# Grooming of Military Officers for Joint Services Environment

# Commander M Arun Chakravarthy®

Tomorrow's military leaders need to understand the concept of jointness and synergy ingrained into their professional ethos right from their commissioning.

-Lt Gen Satish Dua, PVSM, UYSM, SM, VSM (Retd)

#### **Abstract**

Indian Armed Forces need to harness and harvest assets jointly to fight future wars, which are increasingly becoming divergent in character. To counter the existing external security threats and futuristic challenges, the forces need to combine their resources, strengthen their joint plans, continually evolve their joint strategy, and train jointly, to project combat power as an optimal response. Focus on the human dimension of warfighting, especially grooming the military officers, is imperative considering the march towards Integrated Theatre Commands. The current joint training structure for the officers needs to be more modern. The lack of a Joint Professional Military Education (JPME) programme complementing the joint training continuum impacts the mental ripening of future military leaders who are expected to be strategic and critical-minded. Grooming and shaping future military leaders to thrive in a joint ecosystem, the service-specific Professional Military Education (PME), joint training, and JPME programmes should be modified and amalgamated to include joint content and exposure to a joint environment at all stages of training. Incorporation of joint and Service-

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specific doctrinal studies commencing from the basic phase, cross-service postings in static formations in lower ranks, standardisation of various key administrative and functional aspects through joint policies, and introduction of Joint Capsules (JOCAP), and inter-phase interactions are likely to foster jointness mindset and achieve desired integration in joint operations.

#### Introduction

The Indian Armed Forces have been the backbone of the nation's overall security apparatus since Independence. Whether it was the five gallant wars or aiding the civil authorities during an internal crisis, the armed forces have stood tall as an institutional pillar. The three Services fought these wars with pride in a primarily conventional setting. Future wars are likely to be fought in a very complex and dynamic environment. The advent of technology has led to the conceptualisation and practice of divergent art, viz. multi-domain warfare, hybrid warfare, grey zone warfare and non-kinetic warfare. Further, the fragile security situation along India's northern and western land borders and increased traditional and non-traditional threats in the Indian Ocean Region (IOR) require the Indian Armed Forces to harness and harvest assets jointly to fight future wars. Such harnessing and harvesting entail foundational reforms at the organisational and operational levels.

Towards marshalling such foundational military reforms, the Indian government signalled intent by appointing the first-ever Chief of the Defence Staff (CDS) on 01 January 2020, a long pending recommendation since the Kargil War.¹ The CDS' mandate was clear institute measures towards modernising the armed forces, initiate and reinforce steps to achieve jointness and integration in warfighting, and restructure the military commands, including establishing theatre/ joint commands. The Indian Armed Forces, therefore, find themselves at the cusp of a significant transformation— a pending transition into a well-integrated warfighting force. The change entails *inter-alia*, grooming the military officers to embrace, implement and achieve jointness.

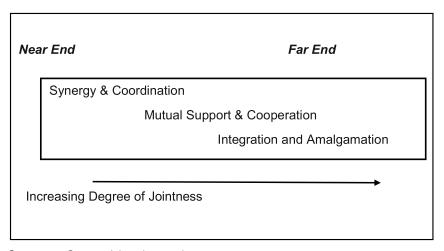
The article aims to address the following: -

- Identify the fault lines in the existing joint training methodology,
   PME and joint structures.
- Examine the current state of jointness and provide a roadmap for grooming military officers for joint Services.

### Jointness and Integration

Often, jointness and integration are used *interchangeably*. However, they vary in their meaning. Jointness, as per Joint Doctrine Indian Armed Forces (JDIAF 2017), is a concept aimed at achieving a high degree of cross-service synergy in planning and execution, enhancing the success potential in warfighting, which, in turn, would ensure high morale, camaraderie and spirit. Jointness enables all resources to achieve the best results in a minimum time. As a unifying factor, it allows the armed forces to focus their energy, across a range of military operations, at all levels of war.

Conversely, integration is an amalgamation of all operational domains (land, maritime, air, space and cyber) towards enhancing readiness and optimising resources. It embodies all functions logistics, operations, intelligence, perspective planning, and Human Resource Development (HRD). Also, it aims to fuse the military paradigm with the diplomatic, intelligence, and economic construct of national power, at all levels. Together, jointness and integration form a jointness spectrum wherein an increasing degree of jointness leads to integration. If coordination and synergy are at one end of this spectrum, integration is at the other. Therefore, within this spectrum, it is essential to identify and associate where the armed forces would like to be in future and, thus, focus on collective efforts in achieving the desired degree of jointness.



