

## **Transforming the Indian Armed Forces for Meeting Future Security Challenges\***

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**G**eneral PK Singh, Director United Service Institution of India (USI), General VN Sharma, former Chief of Army Staff, distinguished guests, ladies and gentlemen. I am deeply honoured to have been invited to deliver the 21st Colonel Pyara Lal Memorial Lecture at the USI. I thank the Director of USI for giving me this opportunity to interact with a very distinguished gathering. This lecture honours the memory and contributions of a distinguished soldier scholar, Colonel Pyara Lal, whose name is closely associated with the USI. The subject given to me is “Transforming the Indian Armed Forces for Meeting Future Security Challenges.”

A Google search of four words, ‘Transform Indian Armed Forces’, throws up 121 million results. This is indicative of the amount of material written on this subject. This is an apt topic for discussion and debate especially now as the government has implemented certain recommendations of the Shekatkar Committee but shied away from major reforms in the Ministry of Defence (MoD) and addressing macro issues as envisaged by the Shekatkar Committee of experts. While the world over, including India, the focus is on reforms be it economic, social or even police reforms; but when it comes to the Armed Forces it is always “Transformation”, be it the US, China, the UK or India. I often wonder why?

I will briefly flag the future security challenges to outline the context and the framework and, thereafter, discuss certain defence reforms leading to transformation of the Armed Forces. The recommendations for transformation are straight out of the Shekatkar Committee on “Enhancing Combat Effectiveness by Rebalancing the Defence Expenditure”. To even define the future security challenges is a challenge in itself as technology changes faster than we can absorb and security challenges manifest in heretofore unanticipated domains. Future security challenges in the Indian context need a constant and continuous study. We need to keep the national aim in mind, which is, to transform India into a modern, prosperous and secure nation.

India is the seventh largest country in area in the world and shares 15106.7 km of boundary with Pakistan, China, Nepal, Bhutan, Myanmar, Bangladesh and Afghanistan. India has maritime boundaries with seven countries namely; Pakistan, Maldives, Sri Lanka, Indonesia, Thailand, Myanmar and Bangladesh and has a coastline of 7516.6 km. India’s international borders are a unique intermix of mountains, plains, deserts, riverside and jungle terrain with varying degree of habitation and ethnic mix.

India faces full spectrum of security threats from a proxy war, sub-conventional or low intensity conflict (LIC), 4G war, hybrid war, small wars, conventional war, nuclear war, as also a collusive and collaborative threat from Pakistan and China. We have a mischievous Pakistan in the West and a strong adversary in China in the North. Pakistan has waged four wars on India and continues to wage a proxy war for nearly four decades now – if I were to give a date of the commencement of this proxy war it would be 13 Dec 1989. The ongoing proxy war is a state policy of Pakistan which is driven by the Pakistan Army.

With Pakistan we have a 772.1 km of Line of Control (LC) and 126.2 km of Actual Ground Position Line (AGPL) along the Siachen Glacier. An agreed upon ceasefire (CF) unilaterally

declared by Pakistan on 25 Nov 2003 and reciprocated by India is under severe stress. Pakistan's Army constantly violates CF to aid infiltration. The fact that there is hardly ever a CF violation East of Zojila is indicative of Pakistani designs. Violence levels in Kashmir are calibrated from across and terrorist attack in the hinterland like Mumbai, Indian Parliament etc. are engineered and perpetrated by Pakistan. A nuclear Pakistan with possible tactical nuclear weapons (TNWs) has been able to perpetrate terrorist attacks in India with near impunity except for the surgical strikes. India propagates a "proactive strategy" of carrying the war into Pakistan territory with the aim to raise the cost for Pakistan's "Low Cost High Effect" proxy war to 'High Cost Low Effect' war; but the key issue is 'Does India have strategic space in a conventional war on account of the nuclear overhang?' The driver for conflict is incident driven – we also may not be able to achieve strategic surprise.

