



Indian Navy's Submarine Arm 50 Glorious Years



QUARTERDECK – 2017

NAVY FOUNDATION MAGAZINE



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CHANGE OF LEADERSHIP





Editorial

Quarterdeck extends heartiest congratulations to Admiral Sunil Lanba on taking over the helm of the Indian Navy and conveys very best wishes for a glorious innings as the Chief of the Naval Staff.

In a very candid Interview, CNS has set forth his vision on the growth trajectory of the Indian Navy and has assured that our Navy is surely and steadily moving forward on its well charted course as the net security provider in the region.

The Navy's second International Fleet Review, IFR-16, has been exhaustively covered in this edition, while presenting first-hand accounts of the challenges and achievements related to the conduct of the biggest-ever maritime event of the country.

In celebrating the Golden Jubilee of the Submarine Arm, we have dedicated a Section '50 Glorious Years of the Submarine Arm', with a few professional and light-hearted articles contributed by Veteran Submariners.

In a poignant and heart-warming ceremony at INS Hansa, the venerable Sea Harriers of the Indian Navy were given a fond farewell, and MiG-29K, were inducted as White Tigers into Indian Naval Air Squadron 300. Quarterdeck presents nostalgic memoirs from the first and the last Commanding Officers of the Sea Harriers.

A few other units and establishments will also celebrate their Diamond, Platinum and Silver Jubilees during 2017. We would like to gratefully acknowledge related contributions received from serving and retired officers.

We also gratefully acknowledge the contributions made by the Signal School to commemorate the Birth Centenary of Late Admiral SN Kohli by compiling historical images, write-ups and personal tributes sent in by senior Veterans.

I am truly delighted that Vice Admiral Ganesh Mahadevan has yet again enriched this magazine with his fascinating, colourful and vivid caricatures. I am truly thankful to him for making the illustrations available to us very promptly, year after year.

An overwhelming response from contributors brings an Editor great joy, but also the vexed responsibility of excluding several contributions due to constraints of space. In this edition of Quarterdeck, I could not accommodate as many as 15 to 20 contributions and images. Therefore, I sincerely apologise for disappointing several enthusiastic contributors and thank them wholeheartedly for their support to our magazine.

My utmost gratitude to Commodore Ajay Saxena, PDESA, Commodore SM Anwer, Additional PDESA, Commodore Sanjay Nirmal and their entire team for their invaluable help, assistance and encouragement, not only in the preparation of the magazine, but also in making sure that readers receive their copies wherever they may be.

I wish you all prosperity, good cheer and sound health always.

Happy reading!



CNS INTERVIEW

Quarterdeck (QD). The Quarterdeck conveys heartiest congratulations and very warm felicitations to you on assuming the office of Chief of the Naval Staff. Would you like to convey a message to the retired naval fraternity through the medium of Quarterdeck?

Chief of the Naval Staff (CNS). It is indeed a singular honour to have taken over the helm of our very fine service.



The seas and oceans around us are not only the lifelines for domestic and international trade, but are also a rich source of natural resources. Our economic growth, development and energy requirements are very largely dependent on the oceans. There is a growing realisation of the importance of the seas, and therefore, it is no surprise that there is a resurgence of interest in affairs Maritime in our country. Maritime security is accordingly high on our national security agenda.

The Indian Navy is the prime manifestation of maritime power of our great nation. This success and growth of the Indian Navy has been possible due to the foresight and dedication of our veterans and my illustrious predecessors, from whom we have inherited one of the finest navies of the world. I would like to convey my gratitude on behalf of the Indian Navy to all our veterans for all their hard work and guidance. I would also like

to assure our veterans that all of us in the white uniform are fully committed and ready to take on any challenge in the maritime domain to ensure that our maritime interests are protected at all times.

QD. Being a naval progeny, please share some memories of growing up, your formative years, schooling, etc.?

CNS. Life in the Navy has been fascinating, both as a child and as an

adult. My father's frequent transfers got us accustomed to swiftly relocate and adapt to any new environment in a short span of time.

I have spent my childhood in various naval stations all over India. When my father was posted at Hamla, I outgrew the only school at the base. The only option available was to join a boarding school. I joined Mayo College, Ajmer in 1965, from where I finished my schooling in 1972.

I have many vivid memories of the Navy from my childhood. The Naval Dockyard at Mumbai only comprised the Inner Breakwater upto the Wet Basin. All operational ships used to be at anchor. The ship's crew used to embark their ships by boat from the Gateway of India. Only the ships in refit were alongside; they were often bright pink in colour. Red lead was the primer paint then used and with this bright feminine colour, they attracted enough jokes.



I have seen the Navy and our naval stations at Mumbai and Visakhapatnam transform since the early 1960s. INS Circars was surrounded by water and was connected to the city by a road and rail bridge. The area only had INS Circars and the Caltex Refinery (now HPCL) and was surrounded by water and marsh.

I remember that it took four days to travel from Vishakhapatnam to Delhi. My mother used to dread that journey as my younger brother and I, with our overactive energy levels, were more than a handful.

