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Medals and Ribbons

A SALUTE TO OUR VALIANT WARRIORS

(ENGLISH QUARTERLY)



COVID-19

2nd Wave Surge
The Armed Forces pitch in

Indian Navy - On a Steady Course

Capability Evaluation and Future Readiness

Mohit's Veergatha

We Salute a Daredevil

Operation Jackpot

A Covert Mukti Bahini Action at Ports in East Pakistan in August 1971

DEDICATION

THIS ISSUE OF MEDALS AND RIBBONS IS DEDICATED TO LIEUTENANT COMMANDER FIRDAUS DARABSHAH MOGAL, SHAURYA CHAKRA (POSTHUMOUS)



BRAVING THE WAVES, GAINING PARADISE (FIRDAUS)





Lieutenant Commander Firdaus Darabshah Mogal grew up in Ahmedabad and joined the submarine arm of the Navy wherein he showed a great zest for life, a generosity of mind as well as spirit and consummate professionalism.

In 2010, in his 12th year of service, Firdaus was the Executive Officer (XO), a naval term for the second-in-command, of the submarine INS Shankush. It was the month of August—with monsoons at their peak. The submarine, always called "boat" by the crew, had a major defect that required it to surface and remain surfaced for mechanical repairs. A stopped and surfaced submarine in such weather is particularly unstable given its low freeboard, slippery decks and rolling.

While effecting repairs, the XO was carefully watching and guiding a small repair party of the Engineer officer (EO) and three sailors to work on the casing behind the conning tower (the small "bridge" of the submarine). A rogue wave washed the EO and two men overboard and the third held onto the casing but seemed to be injured. Firdaus got on to the casing with a small group of sailors and reached the injured man. He lifted him and on the heaving casing, got him back to the safety of the conning tower. He then went back to assist the EO and the two sailors who were overboard and while so engaged, was himself washed overboard. Regardless of his own exhaustion, he continued to hold on to his three colleagues, keeping them together and seeing that the waves did not bash them repeatedly against the steel hull. At some point, the XO held on to a strong point on the otherwise smooth casing (it is deliberately smooth to reduce hydrodynamic drag and consequent noise a submarine makes).

What he did next was truly astounding. He formed a kind of a bridge/ladder with his stretched body and asked the three to clamber and crawl over him to the other sailors higher on the still heaving casing to pull them to safety. Immediately thereafter, he was once again himself bodily knocked unconscious against the casing by another wave. He was dragged up onto the casing by his shipmates and evacuated to INHS Asvini, the navy's hospital by a naval helicopter that flew in from Mumbai. Sadly, he had died before that.

Lieutenant Commander Firdaus Mogal of INS Shankush gave his own life for the sake of those who were his shipmates. And, he saved them all. For his courage, selflessness and grit, Mogal most certainly attained Firdaus, a place in Paradise where heroes from all walks of life live eternally as lodestones for us all. His parents, Mr Darabshah and Mrs Armin Mogal and his wife, Mrs Kerzin and son Yashaan may be drawing some comfort from the legacy he left behind; his posthumous Shaurya Chakra was but a national recognition of qualities of leadership, courage, of living and dying for shipmates. Even more to all readers, regardless of where we stand or walk in life, Mogal dying in the line of duty reminds us of several virtues. Somewhere on social media, a buddy of Firdaus penned these lines:



"In grey, cold waves,
when he went too far,
The strength of his spirit
was the weapon of his war!"

FOUNDER'S NOTE

Col David Devasahayam



16 July 1976 – A momentous day for many of us from the 56th NDA Course - we reported to National Defence Academy, Khadakvasla, Pune on that day. Earlier that day, Karambir Singh and I had travelled from the cantonment town of Deolali, where our Dads were posted, hauling our standard NDA specification black steel trunks. Our association and friendship has continued and strengthened over the years.

As the Chief of the Naval Staff, he has helmed the Navy professionally and with empathy in the last two years or so – especially now, ensuring optimal utilization of the Navy's assets (Operation Samudra Setu II) while assisting the Government in containing the Covid 19 second wave surge (please see cover), as also in the rescue operations post Cyclone 'Tauktae". We have all perceived a marked increase in the Indian Navy's visibility and presence in the Indian Ocean Region in the last two years, and multilateral engagements have had a multiplier effect particularly with growing Chinese interest in the region. We have hence focused on Indian Navy related content as the primary theme for this issue.

Admiral Karambir Singh's Musings are an interesting inclusion in the contents. "As India aims at becoming a $ 5 Trillion economy by 2026, our dependence on the seas for enhancing and sustaining economic growth will steadily increase. Consequently, the Navy's role and responsibilities are also witnessing an increase in scale. Inarguably, this reliance on the seas will continue to expand for the foreseeable future, as will the demands on the Navy," he writes. I am sure the seamen amongst our growing tribe of readers will give a thumbs up to this issue.

Later this year, the nation will celebrate the Golden Jubilee of our decisive victory in the 1971 Indo Pak War. We have hence decided to take out a hardbound Special Edition of Medals and Ribbons as a commemorative souvenir, which will focus entirely on the 1971 Campaign. I am sure our readers and subscribing institutions will find the Special Edition worthy of a place in their homes and libraries.

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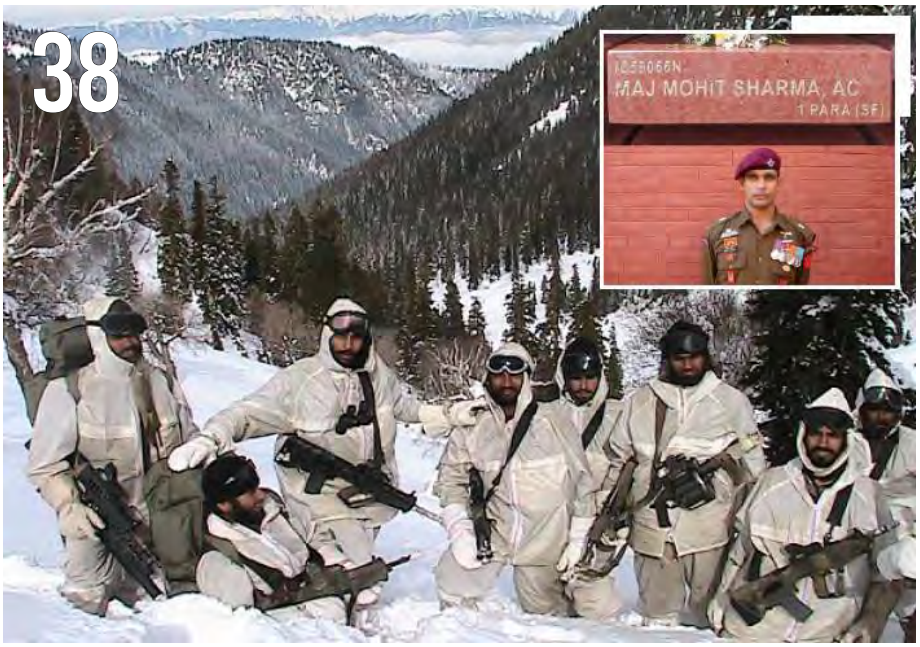





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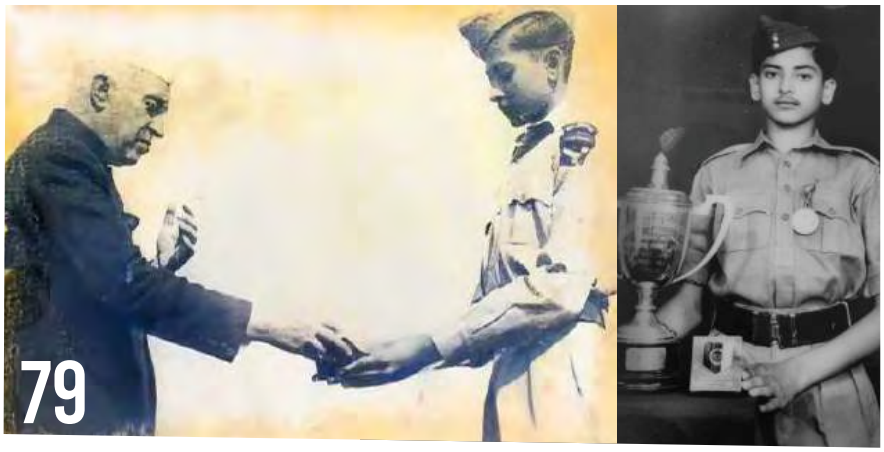

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Medals and Ribbons
A Salute to our Valiant Warriors (English Quarterly)

Founder and Publisher
COL DAVID DEVASAHAYAM (Retd)

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Art and Designing
SARAVANAN
SHASHI BANDI
(Captions)

Photography
VIGNESH NARAYANAN
(3Leaf Studio)

Accounting Team
SHAHUL HAMEED

Despatch
SUB RAJAN PODUVAL K (Retd)
D STEPHENSON ABRAHAM

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EDITOR'S NOTE



Lt Gen J S Sandhu, (Retd).

It is said that the best in mankind comes to the fore during times of crisis. In April – May, the Indian State faced a major health crisis when the Covid-19 Second Wave surged across the length and breadth of the country. National resources were marshalled and capacity enhancements were taken up on a war footing, as health infrastructure came under strain. Expectedly, the Armed Forces too pitched in, and were involved in numerous activities as part of the national effort. Our Cover Story consolidates the Armed Forces actions in this Covid-19 containment mission. Besides transportation of medical essentials, some Armed Forces facilities were opened up to citizens and Army Medical Corps (AMC) personnel too were deployed outside the Service Hospitals. There were a few voices of disquiet within some veteran groups to such opening of military medical facilities, but I reckon that the Armed Forces rightly joined hands with the larger medical fraternity to meet the Covid-19 challenge.

My thoughts turn towards the many social organisations, philanthropic individuals and corporates who also worked to help needy patients. Several organisations like Satsang Beas, Sikh and gurdwara communities shared their limited resources freely, without differentiating in terms of religion, caste, creed, etc. The Armed Forces too shared their facilities, duly striking a balance with the requirements of the defence community. Overall, I am glad that the Armed Forces leadership were in sync with the societal expectations, with selflessness and a cooperative spirit being the ethos. Medals and Ribbons specifically places on record our appreciation for the AMC – Doctors, nurses and personnel worked day and night in various facilities, despite hardship and risk, to bring succour and relief to patients and their kith and kin. We salute the Medical Corps, and have included a conversation with Lt Gen (Dr) Madhuri Kanitkar in this issue.

Coming to the primary theme of this issue. For many centuries, trade has enabled sustenance and economic wellbeing in societies, and increased trade results in prosperity and national wealth. Seaborne trade has been the preferred trade route. India is singularly blessed with a long coastline, many ports and a peninsular massif strategically located in the centre of the Northern part of the Indian Ocean. Maritime power is a crucial component of national power, hence our focus on the Navy and maritime issues. Of special interest in this issue is the Navy Chief, Admiral KB Singh's discourse on emerging security challenges in the maritime domain and the Navy maintaining a 'steady course' while facing up to the threats and technological advances. We also carry an exceptional account of a Mukti Bahini action at ports in East Pakistan, 50 years ago in August 1971, while two lady officers describe their interesting day at a Naval airbase. Vice Admiral Suresh Bangara has reflected on some principles to abide by while in uniform and Rear Adm Shrikhande has analysed the Maritime Theatre Command developments. Captain (IN) Sunil David lightens the mood with a humorous take on 'paper dependence' on ships.

Amazing stories of valour, dedication and commitment have been an integral part in each Medals and Ribbons issue. Notable heroes written about in this issue are Lt Karamjeet Singh Judge, VC (Posthumous), Major Mohit Sharma, AC, SM (Posthumous) and Late Lt SG Pynumootil. The valour of Major Mohit Sharma still surges in the veins of the PARA (SF) fraternity, and a biopic on this martyr named 'Iftikhar' is planned for release next year. In our Wellness column, Dr. Renuka David clarifies many pertinent Covid – 19 queries, and the success stories of Colonel Gopal Karunakaran and Captain Shalini Singh are worth reading in our Second Innings Section. We have also started a Book Review page, with Col David Devasahayam reviewing 'Fillipisms' on this page. Our other regular columns also make for interesting reading.

Our next issue will focus entirely on the 1971 War, as a Special Edition, to commemorate the Golden Jubilee of our victory. The Editorial Team looks forward to your valuable feedback, your content contributions, and we will ensure quality in contents. The Editorial Team remains indebted for your support.

Several defence subscribers (about 30+) have transferred the subscription electronically to our account, which is reflected as transferred from Public Fund Account or Library Grant, etc. The unit or establishment details are not shown, and we are unable to trace the concerned establishment.

May I hence request those units who have not sent us their UTR number or bank transaction details, to kindly send us the same urgently, by email to info@medalsandribbons.com

LETTERS TO THE EDITOR

Respected Chief Editor,

1. This mail of mine is with respect to certain inaccurate facts presented in the article "Air Defence Command: Challenges Ahead" by Air Marshal Anil Chopra (Retd). The author in the article has distorted certain facts which need to be set straight.

2. Army Air Defence was established on 15 Sep 1940 as Anti-Aircraft Regiment comprising of Indian Soldiers. Since then the Anti Aircraft Regiments have been entrusted with the protection of all Ground Based assets of all services including national assets.

3. Furthermore, the Corps of Army Air Defence is tasked with Air Defence of Indian Army's Integral Assets and designated Vulnerable Posts / Vulnerable Areas (VA/VPs) at height much beyond 5000 feet in high altitude & Super High Altitude areas including Siachen.

4. The Corps of Army Air Defence presently has a strength of 35000 soldiers and Approx 1500 officers which is wrongly quoted in the article as 85000 & 6000 respectively.

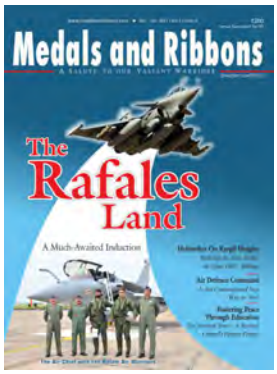
5. In view of above, it is requested to apprise the author & issue necessary errata in your next issue for benefit of all subscribers.

Colonel Deepak Kumar
Colonel Army AD
(Coordination & Legal)

Author's Response

Dear Gen Sandhu,
Fair enough. I wrote based on facts with me. If Col Deepak has better facts, he maybe right.
Such differences can be there in many articles we all write.
Regards

Air Marshal Anil Chopra
Director General Centre for Air Power Studies (CAPS)



Apr-Jun 2021 ISSUE

Dear Editor,
Thank you for writing this article on Major N Jyotin Singh and sharing the story ….. it is not just a narration of the tale of a young life lost…but a saga of Heroism in the highest form. The culmination of all human ideals of Glory.
As a current resident of Lucknow, I have personally seen the manner in which the AMC has honored his memory…with his statue, crossroad, Auditorium, et al, named after Him ….his story lives on….his Martyrdom still touches lives. He is an Immortal Hero….for the AMC and the Army.

- Ngangbi



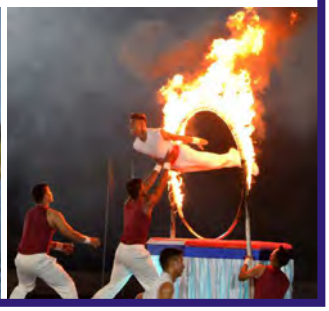






Cadets Training at Naval Academy, Ezhimala







Book Release of Bangla edition of Op 'X" on board INS Sumedha at Mongla port in B'Desh, Mar 2021. In pic: Rear Adm Mahbub-Ul Islam, ACNS (P), Bangladesh Navy, Cmde AW Chowdhury (retd) and other Bangla veterans of the Liberation War, with Indian High Commissioner to Bangladesh Doraiswami.

Operation Jackpot
THE UNTOLD STORY OF INDIA'S COVERT NAVAL WAR IN EAST PAKISTAN, 1971

The Indian Navy's impact on logictics, morale, diversion of East Pakistani forces in what became Bangladesh has been brought out by the late Captain Samant, the leader and key planner of Operation X (died in March 2019) , and Mr Sandeep Unnithan, the very well-known executive Editor of India Today. A book extract from their book Operation X is reproduced below, with the kind permission of HarperCollins, the publishers.

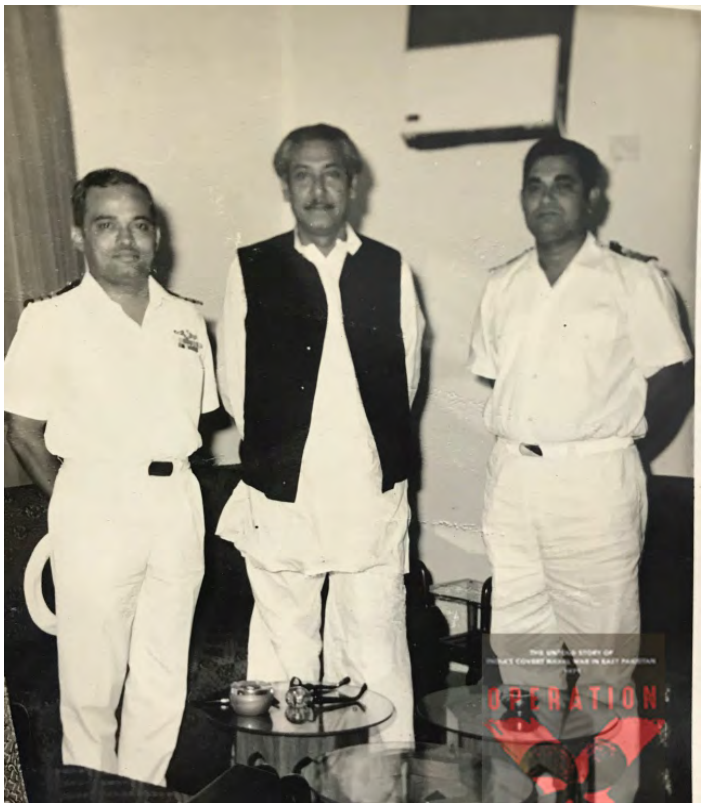
Introduction

By July 1971, 7.2 million Bengali refugees fled a genocide in East Pakistan unleashed by the Pakistan military junta. This refugee influx and its enormous socio-economic burden gave India a casus belli for war. The precursor was the setting up of a Mukti Bahini (Liberation Force) by the Indian government and the government of Bangladesh in exile comprising over 1,00,000 guerillas raised from among the Bengali population. It had a land component, a naval wing with two gunboats and air force wing with a helicopter and two fixed wing aircraft, thus making it one of the 20th century's powerful guerilla outfits. Mukti Bahini fighters avoided pitched battles with the Pakistan Army and fought a war of a thousand cuts by destroying bridges and infrastructure and targeting security forces in hit and run raids.

The Liberation War, as it is also referred to, preceded a multi-thrust offensive by the Indian Armed Forces into East Pakistan in late November and ended with the surrender of the East Pakistan garrison to the Indian Armed Forces on December 16, 1971 and the creation of Bangladesh.



The three key Indian Navy players clicked in 2018: Captain MNR Samant MVC (in front) with Petty Officer Chiman Singh, MVC (right) and Commander Vijai Kapil, VrC, NM (left).



Sheikh Mujibur Rehman with Captain MNR Samant and Captain Nurul Haq, the first CNS of Bangladesh Navy.

The Naval component of the Mukti Bahini was an exceptional element of this guerilla force. The core was made up of eight Bengali sailors who had deserted from the Pakistani submarine PNS Mangro while it was berthed in France in March 1971. They were taken under the wing of the Directorate of Naval Intelligence who began to raise a force of limpeteers / naval saboteurs trained on the historic battlefield of Plassey in Nadia District. Over 400 combat swimmers were trained under an ultra-secret operation also known as Naval Commando Operations (X) or simply, NCO(X). They were trained by a team of hand-picked officers and enlisted men of the Indian Navy's Diving Branch. The operation was run by Director Naval Intelligence Captain (later Vice Admiral) Mihir Kumar 'Mickey' Roy who reported to Admiral SM Nanda, the Chief of the Naval Staff. Their pointsman in Calcutta was Commander (later Captain) MNR Samant. As G-1 (Nav-Ops) (X), Commander Samant was based in Fort William, Calcutta and reported to Major General JFR Jacob, the Chief of Staff and to Lt General JS Aurora, the GoC-in-C Eastern Command. He ran the naval commando training camp in Plassey, a gunboat base in Haldia and a camp in Agartala.

Their combat swimmers aka 'naval commandos' sank or disabled 100,000 tonnes of enemy shipping in East Pakistan. Between August and November 1971, they waged a withering war of 'guerre de course' or commerce destruction. Free swimming saboteurs targeted merchant ships that sailed out with foreign-exchange earning jute and tea and which shipped in arms, ammunition and food for the Pakistani military garrison. Shipping firms hiked freight charges for vessels plying to East Pakistan.

In his 2011 autobiography 'An Odyssey in War and Peace' released 40 years after the war, Lt General JFR Jacob became the first official to publicly admit the Indian hand in this covert maritime war. He called it the Mukti Bahini's most effective operations. The naval wing's most significant operation which Jacob named 'Operation Jackpot' was carried out on the night of August 15, 1971. Over 170 combat swimmers carried out near simultaneous attacks on the ports of Mongla, Narayangunj, Chittagong and Chandpur destroying or disabling 25 vessels—the largest such attacks by limpeteers since the Second World War. In one night of what could be called in today's jargon, "swarm attacks", 44,000 tonnes of shipping was sunk, and nearly a third of that damaged. By the standards of ship sizes and stressed Pakistani logistics 50 years ago, the damage was undoubtedly significant.

Book Extract Follows.

CHAPTER 6- "JACKPOT"

'Amar putul aajke pratham jabe susur badi…'

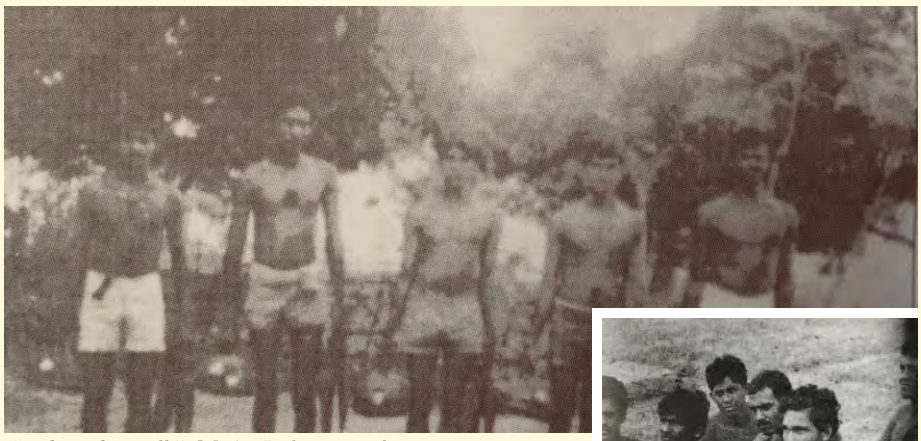
Aarti Mukherjee's voice trilled across the Bengal countryside, the innocent exuberance of a young girl excited about sending dolls to her in-law's home. But in a small mud hut on the outskirts of Chittagong, A.W. Chowdhury's hair stood on end, the adrenaline pumping through his veins at the start of the song.

It was 6.00 a.m. on 13 August 1971. Chowdhury awakened Shah Alam who was sleeping on the mud floor beside him. Both of them stared at the transistor radio on the floor of the house as Aarti Mukherjee sang on.

'Dadu,' Shah Alam whispered, 'the song is playing.'

Chowdhury's thoughts drifted back to the tent in C2P where Lieutenant Commander Martis and Commander Samant had played the songs for him and three hand-picked PNS Mangro crewmen -- every day, for a week. Shah Alam was the only other person in Task Unit 54.1.1 who knew why his commander anxiously tuned in to All India Radio's B station in Calcutta at six in the morning and at the same hour in the evening, every single day since they left India.

Aarti Mukherjee's song was the signal for 'stand by' – H-hour minus 48 – to the four task unit commanders inside Sector 10. Encrypted messages on civilian radio frequencies were a simple but effective tool used extensively by the Allied Forces to direct and coordinate resistance fighters against the Nazis in Europe during the Second World War. No one knew the importance of coded communication better than Leading Telegraphist Chowdhury, formerly the radio operator on the PNS Mangro and, before that, the PNS Ghazi.



"undressed to Kill!": Mukti Bahini assault swimmers with fins and limpet mines.

Humayun Kabir (centre) a former East Pak constable turned naval commando with other commandos at the "Camp C2P" in Plassey, Nadia District with disassembled limpet mines.

Across East Pakistan, three of Chowdhury's buddies from the Mangro – Badiul Alam in Chandpur, Rahmatullah in Mongla/Chalna complex and Ahsanullah in Narayanganj – also heard the directive from Naval Commando Operations (X)'s (NCO [X]) unseen commanders, telling them to prepare for the attack.

All the commandos were in deep cover, in safe houses near their target areas across East Pakistan. Now, they proceeded with alacrity towards their targets.

The last few days had been a blur. Chowdhury's task unit – with sixty naval commandos – was the largest one. They had bid farewell to the X-men in Camp C2P and boarded an Indian Air Force (IAF) courier flight at the Dum Dum Airport. The IAF Fairchild Packet, an IAF transport aircraft, brought them to Delta Sector in Agartala and its naval detachment cum launch pad headed by Lieutenant Commander Ashok Kumar 'Akku' Roy.

The group travelled barefoot and in disguise trekking for nearly three days to reach the outskirts of Chittagong on 9 August. Now, with less than forty-eight hours to go for the big strike, they were in the safe house of an overground worker in a village, Chotto Komira, some eighty kilometres north of Chittagong. They hid in the house by day and stepped out only at night, with Chowdhury diligently tuning into the radio station twice every day. The mines were hidden under a haystack in a shed near their hut.

This was the routine every day, ever since they left Tripura for Chittagong, Bangladesh's second-largest city. A little over 200 km south-east of the capital Dacca, the port city of Chittagong, with a population of 4 million, was the province's maritime gateway. In 1971, the city was also the Pakistan Army's lifeline for food, arms and ammunition.

The port was on the western bank of the Karnaphulli River which began in the Lushai Hills of Mizoram, a state bordering India and Burma, and flowed into the Bay of Bengal. Deep-draughted merchant ships sailed fifteen kilometers upriver on the river's S-like loop before berthing to pick up their cargo of jute, coir and tea.

NCO(X) had by now gathered intelligence on targets for Chowdhury's unit. Two Pakistani freighters MV Ohrmazd and MV Al-Abbas had pulled into Chittagong

just days prior, laden with military supplies. The Ohrmazd, with 9,910 tons of military cargo, berthed on jetty 13, while the Al-Abbas, with 10,418 tons, was berthed at Jetty 12. Over 200 tons of arms and ammunition had been offloaded into the dumb barge Orient No 6 that was now waiting for a tow-tug to take her to Dacca. The naval jetty also had four Pakistan Navy gunboats.

Soon after receiving the H-minus 48 signal, Chowdhury and Shah Alam moved to a safe house in Chittagong's commercial hub, the Agrabad area which was a stone's throw away from the harbour. A third group of twenty commandos were put up in safe houses in Fauzdar Haat, further away from the city.

At 6.00 a.m. on 14 August, NCO(X) relayed the 'go ahead' signal to its commandos. Pankaj Mullick's sonorous voice rendered a popular Rabindranath Tagore song:

Aami tomai joto, shuniye chchilem gaan … Aami tomai joto
Taar bodole aami, chaa-i-ne kono daan
Bhoolbe shay gaan jodi, nam-hoye je-yo bhoole
Uth-bay jokhon taaraa, shonkho-shaagor-kulay

(All my songs sung to you
sought no reward in exchange
If you forget them, do not forget
that they will rise when the stars rise
in the sky over the shores of the evening ocean)

The signal meant that Chowdhury's Task Unit 54.1.1 had to strike Chittagong at midnight.

At 6.00 that evening, 'Amar Putul' played for a second time on AIR. This was the confirmatory signal. Now they had to wait for one more song.

Operation X's planners waited for the rumble on the radio waves that would signal mission accomplished. In Naval HQ Delhi, the 'King Cobra', Captain Roy chain-smoked and waited for the phone to ring. In the naval detachment in Delta Sector, Akku Roy waited with the Mukti Bahini sector commanders for news from Chittagong. In Fort William, Samant hummed 'Aami tomai joto shuniye chilem gan' as he typed out his report on the launch of the commandos. The songs had been chosen by Major General Sarkar. The planners had nixed the idea of a third song that would signal 'abort mission'.

Samant hadn't told his task units that there was no turning back on this mission. The naval planner noted, with a tinge of regret, that at least 10 per cent of the task units he had sent into the operation were likely to be killed or captured.

