

## **A Joint Concept of Operations**

## Air Marshal (Dr) Diptendu Choudhury, PVSM, AVSM, VM, VSM (Retd)

### Introduction

Since independence, the Indian military has been the bulwark of the nation's defence having fought five wars with two of its neighbours, and with whom it shares a majority of its land borders. Given the legacy of unresolved territorial borders, the salami slicing strategy of an ascendant and belligerent China, and the state sponsored 'thousand cuts' strategy of Pakistan, the possibility of a serious conflict is alive and real. The near total dependence on the seas for trade and commerce, vital for India's economy and global rise, runs the increasing risk of certain clash of security interests with China's strategic Malacca Dilemma vulnerability. Add to these military threats on the continental

and maritime domains, the inevitable threat posed by two strong adversarial Air Forces which are an integral part of their respective military strategies, India's threat becomes multi-dimensional. The government and the military are fully aware about the need for coming together of the Services to jointly provide the nation with a wide

range of military threat mitigation options and a joint force application matrix.

There is no doubt on the necessity of Theatre Commands to focus the core competencies, organisational strengths, and Service specific operational lethality comprehensively towards addressing the multi-dimensional prevalent and future threats. After the long-awaited creation of the Chief of Defence Staff (CDS), and the approval of a much-needed transformative goal of integration of the Services, the initial exuberance towards creation of a new organisational structure has been very maturely tempered with a measured and inclusive approach. The rapidly changing geopolitical scenario, and the increasing complexity of the threat environment due to the increased priority of India in China's strategic security calculus, tends to bring in a sense of urgency towards military restructuring.

#### **Critical Caveats**

There is no doubt on the

necessity of Theatre Commands

to focus the core competencies,

organisational strengths, and

Service specific operational

towards addressing the multi-

dimensional prevalent and

comprehensively

lethality

future threats.

The transformational urgency comes with two critical caveats of 'what if', which will be the deepest concerns of the CDS, and the three Service Chiefs, since on them lies the immense responsibility of delivering success in a military conflict. The first is – "What if the proposed organisational restructuring does not bring about the ultimate desired goal

of integrated force application to deliver military success in the next conflict"? This caveat hangs heavy indeed not only on the highest leadership of all the Services, but on each and every soldier, airman and sailor as keepers of India's military security. The gravity of this caveat is acerbated by the knowledge

1

that the long journey of restructuring of the higher defence organisation has been complex, challenge ridden, notionally coalesced and not produced the desired outcomes. The legacy of the past, oft driven by Service-centric objectives, perceptions and concerns, can only be overcome by mutual respect of strengths and capabilities, understanding and appreciation of concerns, and the willingness to come together with an accommodative approach towards the larger goal. The clearly articulated need for a graded approach, underpinned by the understanding and acceptance of the imperative to think things through jointly, will help navigate this complex transformational journey.

Three aspects will need to be borne in mind to address the first caveat – a reality check of India's future threat of conflict from its two adversaries,

and a joint appreciation, understanding, planning and training towards how will the nation's military instrument combat specific threat scenarios. This is to ensure that the future structures bring about threat specific and not generic organisational changes, to ensure integrating our strengths and minimising limitations towards

the best possible military solutions. The next is the fact that any large reorganisation will directly impact all three Services as restructuring a seventy-fiveyear-old military - structurally, organisationally, and operationally - will come at a significant cost. A cost which the budget constrained Indian military can ill afford to squander in an experiment unless its success has a very high level of assurance, especially when there are huge inventory gaps and future modernisation aspirations to fulfil. Finally, to overcome the prevalent military stasis, despite all the pressures and challenges, the military leadership will have to come to terms with the reality that any transformational change is ultimately a leap of faith. A leap which can only be taken by the three Services with all cards on the table, preserving

hard earned core competencies and time tested, and proven, operational muscle memories, and charting the future collectively and consensually, to transform into a comprehensive military power. Thus, the future transformation of one of the world's largest militaries will have to be achieved in a nuanced manner, balancing the urgency with the scope, scale and costs of transformation, to allow for testing firmness of the future structure at every step taken.