QD. What are the influences which made you choose a naval career, and make you the person, you are?

CNS. I am a third-generation Naval Officer. My grand uncle, my father, his younger brother, and both my brother and I, joined the Navy.

I was pursuing pre-medical and had initially set out to be a doctor. My father suggested that I should try for the National Defence Academy; he felt that the experience of the selection process itself would provide me with an invaluable experience. If I recall correctly, I was placed in the first 50 of the National Defence Academy merit list and had made it into the naval merit. After my selection, the choice to pursue medicine or to join the Navy was left to me.

A career in the Navy appeared very appealing to me at that time and I made my choice. In hindsight, I think it was a wonderful decision and I am glad that I made the choice. Life in the Navy has been exciting, interesting, enjoyable and satisfying in every way

possible. I have had experiences that I could never even have dreamt of. Navy has been a way of life, not a job for me; it's been like pursuing a hobby. I have always looked forward to going to my ship or office each day, that's what probably happens when you discover your true passion. I would make the same choice again, if I had to.

QD. Please share with us your vision of the growth and development of our Navy.

CNS. India is a maritime nation and history is replete with examples that unhindered use of the seas is critical for national prosperity. Over the years, the Indian Navy's endeavour has been towards creating and sustaining a combat ready, technology enabled and networked force, capable of safeguarding our maritime interests and projecting appropriate maritime power in our areas of interest. In line with our vision, today the Indian Navy is a blue-water Navy, deploying a balanced force of modern assets in all the three dimensions capable of progressing operations in the Indian Ocean Region and beyond.

Our Navy's asset induction projects are being progressed as per our perspective plan, and a number of ships, submarines and aircraft would be inducted over the next few years and would significantly boost our capabilities. These include the first Indigenous Aircraft Carrier (Vikrant), destroyers, frigates, landing platform dock, corvettes, offshore patrol vessels and cadet training ships, to name a few. The years ahead would also see the growth of our submarine fleet with induction of the Scorpene class submarines commencing this year.



The Indian Navy also plans to induct aircraft including additional P8I long range maritime reconnaissance aircraft, Dornier medium range maritime reconnaissance aircraft, medium range helicopters, naval utility helicopters, and advanced light helicopters to bolster its naval air arm. The Indian Navy would also continue to operate a variety of remotely piloted aircraft.

In tandem with induction of our assets, we are augmenting our infrastructure for support, maintenance and training. We have given particular attention towards enhancing awareness amongst the youth, with regard to the Navy as a career option, and this is bearing desired results. After all, it's the men and women behind the machine which make our Navy one of the finest services.

QD. With the increasing maritime security challenges in our country's area of interest, how would you like to describe the capabilities of the Indian Navy as the net maritime security provider of the region?

CNS. India's unique maritime geography, with a central location and reach across the Indian Ocean Region (IOR), has underscored India's relationship with the seas. India's maritime interests have continued to expand and include energy security, seaborne trade, shipping and fishing, with substantial Indian investments and citizens overseas. Today, our nation has an overwhelming reliance on the seas for our external trade and for sustaining our energy needs. These maritime activities have lent a pivotal role to the security of our Sea Lines of Communication (SLOCs) for our national interests. Of equal significance are India's relationships with our maritime neighbours in the Indian Ocean and other

areas where our national interests lie; and these are deeply rooted on the principles of cooperative and inclusive development. These have been the key determinants for shaping our maritime security strategy.

To enhance our maritime security and support our national interests, India is committed towards safe and tranquil seas in keeping with the national vision of **Safety And Growth for All** in the **Region**, i.e. **SAGAR**. The Indian Navy being the prime manifestation of the nation's maritime power therefore seeks to shape a favourable maritime environment by creating conditions of security and stability at sea. We pursue an inclusive and collective approach, working closely and supporting our immediate and extended maritime neighbours in our efforts to improve the overall maritime security. Our broad principles of net maritime security include, 'preserving peace', 'promoting stability' and 'maintaining security'. The Indian Navy is proactively engaging our maritime neighbours and providing assistance in capacity building and capability enhancement towards providing net maritime security in the areas of our interest.





CHANGE OF GUARD AT IHQ, MoD (NAVY)



VADM Karambir Singh Taking Over As VCNS From VADM PN Murugesan



VADM G Ashok Kumar taking As DCNS From VADM Karambir Singh



VADM AK Chawla Taking Over As COP From VADM AR Karve



VADM GS Pabby Taking Over As COM From VADM AV Subhedar



INTERNATIONAL FLEET REVIEW 2016 - REMINISCENCES

Admiral RK Dhowan (Retired)



The International Fleet Review (IFR) 2016 at Visakhapatnam was truly India's grandest maritime event, which not only cemented the 'bridges of friendship' and India's maritime outreach over the preceding quarter century, but also placed India and the Indian Navy firmly at the centre of international maritime attention. This is borne out by the staggering participation of nearly 100 warships, 90 aircraft and 20,000 naval personnel, from nearly 50 nations, including 22 Chiefs of Navies, 24 foreign warships, and 600,000 Indian citizens in various events of the IFR. In addition to the Review of the Fleet by the Hon'ble President, IFR 16 witnessed the crowning events of the International City Parade and Operations Demonstration

(Op Demo). The event is unmatched in Indian Maritime history and ranks amongst the grandest Fleet Reviews in recent times.