In Chittagong that morning, Chowdhury's Task Unit began leaving the city. The commandos were transported in private cars, two and three per car, hired by the local resistance. They were put on





Cargo ships sunk at their moorings. The attacks were extremely damaging to the East Pakistani regime.

boats and guided to a safe house across the river. Khurshed's WAPDA van had left the city in the evening, carrying a large wicker basket of drumsticks to fetch the limpet mines from the shed in Chotto Komira. The vehicle was also stocked with a large supply of locally procured gamchas or thin cotton towels. Chowdhury's commandos had converged in a village called Anwara Thana across the Karnaphulli that morning, in the house of a sympathiser identified only as 'the potter'. In the safe house in Anwara Thana, Chowdhury and Shah Alam armed forty limpet mines with detonators. They slid pencil detonators into each mine, pushed the soluble plug in behind them, and rolled condoms over the plug to make it waterproof. The charges were now armed and ready for action. There was no sign of the third group of commandos who were staying in Fauzdar Haat. As the precious minutes slipped by, worry lines creased the young sailor's forehead. Finally, he decided to launch the mission with the remaining forty. He lined the forty commandos along the riverbank for the task.

Across Bangladesh, close to midnight on 14 August, over a hundred assault swimmers discarded their lungis and vests. They donned swimming trunks, strapped diving knives to their calves, and slid their feet into the Abee rubber fins. They extracted the limpet mines and the gamchas from the bags and baskets and helped each other tie them to their chests. They used large double knots that could be easily opened underwater. The commandos then walked into the water backwards, the most efficient way to walk with fins on land, proceeding to noiselessly launch themselves into the rivers of their beloved country – the Karnaphulli in Chittagong, the Pussur in Chalna/Mongla, the Shitalakshshya in Narayanganj and the Meghna in Chandpur.

The limpeteers swam downstream with the current, backwards and diagonally towards their targets, their hands holding their deadly payload on their stomachs, hips noiselessly scissoring their finned feet, heads barely above the water, steering themselves through the darkness, just as they had been trained at C2P.

In Chittagong, Shah Alam, the wannabe doctor, was the first to hit the water and swim towards the well-lit silhouettes of the merchantmen across the river. The ships were a kilometre away. The swarm attack had been planned for just after midnight for two reasons. It coincided with the beginning of the ebb tide, when the river waters rushed out towards the sea, and also with the changing of the shift among the dock labour. The fast-moving ebb tide that was underway swiftly took the swimmers to their targets in under ten minutes. Shah Alam took a deep breath and lowered himself into the water. Around six feet under, he felt the ship side and reached for his diving knife. He used it to scrape the barnacles off. It was not easy, for he had to rise to the surface for mouthfuls of air and locate the same spot in complete darkness. He then reached for his chest, untied the knot, extracted the limpet mine and tossed away the condom and the gamcha. He dived in again, taking care to keep the deadly explosive away from the ship's hull, and then looked for the cleared spot to place his magnetized charge. The limpet hugged the merchant ship in a fraternal clunk. Deed done, Shah Alam rose to the surface, gasped for air, and flipped around, allowing the Karnaphulli to carry him downstream to the designated pick-up spot downriver where Khurshed and the others would be waiting for him with a fresh set of clothes. The forty commandos sploshed out of the water one after the other. They speedily discarded their fins, knives and swimming trunks, and changed into singlets and dhotis and fled the area on foot.

In half an hour, the salt plugs on the limpet mines dissolved in the water of the Karnaphulli. The firing sequence was initiated. The thin lead wire in each mine gave way to the tension of the spring and snapped. The spring fired the tiny plunger into the percussion cap, which exploded the small charge explosive pellet in front of it. This, in turn, set off the main TNT charge. At around 1.40 a.m., the first dull, watery explosion resounded across Chittagong.

The Al-Abbas shuddered. Soon, the explosive orchestra began. Underwater blasts rattled ship sides, cracked their hulls, and sent up spouts of water in the river. On the harbour front, there was panic. Army sentries began firing wildly into the water. The explosions continued. The angry waters of the Karnaphulli rushed into the sides of the Al-Abbas, the Ohrmazd and Orient Barge Number 6 as the limpet mines punched holes in their sides below the waterline. All three ships settled to the bottom of the harbour, in about twenty feet of water, as if their bottoms had been sliced away. The commandos also seriously damaged five barges, two tugs and one gunboat. Across the Karnaphulli the commandos counted twenty-three explosions. That night, similar blasts reverberated across the harbours of Narayanganj, Chandpur, Chalna and Mongla, crippling merchant ships and sowing confusion.

NCO(X)'s limpeteer assault groups had hit a total of twenty-five vessels in the span of an hour, the largest attack by naval saboteurs since the Italian Navy's exploits in the Mediterranean Sea in 1943.

In Chittagong crippled merchantmen paralysed berths rendering the province's largest port unusable. The Pakistan Army turned on the local populace. Villages close to the river were burnt down. Residents were lined up on the river bank and shot, their bodies tossed into the river. Even so, Operation Jackpot had been an unprecedented success for its planners. In Fort William, Commander Samant totalled the figures in the sitrep he was preparing for Admiral Nanda and Captain Roy: 176 commandos launched at Chittagong, Narayangonj, Chandpur and Chalna, Mongla had sunk a total of 44,500 tons of shipping and damaged 14,000 tons.

Inside the province, General Niazi deployed additional troops to guard ports and vital installations along the riverine lifelines. This move took the pressure off the Mukti Bahini's beleaguered land forces. The fight back in Bangla Desh had begun.

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Sandeep Unnithan is an executive editor with India Today where he writes on security-related issues. He is the co-author of Operation X: The Untold Story of India's Covert Naval War in East Pakistan and has also authored "Black Tornado. The Three Sieges of Mumbai 26/11" Besides being an author, he is a scholar, journalist and a serious military history researcher.



Adm KB Singh discussing Covid related Naval Support with the Hon'ble PM.

THE INDIAN NAVY: On A Steady Course

In this assessment, the Chief of Naval Staff (CNS) looks beyond the horizon, and takes stock of the emerging security paradigm, while evaluating the capabilities and future readiness of his Force.

Introduction

Since independence, the Indian Navy has steadily upgraded its capabilities, experience and reach and gained recognition as one of the capable maritime forces in the world today. The evolution into a credible 'Blue Water' force is an outcome of the clear-eyed focus on holistic development envisaged by our naval planners, past and present. This is, not only a factor of force and capability accretion, but also the quality of our human resource, and encouragement accorded to dynamism in action and thought. While we take immense pride in the distance covered thus far, we are firmly focused that the Navy's transformation remains on track, tempered with present day realities and envisaged future imperatives – in other words, aim to stay agile and future-proof.

Today, we stand at the inflexion point between the industrial and information ages. The pervasive nature of modern day technology,

New challenges mandate new options, contemporary capabilities, an evolutionary outlook and innovative ideas, along with the ability to swiftly assimilate, absorb, implement and exploit an opportunity.

across the range of human activities, presents myriad challenges and opportunities. Concomitantly, the geopolitical canvas of the world has witnessed significant changes. A return of great power rivalry, increasing competition on a day-to-day basis encompassing multiple domains including cyber and space, rising volatility in the region, growing influence of non-state actors, emergent threats of a sub-conventional, grey-zone nature, etc create an intricate web of complexities. A greater understanding and awareness of this amorphous, continually evolving nature of challenges has resulted in recognition of the fact that, as we navigate towards the future, 'more of the same will not work'. New challenges mandate new options, contemporary capabilities, an evolutionary outlook and innovative ideas, along with the ability to swiftly assimilate, absorb, implement and exploit an opportunity.

Present Day Realities and Future Imperatives

Roles and Responsibilities - Continuous Expansion : As the primary manifestation of the nation's maritime power, the mandate of promoting and preserving India's national interests in the maritime domain falls squarely upon the Indian Navy. As India aims at becoming a $5 Trillion economy by 2026, our dependence on the seas for enhancing and sustaining economic growth will steadily increase. Consequently, the Navy's role and responsibilities are also witnessing an increase in scale. Inarguably, this reliance on the seas will continue to expand for the foreseeable future, as will the demands on the Navy.

Evolving Security Paradigm : The present day security paradigm spans a progressively widening spectrum. While traditional and non-traditional threats continue to affect our security calculus, recent times have seen a proliferation of nebulous, frequently formless and often fleeting but impactful challenges. Such challenges, which could emerge from either state or non-state actors, have resulted in the blurring of the lines between peace and conflict. This mandates a review and reassessment of the customary war-peace paradigm that militaries are typically most comfortable with. Concurrent to this, many security aspects have assumed a transnational character, affecting many nations. These challenges, manifesting in tandem, have led to the emergence of a 'conflict continuum', where navies are increasingly required to address and overcome competitive and security facets across a wide spectrum simultaneously on a daily basis to win the 'busy peace'. The continuum is characterised by a juxtaposition of competitive and cooperative character. Hence, the scale and variety of threats presents a conundrum that exerts influence on, not only a navy's force structure, but also its strategic and operational lines of effort.

Friends and Partners. : Great power competition, inevitably and historically, leads to realignments among states. Similarly, as threats assume a transnational character, they encourage convergence amongst affected nations. Agility in identifying and responding to opportunities that emerge therein will be the key for the future. Harnessing convergences, while facilitating and nurturing partnerships, will depend on mutual trust. Building such trust needs to be an ongoing process since, unlike material assets, trust cannot be surged. To that end, engaging with like-minded maritime nations to build enduring relationships is the need of the hour. Moreover, such engagement has to transcend the rudimentary, and encompass multiple fields to include conceptual, operational, material and personnel facets.

Technology. The world is developing and adopting niche, disruptive technologies at a scorching pace across all sectors of human endeavour. Technological innovations and inventions are transforming the manner in which militaries view the battlefield, gather information and intelligence, shape the environment, and deliver firepower. The scope and scale of such activities and capabilities has also witnessed a quantum leap. The rapidity of the ongoing evolution in warfare and other military activities mandates a proactive approach, enabling leap-frogging rather than tail-chasing capabilities and technology. Moreover, this transcends mere material capability, and encompasses the realm of human resources in order to suitably prepare, enable and empower the sea-warrior of the future.

Balancing Needs and Means. : The developmental needs of a Navy will remain eternally dynamic and growing, in consonance with assessments for the future. However, in a realistic world, military budgets will similarly remain finite since they will need to be complementary to broader social and economic development of the nation. This holds true not just for India, but almost every country in the world. Therefore, in setting course for the future, the 'needs' will have to be balanced against the 'means' through a well-considered, innovative approach to force structuring, capability development and capacity enhancement.

Future Trajectory

Overarching Approach : Towards meeting the Indian Navy's mandate in pursuit of our

national interests, the overarching approach is underpinned by a sustained focus on the Navy being a 'Combat Ready, Credible and Cohesive Force'.

Combat Ready Force - The Organisation : Towards ensuring that the Navy is 'Combat Ready', our undiluted focus remains on ensuring that platforms are fully role-worthy with ability to put 'ordnance on target' as the enduring objective, both organisationally and individually. In terms of the organisation, an 'assets first' approach ensures that each supporting entity in the Navy vies to provide every support to our operational platforms, in turn, the operational platforms are able to strain at the leash –and deliver on their combat role. This endures across the span of policy, maintenance, logistics, human resources, administration and training. Concurrently, a continuous process of organisational review, alignment and restructuring, in consonance with evolving operational needs and imperatives, imbues requisite nimbleness within the system. This is pursued through proactive and unbiased identification of shortfalls, process impediments, choke points, functional lacunae and administrative obstacles, which are addressed on priority towards ensuring that flexibility and agility remain our intrinsic organisational characteristic.

Combat Ready Force – The Individual : Each individual in the Navy is encouraged and groomed to take ownership, not just of their equipment or sphere of influence, but the larger Service as a whole. This grooming is enabled by an evolutionary professional military education and training process, aligned with the future needs of the Navy. Encouraging self-development and self-actualisation lies at the core of the Indian Navy's approach towards creating a force that is professionally competent, intellectually vibrant and inherently innovative in outlook. The process of continually examining the combat readiness of one's unit, and querying the actions needed to enhance combat readiness is second nature to all our personnel. The underlying guiding principle remains of 'taking ownership of the seas', and remaining invested in every facet of combat readiness that enables that.



INS Kalvari.



Joint Maritime Exercise Varuna in progress (photo credit www.indiannavy.nic.in).

Credible Force : Development, projection and use of credible capacity and capability are the cornerstones of a 'Credible Force', underpinned by a commensurate 'willingness to act'. The Indian Navy aims to pursue this objective through multiple lines of effort. First, enhancing reach and sustenance to ensure that we signal our preparedness to friends and foe alike. Secondly, we aim to serve as 'first responders' for regional challenges, and be the 'preferred security partner' for friendly nations in the region. This is achieved through sustained engagement with our friends and partners. Thirdly, given the transnational nature of threats enumerated earlier, there is also a growing recognition that no one can counter these threats alone. Accordingly, developing 'collective maritime competence', where each partner has an equal seat at the table, is a key line of effort. This collective approach is also encapsulated in the overarching vision articulated by the Hon'ble PM, viz. SAGAR – Security And Growth for All in the Region. Fourth, imbuing mental, conceptual and operational agility in our formations and individuals will be a critical enabler in remaining prepared for the challenges of the future. This includes developing the ability to handle ambiguity and amorphous challenges by developing an ability to 'look through the fog'. Fifth, seamless adoption of new age technology and innovation, through a proactive outreach to industry and academia will aid in leap-frogging the technology curve. Formation of the Naval Indigenisation and Innovation Organisation is a step in that direction. This endeavour is also furthered through initiatives like online discussion fora and awarding recognition to innovative ideas and solutions. The wide array of innovations undertaken by Indian Naval personnel in support of the national effort to fight the



Chetak Helicopters fly over the seas.



Boeing P8i on a surveillance mission on the Northern Borders.

Covid pandemic exemplify this spirit of inventive and ingenious thinking. Sixth, continued focus on indigenisation, and supporting the mission of 'Atmanirbharta', is critical towards self-reliance. Collectively, these lines of effort above will prepare the Indian Navy to respond effectively to the unpredictability that is characteristic of the maritime domain and the future.

Cohesive Force : While combat-ready platforms, cutting-edge technology and enduring partnerships are vital enablers for the Indian Navy to be future-ready, the primary driver will remain the 'man/woman behind the machine'. The Navy's future trajectory will be defined by the extent to which its most valuable asset, viz. its personnel, move forward collectively in a motivated and synergised manner. To this end, the Navy has prioritised professionalism, tempered with the ability to proactively identify and embrace change. Continuous evolution as a Learning Organisation, coupled with encouragement to reject the status quo and promote fresh thoughts and ideas, is an important imperative. In addition to creative and critical thinking, greater ownership of outcomes is also essential to meet challenges effectively. In mitigating these challenges in a technology driven competitive world, future opportunities will be increasingly fleeting in nature. To be able to harness such opportunities, there is a need for clear orientation towards decisive action and results as opposed to optics or superficiality. The Navy promotes this through delegation and empowerment across echelons. Mission Command is the way of the future, enabled and empowered by seamless multi-directional flow of information on robust networks. Our professional education and training is aimed at preparing the future warrior, and equipping them with the tools and capabilities to handle fluidity and rapid change, while embracing new technology and thought processes. In all these ventures, the Indian Navy's core values of Duty – Honour – Courage light a clear path to the future.

Conclusion

The Indian Navy has covered significant ground in the past decades, with notable achievements to show for it. However, the concept of 'resting on our oars' has to be consciously avoided, lest we are found wanting in the hour of need. Our initiatives in this regard, spanning the canvas of personnel, platforms, maintenance, logistics, administration, et al, are significant contributors towards becoming a future-ready force. Success of these initiatives will depend on our personnel, where each individual must do their part, put their shoulder to the wheel and guide the Navy's trajectory into the future - working as a cohesive, well-knit team, guided by common principles and a shared vision.



Admiral Karambir Singh, PVSM, AVSM, ADC, CNS, an alumnus of the National Defence Academy, Khadakwasla was commissioned into the Indian Navy in July 1980, he earned his wings as a helicopter pilot in 1981 and has flown extensively on the Chetak (Alouette) and Kamov helicopters. He is a graduate of the Defence Services Staff College, Wellington; College of Naval Warfare, Mumbai and has served as Directing Staff in both these institutions. In his career spanning over 40 years, he has commanded Indian Coast Guard Ship Chandbibi, Missile Corvette INS Vijaydurg, as well as two Guided Missile Destroyers, INS Rana and INS Delhi. He has also served as the Fleet Operations Officer of the Western Fleet. His important flag appointments include Director General Project Seabird, in-charge of infrastructure development of the Navy's expansive and modern base at Karwar. The Admiral has also tenated the appointments of Deputy Chief of Naval Staff and, subsequently, the Vice Chief of Naval Staff. He was the Flag Officer Commanding-in-Chief, Eastern Naval Command at Visakhapatnam, prior to taking over as the Chief of the Naval Staff on 31 May 2019. The Admiral enjoys cycling, running, swimming and golf.



INS Vikramaditya. (Photo credit : defencetechnology.com)



Amphibious assault training by Indian troops. (Photo Credit : Asian Defence News)

MARITIME JOINTNESS & THE ENVISAGED MARITIME COMMAND

Tumultuous structural changes are taking place in the security sphere, gradually with due deliberation. A Peninsula or Integrated Maritime Command is likely to be a reality soon. An analysis follows.

In a few months the contours of the planned Joint Maritime Theatre Command (JMTC) are likely to be finalised. We do not know what it would finally be called, for the purposes of this article, let us simply use the abbreviation JMTC. In an earlier article on the subject I had suggested that such a command be simply called "Southern Command." At that time, the name being bandied about was Peninsula Command and to a lesser extent, Oceanic / Indian Ocean Command.

Jointness : New Term but Old Imperative

Jointness is a term not more than a few decades old to describe the virtue of combining instruments and methods to gain more benefits from integration, synergy, coordination, etc. It is sometimes incorrectly thought of as a new principle of war. The older principle, simply called "cooperation" was precisely about jointness and a lot more. Nonetheless, jointness now signifies, in essence the intertwining of land power, sea power and air power for more effective outcomes in deterrence and, if deterrence fails, towards military victories to gain politico - strategic objectives of conflict. To that, it is now necessary to add two relatively more recent dimensions of warfare: space and cyber dimensions. These five dimensions of warfare may be likened to five fingers that work together not only as a closed fist, but also as five fingers playing on a keyboard to pre-planned and coordinated tunes!

The idea of 'cooperation" between these dimensions is not new, of course. Armies and navies have operated together for millennia. Armies have been transported for defensive and offensive operations (expeditionary warfare) by navies. A British seaman,

Admiral John Fisher long ago put it well: *An army is the arrow that is fired from the quiver that is the navy.* In fact, the Chola kings, ruling a vast empire based out of peninsular India in the early years of the 2nd millennia (1000 CE onwards), combined their naval and land power to conquer and sustain an empire even in South East Asia. It was a confluence of what is recognized as flag following trade or trade creating conditions for the flag to be planted in distant places. When India's maritime heritage is considered from such a perspective, would it be wrong to think of it as an early example of jointness and the early idea of a joint seapower?

Combined Arms to Joint Services

It may be useful to back up a bit further. Within each instrument, individually, is what has been called a combined - arms approach. Across various centuries, military effectiveness was enhanced with smart combinations of foot-soldiers (infantry) and horses or war elephants (cavalry) in combinations of firepower, speed, direction of approach etc. In later centuries, artillery and tanks were combined. Likewise, during and after the First World War navies became big users of airpower, carried at sea, or from land. Likewise, the Second World War saw the use of all three dimensions, air, sea and land in intense combat in all theatres. Thus, the transitions from combined arms to jointness have all been evolutionary.

Of course, none of this happened easily. It took a combination of "People, Ideas, Things"-- to paraphrase what John Boyd had said-- about finding answers to problems being faced by governments, Armed Forces and even businesses. People were as necessary to finding answers as they were guilty of putting in impediments to jointness in terms of single-service turf, egos, a resistance to working with other services and a fight over limited resources. An Armageddon like the Second World War resulted in greater acceptance of joint fighting in theatres of war. While it was not all smooth, most of the larger powers, notably the US and the Soviet Union created such theatres for joint war fighting. In our own times, China has done a great deal to create joint theatres, get better at fusing "people, ideas and things", and seems to have got much of "integration" right at the politico - military levels in Beijing.

Finally, a Chief of Defence Staff (CDS)

India, too considered some of this soon after Independence, including the creation of a CDS who would be the first among equals with other service chiefs. After difficult processes and innumerable committees, a CDS was finally appointed on 01 January 2020 and tasked, among other things, to develop the framework for Integrated Theatre Commands. The term Integrated is more in vogue as a prefix instead of Joint. However integration should be thought of as an input and jointness as an output. So it is advisable for multi-agency and multiple Headquarters to be "integrated" in New Delhi, at the theatre level for which an HQ Integrated Defence Staff (HQ IDS) was created in 2001 itself. Where delivery of joint warfighting is the output required, the structures should be called Joint Commands. As reported in media on 17 February 2020, the CDS said that among other graduated steps being taken to take the country towards joint theatre commands (JTC), studies would be commissioned to formulate the contours, constituents and purposes of the so-called Peninsula Command. To quote a report (Economic Times, 17 February, Shaurya Gurung), *"The proposed Peninsula Command will be formed by merging the Navy's Western and Eastern Commands and will spread from the Sir Creek near the Arabian Sea to the Sunderbans in the Bay of Bengal."*

Likely Contours of the JMTC

From several media reports and some statements by senior leadership, it seems that the JMTC would be set up with combining the Indian Navy's Western, Eastern and as such some operational functions of the Southern Naval Commands. Its HQ may be set up at Karwar. It is likely to have maritime strike role elements of the Indian Air Force and amphibious role formations of the Indian Army. Interestingly, and perhaps not originally envisaged, it is likely to include the Andaman and Nicobar Command. This is important because maritime geography is not strictly only the sea and oceans. It is peninsular and includes island territories with which India is blessed in the Bay of Bengal and with the Lakshadweep and Minicoy groups in the Arabian Sea. These islands are bulwarks or, stepping-stones depending on the context.

It was said by the late Colin Gray, a strategic thinker that *"Geography is not joint, but warfare is."* We can see this in steps that China has taken. Apart from setting up joint theatre commands and reorganizing its functional commands, the "five-fingers" and closed fist of jointness can be seen clearly in what it may bring to bear in the Western Pacific. This area, encompassing the South and East China Seas, the "first and second island chains" is one where the sea, land, air and cyber as well as space dimensions could come into play.

In the Indian Ocean Region (IOR), as yet the five fingers may not have as much cohesion as in the Western Pacific because of different geographies in terms of distance, access, other nations, etc. However, it would be more likely in years to come. China is already well ahead on long-range conventional ordnance delivery capability using a large variety of ballistic and cruise missiles, long-range bombers, several submarines and a growing surface navy; surveillance that includes space-based and disruptive cyber warfare capabilities. We also need to add two important factors. One is that China would have access to bases and ports within the IOR. Djibouti, and Gwadar are distinct probabilities and Hambantota, Colombo and perhaps some in Thailand, Myanmar and Iran are possibilities. Second, it has a potentially very close security partner in Pakistan, whereas India can count on no friend in the same

league. With China's growing joint seapower-and not merely naval footprint across the IOR, India has some serious matters to address.

Need for Multi-Front and Multi-Adversary Deterrence

It is a mistake to describe the big strategic problem posed by the Sino-Pak Axis as the "Two-Front" driver for jointness. Firstly, it is possible to have a two or more front war with a single adversary. The 1971 war is a good example where we fought Pakistan along two land fronts, two air and two maritime theatres. A third front, with China was to be prevented through diplomacy, statecraft and some risk mitigation. Likewise, with just Pakistan as an adversary, we may have possibly one land, one or two air theatres and two maritime theatres. With China, there may be one large land front, possibly to be dealt with by two theatres; a near certainty of needing to counter them at sea in several portions of an immense IOR and air theatres that correspond to the threat. Now, add the likelihood of a Sino-Pak adversarial line-up! We find that we could be against multi-nation, multi-theatre and multi-dimensional military power. Specifically, the maritime theatre would be large and the Indian Navy would no longer have the luxury of needing to deter or fight just the Chinese (or Pakistani) Navy but all of its warfare instruments.

Evidently, our national response would need to be joint, not merely naval. It would require integration at the national - strategic level for achieving a set of contextual political objectives. Furthermore, at the theatre levels, these HQ would orchestrate the strategy for the derived military objectives. Within this would now fit the maritime theatre. It is important to emphasise that there is really no such thing as a maritime conflict between nations. A conflict is always more complex than being in one exclusive medium. What usually can be said is that the conflicts India may be forced into may include a maritime dimension of varying criticality and spread. In some it may play a pivotal role, in other contexts a less critical or even a marginal role. This is not unusual and is true of any of the five dimensions.

Putting it to Work in War and Peace

Quite obviously those in charge today would be working out the details of the command and control structure. These would span winding up some parts of existing structures; setting up of new structures for the C-in-C JMTC to command a very large theatre that includes the peninsula, island territories and maritime areas of primary and secondary interests. Although this is speculation by a veteran outside of official deliberations, some part of the "operations" staffs of the current Naval Commands, the Southern Air Command, the Southern (Army) Command would be absorbed in the JMTC. The roles of the existing four or five C-in-Cs would be redefined. By essence and practice, the concept of commander-in-chief implies that other commanders are subordinate and do not have what a commander-in-chief entails. That said, formation and component commanders would continue to be vital.

At the levels of HQ IDS and Naval Headquarters, the former would build up its capabilities for strategic planning and maritime operations. Therefore, some directorates within Services HQ's Branches would conceivably transfer some of its staffs and tasks to HQ IDS. The directorates tasked with acquisitions, sustenance etc ought to remain with Services HQ. If media inputs are credible, two things stand out. First, the Navy has supported this enterprise whole-heartedly. Second, it accepts that a future Chief of Naval Staff would transit from a direct operational role to mainly looking after the equally vital earlier tasks of "Raise, Train and Sustain."

In peace, such a command would become more efficient in roles that span Humanitarian Assistance and Disaster Relief (HADR); in furthering the assurances to several IOR island and rim nations under the SAGAR (Security and Growth for All in the Region) programme; as a counter-balance to China's growing influence and inroads including with the "One Belt and One Road" (OBOR or BRI); and as a functional executor of mutual security programmes and exercises or operations under Quad, or with other partners.

Teething Takes Time and has its Troubles!

In closing, one may say that India's Armed Forces are at the threshold of changes unlike any attempted hitherto. There will be teething troubles, some reworking as we learn from our errors and the dynamism that it necessitates. But, what we should aspire for is to sharpen the bite. In time to come, the JMTC would be a great addition to multi-dimensional and joint seapower to protect and further India's interests.



Rear Admiral Sudarshan Y Shrikhande, AVSM (Retd) was commissioned in July 1980. He commanded IN ships Nishank, Kora and Khukri and served at sea for several years. He is a post- graduate (with distinction) of the Soviet Naval War College (1988), DSSC Wellington (Scudder Medal), Naval War College and of the US NWC with highest distinction (2003) winning the Levy, Bateman and Forrestal Prizes. As a flag officer he headed Naval Intelligence and also served as Chief of Staff in HQ Integrated Defence Staff and HQ Strategic Forces Command. Post retirement, he is involved in teaching strategy formulation, operational art, force structuring, RMA, China, the Indo- Pacific, the Peloponnesian War, leadership and ethics in several military as well as civilian institutions. He is associated with the Vivekananda International and Observer Research Foundations as well as FINS. He is an adjunct professor at the Takshashila Institution and Naval War College as also the editor-in-chief of the Indian Naval Despatch.



KAMOV-31, Shipborne AEW Helicopter.

"EYE OF THE TOWER" – INS HANSA

INS Hansa, the Indian Navy's premier air station, located in verdant Goa not only has shore-based aircraft but is also home to several squadrons and flights that have embarked our earlier aircraft carriers, the *Vikrant*, and the *Viraat*. It now holds the Mig-29K fighters of *Vikramaditya*. In the navy, aircrew affectionately call their own ship "Mother". In that sense, it may be right to call Hansa "grandma!" To give the readers a sense of personal involvement through their eyes, two young women officers take you through the day's happenings at *Hansa*.

"BOOOOOOOOOOOOOOM!"

…And I am awake. I don't have to look at the clock to know that it's barely midnight before turning over in my bed, back to sleep. Waking up to the guardians of the skies training late into the night is part of my daily routine. Sometimes I walk up to the window to get a glimpse of a bolting ball of fire ripping the sound barrier apart. Then I see another, followed by yet another and just like that I'm lulled back to sleep by the very sounds that woke me up, a smile carving its way into my face gently, knowing that the knights in shining MiGs are up there. I still remember the first time I saw a MiG getting airborne. The beast was lined up on the runway, perfectly horizontal and then, in a blink, he was literally perpendicular to the earth, 90° vertical, racing towards the sky. We have two squadrons of MiGs at *INS Hansa*!