The gravitas of the second caveat is more concerning – "What if we have to go to war during the process of restructuring"? With India's unique threat environment, this remains a harsh reality. Despite the best politico-diplomatic endeavours to avoid wars, which would be detrimental to economic growth on which the nation's progress

hinges, conflicts and wars often occur. With India's not so distant history of five wars, regular skirmishes on the unresolved borders, and two strategically symbiotic adversaries, the reality of a conflict hangs heavy in the minds of the military leadership the most. And, this is the unerring truth which will have to be faced, factored, and

addressed in any proposed transformative journey by the current Service leadership. This caveat is possibly even more emergent and challenging, since the political leadership's acceptance and directions towards military integration comes with an implicit expectation of the government, and the nation, of India's military delivering desired military outcomes convincingly, towards achievement of political objectives.

Therefore, taking into consideration all facets of this caveat, the subsequent paragraphs seek to how to cost effectively integrate the military instrument using existing structures as an interim military organisational structure, focussed on delivering integrated military outcomes in the transient current and near future. This structure which is

glued together with a robust concept of operations, to use the best contemporary capabilities of each Service, possibly provides doable way ahead to answer the second 'what if'. The three distinct advantages are low immediate costs, developing on existing foundations which can be built on or remodelled to arrive at a robust and resilient longterm structure, and the immediate benefits of a joint approach to warfighting, which fills some of the immediate gaps and allows for a graded expansion to integrated warfighting. But first, some military realities of the past will need to be laid to rest for a fresh beginning towards a future-ready military instrument of force in India's Comprehensive National Power (CNP).

## Joint Warfare: The **Past**

essential challenge to a joint approach in the Indian context lies in the divergent thought processes arising out of the individual Service specific approaches to warfare in the past. Despite five wars and their outcomes, India's military employment of force has clearly been impacted by the absence

of clear political goals, coherent military strategies, and equality of importance of each military arm. Military strategies in the past have been army driven because of its size and role of safeguarding territorial sovereignty, where threats have primarily been continental, and other Services have been included later to fill operational requirements or gaps. Consequently, joint appreciation, planning, training, and force application have been absent in India's military warfighting history of the Goa Operations, 1962 and 1965 wars, and Kargil conflict of 1999. Therefore, in the past, the three Services often came into the fight independently, and managed to come together, more often than

coordinated manner".

not, on the lowest common denominator of operational tactical battlefield necessity, rather than a larger strategic war outcome.

The 1971 war is the only exception where the Services came together based on clear political directions, executed a swift military campaign which enabled a decisive victory in the East and, thwarted the enemy's strategy in the West. Air Chief Marshal PC Lal, the then Chief of the Air Staff, highlights the exceptional comprehensive politico-military approach to the war - "The Chiefs were kept in constant touch with the developments in the subcontinent and what the Cabinet was thinking about them. There was full and free

> exchange of ideas amongst the Chiefs. The period of waiting and watching, from 26 March to 03 December, was well spent during which the Chiefs of Staff Committee, the inter-Service Committees, the Service Headquarters Ministry and the Defence worked in smooth and coordinated manner".1 It is telling that despite being possibly the only war of international intervention, which swiftly

and successfully led to the birth of a nation, our Services have not been able to come together on matters military. India's warfighting approach in the past has been driven solely by surface campaign objectives. This has led to perceiving an integrated model which has been driven more by the 'unity of command-and-control requirements', rather than 'unity in the employment of force towards achievement of larger national objectives'. While international models of joint structures have been extensively used to make the case for an integrated structure, two aspects must be considered. First is, that joint structures of leading militaries are not without challenges. Thirty years hence the

Nichols Goldwater Act, the Congressional Report stated – "Most observers agree that in principle a comprehensive review of the Goldwater-Nichols legislation is warranted at this juncture. Further, a broad consensus appears to exist among observers that Department of Defence (DOD) must become considerably more agile, while retaining its strength, in order to enable the United States to meet a variety of critical emerging national security challenges. Agreement seemingly ends there. There appears to be little consensus on what should be changed within DOD and what specific direction reform ought to take". The second is, that very often the Chinese military structure and its threat

are considered as a model for reorganisation, consciously or even unconsciously. While it may be a natural human predilection, there is great danger in mirroring or copying the enemy, as it gives the adversary the advantage of a deep insight into one's military's organisational structure and functioning. Know your enemy but do not copy him.

