

# Looking At the Disabled Soldier: Past, Present, and Future His Care, Career Prospects, and Rehabilitation

Commander Anirudh K Singh®

## Abstract

*This essay explores the rehabilitation and career prospects of war-wounded soldiers, focusing on current systems and areas for improvement. While the armed forces provide initial medical treatment, long-term rehabilitation procedures often lack standardisation and comprehensive support, leaving personnel dependent on personal resilience and family support. Through qualitative and quantitative methods, this study gathers perspectives from affected soldiers, highlighting deficiencies in psychological care, inadequate facilities, and bureaucratic challenges, such as the L1 procurement process that delays access to quality medical implants and prosthetics. The need for standardised rehabilitation protocols, partnerships with non-governmental organisations, and advanced civilian medical centres is emphasised. Key recommendations include implementing a structured, multidisciplinary approach to care, improving mental health support, and fostering a sense of purpose within the organisation to motivate recovery. The inclusion of veteran-led civil organisations like Conquer Land Air Water, which empowers war-wounded soldiers by demonstrating their continued*

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*Journal of the United Service Institution of India*, Vol. CLIV, No. 638, October-December 2024.

*value and resilience, underscores the potential for reintegration into society and the workforce. This analysis advocates for systematic reforms to ensure war-wounded soldiers receive the support necessary for meaningful rehabilitation and re-engagement, benefiting both the individual and the broader military community.*

## **Introduction**

*“The soldier, above all other people, prays for peace, for he must suffer and bear the deepest wounds and scars of war”<sup>1</sup>*

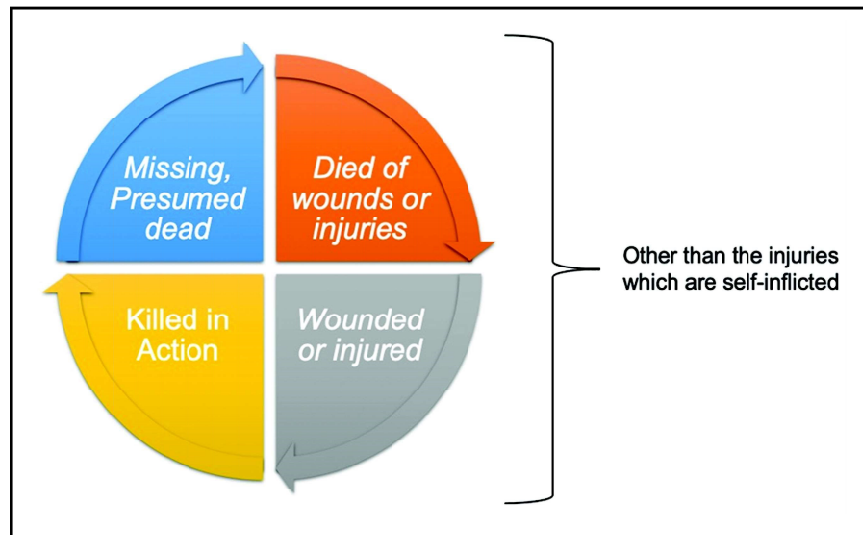
The profession of arms has always been one that requires the highest levels of commitment, resolve, and, above all, sacrifice. This sacrifice, however, does not come easy for everyone, and some of our bravest come back from war with scars that may last a lifetime. It is imperative to understand that while the nature of war remains constant, the character of warfare is ever-changing. The lethality and range of weapons have made warfighting an attrition-based affair, wherein, loss of life is not only imminent but guaranteed. During these conflicts, numerous lives have been lost; however, more have been wounded and are now forced to live half a life with struggles and trauma that most cannot even fathom.

There are nearly 40,000 war-wounded personnel in our country, and this number is constantly increasing. With the extent of injury deciding the fate of the soldier, some may become permanently disabled and are invalided out of service, while the remaining continue to serve with disabilities. The commemorative medals and financial grants, although important, cannot be compared to the emotional support required. The importance of care and constantly catering to the requirements of our war-wounded would go a long way in ensuring that none of the serving soldiers think twice before proceeding on an assigned mission, no matter how dangerous.

## Terminology

**Rehabilitation.**<sup>2</sup> Rehabilitation is a process of assessment, treatment, and management by which individuals (and their families) are supported to achieve their maximum potential for physical, cognitive, social, and psychological functions, participation in society, and quality of living.

**Battle Casualty.**<sup>3</sup> Battle casualties are those which are sustained in action against enemy forces or in preparation for/deployment to operations on land, sea, or air. Casualties of this type consist of the categories as shown in Figure 1.



**Figure 1: Battle Casualties – Types**

**Amputation.**<sup>4</sup> Amputation is an acquired condition that results in the loss of a limb, usually from injury, disease, or surgery. Losing a limb due to accidental trauma or disease has an enormous impact on a person's body, emotions, relationships, vocation, and way of life.

## Understanding the Process of Rehabilitation for the War-Wounded

The methodology adopted to understand the issues with the current rehabilitation procedures in our armed forces must consist of both quantitative and qualitative analyses. The qualitative method involves interactions in the form of interviews, while the questionnaire forms part of the quantitative method.

**Qualitative Method.** Through personal interactions, three soldiers were interviewed in a detailed one-on-one setting, which provided insight into their individual struggles. These views, highlighted in the following paragraphs, are unique to everyone. While the level of satisfaction varies, it was clear that support from the service or branch played a significant role in their recovery.

**The Ace Fighter Pilot.** The officer, a SU-30 pilot, gave a first-hand account of his ejection and how he lost his leg in the process. This story is particularly significant, as most pilots involved in crashes are not alive to recount their ordeals in detail. Key points that emerged during the discussion are as follows:

- Even after multiple conflicts and casualties in the armed forces, there is still no standardised methodology for rehabilitation; it remains largely dependent on the individual's personal resilience.
- Psychological rehabilitation requires improvement, as merely sending doctors to assess mental stability may be insufficient.
- While the injury centres are equipped with new rehabilitation facilities, basic amenities like ramps and wheelchair-accessible pathways are lacking.
- The Artificial Limb Centre (ALC) in Pune played a crucial role in helping the officer set a clear goal toward gaining independence post-rehabilitation.
- Physiotherapists are like drill instructors at the academy, focused solely on achieving progress at a set pace, which may not be suitable for patients of all mental capacities.
- In this case, the Service played a key role in the officer's recovery, providing transportation support and allowing his wife (also a serving Air Force officer) to be attached to various locations on temporary duty to assist him. This support has reinforced his commitment to the service.
- The officer considers himself fortunate and has come to terms with his disability, which has not deterred him in any way.



- The Service and the Commandant, ALC were instrumental in providing him with a better rehabilitation and guiding him in a way which was suitable and helped him to remain focussed.



**Image 1: The Fighter Pilot with his Ottobock Prosthetic**

**The Land Mine Survivor.** The Army officer interviewed was posted in Naushera District at the Line of Control at the time of his injury. Encountering a mine during an operation, he was airlifted to Command Hospital, Udhampur, where he underwent one of the best reconstructive surgeries, which saved the remaining part of his left leg. Some relevant extracts from his responses are as follows:

- A Standard Operating Procedure (SOP) for rehabilitation procedures was also absent in this case, making the process entirely human-centric and dependent on the patient's capability.

- The staff at the ALC, though supportive, was severely limited due to the large number of patients needing attention.
- The prosthetic provided to the officer was not correctly constructed, leading to discomfort. He approached the ALC for reconstruction; however, the issue remained unresolved.
- The officer was mentally resilient during rehabilitation and did not require psychological support; however, he noted that the psychologists initially assigned to him were there merely for formality.
- The officer approached the ALC for his second prosthetic but was unable to make progress and ultimately had to finance his own limb from Ottobock Pvt Ltd.
- The non-availability of the required prosthetic was attributed to the 'Make in India' certification required for procurement on an L1 basis.
- The officer is still awaiting his second, improved prosthetic and is now in the process of purchasing another personally financed limb.



**Image 2: Amputated Left Foot**



**Image 3: Personally financed Prosthetic**

**The Marine Commando Who Beat Death.** The officer's story has surfaced on multiple occasions, but his internal struggles are known to few. Injured during Counter Insurgency Operations in Jammu and Kashmir, he arrived at hospital clinging to life after a grenade blast, with splinters throughout his body. Despite multiple internal injuries, he overcame the odds with the unwavering support

of his family. However, the struggle for full health continues after being diagnosed with cancer and other lung ailments. The excerpts from his interview are as follows:

- Rehabilitation procedures assume that, as a soldier, the patient is mentally prepared to endure the ordeal and does not require emotional support.
- Civilian rehabilitation differs in that a visit to the doctor can be solely for communication. This is not so in the armed forces, likely due to the organisational structure.
- Physical support, though present, cannot substitute for the psychological support needed.
- Physical injuries are visible and often elicit sympathy or empathy, whereas, internal injuries are frequently overlooked and must be reiterated by a patient.
- It is essential to recognise that while a patient might prioritise physical rehabilitation, a sense of purpose and the will to continue in the same line of work can only be provided by the organisation.
- High-quality medical equipment, such as stents and pacemakers, is still procured via the L1 route, resulting in lower-quality materials and delayed timelines.
- During his time in the Intensive Care Unit, the officer looked forward each morning to interact with the doctor or nurse, underscoring the importance of physical compassion.
- There are ongoing challenges in providing manpower to tend to the patient initially.
- The ability to provide for the wounded sends the strongest message; not only to other disabled soldiers, but also to the entire serving community.

The questions that come to mind after interacting with these officers are straightforward and centre around the following arguments:

- What is the driving force behind war-wounded soldiers, and how does it inspire them to perform their duties, sometimes even better than others?

- Why are there no SOPs in place for psychological rehabilitation, and why is it regarded as merely a formality?
- Why is the L1 procurement procedure being followed for medical implants and prosthetics, resulting in the purchase of low-quality materials and delayed timelines?
- Are there any Memorandum Of Understanding (MOUs) in place with Non-Governmental Organisation (NGOs) and other civil hospitals/treatment centres for financing and providing medical aid, including rehabilitation, for war-wounded soldiers?
- Why are basic amenities that assist disabled soldiers in their daily routines, such as ramps, parking spaces, and accessible washrooms, not available at various institutions where personnel may be posted?

**Quantitative Method.** As part of the quantitative analysis, a research questionnaire was circulated exclusively among war-wounded personnel, both serving and retired. The research focused on exploring the following areas:

- To gauge the levels of satisfaction personnel had regarding the rehabilitation process.
- To assess the levels of stress experienced during the time of injury, particularly by the patients and their families throughout rehabilitation.
- To gather views on the general attitude of the service towards war-wounded personnel, whether it is sympathetic, empathetic, or disdainful.
- To seek recommendations on facilities that could be provided to families who care for patients during rehabilitation.
- To examine the desire to continue serving in the armed forces despite a disability.

