# INTEGRATED OPERATIONS: MORE THAN JOINTMANSHIP

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There are experts of land, sea and air power, but as yet there are no experts of 'warfare', and warfare is a single entity, having a common purpose.

— Giulio Douhet

### INTRODUCTION

The consequence of the sociological revolution and the commencement of the industrial revolution took place in the shape of creating large standing professional armies that trained and fought together. The Napoleonic wars epitomise the same. It was here that the first seeds of jointmanship were sown. What is joint? 'Joint' implies a place or a thing at which two or more parts of a structure are joined. The word 'jointmanship' does not exist in the English dictionary, but is in considerable use in the armed forces to signify superior cooperation. It conveys a feeling of mutual collaboration for synchronisation of all components of military power to achieve a common military objective.

The US Joint Doctrine explains jointmanship as "to coordinate the combat capabilities of the Services, allies or coalition partners to achieve the greatest possible military advantage. This is accomplished through creation and execution of plans, which maximise the unique capabilities of each Service".

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Jointmanship, therefore, is the systematic progression of the propagated war principle of cooperation and aims at synergistically combining the operations of the armed forces towards achieving common joint objectives. One of the oft quoted remarks in the armed forces today is that more than jointmanship, what we need is integration. What is the delicate difference between the two?

# JOINTMANSHIP AND INTEGRATION: THE SUBTLE DIFFERENTIATION

Integration, as per its literal meaning, implies amalgamation, incorporation, unification, consolidation, merger, fusing, blending, meshing, homogenisation and assimilation. Integration is complete when all the components of an organisation such as the armed forces, function as an integrated whole, function as a single entity, with a unified mission and direction, whilst retaining independent functioning of each limb, depending upon the limb's competencies and capabilities to undertake a particular function most effectively.

Integration inherently includes the following elements: synergy, synchronisation, simultaneity and fusion. The term 'synergy' implies that the final output produced by the three Services should be significantly larger than the sum produced by each individual component. However, true synergy is obtained only if each of the parts is strong and competent enough on its own and in its own right.

Integration is not about fighting a war where every Service is given an equal chance to contribute in combat operations meaningfully—it is about recognising that each Service has its own unique competencies and strengths and if the capabilities and unique competencies of all are combined appropriately and utilised commensurate with the situation and opportunity, then the strategic objectives may be achieved most effectively and efficiently, with least damage to self and others.

Integrated operations are promoted by two crucial elements: first, a seamless environment that promotes integrated 'flexible operations; and second. mindsets' that allow integrated planning and synergised and synchronised warfighting to take place, and that these operations originate from a carefully conceptualised integrated joint plan. An important aspect here is that it is more important to jointly plan for integrated operations. Let us take a look at the battlefields of the future and their integration requirements.

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### FUTURE BATTLEFIELDS AND NATURE OF WARFARE

The battlefields of the future are likely to be digitised, networked and seamlessly integrated. The fusion of advanced ground, air and space-based systems would result in greater transparency, increased mobility, enhanced reach and accuracy and enlarged areas of influence. Integrated with a net-centric environment, they would require flatter command and control structures that enhance speed of command and response, and reduce sensor-to-shooter time, thereby significantly increasing overall combat capability. Perhaps, one may have to resort to such type of coordination where there is no single conductor centrally directing tactical operations, but the executing functions are conducted by a core group that is geographically dispersed and operating perhaps more autonomously to exploit fleeting opportunities under a common guidance.

Yet, wars fought for territory would slowly lose their meaning in an economically linked global world order and also while operating under nuclear thresholds. Consequently, destruction of the enemy's military power may not remain as relevant in the future.

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Even this assumption has been challenged in the heightened tensions that have increased between North Korea and the international community that includes the US, Japan and South Korea, where, after North Korea's sixth and most powerful nuclear test on September 3, 2017, additional UN sanctions have been imposed. North Korea has threatened the use of nuclear weapons to "sink" Japan and reduce the United States to "ashes and darkness" for supporting

a UN Security Council resolution. A dictator, fanatic or an inexperienced and unwise leader could completely change the war dynamics and the methodology utilised in the conduct of war.