INAS 300 "White Tigers" is the oldest fighter squadron of the Indian Navy, commissioned in the United Kingdom on 07 July 1960. The 'White Tigers' announced the era of carrier borne aviation into the Indian Navy six decades ago with the induction of the Sea Hawk, which was replaced in 1983 by the Sea Harrier - the King of vertical take offs and landings. It served with distinction for over 33 years from the deck of *INS Viraat* (some of us were not even born). In 2016, the squadron went "supersonic" with the MiG-29K fighter and back to the times of "tail-hooking". Usually, fixed wing aircraft do not land on the carrier. Instead they are arrested each time by



Indigenous LCA (Navy) being "launched" from SBTF at Hansa.

the tail hook snagging one of the arrester wires and forcing the plane to be brought to a sudden halt in less than a hundred metres. A few years earlier, on 11 May 2013 to be precise, INAS 303 was commissioned as the "Black Panthers" and is a frontline squadron embarking *INS Vikramaditya (VKD)*. These birds are Air Superiority Fighters with 4+ generation technology.

At *Hansa*, there is just such a landing deck! On taking a closer look, I saw arresting gear on it. Shortly ahead, there was a curved mini-runway. Was I dreaming of the great VKD deck? No, it couldn't be. Something was different. This was the ski-jump of the Shore Based Test Facility (SBTF) which simulates the deck environment quite literally and accurately. The facility is extensively used to train and certify naval aviators for operating from the aircraft carrier, and for the developmental trials of the naval version of HAL's indigenous fighter, Tejas.

"Tringgggg". The alarm went off. A quick wash and I wore my overalls, tied my hair in a neat bun, stood in front of the mirror, and essentially saw my favourite patch – "Do as I say, and nobody gets hurt". Yes, I am an Air Traffic Controller; writing is just my hobby. Time now: 0630 hours and I am at the ATC: the "tower". After my briefing, I commenced my favourite task of the day – The Runway Inspection! The 45 metres wide magnificent runway stretches almost 3.5 km. I admired the diversity of the beautiful aircraft being towed onto their respective dispersals as they glistened in the first rays of the sun, all geared up for operational and training sorties.

"Radio Check 1 2 3, 3 2 1 Dabolim Tower". All set! The first sortie for the day….umm wait… there is no "first" sortie at *Hansa* ever! The flying here is non-stop, throughout the 24 hours. So, I reminded myself, the "next" sortie is the Captain (Air)'s bird-recce sortie, in the Microlight of our Garud flight. (BTW, the Captain (Air), I believe is called the COO (Chief Operations Officer) in the Air Force.) I still remember the time our tower received a call from a terrified resident of the officers' enclave adjoining *Hansa* claiming that a spy drone was flying overhead; turns out it was only our beloved *Hansa2* terrorizing none but the clueless birds.

The met (meteorological) watch-keeper walks up to me, distracting my attention for a moment from the hard-to-notice white little Garud. But, I don't have to worry about that because the tower is staffed with diligent and reliable lookouts to supplement the Duty ATC Officer's (DATCO) eyes. The watch-keeper hands over a sheet to me, which I make a mental note of before passing it on for announcement of the weather warning. Some seniors have talked about the progress made in forecasts over the decades and the vast improvements in accuracy helped to no small measure by algorithms, computer models, data bases, information sharing between diverse agencies. Add to this the seaman's and airman's eye and we can see why and how flying has become so much safer because of better weather forecasts not only in and around an air station / airport but in operational areas and all along air routes. *Hansa's* Met Department is always on the

ball and during the monsoon, it keeps an even sharper "weather-eye" quite literally. Aha! Hot ginger Tea! Just as I was about to take a sip, my Chief CR came running to me, "Ma'am, Commander (Operations) has messaged that North Karnataka has some flood emergency and SAR (Search and Rescue) assistance is needed." Before he could complete his sentence, I heard the RT call I anticipated: "Tower zigzag1, information foxtrot, request start". I turned to look at the dispersal. There he stood - The saviour of the lost and rescuer of the injured. The Advanced Light Helicopter, friends call him Dhruv. INAS 323 "Harriers", was commissioned very recently at *INS Hansa* on 19 April 21 with the indigenously built maritime - role ALH MK III helicopter. The Advanced Light Helicopter (ALH) is a multirole utility "helo" (navy term for helicopter; the other Services use "heptr") capable of performing a range of tasks from SAR, special operations, cargo and casualty evacuation. The motto of the squadron is 'Rakshakparoksh' translating into 'Protectors Beyond Perception'. The ALH MK III can fly under all weather conditions, which proved absolutely useful when the damage caused by the May 2021 cyclone necessitated frequent and impromptu launches of our helos.

Even more, *Hansa's* helicopters are capable of more than just SAR. The mean and mighty contra-rotating Kamov helicopter variants rule the seas not only from *Hansa* but regularly embark our aircraft carrier, *INS Vikramaditya* and several frigates that are equipped to operate it. INAS 333 was commissioned as "Eagles" at *Hansa* on 11 December 1980 with Kamov-25 Anti-Submarine Warfare (ASW) helicopter. The Eagles later shifted to Dega, Vizag in 2000. INAS 339, "Falcons", was commissioned on 23 November 1990 at *INS Kunjali*. This squadron initially operated Sea King 42Bs that changed over to Kamov-28s (ASW) in March 1993 and shifted to *INS Hansa*. March 2003 marked the beginning of a new revolution in helicopter operations with the induction of the KM 31 Airborne Early Warning (AEW) helicopter in INAS 339. This helo has a large radar that unfolds below the helo and rotates to enable AEW functions, fighter direction as well as communications and data linkages.



The ATC building at INS Hansa: "Eye of the Tower".

Whilst the ALH set off on the important mission, I waited for the next - carrying out crucial missions is commonplace at *Hansa*. And soon enough, Commander (Operations) relayed a message from a higher formation. That call-sign meant only one thing - a form green mission. Hmmmm... it could either be an IL38 or a Dornier - the two varieties of maritime reconnaissance aircraft in this station. I looked at the dispersal straight ahead. The ground crew and flight crew were already around the mighty IL38.

The Ilyushin 38 (IL38) formally entered service with the commissioning of INAS 315 "Winged Stallions" in 1977. Their induction gave the IN modern maritime reconnaissance (MR) and fixed-wing ASW patrol capabilities. INAS 315 was formed with just three aircraft on 01 Oct 1977. Two more joined them in 1983. The squadron is capable of Anti Surface Vessel, ASW, Electronic Intelligence and Strike Homing.

I watched the majestic IL38 get airborne, leaving behind its characteristic thick, black, exhaust trail. A quiet moment, now? No way! A pilot entered the tower with a flight plan for me to check. Hmm…COBRA 38… Mumbai… then Delhi… Chakeri… Ahmedabad… Delhi again… Mumbai… and back to Goa the next day. Then I looked at the remarks at the bottom of the sheet. This Dornier is going on a COVID relief mission, helping with transportation of masks, medicines and even infected patients. Bravo Zulu (BZ) to the pilots risking their lives to help people (Bravo Zulu is a naval code book entry for "Well Done." Used in almost all NATO navies and existed in the Naval signals codes we inherited in 1947).

INAS 310 "Cobras" is now the premier Information Warfare Air Squadron of the Indian Navy. It was commissioned at Hyeres, France on



(Clockwise starting from top) IL-38 Long Range Patrol; Mig29-K fighter onboard Vikramaditya and the ALH.

21 Mar 1961 as an embarked ASW squadron with the amazingly capable Breguet 1050 Alizé, an ASW, Anti-Shipping, Reconnaissance and Land attack platform from the decks of *INS Vikrant*. The Alizés were eventually phased out and the squadron subsequently inducted the Dornier 228 aircraft on 24 Aug 1991, thus completing the transition from carrier based ASW and reconnaissance role to shore based maritime reconnaissance and multi-role operations. 310 recently acquired a glass-cockpit variant of Dornier, mainly meant for Coastal Surveillance.

The Cobras are the most decorated squadron in the Indian Navy with a whopping 25 gallantry awards, several of them from the 1971 war! They have the honour of 01 Mahavir Chakra, 07 Vir Chakras, 09 Nau Sena Medals, 01 Yudh Seva Medal, and 07 Mentioned- in-despatches! The missions that they carry out definitely make them worthy of this glory. In March 2020, when the Coronavirus brought the whole world to a standstill, the Cobras proved their mettle in supporting operational and logistics requirements by taking on requests from the Goa state government. As doctors, health workers, nurses and sanitation workers risked their lives to fight the pandemic, the unit supported them by undertaking extensive flying operations throughout the period of the lockdown, transferring personnel, materials and test samples, test kits and other medical supplies. While the people of the nation were confined to the safety of their homes, the Cobras were flying across the length and breadth of the country to meet operational and humanitarian commitments.

Cobras were heroes at *Hansa* during the pandemic, no doubt. But *Hansa* also had the aid of a department Super-Heroes - the Medical Department. The small team of three doctors and a meagre staff of medical assistants provided unflinching support against COVID19 and ensured 100% vaccination of all personnel of the station and medical support for all the flying.

I handed over to the next controller at the end of my watch, albeit wishing I could continue controlling all day. That won't happen because the Station Flight Safety Department ensures strict measures to accomplish highest standards of flight safety, and will not let human-fatigue be a factor to mess it up. So I drove back to the wardroom (at the 30 kmph limit!) just in time for yet another well-earned lunch.

As a young officer, I can certainly say that *Hansa* is a family; a happy and healthy family. Every single person who works here, uniformed or otherwise, works with a keen sense of belonging to a 'ship's company." Men in dungarees work laboriously and stop not till their assigned task is perfected. Most of these brave hearts belong to the technical departments supervised by Captain(Technical). These include the Base Support Facility (BSF), Air Engineering Department (AED), Air Electrical Department (ALD) providing support to the frontline technical teams in various squadrons. To achieve the AFTs



Micro-light for airfield bird-management.



Dornier 228 ELINT Role

(Annual Flying Tasks) and ATTs (Annual Training Tasks), these technical teams work day in and day out in the hangars, carrying out regular maintenance of aircraft. In addition to the techno-geeks, departments such as Logistics, Administrative and Sports have played a pivotal role in nurturing and nourishing this family of over 3000 personnel and successfully running three galleys in addition to the officers' mess.

Dear readers of Medals and Ribbons, I have just described to you half a day at *INS Hansa!* You will have to imagine how amazing the rest of the day would be. Clearly, my heart longs to get back to the tower soon for yet another exciting watch.

Before I sign off I must tell you the grandfather's tale of *Hansa* at Dabolim. It was built in 1955 as 'Aeroporto de Dabolim' later renamed to 'Aeroporto General Benard Guedes'. After the liberation of Goa in Dec 1961 from Portuguese rule, the airport was handed over to the Indian Navy. *INS Hansa,* was originally commissioned at Sulur, near Coimbatore on 05 September 1961 (Diamond Jubilee is this year) moved to Dabolim in 1962. In the initial years it started operations with Vampires, Sea Hawks, Alizes and Super Constellations when these were transferred from the IAF to the IN. A less known aspect is that NAS Dabolim has been a dual-use civil aviation airport. From a small civil aviation enclave, it is now the 6th largest in India in terms of passenger traffic. A less appreciated fact is that if the IN had not set up its premier NAS here in Goa, it is conceivable that Goa may have taken much longer to be the tourist hub for domestic and international tourists and a state with among the highest per capita income in India. The IAF and the IN have been catalysts for economic progress in various parts of the country with air stations and bases catering to needs of countrymen. As an ATC officer, I am proud that I play my role in ensuring safe arrivals and departures of civil flights. Here are some statistics. Civil operations started with a few flights from 1966 and today *Hansa* operates 29,892 civil, 1348 outstation military and 6500 local flights (2020 figures). How about that? *Hansa,* symbolised by the Swan, which means grace, beauty, love, trust and loyalty. I could go on writing forever about the gem that is *INS Hansa*, but I've got to rush to the ATC!



Lieutenant Samanvita Sastry was commissioned as an Air Traffic Control Officer in the Indian Navy on 25 Jun '18. She is a Bangalorean and hails from a civilian background. She completed her BTech in Computer Science and Engineering from National Institute of Technology Karnataka, in May '18. She topped in the Air Traffic Management and Air Laws (Basic) course and was posted to INS Hansa in Oct '19. She pursues poetry and short story writing as hobbies.



Sub Lieutenant Anushree Sharma was commissioned as an Air Traffic Control Officer in the Indian Navy on 12 Jul '19. She belongs to Jabalpur, Madhya Pradesh and also comes from a civilian background. She completed her B.Tech. in Computer Science and Engineering in Jun '19. She was posted to INS Hansa in Oct '20. She is an avid reader and enjoys writing too.



Sub Lieutenants (Subs) in a ship-handling simulator.

MAKING SEA-DOGS OF LAND LUBBERS:

A Peep Through The Port- Hole on Naval Officers' Initial Training

"There is a right way, and a Navy way; We do it the Navy way!"
- Old naval maxim!

When young men transit to becoming seamen, there is a lot that they have to pick up about the ships and the sea. Those joining as officers in the Navy have to learn much more than just the technical skill of their trade. Rear Admiral Shrikhande recalls the various facets during the initial years of sea training.

From Locked Knees to Sea Legs

When we cadets -- fresh out of the tough, three-years' grind at the National Defence Academy (NDA) —joined the old Cadets' Training Cruiser, INS Mysore (formerly HMS Nigeria, purchased by India in 1957) we were in for several surprises. We came as sixth-termers, full of swagger steeped in the "Army's way of doing things" because that was the predominant influence at NDA. The Navy's way was certainly different from the way they saluted; the unfamiliar terms they used like decks, deckheads, bulkheads, chest flats, radar office, fore, aft, astern, "heads"(toilets) and much else. We marched with locked knees at the NDA. Now we needed to develop "sea legs" which often meant walking on wet, rolling, heaving decks as if we were bow-legged. We learnt that drill in the Navy meant action drills; gun and torpedo drills, etc. The drill we had learnt at NDA was called "Parade Training."

These were easy to absorb; young minds adapt quickly. I began to see value in the many "navy" ways of doing things only some years later. As cadets (the lowest form of marine life!) we didn't think about "why", as we were busy learning the "how". Now I understand better why our forefathers did what they did. The "Navy Way" went beyond mere training into making us better naval leaders of men and professional officers worthy of the uniform.

Cadet's Time!

Because navigation and movements at sea are combinations of distance, speed and time, or because "time and tide wait for no man," initial years at sea are divided into Cadet's time, Midshipman's time and Sub's time (Sub Lieutenant's courses and for watchkeeping ticket at sea). Serving at sea is known as 'sea time.'

On 01 July 1979, about 35 of us from NDA reported to INS Mysore. After INS Delhi was decommissioned, this powerful, lovely lady became the Cadets' Training Cruiser. She could no longer sail, but provided other training opportunities. One small surprise for us was that there was a Naval Academy at Cochin (now Kochi). After spending one term there, an equal number of college graduates joined us. We became the 18th integrated course. Our Direct Entry (DE) buddies generally ended up referring to themselves as part of the 56th course. We were proud to be ex-NDA, but NDA provided just about 25- 30 percent of officers. University entry schemes provided the rest, especially for the several other branches and niche specialities.

Onboard Mysore, and whenever we sailed in INS Krishna or other fleet ships, we lived in what used to be cramped junior sailors' "messes." Our belongings were stuffed into small chests (lockers) and sleeping was three-tier, if you were lucky. Quite a few of us had just 'durrees.' Although our meals were cooked in the officers' galley (navalese for kitchen), food was a far cry from what we enjoyed in NDA. We spent the mornings cleaning the upper decks and once in a few days "holy-stoned" the wooden quarter-deck (QD). Wooden decks needed to be scrubbed with wet sandstone bricks, the size of prayer books. Because the quarter-deck was a place for church - services in Western navies, some capital ships continued to have wooden deck planking above the steel deck. This had to gleam white, but our petty officers never quite seemed satisfied with our efforts! Cadets also had classroom instructions on propulsion and electrical systems, the basics of different sensors and weapons and how they worked together to make a ship a fighting entity.

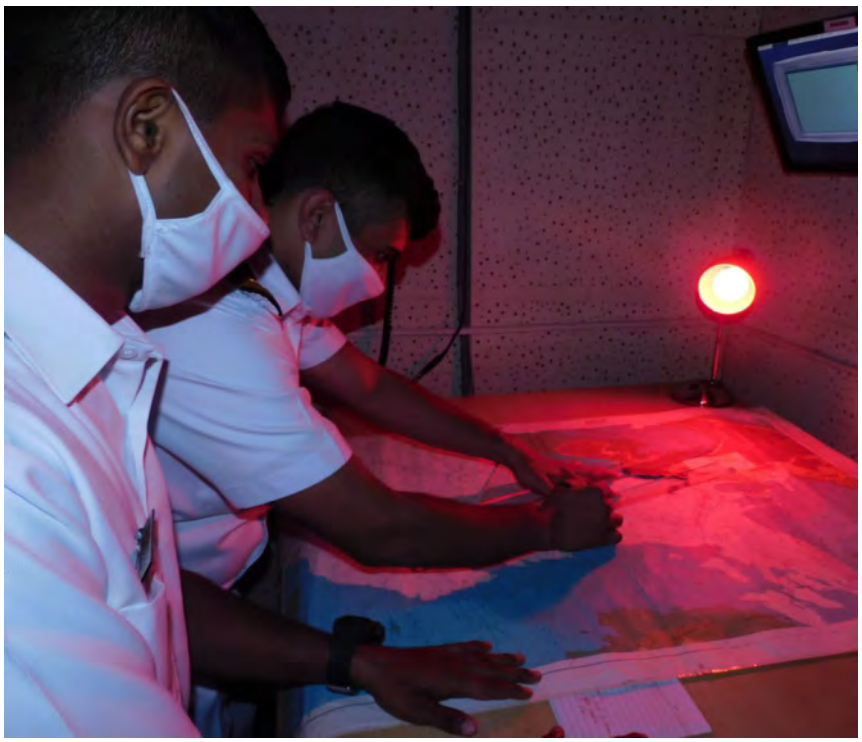


Subs with Tactical Training Consoles.

So what?

Life was busy but with a lot of fun, laughter, pranks, rough living, sea-sickness, fleet work and much discipline, albeit with a naval touch. So, what was the purpose of all of this? Primarily, it gave us first hand experience on how junior sailors lived and worked in the confines of a ship from the yard arms to the bilges. This led to fathoming the monotony and necessity of daily chores of sailors including cleaning bilges, machinery spaces and hot boiler-room decks; the need for officers to be reasonable in their orders and expectations; respect for manual work that officer-cadets would not, in normal course, be doing or might have needed to do in their adolescence. This method of breaking in young officers has some equivalent in the Army. In many battalions, young subalterns are first billeted with jawans for a few weeks to know their men, their work and realities. Only then are they admitted to officers' messes. Second, in terms of learning the ropes of leadership, even as we literally learnt seamen's rope-work, we comprehended the adage that an officer has to earn respect, not expect or demand it. Third, it was necessary for the Navy to bring us down a peg or two from three years of living in individual cabins with a civilian orderly to help you with kit and personal chores. This descent to the "deck-level" was imperative. A crew of several hundred from the captain to a very young junior sailor has to live in a ship of about 150 metres length. Fuel, ammunition, machinery, pipes, weapons and sensors occupy most weight and volume and the ship's company gets squeezed into what is left. Fourth, these six months make cadets aware why the "ship's company" is thought of as "all of one company." A ship puts to sea as one whole even if it is organised by "parts of ship", divisions and departments. Fifth, an early understanding that naval sailors and officers are multi-skilled and multi-tasked in a way that is unique among the Services. Of course, there are specialised skills in most individuals on board but the nature of work requires role-switches which require training and drilling.

Sixth --- and this dawns slowly upon



Chartwork by a red lamp to simulate a darkened bridge at sea.

younger sailors and officers -- that in a ship, submarine or patrol aircraft, risks are ever-present and equally shared. An enemy torpedo, shell, missile, an internal explosion, fire or flooding can sink a ship in minutes. We are literally all in the same boat. There is of course no rigid tradition of a captain going down with his ship if he feels that there are some shipmates still trapped. Arguably, it may be ill-advised to do so and the Commanding Officer (CO) can serve again, surely. However, many captains in many navies have chosen not to "abandon ship" because it does not feel right to abandon your men. That is what may have gone on in Captain M N Mulla's mind in the last few minutes before his ship INS Khukri went down in the 1971 war. This underscores the great importance, autonomy, and trust that a CO of a warship enjoys. Many Executive Branch officers have been lucky to have commanded ships in at least three ranks, some even four! No matter what his rank, what the size or the lethal power of his ship may be, "he is the captain, he is the ship" in exactly the context Joseph Conrad meant a hundred years ago.

There is a seventh lesson for us, but I will mention it towards the end.

Mid's Time

In January 1980 we found ourselves split into two frigates, the Beas and Betwa, at Kochi for the next six months as Midshipmen. There is no equivalent rank in the sister services. What's more, we got paid as Mids, a princely sum of Rs 560/- (In 1984, the Navy reinitiated distributing Mids to front-line fleet ships, a much better method). We sailed a lot, including a traditional foreign cruise to the lovely islands of Maldives and Mauritius. Training was biased towards practical navigation, seamanship and ship handling. We were still not part of a ship's wardroom where officers dine, but had our own "gunroom." At the end of six months, there was a fleet board where generally three COs asked wide-ranging questions and determined future fitness to be promoted to the rank of a Lieutenant (equivalent to an Army Captain and IAF Flight Lieutenant). Traditionally, Middies were expected to be pranksters, within informal rules of what tricks they could be up to. In most cases, the captain would bail you out with a stern warning and a sly wink!

Sub's Courses

Given the diversity of skills required, and the technical foundations needed in young naval officers, we attended a year long, back-to-back short technical courses (01 Jul 1980 to 30 Jun 1981). These used to span almost all professional schools of the Service mainly at Kochi but also at Jamnagar, Lonavala, Mumbai and Visakhapatnam. We were commissioned as "Acting Sub Lieutenants" at the first school slotted and every few weeks would move to another school. Every school had several examinations and marks counted towards cumulative seniority "earned" in NDA, as naval cadets, Mids and finally in the Subs' courses. This could result in one year's gain of seniority to be promoted to the rank of Lieutenant. The lesson was that in the Navy what mattered more was steady hard work, than flash-in-the-pan brilliance. It also gave young officers a "second chance" to overcome earlier setbacks. With the advent of the B.Tech curriculum at the Indian Naval Academy, Subs courses are understandably shorter today.

Watchkeeping "Tickets"

The final stage of initial training took us to fleet ships for watchkeeping certificates (aka "tickets" for some reason). This was for a minimum of six months to train to keep an independent watch at sea and as Officer of the Day in harbour who is responsible for the ship in the absence of the captain and the executive officer. One trained under the watchful eyes of the captain and all officers; learnt to be divisional officers for sailors; assistant departmental officers, etc. If found worthy, you earned the WKC



Learning Navigation.

(and for Technical officers a competency certificate), ready to go into the fleet or volunteer for submarines / aviation etc. The end-product was a useful, well-trained, confident young leader, officer and seaman.

A Final Word : Discipline

Here is the "seventh" lesson. Every Service has unique needs, its own tactical and professional cultures especially at the level of young leaders and units. In the Navy, it was eventually easy for us to slot into a relatively relaxed way of interacting with seniors and juniors. In a ship, a young officer, could lean over a plotting table, explain something to the Fleet Commander and make a clear, unambiguous recommendation of the next thing he thought must be done or at least considered. Within the confines of a ship or submarine, professional discipline matters greatly even if the body language, and a 24/7 activity routine at sea might seem strange.

An Army officer, who had sailed for nearly two months in my ship told me that he was initially shocked at how casual the officer-man relationship seemed to be; some officers seemed impertinent with the HODs and even the captain (me). At the end of a few weeks he came to recognise that in fact, levels of self-discipline, individual self-reliance, sense of responsibility and multi-skilling was unlike anything he had experienced until then and thought the Navy was more "OG" (olive green) than the Army! He asked me astute questions of how in a limited space an artificial sense of privacy was created which I explained, but space does not permit me to recount here.

Every organisation, corporations included, has its own culture and discipline. It takes time to understand it; it changes over time, sometimes for the better and sometimes for the worse. As a young officer and leader, I understood the 'How" of several things required of me. It was only years later that I better understood the "why" of a few ways of the Navy. Most of my shipmates, helped me grow and become better. Occasionally one came across a dodgy, self-serving senior, or a junior who had to be made more ship-shape. This happens; the world is not perfect, and neither are we. So, maybe there is a navy way, after all, not too different from the right way! Aye, aye to that.



Rear Admiral Sudarshan Y Shrikhande, AVSM (Retd) was commissioned in July 1980. He commanded IN ships Nishank, Kora and Khukri and served at sea for several years. He is a post- graduate (with distinction) of the Soviet Naval War College (1988), DSSC Wellington (Scudder Medal), Naval War College and of the US NWC with highest distinction (2003) winning the Levy, Bateman and Forrestal Prizes. As a flag officer he headed Naval Intelligence and also served as Chief of Staff in HQ Integrated Defence Staff and HQ Strategic Forces Command. Post retirement, he is involved in teaching strategy formulation, operational art, force structuring, RMA, China, the Indo- Pacific, the Peloponnesian War, leadership and ethics in several military as well as civilian institutions. He is associated with the Vivekananda International and Observer Research Foundations as well as FINS. He is an adjunct professor at the Takshashila Institution and Naval War College as also the editor-in-chief of the Indian Naval Despatch.



IAF Aircraft loading empty oxygen tankers for airlifting to refilling plants.

THE COVID SECOND WAVE

The Armed Forces Pitch In

All national resources were synergized as the nation tackled the second wave surge, the Armed Forces did a commendable job and added to the national capability. The Editor highlights these contributions.

In early April 2021, the second wave of the Covid 19 pandemic surged in India, the daily cases rose past one lakh, a figure not seen in the first wave. Within a fortnight the daily caseload shot past three lakh, and by early May the country was recording more than four lakh cases daily. Critical Covid care facilities were found wanting at several places. Undoubtedly, the magnitude of the sudden surge had not been anticipated, the health infrastructure came under tremendous strain, as shortages of oxygen cylinders and oxygenated beds hit home.

India is a resilient nation, with enough economic heft today to marshall resources and respond to the grave challenge. Various Central and State Government Departments responded to the crisis situation – the Railways ran Oxygen Express Trains ferrying oxygen tankers from refilling plants, industrial oxygen plants were modified to produce medical oxygen at many places, at places nitrogen plants were converted to produce medical oxygen. Import incentives were given to bring in essential medicines and equipment from foreign shores. Several friendly nations also rushed assistance to India.

The Indian Armed Forces too pitched in....

The Indian Air Force (IAF) airlifted empty oxygen tankers from various cities to the refilling plants to cut down on the road journey time, thus speeding up round trip timings. By mid May, 252 oxygen containers had been airlifted from Bhopal,



INS Jalashwa entering Visakhapatnam with 18 Oxygen tanks and other critical medical equipment.

Chandigarh, Vijayawada, Indore, Ranchi, Agra, Jodhpur, Vadodara, Secunderabad, Pune, Bhubaneswar, Surat, Raipur, Dimapur, Udaipur, Mumbai, Lucknow, Gwalior and from Hindon (Ghaziabad). Oxygen tankers and other equipment were to be brought in from international destinations too, and the IAF executed over 60 sorties to Singapore, Dubai, Bangkok, United Kingdom, Germany, Israel, Belgium and Australia. Four empty oxygen cryogenic containers were airlifted from Singapore to Panagarh in West Bengal. 23 mobile oxygen generation plants and containers were airlifted from Germany to be deployed at Armed Forces Hospitals to cater for Covid patients. These plants have a capacity to produce 40 litres of oxygen per minute (2400 litres per hour), hence they can cater for 20 to 25 patients round the clock. In addition, seven oxygen plants were airlifted from Munich, Germany and ferried to Srinagar in Kashmir. The new oxygen plants included 5 plants of 1000 Litres per minute (LPM) capacity, one each of 1500 LPM and 600 LPM capacity thus adding 7100 LPM to the existing availability in Kashmir.

Filled Liquid Medical Oxygen (LMO) tankers also had to be lifted from foreign ports. The Indian Navy (IN) launched Operation Samudra Setu II. *INS Talwar* lifted two 27 ton LMO tankers from Bahrain, while *INS Kolkata* lifted medical supplies from Doha, then sailed to Kuwait to embark another two 27 ton LMO tankers. I*NS Airawat* loaded eight 27 ton LMO tankers (216 tons of LMO) from Singapore, along with 3600 oxygen cylinders, 10000 Rapid Antigen Detection Test kits and other medical supplies, and returned to Visakhapatnam. *INS Jalashwa* embarked with 18 Cryogenic Oxygen Tanks and other critical COVID Medical Stores including 3650 Oxygen Cylinders and 39 Ventilators from Brunei and Singapore and arrived at Visakhapatnam on 23 May 21. 15 of the 18 Cryogenic Tanks were filled with Liquid Medical Oxygen. *INS Trikand* arrived at Mumbai on 23 May 21 with Covid relief material from Qatar which included two Liquid Medical Oxygen (LMO) containers of 20 MT each and 100 Oxygen cylinders. *INS Kochi, INS Tabar* and *INS Shardul* also followed suit and embarked medical supplies and equipment from the Persian Gulf States.