**Data Analysis of Questionnaire.** The questionnaire was distributed exclusively within the war-wounded community, excluding regular service personnel, to ensure the feedback's accuracy and to avoid merely populating responses. Although the

number of responses was limited, the soldiers who participated offered key recommendations, as detailed below:

- Only 38 per cent of respondents were satisfied with the rehabilitation provided by the services, with satisfactory rehabilitation primarily for gunshot wounds.
- 30 per cent of respondents were dissatisfied with rehabilitation procedures, and 66 per cent opted to seek privately financed rehabilitation sessions at civilian medical centres.
- All respondents (100 per cent) felt that psychological rehabilitation was necessary but had been lacking in their treatments. Additionally, 72 per cent reported experiencing high levels of post-traumatic stress, which they overcame largely due to the support of their loved ones.
- 72 per cent felt that the environment remains sympathetic toward the war-wounded, with considerable room for increased empathy.

### **Organisational Issues and Constraints**

To fully understand the issues, they may be categorised under three sub-headings: Care, Career Prospects, and Rehabilitation. These are detailed in the succeeding paragraphs.

#### **Care and Rehabilitation.**

- **Resilience and Complete Care.** Building and maintaining resilience among military and veteran communities is essential for promoting successful reintegration into civilian life. The importance of a comprehensive care package—including pre-operative and post-operative care with therapy—is notably absent from the current rehabilitation process. This may stem from doctors and caregivers perceiving military patients as inherently resilient due to their training and service, thus, overlooking the need for support. Consequently, many patients rely solely on their loved ones, who may not always be able to provide adequate support, potentially prolonging the rehabilitation period and leaving patients struggling internally even after physical recovery.

- **Absence of Standard Operating Procedures for Psychological Rehabilitation.** Current procedures are personality-based; for example, two war-wounded personnel were personally counselled by the Commandant of ALC, Pune, which led to quicker recoveries. However, this was due to the personal interest of the officer-in-charge of their rehabilitation. This personalised attention is not guaranteed for every patient, leaving those with weaker personal resolve or less mental stability facing extended recovery timelines.
- **Overtasked Medical Facilities.** Due to the large number of patients visiting medical facilities, most doctors are occupied with routine tasks, leaving little time to focus on the rehabilitation of critical patients. Consequently, patients often struggle to ask questions or have their queries addressed. Although physiotherapists at the ALC are successful in helping patients achieve physical rehabilitation goals, they frequently proceed without considering the patient's mental adaptability.
- **L1: Method of Procurement.** Mixed feedback has been received on the quality and timely provision of prosthetics. While one patient received a prosthetic worth 37 lakhs, another was forced to personally finance a foot plate from the leading prosthetic manufacturer, Ottobock, due to the absence of a 'Make in India' certification. This procurement method has led to delays in acquiring crucial items, such as heart stents and pacemakers, which paints a troubling picture of the current system.
- **Service-Specific Care.** The level of care provided by each service can significantly impact recovery times. Although the air force played a key role in supporting the above-mentioned fighter pilot with necessary airlifts and assistance, the army, due to its higher number of patients, was unable to offer a similar level of individualised support.
- **Facilities at Leading Civil Hospitals vs Military Medical Centres.** A holistic comparison between the facilities at leading hospitals and military rehabilitation centres reveals significant gaps, particularly in family accommodations, basic amenities, and available rehabilitation equipment. These gaps underscore the insufficient funding allocated within the defence budget for comprehensive rehabilitation resources.

### **Career Prospects.**

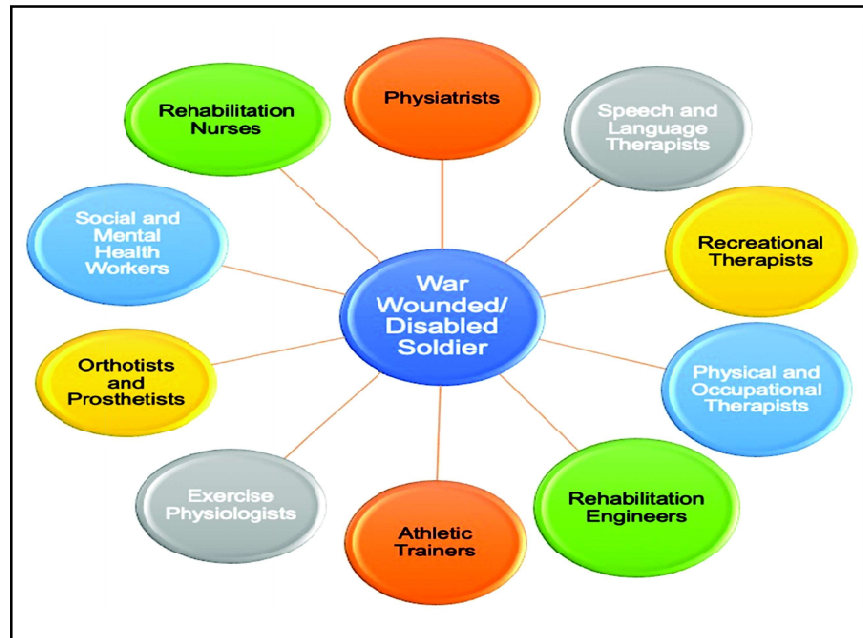
- **Desire to Serve.** Over 95 per cent personnel who responded to the questionnaire expressed a desire to continue serving, even though stress levels and rehabilitation procedures need significant improvement. The will to serve remains strong; however, many soldiers feel left out upon returning to their parent organisations. Initial sympathy often turns to empathy, which may eventually give way to disdain.
- **Employability in Suitable Jobs.** Not all soldiers are required on the front lines; some may be needed in roles that ease the burden on their counterparts who have gone through similar ordeals. The affiliation of the Services Sports Control Board with the Paralympic Committee of India, for example, is a positive step; though it requires focused attention, with the navy and air force encouraged to follow suit. Personnel transfers are conducted via COPE coding, yet it can be a continuous struggle for disabled soldiers to prove their capabilities within the organisation, often leaving them frustrated.
- **War-Wounded and Battle Casualty Classification.** Feedback suggests that many soldiers struggle to validate their casualty status within the current system. While some individuals may have taken advantage of the system to secure disability pensions, genuine patients face daily challenges in obtaining enhanced emoluments.
- **Transition to the Outside World.** The rules governing wounded personnel's transition to civilian life are outdated, offering minimal ex-gratia and limited medical coverage. These issues are even more pronounced for cadets who are discharged from academies due to injury. Additionally, entitlements vary significantly by state, adding further inconsistency.

### **Way Ahead and Recommendations**

#### **Systematic Care and Rehabilitation.**

- **Composite Care Package.** The war-wounded personnel who participated in the survey were fully satisfied with the first aid and surgeries provided by doctors. However,

corrective surgery is merely the beginning of the rehabilitation process. Drawing from the United States' 'Promoting Successful Integration'<sup>5</sup> program for veterans and war-wounded personnel, a comprehensive care package should include a multidisciplinary rehabilitation team as given in Figure 2.



**Figure 2**

- **Step-by-Step Analysis.** A systematic analysis by each expert on the team would help determine the patient's strengths and weaknesses, thereby, emphasising the recovery process. Even if the existing system lacks the necessary expertise, MoUs with civil agencies and financial aid from NGOs would support the service in achieving the desired outcomes. It is essential that therapists and engineers assess patients early in the rehabilitation process to identify any psychological barriers that may hinder recovery. Social support and a sense of purpose can be crucial for a wounded soldier striving to reintegrate as an active member of the forces.
- **Mental and Physical Pain Management.** Pain management was a significant concern raised by respondents, specifically regarding the side effects of heavy medication,



which should be clearly communicated to the patient upfront. A briefing on injuries in the presence of a psychologist is likely to promote a positive outlook on recovery.

- **Formulation of Standard Operating Procedures.** Many institutions worldwide, such as the Borden Institute<sup>6</sup> and Headley Court<sup>7</sup>, have established rehabilitation procedures that outline processes for various injuries. These documents could serve as references to develop an SOP, with input from medical experts from both military and civilian sectors. Detailed Project Reports could be approved for these projects, in collaboration with leading hospitals, to establish a National Defence Rehabilitation Centre, thus, fostering a more motivated and battle-ready workforce.

- **Amputee Care Program.**<sup>8</sup> The number of amputees in the country is relatively small, warranting dedicated attention from all three services. Providing advanced prosthetics would represent a minimal fraction of the defence budget but would ensure that service members can perform their duties confidently and without hesitation. The L1 procurement system for prosthetics should be eliminated, as it not only extends timelines but also results in the purchase of low-quality materials that require frequent replacements, thereby, incurring higher cumulative costs. Establishing MoUs with companies like Ottobock would be a step in the right direction to ensure complete satisfaction for disabled soldiers and to encourage them to engage in sports, providing a meaningful reason for continued existence. A schematic flowchart of amputee care is shown in Appendix 'C'.

### **Career Prospects.**

- **Raison d'être.** Analysis of the questionnaire responses revealed that all respondents desired to continue in service despite facing numerous challenges in transitioning back to their core roles. However, a sense of purpose—something that can only be provided by the organisation—plays a crucial role in their recovery. The simplest approach for any organisation might be to sideline the affected soldier, leaving them isolated and potentially questioning their abilities. Instead, continuous engagement and a sense of belonging can pave the way for sustained productivity.

- **Career Prospects within the Services.** Interactions indicated that most soldiers have come to terms with the limited prospects of rising in the hierarchy due to their injuries. However, denying them the opportunity to serve in a similar capacity as their original role could signal a lack of faith. The example of Captain Christy Wise of the United States Air Force, who returned to active flying after losing her right leg, illustrates how such soldiers can excel. While limitations may exist, assigning these individuals to suitable roles at Headquarters, where their expertise and years of service are invaluable, allows them to continue contributing meaningfully.
- **Specialist Civil Organisations.** With increased media interconnectivity, organisations like Conquer Land Air Water (CLAW) have brought widespread attention to the achievements of war-wounded soldiers. Founded by veterans Major Vivek Jacob and Major Arun Ambathy, this organisation has gained prominence by taking disabled soldiers to the highest battlefield, Siachen, and is now set to break the world record for the largest SCUBA Occupational Therapy and Skill Training program for people with disabilities. Such organisations challenge outdated perceptions of limited capabilities, with disabled personnel leading these initiatives. Many war-wounded veterans have now joined CLAW, gaining opportunities to teach, learn, and work toward independence. The organisation strives to eliminate pity, glorify soldiers' injuries, and foster a sense of invincibility.