Source: Created by the author

Figure 1: Spectrum of Jointness

Importance of Jointness. The last two decades have witnessed increased technological sophistication in military affairs, which has led to the evolution of intelligent solutions to very complex battlefield problems. For example, based on the intelligence provided by the human element on the ground, armed drone pilots operating their stations in Nevada, the US, have successfully tracked and targeted militants and their hideouts in Afghanistan, Yemen, Syria, and Iraq. The success of such strikes echoes the importance of jointness in planningand execution. The changing face of warfare, complex battlefield environment, and the proliferation of Command, Control, Communication, Computer, Intelligence, Surveillance, Reconnaissance (C4ISR) systems coupled with reduced response time entails even greater synergy, systematic application of resources, and coordinated execution of military operations, in the future. The face of the battlefield is likely to be more complex tomorrow than it is today. Therefore, the Indian Armed Forces need to combine their resources, strengthen their joint plans, continually evolve their joint strategy, and train jointly, to project combat power as an optimal response.

## Reality Check of India's Joint Services Environment

Indian military's organisational culture, doctrine and strategic worldview raise some controversial issues, and we must pause for reflection.

- Admiral Arun Prakash, PVSM, AVSM, VrC, VSM (Retd)

Towards understanding the extant of Indian Joint Services environment, it is imperative to re-visit the post-independence joint structure and the five wars India has fought since Independence. Crystal gazing of the last seven decades would aid in understanding the broad jointness fault lines and help arrive at practical solutions.

Post-Independence Joint Service Environment. India adopted Great Britain's Second World War inter-services model to achieve integration and cohesion among the three Services. The senior most serving chief among the three Services became the Chairman of COSC (Chiefs of the Staff Committee). The mandate of the COSC was very limited, largely nominal, and had little control over the combined affairs of the three Services. Each service was oblivious to the joint effort. They mainly worked in isolation during various conflicts and pursued parochial interests during the inter-

war period. The lack of jointness and inter-Services cohesion had several implications for India's five wars since its Independence.

'Jointness' Lessons from the Five Wars and the IPKF Mission. Literature on India's campaign has one common bearing during all the wars that were fought - 'Lack of Jointness'. Inthe 1947-48 Indo-Pak War, the Indian Army (IA) primarily fought with limited Indian Air Force (IAF) support, mainly to air transport troops and equipment. During the 1962 Sino-India war, the IA was again the primary force fighting the war, with the government forbidding the use of the offensive capability of the IAF to avoid escalation.4 The 1965 Indo-Pak conflict was the first instance wherein all three Services were involved in some action. Still, the planning and fighting were undertaken at the individual Service level with little support and coordination from others. During the lightning victory in the 1971 war with Pakistan, the three services achieved coordination mainly due to personal camaraderie and not institutional mechanisms.⁵ During the Indian Peace Keeping Forces (IPKF) mission in Sri Lanka in 1987, the Overall Force Commander (OFC)<sup>6</sup> model for joint Services operation fell apart as the operation progressed. IAF and Indian Navy (IN) projected legal impediments in the joint framework and replaced the component commanders with liaison officers. 7 Soon, the joint effort returned to the erstwhile inter-Services coordination model. Even during the 1999 Kargil conflict, differences between IA and IAF continued to exist, both during the planning and execution of operations. However, for the first time since Independence, the Indian government was guick to appoint a Kargil Review Committee (KRC) to identify the fault lines in the national security apparatus and draw important lessons from all the wars fought in the last five decades.

#### **Reality Check**

Having seen the broad jointness fault lines in the five wars that India has fought, it is critical to gaze at the joint service environment prism through the Doctrine, Organisation, Training, Materiel, Leadership and Education, Personnel, Facilities, and Policy (DOTMLPF-P)<sup>8</sup> construct to arrive at robust solutions. DOTMLPFP mechanism helps evaluate the issues at the operational level and arrive at possible solutions for implementation. The article limits its focus to doctrinal, organisational, and training precepts of DOTMLPF-P towards framing a roadmap for promoting jointness, and grooming of officers, for a joint service environment.