China on the other hand is a strong adversary. 3488 km long India-China border is without a common understanding of Line of Actual Control (LAC). The LAC in practice is a set of four imaginary lines – India's perception of the LAC, India's perception of the Chinese perception, China's perception of the LAC and China's perception of the Indian perception of the LAC; and is a complex issue. The LAC is a set of contradictions, it is the most disputed peaceful border in the world with the last shot in anger fired in Oct 1975. A fragile peace exists with daily transgressions – "Face Offs" like the recent one in Doklam and earlier Chumar; and Depsang is an ever present danger and driver for conflict. However, both nations have ensured peace and tranquility (P&T) based on the five principles of Panchsheel and five agreements. The discipline, commitment and maturity of the two armies has ensured P&T, as the LAC is all along high altitude areas at average height of over 4500 m, where temperatures are low and temps generally run high. The stand-off at Doklam was a departure in many ways from earlier stand-offs wherein China practiced the much talked about doctrine of three warfares viz. Informational warfare, Legal warfare and Psychological warfare.

Is Doklam the new normal? In my assessment the frequency, depth and intensity of transgressions and face-offs will see an exponential increase and the P&T will be under severe stress and, hence, we need to build capabilities and enhance capacities, about which I will talk later. India has to be prepared for a two front war as a collusive and/or collaborative threat from Pakistan and China is a reality. In the event of an India-Pakistan conflict, China may not directly go to war with India, however in a India-China conflict – Pakistan certainly will.

In this context I quote what our National Security Adviser (NSA) Mr Ajit Doval said during HT Leadership Summit on 23 Nov 2014, *"India has to be prepared for a two front war and build deterrence that ensures conflict is not an option for its adversaries"*. He goes on to say *"India has two neighbours, both nuclear powers (which) share a strategic relationship and a shared adversarial view of India,"* There is no denying the fact that we have to be prepared for a two front war.

China-Pakistan Economic Corridor (CPEC) is central to the China's dream of One Belt One Road (OBOR) and any threat or perceived threat to its vital national interest is a driver for conflict, leading to a collaborative or two front war possibly orchestrated by Pakistan. CPEC passes through Indian territory occupied by Pakistan. CPEC is vital to both China and Pakistan as it provides China a direct access to Gwadar, a connect to the maritime route resolving its Malacca dilemma; and for Pakistan it provides strategic depth, hence, balancing India.

The internal security dynamics in Jammu and Kashmir and Northeast are well known, and I will leave it at that. The 24 km wide Siliguri Corridor is the only land bridge to eight and half northeastern states and five crore people. There has been a major shift in demography, especially in Kishanganj posing a security challenge which needs to be addressed. The Left

Wing Extremism is another challenge best left to be taken care of by the Central Reserve Police Force (CRPF) and other Central Armed Police Forces (CAPFs).

Future wars will be multi-domain multi-dimensional wars. Linear wars as we have known are only a critical subset of multi-domain warfare which could be both overt and covert. At Centre for Joint Warfare Studies (CENJOWS), we are in the process of doing a major research project on multi-domain warfare in the Indian context. Multi-domain warfare is essentially all encompassing and impacts the geostrategic, geoeconomic and geopolitical domains. In brief, the essential components are cyber, space and outer space, special operations, informational warfare, psychological operations, legal, electronic, electromagnetic, hybrid, asymmetric, water, energy, autonomous weapons and vehicles including drones, fuelling unrest. You name it and it is there. Coastal security is also a major concern, there is a threat to our 1208 island territories and 2,30,5,143 sq km of Exclusive Economic Zone (EEZ). Domination of Indian Ocean Region (IOR) is an imperative.

On 18 Oct 2014, the Prime Minister, while addressing the Commanders Conference, stated *"Beyond the immediate, we are facing a future where security challenges will be less predictable; situations will evolve and change swiftly; and, technological changes will make responses more difficult to keep pace with. The threats may be known, but the enemy may be invisible. Domination of cyberspace will become increasingly important. Control of space may become as critical as that of land, air and sea. Full scale wars may become rare, but force will remain an instrument of deterrence and influencing behaviour, and the duration of conflicts will be shorter."* Other than security challenges, India is a responsible rising power and a net security provider in the region and, hence, we need capabilities for operations other than war including Humanitarian Assistance and Disaster Relief (HADR).

India boasts of the second largest Army, fourth largest Air Force and blue water Navy. The Indian Armed Forces are also one of the world's most battle-hardened and combat rich force. However, Indian military is a force and not a power. General Shekatkar's vision and concept for the committee was to transform 'Indian military force to military power'.