## **Conclusion**

While there is currently a system in place within the services to monitor and support war-wounded personnel in the country, the rehabilitation procedures remain personality-centric and require a dedicated effort. This includes the formulation of SOPs, partnerships with NGOs and civilian medical organisations to establish state-of-the-art facilities, and improvements in the procurement of prosthetics. The removal of the L1 procurement procedure for medical implants, which are critical for the survivability of war-wounded personnel, is essential to ensure they have a better chance of maintaining health and are motivated to make a swift transition back into service or civilian life.

## Appendix 'A'

### Details Of Questionnaire

Ser No	Details of Question	Response Required
1.	Service	<ul style="list-style-type: none"> <li>● Army</li> <li>● Navy</li> <li>● Air Force</li> <li>● Paramilitary</li> </ul>
2.	Whether Serving or Retired	<ul style="list-style-type: none"> <li>● Serving</li> <li>● Retired</li> </ul>
3.	Years of Service (In Years and Months)	Individual
4.	Unit/Formation	Individual
5.	Have you been in Active Combat situations/Conditions of High Stress as a Team Member or Team Leader?	<ul style="list-style-type: none"> <li>● Yes</li> <li>● No</li> </ul>
6.	Were you injured during the Active Combat Situation/Conditions of High Stress?	<ul style="list-style-type: none"> <li>● Yes</li> <li>● No</li> </ul>
7.	Date of injury?	Individual
8.	Were you Married or Single during the time of injury?	<ul style="list-style-type: none"> <li>● Married</li> <li>● Single</li> </ul>
9.	Did you have children during the time of injury?	<ul style="list-style-type: none"> <li>● Yes</li> <li>● No</li> </ul>
10.	If you had children what were their ages during the time of your injury?	Individual
11.	During the time of your injury and subsequent rehabilitation did you ever feel that your family went through extremely stressful situations. This may be rated on a linear scale.	Linear Scale from 1 to 10 '1' being the least amount of stress '10' being the least amount of stress

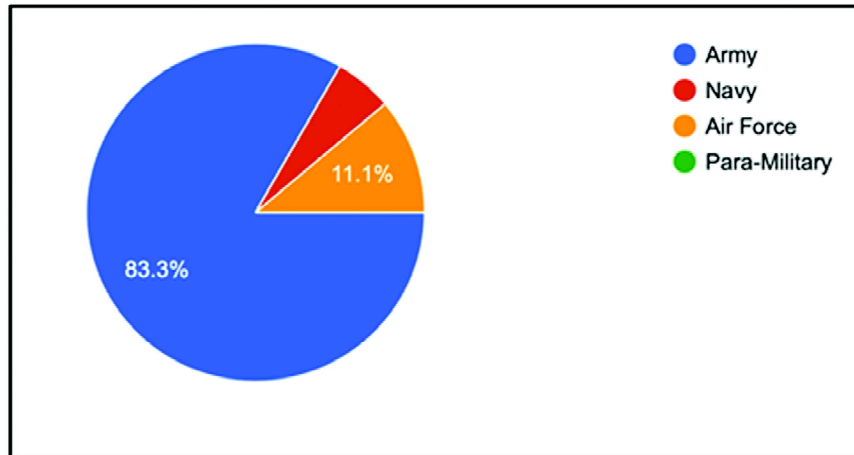
	(The stress borne by the family generally goes unnoticed during the time of injury and during the rehabilitation process. This question would help us understand whether this led to additional stress for you and the family)	
12.	Type of Injury and Restrictions Imposed if any (The question is aimed at analysing the type of injuries being suffered and drawing inferences from the area of operations. I would request descriptive answers, so that I am able to analyse and recommend the kind of rehabilitation which should be focussed on)	Individual
13.	Whether Amputee	<ul style="list-style-type: none"> <li>● Yes</li> <li>● No</li> </ul>
14.	If Amputee, then were Prosthetics Limbs provisioned by: Enterprises	<ul style="list-style-type: none"> <li>● Service Rehabilitation Establishments</li> <li>● Private Means</li> </ul>
15.	For Amputees, If Prosthetics were provided, then are they meeting your requirements or need further improvement	<ul style="list-style-type: none"> <li>● Not Suitable</li> <li>● Are suitable however require much improvement</li> <li>● Suitable and require slight improvement</li> <li>● Completely Suitable for my use</li> </ul>
16.	Time Accorded for Rehabilitation (Please mention if still ongoing)	Individual
17.	Number of Sessions undertaken for Rehabilitation (Please mention if still ongoing)	Individual

18.	Were you satisfied with the Rehabilitation Process given to you by the service including the proficiency of Doctors and Therapists	Answers sought on a linear scale from 1 to 10 ● Not Satisfied - 1 ● Extremely Satisfied - 10
19.	Have you sought any Private Rehabilitation Services/Health Care Services for better recovery	● Yes ● No
20.	If you compare the rehabilitation process given to you in the services with that of civilian establishments, how would you rate it on a linear scale Improvement Extremely	Answers sought on a linear scale from 1 to 10 ● Not at Par with Civilian Establishments and needs much Satisfied - 1 ● At Par with Civilian Establishments - 10
21.	Relevance of First Aid during your Injury: (This question is aimed at evaluating whether the current combat casualty care practices and teachings in the service are enough or whether they require re-evaluation including modernisation of equipment and increased focus on Tactical Combat Casualty Care)	● Yes - Timely First Aid and Evacuation helped me in reducing the extent of my injury ● No - The first aid and evacuation could have been better ● Maybe - One out of the Two requirements i.e., First Aid and Evacuation was not as it should have been
22.	If given a choice, would you like to continue to serve in the Forces after the injury?	● Yes ● No ● Maybe
23.	Do you feel the environment is more sympathetic or empathetic towards War Wounded Soldiers?	Answers sought on a linear scale from 1 to 10 ● Sympathetic - 1 ● Empathetic - 10
24.	Were you faced with any kind of stress, particularly Post Traumatic Stress Disorder after your injury?	● Yes ● No ● Maybe

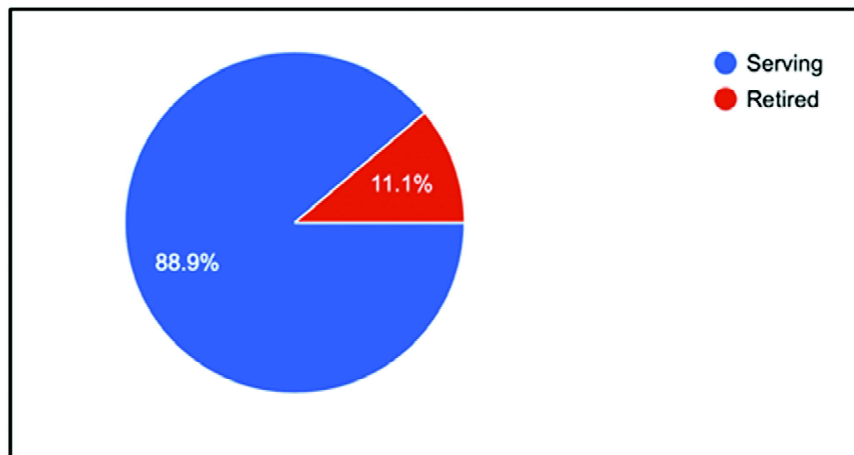
25.	If any kind of Stress was faced, can that be quantified on a linear scale	Answers sought on a linear scale from 1 to 10 <ul style="list-style-type: none"> <li>● Very Little Stress - 1</li> <li>● Extreme Stress - 10</li> </ul>
26.	Do you feel that Psychological Rehabilitation/Mental Strengthening Practices are equally important for War Wounded Soldiers to overcome any stresses they face after sustaining injuries?	<ul style="list-style-type: none"> <li>● Yes</li> <li>● No</li> <li>● Maybe</li> </ul>
27.	Do you feel that certain facilities and policies may be accorded to the families or wounded soldiers during their rehabilitation. Multiple Checkboxes are mentioned, these may be selected as per choice?	<ul style="list-style-type: none"> <li>● Travel by Air for Self and Family</li> <li>● Support by a Buddy provisioned by the Unit/Formation</li> <li>● Regular Counselling</li> <li>● Regular visits by your Unit/Formation personnel</li> <li>● Accommodation Support in the Station of Rehabilitation</li> <li>● Training/Counselling for Transitioning into regular life outside service</li> </ul>
28.	Recommendations (in detail if any) (This part of the questionnaire is particularly important as it would help me in understanding, the personal journeys and issues faced in Rehabilitation or even the good things which you may have encountered during your road to recovery. These may include any recommendations to enhance or improve the rehabilitation process)	Individual