Reality Check No 1 – Joint Doctrine. Towards fostering jointness, the starting point must be a well-formulated joint doctrine with great intellectual depth drawn from a sound knowledge hierarchy (a process designed to validate historical learnings into concepts before formulating into doctrine). The respective service doctrines should, after that, be developed from the joint doctrine. For the Indian Armed Forces, it has been the other way around. The COSC, in his foreword to JDIAF, echoes this problem-the JDIAF remains aligned with single service doctrines.9 Further, the joint doctrine should enunciate the doctrinal end states, issues in pursuit of the end states and the doctrinal approach to promote and attain jointness. The JDIAF fails in this aspect and is more a ioined doctrine than a joint doctrine, remarks Air Vice Marshal (Dr) Arjun Subramaniam (Retd).10 With an apparent lack of enunciation of end states and ways to achieve them, the JDIAF fails to unify the jointness efforts and symbolises the joint Services environment's current 'confusion state'.

Reality Check No 2 - Organisation and Joint Structure. A review of the joint Services structure in the last 75 years suggests that India has been fortunate to paddle through rough waters without damaging its territorial integrity and sovereignty. The Services created their niche to pursue their interests and worked in isolation. Today, the situation at large is a similar story but with little synergy. Post Kargil, based on recommendations of the Arun Singh Taskforce, India created two tri-Services commands, the Andaman and Nicobar Command (ANC), a geographic/theatre command, and the Strategic Forces Command (SFC), a functional command. Without due studies and criteria for the formation of such commands, they were created to display intent and merely show progress on the jointness path. The ANC was treated as a test bed for ideating the concept of Joint/ Theatre Commands at all levels. With time, ANC was steadily deprived of adequate resources and the support it needed from the Services to bloom. Yet again, the Services failed the ANC experiment. 11 The reluctance to work together complements the current disjointed structure that has been embraced.

Reality Check No 3 – Joint Training. India established the tri-Services training establishments, viz. National Defence Academy (NDA) at Khadakvasla and the Defence Services Staff College (DSSC), in the late 1950s, to promote jointness and foster interServices camaraderie. Subsequently, the Services introduced the College of Defence Management (CDM) and the National Defence College (NDC). Though these institutions managed well to bind the services on the camaraderie front, they are yet to create the desired jointness among the Services. Joint training is first imparted to the cadets in NDA before commissioning, and the subsequent joint training to select officers is imparted after 10-12 years of service. The CDM and NDC courses served to educate senior officers (about 20 years of service). The gap between any two joint training programmes is way too long, which severely restricts the impact of joint training. Such gaps result in a lack of the desired understanding of others' combat capabilities, which is critical to achieving jointness. Further, exposure to such joint training is limited to a small percentage of officers selected based on merit. The relevant question is, many officers are not exposed to these joint training programmes and are expected to hold appointments in a joint organisation.

## PME and Training of Officers for Jointness

Professional attainment, based on a prolonged study and collective study at colleges, rank by rank and age by age – those are the title reeds of the commanders of future armies and the secret of future victories.

- Winston Churchill. 1946

Military Training Vs PME. Military training by the armed forces focuses on developing skills, attitudes, and knowledge to attain the desired skill set to perform assigned duties. Military training mainly focuses on individual and collective training to develop proficiency. On the other hand, PME focuses on a learning continuum which comprises military training, experience, education and self-improvement. Through this continuum, PME facilitates shaping and producing strategic-minded and critical-thinking officers who form the critical element in the human dimension of warfighting. PME aims to equip the officers with the following:<sup>12</sup>

- To imbibe core values, culture and ethos of one's service.
- To attain technical and tactical skills in warfighting.
- To apply wisdom and judgement in demanding and evolving situations.

Extant Joint Training in Indian Armed Forces. Jointness is sine qua non in fighting future wars. Hence, joint training and a joint PME (JPME) become imperative in grooming military officers. It is pertinent to highlight that the Joint Training Doctrine (JTD) only enunciates the joint training aspects and does not discuss JPME. All officers commissioned into the armed forces undergo various phases of joint training<sup>13</sup> at some point in their careers. Depending on the entry type, some do not get exposed to joint training. Therefore, the current joint training structure is critically flawed, as only a tiny percentage of officers are exposed to the programme. Also, the lack of a JPME programme complementing the joint training continuums everely impacts the mental ripening of future military leaders who are expected to be strategic and criticalminded. The Services individually have a service-specific PME programme aligned with the joint training phases enunciated in the joint doctrine. Since these programmes are service specific, they have very little to nil joint content. Therefore, to make training simple and effective, and aligned with jointness, the joint training, the service-specific PME and the JPME programmes are to be suitably amalgamated. Necessary studies are required to be undertaken to streamline the joint training continuum.