I will quote Prime Minister Modi again; while addressing the combined Commanders' Conference in December 2015 he said *"At a time when major powers are reducing their forces and rely more on technology, we are still constantly seeking to expand the size of our forces. Modernisation and expansion of forces at the same time is a difficult and unnecessary goal. We need forces that are agile, mobile and driven by technology, not just human valour"*. The Prime Minister challenged senior military commanders to reform their "beliefs, doctrines, objectives and strategies". Six areas that require military reforms are : restructuring the higher defence organisation, improving defence planning, synergising joint warfare, enabling manpower rationalisation (teeth to tail ratio), boosting defence procurement and specialising professional military education. Prime Minister Modi's directions can be seen as a challenge to the established structures, systems and organisations of India's military and the mind-set of senior military leaders. The key issue is that the authority to implement the reforms rests with the MoD and hence, the Ministry will need to take ownership of the transformation.

On 29<sup>th</sup> Aug 2017, the erstwhile Raksha Mantri Shri Arun Jaitley announced that 65 recommendations of the Shekatkar Committee have been implemented, leading to appreciation and applause, discussion and deliberations. It is definitely a first and a good first step, but honestly and at the cost of being politically incorrect, as I am a soldier and need to be militarily correct, these are mostly low hanging fruits - cherry picking. The Shekatkar Committee had made over 200 recommendations aimed to address the concerns of the Services and further the national security interests. Broadly, 30 of these pertain to Tri-Services, 75 to organisations directly under MoD, 80 pertain to the Army, 14 to the Navy and 16 to the Air Force.

The strength of the Indian Armed Forces is approximately 1.4 million with six lakhs civilian or non-uniformed employees; of which 2.6 lakhs are embedded in the services such as base workshops, base repair depots and naval dock yards and many other establishments; and 3.4 lakhs civil manpower is employed in 30 odd organisations functioning directly under the MoD. The defence budget is approximately INR 2.5 lac crores at 1.6 per cent of GDP. The manpower, both military and civil, is sustained and paid for from the defence budget, leaving little for modernisation.

The present sanctioned or accepted force levels have evolved after detailed deliberations and hence, need to be maintained whether these are 14 corps for the Army, a 42-squadron Air Force and a 200-ship Navy. The Government and the Armed Forces need to take a close look at the existing structure and systems, organisations, administrative support and logistics establishments and integrate civil infrastructure and resources to rebalance and maximise defence expenditure. Given the pragmatic but limited nature of the defence budget, the military needs change. It is time for reform to ensure a more effective, efficient and relevant armed forces that are to meet multiple security challenges across the full spectrum of conflict. The defence budget cannot be stretched beyond a point, which means the MoD and the Armed Forces have a tough choice for resource deployment. Reducing revenue expenses and increasing spending for capital pose the biggest challenges for the MoD right now.

The start point is to promulgate and propagated National Security Strategy (NSS). In essence, the NSS is a strategy to protect and project our national interests. This is a national imperative. A rational and well-structured National Military Strategy (NMS) can only flow from a well-defined and holistic NSS. Furthermore, the chain continues down the line as the National Military Objectives (NMO) can only be culled out from the NMS and the Armed Forces derive the military capabilities from the NMO. Present capability building is mostly based on single service requirements that are at best coordinated at the Headquarters Integrated Defence Staff (HQ IDS) to 'please all'. It is an important and a necessary dictate of the budget allocations that military capabilities are synergised in sync with the NSS.

The defence budget needs to be enhanced to 3 per cent of GDP. Despite competing national priorities, security is a prerequisite for the long term and sustained development of the nation and the well-being of the people. Under the circumstances, a constant push towards higher levels of efficiency is essential for safeguarding national interests. This is best by appointing a single authority to ensure operational preparedness in the form of the much deliberated and delayed Chief of Defence Staff (CDS). For the present, the Service Chiefs should continue to be responsible for operational readiness.

It is a national security imperative to appoint a CDS with the requisite authority and mandate. As a first step, the Armed Forces should achieve jointness in five domains i.e. joint intelligence, planning, training, communications, and logistics. Integrated theater commands need serious deliberations and discussion to evolve effective structures by clubbing the existing 17 commands of the Army, Navy and Air Force.

