a boost to our private sector?

ACM: Maruti came and give a boost to manufacturing in the automotive sector in India. Manufacturing in defense sector is currently a domain of the PSUs. The Strategic Partnership will give a boost to the private sector. There is a sequence for reaching the Strategic Partnership model, once we come to the selection of the platform, we can come to the strategic partner. Once we have selected the strategic partner we can tell the platform manufacturer that this is the strategic partner deal with them. How can we pre-suppose who is going to come. The process is pretty stringent and that's how it is envisage. **SP**

New milestone for Lockheed's T-50A

Lockheed Martin achieved a new milestone recently as the T-50A aircraft flew its 100th sortie at the Greenville, South Carolina, facility. This flight continues to demonstrate the company's low-risk, Ready Now approach to the Advanced Pilot Training (APT) competition.

In February 2016, Lockheed Martin announced its plans to offer the T-50A in the APT competition and build the aircraft at a final assembly and checkout (FACO) facility in Greenville. Lockheed Martin formally unveiled its T-50A FACO and operations center in August 2016.

Lockheed Martin's accompanying T-50A Ground-Based Training System fea-

tures innovative technologies that deliver an immersive, synchronized ground-based training platform. The T-50A team also brings extensive experience in world-class, worldwide logistics support. **SP**

Airbus Defence and Space hands over 50th A400M

Airbus Defence and Space recently delivered the 50th A400M new-generation airlifter to the German Air Force marking a key milestone for an aircraft which is transforming the world of air mobility. The aircraft, known as MSN59, is the twelfth to be delivered this year at the Final Assembly Line in Seville and the thir-



teenth to be accepted by Germany.

The A400M is steadily becoming the backbone of the European transport fleet and in recent weeks began to demonstrate its full potential as aircraft from Germany, France and the UK undertook intensive hurricane relief missions in the Caribbean. **SP**

New Director (Finance) takes charge at BEL

Koshy Alexander has taken charge as the new Director (Finance) of Navratna Defence PSU Bharat Electronics Ltd (BEL) on September 25, 2017. He was GM (Finance) & Chief Financial Officer before his elevation.

Koshy Alexander joined BEL-Bangalore in June 1986 as Accounts Officer after completing his Chartered Accountancy, securing the 19th and 16th ranks in the CA Inter and Final exami-



nations, respectively. A Fellow of the Institute of Chartered Accountants of India, he had completed his B.Com from Bangalore University with 2nd Rank. He is also a post-graduate in Commerce and degree in Law from Bangalore University.

Koshy Alexander took over as GM (Internal Audit)/BEL-Corporate Office on December, 2012. He later served as GM (Finance)/ BEL-Corporate Office from June 2014. **SP**

Leonardo strengthens its commercial effort and focuses on customer support

The Board of Directors of Leonardo, convened under the chairmanship of Gianni De Gennaro, was informed by the Chief Executive Officer, Alessandro Profumo, about the creation of two new organisational structures, the "Chief Commercial Officer" and the "Chief People, Organization and Transformation Officer", and about some other appointments to promote internal competencies.

In line with the strategic guidelines aimed at ensuring the long-term sustainability of the business, the Leonardo's new organisation, with the customer at its heart, will further strengthen the Group's positioning in international markets, and also developing the potential of Customer Support.

The "Chief Commercial Officer" will be Lorenzo Mariani - former Managing Director of the Leonardo "Land & Naval Defence Electronics" Division; his structure's objective will be strengthening the Group's international presence through a more effective central coordination of the commercial activities of the Divisions, regional operating companies and local subsidiaries, and through the development of Customer Support activities.

The "Chief People, Organization and Transformation Officer" will be Simonetta Iarlori, who will join the Group on October 2, 2017. Her structure has the objective of driving, with an end-to-end approach, the Group's transformation and digitalisation, through the development of human resources, processes and organisation, as well as the appropriate evolution of IT platforms and applications to support the business.