The scenario in the future may also include the increasing threat posed by the non-state actors and terror organisations propagating their own form of *jihad*. The future military leaders may have to contend with a faceless enemy, high tensions, greater fatigue levels, increased media glare, and no clearly defined agenda. They would also need to develop unconventional responses to diverse threats that range from high intensity conflicts fought under nuclear thresholds to challenges posed by terror organisations.

The threats may not necessarily be only military ones, but may emerge from internal instability, lack of social cohesion, communal pogroms, inequitable growth, expansion of divisive forces exploiting region, religion and language fault lines, natural disasters, environmental degradation, criminalisation of society, food security, water issues and poor governance.

The existing state-centric approach that was confined to preparing defence against territorial aggression is currently widening to include the idea of comprehensive security, which includes a larger set of threats to the people<sup>1</sup>. The threat spectrum could include food, energy and human security too.

<sup>1.</sup> Gopalji Malviya, "Dialectics of Governance and Comprehensive Security in India", in Gautam Sen, Conceptualising Security for India in the 21st Century (Delhi: Atlantic Publishers and Distributors (P) Ltd., 2007), p. 23.

The impact of technology is already demanding innovative operational concepts to fight a high-tech knowledge-based war that is based on a wide variety of threats, both internal and external. This places a premium on the military and aerospace leadership.

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There would be enhanced reliance on a wide variety of sensors for obtaining information and creating battlefield transparency. The electronic networking between the operational commands of the three Services has become indispensable and the extent of integration would determine the difference between success or failure in integrated operations.

The futuristic sixth generation aircraft would have enhanced capabilities of reach, persistence, survivability, stealth capabilities and net-centricity that leads to high situational awareness, human system integration and long range all weather precision weapons. The future aerospace assets would also need to operate in an advanced Electronic Warfare (EW) scenario, against transparent integrated Air Defence (AD) systems, work in a passive detection environment, operate in an advanced cyber attack capabilities scenario, and be able to survive in an anti-access/area denial environment. The game changers in the future would be directed energy weapons, hypersonics, photonics and unmanned combat aerial vehicles.

With increased globalisation, the existing power concepts have moved away from capture of territories to extracting political/economic concessions; from attrition oriented warfare towards the effects-based approach to operations, where more than physical destruction of the target systems, functional paralysis is desired.

Warfare itself may be more knowledgebased and focussed on achieving strategic success quickly by following the Centre of Gravity (COG) approach rather than causing physical destruction of the target system or annihilation of the armed forces.

The aim now is to isolate the enemy's Command and Control (C2) structures, augment psychological warfare and strike deep inside the enemy's territory on his crucial vulnerabilities with precision. These concepts favour employment of aerospace power.

The importance of temporal advantage in warfare too has been recognised and its relationship with force and space appreciated. From a sequential form, air power today applies force in parallel at all levels of war. The strategic, operational and tactical levels themselves have merged and are related more to functionality than to location or type of targets.

Networking of sensors, operators and decision-makers has resulted in transforming linear warfare to a non-linear form. The increased focus today is on knowledge and effects, and to apply forces synergistically to achieve the desired outcome in the shortest period of time, with the minimum casualties and minimum collateral damage.

Warfare itself may be more knowledge-based and focussed on achieving strategic success quickly by following the Centre of Gravity (COG) approach rather than causing physical destruction of the target system or annihilation of the armed forces. Strategic success would depend on achieving the political aims cost effectively and in the least period of time, whilst remaining within nuclear thresholds.

It is here that the war is likely to be fought more in the moral sphere than in the physical. This essentially implies using doctrines and strategies that focus on targeting those crucial vulnerabilities of the enemy that affect the moral sphere. The physical sphere is related to the fighting power or the means to fight, the mental to the thinking power, and the moral to the staying power<sup>2</sup> or ability to get people to fight.