Every major event starts with the germination of a small idea. The idea of the Indian Navy hosting an IFR had been on my mind ever since India held its first IFR in 2001. In mid-2014, shortly after I assumed charge as the Chief of the Naval Staff, I felt that the time was ripe to take this idea forward. This was in recognition of both, India's rising dependence on the seas and a steady naval resurgence, which warranted an event that could aptly showcase the Indian Navy, and underscore India's maritime resurgence and 'return to the seas' on the national and global



stage. The Cs-in-C and PSOs all endorsed the idea, and we set course towards the IFR.

The first way point was to identify the date and port for hosting the IFR. In pursuit of India's 'Look East' policy, a port on the Eastern seaboard was considered more suitable. Visakhapatnam, as the Headquarters of the Eastern Naval Command, with a natural harbour, long sea front promenade, shelving depths permitting ships to be anchored close to the coast, was considered ideal for such an event. While some doubts were raised on the suitability of Visakhapatnam in terms of levels of infrastructure, with the experience of the maiden PFR in Visakhapatnam in 2006, and with the earlier IFR-2001 and the last PFR-2011 held in Mumbai, it was considered apt to revert to Visakhapatnam, the 'City of Destiny', for this mega event in February 2016.

The next major 'way point' was in obtaining Government approval. I was happy to note the instantaneous support and encouraging maritime consciousness at the highest levels in the Government. In fact, the 'Approval-in-Principle' of the Hon'ble Defence Minister for the IFR was received in flat 15 days after submission of the proposal, in July 2014! Financial budgetary outlay was also approved by the Hon'ble Defence Minister and we had set sail on the right tack.

There were, however, many challenges and rough seas to be encountered and way points to follow. Against an estimated timeframe of two years for full preparations, we had merely 18 months. To streamline the planning process, two levels were adopted. The local preparations were taken control by the Headquarters Eastern Naval Command, under the able charge of Vice Admiral

Satish Soni, the Flag Officer Commanding-in-Chief, while interactions with ministries, other navies and higher-level coordination was handled by the newly appointed Flag Officer, Fleet Review, Rear Admiral Kishan K Pandey, in August 2014.

In order to be quick off the mark and expedite the invitation process, I carried and delivered the invitation letters for the IFR personally to nearly 70 Chiefs of Navies attending the International Sea Power Symposium at the US Naval War College, Newport Rhode Island, USA in September 2014. I received wide assurances of an early response to my personal invite and many Chiefs committed immediately to participate, indicating the high international standing of the Indian Navy and India as a maritime nation.

While the preparation for the IFR had taken off well, fate and weather gods had some surprises in store for us. The very next month, in October 2014, Visakhapatnam was struck by the Super Cyclone Hudhud, which led to wide-scale devastation of civil and naval infrastructure. When Vice Admiral Satish Soni informed me of the scale of devastation and reported that we had lost nearly 50,000 trees in the naval base alone, I thought the figure may have been a bit exaggerated. However, when I visited Visakhapatnam to assess the situation, I realised that the actual figure was a lot more. Thousands of huge trees had been uprooted and the entire base and Dolphin Hill had virtually lost its entire green cover. Most of the roofing in the Naval Dockyard, HSL and the naval base had been blown off or shattered and the whole area bore the look of a devastation zone. It seemed doubtful if the naval base and the city would recover within a couple of years, let alone to host an IFR of the



scale we envisaged. As I planted a sapling to restart the greening process, we pledged to replace every tree lost with two saplings, targeting a total of 1,00,000 trees prior to the IFR. The destruction by the cyclone and ensuing challenge of reconstruction brought out the best in our personnel, both uniformed and civil. Satish, in his inimitable undaunted style, assured me that the ENC would be ready and 'stood to' in time for the IFR. In succeeding months, I was delighted to note that the entire Eastern Naval Command and the naval community rose to his call and, under his sterling leadership, showed that the word 'impossible' simply did not exist in their dictionary.

On the civil side, the dynamic leadership of the Hon'ble Chief Minister of Andhra Pradesh and the local administration served as a force multiplier and pivotal factor in the phoenix-like rise of Visakhapatnam. He set up a dedicated Task Force Committee, under the Chief Secretary, and kept fully abreast of the preparations. At critical moments, the Chief Minister, the local administration and the Flag Officer Commanding-in-Chief, Eastern Naval Command, stepped in to break logjams with farsighted vision and indomitable drive. An example of this was the selection and preparation of the landing point for over 100 boats that needed to ply to/and from over 70 ships at anchorage. The slipway jetty, used by the local fishing community, was optimally located, but lacked the support structure and even appearance to be part of an international mega event, and had been further damaged in the cyclone. We came up with the idea of investing in improving the existing slipway jetty and involving the local fishing vessels, which could then be hired to ferry personnel. This proposal was pursued with the Hon'ble Chief Minister and the local

administration. The jetty was repaired by the Visakhapatnam Port Trust on war footing, and utmost care was given to cleanliness and refurbishment of the fishing vessels and the entire fishing harbour wore a festive look as if a magic wand had done the trick. The landing point and Hospitality Pavilion, which attained five-star standards, at par with the best in the world, became one of the star attractions of the IFR and was the most popular and happening venues where sailors from across the world interacted and sang along as they waited for their boats to arrive.