Covid Care Facilities

The role of the Armed forces was not limited to ferrying medical essentials, but there was a crying need to expand hospital facilities. The resources of Defence Research and Development Organisation (DRDO) were synergized with the Armed Forces. While DRDO constructed and expanded hospital infrastructure, the Armed Forces pitched in with manpower to run the hospitals. Sardar Vallabhbhai Patel (SVP)Covid Hospital near Delhi Airport was expanded to a 1000 beds capacity, and 378 Army Medical Corps (AMC) doctors and paramedics were deployed at the facility. The 164 Doctors deployed included 17 super specialists and 43 specialists. The SVP DRDO Covid Hospital, Delhi has indeed handled the large number of Covid patients professionally and with sensitivity. The daughter of a couple who were admitted to the Hospital on 30 April had this to say: *"Sardar Vallabhbhai DRDO Covid Hospital, a place where people care enough to make a difference*



Covid Care Centre at INS Chilka, Odisha.

for so many lives. Their professionalism, pleasant behavior and right treatment saved my parents' lives and significantly eased the pain they were going through. I applaud the courtesy and professionalism of the entire staff involved in taking their care. The doctors' care made me feel that they were in safe hands. The only hospital which allowed the family members to enter the ward with safety measure (PPE kit to be worn) made them different from others. Thanks once again to the team of Doctors from the Indian Armed Forces who are doing a yeoman service in looking after every civilian patient in the DRDO hospital, irrespective of their social status, caste or creed."

Similar hospitals with bed capacity of 750 and 450 each were set up by DRDO at Varanasi and at Awadh Shilpgram, Lucknow to treat Covid patients and is manned by doctors and personnel from AMC. In addition, DRDO helped set up a 950 bed Dhanvantari Covid Hospital at the Gujarat University campus in Ahmedabad, in collaboration with the Gujarat Government. A Naval medical team comprising 169 doctors and staff has been deployed at this facility in Ahmedabad. The Indian Army mobilized two field hospitals from North East India and deployed more than 300 personnel and equipment at ESI Hospital, Patna, where the Bihar Government set up a 500 bed Covid treatment centre with DRDO assistance. The IAF organized a 100 bed Covid Care Centre at Air Force Station, Jalahalli, Bengaluru for the general public, while the Army too set up a 100 bed Covid treatment facility in Bengaluru. At Rangreth in Srinagar, the Jammu & Kashmir Administration and the Army's 15 Corps jointly operationalized a 250 bed Covid Care Centre. Similarly, a 150 bed Covid isolation centre was opened for asymptomatic civilian patients at 3 EME Centre Bhopal. Beds were earmarked for civilian Covid patients at many other military medical establishments like INHS Jeevanti, Goa; INHS Patanjali, Karwar; INHS Sandhani Mumbai; INHS Nivarini, Chilka, Odisha. Cantonment Boards also joined the effort and Covid Care Centres were developed at Cantonment General Hospitals in Pune, Khadki, Dehu Road, Deolali, Ahmednagar, Jhansi to name a few.

The Navy ran a "sealink oxygen express" to support the Lakshadweep administration. INS Sharda ferried oxygen cylinders, Rapid Antigen test kits, PPE, etc to Kavaratti and Minicoy from Kochi, while 10 beds at INHS Sanjivani, Kochi were earmarked for Covid patients from Lakshadweep. An additional Covid test facility was required in Ladakh, hence the IAF airlifted biosafety cabinets, centrifuges, autoclave machines, oxygen cylinders along with doctors and paramedics to Leh and Kargil.

At Base Hospital Delhi Cantt (BHDC)

While the Armed Forces extended a helping hand to the citizens, they also cared for their own families and veterans. BHDC was totally converted to a Covid hospital, and expanded from a 340 bed facility to 650 beds for Covid Treatment, which included 450 oxygenated beds. The human touch at BHDC was remarkable. Major General Vasu Vardhan, an eminent pulmonologist and the previous Commandant of BHDC set a stellar example of commitment and dedication. He worked day and night to ensure top class care and



Covid Care Centre at Rangreth, Srinagar.

treatment, so much so that he only took a few hours off to grieve for and perform the last rites of his mother in early May 2021. Mrs Mrinalini Deshpande, wife of Brigadier Vikrant Deshpande, underwent Covid treatment at BHDC and reflected on her experience (see box below).

My experience at Base Hospital Delhi

On the 9th of April, I developed fever and tested positive for Covid. We immediately went to the Base Hospital and were given immediate prescription of treatment to be followed for ten days. After ten days of fever and cough, I realized that my oxygen levels were falling to 85. I started having trouble breathing and my husband drove me to the hospital, on the night of the 18th April. I had never seen so much despair before! There were serious cases lined up everywhere, waiting for attendance and a bed!

What was comforting to see in that harrowing situation was the three or four resident doctors, under the Officer in Charge, Reception dealing with each case as per its criticality. It was a difficult situation with patients wanting immediate attendance but the team kept their calm, working relentlessly. Finally I got a bed, an oxygen bed; they were shifting non critical patients to regular beds and making space for the critical ones. The eight days I spent at the Base Hospital was an eye opener. I had never seen so much of despair and tragedy around; despite that what has made a lasting impression on my mind is the smiling and encouraging faces and constant efforts of the medical staff, the nursing staff and all attendants. There was a pregnant young lady next to me, 34 years of age with almost 32 weeks of pregnancy. It was so heartwarming to see that her case was being followed carefully. I was amazed at the way they were gently handling patients.

Then there was an old lady, having suffered complete electrolyte imbalance due to diarrhoea and Covid. Though her oxygen levels were fine, she was behaving like a completely delusional child. The staff for once did not lose their patience, kept checking on her frequently, cajoling her to take sodium salts and brought her back to normalcy in two days!

The doctors from the fourth days onwards started encouraging me to breathe deeply, and try to gradually wean off oxygen for a few hours daily. On the sixth day, they encouraged me to stay off oxygen, breathe slowly naturally. My levels were constant and I could maintain oxygen between 92 to 94. However, they waited and observed for two more days till I could maintain it at 96 and was fit for discharge.

I feel forever indebted to the whole army medical fraternity at the Base Hospital for giving me a new lease of life and confidence in humanity. There is so much positivity and hope that I have carried with me, which has inspired me to help. Watching those helping, ever smiling faces, I realized that once in PPE kit, they cannot even have water for six / eight hours! I don't remember the names, only the smiling faces, from the attendants who would fill water bottles, serve us food, the nursing staff carefully administering medicines, checking vitals and the team of doctors, constantly supervising ensuring the well-being; these are the silent warriors, the real heroes and my salute to each one of them.

- Mrinalini Deshpande



Naval Dockyard, Visakhapatnam Team repairing the Oxygen Plant at Nellore.

Ingenuity and Innovation

Mobile Oxygen Generation Plants with 100 LPM capacity, termed 'Oxygen on Wheels' were designed and developed by the Naval Dockyard Technical team at Visakhapatnam to provide a direct feed to any hospital's pipeline system. The Oxygen Plants, mounted on trailers, can easily be transported to remote hospitals and connected to the hospital's fixed Oxygen piping system - to serve as the main feed for up to 16 beds. The Oxygen System can also serve as a backup to prevent incidents of low oxygen pressure in hospitals besides supporting the Government efforts in smaller hospitals and rural areas. Simultaneously, the Naval Dockyard Visakhapatnam team repaired two oxygen plants at Nellore and Shri Kalahasti in Andhra Pradesh, while an Army EME Team repaired an oxygen plant in Srinagar, J & K.

The Naval Diving School developed an Oxygen Recycling System (ORS) designed to extend the life of the existing medical O_2 cylinders two to four times, using the fact that only a small percentage of O_2 inhaled by a patient is actually absorbed by the lungs, the rest being exhaled into the atmosphere along with carbon-dioxide (CO_2) produced by the body. This exhaled O_2 is re-used, after the exhaled CO_2 is removed. The ORS adds a second pipe to the patient's existing O_2 mask, which sucks out the air exhaled by a patient using a low-pressure motor. Both the mask inlet pipe (for O_2) and the mask outlet pipe (for exhaled air) are fitted with non-return valves to maintain a positive pressure and unidirectional flow of gases at all times to ensure the patient's safety against dilution hypoxia. The exhaled gases, mainly CO_2 carbon dioxide and O_2, are then fed through filters which absorb CO_2 and other particulates, allowing enriched O_2 to pass through unaffected. The enriched O_2 from the scrubber is then pumped back into the inhalation pipe of the patient's face mask, thereby increasing the flow rate of O_2 to the patient, and reducing the use of O_2 from the cylinder.

The Army Engineers too came up with a solution to ensure continuous conversion of liquid oxygen into oxygen gas at the requisite pressure and temperature at the COVID bed. The team used a self pressurising liquid oxygen cylinder of small capacity (250 litres) and processed it through a specially designed vaporiser and directly usable outlet pressure (4 Bar) with requisite leak proof pipeline and pressure valves.

DRDO too has played an active role, and is developing 53 Oxygen plants for deployment at various hospitals. The first batch of drug 2-Deoxy-D-Glucose (2- DG) drug to treat Covid-19 patients, developed by DRDO in collaboration with Hyderabad's Dr Reddy's Limited was launched on May 17, marking a landmark in India's fight against the Covid-19 pandemic. The drug, which is a glucose analogue, was cleared by the Drug Controller General of India for emergency use as an adjunct therapy for Covid-19 patients. The results of clinical trials, conducted in several states, showed that this 2-DG molecule helps in faster recovery of hospitalised patients and also reduces oxygen dependence.



Brig A Pakianathan presenting ECG Machines to Commandant, MH Chennai on behalf of the Radiant Group.

A Multitude of Actions

The Armed Forces worked silently, admirably at many places. What was inspirational was the commitment and selfless service of many unknown and unseen warriors. Havildar Ramakant of 406 Air Defence Regiment performed yeoman service at the Brar Square Crematorium, Delhi Cantt, moving from pyre to pyre, from dawn to dusk, arranging all the necessities for the last rites – without ever faltering in his turnout and conduct. Lieutenant Vivek Chauhan, 110 Field Regiment and Naib Subedar Rambilash Sharma, 512 Air Defence Regiment also handled their responsibilities at the crematorium with quiet dignity and fervour. As part of Corporate Social Responsibility (CSR), the Radiant Group of Companies seeing the havoc being created by the COVID second wave decided to help out our uniformed brethren and their families by presenting ECG machines to the Military Hospital, Chennai (see picture above).

The Director General Armed Forces Medical Services (DGAFMS) was at the helm of affairs, organizing the medical assistance being marshaled from the Armed Forces. More doctors were required, so the Government suspended the exit of Short Service Commission Doctors, so all doctors completing their service liability will continue in service till December 2021. Recently retired doctors from the AMC were also called up to rejoin for a short tour of duty, while many AMC veteran doctors joined the e-Sanjeevani OPD services Covid tele-consultation network. The Armed Forces hospitals also undertook plasma therapy where required. Showing remarkable initiative, Brigadier Amit Sharma, SM, Commandant Military Hospital, Mhow coordinated with MY Hospital Blood Bank at Indore, and organized the first of its kind plasma donation camp in a peripheral military hospital for Covid treatment on 3rd October 2020 (see adjacent box).

A Lungful of Oxygenated Pride

As I look back at the scale of the human loss (most families have lost some near and dear ones), caused through the lungs by Covid-19, I also perceive the immense work done by my brethren in uniform to help the nation tackle the Second Wave Surge. My lungs fill up with oxygenated pride as I salute the national spirit and national resolve. The nation will overcome – "Hum Honge Kaamyab, Hum Honge Kaamyab Ek Din, Mann mein hai Vishwas, Hum Honge Kaamyab Ek Din".

- Lt Gen J S Sandhu (Retd),
The Editor

Plasma Donation For Covid Treatment at Mhow Cantt

A first of its kind plasma donation camp at a peripheral military hospital was organised at Military Hospital Mhow on 3rd October 2020. Prior to the plasma donation, initial screening of the Covid Knights, our serving soldiers and civilians who had tested positive for Covid 19 and recovered after 28 days was carried out for Serological markers, complete blood counts, parasitic infections, liver function tests, kidney function tests, basic biochemical parameters and Antibody screening against SARS-CoV-2 virus. 45 plasma donor aspirants were screened, and 30 were found eligible for plasma donation with a good amount of SARS -CoV-2 Antibodies with cut off index (>0.08) in their body. The plasma donors included 25 serving soldiers and five civilians.

Six technical engineers, six laboratory technical staff and three doctors from MY Hospital Indore with four Portable Plasma Apheresis machines joined the team of Military Hospital Mhow.

Each plasma machine took half an hour under aseptic conditions to draw 500 ml of fresh plasma from each healthy serving soldier donor (a Covid patient is administered a 200 ml capacity plasma bag).

30 donations were done successfully amounting to 60 bags of healthy plasma, which can be used for convalescent plasma therapy for management of moderate to severe Covid 19 infected cases.



Cool and Cheerful Lt Gen (Dr) M Kanitkar

A TÊTE-À-TÊTE WITH MADHURI KANITKAR

A young student joined Armed Forces Medical College (AFMC) in Pune over four decades ago in 1978. Over the years, she has risen through the ranks of the Army, gaining professional expertise and recognition, rising to the rank of Lieutenant General. Lt Gen (Dr) Madhuri Kanitkar, AVSM, VSM, currently DCIDS (Medical) in Headquarters Integrated Defence Staff at New Delhi has indeed been an inspiring mentor and guide. She and her husband Lt Gen RV Kanitkar, PVSM, AVSM (Retd) became the first couple to both reach the three star rank in the Armed Forces – a rare achievement. Here we bring to you an interesting conversation with her.

At the outset our heartiest congratulations on your unique and stellar achievements over a long service career of nearly 40 years. Which moment or event in this long innings do you cherish and recall as the most inspiring time of your life?

Thank you for your good wishes. There are two moments in my life I cherished the most. The day I graduated from AFMC with top honours as well as two stars on my shoulder. The joy was doubled because I was married and had a husband, also a young Cavalry Officer, to share this moment with. The second was 38 years later when he pipped me as a Lieutenant General and we had both made it to the highest rank together.

From Fergusson College, Pune to AFMC – indeed a great step from a prestigious institution to another. You had a choice to join BJ Medical College, Pune too, but you preferred AFMC. What led you to this choice?

A visit to the AFMC impressed me with the infrastructure, facilities and the smart turn out of students in uniform. I had also met my future husband who was to join the Army. It was the attraction of donning the uniform which made me choose AFMC.

Army life has its share of travails and hardships. Which difficulties cause greater stress and what mantra did you adopt while facing these challenges?

A work life balance causes stress to all working couples. Not being co-located with my spouse added to the hardships. Following a simple mantra of maintaining a fit mind in a fit body and a positive attitude helped me to convert challenges to opportunities and became stronger from the learning experience. Having had support of my family and colleagues really helped and I



Briefing Shri Amit Shah, the Hon'ble Home Minister

was always grateful for this support. This ensured my blood group remained "B POSITIVE!".

Your passion for greater professional expertise made you opt for fellowship programmes in Singapore and London. How was the learning experience on these programmes, in comparison to similar programmes in Indian institutions?

The programmes abroad were an eye opener as how to provide care in a patient-centric manner. The clinical workload and learning in Indian Institutions is phenomenal. However, in programmes abroad one gets an opportunity to see high end medical care and better soft skills among health care workers & strict protocols are adhered to. I found the patients more aware and able to discuss their treatment options with doctors, more than 20 years ago.

You were instrumental in introducing paediatric nephrology in Indian Armed Forces. Considering your expertise in this niche field, do you intend to continue research and practice in this field after retirement?

I intend to continue contributing towards medical education and research after retirement not necessarily limited to paediatric nephrology.

Of all your varied tenures in the Army, which tenure was the most stressful, with maximum difficulties and pressures? How did that experience influence your perceptions thereafter?

My tenure at Pathankot was possibly the most difficult. We as a family were forced to be located in three cities as husband was commanding his unit, I was in Pathankot with my five year old daughter who had a medical problem, and my son needed to stay back in Pune with the grandparents being in 9th standard. During this period my mother also became critically ill requiring me to leave my daughter with colleagues for two weeks and rush down to care for my mother. The hospital itself was very busy requiring long hours of work, and then the Kargil War increased some work pressures. Having been through all this was a huge learning experience and it made me mentally and morally a stronger person, and I felt if I could handle this, I can handle anything.

You have been a worthy guide, mentor and teacher at AFMC, Army College of Medical Science and Army Hospital (Research & Referral). Are you inclined towards continuing to teach post retirement?

I will continue to remain associated with medical education and research. The exact modalities will be worked out with time. I keep an open mind.

Last year the defence forces and the health workers were at the forefront of media attention, because of the Ladakh border standoff and the Covid-19 pandemic. How did you and your colleagues ensure that the pandemic did not adversely affect our troop capabilities on the Northern borders?

The Armed Forces Medical Services, as always, were the shoulders behind the soldiers. Not only did we ramp up testing facilities and treatment protocols, but also ensured high level training of our para-medical personnel. Timely dissemination of policies and protocols and working as a team with the Service Headquarters ensured the highest troop capabilities on the Northern borders and across the country. We also contributed to the care of civilians in service hospitals.

With a steady increase in lady officers taking place in the Armed Forces, what guidance would you like to give them as they function in a largely male-dominated organisation?

The organisation is pre-dominantly male but not male dominated. It is our confidence and capability that is paramount. The organisation gives you the confidence and the courage of conviction to function as an officer without gender affecting you.

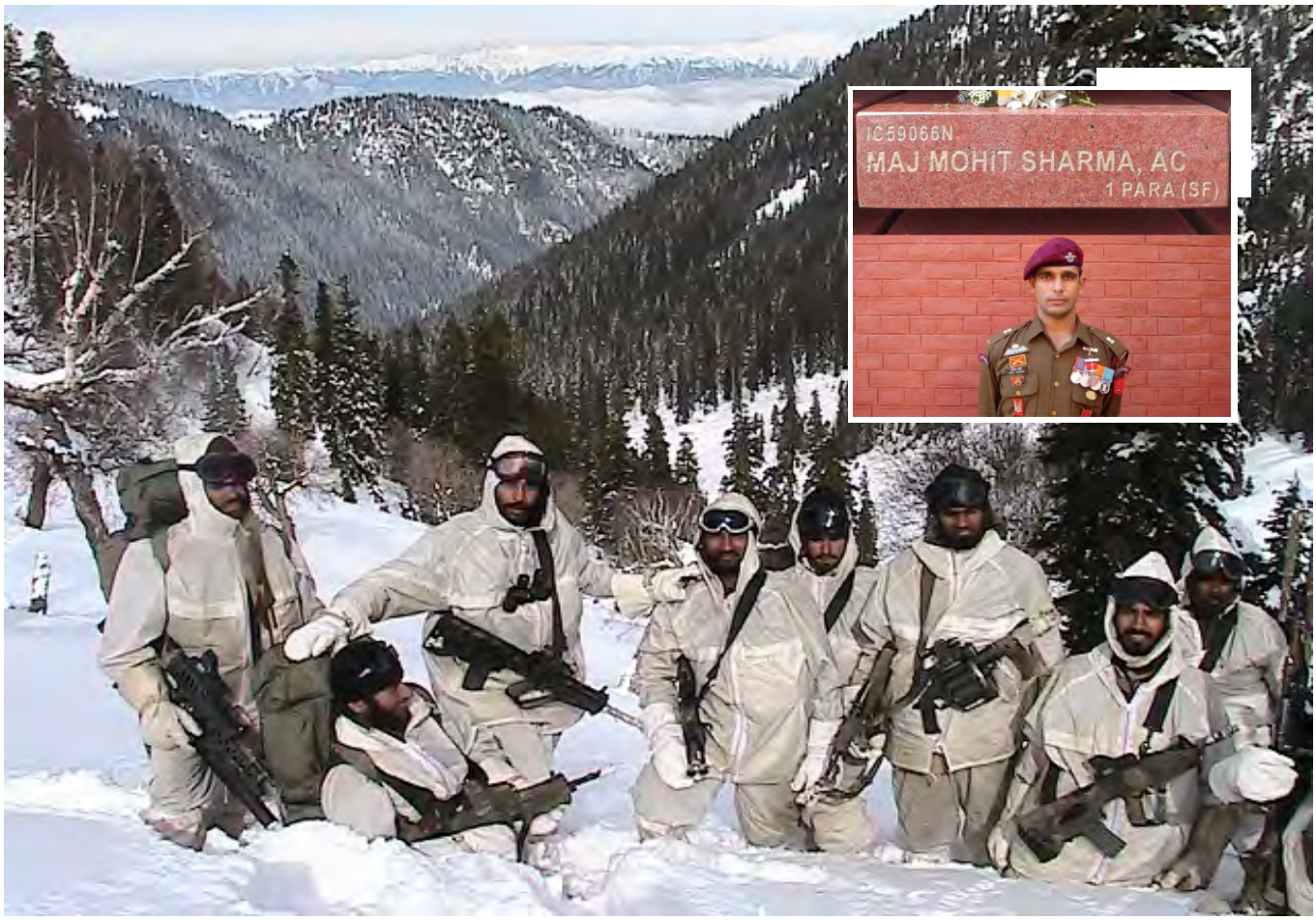
What have been your favourite pastimes, your hobbies? And possibly, you would get more time to indulge in these in the coming years?

My best pastime in the past has been mostly outdoor activities. It was either swimming or cycling or work out at the gym. I have enjoyed even horse riding and sailing. Presently I enjoy playing golf, and I look forward to spending time on these hobbies post retirement to continue having a fit mind in a fit body.

The medical profession is highly respected, but off late corporate hospital chains and commercial mind-sets have resulted in many unethical practices. The Oath of Hippocrates has just become a symbolic phrase, to be ignored by some medicos. How can we bring about some reform in this "medical profiteering"?

The medical profession is practised by persons belonging to the same society that patients come from. Improving mind-sets is required at both the ends, the society as well as the medical professionals. The running of corporate hospitals on a business model is contributing to the problem and this has been created by society. Only doctors cannot be blamed. We need to work together, joining hands with the government to improve the health of the people.

- Lt Gen J S Sandhu (Retd)
The Editor



Mohit (third from left) with his troops on a snow clad ridge of Kashmir.

MOHIT's VEERGATHA

Seldom have we come across a contemporary valiant hero, whose story evokes admiration, respect and salutes. Major Mohit Sharma, AC, SM (Posthumous) aka Iftikhar's story is expected to come out on celluloid next year. Here in this tribute, we salute a bold, courageous patriot and Dare Devil.

"It is not in the stars to hold our destiny but in ourselves"
– William Shakespeare

First Impressions

In early 2003, I received a call from Army Headquarters asking me as the Commanding Officer, whether Captain Mohit Sharma could be earmarked for 1 PARA (SF) on probation for selection in the Special Forces (SF). I had learnt that he had volunteered for the Battalion once earlier in 2002 and could not complete the probation due to an injury sustained during the tests. I was quite convinced that Mohit, who was volunteering again to join us fully knowing the constraints that lay ahead of him, should be given another chance. Normally, officers who do not make it in their first attempt but continue to aspire to join SF are earmarked for another battalion in the Parachute Regiment, so that they are tested by a fresh team of officers and men.

Mohit had recovered his strength and was immensely motivated and determined to undergo the probationary attachment this time. After an inspiring and spirited performance during the 'hell-week', I and all ranks of my



From left, In India Squadron NDA (centre, second row with his arms around a cadet in front of him); With his favourite horse 'Indira'; With his parents on Passing Out.

Battalion were convinced that he was fit to be an integral part of our team. While pinning the coveted 'Balidan' badge to his chest, I still recollect my words to him, "Mohit, you have broken the glass ceiling. You will now get ample opportunities to fulfil your dream of an exciting and action-packed military life in the service of our country. You must keep the flag flying high". And thus, began a passionate journey of raw courage, commendable professionalism, sincere esprit-de-corps and exceptional leadership. Mohit's fascinating tale of fearlessness and gallantry continues to motivate and inspire our youth to this day.

Early Years

"There's nowhere you can be, that isn't where you're meant to be…"
– John Lennon

On 13th January 1978 in Rohtak District of Haryana, Shri RP Sharma, a banker and Smt Susheela Sharma were blessed with their second child, whom they named Mohit. Mohit started his education at Manav Sthali School, Delhi and then joined Delhi Public School, Ghaziabad in 1988. He passed out from the school in 1995 securing a high percentage in Class XII. Typical of middle-class families of the time, his parents convinced him to join the engineering course at Shri Sant Gajanan Maharaj College of Engineering near Amravati, Maharashtra. Mohit's first love was to join the Army, but he reluctantly agreed to the wishes of his parents. His joy knew no bounds when he passed the written exam and interview for selection to National Defence Academy (NDA). However there was a problem; Mohit was so thin and skinny that he had to make extra efforts to gain a few kilos to clear the medical exam. His single-minded focus and resolute firmness saw him leave the engineering course and join the prestigious NDA in the year 1996.

Cadet Days

"Does the walker choose the path, or the path the walker?" – Garth Nix

With his unflinching commitment and zeal, Mohit emerged as one of the best all round cadets and excelled in various fields to which he had no prior exposure. He was an outstanding horse rider trained under the guidance of Col Bhawani Singh, with his favourite horse named 'Indira'. He was good at playing musical instruments including guitar and mouth organ, and never hesitated to give live performances with his melodious voice. He was a boxing champion in the featherweight category as well as one of the best swimmers. Mohit was fondly called 'Mike' by his course-mates in India squadron. With a strong foundation in NDA, he continued with his exceptional accomplishments in Indian Military Academy, where he was appointed Battalion Cadet Adjutant. On 11th December 1999, Mohit was commissioned into one of the oldest regiments of the Indian Army, 5th Battalion of the Madras Regiment.

Initial Years

"When the going gets tough, the tough get going" – Credo of a Commando

Lieutenant Mohit Sharma joined 5 MADRAS in Hyderabad in early 2000 and within a few months, moved with his battalion to Poonch-Rajouri sector of Jammu & Kashmir. They were tasked to undertake counter-insurgency operations along with 38 Rashtriya Rifles, which was affiliated to the Madras Regiment. Mohit was a quick learner and gained expertise in conducting intelligence acquisition patrols, reconnaissance missions in high altitude areas, ambushes on likely routes of infiltration by terrorists and cordon & search operations. After the 13 December 2001 attack on India's Parliament by Pakistan's state-sponsored terrorists, Operation Parakram unfolded and Mohit found himself rubbing shoulders with SF personnel frequently. The SF were deployed for specialized operations in this challenging sector due to its vulnerability for infiltration by terrorists, and his aspirations to join the elite warriors by operating alongside them began taking shape.

His validation of excellence in operations in Rajouri sector was recognized with the award of the Chief of the Army Staff Commendation in 2002, and he volunteered to join 1 PARA (SF) a few weeks later. Selection into SF is one of the toughest tests of a volunteer's physical and mental capabilities to cope with the rigours of probation; only about 10-15 per cent volunteers make the grade. There isn't any big secret about passing the selection as it is all about the individual. Selection is 70 per cent mental and 30 per cent physical – you don't have to look like a Khali. Captain Mohit was unable to complete the probation the first time due to his physical injury, but his re-

volunteer attempt displayed all the grit and dedication to overcome the inherent challenges and he deservingly earned the 'Maroon Beret'.

Sharpening the Axe

"Your friends will believe in your potential; your enemies will make you live up to it"
– Tim Fargo

The security environment continued to be nebulous and we had to maintain a quick reaction force to address terrorist threats in our area of responsibility of Western Command in the year 2003. We decided to send Mohit to oversee this important task at Chandimandir, and he set about to execute the task with sound tactical drills and procedures. During the course of this assignment, he met Captain Rishma Sarin, an officer in the Army Service Corps (ASC) and their relationship blossomed into a perfect love story. A rare coincidence, we had two more course mates of Mohit serving in the Battalion at this time, Captains Manav Yadav and Bhaskar Tomar, and it was quite a challenge to task these 'Three Musketeers' independent of each other. Back at the base, the Battalion was gearing up for its planned deployment in Kashmir Valley in early 2004, for pro-active tackling of terrorism. Pak-sponsored cross-border terrorism continued to remain a cause of concern with a high level of violence and tension, as over 1500 terrorists were killed in Jammu & Kashmir in 2003.

We were well prepared for this deployment, having honed our skills in the realistic and battle-ready environment of Special Forces Training Wing, Nahan for a few months. During the initial few weeks, we were tasked around Shopian in South Kashmir, a perennial hotbed of both foreign and local terrorists. Due to the intrinsic support of the population in the area to terrorists, cordon and search operations by Rashtriya Rifles battalions was not bearing much success. Information was difficult to be obtained through few local sources and own tactical movements were disclosed by informers losing surprise. We decided to launch covert missions to take the battle to the enemy, focusing on eliminating the terrorist leadership and Mohit with his tenets of guile, courage and intuition was a natural choice.