While it has been convenient

in the past to lay the blame for this on the higher defence organisation, the Services also share equal responsibility in their inability to come together, and not allow joint structures at the highest and Service levels to become models of success and expansion. Some of the aspects which have to be considered in developing a joint approach are:

 India's unique geography, post-independence history, and regional security construct have, in the past, led to a dominant continental threatcentric security approach. Our past wars have essentially occurred due to disputed territories and unresolved borders, and, therefore, while it continues to remain the primary security concern, it can no longer be a single Service concern. The Army needs the Air Force on the continental domain to address the 'twinadversary-multiple-front-threat'. Whether in the North and North West against China, or in the West against Pakistan, any conflict will primarily be an Army-Air Force dominant conflict.

• In the maritime domain, the Arabian Sea is the only likely operational threat zone for a naval conflict in case of a war with Pakistan. The Indian Ocean Region (IOR) is more of a larger strategic security concern from a trade and commerce point of view given India's sea-trade dependent economy. The Chinese

presence in the IOR is a long way from becoming a serious direct operational threat as compared to the continent. In any future China contingency, given the definitive aircraft carrier advantage enjoyed by PLA Navy, the Indian Navy (IN) will have to rely on land-based air power till its carrier requirements are fully operationalised. In any future Indo-Pak conflict, the

maritime domain will be certainly be Navy-Air Force dominant.

- The salience of the IOR, China's Malacca Dilemma, and India's significant Island Territories call for a future battlespace with a tri-Service force application construct. Apart from these, Special Forces employments, Intelligence, Surveillance, and Reconnaissance (ISR), Information & Electronic Warfare (IEW), cyber and space are some of the growing list of critical future areas where joint approach is an undeniable imperative.
- Each Service fights differently based on the 'operational muscle memory' developed over the years and paid for in blood. Rather than

India's unique geography, postindependence history, and regional security construct have, in the past, led to a dominant continental threatcentric security approach. Our past wars have essentially occurred due to disputed territories and unresolved borders, and, therefore, while it continues to remain the primary security concern, it can no longer be a single Service concern. subordinate core competencies of a smaller and independent Service to a limited playbook of a larger Service, greater understanding, and long overdue acceptance, of the wider role smaller Services play in the larger national security construct is the way forward.

Unfortunately, our dominant conventional war orientation has constrained and limited the understanding and exploitation of force as a potent and multi-dimensional national instrument. With our vast population and India's position in the world, national security today has assumed a much wider construct. The realities are that India's military threats are no longer exclusively territorial, and includes the maritime and aerial domains.<sup>3</sup>

Cyber and space threats increasingly pervade overlap across both military and civilian dimensions of India's security and interests. Thus, with the multiplicity of future threats, operational domain overlaps, technology enabled Service specific corecompetencies, and need for total synergy of political objectives military and strategy, the need for a robust

integrated approach to national security has never been more urgent. There has never been a greater need for coming together of the civil and the military to address India's security challenges and threats comprehensively with an all of government approach. Even more imperative is the coming together of the military comprehensively for the military application of force. Given the challenges to 'Jointness' in the past, while we seek suitable structural and organisational changes, adapting our existing structures from an operational warfighting perspective, for our extant threats, is the need of the hour. A fresh approach, which is easier and achievable in the interim, which will enable the critical caveats to be addressed, address the emergent immediate and future warfighting needs, and lays the foundation for the creation of a truly joint politico-military synergised security establishment, which is uniquely Indian, is to seek a path of convergence on the basis of operational warfighting solutions, integrating the individual operational muscle memories of each Service towards specific military contingencies.