Way Ahead. For grooming officers for a joint environment and enabling the shaping of future military leaders, the service-specific PME, joint training and JPME programmes should be modified and amalgamated to include joint content and exposure to a joint environmentat all stages of training. The designed curriculum should increase one's ability to think innovatively and futuristically, acquire intellectual interoperability among the Services, and foster excellent professionalism. The JTD professes such a training curriculum across the Services; 14 however, it lacks addressing the PME gaps and fails to lay the objectives succinctly. The below suggested JPME continuum, aimed at bridging the gaps, may be divided into four phases (aligned with JTD). Each phase aims to lay the objectives, focuses on service and joint military education, and emphasis jointness and leadership toward joint warfighting.

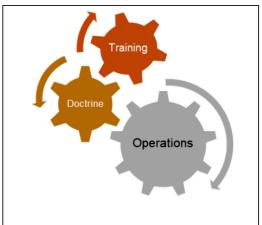
Focus Area	Pre- commissioning	Basic Phase	Mid-service Phase	Senior Officer Phase, including Flag Rank
Institutions	NDA, Respective Service Academies	Respective Service Institutions	DSSC, CDM	Respective Service War colleges/ NDC
Courses	Ab-initio, Science/ Arts Graduation	Junior Command Course (Army), Basic Professional Knowledge Course (IAF), Long courses (Navy) and other equivalent courses	Staff Course, Technical Management Course, Technical Staff Officers' Course	Higher Defence Management Course, NDC and other equivalent Courses
PME	Introduction to Constitution Indian Govt. Structure and functioning Introduction to service-specific roles and missions	Vertical specialisation in respective arms, Services, domains and understanding of other operating environments.  Introduction to Service-specific doctrines and strategies  Critical understanding of other Services' roles and missions  Introduction to the functioning of various national civil agencies involved in national security  Introduction to multinational exercises	Introduction to National Security Strategy  In-depth understanding of Service-specific doctrines and strategies  Op Art and operational warfare in all domains  Theatre Strategy Interaction with national civil agencies involved in national security  Planning of multinational exercises	National Security and International relations  Functioning of National Security Council Secretariat (NSCS), Defence, Finance and External Affairs ministries  Deeper understanding and impact of geopolitical relations  Inter-Services Coordination  Civil-Military coordination Conduct Multinational operations  Force building nuances
Jointness	Introduction to joint Services, organisation, role and importance of joint warfighting	Joint warfare fundamentals  Studies of joint campaigns Participation in joint exchange programmes and exercises to understand the operating environment		
Career Long Development	Life-long learning/ education/ self-development/ improvement			
Leadership Attributes	Socio-Cultural Education – Ability to understand and operate in a varying cultural and social environment  A broad understanding of the national security environment and functioning of various national security tools  Futuristic, critical and strategic thinking. Application of jointness at all levels of warfare  Ability to lead significant organisational transitions  Strong follower of international/ national laws and			
	ethical decision maker			

Source: Created by the author based on inputs from JTD and discussed attributes of an ideal military leader.

Figure 2 : JPME Continuum

## **Roadmap for Promoting Jointness**

Jointness, as per JTD, hinges on the three evolving frameworks viz, Joint Operations, Joint Doctrines and Joint Training. Joint training is the most fundamental requirement for achieving 'Jointness' in operations. <sup>15</sup> This basic framework needs to be augmented by pillars in the form of robust joint doctrines, strategies, policies, and structures to achieve jointness. Towards promoting jointness and grooming military officers for a joint service environment, it is imperative to design a roadmap that simultaneously addresses all the DOTMLPF-P precepts. This approach would help the armed forces unify the efforts toward building a robust and future-proofintegrated force. However, the recommendations in this articleare limited to Doctrine Operations and Training aspects only.



Source: Created by the author

Figure 3: Pillars of Jointness

**Doctrinal Studies**. As articulated previously, a well-formulated joint doctrine and a joint military strategy are essential prerequisites to foster jointness among the three Services. The joint doctrine and military strategy unify the armed forces' efforts in all aspects of jointness, viz. operations, training, and organisational. Therefore, these capstone documents are to be carefully formulated by Subject Matter Experts (SMEs)and retired senior military officers and not merely left to be drafted by serving officers. Towards this, collective intellectual/ academia should be brought to bear on deliberations, drafting, and formulation. *The serving officers, from the basic phase* 

onwards, are encouraged to undertake doctrinal studies and critically understand their application at all levels of warfare. The following are pertinent concerning doctrinal studiesby military officers: -