Maj Rishma receiving the Ashok Chakra from the Hon'ble President on 26 January 2010.



'Bearded' Iftikhar aka Mohit.

Mohit's heart always craved for more action and adventure. When I visited the team to go over their final preparations for a mission in Pir Panjal ranges, I was surprised to see his transformation into a young Kashmiri lad with a bushy beard, long hair around his shoulders, perfect language and cultural mannerisms. With a pseudo-name of Iftikhar Bhatt, he planned to target Abu Sabjar and Abu Torara, Hizbul Mujahideen commanders in the area. After a few days, he established contact with them and won their confidence for seeking revenge against the forces. His alibi of attacking an Army foot patrol to cause maximum damage and avenge his younger brother's death a few years earlier, passed their critical scrutiny. He showed them the exact locations on hand-drawn maps with his intimate knowledge of terrain and pattern of forces movement along the hill tracts.

Sabjar and Torara believed him after he had visibly impressed them with his motivation and the detailed attack plan. As they were going over the final execution of plan, Abu Sabjar began having doubts on Iftikhar and started asking questions about his background and story again. Sensing the distrust, the young man dropped his AK-47 rifle in a flash and said that they can shoot him if they didn't believe him. Observing their dilemma and catching them off-guard, he seized the opportunity and shot them dead with his concealed Beretta 9mm pistol.

This was amazing bravado displayed by Mohit and his singular act galvanized our battalion to accomplish major successes in counter-insurgency operations in the Kashmir Valley and be rewarded with the Chief of the Army Staff Unit Citation. For his extraordinary act of courage, devotion and professionalism, Captain Mohit Sharma's gallant deed was deservingly recognized with the award of Sena Medal.

Beyond the Call of Duty

"Do not go where the path may lead, go instead where there is no path and leave a trail" – Ralph Waldo Emerson

On 19 November 2004, Mohit married Rishma in Chandigarh in his imitable style of a shock trooper. A few days earlier, he had sought my customary permission as commanding officer and in the same breadth, asked me to organize a minimalist wedding. After a few weeks, he got posted to the premier Commando Training School as an Instructor at Belagavi, Karnataka. Being a natural leader and by virtue of his manifold exploits in operations, he motivated many of the young officers undergoing the course to volunteer and join the SF. This was followed by a stint at the prestigious Special Forces Training School at Nahan in Himachal Pradesh, where he would mould and

shape the young Commandos with rigorous training to perfect their specialized skills. Rishma was now posted in Patiala and he could drive down to see her on holidays.

With his Battalion preparing for yet another deployment into Kashmir Valley in 2008, Mohit joined them in the fierce winter months. The troops were settling down, re-activating old contacts and undertaking special operations in the snow-clad countryside of North Kashmir. In the spring of 2009, Mohit was based with his Bravo Assault Team in Kupwara, undertaking anti-terror operations along with Rashtriya Rifles. On 20th March, as Bravo Team prepared to launch an operation in the nearby Bangus Valley, he received information from 7 Sector Headquarters that a few terrorists had crossed the Line of Control (LC) recently and were hiding in Haphruda Forest. After ascertaining the sketchy details from 6 Rashtriya Rifles Battalion and its forward company deployed in the area, Mohit made a plan and briefed his troops well after midnight. Before dawn the next day, Bravo Team reached the suspected area and was ready to move deeper into the dense forest.

Mohit had divided the troops into three squads, with two of them leading the advance and the third taking up position on higher ground to cover their move. The forest was covered with about two feet of snow and the scouts suddenly noticed footmarks, a clear indication of the presence of terrorists in the forest. The squads followed the trail for some distance and it disappeared, as the snow had melted in the area. Soon enough, the leading scout spotted two terrorists and passed the message to Mohit over radio. The terrorists fired at the troops from three directions simultaneously wounding a few commandos. In the heavy exchange of fire, Mohit recovered two of them to shelter, with utter disregard to his personal safety. He then made an attempt to manoeuvre his squads to a dominant position by engaging the terrorists, but the sheer intensity of firepower prevented them to move. Realizing the increasing danger to own troops, Mohit then fired from the Multi-Grenade Launcher (MGL) and killed two terrorists. As he moved to reach his squad to reorganize them, a bullet went through the left of his chest in the crossfire. Despite being seriously wounded, he kept directing his commandos to ensure that the terrorists didn't escape. Perceiving further danger to his troops, in a rare display of raw courage and determination, Mohit charged at the terrorists, killing two of them in the close combat. He succumbed to his injuries later and attained martyrdom fighting for his motherland in the finest traditions of the Indian Army. This was one of the fiercest operations in the valley that year, appropriately codenamed 'Op Mike', and all twelve foreign terrorists were killed. Major Mohit Sharma was conferred the nation's highest peacetime gallantry award, 'Ashok Chakra' for his act of conspicuous gallantry, inspiring leadership and exceptional courage beyond the call of duty. The award was received by his wife, Major Rishma Sharma from the then President, Smt Pratibha Patil on 26 January 2010.

Tribute

My memory always races back to my interaction with Mohit aka Iftikhar in Shopian, when I asked the Team Commander, Major Alin Deb Saha to ensure his safety by positioning a squad in covert mode in close quarters, as he was preparing to go against our basic principle of buddy-system. On learning of this development, Mohit replied with that mischievous smile, "Don't worry, Sir. Killed maybe, but I'll never be caught". Mohit's legacy has been well preserved as he continues to motivate the new generation of 'Band of Brothers' in SF. A Metro station and a Road has been named after him and a life-size statue installed recently at a prominent square in Ghaziabad. A biopic on his life tentatively titled 'Iftikhar' is also in the making. Mohit's parents have established a memorial trust and his Veernari Lieutenant Colonel Rishma Sarin continues to serve with pride and honour in the footprints of her husband's sacrifice for the nation.



Mohit with his wife Rishma.

In conclusion, I quote Captain R Subramanium, Kirti Chakra (Posthumous), a Braveheart of our Battalion who was martyred in the same Haphruda Forest in June 2000 –

"You have never lived until you have almost died, and for those who choose to fight, life has a special flavour, the protected will never know!"



Major General Ashok K Dhingra *was commissioned into 1 PARA (SF) in 1983 and has varied operational experiences, including in Sri Lanka (IPKF) where he was severely wounded. He was commanding the Battalion, when Capt Mohit Sharma volunteered to join the SF in 2002. Major General Dhingra has commanded the Parachute Brigade, the Parachute Regimental Training Centre, a Division on LAC and has served as the Defence & Military Attache to USA in his illustrious service. Prior to retirement last year, he laid the foundations of the Special Operations Division integrating the SF of the three Services.*



Dad (Air Marshal PS George) in the centre, Philipose to the left and Simon George to the right.

LIEUTENANT SIMON GEORGE PYNUMOOTIL

– Pilot, Diver, Horseman, Athlete, Brother & Man Of Honour

Lieutenant SG Pynumootil was a young budding Naval Aviator, who died in an air crash on 17 May 1985. His brother pays tribute to the dashing, dynamic gentleman that Simon was.

Nor law nor duty bade me fight
Nor public men, nor cheering crowds
A lonely impulse of delight drove to this tumult in the skies
I balanced all - brought all to mind
The years to come seemed waste of time
The years behind a waste of breath
In balance with this life this death...
- An Irish Airman Foresees His Death, by W.B. Yeats,
(Found, written in Simon's handwriting, in his diary)

If Dad's colleagues had had a say in the matter, my brother Simon would have been named Gamal, after Gamal Abdel Nasser. Our father (late) Air Marshal PS George, a fighter pilot, was stationed in Cairo from 1959 to 1961 as a flying instructor for the Egyptian Air Force. Hosni Mubarak, who went on to become the President of Egypt, was his colleague!

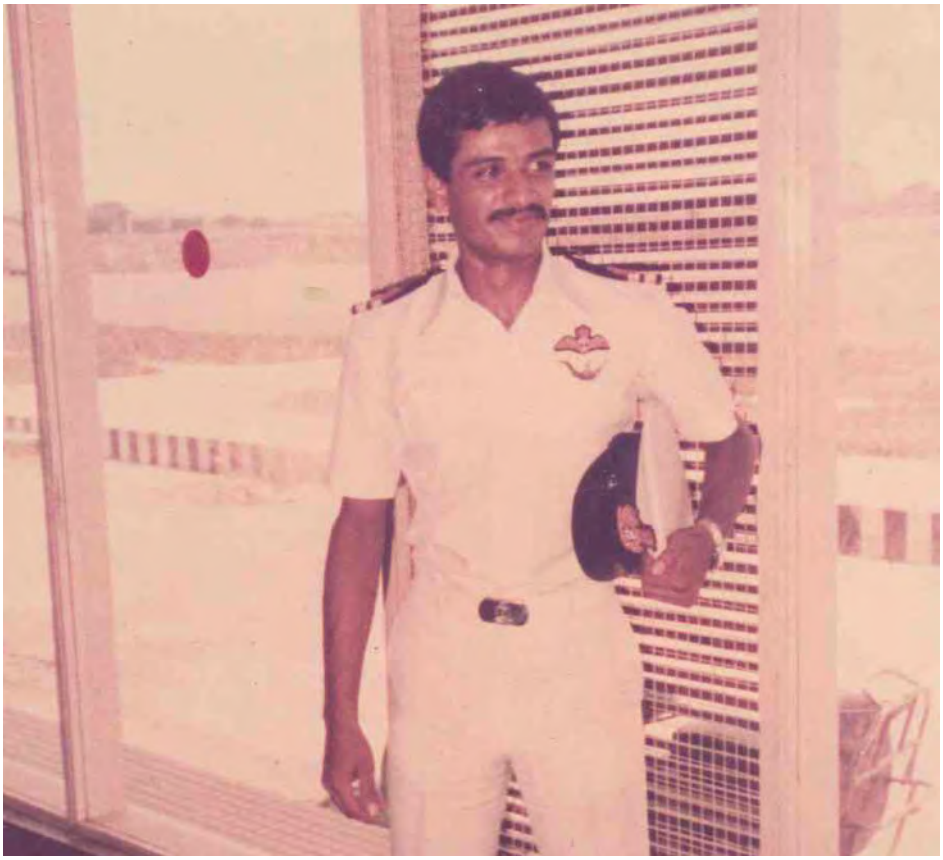
My brother, who my parents wisely named Simon George instead, was born in Cairo on 23 July 1959. In Egypt, 23 July is celebrated as Revolution Day to commemorate the end of the Monarchy. On the day of Simon's birth, Dad was leading a 50-aircraft formation in the shape of a champagne flute over the Nile Corniche (Cairo's equivalent of Mumbai's Marine Drive) as part of the parade. To my parents it felt as though the city of Cairo had been lit up to celebrate this special baby's arrival

in the world; little did they know that he would grace our planet for a mere 26 years.

It soon became clear, however, that Simon knew the real reason for all the fanfare surrounding his birth! He quickly and sure-footedly lived his life to the fullest and gave it all he had. Despite his sometimes severe asthma attacks, which served more as a spur than deterrent, he turned out to be a natural at all physical activity, excelling in just about any sport he chose to pursue. Simon was an avid horseman, who excelled at polo and show-jumping. The NDA Journal of May 1979 said it all: "Galloped through to his tabs with decency as his stallion." His excellence did not stop at physical conquests—he graduated top of his class at Lovedale and the top five of his course in the Navy. Not one to "waste" his time drinking, smoking, shopping or watching movies, Simon lived his days with his books, music and outdoor pursuits.

Simon spent five exhilarating years in the Navy as a qualified pilot and deep sea diver. Flying was everything to him. He could draw and identify every known fighter aircraft when he was in Class 4! He could rattle off the entire 300-line checklist of the MiG 21 fighter that he had memorised from our father's flight reference cards. He had been selected for the Air Force but our Dad convinced him to switch to the Navy in the unspoken hope that he would not fly. Being a fighter pilot who had flown 45 different types of fighters, he knew the risks involved. As fate would have it, Simon flew in the Navy anyway.

It wasn't just about the flying. Simon loved all of it—whether it was diving, riding horses, playing all the sports or firing his ship's 76-mm guns. I distinctly remember him telling me how great it felt to go out there on the parade ground and command 700 men or an honour guard; or the thrill of standing at watch at sea or jumping off a bridge and swimming down the channel against the tide, or the excitement of firing a huge ship's gun or handling a boat. And the sheer pride he felt putting on his shining white uniform each day—feeling as though every day was the first time.



Smart in Whites – Lt SG Pynumootil.

In my naval career, I have constantly encountered officers and sailors who served with him on his ships and squadrons. A surname like ours is difficult to remember and harder to forget! Hence it has long since ceased to surprise me when I am approached by a total stranger and asked whether I am related to Simon George. To a man, they recount some especially memorable interaction with my brother and make it a point to note his amazing spirit, grit, decency, professionalism and never-say-die attitude. One encounter stands out among them all. A few years ago, an old and wizened sailor who served with Simon in INS Amba in 1980, when he was a 21 year old Sub Lieutenant, said that they waited each morning to see him step out on the deck in his crisp whites so that they could salute him. To me, this was the ultimate compliment.

Simon's idyllic life came to an abrupt end when he and Lieutenant PB Jose crashed into the Western Ghats on 17 May 1985 during a night-flying sortie from Kochi, having encountered severe turbulence. The RT transcripts record his icy cool voice saying, "[call sign] 134 experiencing severe turbulence in this area." God knows, Simon and Jose must have tried to save the aircraft with all their will and skill but sometimes you cannot win against the unforgiving might of nature.

In retrospect, there seem to be two maxims that defined Simon's life: *'What matters is not the years in your life but the life in your years'* and *'Life is not about the breaths you take but the moments that take your breath away'*. Simon believed he was living his life in fast-forward—it was almost as though he knew all along that he had a finite amount of time on this earth and so many things he



Lt Simon with his brother Cadet Philipose standing in front of Simon's Islander aircraft.

wanted to do with it. Simon truly lived each unforgiving Kiplingesque minute.

Our parents faced his loss with stoic dignity. At Simon's funeral, with full military honours, my father, brother-in-law Chacko Ipe, a Major at the time, and I stood in our ceremonial Air Force, Army and Navy uniforms and saluted; the bugle played the lilting notes of The Last Post as my mother and sister Sara looked on. As a sea cadet, I stood there unflinching, saluting the way he had taught me, fighting back the tears, eager to make sure he was proud of me, his kid brother. I had stepped into the service just after Simon died.

I joined the Navy, starry-eyed, with a feeling of déjà vu for just about every experience I had, Simon's voice and his excited stories ringing loud in my ears. I realised very soon that reality was quite different from the way he had perceived things. Most people dreaded all the things Simon had told me about with such passion—no one volunteers to command parades, or really to do so many of the things he readily took on. Was he a kind of modern-day Don Quixote fighting windmills in an imaginary world? No, I actually pity the rest of us for not seeing things the way he did. For bringing honour, integrity and fun with an almost childlike exuberance into everything that is considered mundane or passé. Money or the lack of it is a big issue with most of us in the service; I don't think Simon even knew how much money he earned and would probably have worked in the Navy for free! He never considered flying, diving, sailing to be work.

As I joined the Navy, I could almost see Simon point at the distant horizon where sea meets sky and say to me, "All yours, you're on your own now." In my imagination, he was smiling down at me with the faith that I wouldn't let him down and would carve a career worthy of him. I thus began my three-and-a-half decade voyage knowing that my invisible 'wingman' was constantly by my side as he watched over me through every watch I've stood, every storm I've faced, every aircraft emergency I've handled, every pitch dark night dunk/small deck recovery, every harrowing rescue in extreme weather conditions. Simon has been by my side on Operational missions in Batticaloa, Mogadishu and countless other times. I have never backed down, because Simon never ever backed down. Faced with a tough situation it was simple, I did what Lieutenant Simon George Pynumootil would have done: 'the harder right'. It worked, every single time.

Today, I've made the big 2-star league. I've been blessed to do the two top jobs in naval aviation. Working in our nation's capital, I was exposed to the inner workings of the system. I learned how things work and why they sometimes don't. With Simon as my ever-present wingman, I learned the other important things too: to respect the clerk who did my paperwork, the tea guy

and the Defence Security Corps guard who never fails to salute. To use the same respectful tone I used with the high and mighty with the elderly liftman. I learned how priceless it is to reciprocate that salute with the smartest salute, maintaining eye contact and responding with the same greeting the jawan voiced based on his regiment: Jai Hind/Ram Ram/Sat Sri Akal. And I learned how important it is to keep doing this - even till your 40th salute at 8 pm.

After a marathon six-year stint in Delhi, I had the privilege of doing the second aviation top job, Flag Officer Naval Aviation at Goa. This job was more up my alley - more flying, more hands on boots on the ground stuff, the smell of aviation fuel, the whirr of rotors, the roar of turbines. In May 2019, Simon's squadron, INAS 550, instituted a trophy in his name for the Most Spirited Pilot, on the occasion of its 60thAnniversary. 550, the oldest squadron in the Navy, was commissioned in May 1959, two months before Simon was born!

There have been times that I have pondered the point of it all. The utter waste of an exceptional life, all the years of schooling, NDA, training to ride, dive, fly… was it all for nought? You can't help but think of all the officers and sailors who will be denied the opportunity to sail under the flamboyant and fearless commanding officer or fleet commander Simon would have been, with his impeccable qualities of honour, integrity, verve and fairness. At times I get very angry at the unfairness of it all. But eventually you learn to treasure what you had. And you think of the countless lives he touched with his almost surreal aura and you know it was all worthwhile.

Our memories of Simon remain unblemished. In our hearts, he will never grow old, he will always be the dashing, boyishly handsome, spirited, super fit guy we knew. And he will never grow old and cynical, or disillusioned. For me, my brilliant big brother and my wingman, is always, always just a thought away.



Lt SG Pynumootil with his parents.

In 1959, my parents sailed into Alexandria on board the P&O liner Strathenaver and brought Simon into the world. Fifty years later, on 19 July 2009, I entered the same harbour in command of 330 men on the missile frigate INS Brahmaputra, flying the tricolour with pride, my ever-present wingman on my side. He watched with pride as I laid a wreath on the memorial to The Unknown Soldier, called on the governor of Alexandria, hosted our ambassador on board, and soaked in the glory of the pyramids of Giza and the 'nose-less' Sphinx who bore witness to our tiny lives in its centuries-old existence, from the revolution in 1952 to that of the most recent one at Tahrir Square. I sailed out of Alexandria on 23 July 2009, exactly 50 years to the day that my brother was born in Cairo. I could almost see Simon smile and say that I've done kind of okay thus far!

I am very grateful to the Editor of Medals & Ribbons for requesting me to write a tribute to my brother. What makes it even more special is that this magazine is a labour of love of the 56th Course NDA, which my brother was a proud part of, as are the current chiefs of all three Services.



Rear Admiral Philipose G Pynumootil, AVSM, NM is an alumnus of the Lawrence School, Lovedale, and the National Defence Academy (67th course.) A Sea King pilot, he has commanded INAS 330 and INS Shikra. His ship commands include INS Nashak, INS Kirpan and INS Brahmaputra. He has served as the Principal Director Aircraft Acquisition and ACNS Air prior to his current appointment as Flag Officer Naval Aviation. He has undergone the Staff Course, Higher Air Command Course and the Royal College of Defence Studies Course, where he obtained a master's degree from Kings College, London.



Ms.Shahenaaz Judge Kohli and S Mohan Singh Judge, first cousins of the brave heart at his memorial

AT LAST, A BRAVE HEART RETURNS HOME !

Lieutenant Karamjeet Singh Judge, VC (Posthumous) was cremated by his colleagues in the battle field, where he was martyred in Myanmar during the Second World War. Now, 76 years later, his memorial and bust have been unveiled in his hometown, a homecoming of sorts. The author narrates the story of this valiant leader.

"... I will only return as a decorated Officer – or as a corpse", So stated Lieutenant Karamjeet Singh Judge in 1944.

Writing the biography of Maharaja Jagatjit Singh of Kapurthala ("Prince, Patriot and Patriarch", Roli Books, 2019) Brigadier Sukhjit Singh, MVC (Retd), his grandson, recounts an incident which he was a witness to in the Maharaja's study. Karamjeet Singh Judge, the youngest son of the State Police Inspector General had been commissioned into the Indian Army from the Officers Training School, Bangalore in 1944 and the Maharaja was motivating "the young man that he represented the Kapurthala State in the Indian Army....and must bring honour to his family name. The young officer saluted smartly....and stated in a clear and unforgettable voice "Maharaj, your advice is a sacred command for me. I will return as a decorated officer – or as a corpse."

It may well be conjectured that Karamjeet spoke in the giddiness and blind faith of a star-struck youth or worse in haughty braggadocio. Be that as it may, Karamjeet's ebullient self-confidence would possibly be a rare episode in the oral and recorded chronicles of war where a twenty year old lad, before leaving home for any theatre of war in World War II, makes an emphatic declaration of intent to enter the pantheon of Bravehearts. Almost a year later to the day, he leads his platoon to capture the objective in a twenty five minutes,

fiercely pitched combat on 18 March 1945 and emerges a "decorated officer", bestowed with the ultimate medal for valour, the Victoria Cross (Posthumous)!

Karamjeet was commissioned into the 4th Battalion, 15th Punjab Regiment, a unit which had in May 1944 covered itself in glory in a fiercely fought action on the Jail Hill at Kohima, suffering 140 casualties. But "every officer and man was proud to feel that he had taken part in the Battalion's greatest victory."

Brigadier F J Loftus Tottenham DSO, the Brigade Commander had complimented the unit, *"Please convey down to the troops my great admiration and pride for their gallantry in the attack on Kohima. The 4/15 Punjab who captured the DIS feature, must be seen to be believed. Troops of such calibre whether British, Indian or Gurkha have every right to consider themselves among the finest in the world.....Sweepers and Bhishties brought ammunition under fire to forward companies.....carried the wounded back..... No words can ever express the devotion to duty and gallantry shown by the followers of the battalion."*[1]

As the Japanese suffered near total annihilation at the Kohima-Imphal front, General Slim had recast plans for the next phase in which among others the 4/15 Punjab were switched to the South of Imphal. And that was where Karamjeet joined their ranks and received in right earnest his baptism under fire, in the Battle of Imphal. In January 1945, the 4th/15th were part of the vanguard of the deep outflanking manoeuvre of IV Corps to capture Meiktilla where Karamjeet put on display exceptional heroic leadership when tasked to eliminate a nest of ten machine gun bunkers, magnificently narrated in his Victoria Cross scroll:

"..... In Burma, on 18th March, 1945, C Company.....in which Lieutenant Karamjeet Singh Judge was a Platoon Commander, was ordered to capture.... Judge's platoon was leading in the attack, and up to the last moment....Judge dominated the entire battlefield by his numerous and successive acts of superb gallantry.....In every case Judge personally led the infantry charges against the bunkers and was invariably first to arrive.....ten bunkers were eliminated by this brilliant and courageous officer. On one occasion...two Japanese suddenly rushed at him from a deep nullah with fixed bayonets. At a distance of only 10 yards he killed both....In three previous and similar actions this young officer had already proved himself an outstanding leader of matchless courage.....until he fell in the last stages of the action...."[2]



"The Memorial and Bust of Lt Karamjeet Singh Judge, VC (Posthumous) installed at Kapurthala Cantt"

But alas the nature of war being what it is, there was no possibility of bringing his corpse back as he lay cremated by his comrades at a site far, far away from home in the vicinity of village Tankkyan in Myanmar. And where his name remains emblazoned for eternity, along with 980 other soldiers from armies of Allied Nations, upon a common tablet in one

1. Extracted from "the transcript of a contemporary after action review" sourced and described by Major Mike Tickner in DURBAR, Journal Of The Indian Military Historical Society, Spring 2019, Volume 36 No. 1 (a UK Publication).
2. Reproduced from the book "A Tale of Two Victoria Crosses, Lt Gen Baljit Singh (Pentagon Press, New Delhi, 2017).

among scores of well tended, permanent memorials laid out post armistice by the Commonwealth War Graves Commission.

Now 76 years later, my three year long initiative (enabling a grant of rupees two lakh by the Government of India) to have an exclusive memorial dedicated to Karamjeet in the town of his birth has fructified! His bronze bust atop a granite pedestal was installed in the Kapurthala Cantonment (under the aegis of the Punjab State Sainik Welfare Board) on 18th March 2021, in close vicinity of the building where he was born way back in May 1923 bringing to closure his intent of returning home, albeit posthumously but covered in everlasting glory as a "Victoria Cross winner".

The front face of the pedestal has a metal plate inscribed with:

"IEC – 5504
LIEUTENANT KARAMJEET SINGH JUDGE,
VICTORIA CROSS (Posthumous)
25 MAY 1923 – 18 MARCH 1945

Lieutenant Karamjeet Singh Judge, VC (Posthumous) was born in Kapurthala on 25 May 1923 and served in 4th Battalion, 15 Punjab Regiment, Indian Army.

On 18 March, 1945, his Platoon was tasked to capture a Cotton Mill on the outskirts of Myingyan (Burma) as part of Battle for Meiktila.

Displaying outstanding leadership and matchless courage, Lieutenant Karamjeet Singh Judge destroyed 10 Bunkers and shot two Japanese soldiers at close quarter, who had rushed out at him. Just before the battle ended triumphantly he was fatally wounded and the brave soldier attained martyrdom.

For repeated acts of bravery, Lieutenant Karamjeet Singh Judge was awarded Victoria Cross (Posthumous)".

And on the reverse face of the pedestal is affixed a brass plate carrying the Victoria Cross "For Valour" citation in full, as in the London Gazette, dated 3rd July 1945.

It is appropriate to recall two of my favourite stanzas from Laurence Binyon's poem "For The Fallen":

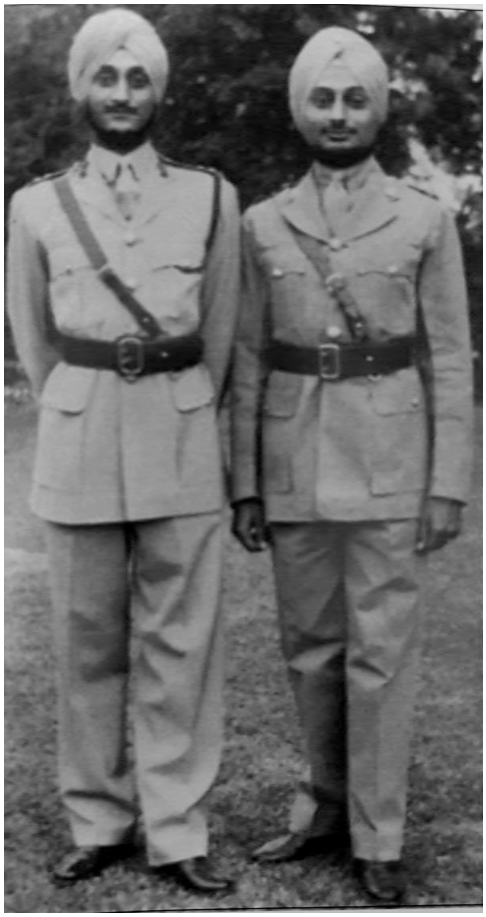
"They went with songs to the battle,
they were young.
Straight of limb, true of eye,
steady and aglow.
They were staunch to the end against
odds uncounted,
They fell with their faces to the foe".

"They shall grow not old,
As we that are left grow old:
Age shall not weary them,
Nor the years condemn.
At the going down of the sun
And in the morning
We will remember them".

I had first set eyes on Karamjeet's Victoria Cross Scroll inside an exquisitely carved frame as a greenhorn 2nd Lieutenant with less than six month's service in December 1956.

I had called on Lieutenant Colonel Ajit Singh Judge, my first Commanding Officer, the elder brother of Karamjeet. Both brothers were commissioned on the same day and both served in the Burma Theatre of World War II.

So naturally it was "A Matter of Honour" for me to memorialise Karamjeet's deed of everlasting valour for posterity.



"Brothers Ajit Singh (L) & Karamjeet Singh Judge (R) on commissioning from OTS, Bangalore"



Lt Gen Baljit Singh, AVSM, VSM (Retd) was commissioned into the Regiment of Artillery in 1956. He superannuated from service in 1992 after a distinguished career spanning 36 years. He was invited to the Board of Trustees of World Wildlife India in 1990 and served two terms therein.



A Kora class frigate launches an anti-ship missile (Photo credit indiatvnews.com).

PAPER SEEKING MISSILE

Older, non-military readers and perhaps even younger readers would have read "Humour in Uniform" anecdotes in the Reader's Digest. In this article, a typically irreverent look at one's own Service, the Indian Navy, the author takes a dig at oneself, pairing irreverence with brilliance. Keen readers may benefit from some tactical details of missile homing principles, counter-measures and the serious challenges of attack and defence that make being a warrior so exciting.

The atmosphere in the boardroom of Raketa Inc. was grim. In fact, the air was so tense and heavy that the cigar smoke found it difficult to rise vertically. Hardly anyone spoke, not even the gentlemen in white uniform who were representing the Navy.