It was heartening to see Visakhapatnam undergo a total facelift and emerge more spruced up than ever, in a short span of 14 months. As the curtain was raised for the events for IFR to roll, Vizag had never looked cleaner or beautiful. The citizens of Vizag rose to the occasion to make it a befitting venue for the conduct of IFR 2016. When Flag Officer Commanding-in-Chief, Eastern Naval Command, Vice Admiral Satish Soni signaled to me, on 03 February 2016, that the ENC was 'stood to' for IFR-2016, I recalled his reassuring words, and the immense efforts put in by one and all.

The Flag Officer, Fleet Review, Rear Admiral Kishan Pandey, with his team at Naval Headquarters, worked relentlessly to coordinate multifarious issues with the Ministry of Defence, other Ministries and agencies with solid support of all the Commands and with 'team navy' "pulling on the oars together". The FOFR overcame a myriad of challenges and got us ready in time for the IFR. As we prepared to receive our guests for the Fleet Review I was confident that the mega-event would go off with élan



and style since the entire naval community serving and retired had put shoulder to the wheel to host the event. As the Hon'ble Prime Minister planted the 100,000th sapling since cyclone Hudhud, during the IFR, it was difficult to conceive what the naval base, and the city of destiny had gone through over the past year and indeed, scripted a new and green destiny for itself.

As the sun rose on the 6th of February, the review anchorage off Visakhapatnam provided a breathtaking sight of prowess and perfection with ships from navies across the world anchored with precision in columns. As the Presidential column with the President's yacht INS Sumitra in the lead, sailed past the ships ranging from aircraft carriers to the parade of sails, the air was filled with crisp 'Teen Jais' and the Supreme Commander, the Hon'ble President of India, Shri Pranab Mukherjee acknowledged the salute. In his speech, he said "The Indian Navy has established a credible record of cooperative initiative to promote stability of the oceans and played a central role in ensuring safety of vital sea-lanes of communication, across the Indian Ocean. My special compliments to the Indian Navy - especially the Eastern Naval Command, for the meticulous planning and flawless conduct of today's splendid Fleet Review".

The Maritime Exhibition showcased maritime operations and the Navy's thrust on innovation and indigenization under the 'Make in India' initiative. The Hon'ble Prime Minister accompanied by the Defence Minister and the Chief Minister of Andhra Pradesh visited the Maritime Exhibition on 07th February and the IFR village which provided glimpses of India's rich cultural heritage and wide variety of cuisines. The

IFR village, was a favourite venue and a big crowd puller for thousands of visitors who were enthralled by live demonstrations and performances by artistes.

Later in the evening the Rama Krishna beach came alive for the Ops Demo with nearly 6,00,000 people thronging the seafront which appeared a virtual sea of humanity. Every single rooftop, and every inch of the beach was taken by spectators who were mesmerised with the high speed, high tempo performances marked by precision and power. The activities ranged from beach assault by MARCOS and amphibious units, aircraft operation from both aircraft carriers Vikramaditya and Viraat, weapon firings, high speed manoeuvres, helo operations and illumination by ships. The scene was breathtaking with more than half a million people looking in with excitement and admiration.

The Op Demo was followed by the colourful International City Parade and concluded with a spectacular pyrotechnic display. The Hon'ble Prime Minister who was the Chief Guest for the Op Demo and the City Parade, released a book on Maritime Heritage of India amidst much fanfare. The book has been published in English, Hindi (Hamari Samudri Virasat) and is also available online in an e-version and attempts to capture 5000 years of India's glorious maritime heritage. During his address to the vast gathering, Hon'ble Prime Minister unveiled his maritime vision. He addressed "the brave and proud men and women of the Indian Navy and the resolute people of the great city Visakhapatnam". He conveyed that, "the Indian Ocean Region is one of my foremost policy priorities. Our approach is evident in our vision of 'SAGAR', which means 'Ocean'



and stands for Security and Growth for All in the Region. To this end, India's modern and multi-dimensional Navy leads from the front. It is a force for peace and good. A network of growing political and economic maritime partnerships, and strengthening of the regional framework also helps us pursue our goals".

The Hon'ble Prime Minister concluded his address by congratulating, "the Indian Navy for the flawless conduct of this grand event. For the homeward journey of all our naval friends from across the world, may you always have fair winds, following seas and many a fathom below your keel".