## A 'Joint Approach' to Warfare – The Future

The solution to the 'Path of Convergence', with a high possibility of success, lies in adoption of a novel joint approach, initially leveraging existing joint structures, minimising the fiscal load, and

A 'joint approach' built on a

'joint Concept of Operations

(CONOPS)', where each Service

brings to the fore the best it has to

offer in terms of assets capabilities

and capacities, to provide bespoke

operational solutions towards

meeting the national objectives

is possibly an achievable starting

point.

enabling a robust achievable way forward, based on a graded increment approach. A 'joint approach' built on a 'joint Concept of Operations (CONOPS)', where each Service brings to the fore the best it has to offer in terms of assets capabilities and capacities, to provide bespoke operational solutions towards meeting the national objectives is possibly an

achievable starting point. A CONOPS is typically critical warfighting concept where the larger military goal and operational intent is identified, comprehensive intelligence assessments of the target and threat environment are considered, all available operation specific capabilities and capacities are included, risk factored operational plans with the highest possibility of success, based on the Observe-Orientate-Decide-Act (OODA) cycle, to penetrate the time/space decision making cycle of an opponent are prepared, and, thereafter, executed via bespoke operationally agile processes and systems, towards achievement of the said larger goal.4 Given the wide range of air operations the Indian Air Force (IAF) conducts, ranging from deep strategic strikes to combine support operations

(erstwhile CSFO), from counter air to special heliborne operations, etc., each has a distinctive iterative process with specific Op cycles and time lines. This Op planning and execution process is vital as it often encompasses several types of operations across tactical, operational and strategic levels simultaneously, compressing the sensor to shooter loop to penetrate the adversary's decision cycle while defeating his operational flexibility. Today, advanced net centric campaign planning

and decision support tools facilitate the shaping of the operations at all levels, and a robust secure networked command and control system allows high levels of spatial situational awareness in its pre-planned or dynamic execution, with a high degree of decision agility. Adopting a common approach, centred on

a joint CONOPS, provides a relatively easier and achievable way ahead for operational integration.

Developing a joint CONOPS, tailored to specific operational requirements, can be easily achieved using the existing joint structures in our higher defence organisation. The current structure which has been justifiably lamented as dysfunctional by many<sup>5</sup>, is still functional and cannot be changed in a hurry. The joint CONOPS proposed, therefore, builds on what exists, with suggestions which will empower the present structure without infringing into individual Service domains.

The threats that we are going to face in the future are essentially adaptations of conflict caused by the increasing blurring of lines between state and non-state conflict and evolution of hybrid conflict in the overlap zone.

The threats that we are going to face in the future are essentially adaptations of conflict caused by the increasing blurring of lines between state and non-state conflict and evolution of hybrid conflict in the overlap zone. The US military strategy provides an overview on the continuum of conflict and an integrated approach, which

is akin to India's threat spectrum and mitigation strategies. The same is as shown below:

#### **Continuum of Conflict** State Conflict: Employs large-scale military force and sophisticated military technologies across multiple domains to defeat the enemy. May include use of WMD, anti-access/area denial systems, global strike systems, undersea platform advanced cyber tools, and counterspace systems, among others capabilities. CONSEQUENCE **Hybrid Conflict:** Blends conventional and Irregular forces to create ambiguity, seize the initiative, and paralyze the adversary May include use of both traditional military and asymmetric systems. Non-State Conflict: Employs small units and network to undermine governments and gain control over populations. May include use of IEDs, small arms, propaganda, and terror. **PROBABILITY**

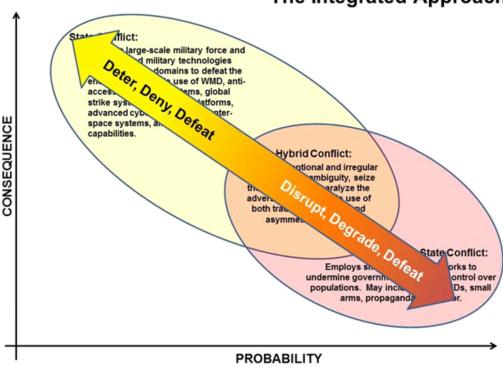
The National Military Strategy of the United States 2015<sup>6</sup>

We have to 'adapt' to the changes in the continuum of conflict and 'adopt' a joint approach for an integrated response, simply because each individual Service may not have the best or most effective solutions or answers. Any situation which affects our national security and warrants a military response can no longer be the preserve of an individual Service. All elements of national power must be called upon from the very beginning to respond to any threat. Choice of response, most certainly, needs to be calibrated strictly based on the best national interests, but every player needs

to be brought on board to contribute to the best choice. This is the start point of a joint CONOPS.