- A well-developed joint doctrine, rightly oriented to pursue national security objectives, would usher the necessary attitudinal and cultural changes required to integrate forces towards warfighting.
- Impetus on reading and in-depth understanding of these doctrines, and strategies (both joint and service-specific), is essential to align the human element with organisational goals. Therefore, it is prudent to incorporate doctrinal studies in various PME programmes and emphasise officers challenging the status quo. The Services may incentivise officers to undertake quality research on existing doctrinal concepts.
- The studies on joint doctrinal subjects are to be moderated by SMEs/ permanent faculty at respective training institutions. The interaction would help understand and integrate joint concepts and strategies.
- The Services should strive to create a talent pool out of the serving officers in due course to improve the functioning and efficiency of the envisaged Training and Doctrine Functional Command<sup>16</sup> and to formulate joint doctrines in future.

# Joint Organisation/ Structure

Higher Defence Management. The three Services function, train, operate, and build their forces in their unique 'service' way. There is an intense inter-service rivalry for budget allocation and capability building. The current service-centric attitude, inter-service rivalry, and lack of jointness reduce the country's overall military effectiveness and degrades fiscal efficiency. Towards plugging these attitudinal deficiencies and the jointness 'gaps', it is imperative to quickly adopt the envisaged joint/ theatre command structure. Therefore, the key to a quick adoption is a well-defined joint service structure, chain of command, command relationships and an enunciated politico-military hierarchy driven by the political leadership. The Indian leadership must quickly outlay the transition

planthrough legislation, with clearly stated roles, the role of joint/ theatre commands, command relationships, chain of reporting and other pertinent issues. The road to strengthening the existing joint structure to a more robust joint/ theatre command structure is long and arduous. Therefore, the leadership must give the CDS sufficient time to reorganise the higher defence management.

Service Level Administrative Reforms. Along with restructuring the higher defence management, the CDS must mandate organisational reforms at the service level. The reforms empower the officers to efficiently handle the transition to a joint environment. The Services should collectively work to enable cross-service Lt Col/ Equivalent postings in static formations for administrative duties viz. at Base Depots, Logistics Centres, Victualling Depots, and Medical. Key joint operational appointments may be identified to depute officers for operational tasks to acquaint the officers with a deeper understanding of other's combat capabilities and requirements. The cross postings would help spread awareness once the officers return to their respective Services. Parallelly, the Services should align to a joint service environment and work together to standardise various key administrative and functional aspects through promulgating joint policies and orders. This holistic approach would help groom the officers with the necessary mindset to thrive in a joint service environment and help the ecosystem flourish.

## **Joint Training**

Training is the backbone for the successful accomplishment of operations. As discussed previously, the joint training programme adopted by the armed forces only impacted the inter-service camaraderie, not jointness. Therefore, the joint training modus operandi must evolve to alter the status quo for seamless triservice integration. The joint training must be aligned with the proposed JPME programme in Fig. 2 to have a decisive impact on the overall integration. The following recommendations may help the Services to foster greater Jointmanship through impetus on joint training: -

Creation of Joint Training Command. In addition to service-specific training commands, a joint training command (currently under deliberation) must be adopted with tri-service staff to carefully draft and ensure the fructification of joint training and JPME programmes. Regular interaction with Services is undertaken to align with service-specific vertical requirements. Identification of areas of shared Services interests and division of responsibilities be fixed through deliberations and on mutually agreed terms. The focus of the joint training command should be on integrating common subjects such as intelligence, logistics, administration, communication, IT, and cyber security. Once the joint training command has evolved, the CDS may dispense the service-specific training commands.

- Joint Capsules. All three Services have the equivalent of Junior Command (JC) and Long Courses, attended by officers with five/ six years of service, respectively. A Joint Capsule (JOCAP) for two/ three weeks be tailored made, and fit into the curriculum. The emphasis should be on interaction, understanding and applying other Services' combat potential and operational requirements. Mindful mixing of inter-service courses may achieve this for the JOCAP. For example, the officers undergoing Long Gunnery Course at Kochi may be mixed with those undergoing JC at Deolali and the AD officers of IAF. These capsules should be followed by an attachment to the field areas for better assimilation of JOCAP content, During the attachment, the officers should be mandated to undertake journal writing and be encouraged to find operational solutions to the issues. The submissions are assessed critically to accord impetus to the programme.
- Inter Phase Interactions. Between the basic and midcareer phases, there is a gap of about six years during which the officers are neither undergoing joint training nor JPME. During this period, the officers engage in their respective specialisation duties. Though this is considered critical, the Services may plan formal interactions in the form of JOCAP at regular intervals to increase the exposure to jointness across ranks. Also, the Services should adopt long-distance learning avenues as part of JPME for continued impetus on jointness.
- Inter-Service Affiliations. The Services must encourage mandatory affiliation of all ships, IAF Squadrons and IA

units on a regimental/ regional basis. Regular cross-training, visits, and participation in various events may be encouraged. All adventure activities within the Services should be mandatorily tri-Services expeditions only.