The International Maritime Conference organized under the aegis of the National Maritime Foundation with the theme 'Partnering Together for a Secure Maritime Future' was well-attended, featuring prominent speakers, both from India and abroad, and involved rich exchange between scholars, strategists and senior officers from navies across the world. In his keynote address the Hon'ble Raksha Mantri said, "In safeguarding and promoting national security in the maritime domain, the Indian Navy is the principal instrument and manifestation of India's seapower. Over the years, the Indian Navy has evolved systematically and impressively in size and capability, commensurate with its expanding mandate and growing significance to national security. The International Fleet Review 2016, with the theme of 'United through Oceans', offers us a unique opportunity towards 'Partnering Together for a Secure Maritime Future'".

The International Fleet Review drew to a glittering close with a splendid closing

ceremony marked by a Joint International Band Concert – an event that was unique, in both concept and conduct. It is said that music knows no boundaries and when the Sri Lankan Band played 'Sare Jahan Se Acha Hindustan Hamara', it beautifully conveyed the message that we may be separated by geography but we are certainly United by the Oceans.

After a spectacular series of events associated with the IFR, it was time to bid adieu to warships from navies across the world. As the ships sailed out of Visakhapatnam harbour in company for Passage Exercises, the melody of 'Ahoy, Hello, Namaste' continued to reverberate far beyond our maritime boundaries as a testament to the grand success of IFR 2016.

To say that the IFR was a huge success and achieved all its aims would, in fact, be somewhat an understatement. It was much more – it signified the prowess and high international standing of the Indian Navy, and the strength and fortitude of the naval community and drive of the denizens of Visakhapatnam, including naval and civilian. It was also an indicator that India was turning to the seas once again to emerge as a resurgent maritime nation in the 21st century.

As I look back at the wake and way points of IFR-2016, I can say with a sense of satisfaction and deep pride that the Indian Navy has showcased itself and the nation in an exemplary manner. My kudos to the entire 'Team Navy' and every member of the naval community who contributed, directly and indirectly, to this grandest of maritime events.

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IFR 16 - NO BIGGER CHALLENGE OR GREATER ACHIEVEMENT

Vice Admiral Satish Soni (Retired)



The International Fleet Review-16, held at Visakhapatnam was a stupendous success. Participation by 48 Navies, 100 ships (including 24 foreign ships), 91 aircraft, 22 Naval Chiefs, 26 foreign delegations, over 100 senior foreign delegates and most importantly 25000 personnel from different countries, underscored the scale of this mega event. The biggest investment was in the young officers and sailors, who will remember and flag the event as they advance in their careers and become catalysts for greater cohesiveness in an increasingly interlinked maritime arena. During the run up to various events, we faced numerous challenges which we never expected to overcome. In the following paragraphs, I will be able to give you only a flavour of what the Eastern Naval Command experienced.

The Indian Navy had earlier hosted nine President Fleet Reviews and one International Fleet Review and we had the wherewithal and institutional memory to carry off an event of this magnitude, except that this one got bigger by the day. Admiral

R K Dhowan, Chief of the Naval Staff, raised the bar very high. New events were added to an already packed schedule... invite lists got longer... participation was enhanced... menus got more complicated; the CNS expected perfection and he deserves the biggest credit for making the Review so memorable. He made the entire Navy believe in themselves - we were second to none in projecting our prowess on the maritime stage!

I volunteered to host the event with a selfish motive that the Eastern Naval Command would get a boost and our infrastructure would improve. But getting the town of Visakhapatnam ready for an international mega event was a challenge of a different magnitude. Vizag had remained a small dirty town and when compared to more impressive and modern port metros, certainly not the perfect face for "Swachh Bharat". From curbing open defecation to beautification of the venues, there was just so much to do, and it was certainly not within the Navy's realm of influence. Liaison with the Chief Minister, Collector, Police Commissioner, GVMC Chairman, local population, PSUs, corporates and many organisations was initiated to dress up the bride - it was an uphill task all the way!

But by the end of the year, Vizag had climbed from 205th to 5th position on the Swachh Bharat Index! How beautiful the city looked in Feb 2016...simply gorgeous with freshly planted trees lining all roads, flowers at every road junction and murals



painted on the walls of public places. Every Vizagaiter had contributed and was proud of the way their city had improved. Whoever could have imagined the transformation of the old dilapidated slipway jetty, used for open defecation by the fishermen, to a state-of-the-art hospitality centre for foreign naval personnel, in just over a year. Andhra Pradesh's Chief Minister, Dr Nara Chandrababu Naidu personally reviewed the progress of the shortlisted works, relentlessly pursuing his team to deliver the best, despite limitations of finances and resources. He richly deserves the credit for picking up Vizag by the collar and placing it at the high table as a venue for international interactions. Brand Vizag had arrived!

Another bigger challenge that we faced and overcame was the "Cyclone Hudhud", which struck Visakhapatnam on 12th October, 2014 leaving a trail of destruction in its wake - a seemingly insurmountable challenge to IFR '16. Uprooted trees (we lost 50,000 in the Naval base alone), blown-off roofs, fallen electrical poles, damaged infrastructure, breached walls, broken roads, twisted metal..... the strong winds damaged everything they possibly could, except the resilience of the Eastern Naval Command. The steadfast naval community (uniformed, civilians and their families) rose to the occasion and not only did they manage to restore the damaged infrastructure but also brought it up to international standards. The Eastern Naval Command Officers' Mess, Naval Officers' Institute, Dolphin's Cove, Auditorium, Dockyard, jetties, roads, green spaces.....the list runs long; every nook and corner of the Command was refurbished. Words are inadequate to appreciate the contributions of the members of the ENC team, who worked unseen and

unacknowledged, striving for perfection to ensure that the Indian Navy presented a perfect face.