In the present construct, the authority is with the MoD whereas the accountability is that of the Services and Service Chiefs. There is a necessity to align authority and accountability. It is not only the transaction of business/Allocation of Business rules, but the Services need more authority in all spheres.

To address the security challenges in the multi-domain warfare, it is essential to raise the Cyber, Space and Special Operations commands as envisaged by the Naresh Chandra Task Force. The defence budget at present is 1.61 per cent of the GDP, which is grossly insufficient to address the vacuum as also modernise the Armed Forces. The Capital Budget should be a

roll-on budget as it is rare that the Armed Forces have ever been able or allowed to fully utilise the allocated Capital Budget. The policy, procedures and processes need to be reviewed, which has been done to a large extent in the Defence Procurement Procedure 2016. On the positive side, the MoD has signed 110 contracts worth INR 1,13,995 crores and accorded Acceptance of Necessity (AoN) for 101 schemes at a financial outlay of INR 2,39,000 crores, in the last three years.

Meaningful and effective integration of MoD and Services is long overdue. MoD has four departments : Department of Defence (DoD), Department of Defence Production (DDP), Defence Research and Development Organisation (DRDO) and Department of Ex-servicemen (DESW), and all these departments have a critical role in enhancing the operational efficacy and the combat effectiveness of the Armed Forces. The Services need to be integrated with all departments and structures of the MoD. These departments also need major reforms to be responsive to the Services.

The DRDO has a network of 51 laboratories with a 30,000 workforce that unfortunately comprises of only about 7000 scientists, despite spending nearly six per cent of the defence budget. The DRDO has achieved success in strategic defence systems and some cutting-edge technologies but falls far short in meeting the defence needs and soldiers' aspirations of tactical defence systems including small arms in the low-medium technological domain which in effect is nearly 80 per cent of the requirement of the Forces. It is a well-known fact that the Army does not have an effective assault rifle. The soldiers have no faith in the INSAS rifle. The DRDO needs to cut manpower costs as each scientist cannot be supported by four administrative persons (a teeth to tail ratio of 1:4). DRDO should focus on core competencies, close 11 research labs, put in place a robust consultation process with the Services, partner and encourage research and development in the industry. All projects should be cleared by Vice Chiefs/Chiefs of Staff Committee (COSC). The labs should have two heads – a scientific head and an operational head from the Services. A system of incentives needs to be put in place for all distinguished scientists for timely or early completion of projects and exceptional contributions.

Similarly, there is an immediate requirement to revamp the Indian Ordnance Factories (IOF) which have a strength of nearly 90,000 personnel, with most of the factories not being cost effective, forcing the captive Armed Forces to procure Ordnance Factory manufactured products at exorbitant costs and, thereby, adding to the skewed defence revenue budget. The IOFs need to be cost efficient and competitive, or else the Armed Forces should be allowed to source their non-critical needs from the growing private sector. The case of various Defence Public Sector Undertakings (DPSUs) is no better. One method for ensuring efficiency would be if some of the factories functioned on the Government Owned Corporate Operated (GOCO) model. The Directorate General of Quality Assurance (DGQA) and the Directorate General of Aeronautical Quality Assurance (DGAQA) function directly under MoD's Defence Production. The control for contract awarding, ensuring cost effectiveness, timely manufacture and quality assurance is under the Secretary Defence Production. As there are no checks and balances, this leads to the issue of poor quality products with cost and time overruns. It has been reported that over 180 tank barrels have burst during practice firing leading to loss of life and limb. The DGQA, DGAQA and the Directorate General of Quality Assurance (Naval) should function under the HQ IDS. The DGQA has a total manpower of approximately 11,000, but the technical staff, which forms the core competency of the quality assurance and quality checks, is only about 3500; the rest being administrative support staff i.e. a ratio of 1:2.

The defence accounts department of the MoD is an unproductive drain on the defence budget. Instead of being a watchdog and contributing to financial efficiency, the Armed Forces

often feel frustrated on account of the financial delays that take place as a result of archaic regulations, procedures and processes. The Armed Forces are subjected to both pre- and post-audits leading to cost and time overruns in the execution of various projects and contracts with little or no value addition. The 18,000 strong workforce of auditors have raised approximately 65,000 audit objections annually over the last five years, which translates to less than four per auditor per annum. This workforce can be reduced by about 85 per cent without any adverse impact, and the Controller General of Defence Accounts (CGDA) can adopt “e-auditing”/ Computer Aided Audit Techniques (CAAT), thus accruing major savings in manpower costs.