David S Fadok, thesis presented to the Faculty of the School for Advanced Airpower Studies on "John Boyd and John Warden: Airpower's Quest for Strategic Paralysis", June 1994, Available on www.fas.org/man/eprint/index.html.

Concentrated attacks on the physical normally aspects would lead concentrating mass or firepower on the enemy's fielded forces in an annihilation or attrition strategy. Focussing on the mental aspects would directly affect the strategy itself. On the other hand, the moral sphere is the one that provides the will to continue with the conflict. It is at this level that coercion in any form could make the enemy succumb to our will. Ideally, one should target that part of the physical element that creates the maximum coercive effect at the moral

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level. Information, knowledge, wisdom and leadership skills are going to play a key role in choosing the correct target systems and in achieving quick strategic success.

All the three Services have their own unique competencies to exploit the battle space, however, it is only aerospace power that has the unique capability to target all the three spheres of wars simultaneously, thereby creating the desired strategic influence much faster than land or naval power can do. Aerospace power has the ability to circumvent the enemy's fielded forces and attack his vital centres of gravity directly and that too with precision, thereby creating strategic outcomes from tactical operations. Aerospace power would, therefore, always have an out of proportion devastating effect.

### STRATEGY FOR FUTURE WARFARE

The strategy for future warfare would need to take into account the following doctrinal principles:

Wars would need to be fought at the strategic level. There is a need to
integrate all elements of national power to achieve national objectives
more effectively, therefore, a greater degree of integration would be
required at the national level too.

- Warfare should be considered as a single entity and as an integrated whole and should be focussed more on causing strategic/functional paralysis rather than on achieving annihilation/attrition. Identification of centres of gravity would play a key role in formulating strategic and operational art.
- Combinations of conventional and nuclear doctrines need to be factored into the operational strategy. Deterrence thresholds too need to be identified and included in considerations for evolving integrated operational plans.
- The meaning of victory would relate more to achieving strategic success quickly or forcing the enemy to negotiate on favourable terms.
- The operational intensity and momentum of combat operations would need to be kept significantly high so as to continuously destabilise the enemy—physically, morally and psychologically. This implies that there would be very limited time available to plan and coordinate military operations when they are actually taking place. This preparation for different contingencies would have to be carried out during peacetime. The political decisions would need harmonisation and integration continually with the operational progress of war.
- There would be a requirement to significantly enhance and integrate the role of air and space power intimately in the formulation of operational art.
- Air power needs to be strategically employed at the enemy's COG to achieve quick operational and strategic disbalance as well as strategic outcomes. Targeting would become significantly important and would be based on the COG approach.
- Synchronised application of aerospace resources would be synonymous with the creation of a network-centric environment based on key communication nodes. These nodes also become operational vulnerabilities that need protection.

## INTEGRATED OPERATIONS AND OPERATIONAL ART

Integrated operations are undertaken to achieve a common or joint purpose. Integrated war-fighting originates from a jointly conceptualised plan. It is important to mesh the achievement of the objective with the appropriate force that can achieve it in the most effective manner. This force could come from any of the three Services or could be a joint force.

The development of operational art is a complex process and requires commanders to combine knowledge, wisdom, experience and moral courage. Clausewitz called this "the genius of command". Campaign planning tools help commanders by providing them with a common set of methods, but they should be used with wisdom and judgment. Von Moltke's observation

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that "no plan survives contact with the enemy", is essentially true. An indispensable element of campaign planning is that one must be prepared to be flexible enough to change the plan according to circumstances and situation.

An understanding of strategic and operational art and the campaign planning process is not simply a matter of tactical understanding or executing battlefield checklists; it is the key to achieving strategic success in wars quickly. For this, adequate preparation needs to be carried out during peace-time, with all contingencies planned, evaluated, tested and rehearsed.