Gian Piero Cutillo, currently Group CFO, has been appointed Managing Director of the Helicopters Division, replacing Daniele Romiti; Alessandra Genco, currently VP Group Finance, has been appointed CFO replacing Gian Piero Cutillo. Alessandra Genco will also maintain her role of VP Group Finance ad interim; Daniele Romiti will take the responsibility of Special Projects reporting directly to the CEO; Manlio Cuccaro, currently Deputy Managing Director of Airborne & Space Division, has been appointed Managing Director of Land & Naval Defence Electronics Division, replacing Lorenzo Mariani; Marco De Fazio, currently Head of Naval & Air Defence Systems Line of Business, has been appointed Deputy Managing Director of Airborne & Space Division, replacing Manlio Cuccaro; Renzo Tosini, currently Head of Optronics Systems Line of Business, has been appointed Head of Naval & Air Defence Systems Line of Business, replacing Marco De Fazio. Renzo Tosini will also maintain his role of Head of Optronics Systems Line of Business ad interim. **SP**

Christopher J. Davis is the new President, Raytheon International

Raytheon Company has appointed Christopher J. Davis as President, Raytheon International Inc. effective immediately. Davis will report to John Harris, Vice President, Business Development and CEO, RII, and be based in Washington, D.C.

"Chris has a proven track record in international business and business creation that makes him the ideal candidate to strategically drive our top global initiatives," said Harris. "He will lead the worldwide RII team to grow international sales."

Davis replaces Thomas A. Vecchiolla, who recently retired after 15 years with the company. **SP**



Terma and Marand sign MoU on future collaboration

A memorandum of understanding (MOU) was signed recently at the Pacific International Maritime Exposition between Terma and Marand. The two companies agree to explore, identify, and discuss specific areas of mutual interest in accordance with Terma's intention to support the Australian Industry Capability (AIC) policy as part of Terma's activities in Australia.

Terma Senior Vice President Jørn Henrik Levy Rasmussen and Marand CEO Rohan Stocker were on hand for the ceremonial signing of the MOU.

"The agreement we sign today is strong evidence of Terma's present and future presence in the Australian market and interest in cooperating with the local industry. In recent years, Terma has delivered a number of naval and surveillance systems in Australia, and now we intensify our activities, says Levy Rasmussen and continues:

"As a trusted key supplier to Terma and to the F-35 programme, we see a perfect match between Marand and Terma with respect to pursuit of a number of business opportunities in Australia."

"Terma has been a wonderful customer on the F-35 Joint Strike Fighter programme. We have proven capabilities and experience supporting global defense primes, and we now look forward to further cooperating with the Terma business here in Australia," says Rohan Stocker, Marand CEO. **SP**



HBO hackers leak *Game of Thrones* stars' phone numbers and addresses

A recent security breach at HBO has led to the personal phone numbers and email addresses of some *Game of Thrones* actors leaking online. Hackers broke into HBO's systems and reportedly stole 1.5 terabytes of data, including scripts for upcoming *Game of Thrones* episodes and two unreleased episodes of *Ballers* and *Room 104*. *The Guardian* reported that hackers have released 3.4GB of data, and that they're demanding that HBO pay an undisclosed ransom to prevent further leaks.

Contained within the leaked data are draft scripts from five *Game of Thrones* episodes, and technical documents detailing HBO's internal network and administrator passwords. The Verge understands that one document includes a list of personal phone numbers, home addresses, and email addresses for all of the season 7 *Game of Thrones* actors, including Peter Dinklage, Lena Headey, and Emilia Clarke. A month's worth of emails from HBO's Vice President for film programming, Leslie Cohen, is also part of the latest leak alongside a large number of confidential documents.

HBO says it is reviewing what data has leaked as part of an ongoing forensic investigation. In a statement to *Wired*, HBO spokesperson Jeff Cusson says "the review to date has not given us a reason to believe that our email system as a whole has been compromised." If HBO's email systems haven't been fully accessed then it will spare the company an embarrassing repeat of what happened to Sony Pictures. Hackers broke into Sony Pictures back in 2014, and the leaked emails did the most reputational damage to the company. **SP**

McCarran Airport fence breached by people fleeing Las Vegas shooting

About 300 people fleeing the mass shooting at Mandalay Bay managed to break through the security fence surrounding McCarran International, wandered onto an active airfield and brought flights to a halt, airport officials said. The fence was breached in two areas as concertgoers from the Route 91 Harvest Festival streamed into the airport looking for a place to hide, airport spokeswoman Christine Crews said.

Around 10:15 p.m. Sunday — just seven minutes after gunman Stephen Paddock started shooting — the breach prompted airport officials to close the two parallel runways on the airport's western edge closest to the Strip, known as 1L/19R and 1R/19L. An hour later, runways 8L/26R and 8R/26L on the airport's south end were also closed, bringing traffic to a standstill at the nation's eighth-busiest airport, Crews said.