DESW needs to be revamped and serving and retired officers who are aware of the problems and aspirations of the veterans should be on their staff. The DESW has to be veteran-friendly and facilitate a second career for soldiers retiring at a young age. The control and functioning of the Ex-servicemen Contributory Health Scheme (ECHS) should be under HQ IDS with enhanced financial powers. The manning of the DoD should be integrated and Services officers posted to DoD; and similarly civilian officers posted to various branches of the Service HQs including the general staff.

The Military Engineering Service (MES) is another white elephant manned by over 80,000 personnel with a budget of approximately INR 14,000 crores, spending over 70 per cent of the budget on salaries. The MES can easily be reduced to about 30 per cent of its present strength by outsourcing the maintenance services in all cantonments and military stations during peacetime, leaving the MES to execute only capital works and maintenance contracts. The effectiveness of MES and Border Roads Organisation (BRO) has also been degraded on account of issue of status equivalence wherein the civil cadre officials drawing Non-Functional Upgrade (NFU) have become senior to their erstwhile superior officers. The solution lies in promulgating NFU for the Services, a common pay structure and career progression schemes to ensure harmony and synergy between military and civilian employees.

India will need to enhance capacities and build capabilities to meet the challenges of the future. Key issues need to be addressed immediately and urgently post Doklam. The borders with China are manned and managed by the Army and Indo-Tibetan Border Police Force (ITBP) often leading to competition and problems in coordination and cooperation. There are also two different channels of reporting and issues of accountability as the ITBP is under the Ministry of Home Affairs (MHA). This dual command and control structure is a recipe for disaster as conflicting directions and guidelines can emanate from the two controlling Ministries i.e. MHA and MoD, and more often than not, by intermediary headquarters. There is an urgent need to resolve the flawed command and control structure and place the ITBP under the operational control of the Army as mandated by the Group of Ministers report of May 2001. The Land Acquisition, Rehabilitation and Resettlement Act, 2013 (LARR) should be amended to exempt all areas falling within 100 km of the India-China border from its purview. This will enable time bound land acquisition leading to inclusive infrastructure development.

There is also a need to evolve an integrated infrastructure development plan where the National Highway Authority of India (NHAI) would be responsible for constructing the main arteries; a revamped Border Road Organisation mandated to construct the feeder roads and the Army to ensure last mile connectivity through its integral resources of operational works. In addition to the plan, the government should constitute a National Infrastructure Development Board under the Niti Aayog comprising all relevant ministries including the representatives from the Army and Navy, fully empowered and accountable to execute and monitor time bound development. The BRO needs to be reconstituted and reorganised on the lines of Delhi Metro Rail Corporation. In July 2013, the government sanctioned a strength of over 90,000 troops at an estimated cost of approximately INR 64,600 crores, including the Mountain Strike Corps, as

part of the accretion forces for the northern borders. The sanctioned funds should be made available immediately for early operationalisation of the Mountain Strike Corps and making up of voids in the border management posture.

World over, the present-day struggle is retention of trained, experienced and quality manpower. Due to the varied terrain and multiplicity of tasks, the Indian Armed Forces need a judicious mix of young, experienced and trained manpower resources. This can be best achieved by enhancing the colour service of the soldier by two years. This will also result in recurring savings in the pension bill of around 13 to 15 thousand crores every year; a sum which can be better utilised for modernisation. The third cadre review for JCOs and OR pending government sanction since 2010 has been sanctioned by the government on 14 Sep 2017 based on the recommendations of the Shekatkar Committee.

The Armed Forces – in particular the Army – need to look inwards too by integrating the civil resources and infrastructure available, outsourcing certain services, identifying force substitutes and revamping policies, procedures and processes. The Army also needs to review certain organisations that are suboptimal in today's environment and context. The outsourcing model cannot be based on L1 alone, the T1 and Q1 have to be factored in the procedure.