What is required is to develop military leaders who have the ability to identify crucial joint war objectives and evolve integrated plans to conduct integrated operations effectively. This would require a very high degree of knowledge of the three Services and the ability to adapt quickly to changed circumstances. A systemic, integrated and composite Professional Military Education (PME) programme, therefore, should ideally be part of an overall integration strategy.

There is an urgent need today to train the armed forces' officers to clearly understand the complex whole of warfare and be able to bring integration in evolving joint war-fighting strategies at all levels of war. This implies The PLA is likely to utilise the War Zone Campaign (WZC) concept between the theatre and the operational level. It would be based on integrated operations coordinated under a single Joint HQ. WZC uses Rapid Reaction Forces (RRFs) to tackle high value targets.

not merely understanding the mechanics of how one's own Service fights, but also the core competencies, capabilities and abilities of the other Services and how they fight, what their sensitivities are, and what is required to ensure that their operations can be carried out most efficiently and effectively.

Since the wars of the future would be operating under time constraints, there is a need to shift from tactical orientation of warfare towards creating quick strategic influence to force the opponent to make the desired concessions in the available time-frame. Creation of quick strategic influence

necessitates the correct application of synergised and integrated combat power at the most decisive points that give out-of-proportion results. It is here that aerospace power can play a key role in creating strategic outcomes, either on its own or in concert with the other Services and integrated forces. There is a need here to evaluate the impact of integration in the armed forces in our neighborhood and how their integration would impact our operational strategies.

# INTEGRATION IN PLA'S ARMED FORCES AND OPERATIONAL CONCEPTS: A REVIEW

China's People's Liberation Army's (PLA's) operational strategy has presently moved away from one of annihilation and independent action to that of attaining strategic success in an integrated environment. They view the primary threat to be local, and that future wars would be fought with leaner but highly trained and mobile integrated forces using high technology weapon systems.

The PLA aims to cause strategic and operational paralysis by attacking the crucial vulnerabilities of the opponent, including his space, information and computer systems. Air and missile power, employing

long range precision weapons, would be one of the key components of this strategy. China also follows the 'anti-access' strategy to deny the adversary access to his planned launch pads so as to prevent build-up of forces till the PLA is able to react better. It seeks to achieve this aim through attacks against air bases and ports and elements of the logistics chain as well as on information systems to degrade the enemy's command and control structure.<sup>3</sup>

Campaign is the employment of "Elite Forces and Sharp Arms (EFSA)" concept. The limited nature of future local wars ensures that it is possible to achieve local and temporary superiority with the concerted employment of EFSA.

Part of the War Zone

This change from Joint Operations (JO) to **EFSA.**Integrated Joint Operations (IJO) took place post 2002, when the PLA shifted the emphasis to local wars fought under informationalised conditions. While JO emphasised on 'jointness' within the Service, with vertical linkages, IJO looks at 'jointness' with the other Services, hence, lays greater emphasis on horizontal linkages<sup>4</sup>.

The PLA is likely to utilise the War Zone Campaign (WZC) concept between the theatre and operational level. It would be based on integrated operations coordinated under a single Joint Headquarters (HQ). WZC uses Rapid Reaction Forces (RRFs) to tackle high value targets. Part of the WZC is the employment of "Elite Forces and Sharp Arms (EFSA)" concept. The limited nature of future local wars ensures that it is possible to achieve local and temporary superiority with the concerted employment of EFSA.

The Chinese have, therefore, acquired high-tech elite forces with sharp arms so as to undertake operations in areas close to the mainland. This could also include mountain passes or enemy air bases (as tasks for its RRFs). This would be possible with a centralised logistics base and appropriate weapon systems. This would also imply the ability to mobilise quickly with the help

<sup>3.</sup> Gurmeet Kanwal, "China's Emerging War Concepts". Accessed from the site http://www.vifindia.org/article/2012/august/21/china-s-emerging-war-concepts on October 7, 2012.