Raketa Inc. had for a long time been the lead supplier of Anti-Ship Missiles (ASMs) to the Navy. Various generations of their missiles had acquitted themselves creditably, pushing the company's share prices to dizzy heights. Now they had a major problem at hand that could adversely affect their standing on the stock market. This explained the hastily called meeting, which was more of a brain storming session attended by almost everyone whose brain was worth storming!

Over the years ASMs had demonstrated themselves as the most potent weapon at sea that could strike with virtual impunity. This catalyzed the development of anti-missile counter measures, with decoys emerging as the best option for seducing missiles. Nonetheless, ASM technology always kept that one crucial step ahead of the countermeasures. Decoys were therefore never able to fully neutralise a missile attack and could, at best, marginally reduce the hit probability.

ASMs were in vogue! Missile manufacturers like Raketa were cashing in on it. This secure position was, almost overnight, being threatened by what glossies described as: 'The ultimate in passive decoy technology'. Boom Bloom Off Board Countermeasures, with the



A close up of another ASM launch. (Photo credit en.wikipedia.org)
Inset: A Missile being loaded on a Rajput class destroyer.

sobriquet 'Bloomers', had revolutionised anti-missile defence at sea. Bloomers exemplified the cutting edge of technology and deployed a combination of decoys to effectively counter various types of homing heads.

The chaff filaments of Bloomers had been craftily designed to provide significant radar cross section and could fool even the best chaff discriminator. They even catered for future homing heads using millimetric radar technology. The infrared portion of the decoy represented the signature of a ship so closely that the latest electronic wizardry on IR (infra –red) and laser homing heads would be unable to distinguish between the two. The third element of the system was a decoy against electro-optic homing heads. The bright flash produced by it could damage the sensitive element of this homing head, and in tandem generated a smoke screen to confuse any seeker that may have miraculously survived the flash. The ultimate decoy deployed all of them together, and almost instantaneously!

Such were the odds facing the gathering in the boardroom. One single development had upset the proverbial apple cart of the missile world. All ASM homing heads had been rendered virtually impotent.

Merely upgrading technology would not extricate them from this imbroglio – new concepts had to be evolved. As the hours rolled by, logic failed to produce results. The answer now lay in lateral thinking – to let the mind soar free beyond the frontiers of known missile knowledge.

The gloom that hung over the reticent voices was suddenly shattered by an excited vociferation: "Paper Seeking Missile!" The owner of this voice was not particularly regarded as brilliant in the scientific community, so the immediate reaction of the audience was just to stare awkwardly at him. After the initial cynicism and rumbles had died down, the relevance of the statement began to sink in. After all, ships did carry a lot of paper – much more than what their designers had envisioned. Paper was the lifeline of the ship. A ship could do without fuel and ammunition, even food and water for a day, but without paper she would not last even a few hours. The use of paper on board began with the morning "routines" (navalese for ablutions and more!) and continued till well after sunset with whisky and soda being signed for on bar chits.

Paper on a ship had never been quantified, but it was reasonably assumed that its volume compared favourably with that of ammunition held on board. This was explained by the fact that the paperwork before and after the firing of even a single shell was greater than the surface area of the shell itself. A misfire only made the paperwork heavier!

A large amount of paper on board represented numerous returns to be forwarded in multiple copies. Returns that so overwhelmed the authorities receiving them that they did not have the time and means to sift through them to extract the necessary information. Nonetheless, this bureaucratic charade had to go on – it looked good on paper! Computers reducing paperwork remained a Utopian dream, with the realities on ground being just the opposite. The number of returns had already become more than the number of working days in a month. Soon, to keep track, there would have to be a return for the timely rendition of returns!

At the outbreak of hostilities, creative minds would think of fresh returns – war data would certainly be of strategic, tactical and historical importance, even though it were as trivial as the disposal of rotten eggs in the Maritime Exclusion Zone (MEZ)! To the concerned staff officer, it would merit a return, and would be perceived as greater involvement in the war effort. After all, in war there were medals to be won by those who were unfortunate enough to be forced to sit ashore in air-conditioned offices while the lucky few drove their ships into battle.

Books maintained by departments were of an awesome magnitude. The large tracts of tropical rain forests felled to provide the paper would invite the wrath of every self-respecting environmentalist. The quantum of books could be gauged monthly when they were stacked from deck-to-deckhead for the Captain's signature. In fact, departmental heads had to assign one of the beefier sailors to assist in carrying these books.

To supplement all this were correspondence, orders, books of reference, charge books, circuit diagrams, charts……. the list was unending. A lot of

it was bilingual duplication, much to the vexation of tree lovers, and resulting in deepening the draught of the ship. Reports on various activities had to be rendered. The more voluminous the better, for it presented a façade of greater application – most of which was only glimpsed and not read! All this pointed to the basic truth that large quantities of paper were an inseparable part of a ship and would continue as long as 'paper tigers' flourished.

The idea of a missile homing onto paper was indeed a flash of genius! It dispelled the gloom in the boardroom of Raketa, and everyone began talking in excited tones. The air was charged with optimism - the brilliant minds that had kept Raketa in the Number One position for decades got down to some hard thinking. Silence once again descended upon the gathering. One could almost hear gears clicking between the ears of the scientists as they sifted through their terabytes in quest for a solution. The best there was in the missile field was perhaps within the four walls of the boardroom, and nothing could really elude them for long. After much deliberation, thought and discussion the concept of a Paper Seeking Missile became a reality!

Recent research had shown that paper emitted a wavelength of several microns in a fixed band. With large quantities of paper together, this emission could penetrate the ship's structure and be picked up many miles away. In designing this complex homing head, Raketa had transcended its past performances.

Ships with hoards of paper would be sitting ducks, and countermeasures technology would have to try hard to come up with an answer. The paper seekers would also be devastating in a land attack role, homing on to large concentrations of paper – undoubtedly government offices and buildings. That would indeed strike a crushing blow to the war administration of the adversary, resulting in confusion, disarray, and mayhem.

The nitty-gritties had still to be worked upon, and in due course would be ironed out. Of special interest was the variety of paper on board, ranging from the type used as the first thing in the morning to high quality bond on which letters to flag officers were sent. A suitable discriminator would ensure that the missile did not home on to compartments where damage would be insignificant!



A Brahmos missile being launched from a modern IN destroyer (photo credit defenceview.in).

Raketa was back in business. The Paper Seeking Missile would ensure that it remained in the top spot for some time to come. The meeting that began early-morn ended on a high note a little after sunset. The grey cells had been put through a feverish pace. The members adjourned for the traditional restoratives - they had reason to celebrate!

As intelligence reports on this meeting filtered across the world, there was little to cheer for navies that would be at the receiving end of the Paper Seeking Missile. The unthinkable had happened. They would now have to get rid of the beloved paper on board. Many a career had soared by means of it. But there was a small coterie of professionals who actually welcomed the news; the Navy would now be forced to bury its penchant for superfluous paperwork and restrict itself to what was absolutely inescapable!



Captain (IN) Sunil David, VSM a Gold Medallist from NDA, is a Gunner and Missile Man at heart. He has commanded three front line warships and has served in coveted appointments such as Director Naval Plans and Naval Assistant to Chief of the Naval Staff. He has an armament degree from the former Soviet Union, has attended the Royal Naval Staff College, UK as also the College of Naval Warfare. Post retirement, he has added to his repertoire 15 years of rich corporate experience. He enjoys playing squash and riding his Thunderbird 500.





(Left) Basketball keeps Gopal fit and fine. (Right) Cheerful and confident.

WITH PASSION & PURPOSE

Colonel Gopal Karunakaran served courageously in the Indian Army, and then joined the education sector with an aim to create happy, productive, contributing citizens of society. Ms Neeti Jaychander in conversation with the soldier-turned-educator.

While trying to prise out every bit of interesting information about Colonel Gopal Karunakaran, one is likely to come up with snippets as eclectic as the man himself: He was born in London. He has a twin brother. He's left-handed. He nearly died of smallpox in 1965, when he was all but five. He played a lot of sports.

A soldier-turned-educator, Colonel Karunakaran has led a remarkable life, filled with both passion and purpose. "My father was a Professor (Dr. KP Karunakaran, Professor of Political Science) and we moved every two years. I lived on university campuses for much of my life – from Shimla to Singapore. In fact, for 50 years of my life, I moved every year or two, and was never in one place at a time. The only place I've had locational stability of more than two years is at the Shiv Nadar Foundation and the current work I've been doing for a decade."



In front of his leadership cradle - Hunter Squadron, NDA, Pune.

A day before our interview, he says that he coincidentally spoke of 'serendipity' to his team of 700 people at the Shiv Nadar Foundation. "When I look back at 62 years of my life, I can't help believe in serendipity – good things happen by chance, and maybe also if you've been a good person. My entire career graph has been pure serendipity; there was no plan."

Army – A Memorable Time

Colonel Gopal 'stumbled' into joining the army in the 1970s, when, after returning from Singapore, he joined the Army Public School in Dhaula Kuan. His classmates were children of Army officers, and he casually applied for National Defence Academy (NDA) – not even preparing hard enough for his entrance exams! Despite that, he qualified on the Services Selection Board with an All India Merit list rank of 19 and joined the NDA.

After honing his physical and mental capabilities at the Indian Military Academy in Dehra Dun, he spent many years in an Infantry battalion, where he was a Lieutenant in Baramulla before the militancy and a Captain in the Siachen Glacier at 21,000 feet.

"At Siachen, I was at 21,000 feet with a temperature of minus 50 degrees C in a snow hole bunker with five soldiers. It didn't matter who was a captain and who was a sepoy. We were only looking at who was fit enough to help the other. I was fortunately extremely well-acclimatised - only some soldiers can cope with that elevation, and some others can't, depending on their bodies. The space was literally just about 5 feet by 10 feet, with no height to stand. One had to crawl in and sit down! There was a medium machine gun looking down, to make sure that the enemy didn't surprise us. Siachen is a strategic location and the highest military post in the world. Every year the Republic Day Parade is led by Subedar Major and Honorary Captain Bana Singh, PVC who captured the post. A year after he captured it, I was on that post, named Bana Top after him. Those days were life-changing."

He was also a Major and Company Commander in Kupwara fighting terrorists, and a Lieutenant Colonel second-in-command of his unit in Badgam in a counter-insurgency deployment. Then as Colonel and Battalion Commander in

the Kashmir Valley, he was part of the offensive plans during Operation Parakram in 2001, he fought militants in Anantnag during the 2002 Amarnath Yatra and state elections, and was also on the Line of Control in the Gurez Valley in Kashmir.

Interspersed between was the opportunity to serve with the United Nations in Iraq-Kuwait as a Military Observer, where he saw officers from 34 different nations around the globe and learnt from them about their militaries.

In April 2005, he moved to the Army Headquarters in Delhi with an office in South Block and an appointment in the Personnel Branch dealing with postings and promotions of officers. Three years later, despite a Brigadier's rank around the corner and the Sixth Pay Commission promising salaries to meet with the aspirations of soldiers and government officials, he left the Indian Army.

"I had two instructional assignments while in the Army - at the Indian Military Academy and Infantry School in Mhow, teaching young infantry officers. That's when I realised that if I had to leave the Army, I had very few alternative skill sets to survive. The education sector seemed to be one exception, where I would not only have the passion but also the ability to make a difference."



With his unit officers in Kashmir.

Into the Field of Education

"Between leaving the Army and joining the Shiv Nadar Foundation, I spent two-and-a-half-years with the Career Launcher Group, run by four IIT-IIM alumni, setting up schools across the length and breadth of the country – ranging from Mandi to Ahmednagar, from Hyderabad to Indore. It was an incredible period, going to small towns to set up schools, which is where I learnt the ropes. I just happened to be in the right place at the right time - both with the Career Launcher Group as well as when I joined the Shiv Nadar Foundation."

Colonel Gopal Karunakaran is currently the CEO of the Shiv Nadar School and President of the Shiv Nadar University. He is passionate about the story behind the Foundation, telling us that it is run independently from the HCL Foundation's Corporate Social Responsibility (CSR) activities. "The Shiv Nadar Foundation has been set up with the Founder's personal wealth and commitment to education in India. Roughly Rs 7,000 crores of his own money has been spent on furthering the cause of education."

Among all the institutions, Gopal highlights the staggering success that is the Vidyagram Schools. "Although I don't have a formal role there, I do teach history and give guest lectures. Vidyagram School is India's top-ranked CBSE school in terms of pure class average, out of 25,000 schools in the country. One of our schools is ranked 1, and the other is ranked 10. Besides being a stand-out school, it also offers incredible opportunities through which children can really transform through education."

The Shiv Nadar School, of which he is CEO, has three schools across the National Capital Region (Noida, Gurugram and Faridabad) and is all set to launch a brand-new school in Chennai's Theosophical Society, a sprawling green campus in the heart of the city. He tells us that a whopping 300,000 ten-year-olds across the country apply for just 200 seats – making their acceptance rate lesser than even that of Harvard University! So what is it that makes them so special?

"We focus on building a particular culture. I translated what I learnt from my military life into academics. The citizens we want to mould are put together in our vision – I like to condense that vision into producing children who are happy in their own skin. The graduating 18-year-olds need to be happy, productive, contributing citizens of society. While they understand their strengths, and areas that need improvement, they are also comfortable and confident with who they are. Education for life is our motto."

The schools don't just focus on IQ, SQ and EQ, but also AQ or Adversity Quotient. Are they prepared to meet the challenges of life? What can you do in the education system to build that? "We have certain practices in school, where capstone projects are undertaken by students of Class 10 to solve a problem. They choose the teams they want to

work with on their own, look for problems, come up with solutions, and go through rounds to select or eliminate those solutions. There is an event six months later, where the issue and solution are presented to a jury made up of eminent industry leaders. The solution needs to be viable, meeting a particular need, and sustainable."

A lot of the solutions use technology elements. For instance, there is an intelligent traffic light system, with sensors on top of traffic lights, which pick up the depth of traffic on that signal. If it shows not much traffic, the light changes to green – this saves valuable time. "The students physically go out to a crossing in Gurugram and get the Deputy Commissioner of Police to check it out. Another group went to an animal home, where a lot of dogs were without paws. They created customised limbs for these dogs through 3D printing, called Paws for Dogs."

Leadership Lessons

While nurturing students gives him satisfaction, he also finds the greatest joy in building a team. "I'm Employee 001, and we now have 800 people, plus 10,000 students and 20,000 parents as part of my family across all three schools."

As President of the Shiv Nadar University, he is associated with non-academic functions like finance, HR, admissions, hostels and career development. The Dean of Student Affairs is also part of his team, so student activities, welfare and the residential campus also fall under his purview. "The University is 10 years old, but I wasn't formally involved with it until two years ago," he explains, adding that he is the first non-family head of an institution of the Foundation.

Ask him how his military background in the infantry unit has helped and he says, "Firstly, in execution. You have to be clear about what the job is, and get it done. Secondly, getting the job done is not enough if the troops aren't motivated enough on their own, and don't share a high degree of camaraderie – these are very important factors."



The Commanding Officer and his Kumaoni troops.

Are there any parallels between military life and a life spent in education? "In many professions, you often ask yourself if your work and life are meaningful and fulfilling. In the Army, as a frontline soldier, you never question purpose. It's defined every single day by the soldiers you lead and the borders and country that you protect. It is never questioned. You know every time you wear that uniform that your job is fulfilling and valuable. The same applies to a teacher's life, because each time you enter the classroom and see a roomful of young children, there is meaning. So, from a fulfillment perspective, there are a lot of parallels."

"What stands out in the army though, is that I've never seen cowardice and that I've never noticed someone not enjoying his job," he adds. "No one ever says – 'I've got a family back home, so I can't do this or I may die'. No one is scared; everyone is willing to die as long as they get the job done! On the other hand, what stands out in the field of education is the need for constant curiosity, staying in touch with the real world and bringing it into the classroom and curriculum. Connecting doors is the greatest joy of an educator."



Neeti Jaychander has over 17 years of experience as a writer, journalist and editor. For over a decade, she was the Senior Regional Editor (Southern India) at FEMINA, the country's oldest and largest-selling lifestyle magazine. She has been the Editor of ET Madras Plus, the erstwhile lifestyle supplement of The Economic Times, and has authored books for Children. She is a writer with Zenger News (the world's first digitally native wire service) as also teaches a journalism course at the National Institute of Fashion Technology, Bengaluru.



Social service – bonding with under-privileged children.

TRAGEDY, TRIALS, TEARS AND TRIUMPH

For over two decades now, Captain Shalini Singh has shown remarkable fortitude and mettle in the face of grief and loss, emerging victorious in her personal and professional battles. In this candid first-person account, she takes us through her trials and triumphs.

If I can change one life, if I can bring a smile to someone's face, I would be truly content.

My journey has been tough, but worthwhile. I recently received a message on social media: a boy wrote to me saying he was contemplating suicide, when he heard my story and it gave him impetus to live. Such messages bring solace and satisfaction. If I could survive, with all my challenges, anyone can.

The Early Years

I grew up in Kanpur, Uttar Pradesh in a middle-class Rajput family. My twin brother and I had an equal upbringing and my father had dreams for me to become a doctor. He himself was a doctor in the government sector. I wasn't academically-inclined or career-oriented and had a shielded upbringing with a lot of pampering! Right from my school days though, I have been a people's person. I loved meeting people and wanted to become a counsellor. Life comes a full circle, and 25 years later, I'm realising my childhood dream.

Tying The Knot

I had just turned 19, when my husband's sister – a college mate – told us they were looking for a suitable match for her brother Major Avinash Singh, who was serving in the Indian Army. My mother, who had a fascination for army life, was keen to pursue the match for me, but I was not interested initially. I felt I was too young, and didn't know how I would adapt



Shalini with Major Avinash Singh and her son.

as I was brought up in a civilian environment. My family believes that girls should be married young, and careers can be pursued even after that, so I was talked into meeting him.

Our families met at a restaurant. I had firmly made up my mind to tell the boy in question to say no, so that the decision would be taken out of my hands. When he entered though, it was love at first sight for me! He was exactly everything I wanted in a partner. We spoke for a long time, and I hoped he reciprocated my sentiments. Sure enough, in a couple of days, he said he wanted to get married to me. He had also said he wanted me to study and choose a career, not sit at home, which was a positive sign. So, six months later, we got married in February 1997.

Learning & Unlearning

Once I got married, everything was completely new. My husband was posted in Guwahati, which was a non-family station, so I only visited him once – for a week. After that, he moved to Jamnagar, where I joined him. I had to unlearn and relearn a lot, since life in the Armed Forces is very different. He guided and mentored me, and it was a beautiful companionship. Two years after we got married, we were blessed with a baby boy. Uncertainty and fear were not things I had experienced till then.

Then one day, we invited an officer and his family for lunch. Just a week later, he was martyred in a terrorist attack in Kashmir. For the first time, I was disturbed, because I'd just met him, his wife and two young children. I couldn't imagine what his wife was going through, but realisation dawned that this is a risk one faces and accepts as a soldier.

A few months later, my husband too was posted to Kashmir (he was in the Rashtriya Rifles), and I was scared. I told him not to go, but he said this is what he was meant to do, and as a fauji's wife, I should be as strong and brave as him. I couldn't understand his point of view then, since my whole world was my home and family. He gradually conditioned me, by speaking of brave soldiers who gave their lives for the country. I then moved in with my in-laws. At the time, there were no mobile phones and limited communication. Landline connections were often sketchy, and video calls were not a possibility. My days were spent waiting eagerly for his phone calls.

Dealing with Loss

September 28, 2001 - the day we lost him - was a routine day back home, with nothing out of the ordinary. I had spoken to him two days earlier. Diwali was approaching and his leave was also through, so we were looking forward to meeting him. I was doing my post-graduation, so I went to college as usual. When I came home in the afternoon, there was a peculiar and eerie silence, which was unnerving. I could sense that something wasn't right. My sister-in-law sketchily told me that nothing had happened, other than a call from my

husband's unit. Since no news is usually good news, I was perturbed about the call. My father-in-law later told me he was injured fighting terrorists. We weren't aware that he had already passed away at 4:45 am that morning, and this was their way of preparing the family. I was just 23.

When the family learnt about the loss the next day, everyone was scared of breaking the news to me. I was initially told that he was being brought to Lucknow for treatment. I got ready very nicely, wanting him to see that I was strong and hadn't fallen to pieces. We went to Lucknow by car, and just 10 minutes short of reaching the airport, I was told the truth. I didn't even have time to process this and react. At the airport, I was made to stand in front of his coffin wrapped in tricolour, with his name and Army number. I remember seeing that and collapsing. There aren't any words to describe the trauma and shock of realising that for more than 24 hours, I hadn't been aware of his death. We had lost him to a terrorist encounter in J&K's Doda district, where he killed four terrorists and got martyred.

In the days that followed, people said a lot of things – some were genuinely sympathetic and others brought down my already flagging morale. I was made to feel like there was no point living in the absence of a husband, and that my life was over. My mental balance was affected, and I even contemplated ending my life, along with that of my child. I had never been exposed to such pain, and had always been a shielded child, so I didn't have the strength to deal with a loss of this magnitude.

Regaining Resolve

Hope and resilience came to me in the form of my father. He said I couldn't be so weak, with a child to look after. He told me to look at my child - smiling and laughing and playing, unaware of what had happened and what I was going through. It was a life lesson for me, and as I sat there playing with him, I made up my mind to try and be stronger.



Lady Cadet Shalini Singh while training at OTA Chennai.

A few of his unit officers visited us that very day, suggesting that I join the Army, as I met the age criteria. I thought they were making a mockery, as I had never taken part in sports in school! I didn't have the physical and mental stamina required, and had a delicate and meek personality. But I slept with that thought, and in the morning told my parents and in-laws that I would like to give it a shot. My father-in-law felt that they could look after me, and it wasn't necessary to do this, but I wanted to. I was already sitting at a dead end, with negative thoughts, so why shouldn't I try to do something where I could be independent, and give a new life to my son and myself?

Military Endeavours

Within the next two months I appeared for my SSB (Services Selection Board). I had less than a month to prepare for it, and it was hard because I had a child and the mental trauma was still there. I left my son with my parents for the first time. Fortunately, I cleared the SSB interview and reported to Officers Training Academy (OTA), Chennai, as a Lady Cadet. This was in March 2002, less than six months after my husband's demise.

At the OTA, being without my son for six months was painful. There was no communication - only landlines, and he was an infant, he could hardly talk on the phone. Upon joining, I thought it would be easy from now on to become an officer, since I didn't realise how tough the training would be.

It turned out to be beyond my physical, mental and emotional capability and many times I felt I couldn't do it. With help of my course-mates and coaches though, I was able to get through and got commissioned on September 7, 2002, just a few days short of my husband's first death anniversary. I was also the first lady officer to join in such a short time after her husband's demise.



Receiving the Posthumous Kirti Chakra awarded to Avinash from the President of India.



A Motivational TED Talk.

My Biggest Achievement

My husband was awarded the Kirti Chakra posthumously and I marched up in my uniform to receive the award from the then President, Dr. APJ Abdul Kalam, at the investiture ceremony in Delhi. It was the biggest tribute I could have paid to him, receiving the award in that uniform which is coveted by many. While walking to the podium, I had mixed feelings of sorrow and pride. I also understood what patriotism really means, and the ideal of giving up something for your country was finally justified. Earlier, I used to wonder why he went, how he could have avoided being killed and so on. All my questions were finally answered. Everyone has to die – and he died for a purpose, for the nation.

I served for five years in the Indian Army's Short Service Commission and didn't take the extension. Following that, I worked in the private sector for eleven-and-a-half years, in multiple companies in different positions. Again, since I had now been conditioned in the Army, there was a lot of learning and unlearning, and I adapted.

Marrying Again

In 2008, seven years after my husband's demise, I got remarried to an army officer who had taken voluntary retirement and moved out. I wasn't looking to get remarried, but since I was young, my family said that it was very important to have a companion and not to spend the rest of my life alone. Unfortunately, things didn't go well. I was a victim of domestic violence, and even had stitches on my head. There was a great deal of mental and physical abuse.

For me to walk out of a marriage was very difficult, as I was already a widow. There is social stigma attached to being a widow and divorcee, and here I was both. But eventually, you have to choose sanity and peace over social stigma. You have to choose happiness over what others would think. When I lost my first husband, I was young, emotionally weak and not financially independent. When I could take the step of moving out of home then, against everyone's wishes, what was stopping me now? What was I scared of?

The idea of 'what people will say' has spoiled a lot of lives. We can do much better without it. I decided to walk out of my marriage, choosing a peaceful life for myself and my son. In life, decisions do go wrong, but that doesn't mean it's the end of the world. Never hesitate to walk out of something that isn't giving you the comfort and peace you need.

Dealing with my Demons

You don't get remarried to get divorced and show your child pain. I slipped into depression and it took me some time to heal mentally and physically. To compound matters, six months after my marriage, I had suffered



Mrs India- Queen of Substance.

a bad road accident, with 17-18 open fractures and was bedridden for over eight months. I have implants in my body, and permanent disabilities that are not visible to others. It took time to stand on my feet. The doctors had said I could never run or walk without a limp. But it became a challenge for me to prove them wrong.

Whenever I'm stuck with anything, I go back to my Academy days. Military training is the most extreme and I told myself if I could do that, I could do anything. So I started running slowly and steadily, and became a marathon runner. I came out of my depression because I was not carrying any baggage. I believe that whatever has happened, you need to move ahead. Life is what you make of it.

Pageants & Tiaras

I was also crowned Classic Mrs. India - Queen of Substance for 2017. Entering the beauty pageant just happened – it wasn't something I planned. Friends told me that I had an inspiring past and felt that others should know about it. I felt it was not really up to me to inspire others, but somewhere my life had become so turbulent and non-glamorous between the Army and corporate world, so I thought, why not give it a shot? It was a beautiful and enriching experience during the 5-6 days of the finale, along with the months of audition and training, I learnt a lot and it was a kind of soul-searching for me. Winning wasn't in my thought process – I went for the experience. The women who attended were very talented and much more prepared. I focussed on being my own competition, looking to improve and work on myself. I was also not overwhelmed or pressured. If you're enjoying something and not doing it purely to compete, you tend to have a much more relaxed approach. That was what gave me an edge.

I also went on to participate in an international pageant when the Director of Mrs India said there was a 'single parent' category for widows or divorcees, but for the past seven years, it had zero participation from India because of the social taboo. So I became the first Indian to participate in this category, trying to break the glass ceiling. Other Indian women in similar circumstances have since had the courage to follow suit.

I believe that whatever has happened, you need to move ahead. Life is what you make of it.

Life Today

Today, I'm into politics, having joined the Aam Aadmi Party (AAP) in 2019. Even though I'm a non-political person, I've been working towards various causes – foremost among them being financial support and guidance for war widows, since I'm a war widow myself. Other social causes like cancer support and stray animals are also close to my heart. Somehow I wasn't able to broaden my horizon in this area, and so living in Delhi, politics seemed the natural progression to take it forward. Today, I'm a Municipal Corporator, Joint Secretary for the Delhi State Women's Wing, Spokesperson and a Member of the National Council.

Besides this, I'm a full-time motivational speaker and life coach. I have conducted Ted Talks. After my life experiences and having completed a course, I also do life counselling, taking on just a few cases every month due to paucity of time. I'm also a firm women's rights advocate, and believe that women need to support and uplift each other to make a true change in society.

Ex- Captain Shalini Singh



Crack of Dawn at the Air Force Academy.

WHEN THE TEACHER TURNED TAUGHT

Training is the bedrock of professional Armed Forces, and training institutions and instructors have to develop the future leaders for combat and professional duties. A teacher – student incident is described in this article, an interesting experience.

It was the late 80s, and my early years as a flying instructor in the Indian Air Force. I had successfully graduated from the All Purpose Flying Instructors' School (APFIS) and was posted to one of the Flying Training Establishments (FTE) of the IAF, as an instructor on the Kiran aircraft, (Hindustan Jet Trainer – 16). I had already completed instructing a couple of courses comprising ab–initio pilots, youngsters who had just stepped into the world of aviation, aspiring to become military aviators. I considered it my divine calling that I was tasked to initiate these young lads into the brotherhood of pilots. The more perceptive amongst my colleagues could perhaps discern the halo behind my head. The

swagger in my walk would have made others suspect it!

After a well-deserved vacation, I returned to my FTE raring to get back to instructional flying, halo very much in place. A month or so had already passed since the fresh course had commenced flying training. When I reported to the Flight Commander, he greeted me morosely. Instead of inquiring about my vacation, he launched into the details of this new pupil he had taken up. A boy from Agra named T…..(Tango in this article), Tango could not understand a word of English, did not respond to any instruction, and was a terrible flier, as per him. On top of that, the Chief Flying Instructor (CFI) had just "bounced" him in his test sortie– "failed" in aviation terminology. My boss and his boss had decided this boy was beyond redemption, and simply not good enough to be a pilot. It was in everybody's interest that he be suspended from flying at the earliest. But the mandatory requirement of two extension sorties had to be gone through. Since by now I had joined the ranks of 'senior instructors', he had chosen me for this unsavoury task. The two sorties were planned in quick succession to make it as kind to everyone involved as possible. And I had not yet met my new pupil!!