The Corps of Electronics and Mechanical Engineers (EME) is the third-largest force in the Army, next only to the Infantry and Artillery. Major savings can be affected by outsourcing the repair and servicing of 'B' vehicles to the original equipment manufacturers' (OEM) service stations. The service stations are now located in most of our border areas and can easily be exploited, as is being done by the Assam Rifles. The maintenance of specialist vehicles should continue to be the mandate of the EME. The EME also needs to reduce the number of echelons of repairs. It is envisaged that major savings of up to 30,000 personnel can be affected from the EME alone by changing archaic procedures and outsourcing repairs without any adverse impact on combat effectiveness. The Army Base Workshops should be corporatised on the basis of the government-owned contractor operated model. Additionally, the many station workshops located in cities and major towns have become redundant establishments which can be disbanded, and their workload can be outsourced to civil service stations by the units.

The Army Ordnance Corps (AOC) also needs to modernise and cut down its long chain to enhance effectiveness, save time and manpower costs and aid efficiency. It is unpardonable that in today's information age the Army has been unable to capture the four lakhs plus inventory, thus leading to unnecessary wastage and manpower costs. The vehicle depots and companies also need to be disbanded and the OEMs should be instructed to deliver the vehicles straight to the user units.

Similarly, the Army Service Corps (ASC) too needs to close down the butcheries and resort to procurement through trade. The number of integral transport units can be reduced, and vehicles can be hired through contracts, which will further reduce manpower, acquisition and maintenance costs, particularly since provisions already exist to requisition civil transport during emergencies. The operational need for animal transport needs to be reviewed as roads and tracks now connect more and more areas in the forward zone. This will also facilitate a reduction of the Remount and Veterinary Corps. Similarly, the petroleum units can be done away with by resorting to direct dependency and holding of reserves by the trade.

The communications requirements manned by the Corps of Signals can contribute to major redeployment of manpower for cyber and electronic warfare, post review. The Air Formation Signal Regiment is an example where the same can be applied. The communications architecture should be theatrised and all stakeholders should be able to plug and play. The

various dedicated signal regiments – from command, corps, division and brigades should be restructured to form theatre-specific communication groups, except the signal elements of the Strike Corps. The Armed Forces should move towards joint communications by optimising all resources including the civil.

Certain organisations need to be closed down without delay, such as the military farms, butcheries and stationery depots. The Army Postal Service and the Army Education Corps (AEC) could also be closed. Review and improvement in the staffing norms at Military Hospitals, restructuring of Field Ambulance to Divisional Medical battalions is required.

Indian Navy is a growing service; maritime security is a major concern and domination of the Indian Ocean, a geostrategic imperative. Indian Coast Guard (ICG) is the fourth service mandated to ensure coastal security and policing. The ICG should either be placed under the MHA as border management is under the MHA or else its Director General should be from the Navy for better coordination. The Navy should also review the manning levels of ships. The government must constitute a National Maritime Authority headed by a maritime security advisor to synergise maritime security and resources.

The Indian Air Force (IAF) needs to review and optimise its training, administrative and maintenance organisations to meet accretion plans to match force level enhancements. The accounts, navigation, education and meteorology branches can be optimised. The roles of Southern Air Command and the Maintenance Command need review. The tropo units can be merged to save on manpower, and a judicious mix of former IAF pilots on contractual basis with training establishments will enable the redeployment of pilots to operational squadrons.

I would like to conclude with a quote from the “Distance Drums” written by Manohar Malgonkar, a Maratha Light Infantry officer in 1960 *“From then on, it was typical, service talk. It went in the same circles, people invariably said the same things which had been said hundreds of times before in clubs, messes and your own bungalows. Its principles were simple: your own service, your directorate, battalion or regiment was the best, the most hard-worked and the most misunderstood and its only drawback was the shockingly incompetent officers holding the higher posts. The Navy were the most idle, the Air Force, the most pampered, but the civilians were the ones who created all the problems”*.

Thank you very much and Jai Hind.

\*This is the slightly edited text of the talk delivered by Lieutenant General Vinod Bhatia, PVSM, AVSM, SM (Retd), Director, Centre for Joint Warfare Studies (CENJOWS) on the subject ‘Transforming the Indian Armed Forces for Meeting Future Security Challenges’ on 20 Sep 2017.

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