Mandip Singh, "Integrated Joint Operations by the PLA: An Assessment", December 11, 2011. Accessed from the site http://www.idsa.in/idsacomments/IntegratedJointOperations bythePLA\_msingh\_111211 on October 7, 2012.

The PLAAF has also adopted the "light front, heavy rear" approach, thereby emphasising quick aggressive attacks with strong air defence. PLAAF missions include air coercion, air offence, blockade and close support.

of civilian assistance, rapid deployment, effective coordination and integrated command.

As regards the PLA Air Force (PLAAF), its aim is to "win decisively" rather than defeat the enemy by strength. It plans to focus on striking first, and thereafter, undertaking swift attacks to achieve highly successful results whilst maintaining close defence. The PLAAF will aim to stop attacks by alienating the attacking force from its parent organisation.

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PLAAF missions include air coercion, air offence, blockade and close support. Structural reforms have revamped the organisational structure, while operational reforms have equipped it with the weapons and firepower needed in the new scenarios<sup>5</sup>. This approach implies that the rear bases would be utilised to launch offensive air missions, and the forward air bases for refuelling and rearming till the air power of the enemy is degraded to the desired extent.

In defending China's core national interests, PLAAF capabilities, doctrine and training have been developed to support a comprehensive anti-access/ area-denial strategy. The Chinese concept of active defence as well as the recently modernised PLAAF capabilities, doctrine and campaign planning have predisposed the PLAAF towards this approach.<sup>6</sup> New establishments have significantly reduced the earlier weak areas in training and testing.

In 2012, the PLA had carried out four major integrated military operations in the Tibet region. The exercise participants included both the PLA and PLAAF. A number of fighter jets and helicopters participated

<sup>5.</sup> Air Mshl M Matheswaran, Lecture, "PLA Air Force", at IIT Madras, Chinese Centre, October 27, 2011. Accessed from the site http://www.csc.iitm.ac.in/?q=node/91 on October 7, 2012.

Michael P Flaherty, Red Wings Ascendant: The Chinese Air Force Contribution to Anti-Access (NDU Press). Accessed from the site http://www.ndu.edu/press/red-wings-ascendant.html on October 7, 2012.

in the exercise. In July 2012, the PLA tested its new surface-to-air missile in Tibet<sup>7</sup>. The missile was tested in the Lanzhou Military Region (MR). The exercise was carried out at 5,000 m altitude and three missiles were successfully test-fired at aircraft targets. The unit gathered technical data relating to storage and maintenance of equipment, system coordination and troop mobility<sup>8</sup>.

Weapon trials firing was also carried out in an integrated exercise. The ground crew fuelled fighters and loaded ammunition at temperatures below -20° C and undertook strikes with conventional and laser guided bombs by day and night. The J-10 aircraft took part in joint exercises in October 2011 too, incorporating air forces and air defence units as well as armour and artillery units in the Tibet Autonomous Region (TAR).

Two Group Army (GA) level joint exercises were carried out in the Chengdu and Lanzhou MRs. The objective was to have a division sized force practise in an integrated environment that involved armour, artillery and PLAAF units. Network-centric operations in an intense electromagnetic environment in conditions of informationalisation were also practised<sup>11</sup>.

Recently, China operationalised Nyingchi, a dual use airfield in Tibet, very close to the Line of Actual Control (LAC). Earlier, the PLAAF utilised two divisions based at the erstwhile Chengdu MR, by operating small detachments of six or even less aircraft in the TAR. The deployment number and period have since seen a significant increase. The PLAAF is now virtually

<sup>7.</sup> Air Warfare News, "PLA Conducts Major Military Operation in the Tibetan Autonomous Region", August 17, 2012. Accessed from the site http://www.chinesedefence.com/pla-conducts-major-military-operation-tibetan-autonomous-region-298/ on October 24, 2012.

<sup>8.</sup> Bijoy Das, "PLA Conducts Missile Tests in Tibet", IDSA Comment, July 30 2012. Accessed from the site http://idsa.in/idsacomments/PLAConductsMissileTestsInTibet\_BijoyDas\_300712 October 24, 2012.