Curiosity got the better of me and I decided to meet this, by now, intriguing youngster. His alleged lack of comprehension of the English language made him even more mysterious and my complexion a little paler. I walked to the cadets' aircrew room and saw Tango sitting quietly in a corner. I called out to him. He slowly walked towards me in a resigned manner and stood at a respectable distance. While he appeared to be solid in integrity, it appeared as if he didn't have a very great opinion about the world around him. I introduced myself and took him to the cafeteria. During our interaction, I learnt that his mother was a Professor of English in Agra University and his father was a doctor. So communication in English language could not have been his problem, I concluded. I chatted with him about everything but flying, deliberately keeping our communication in English. After a while, we parted, with a plan to meet the following day. To rule out the possibility of a technical problem with communication, I had his radio headset sent to the audio laboratory for testing. It was serviceable.



Pilatus PC-7 Trainer Aircraft.

The next morning, after the mandatory pre-flying briefing and medical examination, I met my ward. Instinctively, on the spur of the moment, I decided not to engage him in any flying related briefing. I asked him if he knew the sortie profile and whether he had any doubts. He nodded to both which I assumed meant 'yes, he knew the sortie profile', and 'no, he did not have any doubts'. We collected our flying gear and walked to the aircraft. I asked him to strap up in the cockpit, while I did the walk-around check of the aircraft myself. I climbed into the cockpit and strapped up. And then I shut up! I switched off my microphone (used for communication between the pilots as well as with the other agencies) and even removed my oxygen mask (which houses the microphone), to make it abundantly clear that I had no plan or desire to talk during the sortie. Young Tango did his checks, started up and taxied out to the runway, doing all that was expected of a cadet of his experience. He got airborne and found his way to the sector. He did a steep turn to either side – commendably, without flicking into a spin - a common problem with rookie pilots. I continued to maintain my feigned 'disinterested' silence. Then he broke the quietness of the cockpit and asked me if he could climb higher and do a spin – which is considered one of the more complex manoeuvres by trainees. I grunted, which he must have taken for a Yes. Before I could realize, he had put the aircraft into a spin. My oxygen mask was still off. After two turns of spin, he recovered the aircraft in near text book manner. I continued to maintain my silence. He thereafter did a few aerobatics and decided to go back to base. He landed off a Practice Forced Landing (PFL) and taxied back to dispersal. I still kept my



HJT-16, the HAL made Kiran Trainer aircraft coming in to land.

mouth shut. We unstrapped and walked out. We had a cup of tea together and chatted about everything but the sortie.

The next day we went through the motions again. I continued to maintain silence and Tango did what he thought was right. At the end of the flight, we walked away without any kind of a debrief. I thought I detected a slight swagger in his gait as he wished me a 'good day' and marched away, but I could have been wrong! I dutifully completed the sortie reports in his flying folder, keeping the sortie assessments close to the 1.5 – 2 marks out of 10 that had been given to him by the CFI.

The next day Tango flew his 'Suspension Check' with the CFI. As the name implies, a Suspension Check is the last sortie before suspending a cadet from flying training. To everyone's bewilderment, the CFI who had found him unfit for flying earlier, not only passed him but rated him an outstanding 9.5 out of 10. Tango never tried to hide the spring in his gait thereafter; in fact, over time, it was replaced by a confident stride. He was adopted by the CFI as his protégé for the rest of the course, and went on to become a capable helicopter pilot.

While I was given a lot of credit (undue, I truly believe) for the turnaround in the fortunes of young Tango, the two sorties with Tango taught me invaluable lessons:-

- Pupils learn not because of their instructor but despite them.
- Pupils learn according to their capacity. Therefore it is the job of the instructor to pitch the training at the correct level.
- There is a thing such as too much teaching, and an instructor can actually become an impediment to learning by doing so.
- Every human has a level of intelligence; it is for the instructor / teacher to recognize and acknowledge the intelligence of the pupils.
- 'Silence' is one of the most underestimated tools of teaching.
- Role modelling is an effective means of transaction between a teacher and student. This is particularly true in aviation.
- Pupils generally have an attention span of about 20 minutes. Keep the briefings / debriefings short and to the point.
- And the biggest lesson was, always be humble.

Thirty years have elapsed since then. I remember the lessons that Tango taught me as clearly as if it were yesterday. It is said that 'the child is the father of man'. Never has a truer word been spoken, and never has a statement been so ignored either. It is through the pupil that a teacher learns and the student is more than complementary to the growth and development of the 'Guru'.

Thank you, Tango, my student, for teaching me!



Wing Commander S R Swarup was commissioned into the transport stream of IAF in June 1980. During his 25 years of service he flew a number of types of aircraft ranging from gliders and microlight to AN32s and IL76. After hanging up his boots he flew with established airlines like Sahara and Indigo. For the last 10 years Swarup has been a 'Private Jet Pilot' flying a Gulfstream 550 with Aditya Birla Group as their Chief Pilot and Head of Operations. In an aviation career spanning 40 years he has over 12000 hours of flying experience.



Candidates being briefed prior to the commencement of tests at the SSB.

THE PERSONAL INTERVIEW CONDUCTED AT SERVICES SELECTION BOARDS (SSBs)

Continuing with our series on guidance for those keen to join the Armed Forces, we focus on the personal interview assessment of the Interviewing Officer at the SSB. The article provides an insight into the technique and is in no way aimed at coaching.

The Services Selection Boards (SSB) conduct interviews for selecting officers for the Indian Armed Forces. Candidates are called for the SSB Interview after clearing the written examinations. Certain entries do not have a written qualifying examination, in their case the interview call-up is based on other applicable eligibility criteria.

The SSB Interviews have an elaborate selection process in terms of time, techniques and effort. A prospective candidate is accommodated at the Selection Centres, with free food and lodging provided while he undergoes the tests over a period of five days. This exhaustive effort not only provides for a detailed assessment of the candidate but is often the first exposure to a defence organisation and environment for most candidates. Overall, at the end of it,

irrespective of selection or not, the candidate has a sense of achievement and a memorable experience.

Based on the concept of Manasa, Vaacha, Karmana, invoked to imply that one's thoughts, speech and the actions must coincide, the selection process involves testing a candidate using three different techniques, namely Psychological tests, Group tests and a personal interview. Accordingly, the SSB has three different assessors: the Psychologist (Psych), Group Testing Officer (GTO) and the Interviewing Officer (IO). The three assessors screen the candidates in isolation with no reference or contact with each other (pure independent assessment) and sit down in a conference on the fifth and ultimate day to confer and decide if the candidate can be recommended to join the Armed Forces as an officer.



Personal Interview in progress at the SSB.

The Personal Interview

In this article I intend to describe the personal interview conducted by the IO and the general pattern of questions. The interview is held once during the SSB on any day after completion of the psychological tests. It is conducted for about 45 minutes and is a one-to-one interaction. The IO conducts a purposeful conversation, giving an opportunity to the candidate to present factual information, achievements and accomplishments, aims in life, to justify shortcomings, to express views and display awareness. The interaction enables the IO to understand weaknesses, the level of motivation and such like aspects of the candidate. The IO assesses the individual based on 15 specified Officer Like Qualities (OLQs). Prior to the interview, the IO prepares himself with the details provided by the individual candidates in the personal information questionnaire (PIQ Form) filled by them. This is somewhat akin to curriculum vitae with a specified format thus avoiding unnecessary information. Copies of certificates and mark statements are also scrutinised to validate entries in the PIQ form. Candidates must hence fill this form neatly, carefully, avoiding spelling mistakes and most importantly correctness of factual data should be ensured.

As depicted in movies, the candidate is expected to turnout smartly and make a confident entry, when called in for the interview. The candidate would normally be seated six to seven feet away from the IOs desk. This may appear odd but gives the IO an advantage of getting a good 'tip to toe' view which helps to monitor body language indicators. Additionally, speaking from a distance adds a bit more stress for the interviewee.

The interaction starts with rapport building, which is an "ice breaking exercise" by way of asking lighter and comfortable questions like details of the travel undertaken, the living arrangements or food being served in the Selection Centre or even about the place one belongs to. The idea is to encourage the candidate to lose initial inhibitions and speak freely. Normally after about three/four minutes, the candidate would be adequately relaxed.

The personal interview conducted at the SSB is a semi structured interview. Structured implies following of a fixed format in the questions being asked to all candidates (minor modifications are there in the format for Service, NDA/TES entry). It is semi structured since having asked the structured set of questions the IO can add his own set of probing questions that he deems necessary for judicious assessment. In addition, certain technical or professional knowledge based/mental maths application questions may be faced by some candidates particularly those who have not been screened in a qualifying written examination. Being so structured, candidates can easily prepare since the basic structure is known, is taught during coaching and is also available on the internet.

The IO follows a unique method for asking his structured set of questions. We are used to being asked questions one at a time, like for example, "Tell me about your school days?" followed by the next question on college and so on. The IO in his interview combines all his questions about a particular aspect, delivering the same in one go in the form of a comprehensive interview questionnaire (CIQ). The simple idea is to check the ability of comprehension, retention, intelligence in answering, following the sequence and



A candidate attempting the individual obstacle course.

of course the level headedness displayed while tackling the lengthy combination of questions. There are a set of three CIQs, for service entries there is one additional CIQ. These CIQs are asked in a given sequence but sometimes IOs do change the sequence to generate a bit of confusion especially for repeater/well coached candidates.

The first CIQ is the most important one and lasts for nearly half the total interview in terms of time. It covers academic performance from 10th class onwards (8th class onwards for NDA/TES) up to the highest qualification, marks or grades obtained, subjects/stream opted for with reasons, entrance examinations appeared and rankings achieved. Also included are participation in extracurricular activities, sports & games and achievements; details of close friends in the academic institutes and activities participated in, whereabouts of those close friends and whether the candidate is still in touch with such friends. The interviewer also asks about teachers who are remembered, liked and disliked with reasoning.

After hearing out the answers, probing questions are asked. These may include aspects like satisfaction level with the marks achieved, reasons for poor performance or failures, changes one would make if given a chance to reappear, alternate career plans other than defence, lack of extracurricular or sports activities. Clarifications on dislike of teachers or lack of friends are some of the likely areas of the probe. In addition to check the level of motivation and interest, questions about knowledge, duration and general curriculum of the relevant training institute, like National Defence Academy / Naval Academy / Indian Military Academy / Air Force Academy, etc can also be asked. The interviewee may also be asked about the Army, Navy, Air Force with respect to news, information, branches, equipment, etc. At times the IO may cross check about stated participation in sports, projects, debates etc by asking factual questions about rules of the activity, topics spoken on, size of play areas/fields, details about the projects, etc.

The second part is usually for about 10 minutes and includes questions about family members, their employment, responsibilities at home and the activities they are involved in. The IO also queries about friends in the neighbourhood or society, time spent with them and any activity organised with them. The IO would normally ask about details of pocket money or how finances are managed by the candidate. Based on the responses, the IO will probe to understand a candidate's awareness of his father's or mother's career path or work space as also the exact nature of work. Candidates could be asked to describe the parents and bring out short comings observed or compare himself or herself with siblings. They may be asked about what parents would have to say about them, or when were parents happy or angry with them. The assessor would notice a lack of or limited number of friends as also very less participation with them. With regard to finances, the IO would assess how considerate or otherwise of the financial situation existing is the interviewee, extravagance if any noticed, responsibilities displayed prior to seeking finances for any requirement. Eagerness for financial independence and actions taken towards achieving the same would also be pointers of a candidate's nature. Every candidate is obviously not asked all these questions but these vary depending on individual profiles and the nature of probing being undertaken by the IO.







Group Testing Activities also called GTO Tasks.

The third part lasting about 10 minutes deals with individual habits and leisure time activities. Questions relate to hobbies/interests, reading habits if any, TV or internet surfing and routine followed on a working day/holiday. The probing questions which are likely may focus on lack of hobbies/interests or test the knowledge of a particular hobby, absence of a reading habit, inadequate physical fitness activities, sports or games, sleep habits, favourite TV channels, time spent on internet and websites frequented, details of authors and books read, with description of parts of the book, story line etc. In addition, the IO may enquire as to how the candidate has prepared for general awareness and current affairs and follow up with suitable questions on current events.

In case of service candidates and others who are employed, there is a fourth CIQ. This is aimed at understanding job satisfaction levels, likes and dislikes of the service, testing of service knowledge, regimental history, equipment/organisation details, contributions made or achievements, if any. Also included is the aspect of financial management, expenditure patterns, investments and contributions made from the salary. Service candidates may be asked to explain terms and conditions of AFPP fund, AGI, AFGIS, NGIF, etc.

In the final part of the interview a candidate is asked about his strengths, weaknesses and actions being taken to overcome the shortcomings. This gives a good opportunity to the IO in understanding a candidate's insight and self-realisation on character and personality. Once satisfied the IO will end the interview by destressing the candidate by way of appreciating his good answers and wishing him well for the results. He may also be asked about plans made for sight-seeing/out pass and such like queries prior to terminating the interview.

As you would have noticed, the long interview session enables the IO to make a fair judgement of the applicant's habits and environment, his behavioural traits, his aptitude, his challenges and ability to face the challenges that life throws up. However, many candidates are coached into providing acceptable responses to these questions, and there are candidates who will present a 'good habits, good friend circle, good family picture'. The assessors are trained to probe and pick up inconsistencies, which results in an adverse assessment. So, honest responses are the best way to tackle the interview.



Col Santanu Ghose, (Retd) was commissioned into 6/5 GR (FF) in March 1983, a unit he went on to command. He has served in the Indian Embassy in Nepal and in the National Security Guard. He has had a long exposure as an Interviewing Officer with two tenures at Selection Centres Allahabad and Bhopal.



SAFEGUARD YOUR INVESTMENTS DURING UNCERTAIN TIMES

These are uncertain times, with markets and businesses impacted by the Covid 19 pandemic. Our financial guide shares tips on investing in such situations.

"Information is the resolution of uncertainty"
– Claude Shannon, US Mathematician

Market uncertainties are unpredictable; this leads the markets towards instability and makes them volatile. Imprudent investment in such volatile markets can erode the investor's capital. Patrick Slovik, an economist at the OECD, described market uncertainty in IFC Bulletin No 34 – "While known factors are already reflected in efficient market prices, the main sources of market instability are unknown factors. These unknown factors shall not be referred to as market risk, but as market uncertainty." Risk is measurable and quantifiable against which the investor can protect himself through risk mitigation techniques of investment. On the other hand, uncertainty precludes taking such steps since futuristic predictions are not possible. Typically, markets work on the supply and

demand principle and it is in equilibrium when supply equals demand. The stock prices are higher when there are more buyers than sellers, and are lower when the sellers are more than the buyers. What then throws up more buyers and sellers? Simply speaking, it is investor confidence that comes from market stability and positive future predictions.

Numerous events may disturb investor confidence. These may be military conflicts, trade wars, political instability, economic recession, poor government fiscal and monetary policy, poor performance data of corporates or government, or natural disasters. In the past, both domestic and international reasons triggered major market crashes in India. However, as is evident from the table below[1] , the uncertainty of the COVID-19 global pandemic gravely shattered the investor confidence and led to a historic market downturn in March 2020.

Crash Date	Event	Single Day Points Lost by SENSEX	% Lost
23rd March 2020	COVID-19	3943.72	13.15%
28th April 1992	Harshad Mehta Scam	570	12.77%
24th October 2008	US Financial Crisis	1070	10.95%
12th March 2020	COVID-19	2919.26	8.18%
16th March 2020	COVID-19	2713.41	7.96%
21st January 2008	US Financial Crisis	1408	7.40%
18th May 2006	--	826	6.76%
17th March 2008	US Financial Crisis	951	6.03%
24th August 2015	--	1624	5.93%
9th November 2016	Demonetisation	1689	5.90%

Uncertainty in the markets brings down the market indices and triggers a herd mentality, where investors blindly follow what other investors are doing, rather than relying on their own analysis. Iconic investor Warren Buffet's quote, "Be fearful when others are greedy, and be greedy when others are fearful" guides an investor towards what his investment approach must be during uncertain times. The investor must stay calm and collected and must understand that after any crash the market again goes up and reaches its pre-crash levels. The table below elucidates that the average time taken by SENSEX to reclaim its pre-fall valuation is about 13 months or say a year plus.

Before Fall		Month of Fall	Reclaim		No of Months to Reclaim
Value	Month & Year		Value	Month & Year	
12042.56	Apr 06	**May 06**	12454.42	Sep 06	5
14090.92	Jan 07	**Feb 07**	14544.46	May 07	4
20286.99	Dec 07	**Jan 08**	20509.09	Dec 10	36
20509.09	Dec 10	**Nov 11**	21016.52	Oct 13	34
28,693.99	Nov 14	**Dec 14**	29,182.95	Jan 15	2
29,361.50	Feb 15	**Mar 15**	29,620.50	Mar 17	25
35,965.02	Jan 18	**Feb 18**	35,423.48	Jun 18	5
38,645.07	Aug 18	**Sep 18**	38,672.91	Mar 19	7
39,394.64	Jun 19	**Jul 19**	40,129.05	Oct 19	4
40,723.49	Jan 20	**Feb 20**	40794.74	Oct 20	9
Average Time to Reclaim					**13.1**

1. Source: https://tradebrains.in/stock-market-crashes-india

Since market uncertainty is unpredictable and unforeseeable, the investor must consider investment options to ensure regular income during uncertain times, protect his capital from market volatility, and simultaneously take advantage of market crashes for buying low and then selling high when they rise again. This means that the investor must ensure three things:

first, invest in safe and secure fixed income instruments to ensure timely and regulated income;

second, choose passive investments to get market returns rather than active investment to beat the market index;

third, besides investing systematically to achieve rupee-cost averaging he must top-up investments to buy low during falling markets.



Safe Income Options - during high volatility periods in the market, it is better to park your money in safe and secure financial instruments. Notwithstanding the uncertain times, fixed income instruments must always form a part of any portfolio and its proportion varies with the investor's age and risk-taking ability. Fixed income

instruments are either floated by the government, government backed entities, or corporate entities. Most of these instruments are not entirely risk-free, but carry credit risk, interest rate risk, or liquidity risk with them.

Credit risk is the possibility of the borrower defaulting on the repayment of his loan/debt. In case of investments, an investor who invests in bond/fixed deposits is the lender and the financial entity that floats such financial instruments is the borrower. Therefore, the borrower raises capital for his business expansion or infrastructure development by floating bonds/fixed deposits and pays interest to the lender (investor in this case), who buys these financial instruments. Financial entities posing higher credit risks usually end up paying higher interest rates on such instruments since investors and lenders usually demand a higher rate of interest for their capital. Thus, an investor must understand that a financial entity offering higher interest rate carries a greater credit default risk. Ipso facto, the investor stands a greater chance to lose interest returns or even his capital, in part or in full, if he invests with them. In India, Securities and Exchange Board of India (SEBI) has authorised seven agencies to assess credit ratings.

The other type of risk is the interest rate risk. In this, the value of the existing bond or other fixed rate instrument falls when the overall interest rates go up since investors start moving towards newly launched higher interest rate instruments. Therefore, the investor must understand that market prices of bonds/fixed rate instruments are inversely proportional to the overall interest rates.

Liquidity risk is the inability of the investor to sell the concerned financial instrument in the market easily to prevent or minimize losses, or to meet his short-term financial obligation.

Once the investor understands various risks in fixed income instruments, he must bear two things in mind during his option formulation and decision-making process, viz. credibility of the financial institution and his net returns on interest income after adjusting the inflation and taxation. Most corporate entities offer higher interest rates vis-à-vis government. However, most government owned or government backed financial instruments ensure capital protection through a sovereign guarantee and the lower net returns is a small price to pay as against losing capital to the lure of higher interest rate. The table below summarises some of the safer and more secure fixed income instruments currently available in the market.

Name	Interest	Tenure/Lock-in	Interest Payment & Taxability	Limit	Remarks
RBI Floating Rate Savings Bonds (2020)	7.15% revised every six months and linked/pegged with prevailing National Saving Certificate (NSC) rate with a spread of 0.35% over the respective NSC rate.	7 years, but, senior citizens have premature exit options after 4, 5 and 6 years for those aged 80 and above, 70 - 80 years and 60 - 70 years of age respectively.	Non-cumulative; six monthly pay-outs; Taxable and TDS applicable		NO tax benefit under IT Sec 80C
Senior Citizens Savings Scheme (SCSS) only for senior citizens or retirement emoluments within six months of retirement	7.4% revised every quarter	5 years initially and extendable by 3 more years	Non-cumulative; quarterly pay-outs; Taxable and TDS applicable	Min – ₹ 1,000 Max - ₹ 15 Lakh	Tax benefit under IT Sec 80C for maximum ₹ 1.5 lakh
Public Provident Fund (PPF) only single accounts permissible	7.1% revised every quarter	15 years initially and thereafter, extendable in blocks of 5 years	Cumulative; Tax free	Min – ₹ 500 per annum Max - ₹ 1.5 Lakh per annum	Tax benefit under IT Sec 80C for maximum ₹ 1.5 lakh
National Savings Scheme (NSC) Issue VIII	6.8% revised every quarter	5 years	Cumulative and paid on maturity only; Taxable and TDS not applicable	Min – ₹ 1,000 Max - ₹ 15 Lakh	Tax benefit under IT Sec 80C for maximum ₹ 1.5 lakh
Kisan Vikas Patra (KVP)	6.9%	124 months (10.3 years)	Cumulative and paid on maturity only; Taxable and TDS exempt from withdrawals after the maturity period	Min – ₹ 1,000 Max - NO limit	NO tax benefit under IT Sec 80C

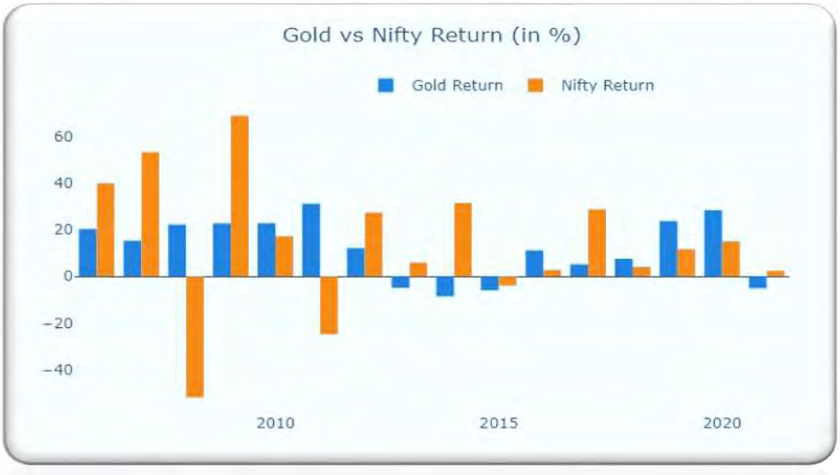
Name	Interest	Tenure/Lock-in	Interest Payment & Taxability	Limit	Remarks
Post Office Monthly Income Scheme (POMIS)	6.6% revised every quarter	5 years	Non-cumulative monthly pay-outs; Taxable and TDS exempt	Min – ₹ 1,500 Max – Single Account is ₹ 4.5 lakh and Joint account is ₹ 9 lakh	NO tax benefit under IT Act
Pradhan Mantri Vyaya Vandana Yojana (PMVVY) only for senior citizens	7.4% revised every year	10 years	Non-cumulative monthly, quarterly, semi-annual, and annual pension pay-outs; Taxable and TDS exempt	Min – ₹ 1.5 lakh Max – ₹ 15 lakh	NO tax benefit under IT Act
Non-Convertible Debentures (NCDs)	Varies from 7% to 9% as per market	Offered generally for minimum of 90 days and maximum of 10 years	Non-cumulative monthly, quarterly, semi-annual, and annual pension pay-outs; Capital gains tax applicable	NO limit	Listed NCDs are tradeable in secondary market; however, premature withdrawal not permitted before maturity
Fixed Deposits (Banks and Corporate)	Variable as per tenure and financial institution	Varies from 7 days to 10 years	Cumulative and non-cumulative options available. Taxable and TDS applicable	NO limit	Corporate offers better interest rates than banks but are riskier; Tax benefit under IT Sec 80C for maximum ₹ 1.5 lakh for FDs with tenure of 5 or more years
Capital Gain Bonds	5% revised at the time of launch	5 years	Non-cumulative annual pay-outs; Taxable and TDS exempt	Min – ₹ 10,000 Max – ₹ 50 lakh	Capital gains tax from property sale exempted under IT Sec 54EC

Resort to Passive Investment – the best way to ensure getting market returns in turbulent times is to invest passively by minimizing buying and selling. One can either buy and hold portfolio for long duration or wait for the uncertainty to reduce (it can never end in the market) before moving on to active investment where the fund manager tries to time the market by actively buying and selling securities. A common way of passive investment is to invest in an index fund that invests in an underlying index (say Nifty 50, Nifty Next 50, Sensex 30, or thematic indices like banking, pharma or FMCG) as it purchases all the stocks comprising the index in the same proportion. Passive investment lowers the expense ratio and management charges considerably since it is mainly automated investment without the active involvement of the fund managers. In case an investor wants to invest in stocks, then he may like to invest in securities and schemes with beta value less than one (beta<1), indicative that its price is theoretically less volatile than the market. By passive investment the investor gains over actively managed portfolios through reduced expense ratios, simpler management, and superior after-tax results over medium to long term horizons. Your financial advisors are wary of suggesting passive investment strategy for the simple reason that their trail commission (fee paid, through the Asset Management Companies, by an investor to the advisor every year that he owns the investment) on these funds is much lesser than actively managed funds. It can be as low as 0.04% for some passive funds while it can be as high

as 1.65% for some actively managed funds. The table below compares the active and passive investment techniques.

Detail	Active Investment	Passive Investment
Objective	Beat benchmark index	Match underlying index return
Approach	Hands on approach	Less buying and selling
Expense Ratio	More	Less
Complexity	More	Less
Human Error	More due to active involvement of fund manager	Less due to automated investment
Transparency	Less since purchase/selling is at fund manager's discretion	More since investor knows the assets of the index
Tax Efficiency	Less due to more capital gains because of frequent churning by fund managers	More due to their buy-and-hold strategy thus reducing capital gains
Investment Scope	Broader but within scheme objective	Limited to specific index
Risk	More	Less
Returns	More	Less
Hedging	Possible	Not possible

Continue Systematic Investment – caution in uncertain times does not mean that an investor must stop his ongoing systematic investments. It is intuitive for an investor to stop his ongoing SIP/SEP during the bear phase of the market. However, this is counterproductive since he loses the opportunity to buy more units/shares when the NAV/prices are trading lower. To gain from the market downturn, he must continue his ongoing systematic investments. In fact, he must top up these with some lump-sum investment when the markets crash. Besides helping him to achieve rupee-cost averaging, it will also help him to buy low during the falling markets and subsequently sell high when the markets rise again. However, the investor must hold some readily available cash reserves.



Gold is Always Safe – Gold is an inflation and equity hedge since its value appreciates in high inflation scenario and economic downturn. Traditionally, Indians have invested in gold and not without reason. Gold prices have risen steadily from an average ₹ 63.25 in 1964 to an average ₹ 48,651 in 2020. If we consider the average value of 1964 as the base value, then even at a high 7% annual inflation rate, any value of gold above ₹ 2,800 would beat the inflation in 2021. Surely then gold is a good asset class to invest in during crisis times. The question then arises regarding the percentage of the portfolio that gold should form. Since 2008 financial crisis, it is only on six occasions that gold has beaten annual Nifty returns (See graph[2] shown). Therefore, when it comes to wealth creation it should only form a small part, about 5% to 10%, of your portfolio. Some of the preferred ways to invest in gold without the encumbrance of storing physical gold and paying for labour charges in jewellery are to buy gold exchange traded funds (ETF) or Savings Gold Bond (SGB) floated by the RBI. While both the ETF and SGB are tradeable on the bourses, gold ETF is a preferred short-term option because of better liquidity. SGBs are government securities, denominated in grams of gold, that come with an 8-year maturity period (Premature withdrawal permitted only after 5 years) and pay-out semi-annual interest @2.5%. Taxability wise SGB is better because of its LTCG exemption, if held till maturity.

With these inputs, I hope the readers are clearer about market uncertainties, and how to invest wisely in such situations.

2. Source: https://www.equityfriend.com/investment-charts/gold-and-nifty-chart.html



Colonel Raj Rakesh is a 1980 batch ex-NDA officer who commanded an armoured regiment and converted it to state-of-the-art T-90 tanks. He served as a Brigade Major of an independent armoured brigade and as Colonel General Staff of an infantry division. Post retirement, he is a consultant with an investment advisor at Jaipur and edits their monthly investment magazine. The officer has also contributed to DIAV annual magazine 'SAMMAAN' and number of web portals.



THE INFANTRYMAN

Penned by Late Lt Col Onkar Singh Dikhit, 11 GR on 26 July 2000

Plain footsoldier is thy name,
Walking all the way thy ancient game,
Atoms and neutrons shall come and go,
What lies 'neath the ground they will never know.