**Appendix 'B'**

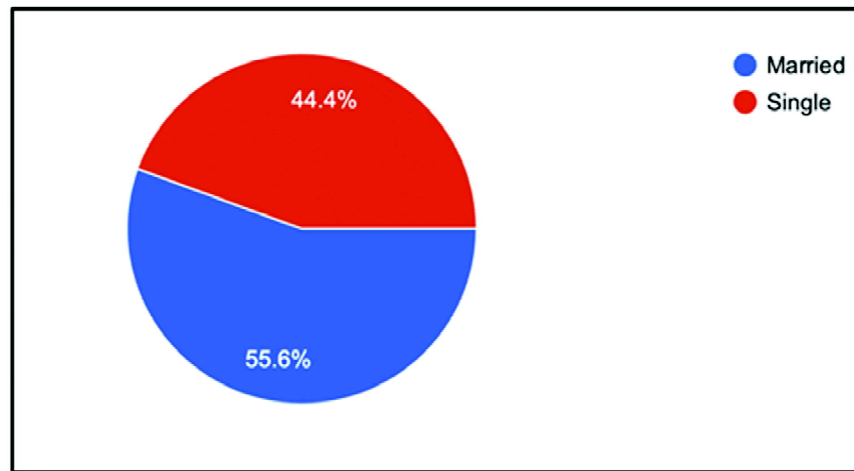
**Analysis Of Data from Questionnaire**



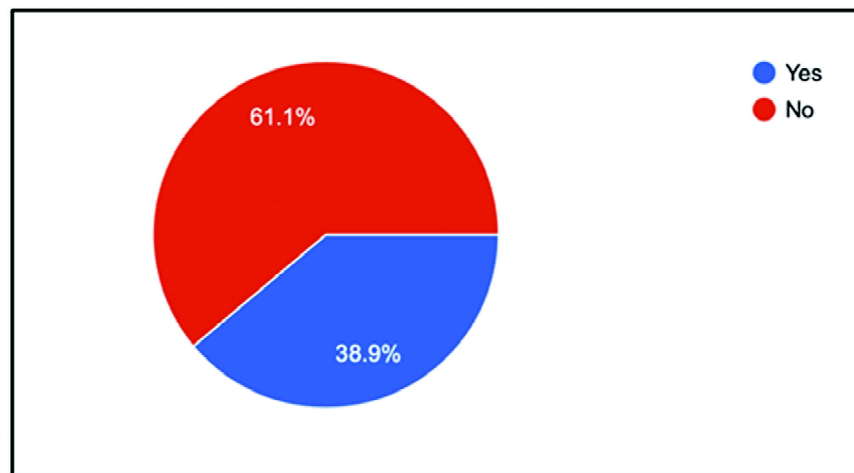
**Figure 3: Services of Respondents**



**Figure 4: Serving or Retired**



**Figure 5: Married or Single**



**Figure 6: Having Children during time of Injury**



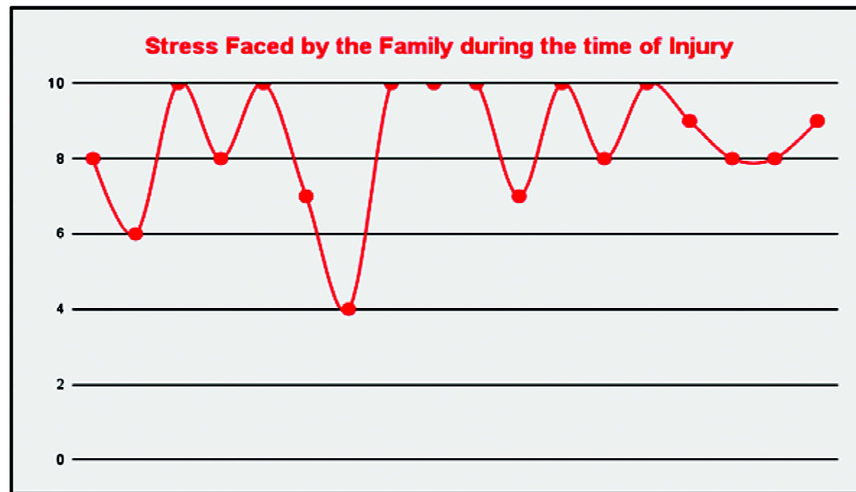


Figure 7: Stress on a Linear Scale from 1 to 10

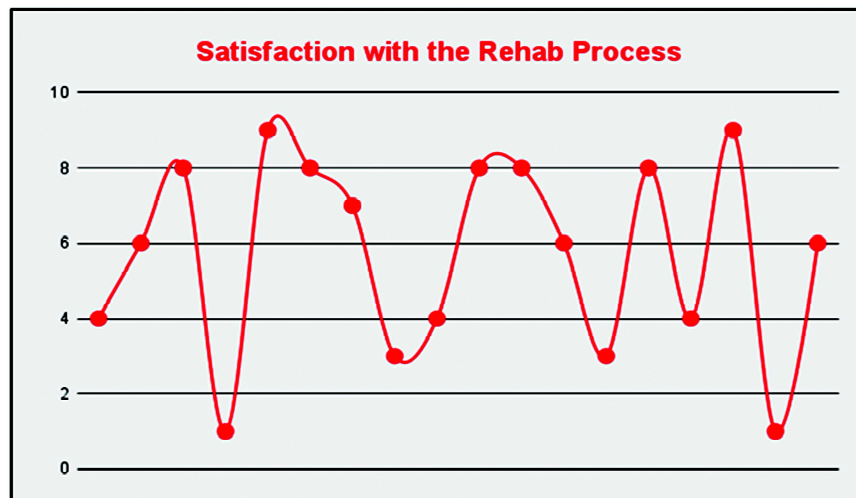
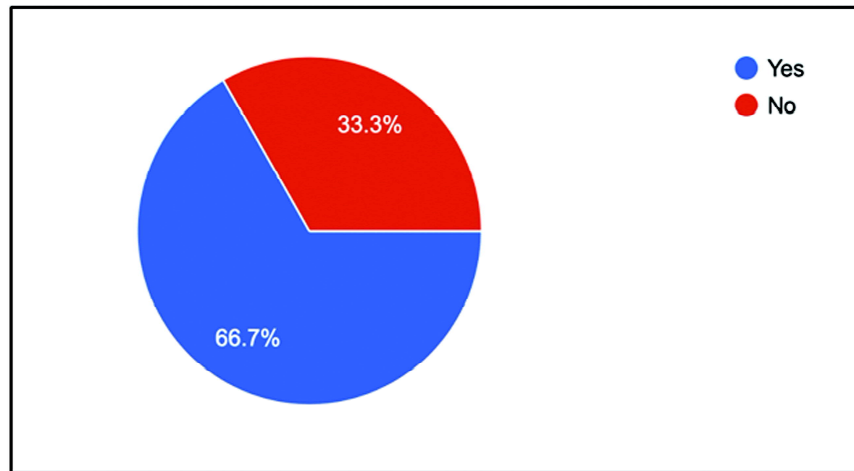
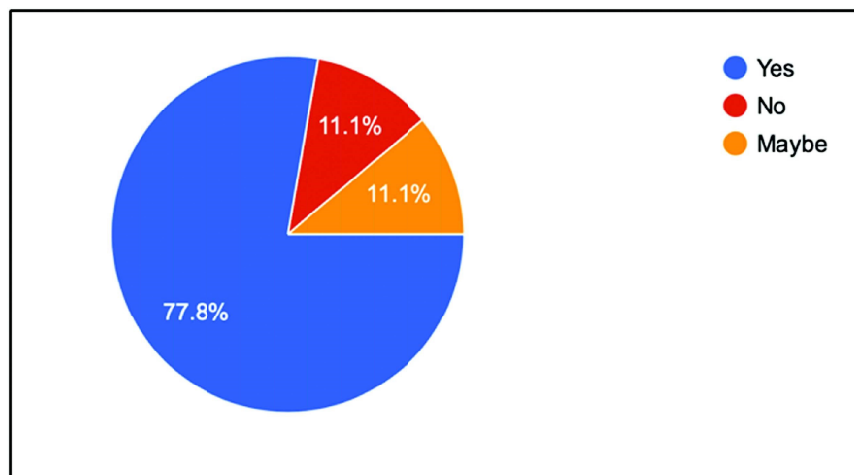


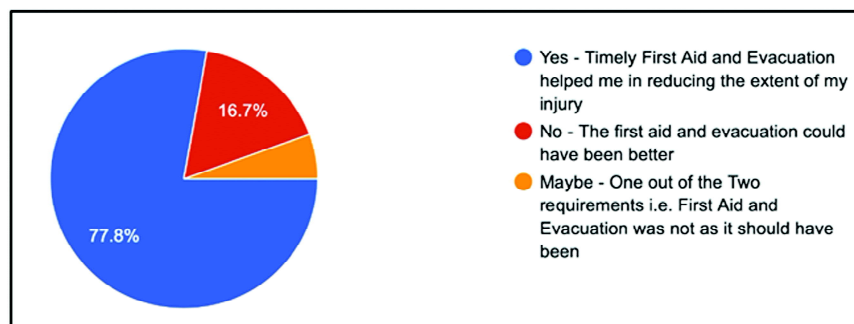
Figure 8: Satisfaction on a Linear Scale from 1 to 10



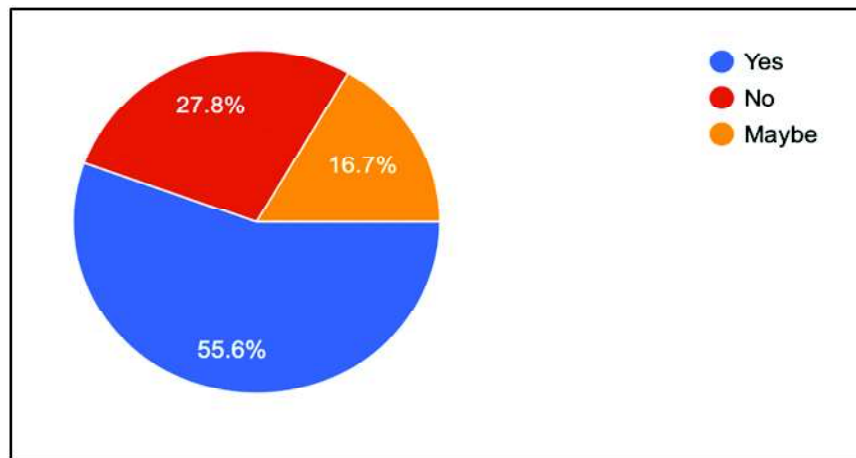
**Figure 9: Sought Private Rehab Procedures**



**Figure 10: Would you continue to Serve**



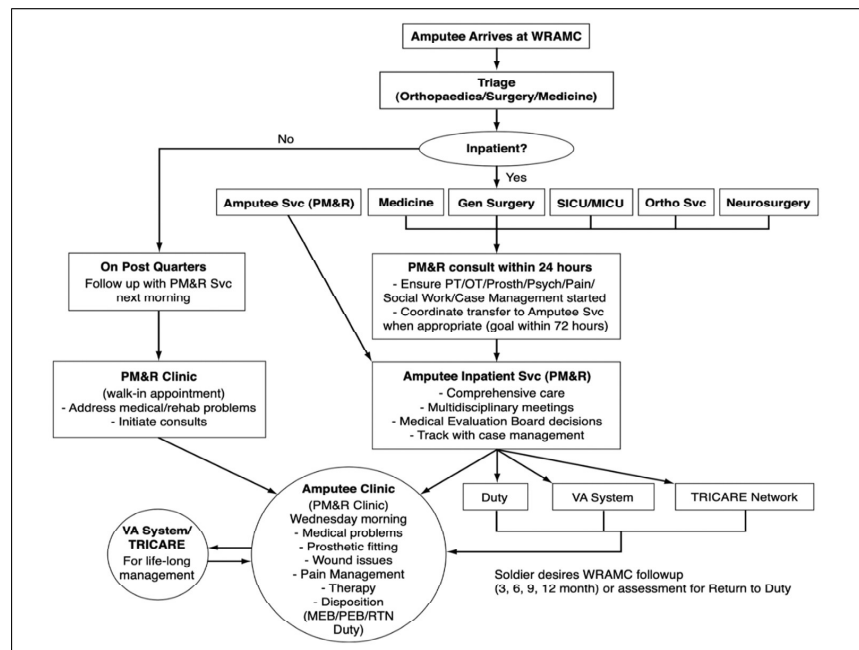
**Figure 11: Relevance of First Aid during Injury**



**Figure 12: Did you Face Stress during Recovery**

## Appendix 'C'

## US Army-Amputee Care Schematic and Flowchart



## Endnotes

<sup>1</sup> 'Duty, Honour, Country' Address by Gen Douglas MacArthur at West Point in 1962.