#### Conclusion

The Indian political leadership took the much-vaunted step towards military reforms with the creation of the CDS office on 01 January 2020. The CDS is mandated to foster jointness and integration in the armed forces to supplement the nation's rising stature as a military power. Therefore, the importance of jointness and integration needs no emphasis. Jointness leads to synergised resources, training, planning, and operations efforts. It maximises the combat power and effectiveness of the forces in achieving an objective. With changing nature and character of warfare, and to meet the security challenges along the land borders and in IOR, integrated warfighting is sine quo non to a growing superpower like India. To shape future military leaders for integrated warfighting, carefully crafted and evolving joint training and the JPME programmes should be the raison d'etre of the Services. This would shape the jointness mindset and achieve desired integration in joint operations. The officers, on their part, have to critically transform themselves into futuristic and strategic thinking leaders through these organisational programmes to spearhead India's rise as a military superpower.

## **End Notes**

<sup>1</sup> Report of the Standing Committee on Defence deals, contained in their Thirty-sixth Report (Fourteenth Lok Sabha) on 'Status of Implementation of Unified Command for Armed Forces, which was presented to Lok Sabha and laid in Rajya Sabha on 24 February 2009. Available at https://eparlib.nic.in/. Accessed on 23 July 2022.

<sup>&</sup>lt;sup>2</sup> Ibid.

<sup>&</sup>lt;sup>3</sup> Vice Admiral PS Das (Retired), Jointness in India's Military —What it is and What it Must Be. Journal of Defence Studies, August 2007, Vol I, Issue 1, p.4.

<sup>&</sup>lt;sup>4</sup> Anit Mukherjee, Fighting Separately: Jointness and Civil-Military Relations in India, Journal of strategic studies, Vol 40, 2017 Issue 1-2, p.16.

<sup>&</sup>lt;sup>5</sup> Vinod Anand, Evolution of jointness in Indian Defence Forces, p.174

- <sup>6</sup> Vice Admiral PS Das (Retired), Op cit. p 3.
- <sup>7</sup> Ibid.
- <sup>8</sup> US CJCS, Guidance for developing and implementing joint concepts, Policy No CJCSI 3010.02E dated 17 August 2016, Available at https://www.jcs.mil /Portals/ 36/ Documents/ Doctrine/ concepts/ cjcsi \_ 3010\_02e.pdf. Accessed on 09 August 2022.
- <sup>9</sup> Joint Doctrine Indian Armed Forces, COSC 'Foreword' (New Delhi: Headquarters Integrated Defence Staff (HQ IDS), 2017
- <sup>10</sup> Arjun Subramaniam, "Indian Military and Jointness," Episode 16, 24 June 2019, in National Security Conversations, Available at https://podtail.com/podcast/national-securityconversations/ep-16-indian-military-and-jointness. Accessed on 10 August 2022.
- <sup>11</sup> Patrick Bratton, 'The Creation of Indian Integrated Commands: Organizational Learning and the Andaman and Nicobar Command,' Strategic Analysis 36, no. 3 (May-June 2012): p.447, Available at https://doi.org/10.1080/09700161.2012.670540, Accessed on 13 August 2022.
- Steven H Kenney, Professional Military Education and the Emerging Revolution in Military Affairs. Available at https://apps.dtic.mil/sti/pdfs/ADA529676.pdf. Accessed on 01 August 2022
- <sup>13</sup> Joint Training Doctrine, Indian Armed Forces, (New Delhi: Headquarters Integrated Defence Staff (HQ IDS), 2017, pp. 16.
- 14 Ibid.
- <sup>15</sup> Joint Training Doctrine, p. 2.
- <sup>16</sup> Maj Gen SB Asthana, SM, VSM (Retd), Indian Model of Theatre Commands: The Road Ahead, Strategic Perspective, Period (April June 2020), Available at https://usiofindia.org/publication/cs3-strategic-perspectives/indian-model-of-theatre-commands-the-road-ahead/. Accessed on 15 August 2022.