For addressing the state conflict, our conventional war fighting structures are well adapted since our adversaries have not changed. The real possibility of a future collusive threat is the greatest challenge for which we are inadequately equipped. Our inventory shortages are amply tabled but seemingly trapped in a Gordian knot of dichotomy between strategic vision of where we 'want to go' as a nation and the absolute necessity of addressing

## The Integrated Approach



The National Military Strategy of the United States 2015<sup>7</sup>

the security challenges to 'get there'. As far as our military's resolve to fight with what it has, it is on a solid wicket as long as we strengthen our mind-set towards fighting jointly. What is critical is joint military preparation, especially since our shortages and military wish lists are not going to get fulfilled soon, pooling of individual Service strengths is the only way to address the collusive threat. Similarly, addressing the threats in non-state conflict end of the spectrum, which ranges from insurgency, Anti National Elements (ANEs) to state sponsored terrorism, will increasingly need a much greater joint approach. In the past,

both our adversaries have invested in disruptive strategies towards internal destabilisation and will continue to do so in the future. Hybrid threats have been militarised with a clear evidence of adoption of an approach of unlimited warfare<sup>8</sup> in the irredentist national security outlook, coercive foreign policy, and strident military strategy of China. The joint CONOPS, therefore, has to deal with the entire spectrum and must flow from an analytical process at the national leadership level where the threat is identified, its effects are analysed and objectives are defined, as shown below:

While ideally a joint CONOPS should logically be an outcome a joint military strategy, in the continued absence of a National Security Strategy (NSS) and considering India's threat imminence, the military can ill afford to wait for it. For, India's Armed Forces, on whom lies the responsibility of military security, have to be well prepared irrespective of the availability of an overarching security strategy. It will be difficult to evolve a military strategy without a NSS, but a joint CONOPS serves to fill the extant gap, and allows for the creation of a doable threat specific joint

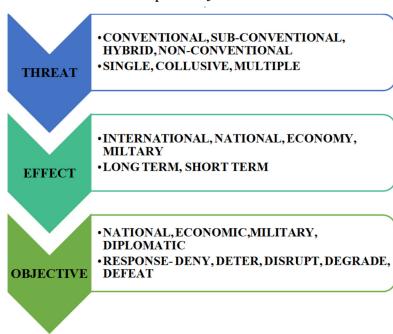
application of force in the immediate future. So, how can such a CONOPS be evolved?

## **Developing the CONOPS**

## The process involved is explained stepwise:

 Step One. Define the Joint Operational Strategy (JOPSTRAT) based on the national objectives. This has to lay down the Service specific and the joint strategic war fighting objectives, desired end-states, and macro Rules

#### **Development of Joint CONOPS**



#### JOINT CONCEPT OF OPERATIONS

It will be difficult to evolve a

military strategy without a NSS,

but a joint CONOPS serves to

fill the extant gap, and allows

for the creation of a doable

threat specific joint application

of force in the immediate future.

of Engagement (RoE). A collegiate approach of the Chiefs of Staff Committee (COSC), under

the leadership of the CDS, will provide a balanced forum for this vital first step. This forum, headed by one of our own in uniform, should be the one to render professional military advice to the national leadership and, therefore, should also be the one which provides

the overarching framework for all future operations, based on higher directions.

Step Two. Based on JOPSTRAT, plan the Joint CONOPS (JOCOPS) – lay down the

campaign parameters, define the force levels and the type of operations that need to be undertaken. Spell out the joint and individual Service roles and responsibilities. This second step is best left to the Vice Chiefs level – the Vice Chiefs Committee (VCC), again headed and not led by

the CISC (also as a first among equals), would be the logical next level. Step Three. Prepare the Joint Operational Plans (JOPs) based on the JOCOPS. These must include the broad operational objectives based on the campaign parameters, the coincidence of operational timelines towards joint objectives, and inter-Service Op specific RoE. Thereafter, based on the force levels and the type of envisaged operation identified in the JOCOPS, jointly identify the ideally suited Op Commands as it presently exists (theatre command in the future) for the operation along with the broad Service specific special capabilities and Op support needed. Having

There

individual

CONOPS.

are

enough

Services,

specialisations and expertise

which reside amongst the

amongst the existing joint

organisations. These must

be inclusively leveraged to

bring about a truly joint

approach to warfighting and

the development of a joint

core

and

worked these out, the tasking should obviously be left to each Service HQ. Each Service HQ would also cross allocate additional resources from other Commands or task additional Commands for the joint operation, if necessary. Service specific Op requirements which are not linked to the joint Ops would remain individual Service responsibility. This

should be ideally executed at the Director General Operations (DG Ops) level amongst the three Services - the Joint Operations Committee (JOCOM), which already exists in our present structure, could undertake this task jointly.