The execution of this mega event with its numerous constituents and attendant large participation tested our organisational capabilities like never before. Courses were rescheduled and all Commands tightened their belts to divert manpower to the Eastern Naval Command. Detailed briefings to young liaison officers and sailors, developing software for monitoring movements of boats/cars, setting-up of control centres, issue of specially designed computer tablets for our guests, and personal interest taken by all flag officers ensured a flawless conduct of the proceedings. Presence of a large number of VVIPs made 'security' a very big issue, especially since we had had a few incidents in Punjab a month before. Expected attendance by over six lakh personnel (mostly the local populace) during the Operational Demonstration where the Hon'ble Prime Minister was the Chief Guest, posed administrative problems for the Police. Individual passes linked to Aadhar card were issued to every single person, and provisions were made for random identity checks. Dress Rehearsals were thrown open to the public and to different categories of naval personnel, to ensure a thinner crowd on the final day. Over 100 TV screens in town, including all Cinema halls streamed the event live. Despite all this planning, the crowd swelled beyond six lakhs, with the Beach Road and adjoining areas completely packed.

I also learnt the hard way that even minor irritants can cause sleepless nights. Six days to go and there was a dead rat causing an unbearable stench in the newly



refurbished Presidential Suite! After four days of extensive efforts, which included ripping open the false ceiling - we found the decomposed remains of the rat and heaved a sigh of relief!!!

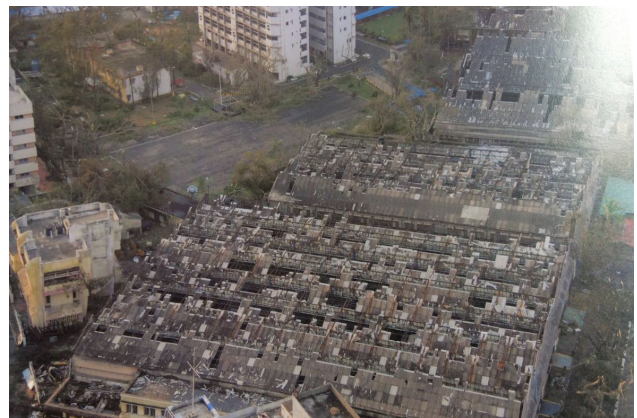
The Review achieved what years of painstaking diplomacy may not have been able to. For us, in the Eastern Naval Command, the biggest gain was the respect we earned amongst the local Vizagites, who will remain beholden to the Indian Navy for bringing to the city a most memorable four days of nautical extravaganza. Our foreign guests were spell bound, as much by the beauty of Vizag as by what the Indian Navy had on offer. An entry in our Visitor's Book

by a senior foreign delegate describes it all “....assembly of 100 warships of 50 nations in great harmony with superb efficiency is no mean task. To do it with happy and joyful smiles is part of the great miracle that is India and her lovely people. To do it only a few months after a devastating storm had torn the city apart is dedication and yes, bravery in the highest degree.....”

As the Commander-in-Chief of the host Command, I couldn't have asked for a bigger challenge or a greater reward, as I rode into the Sunset of my career spanning 40 years, retiring in the same month as the IFR '16.

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Photos - Cyclone Hud-Hud - Before and After Restoration



§ The Commander of the Yard complex after Hudhud in October 2014 (left)





INTERNATIONAL FLEET REVIEW - A BIRD'S EYE VIEW

Captain Nirbhay Bapna, Officer-in-Charge, IFR 2016



The maiden International Fleet Review (IFR) - 2016 on India's East Coast was conducted from 04-08 Feb 2016 at Visakhapatnam. In terms of sheer scale and magnitude, IFR-2016 was the largest event ever conducted by the Indian Armed Forces since Independence and saw widespread participation from over 48 countries across the globe including 22 Chiefs of Navies, 26 Delegations, 100 warships (including 24 foreign warships) and 91 aircraft. The event

required intricate planning and extensive coordination between 35 Local Committees established by the Navy and various departments within the Government of AP and District Administration of Visakhapatnam as well as Central Ministries such as Ministry of External Affairs, Ministry of Culture, Ministry of Tourism, Ministry of Surface Transport as well as Ministry of Finance for a period spanning over 18 months.

The IFR Cell at Headquarters, Eastern Naval Command was established on 26 Aug 2014. The Cell was established at the old DGNP Complex due to the convenience it provided being outside the Naval Base, yet extremely close to the Jetties. Of the nine Reviews in the past, Eastern Naval Command had hosted only one PFR (2006). The only International Fleet Review conducted in 2001 was also held at Mumbai.