<sup>9. &</sup>quot;PLAAF Exercise in Tibet", April 25, 2012, Security Issues South Asia, China in South Asia. Accessed from the site http://www.security-risks.com/security-issues-south-asia/china-in-south-asia/plaaf-exercise-in-tibet-1588.html on October 24, 2012.

<sup>10.</sup> PTI, "China Conducts Massive Border Drill", March 22, 2012. Accessed from the site http://defenceforumindia.com/forum/china/33402-china-conducts-massive-border-drill.html on October 24, 2012.

<sup>11.</sup> Vinod Anand, "PLA Sharpening its Claws in Tibet", Vivekananda International Foundation. Accessed from the site http://www.vifindia.org/article/2012/july/06/pla-sharpening-its-claws-in-tibet on October 24, 2012.

maintaining two regiments that comprise the J-10 and J-11 aircraft continually at the TAR, even in the winter months.

Amidst the Doklam standoff in July 2017, the official news agency of China reported that the PLA had conducted live firing exercises at 5,000 m altitude on the Tibetan plateau. The exercises were conducted by a PLA brigade and included rapid deployment, multi-unit joint strike and anti-aircraft defence<sup>12</sup>. The exercise effectively tested the brigade's joint strike capability on plateaus<sup>13</sup>.

Though not confirmed, media reports also indicated that the drills that involved the testing of new equipment were conducted to evaluate the combat readiness of the troops at these altitudes. The firing exercises included simulation of combat operations, comprehensive inspection of arms integration, encounter training and combat synergies<sup>14</sup>.

The above analyses clearly indicate that the PLA has taken it as its prime mission to bring about integration in the armed forces and that it is training for the same. In addition to the infrastructure construction in the TAR, the PLA is also looking at increasing the ability to deploy and employ integrated forces quickly as well as making operational planning more joint, anywhere and in any contingency.

In this, it would employ the missile and rocket forces too, so as to bring in synergy in operations and create strategic outcomes. The effectiveness of these integration measures can only be guessed, but that dedicated efforts towards the same have been made is of serious concern to us. Let us now analyse our efforts towards integration.

## INTEGRATION OF INDIAN ARMED FORCES

After the Kargil War of 1999, a sharper focus towards creating jointness

<sup>12.</sup> KJM Verma, "Chinese Army Conducts Live-Fire Drills in Tibet Plateau Amid Sikkim Standoff". Accessed from the site Chinese-Army-conducts-live-fire-drills-in-Tibet.html on September 16,

<sup>13.</sup> Franz-Stefan Grady, "Amid China-India Border Stand-Off: China Holds Military Exercises in Tibet". Accessed from amid-china-india-border-standoff-china-holds-military-exercise-in-tibet on September 16, 2017.

<sup>14.</sup> Mohammad Uzair Shaikh, "Amid Sikkim Stand-off, Chinese Army Conducts Military Exercises Simulating Battle Scenarios". Accessed from the site https://www.google.co.in/ search?q=military+exercises +tibet+in+2017&ei=T2u8WaDcBZaSvQ\$A3J64CA&start=10&sa= N&biw=1366&bih=673 on September 16, 2017.

among the three Services and integrating them with the apparatus of the higher defence organisation was commenced with the recommendations of the Kargil Review Committee and a ministerial review by a Group of Ministers. Soon, however, it lost steam as more important issues took centrestage. There are three crucial issues that need consideration.

Firstly, defence planning needs the guidance of a well articulated National Security Strategy (NSS) and National Military Strategy (NMS). Secondly, the three Services need to evolve their

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plans at the strategic and operational levels based on a jointly conceptualised threat environment, where clearly defined strategic objectives are obtained from the *Raksha Mantri's* directive or from the strategic situation, whilst keeping in mind the resources and capabilities available. It should definitely not be solely based on the individual threat perceptions of the three Services.