• Step Four. Finally, based on the JOPSTRAT, the JOCOPS, and the JOPs, Service specific plans would be drawn up by the Chief of Staff (COS)/Senior Air Staff Officer (SASO) (designated Op Commands), in consultation with their respective DG Ops, to enable inter Service Op coincidence. Here onwards, our already existing joint structures and mechanisms at Command and field levels take over.

# Joint CONOPS & Joint Responsibilities: Closing the Loop

There are several areas of core expertise which will have to be included to support the joint CONOPS and its execution. There are enough core specialisations and expertise which reside amongst the individual Services, and amongst the existing joint organisations. These must be inclusively leveraged to bring about a truly joint approach to warfighting and the development of a joint CONOPS. Simultaneously, to ensure its success, and to lay robust foundations for future

integration, some of the key activities and processes where joint responsibilities will serve as game changers, from the legacy constructs of Jointness, to create and strengthen the much need vital inter-Service dependencies are:

- Joint ISR HQ IDS, with Defence Intelligence Agency (DIA) and the Defence Space Agency, is well suited for this responsibility.
- Joint Centres of Gravity (COG) & Targeting Strategy - HQ IDS, assisted by the JOCOM, should be the logical choice given the experience garnered in evolving joint doctrines.
- Joint COG & Targeting Planning This should be the preserve of DG Ops of the Services along with the respective designated Op Command HQs.
- Joint Ops Flow planning The sequence of operations, force complements, coordination and de-confliction of Op plans etc., are best left to be executed jointly between the Command HQs of Services.
- Joint Communications & IEW Command HQs, along with the future Cyber Command,

would be able to work out all the joint requirements necessary at the operational level.

- Joint Op Analysis & Review This aspect is the most critical element necessary to close the OODA loop of the joint Ops. This would serve as the feedback loop for monitoring the Op progress, reallocation of resources, review of targeting and Op strategy, etc. This should be between the Command HQs and the DG Ops level.
- Joint Campaign Analysis & Review This macro-view would be to update the COSC on the progress of the campaign, achievement of objectives, challenges etc., for updating the national leadership.

## Pre-requisites for Joint Warfare

The challenges to any joint approach are many and well known to each of the Services. The biggest challenge is the deficit of a willingness to adapt and adopt amongst the Services. There is today an overwhelming need for each Service to bring to the table the best it has to

offer, as a combined comprehensive contribution of the military, to the nation in the larger interests of its security. While the oft quoted 'building of relationships' is important, institutionalising the structures and processes is equally so. 'Trust' remains the Sine Qua Non. Based on the US joint war fighting experience<sup>9</sup>, five key takeaways which are applicable to the Indian context are:

- Need for recognition that you don't need to 'own' your partners' assets, in order to have assured access to their capabilities.
- There is an overarching necessity for inclusion with our stakeholders in gaining a common understanding of the environment, problem, desired overarching end states, and necessary

conditions or desired outcomes to promote harmonised action.

- Inclusiveness in developing plans and during execution. The best plans and operations are those which are fully integrated with the other elements of national and international power – from the very beginning of planning.
- There is a need for continual dialogue with national leadership in ascertaining the problem, defining success, developing feasible policy direction, and acceptable courses of action with the necessary resources.
- Trust and confidence is very important to synergy and harmony, between the Services and with the government. Success of joint CONOPS and warfare will depend on how

you gain and maintain trust and confidence with the higher leadership and your partners.

Sometimes it is the simplistic approach which finds success rather than the ideal solution. Possibly there is no ideal solution. If there was, then the US, the world's most

powerful military with their enviable ability to critically analyse their deficiencies, would not be facing the challenges they still do. The answer for us, therefore, lies in doing the doable as elaborated below:

- Strengthen the existing structures for joint approach to warfare and make them work.
- Increase inter-Services presence in Operational Commands especially in the Op planning staff. Similarly, Adv HQs, HQ Maritime Air Operations (MAO), Tactical Air Centres (TACs), and Maritime Elements of Air Force (MEAFs), which are presently the sole responsibility of the IAF, should be made truly joint with trained Op staff from other Services.