Guided missiles formidable may seem,
Lasers and Ultra-violets with strength may beam;
But the vital last ground comes foot-by-foot,
The battle being won when a flag is put,
A victory-banner unless planted.
A rugged enemy shan't be supplanted.

For any victory under the sun,
The ground battle must finally be won,
Guns may blast and tanks may roll,
Yet, the man with the Bayonet takes the goal;
With thick-soled boots of tipped toe-nails,
Despite all else, the Infantryman prevails.



Fondly called Dada Bhai, Late Lt Col Onkar Singh Dikhit was born in Indore on 23 August 1921 and passed away at Mhow on 17 May 2021 at the age of 99 years and 9 months. Lt Col Mangal Singh, his father, served with the Holkar Army, and Onkar too joined his father's unit, the 1st Indore Infantry (State Forces), Holkar Army during the Second World War in 1942. His battalion was part of the PAIFORCE (Persia and Iraq Force). In 1947, he was deputed for Kashmir Operations and was transferred to the Gorkha Rifles. He served with the UN Peace Commission (Indo-China) in the mid-50s, and thereafter joined 11 GRRC. On 11 July 1963, he raised 2/11 GR at Clement Town, Dehradun, and he remained associated with the battalion thereafter. After his retirement in August 1977, he and his wife taught at the Nigerian Defence Academy and in civil education institutions in Nigeria for nearly two decades. He believed in education and sponsored the education of many children of under-privileged families.

His brother Major Ajay Singh Dikhit had been killed-in-action in Congo during UN Peacekeeping Operations in 1961. He was a very popular person in Mhow due to his jovial and helpful nature. He was revered as the 'grand old man' of the veterans of Mhow. This poem penned by him was also published in the Infantry Journal, and has been included in this issue as a tribute to this respected veteran.

Memorable Pictures



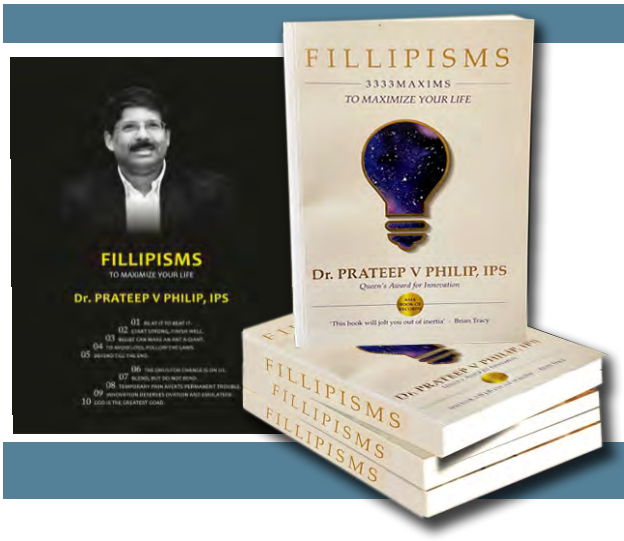
The Indian Navy's first destroyer INS Rajput was decommissioned at Naval Dockyard, Visakhapatnam after serving the nation for 41 glorious years on Friday, 21 May 21. INS Rajput was commissioned on 04 May 1980, at Poti, Georgia (erstwhile USSR), as the lead ship of the Rajput Class Destroyers of the Indian Navy.



The Corps of Military Police Centre & School, Bengaluru held the attestation parade of the first batch of 83 women soldiers at the Dronacharya Parade Ground on 08 May 2021.



Indian Navy ships and aircraft were engaged in Search and Rescue operations post- Cyclone Tauktae to locate the missing crew members of Accommodation Barge P-305, which sank on 17 May 21, 35 miles off Mumbai. 188 persons were rescued.



Book:
Fillipisms - 3333 Maxims to Maximize Your Life
Author: Dr Prateep V Philip
Price: Rs.599
Available at:
Leading e-commerce sites such as Flipkart, Amazon & Odyssey

LEARNING LIFE LESSONS

This record-breaking book offers unique and essential insights, addressing the existential dilemmas in our personal, professional and intellectual spaces.

This book is an iconic work of Dr Prateep V Philip, IPS, a good friend and serving Director General of Police. It is a compilation of original maxims or proverbs, crafted by Dr Philip over a decade. It sums up his perspective on a gamut of things ranging from attitudes to zeal or A to Z, as he would like to say. There are 33 chapters, each containing 101 sayings, that together constitute a new historic as well as a world record for maxims written by a single individual. It has been featured in the Asian Book of Records and World Book of Records. The sayings are down-to-earth and pragmatic, while a good number are profound, yet pithy.

A Tamil Nadu cadre officer, Dr Philip was inspired to take to writing maxims back in college but received a further fillip in a visit to the 133-foot-tall statue of Thiruvalluvar, the Tamil savant and poet of legendary fame, located in Kanyakumari. Like Thiruvalluvar wrote couplets or kurrals, Dr Philip characterised his maxims with the new term he coined –'fillipisms' - implying that the purpose is to encourage people, stimulate thinking and develop creativity.

Dr Philip has had a unique career as a police officer, having survived the world's first human bomb assassination of former Indian Prime Minister Mr Rajiv Gandhi at Sriperumbudur. He survived with severe injuries including shrapnel, still lodged in different parts of his body. He started several new initiatives within the police force, like the Friends of Police movement that won him the Queen's Award for Innovation. He has also authored several powerful ideas like Excenomics, an innovative and interdisciplinary subject to study excellence and Equilibrium Thinking, a new thought process. He began writing a maxim a day from around 2011 and completed the new record of 3333 in 2020. At the height of the COVID-19 pandemic, he received help of family and friends to design and put together this unique book, with 33 original paintings to illustrate the chapters. Thirty-one of the illustrations are by his older daughter Nimisha Sara Philip. The cover design, which contains an attractive motif of a special light bulb holding the cosmos in it, was the creative work of his younger daughter Nishala Isabel Philip. The book is truly a monumental legacy of Dr Philip, bound to inspire generations to come. The fillipisms employ rhyme, puns, metaphors, neologisms and even new words like 'realigion' coined by the author. The book cannot be read in one or a few sittings. It is my companion and I delve into it to read a few every day, and every single time, I leave refreshed, renewed and recharged by the freshness, the originality, the creativity of expression and depth of ideas. The book has received rave reviews and endorsements from a wide variety of celebrities, both Indian and global. To my mind, it is likely to emerge a classic of our times, on par with books like 'The Alchemist' by Paul Coelho, which were lesser-known initially, but grew in popularity as more and more people read and benefited from the philosophy behind the story. It answers many of the questions all of us face and clarifies the existential dilemmas in our personal, professional and intellectual spaces. The author, being an officer in uniform, has a lot of empathy with the uniformed forces, be it the defence services or the allied police and paramilitary services. To sum up, the book is not just a good read but a must-read and promises to expand our mental horizons, alter our paradigms and transform our perspective on a wide spectrum of issues.

Colonel David Devasahayam (Retd)
Founder & Publisher

ALL YOUR COVID-19 QUERIES ANSWERED!



Photo Courtesy : Pexels

India's second wave saw a lethal strain of the COVID-19 virus and an unparalleled number of cases. Dr Renuka David helps us understand the illness, its progression and impact, and what the treatment entails.

Is the COVID-19 virus airborne?

The CDC (Centre for Disease Control and Prevention) has recently updated Coronavirus guidelines stating that COVID-19 can spread through airborne particles. So yes, COVID-19 is airborne, and with this particular mutation, there is a fear that it may create added resistance to treatment. Airborne transmission means that you expel a piece of the virus when you exhale, talk or cough. Those micro-droplets or aerosols can be so small that they are able to float in the air and potentially travel. Sometimes these droplets can travel an entire room. People can inhale these particles and get infected. These micro-droplets can travel up to 6 feet or so. The Coronavirus can survive in colder and less humid air and can stay in the air for upto 3 hours. Toilets can be a major source of transmission especially if used by multiple people and poorly ventilated. Toilet flushes spread aerosols. It becomes imperative to put the toilet seat cover down before flushing. Prevention here, is definitely better than cure. Be overcautious. While going out, double mask yourself. Always pair a surgical (inside along your face) and cloth mask (over the first mask) for double masking. Also wear a face shield when you step outside. There is also the strong recommendation to mask yourself even at home for added protection, especially if you're living in a closed community.

What age group has been impacted during India's second wave?

People between the ages of 20 – 45 are more affected. Statistics show that 21.4 percent of people between the ages of 21-30 years and 21.47 percent of those between 31 – 45 years are being impacted. After the first wave, the vaccine was introduced and administered to those over 60, and for those over 45 with co-morbidities. Also, this group was badly affected during the first wave, so there is some immunity now among them. Younger people on the other hand have stepped out to work and for social interactions, so this is another cause that the virus is spreading in this population. In fact, the progress of infection is so rapid, that deaths are occurring even after the third and fourth day of infection. COVID-19 is not yet considered a major threat to children.

How is COVID-19 linked to lung infection?

COVID-19 can affect the lungs causing what we call Covid Pneumonia. The damage is not done by the virus per se. Inflammation of the lung tissue occurs due to the antibodies and chemicals produced by the body in response to the virus attacking your own lung tissue. When that exacerbates, it produces something that medical doctors call the Cytokine Storm, (an immune response where the body starts to attack its own cells and tissues) noted between Day 7 and Day 14 of the infection. To sum it up, it is not the virus, but the body's own antibodies that cause Covid Pneumonia. Steroids play a major role in combating this. So how do you know if you could potentially have COVID pneumonia?

1. If your temperature does not come down and rapidly keeps rising even after a few days.
2. If the oxygen saturation reading on the pulse oximeter falls below 94.
3. Shortness of breath.
4. Respiration rate more than 24.
5. Do the six-minute walk test as well, where you take the saturation reading after walking briskly for six minutes.
6. Another new symptom that is a cause for concern is excessive diarrhoea.

These signs should raise the red flag.

What is the difference between an oxygen cylinder and oxygen concentrator?

The oxygen concentrator is equipment which pulls in atmospheric air, takes out oxygen and feeds it to the patient. The oxygen cylinder directly administers pure oxygen to a

patient through tubes and a mask. Oxygen concentrators run on electricity, which is therefore needed 24 x 7. Also, though concentrators claim to produce 5 litres per minute, the more accurate estimate is 4-4.5 litres per minute. Patients who need more than that need an oxygen cylinder. These equipment should be used when the pulse oximeter reading falls below 94 percent.

What is proning?

One can increase their body's oxygen levels naturally by 'proning', which concentrates air and oxygen into the chest cavity by assuming an optimum position for breathing. It can increase your saturation by 6 – 7 percent. Lie face down, with one pillow below your chest and two below your hips so that there is enough space between your tummy and the bed. Do this for 1-2 hours followed by lying on your right lateral for 1-2 hours, left lateral 1-2 hours and back for 1-2 hours. Note, proning should not be attempted by pregnant women, those with heart disease or spinal problems, and should be avoided after a meal.

How should I treat COVID-19 at home?

The first week from Day 0 - Day 7 is viral replication with mild symptoms like a cough, running nose, congestion, loss of smell and taste, headache, general body pain or even a mild diarrhoea.

Irrespective of whether one has got COVID-19 or not, paracetamol, multivitamins and zinc are the essential medication. If one develops fever, take paracetamol every 6 hours even if the fever subsides. Get a pulse oximeter and check your oxygen saturation twice a day. From Day 7 – 14, for cases where the symptoms worsen like fever not subsiding despite taking paracetamol, or oxygen saturation falling below 94 at rest or after the 6 minute walk test, the inhalation of steroids through a steroid inhaler have shown to produce very good results.

Consult your doctor for a treatment plan based on your needs especially if or when one requires oxygen. Remember that antibiotics do not combat viral infection. So it is advisable not to bombard your body with unnecessary antibiotics unless you develop secondary bacterial or fungal infection and your doctor strongly approves it. Good old home remedies like regular steam inhalation, warm saline gargling, kashayam, warm turmeric milk at night, adding a lot of garlic, pepper and turmeric in your food, building up your immunity by vitamins and regular exercise plays an important role in combating the infection.

Do I necessarily need a CT scan of the chest?

A CT chest is not required for everyone, as it puts unnecessary pressure on an already overloaded healthcare system. Dr Randeep Guleria, Director of the All India Institute of Medical Sciences, New Delhi has advised not to overdo the CT scan as it increases exposure to X-Rays a hundred-fold. Consider getting it done only under certain conditions. Firstly, it should be done after the seventh day, and not before that. Even if the results of your RTPCR test is positive, do not do a CT scan before Day 7. Also, do it only if your oxygen saturation level dips below 94, if you have persistent fever, and if certain inflammatory markers are raised in your blood test (your doctor will know and guide you).

Take your overall CT severity score into consideration. A mild score is 8/25, moderate score is 9-15/25 and severe is 16 and above. Therapy depends on the scan recommendations. Always remember, it is not recommended for everyone just because they have tested RTPCR positive.

What is plasma therapy and when do I need it?

Plasma is a component of the human blood that carries antibodies. Hence it is believed that plasma therapy can be effective in COVID-19 treatment if it is checked for neutralising monoclonal antibodies, which work in the first week of infection. After that phase, WHO doesn't recommend it as there is no concrete evidence available to say it will work. So, the first five days of the infection is the only time one should ideally use it.

Can I use blood thinners to deal with COVID-19?

Blood thinners should be used only by those hospitalised and not those at home. They should be administered under medical supervision, as you may bleed if not supervised properly.

Sometimes, a patient appears to recover and suddenly takes a turn for the worse. Why does that happen?

We are seeing this during the second wave of the pandemic. The symptoms presented by the patient during the first five to seven days are of a regular upper respiratory viral infection like common cold, body pain and gastritis. 85 percent of the patients recover within the first week of the infection. However in some cases, the immune bodies attack their own body cells - in this case, the lung tissue - causing the cytokine storm, resulting in inflammatory changes in the lungs. This is when the oxygen level in the blood can start dipping requiring the patients to be put on oxygen. Hence it appears that a patient who appears to be recovering takes a turn for the

Reference

Blood Pressure
120/80: Normal
130/85: Normal (needs to be controlled)
140/90: High
150/95: Very high

Oximeter Readings
95 – 100: Good Oxygen Levels
94: Normal
90 – 94: Low Oxygen Levels
Below 90: Very Low Oxygen Levels (needs oxygen support)

Pulse Rate:
60 – 80 per minute: Normal
72 per minute: Standard
90 – 120 per minute: High / Increased

Temperature:
92.0 – 98.6 F (Normal)
99.0 (Normal Fever)
100.0 F – 102.0 F (High Fever)

worse, and is seen more in the population between 30 and 50.

What is the duration of the illness?

We have only a general ballpark duration. Infections that are mild to moderate tend to test negative after the 14th day. A severe case takes about 20 days. Those under home quarantine should generally recover after Day 14.

What is the immunity coverage of the vaccine?

As of now, research is still ongoing, but the general consensus is that for 10-11 months after the second dose, there is immunity coverage. Beyond that, booster doses will most likely have to be looked at once a year. We will have more clarity about this in the coming months.

If you're COVID–19 infected, after what duration should you get vaccinated?

It is recommended that you get vaccinated 90 days after recovery, since the virus gives you immunity for that period.

Do anxiety and panic exacerbate the symptoms?

Yes. I'd like to give you an example. Recently, the Pastor of our Church who is co-morbid with chronic renal failure on regular dialysis was admitted with COVID-19 to the hospital. He was under severe mental stress, worrying about the church activities and his family. His oxygen saturation was not rising above 85 putting him in the "critically ill" category. It was only after his wife met him, and alleviated his fears, did he find mental peace of mind. There was a remarkable improvement with his oxygen levels going up. He was soon discharged.

Can pregnant women take the vaccine?

Ideally, pregnant women should not take the vaccination as there are not enough studies to say how safe or beneficial it is. However, one has to assess the risk and benefit ratio. If the woman is at high risk of contracting COVID-19, her doctor can help her take a decision.



5 VACCINATION MYTHS DEBUNKED!

1. Vaccination prevents disease - not infection of COVID-19. Once you're vaccinated, the severity of the infection is generally mild-moderate. Only 4 -5 percent of those vaccinated suffer from severe infections. Even after you receive the vaccine, continue masking, handwashing and following physical distancing norms.
2. Just because the vaccines were developed quickly, it doesn't make them unsafe. They have gone through rigorous testing for safety standards, and the clinical trials and reviews have shown them to be both safe and effective.
3. If you've already had the virus, it doesn't guarantee immunity against future occurrences. Vaccination will help build immunity against this.
4. Considering yourself low-risk is not good enough reason to avoid being vaccinated. Not only is this a myth (young, healthy people are also susceptible), but you need to be vaccinated to protect your family and community in the long run.
5. Vaccines can be administered safely during a woman's menstruation cycle.

Can a person who is asymptomatic take the vaccine?

Absolutely. He should always double mask and keep sanitising his hands to prevent transmission of his viral load to others.

What is Mucormycosis?

It is terminology used to describe invasive fungal disease in any human organs such as the lungs, soft tissue and other viscera. Invasive Fungal Sinusitis is the term for the present disease affecting the nose and sinuses. Among the probable causes are immune suppression due to aggressive steroid therapy, zinc overdosage, contaminated masks, contaminated water used as humidifier during O2 therapy. Typically, diabetic and immunocompromised patients are at risk. HPE is a must for diagnosis. Surgical debridement and expensive lyophilised Amphotericin B injections can be used for management. Frozen sections are also done during surgery in some centres. In the meanwhile, ensure you wash and disinfect your cloth masks regularly, as saliva and humidified air from the lungs may provide a breeding ground for fungus.

What can I do to recover from the side effects of COVID-19?

Continue to consume vitamin C and zinc supplements even after you test negative for COVID-19, which builds your strength and immunity. Include protein-rich foods in your diet to help maintain muscle mass, and get in plenty of complex carbs like sweet potato and oatmeal to boost energy levels. Stay hydrated with plenty of water, coconut water and fresh vegetable juices. Avoid tea and coffee in excess and completely steer clear of alcohol and fizzy drinks. Sleep for at least eight hours every night, and try and take a walk for half an hour daily to slowly start building up on physical activity and fitness levels.



Dr Renuka David, MBBS, PGD (MCH), USA-PhD(HC) is the Managing Director of Radiant Medical Services and an alumnus of the Coimbatore Medical College. She has been a frontier doctor, working extensively with women and young adults in urban, rural and tribal India. She has also been a contract doctor with the Indian Army for three years. Dr Renuka dons many avatars as an entrepreneur, doctor, professional speaker, television show host, TEDx speaker and wellness expert. She is the Founder-Curator of the immensely successful Radiant Wellness Conclave. For medical queries, please email: ask@drrenukadavid.com



Vice Adm SCS Bangara at the pinnacle of his career.

REFLECTIONS ON A MILITARY CAREER

Medals and Ribbons is perhaps an interesting magazine for both parents and students to read and decide whether a career in the Indian military is worth considering, given the galaxy of opportunities available today. Yet there are so many of you who are attracted to the uniform, the respect it invites from our citizens and the chance to serve the nation. Is the Military the only option to serve the nation? Of course not. But it is the only vocation which asks you to sign a blank cheque to make the supreme sacrifice if and when the Country calls upon you to do so. When Pavandeep Rajan sang, *"theri mitti me mil jawan"* at the Indian Idol 2020 show there was not a single dry eye in the audience both in the studio and perhaps in the virtual medium too. That is the emotion that the military profession evokes in people.

Given the nature of military service, induction, training and many other aspects are unique to the Armed Forces. Even if you qualify the UPSC entrance examination, you are required to get through rigorous five day tests at the Services Selection Board (SSB).

To exemplify this process, let me tell you a true story about a young boy who opted for the military way of life from the VIIIth standard. His story may tell you that one does not have to follow the rigidly perceived entry guidelines to the military and that so long as your heart is set on a career in uniform you may exceed your own expectations.

The family under discussion moved from the foothills of Kodaikanal to Coimbatore in 1959. Soon after settling down in a school, the young

boy joined the National Cadet Corps (NCC) Air Wing. The PT Master Mr. Siddappaji - given an Air Force rank, as an Associate NCC Officer (ANO) soon became a mentor. Air Force subjects, parade training and aero modeling were activities twice a week under the able guidance of a serving Squadron Leader and a Flight Sergeant. Soon the young man rose to the rank of Cadet Flight Sergeant and was a part of the State contingent for the Republic Day parade in 1962. The NCC unit was delighted when he was chosen as the best All - India cadet and awarded a trophy by the then Prime Minister Pandit Jawahar Lal Nehru. The news trickled down in a few days both to the family and the school. That photo of receiving the trophy in 1962, is still displayed at the school in Coimbatore.

The sudden attention, along with rising expectations from older and younger people around him was a challenge beyond the maturity of the young man. He had to learn to manage the expectations of peers and superiors. I shall list the lessons he learnt at every stage of his career, starting with this episode of his life.



As a smart young NCC cadet.

Lesson one: Keep your feet firmly on the ground and pursue your passion

Along with accolades came ready recognition. Loyola College at Chennai was happy to admit him for the pre-university curriculum. He was a natural choice for the NCC Senior Division Air Wing. Additional challenges of balancing activities with academics had to be tackled whilst being away from home. He did win more medals at the state level. Consequently, he was readily accepted by St Joseph College at Bengaluru for the under-graduation science degree course in 1964. By 1966, with more awards and a visit to Singapore, then part of Malaysia, for a camp, and a solo badge for piloting a Tiger Moth, he was all set to join the Armed Forces. Fate intervened at two levels. First, he missed the bus for the entrance to National Defence Academy (NDA) as pursuing a degree course and all his extra-curricular activities including cricket left him with little time. There was no one to guide him on a future course of action.

Second, it was not to be the Indian Air Force. Suffice it to say, the Indian Navy (IN) launched a short service scheme for graduates and by end 1966, the young man was in the Navy. Everything that he learnt had to be unlearnt. Uniform, the salute, parade and drill, the vocabulary - all of it.

In 1969, he was selected to go to the Soviet Union to train for Missile boats. This young officer returns in 1970 and takes part in the 1971 war - on the first attack on Karachi on 04 December 1971—now celebrated as Navy Day! Soon, the euphoria of war subsided and the Navy offers him a Permanent Commission. Many of his course mates declined the offer and went their way.

The Navy had rightly assumed that a massive modernisation programme, underway since the Chinese invasion, could not be managed without corresponding increase of man power. The lead time to induct personnel and make them ready for sea service needed detailed preparations and it would not meet deadlines of the acquisition programmes of the Navy. Hence the graduate entry - short service scheme of 7 years - was found to be a solution. To sweeten the deal, officers so inducted were offered the rank of Acting Sub Lieutenant from the date of entry. It may be noted it was not until 1974 that cadets of NDA passed out as graduates.

Implicit in the decision of inducting Short Service Commission Officers were three assumptions. That, graduates being older than the cadets of the regular entry,



Cadet Bangara receiving national recognition from PM Jawaharlal Nehru.



As a young Lieutenant just before the 1971 War.

would be mature; they would be technically better placed to absorb new technology as only those from a science background were commissioned; and, that they may not need all the specialist courses that the regular entry counterparts were subjected to. The back bone of the service was the regular entry officers. In theory, it looked good.

The young man with a total training period of six months found himself pitted against the regular entry counterpart having done three full years at NDA, six months on the Cadet's training ship, six more as a Midshipman, and a year plus for Sub Lieutenants' courses (called "Subs courses"), It appeared to be an unfair battle. The experiment was doomed to fail. But did it?

In the medium term, the performance appraisal by the Commanding Officers began to narrow the perceived gap in the output of the two entries. Given that no one really under-performs intentionally, what then was driving the under-trained to bridge the gap? The burning desire not to be publicly rebuked for inadequacy and to be treated with dignity, may well have been the cause. The positive outcome for the service was that it created a healthy environment of competition and the winner had to be judged by performance-based indicators, solely driven by merit and leadership traits. Consequently, the young man found himself making progress in selection for courses and appointments overseas.

Lesson Two: Do not judge a book by its cover. Judge impartially and reward merit

By the time the young man transited from time-based promotion to selection-based Promotion Board results, he could not but acknowledge the fact that all his seniors who mentored and groomed him were neither parochial nor biased and had the service interest paramount while grooming future leaders.

Even as he grew in rank and stature, along with those he admired, he did encounter officers who were incompetent, unable to display leadership qualities and those who were lacking integrity. Some bad eggs do slip through despite checks and balances. They exist in every walk of life. But in the military, they are unlikely to lead their men to victory.

Why he asked himself, is it that the military expects high standards of professionalism, unbiased assessments, high quality of leadership traits and impartial conduct with ethical and moral underpinning? The answers were stark and staring in his face. Is it the fear of swift retribution, and disciplinary action that kept them relatively free of need and greed? Is it possible to practice ethical conduct and moral virtues when the environment outside the military was sullied by quite different values? He learnt that just as he is expected to make the supreme sacrifice when needed, he has to also ensure the safety and welfare of the men he leads. The only values that the men admire are the core values of the military. Why would they want to follow you to the end of the earth, and certain death if they did not see you as professionally competent, trustworthy, patriotic, and a

He learnt that just as he is expected to make the supreme sacrifice when needed, he has to also ensure the safety and welfare of the men he leads. The only values that the men admire are the core values of the military.



With President Dr. APJ Abdul Kalam.

role model? Such a demand for leadership qualities and integrity is not a part of the DNA of any other profession but the military. Victory in war cannot be assured without fighting for a cause or the *"ashes of your fathers and the temples of your Gods"* as put so eloquently in the ballad Horatius. The stanza in Ronald Hopwood's famous poem, The Laws of the Navy, *"On the strength of one link in the cable, Dependeth the might of the chain, Who knows when thou mayest be tested? So live that thou barest the strain,"* gave him the answers that became his beacons for the rest of his career.

By the time the young man reached fairly senior ranks with all its trials and tribulations he had seen both good and evil. The Serenity Prayer came to his rescue when in serious doubt and the same navy poem, The Laws of the Navy gave him the course to steer in rough and calm seas. Just one line each picked at random should raise your curiosity to find them on the internet. "GOD, grant me the serenity to accept the things that I cannot change……." And "Count not on certain promotion, but rather to gain it aspire……."

But a caveat would be appropriate. You have tons of information at your fingertips but that alone does not give you wisdom. You need to live your life and go grey before you have wisdom.

So, the young man who is now old with grand children in their teens is still to find the right answers to deal with the mysteries of life. But one clear answer to the question 'what would you do if you had a choice in the next life'- without doubt or hesitation, with a childlike enthusiasm, he is bound to say, **"Join the Military".**

Consulting (Naval) Editor's Note: Having reached the end of this fine recounting of some lessons learnt, a reader may be wondering who is the author talking about? The author Vice Admiral Suresh Bangara is talking about his own life and career and did not particularly think it necessary to write in the first person or even reveal the secret towards the end. "Bangs" has always been an energetic, feisty officer who encouraged juniors to speak their minds to him and to others. That he was often heard doing the same to HIS superiors made it easier for him to expect the same from his juniors. I still enjoy an argument with him on phone even as I benefit from his counsel more often than he knows. We were fortunate, as I mention in my own article on naval upbringing for young leaders earlier in this issue, to benefit from more than a few seniors who lived by the dictum, "Example is the Best Navy Order." May I simply say that "Bangs" was always bang-on as a role model.



Vice Admiral SC Suresh Bangara, PVSM,AVSM (Retd) is an extremely competent professional who attended Staff College at Greenwich, United Kingdom, besides attending several courses in the erstwhile Soviet Union. He is an alumnus of National Defence College, New Delhi too. He was awarded Mention in Despatches' for participation in the historic attack on Karachi harbour during the 1971 Indo-Pak War. He held many prestigious appointments while in service including the appointment of Commandant, NDA, Pune and has been the Naval Attache at the Indian High Commission in Islamabad, Pakistan. He superannuated from service after almost 40 years of service in the Indian Navy from the appointment of Flag Officer Commanding – in – Chief, Southern Naval Command on 31 Jul 2006. Post retirement, he has authored several papers and articles in professional journals.

"A Connect, A Bond - Leadership By Example"



Admiral Karambir Singh, PVSM, AVSM, ADC, Chief Of Naval Staff doing push-ups with cadets in his Hunter Squadron at NDA, Pune on 28 May 2021, An affirmation of the undying squadron and NDA Spirit.

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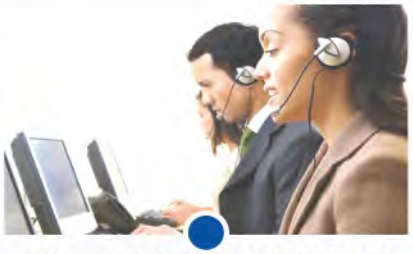

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No.28, Vijayaragava Road, T.Nagar, Chennai - 600017 | Ph: 044 28155448 / 6448 / 7448. Fax: 044 28153512 | email: contact@radiantcashservices.com website: www.radiantgroups.com

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