Thirdly, the approach of defence procurement needs to have a holistic vision of at least 15 years [based on the Long-Term Integrated Perspective Plan (LTIPP) with capability building as its core enterprise] and also based on the long-term threat perceptions and the capabilities required to be built to tackle the variety of threats with a systematic induction of the desired capabilities at appropriate intervals—not incrementally adding on to the technology and weapons systems in an ad hoc manner.

Whilst undertaking joint planning, the strategic decision, the determination of a clear political and military end state, and the planning for integrated strategic and operational art need an interface among the political establishment, bureaucracy and armed forces. The first structure is that of the Ministry of Defence (MoD). It is here that the Service HQ must be completely integrated within the MoD.

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Military Wing. It began functioning from October 2001. HQ IDS has achieved considerable progress since then; however, its integration with the MoD is still to be carried out.

Since the Kargil War, significant effort has been focussed towards jointly appreciating the threats and preparing joint plans. However, we need now to move away from overlays of individual Service plans towards preparing integrated and joint plans that focus on integrated operations that help achieve political objectives under multiple and variable combat situations

most effectively and efficiently.

The appropriate combat power can then be applied to meet the contingency at hand; here, it does not imply equal or maximum application of land, air and naval forces, but the required type and mix of forces that achieves the desired outcomes in the most cost-effective manner, without causing needless death and destruction. The focus should be more on capability applied that is required to achieve the situational objectives rather than on giving an equal/proportionate share to the individual Services.

The key ingredients of integrated operations are synchronisation and fusion of different elements of surface and air power so that their effects complement and reinforce each other. Integrated operations view the entire battle space as a seamless environment, where this fusion is complete.

This fusion would place a premium on providing interoperable systems as well as making available a common backbone for secure communications. Simultaneity of engagement and increased tempo of operations also entail the requirement of a joint architecture that enables allotment of a specific mission to an appropriate force.

Integration at the architectural level requires knitting interoperability into the Command, Control, Communications and Intelligence (C3I) networks of the Indian Air Force, Indian Navy and Indian Army. There is a pressing need today to make these architectures interoperable and seamless.

The focus should be more on capability and competency that are required to achieve situational objectives in an integrated environment, rather than on giving an equal/proportionate share to the individual Services. For this, an integrated PME programme is needed that prepares military leaders to be able to visualise warfare as a whole and as a single entity at all levels of war.

# INTEGRATED PROFESSIONAL MILITARY EDUCATION (PME) PROCESS

To achieve the requisite degree of integration an effective integrated PME process is required. Unfortunately, integration in our country is related more to ownership. We need to first change this mindset from ownership to trust that the asset or the weapon system would be applied based on the situation or the opportunity at hand.

A systemic, integrated and composite PME programme should ideally be part of an overall integration strategy. The end result aimed at should be to train officers to comprehensively understand the complex whole of warfare and be able to employ jointness in the war-fighting strategy at all levels of war.

The purpose of military training, therefore, should be to prepare every member of the armed forces to undertake the war-time functions efficiently and effectively by providing them with appropriate and timely knowledge and skills, not only of their own arms and Service but also those of the other Services during the course of their careers.

This process should have twin objectives: firstly, to develop individual skills appropriate to the job at hand; and, secondly, to develop skills required not only to undertake higher responsibilities, but also those that are essential to design integrated operational strategies employing joint application of the land, air, space, information and naval forces.

What is required is to develop future military leaders who have the ability to identify crucial joint war objectives and evolve joint and integrated plans to conduct integrated operations effectively. What is required is to develop future military leaders who have the ability to identify crucial joint war objectives and evolve joint and integrated plans to conduct integrated operations effectively.

## **EXISTING LIMITATIONS**

The following limitations constrain effective development of military leadership qualities:

• Exposure at Operational/Strategic Level: It is at around 25-30 years of service that an armed forces officer steps into the operational level and he then has around ten years of service left to function at the operational and strategic levels. The tenures at the higher levels are so short that there is very little time for researching and learning on the job, besides learning about the

other Services.