The shutdown led to 25 flight diversions on Sunday, with a majority of planes sent to Phoenix. Flights were also rerouted to airports in Los Angeles; Ontario, California; Bullhead City, Arizona; Salt Lake City and Denver.

After busting through the security fence, the panicked group scattered across the airfield, Crews said. About 30 of them managed to get as far as Allegiant Air's maintenance facility on the airport's east end, company spokeswoman Hilarie Grey said. Once inside, they received food, water, blankets and a chance to charge their cell-phones. Clothes were provided to those whose pants or shirts were torn and snagged by broken security fence.

Many others found refuge at facilities closer to the airport's western edge, including Signature Flight Support, which handles some of the private jets passing through McCarran International. "We provided a facility for anybody who needed a place to stay that night with food, water and some triage," Signature Flight Support General Manager Rita Carrillo said. **SP**

Las Vegas massacre raises questions about hotel security

When police entered 64-year-old Stephen Paddock's 32nd-floor hotel room at the Mandalay Bay in Las Vegas, Clark County Sheriff Joe Lombardo says, they found "in excess of 10 rifles."

Paddock is suspected of firing down from his room at a crowd of more than 22,000 country music festival attendees. The shooting left at least 58 people dead and 515 injured. A SWAT team used an explosive to breach his room and then "found the suspect dead," says Lombardo. He also says their information suggests that Paddock had been in the hotel room since Thursday. The massacre has left some people questioning how the suspect was able to bring so many guns into the hotel.

At the news conference, Lombardo said that Paddock brought the weapons into the hotel on his own and that he used "a device similar to a hammer" to smash the windows. Randy Sutton, who spent 24 years with the Las Vegas Metropolitan Police Department, told CBS This Morning that Paddock had plenty of time to get the guns to his room. **SP**



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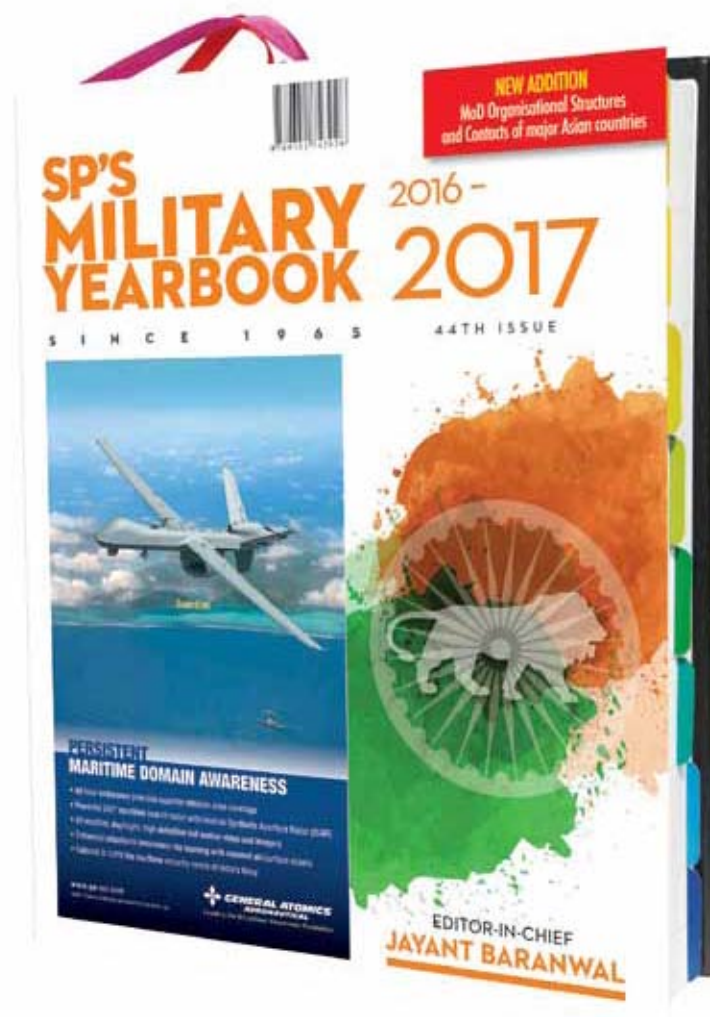


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