<sup>2</sup> Defence National Rehabilitation Centre. Available at: - dnrc.org.uk

<sup>3</sup> Army Order "AO/5/2020"

<sup>4</sup> DGAFMS Medical Memorandum No. 203 – Artificial Limbs dated 2022

<sup>5</sup> Promoting Successful Integration - Borden Institute of Medicine (US Army)

<sup>6</sup> 'Borden Institute' – US Army Institute

<sup>7</sup> 'DNRC I Repairing Our Seriously Wounded'.- United Kingdom

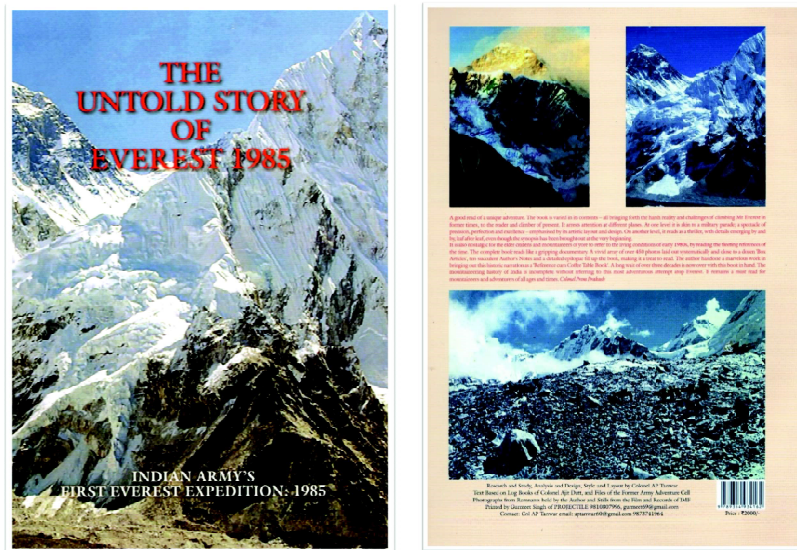
<sup>8</sup> 'Borden Institute' – Care for the Combat Amputee

**Review Articles and Book Reviews**



# The Untold Story of Everest 1985

Colonel Ashok Tanwar



## Introduction

In 1985, the Indian Army launched an ambitious expedition to climb Mount Everest during the challenging post monsoon period from two routes: The formidable Southwest Face and the South Col route. The expedition required great skill, physical fitness, endurance, team work, courage, and determination.

Originally to be led by Lieutenant Colonel Prem Chand, regarded as 'One of the best climbers of his time', the expedition faced a sudden change in leadership when Lieutenant Colonel Prem Chand fractured his arm just before the expedition was set to begin. As a result, leadership passed to Brigadier Jagjit Singh while the team was enroute to Base Camp.

This team was considered one of the strongest ever to attempt the mighty Everest. However, the expedition, failed to summit and tragically, five officers lost their lives. In the aftermath, the expedition

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**The Untold Story of Everest 1985**, by Colonel AP Tanwar, Pages 432, Price ₹ 1,117, ISBN-10 is 9354934161, and ISBN-13 is 978-9354934162, Publisher Projectile

*Journal of the United Service Institution of India*, Vol. CLIV, No. 638, October-December 2024.

underwent thorough scrutiny, with close analysis of its conduct, decision-making processes, leadership, and the personal ambitions of some of its climbers.

This book offers a first-hand account of that fateful expedition, shedding light on its events and providing invaluable lessons for future mountaineering endeavours.

### **About the Author**

Colonel Ashok Pratap Tanwar, commissioned into 4 GUARDS in 1981, is a seasoned adventurer, photographer, and author of four books, including *A Triumphal Odyssey*. As a cadet, he completed the first Mountain Adventure Course at High Altitude Warfare School and undertook a 2,000 km 'Bike Hike'. He also documented the entire 76 km stretch of the Siachen Glacier. During the Everest Expedition, he rose from a support role to lead the first summit attempt, becoming the only surviving climbing officer of the South Col team. Post-retirement, he continues to contribute to adventure literature, drawing on records by Colonel Ajit Dutt.

### **About the Book**

Climbing a mountain is not merely an exercise; it is a passionate devotion. Mount Everest, the highest peak in the world, commands respect and continues to draw mountaineers with its distinct physical, mental, and psychological challenges. It remains the ultimate challenge for humanity, with its summit reaching high above the liveable troposphere. Everest possesses its own aura, and the challenges it presents to climbers are uniquely daunting in scale and complexity.

As a climber ascends even to moderate altitudes, the air becomes thinner. At 5,500 m, there is only half the amount of oxygen available compared to sea level. While at sea level, blood is typically saturated with 98-99 per cent oxygen; at Everest's summit, this drops dramatically to only around 40 per cent. If the ascent continues steadily, increasing the climber's sleeping altitude each night, the body struggles to keep pace with the ever-decreasing oxygen supply, placing extreme physiological demands on the climber.

In May 1982, the then Army Chief, General Krishna Rao, PVSM announced that the Indian Army would launch an expedition to climb Mount Everest. Preparations commenced, including



selection trials where Indian Military Academy Gentleman Cadets (GCs) undertook climbs of Trishul and Kamet as part of their training. During the Kamet expedition, one of the members, GC Prem Prakash received the news that he had been commissioned into 2 MAHAR, marking a memorable moment in his journey.

The expedition, approved by General Arunkumar Shridhar Vaidya, PVSM, MVC\*\*, AVSM, appointed Lieutenant Colonel Prem Chand as the team leader. In Aug 1984, the team was assigned the challenging South Col and South West Face routes. Following rigorous training and thorough preparation of essential equipment, the expedition departed from Delhi on 04 Aug 1985, beginning the approach march on 11 Aug from Jiri, a roadhead 180 kms from Kathmandu. The advance party had already begun their trek to the Base Camp two days prior. The first major obstacle arose when heavy rains washed away the bridge across the Dudh Koshi River at Numtala. The team responded by constructing an improvised ropeway to transport personnel and supplies across the river and building a log bridge near Namche.

The team established Base Camp on 26 Aug and began navigating the challenging Khumbu Icefall, setting up Camp I at an altitude of 20,000 feet on 07 Oct. The following day, they progressed towards Camp II through a crevasse-filled area, using ladders and ropes; Camp II also served as the Advanced Base Camp for both climbing routes. Camp III was established on the Lhotse Face by 14 Sep and was occupied by 20 Sep, at an altitude of 24,000 feet, after weather-related delays. The team then pursued two routes: the South Col and the more demanding South West Face, establishing Camps III and IV by 30 Sep at 23,000 and 23,700 feet, respectively. On the South Col route, after successfully navigating the Yellow Band and Geneva Spur, the first summit party left Base Camp on 27 Sep, reached the South Col on 02 Oct, and pushed the route to Camp IV at 25,500 feet by 05 Oct. However, the team was ultimately forced to abandon this summit attempt due to adverse weather conditions.

Following this, a second attempt was made by a team of eight climbers, including a Sherpa, led by Major KI Kumar. They reached the South Col and set off for the summit at 0600 hrs on 07 Oct, despite poor weather conditions. Battling through white-out conditions and knee-deep snow, they managed to reach within 'Handshaking Distance' of the South Summit by 1400 hrs but

were forced to abandon the attempt. A second team, led by Major Jai Bahuguna, followed them. Tragically, on the descent, Major KI Kumar slipped and suffered a fatal fall, plummeting 4,000 feet from the South Col and landing near Camp II.

As the weather deteriorated, the expedition leader instructed all teams to return to the Advanced Base Camp. The following morning, confirmation came that Major Jai Bahuguna's team was descending, having been advised that adverse weather conditions were expected to persist for several days. However, only ten climbers made it back to Camp II.

As the remaining climbers descended, they found Lieutenant Ramneet Bakshi in a deteriorated state, suffering from snow blindness and exhaustion. Opting to stay with him at the South Col, they informed Base Camp that they would attempt the descent the following day. However, severe weather, including winds reaching up to 100 kmph, made any movement impossible. While two members managed to descend on 09 Oct with great difficulty, Major Bahuguna, Lieutenant MUB Rao, Captain VPS Negi, and Lieutenant Bakshi returned to Camp IV at the South Col, unable to locate the ropes on the Lhotse face due to the blinding conditions. The next day, a rescue team attempted to reach them but was unable to get past Camp III. On 11 Oct, after a gruelling ten-hour effort, a second rescue team finally reached Camp IV, only to find that Lieutenant Bakshi and Captain Negi had already succumbed to the elements. Shortly after, Major Bahuguna passed away in the rescuers' presence. Lieutenant Rao, barely conscious, was carried by Havildar Gurung, who tragically slipped and fell 100 feet while attempting the descent. Miraculously, Gurung survived, but Lieutenant Rao sadly did not.

The climbers tackling the Southwest Face were instructed to return to Camp II due to deteriorating weather conditions. However, before withdrawing, they had made commendable progress, successfully opening a route up to just short of Camp VI.

At this critical juncture, Major General (later Lieutenant General) SK Pillai, PVSM, the Additional Director General of Military Training, flew into Base Camp with Lieutenant Colonel Prem Chand, who was reinstated as the team leader and he addressed the team members. Brigadier Jagjit Singh flew back in the same helicopter.

In the resilient 'Never say die' spirit of the Indian Army, the team resumed its attempt to scale the mountain on both routes, despite unprecedented snowfall that had damaged the pathways, requiring extensive re-fixing. By 27 Oct, they made a fifth attempt, only to be thwarted once again by near-cyclonic winds. The final push came on 28 Oct, but during the ascent, Lance Naik Anchuk was lifted by fierce winds and blown off the mountain. Naib Subedar Magan Bissa, who was roped to him, tried valiantly to arrest the fall but ended up tumbling 700 feet before coming to rest on a flat patch above South Col. Miraculously, they both survived. After six determined but unsuccessful attempts, the team, having tragically lost five officers, finally had to abandon their mission to summit Everest.

Incidentally, Major Jai Bahuguna's elder brother, the late Major Harsh Bahuguna, had also lost his life while attempting to climb Mount Everest in Apr 1971. Similarly, Major KI Kumar was the younger brother of the legendary Colonel 'Bull' Kumar, adding a poignant legacy of mountaineering dedication within their families.

The book is a treasure trove of anecdotes and insights. One notable account involves the team leader writing directly to General Vaidya before the expedition, expressing frustrations over bureaucratic obstacles. In response, General Vaidya summoned him to his office, stating, "Prem, it is not you who has failed. It is I, as your Chief, who has failed to provide you with the necessary support. Give me one month, and if the required support is still not in place, I will call off the expedition".