Slowly complexity of the event started dawning on us. To start with, Vizag had very few five star hotels with total room availability being limited to just over 300





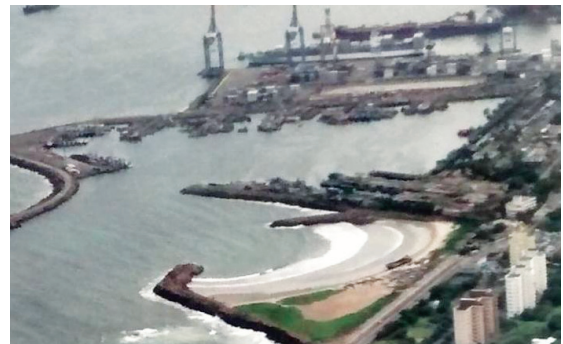
rooms. Infrastructure in the city was a pale comparison to the facilities at Mumbai. The roads near the Naval Area needed major repairs and the Chawl Maidan was an eyesore. Worse, the railway underpass, it seemed would never pass the standards needed for international tourists and participants.

Leave alone the basic infrastructure, the city did not have enough transport and these had to be requisitioned from Rajahmundry and Hyderabad. There was not even a single jetty available to bring sailors to harbour from anchorage. We realized the enormity of the project and the quantum of work that lay ahead. But the Indian Navy had come of age and everybody wanted to think big, and we were determined to turn these dreams into reality. Slowly but surely the small



town of Vizag was to take giant strides in fructification of our big dreams.

As the first step, we went about identifying venues and we surveyed all potential places. From Madhurvada stadium to Port Stadium, all were visited to identify the most suitable place for the Opening Ceremony. Considering the complexities of movement of a very large number of personnel and logistic challenges the Command Stadium was selected as the venue. Considering the limited seating capacity, it was decided to create temporary stands in the Command Stadium to accommodate 12,000 personnel to witness the Opening Ceremony. The



timing of Opening Ceremony threw another challenge to cater for dinner for 12,000 personnel. The Navy Mela ground and the adjacent Sailors' Institute lawns were identified for the purpose and hard standing for the area was sanctioned.

The next challenge was Mobilisation of 12,000 personnel. More than 600 buses were required to transport them. Boat routines were required for ferrying personnel from ships. The program was to commence post sunset (1815h). The event alongwith dinner had to be completed before 2030h to ensure smooth movement of Presidential and PM's

Cavalcade. With such complexities involved, it was imperative to conduct rehearsals. So, a realistic rehearsal was conducted to iron out such intricate jig-saw puzzle.

A maritime exhibition was also to be conducted during the event. Andhra University grounds having over one lakh sq meter of space was selected. An IFR Village



was then conceived on the lines of the Dilli Haat to provide a place for interaction co-located within the Exhibition venue. The South-Central Zone Cultural Centre was used to showcase the rich and varied cultural heritage which had exponents from the fields of arts and crafts performing in the evening for the ten days.

The hiring of boats for ferrying personnel was another major challenge. No single vendor could provide the sheer number of boats. Apart from the problem of hiring boats, there existed no place for landing of personnel. Taking the foreigners into the Naval Jetty would entail a time penalty of about two hours one way, first by boat and then by road, to come to the city. Therefore, beach next to the Naval Coast Battery was identified as a potential landing point as it had protection from the surf and the



sea due to the breakwater. The place was covered with litter and was being used by the local fishermen for defecation. Every ensuing site visit saw increasing audience from the fishermen who felt uneasy with our new found interest in their fiefdom. Despite continuous dialogue, their unease, however,



we managed to convince them that the site was being looked at for use only for ten days. The assurance that IFR offered greater



employment opportunities for them in terms of hiring of local crafts/vessels, also helped in overcoming their resistance.



The next task was to design and create a Marina at the site. Depths were not adequate, which required some jetting extension into the water. Consultants from within the country and abroad came to assess and give solutions. During this time, we were also looking for a place for bunkering of the 100 plus boats that were to be hired. The slipway jetty was occupied by



the fishermen and was in a pitiable shape. It belonged to the Vizag Port Trust (VPT) but was not being used by them. Its accessibility made it a lucrative landing point but the place was in shambles. Every inch of space was being used by the fishermen for drying

fish, repair of nets and boats. However, VPT also agreed to the Navy using the place for the IFR.

Just as we felt we had moved forward and gained some confidence towards realizing this dream, Hud-Hud struck shattering the initial steps that we had taken. Everything was literally razed to the ground. Most of the buildings in the Headquarters were devoid of roofs. Every inch of road was littered with fallen trees. The Command rose to the occasion and with sheer will and undaunting team work transformed the calamity into an opportunity to undergo major renovation and repairs.



The Slipway Jetty took a major beating as its complete structure was broken. All damaged boats were piled there for repairs. Therefore, initially the Slipway Jetty did not find much credence as a landing point. The Command then presented the venue to the Chief Minister and highlighted its potential for use as a Cruise Terminal, post IFR. VPT was generous enough to undertake repairs of the Jetty in such tight timelines. The Hospitality Centre on the Slipway Jetty turned out to be one of the major attractions and highlight of the IFR. The structure had a 360° panoramic view of the sea. Undoubtedly, there could

not have been a better entry point to Vizag, for the visiting foreign delegates.