- Strengthen the joint organisations in the Commands and field units by manning them with high calibre officers and incentivise these appointments.
- And, finally, let us begin with something we have yet not done - let us carry out a truly joint exercise which is planned, executed, and analysed jointly from start to finish.

### **Conclusion**

In conclusion, there are some tough questions which each Service needs to ponder over for the future. With economic growth being the nation's highest imperative, can we afford a long war? A common refrain is that tomorrow's war will be short, swift, and intense. Are we truly prepared

for it? How swiftly really can each Service respond individually and jointly? Shouldn't the response be one in the best interest of the nation, which includes all the Services from the beginning? Shouldn't it be jointly planned based on the best each has to offer? Two undeniable facts are, that in any future war, airpower will play a vital role from the opening till the end, whether over land or sea or both, and that the war has to be fought jointly. The only issue, therefore, is to accept that the IAF today is no longer a mere supportive force, but one which brings the widest range of combat capabilities to the table to address the increased range of threats of tomorrow. It is also a Service which has and will continue to fight shoulder to shoulder with other Services, all the way, jointly as equals.

#### **End Notes**

- 1 Air Chief Marshal PC Lal, My Years With The IAF, Lancer Publishers, New Delhi, 1986, p.167
- 2 Kathleen J. McInnis, Goldwater-Nichols at 30: Defense Reform and Issues for Congress, Report by Congressional Research Service, June 2, 2016
- 3 Air Marshal Diptendu Choudhury, Security Vision 2047: A Hundred Years since Independence, Vivekananda International Foundation, Nov 2022, https://www.vifindia.org/sites/default/files/security-vision-2047-a-hundred-years-since-independence%20.pdf
- 4 This is the author's interpretation of a widely used terminology across military and civil domains. Each military arm also employs a CONOPS typical to its service requirements. This explanation is essentially developed on the IAF's employment of concept of operation, which is likely to have significant convergence with the other services, and serves a basis for this paper. This is by no means an all-inclusive definition, but simply lays the foundational aspect and certainly can be developed upon and improved.
- 5 Arun Prakash, India's Higher Defence Organisation: Implications for National Security and Jointness, Journal of Defence Studies, Vol 1, No1
- The National Military Strategy of the United States 2015, https://www.jcs.mil/Portals/36/Documents/Publications/2015\_National\_Military\_Strategy.pdf
- 7 Ibid
- 8 Qiao Liang and Wang Xiangsui, Unrestricted Warfare, Beijing: PLA Literature and Arts Publishing House, February 1999 at https://www.c4i.org/unrestricted.pdf, Accessed on May17, 2021
- 9 http://www.au.af.mil/au/awc/awcgate/jfcom/joint\_ops\_insights\_jan\_11\_2011.pdf

#### About the Author



Air Marshal (Dr) Diptendu Choudhury, PVSM, AVSM, VM, VSM (Retd) is a former Commandant of the National Defence College and SASO of HQ WAC. He has a vast experience in the development and execution of air operations at Command, Air Force and Joint Operations levels. He has been actively involved in policy and doctrine formulation, Air Strategy development, and International Defence cooperation. A post graduate from Kings College London, an alumnus of the Royal College of Defence Studies, he is also an M Phil and

PhD. He is a Distinguished Fellow of the USI.

#### About the USI

The United Service Institution of India was founded in 1870 by a soldier scholar, Colonel (late Major General) Sir Charles MacGregor 'for the furtherance of interest and knowledge in the Art, Science and Literature of National Security in general and Defence Services, in particular'. It commenced publishing its Journal in 1871. USI also publishes reports of its research scholars as books/monographs and occasional papers (pertaining to security matters) by its members. The present Director General is Major General BK Sharma, AVSM, SM & Bar (Retd).



## **United Service Institution of India (USI)**

Rao Tula Ram Marg, Opposite Signals Enclave, New Delhi-110057 Tele: 2086 2315/ Fax: 2086 2324, E-mail: direditorial@usiofindia.org