In the book, Colonel Tanwar states that while the team was enroute to Namche Bazar, Army Headquarters appointed 55-year-old Brigadier Jagjit Singh as the new team leader instead of promoting Lieutenant Colonel Pushkar Chand, the deputy leader. Though Brigadier Jagjit Singh was a seasoned mountaineer, he was considerably older than the rest of the team members. Upon assuming leadership, he promptly reviewed the climbing plan and recommended cancelling the attempt via the challenging Southwest Face, a proposal that Army Headquarters ultimately rejected. Additionally, he made several changes to the team's appointments.

The book also highlights issues such as interference from the Military Training Directorate and the problematic supply of non-standard box tents, which further compounded the challenges faced by the expedition.

## Conclusion

The book is an exceptional account of a unique adventure, capturing the multifaceted challenges of summiting Sagarmatha. Well-organised and enriched with remarkable photographs, it stands out as a testament to perseverance in the face of immense odds. It vividly illustrates how the overwhelming and unforgiving forces of nature ultimately thwarted the mission, making it a compelling read for those intrigued by tales of resilience and adventure.

What also stands out, is the profound camaraderie and unwavering bonds among the mountaineers. A poignant example is when Lieutenant Ranmeet Singh Bakshi, suffering from snow blindness amidst deteriorating weather, was steadfastly supported by his fellow climbers, who chose not to abandon him—even at the cost of their own lives. The book also highlights the courageous rescue attempts undertaken in perilous weather, including the determined efforts to retrieve the body of Major KI Kumar, showcasing the deep commitment and loyalty that defines the spirit of mountaineering.

The author has rendered an invaluable service by documenting the events of this expedition, vividly portraying the conditions of the mid-1980s that magnified the challenges and captured the very essence of the endeavour. The expedition, while ultimately labelled a 'Failure', provided foundational lessons and became a crucial stepping stone for subsequent successful ascents. The book is lucidly written, well laid out, and offers readers a compelling narrative rich with insights.

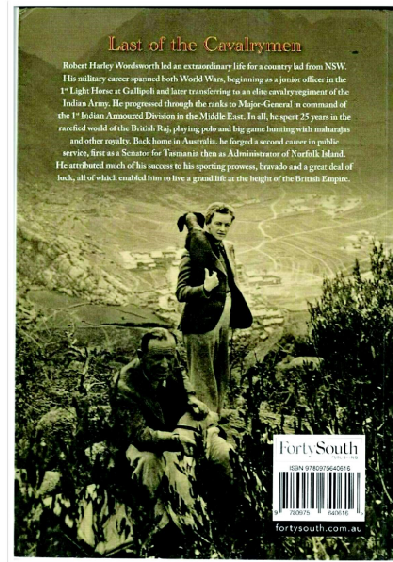
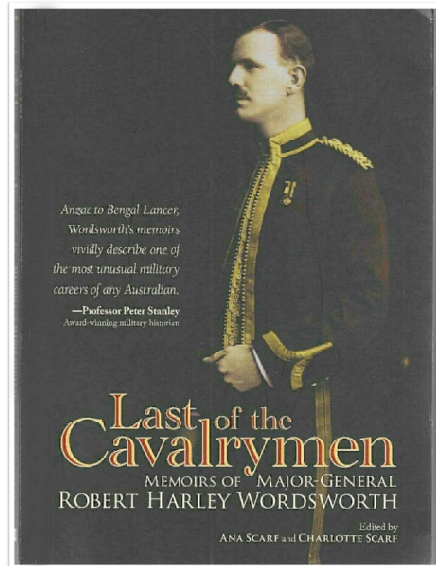
According to Colonel Narinder Bull Kumar, "All mountaineers need to read this book and ensure they do not repeat the mistakes of this expedition". However, this is not just a book for mountaineers; it is essential reading for anyone with a passion for adventure and for those who serve in uniform.

Colonel Tanwar's work serves as a valuable resource, shedding light on a significant chapter in India's mountaineering history. The book delves into the meticulous planning, rigorous training, and the physical and psychological endurance required for such a formidable endeavour.

*Major General Jagatbir Singh, VSM (Retd)*

## Last of the Cavalrymen

Ana Scarf and Charlotte Scarf



### Introduction

This book provides a first-hand account of the remarkable life of Robert Harley Wordsworth from New South Wales, Australia, who achieved military success in World War I with the Australian Army and later served with the British Indian Army, ultimately rising to the rank of Major General.

Post retirement, he returned to Australia, settling on his farm in Tasmania, where he embarked on another successful career in politics, serving as a Senator from Tasmania and later as the Administrator of Norfolk Island.

### About the Editors

Encouraged by family and friends, Robert Harley Wordsworth, affectionately known as 'Wordy', gifted his daughter Ana Scarf and son David Wordsworth hours of recorded memories between

**Last of the Cavalrymen: Memoirs of Major-General Robert Harley Wordsworth** edited by Ana Scarf and Charlotte Scarf, Pages 273, Price AUD 49.95, ISBN 9780975640616, Publisher Forty South Publishing.

*Journal of the United Service Institution of India*, Vol. CLIV, No. 638, October-December 2024.

1979 and 1983. Ana and her daughter Charlotte took on the challenge of sharing his extraordinary story. This book is a compilation of those recordings, carefully organised, edited, and enriched with photographs, explanatory footnotes, and inputs from David and Ana's husband, Chris.

### **About the Book**

The book is divided into three parts: the first covers Wordsworth's early years in Australia, his enlistment in the Australian 1<sup>st</sup> Light Horse Regiment, and his participation in the Battle of Gallipoli. It also details his role in the Sinai and Palestine Campaign, where he was 'Mentioned in dispatches' for his 'Conspicuous Bravery' in the Battle of Gaza.

The second and longest section of the book covers Wordsworth's transfer in 1917 to the 16<sup>th</sup> Bengal Lancers, his service on the North-West Frontier during the inter-war years, and his command of the regiment during its transition from horses to mechanisation. Rapidly promoted during World War II, he advanced from Brigade to Divisional Commander, serving in the Middle East, Iran, and later as Major General of the Armoured Corps at General Headquarters in Delhi. He resigned from the Army in 1946, feeling a need for financial stability to support his family. The third part covers his second career as a farmer, Senator, and Administrator of Norfolk Island, where he engaged closely with the local community, working actively to uplift the island.

After graduating from school in Australia in late 1912, he began his compulsory military training with the 41<sup>st</sup> Infantry, a militia unit. Shortly after, he was invited to raise a troop for the 9<sup>th</sup> Light Horse Regiment, where he received his commission. In 1914, he joined the Great War, reflecting that "There was no thought of how we would have to fight and the hardships and terrible slaughter we would have to endure". He expressed "Utter amazement that anyone could take on the great British Empire".

In Gallipoli, he quickly became aware of the harsh realities of warfare, describing it as 'A disastrous campaign'. They were ordered to "Take nothing ashore except what they could carry", leaving him with just a toothbrush he could not use due to lack of water and clothes he could not change for six months—only turning them inside out after knocking off the lice. Life in the trenches was

'Very Fatiguing', and rank offered no protection; he vividly recalls Major General Bridges, the Australian Divisional Commander, being killed by a sniper.

He recalls the Allied August Offensive which was launched with two new British Battalions who were 'Badly Trained' who never pushed ahead and were busy cooking breakfast on the beach while the General commanding the Corps was in still in bed in his cabin on warship anchored near the harbour. He was amazed how well the Australians fought.

He then fought in the battles of Romani, Magdhaba, Rafa, and Gaza, where his unit even captured a Turkish General, only to be ordered to retreat just as the enemy began to surrender. Shortly afterward, General Allenby took over command from General Murray.

He transferred to the Indian Army after facing unreasonable orders from General Allenby regarding the spit-and-polish standards of his troops during wartime, especially given that no cleaning materials were provided. During the inspection, he was 'Chewed up and spat out in no uncertain manner', which ultimately prompted his decision.

He recalls that the 'Army was the highest form of social life in India' and 'Very hard to get into', noting that if he had not joined during the war, he would 'Never have been accepted' as he might not have been able to 'Keep up the standard'. His success, he says, was largely due to his skills as a horseman and polo player, with 'Buying, selling, and training polo ponies' providing him with a modest private income.

He describes his retinue of staff and their caste system, stating that "It was one man, one job, and no man could do a different job from the one he was brought up in". The book covers regimental life in detail, explaining how it varied with the seasons and the type of station where they were posted. There were three types of stations: ones for Internal Security, others to safeguard the frontier, and a third from where units could be moved overseas for 'Imperial Defence'.

Their Regimental mess had a highly polished antique table, which was adorned with fine silver. Following their time in China, where they had been given 'Permission to loot', they acquired

gold curtains, Ming vases, and pure gold temple bells—one of which was sold for GBP 1,00,000 in the 1920s, with proceeds used to buy a farm, among other purchases. In 1922, the regiment was re-designated as 6 DCO Lancers and remains part of the Pakistani Army today. Wordsworth commanded the regiment in Delhi, describing the role of a commanding officer as being the *Mai Baap* (guardian), and with his wife, Margaret, by his side, they shouldered these responsibilities with distinction.

However, they were 'Unprepared for modern war; in 1939', as parliament had never 'Taken the necessary steps to modernise'. At the time, the 21 Cavalry Regiments did not have a single tank. It took considerable time to determine the future of the Cavalry, eventually deciding to convert them into Armoured Regiments equipped with tanks and armoured cars. Instead, they were initially provided with off-road buses, and horsemen had to learn to drive these. British officers were reluctant to give up polo and focus on teaching their men driving and maintenance skills. The transition from horses to tanks is thoroughly explored, with the reluctance to embrace change clearly highlighted. Ultimately, it was the remarkable fighting qualities of the Indian soldier that prevailed.

He left his regiment in 1940 and, over the next six years, commanded an Armoured Brigade, initially stationed in Risalpur, which then moved to Malir near Karachi, where each regiment was issued with only one tank instead of the authorised 45. In Jun 1941, he took command of an Armoured Division, leading it into Iran, where they 'Soon became the best division in tank warfare'. He notes that "Hitler missed one of the greatest opportunities of the war" by focusing on Stalingrad instead of the oilfields of Persia and Iraq.

His command took him to Turkey, Italy, and Cairo, and he even served as Army Commander for four months, remarking that, in the Army, "The higher up you go, the more lonely one becomes".

### **Conclusion**

In reading the book, several impressions emerge. Firstly, there is a sense of disappointment regarding Wordsworth's role in the two World Wars. There is also a feeling that, as an Australian without a private income, not from Sandhurst, and without Staff College



credentials or 'An old school tie', he lacked certain traditional advantages. However, he compensated for these with his exceptional skills as a horseman and polo player.