There is, therefore, a need for a structured integrated leadership development initiative to enhance joint operational/strategic skills right through the career of a military leader.

- Integrated Doctrines and Standard Operating Procedures (SOPs): There are no joint manuals that discuss war-fighting as a whole with a campaign perspective and integrated application of the three Services as part of a joint plan.
- Manner of Instruction: Presently, training academies are focussed more on rote memorisation. Hence, they focus on the cognitive sphere, which is essentially related to acquiring domain knowledge. This also implies that they are less likely to provide awareness on integrated operations.

There is a need to focus more on the experiential form of learning that promotes identifying innovative solutions to complex problems and developing strategies integrating the application of the three Services.

• **Joint Appointments:** The exposure provided whilst holding diverse appointments leads to developing joint strategic skills. Presently, it is not mandatory for an officer to hold an inter-Services appointment. There is a need to ensure that an officer, during his entire service career, holds at least one joint appointment.

• Integrated Computer War-gaming Exercises: There is no periodic jointly conducted computer aided war-gaming exercise to analyse integrated operational plans or practise simulated situations in a joint scenario.

To sum up, the following limitations prevail in the integrated training process:

- Most of an officer's career (around 25 years plus) is spent at the tactical level. By the time an officer reaches the star ranks, he has already developed strong mindsets, opinions and perceptions.
- There is, therefore, a requirement today to have an integrated planning and training process as a first step towards effecting increased integration that works towards providing the right platform for enhancing the effectiveness of integrated military operations.
- There is no structured integrated leadership development initiative that identifies the core joint areas where knowledge must be imparted to an officer on joint operations and the stages in the career of an officer, when it must be given.
- It is not mandatory for all armed forces officers to undergo the desired joint and integrated courses.
- Detailing of officers for joint appointments is based more on administrative convenience.
- There is no integrated in-Service institution that develops joint warfighting strategies and doctrines.
- Structurally, there is no link between the integrated courses of instruction and transition to higher ranks.

## PROPOSED SOLUTION

To overcome the existing limitations, the following recommendations are made:

Institutionalise an integrated leadership development initiative. This
involves identifying an integrated training process that lays down the core
capabilities, skills or joint exposure that need to be achieved by military

personnel at different stages of their careers to be able to effectively plan and conduct integrated operations at different levels of war.

- Review the courses of instruction to ensure that an officer undergoes at least one integrated course at the tactical, operational and strategic levels.
- Make it mandatory for an officer to hold at least one joint appointment before he is considered for a two-star post.
- Review the training syllabi of the integrated courses to enhance their joint content. This process has already started.
- Hold periodic joint computer aided as well as actual war-games to provide integrated training and develop operational and strategic skills. This also implies that integrated war-gaming software would need to be developed.
- Change the focus of instructional methodology from classroom teaching towards learning through an experiential process.
- Promote self-development learning through non-resident programmes with short contact periods on integrated courses to give broad exposure to a larger number of officers.

### **CONCLUSION**

Future wars are likely to be highly complex and would require innovative operational concepts that integrate the application of appropriate combat power. This would require a clear understanding of warfare as a whole and effective understanding of the strengths and limitations of each Service. There is, therefore, a requirement today to have an integrated planning and training process as a first step towards effecting increased integration that works towards providing the right platform for enhancing the effectiveness of integrated military operations.

To achieve the desired integrated training at the tactical, operational and strategic levels, there is a requirement to evolve an integrated leadership development initiative that is supported top down and encouraged bottom up. There is also a need to make it mandatory to attend joint courses and hold a joint appointment for progression to the higher ranks.

The time has now come for us to progress from talking about jointmanship to actually putting integration into practice.

If you tell me, I'll listen
If you show me, I'll see
If I experience it, I'll learn.

– Lao Tse, 430 BC.