A Regimental soldier, he spent most of his service with 16 Bengal Lancers, later re-designated as 6<sup>th</sup> Duke of Connaught's Own Lancers, which remains part of the Pakistani Army today. At Independence, the Regiment's Jat Squadron was transferred to 7 Cavalry and the Sikh Squadron to 8 Cavalry. The likely reason for the Regiment going to Pakistan was its assets being located there.

The other was his belief in the 'Right and might' of the British Empire, offering an insight into the life of the raj the *shikar* (hunt), polo, fishing trips, social life and servants as a result he never had to 'Tie his shoelaces'.

He provides insight into the Non-Cooperation Movement following the Rowlatt Act and the Jallianwala Bagh incident, stating that General Dyer 'Saved India from another mutiny' and viewing him as 'A hero and saviour of the Raj'. Wordsworth reflects on how the British ultimately turned against Punjab, the region that had provided the most manpower in World War I and helped shift the tide of the war. Yet, even years later, some still believe Dyer was justified, and, notably, a fund for him at the time raised GBP 1,00,000.

The book provides valuable insight into Army life, its diverse roles, and the transformation it underwent between the two World Wars. However, at its core, it reveals the insular world of British colonial rule, where figures like Wordsworth lived 'A rich man's life on a poor man's income' without ever bridging the gap with the Indian soldiers who served alongside them. The only Indian mentioned is his orderly, Jalal Khan, to whom he wrote annually until 1970, underscoring the bubble, he inhabited and what he deemed significant, unlikely so many others who maintained deep ties with the Indian Army they served in. For those interested in military history and colonial India, 'Last of the Cavalrymen' provides a compelling and informative read. The prose is engaging yet meticulous, appealing to both military history enthusiasts and casual readers interested in the nuanced journey of military transformation.

*Major General Jagatbir Singh, VSM (Retd)*

**Aatma Nirbhar and Viksit Bharat @ 2047 Forging Ahead in Amrit Kaal** by Brigadier (Dr) Rajeev Bhutani, Pages 377; Price 1,495; ISBN 978-93-340-3052-5; Published

### **Introduction and Theme**

Through the writings of Brigadier (Dr) Rajeev Bhutani, edited by Professor Ashwani Mahajan, the concept of *Aatma Nirbharta* or self-reliance takes centre stage. Prime Minister Narendra Modi's call for *Aatma Nirbhar Bharat* or Self-Reliant India in 2020 set the groundwork for an even greater mission: *Viksit Bharat* by 2047 (Developed India by 2047), marking a century of Indian independence. India's journey toward becoming a developed nation by 2047 is anchored in self-reliance—a premise that runs throughout the book, culminating in each of its parts and sections. The foundation for *Aatma Nirbhar Bharat* was laid during the COVID-19 pandemic when India developed its own vaccine and supported other nations with their vaccination needs. Initially used for India's own population, the vaccine was subsequently extended to friendly nations. The book is divided into two distinct parts, with 11 chapters.

### **Foundations of Self-Reliant India**

The first part of the book, serving as its foundation, focuses on India's challenges and opportunities, covering aspects from its historical background to the developmental hurdles and prospects it faces. This section presents a thorough descriptive research work. The author has both suggested and complemented various government initiatives with innovative ideas. Additionally, the author proposes supplementary solutions to government initiatives, aiming to achieve the vision of *Aatma Nirbhar Bharat* alongside *Viksit Bharat*.

This book initially addresses India's historical trajectory in political economy. Between the first and 17<sup>th</sup> century AD, India is estimated to have held the largest economy in the ancient and medieval world, controlling between one-third to one-fourth of global wealth. The five-year planning initiative was introduced in 1951, with the Planning Commission overseeing its implementation until 2017, when it was replaced by NITI Aayog, which introduced the first three-year action plan in 2017. Following this, the introduction of Goods and Services Tax marked a major tax reform, providing

'One country, one market, one tax' and replacing multiple direct taxes. This facilitated the seamless interstate movement of goods across India.

The emerging international environment was the next topic of discussion. The author opines that a bipolar Cold War-like world is unlikely to re-emerge, and that the world may be heading towards multipolarity, where nations will join or leave alliances based on their national interests, with strong leaders playing a decisive role in shaping the global order.

The author defines the way forward as assimilating technology and innovating upon it to produce advanced indigenous versions. At the apex level, a new organisation, proposed as the National Innovation Foundation 2047, is needed with the aim of making India a technological superpower by 2047. Complete national funds for all types of research and development, representing a fixed percentage of gross domestic product, should be allocated to this organisation, with any unspent amounts carried forward into the next financial year.

I commend the author's thorough and dedicated approach; the first part of the book provides a well-researched historical overview, effectively establishing context in a way that is both engaging and concise, offering a refreshing perspective on India's journey.

### **Pathways to Self-Reliance**

The second part addresses India's pursuit of self-reliance and development in line with the PM's vision for *Aatma Nirbhar* and *Viksit Bharat*. This section explores the attainment of economic power through sectoral growth, military strength via reforms and improved funding, and informational power by recognising information as a critical national asset. It highlights India's diplomatic role, its advancements in science and technology at a rapid pace, and ultimately, the country's emergence as a global Soft Power.

In his first tenure, Prime Minister Narendra Modi set forth the vision of a New India, with the National Democratic Alliance government launching a range of policy initiatives and schemes to realise this goal. In his second tenure, the NaMo mission emphasised building a self-reliant India, or *Aatma Nirbhar Bharat*. While these initiatives are commendable, their success ultimately

hinges on effective implementation and achieving the intended outcomes. The author underscores that India's solutions should be rooted in harnessing indigenous resources, emphasising that the shift from *nirbharta* to *aatma nirbharta* (reliance to self-reliance) is essential for sustainable development.

### **Historical Perspectives and Narration Style**

Brigadier Bhutani has skilfully crafted this book as an anthology, with one of its strengths being the clear and concise presentation of Indian history from 3300 BC to modern times—a feature I found thoroughly engaging. The book opens a stimulating conversation, encouraging further questions and reflections that could add depth to its thought-provoking content.

The author's extensive military background and academic pursuits lend depth to his analysis, providing readers with a nuanced understanding of the strategic imperatives driving India's development agenda.

### **Conclusion and Recommendation**

I can confidently recommend this book to people who are looking to read a concise if not one-sided account of India's path of glory and its forging. Additionally, the book serves as a valuable resource for policymakers, scholars, and those seeking to understand the dynamics of *Aatma Nirbhar* and *Viksit Bharat*.

*Colonel Ravinder Kumar Sharma (Retd)*

**Military Operations: Legal Framework for Multi-Domain Warfare** by UC Jha, Kishore Kumar Khera, (New Delhi: Vij Books) 2024, Pages 444, Price Hardcover ₹ 1420 and Paperback ₹ 1250, ISBN: 9788119438099.

"Modern armed conflicts often involve highly advanced and devastation weaponry. International Humanitarian Law aims to limit the suffering and destruction that such weapons can inflict. They set boundaries on the types of weapons that can be used and the methods of warfare that are permissible. The principle of proportionality and distinction require military commanders to weigh the potential harm to civilians and civilian objects against the military advantage gained from an attack. This careful consideration can help prevent excessive harm destruction".

The above passage from the book, succinctly encapsulates its core message and the purpose that propelled the authors to come up with their work. It emphasises how international humanitarian law (IHL) seeks to mitigate the human cost of advanced and devastating weaponry used in modern conflicts. The authors underscore the principles of proportionality and distinction, which mandate military commanders to weigh the potential harm to civilians and civilian infrastructure against the anticipated military advantage of an operation. This balancing act, they argue, is crucial in preventing unnecessary suffering and destruction—a theme that resonates throughout the book.

Modern warfare has undergone profound transformations with the integration of advanced technologies, complex battlefields, and diverse domains of conflict. 'Military Operations: Legal Framework for Multi-Domain Warfare' by UC Jha and Kishore Kumar Khara is a timely and comprehensive exploration of the legal dimensions surrounding these transformations. It is an invaluable contribution to the relatively niche but increasingly significant field of military operational law.

The authors adopt a methodical approach to demystify intrinsic terminologies; legal frameworks relevant to diverse military operations and the necessary protections warranted within these contexts. They provide readers with clear explanations of applicable legal regimes, emphasising protections warranted for civilians and combatants under international law. The focus is primarily on explaining intrinsic terminology, applicable legal regimes, and the necessary protections warranted within these contexts. Discussions on command responsibilities and operational issues enrich the text, offering a pragmatic perspective on the execution of laws in active military scenarios.

The inclusion of environmental considerations is particularly noteworthy. Modern warfare increasingly intersects with environmental concerns, and the authors address how military operations can adhere to legal obligations to minimise ecological damage. This dimension adds depth to the book's coverage and aligns it with contemporary global concerns.

One of the book's standout qualities is its ability to present complex legal concepts in a lucid and engaging manner. The smoothly flowing text traces the relevant contours of its subject

matter in an accessible and illustrative manner. The explanatory approach, using straightforward language to highlight relevance, is likely to engage and retain the readers' interest. This is especially commendable given the technical nature of military law and the intricate legal principles governing modern warfare. Whether for a seasoned military professional, a diplomat, or a student of international relations, the book's relevance and clarity are likely to resonate strongly.

The book's title itself captures the essence of the book, underscoring the necessity of clear articulation of legal principles for military personnel and stakeholders involved in national security. As such, the book serves not just as a legal primer but also as a guide for ethical and strategic decision-making in multifaceted conflicts.

This work fills a critical gap in the literature on military operational law, offering insights across diverse combat platforms and operational machinery. Its broad scope ensures it will be of keen interest not only to military formations and units but also to the diplomatic community and academic institutions specialising in international law and relations. With its balance of theoretical analysis and practical insights, the book is a valuable resource for anyone involved in the complex interplay of law, policy, and warfare.

In conclusion, 'Military Operations: Legal Framework for Multi-Domain Warfare' is an authoritative and indispensable guide to understanding the legal intricacies of modern military operations. Jha and Khera have crafted a work that is not only timely but also essential, providing clarity and direction in an increasingly complex and interconnected world of conflict. This book is highly recommended for professionals and scholars alike who seek to comprehend the evolving dynamics of law and warfare.

*Major General Nilendra Kumar, AVSM, VSM (Retd)*

## RESULTS OF ESSAY COMPETITIONS 2024

### USI GOLD MEDAL ESSAY COMPETITION

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<b>First</b>	36727-R Flt Lt Vatsalya Yadav D Ops (IEW) Air HQ (VB) Rafi Marg New Delhi-110 106	Gold Medal, Cash Award of Rs. 15,000/- and entry accepted for publication.
<b>Second</b>	IC 64349Y Col Vikram Tiwari Army War College Mhow- 453 442	Cash Award of Rs. 10,000/- and entry accepted for publication.

### LIEUTENANT GENERAL SL MENEZES MEMORIAL ESSAY COMPETITION

**Subject: Meghna Heli Bridging Ops 1971 War: Appraisal and  
Lessons**

<b>First</b>	IC-64109F Col Vikas Yadav Col QHQ 57 Mtn Div C/o 99 APO, Pin- 908457	Cash Award of Rs. 10,000/- Certificate and entry accepted for publication
<b>Second</b>	Lt Col Ravindra Singh Bangari (Retd) B-2, Chandana Apartments 82 Infantry Road Bengaluru Pin- 560001	Certificate

**USI- WAR WOUNDED FOUNDATION JOINT ESSAY  
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<b>Second</b>	04545-B Cmde Varghese Mathew P-8/3, 12 Acres Complex, Ullan Batar Road, Metro Pillar- 242, Delhi Cantt, New Delhi- 110010	Cash Award of Rs. 10,000/- and Certificate



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CMHCS-8/ 2024	Book	Valour and Honour: Indian Army through the Ages edited by Maj Gen Ian Cardozo, AVSM, SM (Retd) and Maj Gen Jagatbir Singh, VSM (Retd) <b>M/s Pentagon Press</b>	1495	2024
CMHCS-7/ 2024	Book	Alha Udai Ballad Rendition of Western Uttar Pradesh: A War Rendition of India by Author and Translator Dr Amit Pathak <b>Manohar Publishers &amp; Distributors</b>	1695	2024
CMHCS-13/ 2024	Book	The Diplomatic Dimensions of Military History edited by Mr Anubhav Roy <b>M/s KW Publishers Pvt Ltd</b>	1280	2024
CMHCS-10/ 2024	Book	Udbhav: India's Military Heritage-Evolution of Indian Military Systems, War Fighting, and Strategic Thought, from Antiquity to Independence. Catalogue compiled by Indian Institute of Heritage (IIH), under the guidance of Sqn Ldr Rana TS Chhina, MBE (Retd) (Exhibition Catalogue) <b>M/s KW Publishers Pvt Ltd</b>	-	2024
CMHCS-11/ 2024	Book	Udbhav A Compendium of Activities and Events 2023-24 by CMHCS and The Indian Army	-	2024
CS3/R-117/ 2024	Book	The Victoria Cross Icon: Vision and Legacy by Maj Gen Shashikant G Pitre (Retd) <b>M/s Vij Books of India Pvt Ltd</b>	1,550	2024
CMHCS-9/ 2024	Book	India's Historic Battles Series – Imphal Kohima 1944 by Mr Hemant Singh Katoch <b>HarperCollins India</b>	399	2024
CMHCS-12/ 2024	Book	We Too Were There: Indians at Gallipoli by Col Tejinder Hundal, VSM, PhD <b>M/s Manohar Publishers &amp; Distributors</b>	3,195	2024
Adm-Mil Ops/2024	Book	Military Operations: Legal Framework for Multi-Domain Warfare by Gp Capt Kishore Kumar Khara, VM (Retd) and Wg Cdr (Dr) UC Jha (Retd) <b>M/s Vij Books of India Pvt Ltd</b>	1,750	2024
Adm-7 UNPO/2024	Book	India and the UN Peace Operations: In Service of Humanity and Global Peace by Colonel (Dr) Kulwant Kumar Sharma (Retd) <b>M/s KW Publishers Pvt Ltd</b>	1,880	2023
Adm-SYB/2023*	Year Book	Strategic Year Book 2023 Editor-in-Chief: Maj Gen BK Sharma, AVSM, SM** (Retd), and edited by Lt Gen GS Katoch, PVSM, AVSM, VSM (Retd), Gp Capt Sharad Tewari, VM (Retd), and Dr Jyoti Yadav <b>M/s Vij Books of India Pvt Ltd</b>	2250	2023
M-1/ 2023*	Monograph	India Tibet Relations 1947-1962 by Mr Claude Arpi <b>M/s Vij Books of India Pvt Ltd</b>	395	2023
OP-9/2023*	Occasional Paper	Fourth General KV Krishna Rao Memorial Lecture Theaterisation in Light of the Malayan Campaign and The Fall of Singapore in World War II, held at Manekshaw Centre on 29 Dec 2022 by Gen MM Naravane, PVSM, AVSM, SM, VSM (Retd) <b>M/s Vij Books of India Pvt Ltd</b>	350	2023
OP-8/2023*	Occasional Paper	First Lt Gen PS Bhagat Memorial Lecture Legacy of Lt Gen Prem Bhagat – A Visionary and Strategic Leader, held at Manekshaw Centre on 14 June 2023 compiled by Ms Tanya Jain <b>M/s Vij Books of India Pvt Ltd</b>	350	2023
OP-7/2023*	Occasional Paper	Analysing the Indus Waters Treaty 1960: Beyond the Hype, Hoopla and The Hyperbole by Col Anurag Jyoti and Prof (Dr) Raj Kamal Kapur <b>M/s Vij Books of India Pvt Ltd</b>	250	2023
OP-6/2023*	Occasional Paper	ORBAT and Decorations for The Azad Hind Fauj by Mr Neelotpal Mishra <b>M/s Vij Books of India Pvt Ltd</b>	350	2023
OP-5/2023*	Occasional Paper	A Joint Concept of Operations by Air Mshl (Dr) Diptendu Choudhury, PVSM, AVSM, VM, VSM (Retd) <b>M/s Vij Books of India Pvt Ltd</b>	250	2023
OP-4/ 2023*	Occasional Paper	Empowering Commanders for Tomorrow by Brig Pawan Bhardwaj <b>M/s Vij Books of India Pvt Ltd</b>	250	2023
OP-3/2023*	Occasional Paper	Changing Operational Scenario and Evolving Rules of Engagement by Wg Cdr (Dr) UC Jha (Retd) and Gp Capt Kishore Kumar Khara (Retd) <b>M/s Vij Books of India Pvt Ltd</b>	250	2023
OP-2/2023*	Occasional Paper	The Great Helmsman and the Generalissimo: A Personal Feud That Endures by Col Sanjay Kannothe, VSM <b>M/s Vij Books of India Pvt Ltd</b>	250	2023
OP-1/2023*	Occasional Paper	The Ukrainian Conflict: Heavy Metal still Rocks the Charts by Maj Gen Jagatbir Singh, VSM (Retd) and Maj Gen VK Singh, VSM (Retd) <b>M/s Vij Books of India Pvt Ltd</b>	250	2023
CS3/R-116/ 2023	Book	Comprehensive Development of the Northeast – Window to India's Act East Policy by Mr Jitesh Khosla, IAS (Retd) <b>M/s Vij Books of India Pvt Ltd</b>	1,250	2023
R-115/ 2023*	Book	Grey Zone Warfare: Way Ahead for India by Lt Gen Dushyant Singh, PVSM, AVSM (Retd) <b>M/s Vij Books of India Pvt Ltd</b>	1,450	2023

# USI

(Estd. 1870)

## OUR ACTIVITIES

### Centre for Military History and Conflict Studies (CMHCS)

The CMHCS was established in Dec 2000 at the behest of the three Service Headquarters for encouraging an objective study of all facets of Indian military history with a special emphasis on the history of the Indian Armed Forces. It focuses on diverse aspects of the history of Indian military evolution, policies, and practices—strategic, tactical, logistical, organisational, socio-economic, as well as the field of contemporary conflict studies in the broader sense.

### Centre for Emerging Technologies for Atma Nirbhar Bharat (CETANB)

The centre was established on 01 Jan 2024 and also includes Cyber Centre of Excellence (CCoE) as part of it in conjunction with Cyber Peace Foundation. The centre's objective is to forge emerging technologies with geostrategic and geopolitical situations with a view to make the services self-reliant by making possible the indigenous production of defence equipment and spares. The CCoE trains military personnel in artificial intelligence, cyber, and machine learning in addition to cyber forensic analysis in its well-equipped lab.

### Gold Medal Essay Competition

Every year the Institution organises a Gold Medal Essay Competition open to all officers. These essays, the first one of which was introduced in 1871, constitutes a barometer of opinions on matters that affect national security in general and the defence forces in particular.

### USI War Wounded Foundation Joint Essay Competition

This essay competition was instituted in 2021 after the signing of the Memorandum of Understanding between USI and the War Wounded Foundation. The competition is open to all across the globe and must be on the subject of issues relating to the experiences and/or rehabilitation of war disabled personnel of the Indian Armed Forces.

### Lt Gen SL Menezes Memorial Essay Competition

This has been instituted from 2015 on a subject related to armed forces historical research. The essay competition is open to everyone, all across the globe.

### Lectures, Discussions, and Seminars

A series of lectures, discussions, and seminars on service matters, international affairs, and topics of general interest to the services are organised for the benefit of local members in Delhi.

### MacGregor Medal

This medal is awarded to armed forces personnel for valuable reconnaissance and adventure activity they may have undertaken.

### Centre for Strategic Studies and Simulation (CS3)

The erstwhile Centre for Research and its resources have been merged into the new centre named as CS3 w.e.f. 01 Jan 2005. The centre aims at conducting detailed and comprehensive enquiry research, and analyses of national and international security related issues, and gaming and simulation of strategic scenarios, to evolve options for wider discussion and consideration.

### Centre for UN Peacekeeping (CUNPK)

The centre was established in 2000 and functioned with USI to organise workshops, seminars, and training capsules for peacekeepers, observers, and staff officers, both Indian and foreign. It also oversaw the practical training of Indian contingents. In Aug 2014, CUNPK moved out under the Integrated Headquarter of Ministry of Defence (Army). The USI has now established a United Nations (UN) Centre which is focusing on operational, strategic, and policy issues related to UN Peacekeeping. It also organises seminars and conferences on such issues.

### Correspondence Courses

The Institution runs regular correspondence courses for officers of the armed forces to assist them in preparing for promotion examinations, and for the entrance examinations to the Defence Services Staff College and the Technical Staff College. Over the years, this has been significant and well-received activity.

### USI Journal

The USI Journal is the oldest surviving defence journal in the country and in Asia, having first appeared in 1871. In the era when there is a feeling that free expression of views by defence personnel is not looked upon kindly by the establishment, the journal in fact provides just such a forum, without regard to seniority and length of service in the armed forces, subject to propriety and quality of the written work.

### Library and Reading Room

The library holds over 68,000 books and journals, including some books from the 17th, 18th, and 19th Centuries, on an astonishing variety of subjects. While the principal emphasis is on strategy and defence, there are a large number of works on different vistas of Indian life. There are memoirs, biographies, recollections, diaries, journals and manuscripts for scholars and researchers. The reading room is air-conditioned, spacious and well-stocked in terms of current reading material. Library was automated in 2002.