One of the biggest advantages Vizag offered was the depth near the coast. This allowed the Men of War to operate very close to the coast. Since Navy had been conducting Operational Demonstrations in the past, except in Kochi and Vizag, it was decided to have a full-scale Op Demo during the IFR. The directives were to make it an action-packed event with no gaps. The timelines for each activity was rehearsed with table top exercises and by multiple simulator runs at MWC. These were followed by numerous rehearsals at sea. The Operational Demo was conducted flawlessly and brought instant international recognition of the high standards of professional excellence and the might of the Indian Navy.

In the previous IFR, the City Parade was conducted during the daytime. Somehow, it did not have a “wow” factor associated with it. It was debated in the Cell, as to why could we not have it after the Op Demo. This would prevent duplication of effort on the RK Beach. Night Parade also gave the opportunity to use an array of colours and lights. It was decided to have a festive parade and the

foreign contingents were encouraged to wear traditional attire. Participation by the city schools and the Sea Cadet Corps added



variety to the parade. A Pyrotechnic show after the event was also incorporated.

It is estimated that over six and a half lakh people attended the International City Parade/Op Demo. The sheer numbers required elaborate planning, especially since the state had witnessed a tragedy during Rajhamundry, Pushkaram. We needed to tread cautiously as security was again a



major concern and the Pathankot incident was still fresh in the minds. The support of Civil Administration in conduct of the event at RK Beach was tremendous. A proper system of issuing passes was made for all

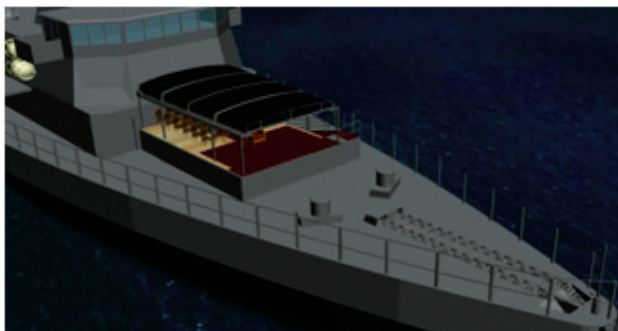


personnel. In addition to admit cards for lakhs of personnel, photo identity cards for all twenty thousand participants were also made. More than fifteen thousand Police



personnel were deployed around the city during the IFR.

The action packed events of Op Demo and splendor of the International City Parade were to be followed by a grand Reception for the Prime Minister at Hotel Novotel. The Pyrotechnic show was used as an event which engaged the public thereby giving crucial time to escort the VVIPs safely to the



Hotel. An element of worry did exist in our minds for the rest of the foreign delegates who had to reach the Naval Coastal Battery after the event, as the complete crowd would come on to the roads. However, the scene that unfolded post the event truly brought



out the warmth of the people of Vizag. It was delightful to see the foreigners enjoying themselves in the crowd, dancing away towards the Jetty. Most of them got huge adulation and were seen

enjoying the hospitality of the people of Vizag.

The IFR also saw various committees embracing technology in many innovative ways. The standard Umbrella used during the past reviews was done away with. A retractable awning was put up for the first time. A vehicle tracking system was used. All boats were tracked both by the user



and the control centre to control access to the Review Anchorage Area. A tailor-made communication and collaboration tool brought the man on ground in direct communication with the senior most hierarchy on the same platform, allowing real time decision making. Hubs were created at all important



locations and these were controlled through an Operational Control Centre set up in the Command.

Among numerous meetings with the State Administration, the meetings with the Chief Minister were the most interesting. Most of them used to be late in the evening and would extend up to 2200 hrs. A hard taskmaster, the Chief Minister realised the importance of the event for the city and he left no stone unturned to make it a grand success. Every road was refurbished. Chawl Maidan got a complete makeover. Murals came up on all prominent walls of the city. Every intersection had gardens. The complete city wore a cheerful look with LED garlands and the complete city was lit up for the duration of the IFR.

The flawless conduct of a mega event like the IFR, with participation by a large number of Indian and foreign dignitaries, including the Hon'ble President and Prime Minister of India and more than 20,000 officers and



men from the Indian and Foreign Navies. It entailed many firsts for the Indian Navy including, hiring and management of more than 5800 vehicles and 100 ferries; extensive air operations involving 91 aircraft; including outstation aircraft; management of auxiliaries and support craft for transportation of nearly 20,000 personnel from ship to shore and back; catering for 52,000 meals/refreshments, including Presidential Banquet and Prime Minister's Reception; conduct of International City Parade with participation of Bands of Marching Contingents from 24 foreign



countries and more than six lakhs spectators; conduct of an International Maritime Conference with renowned speakers and moderators from eight countries; conduct of a Maritime Exhibition with participation from more than 50 firms and top academic institutions and setting up of a themed IFR Village. All of this was a herculean task involving meticulous planning, seamless conduct of operations, and the management of logistics, transport, security, media and publicity and guest relations.

It was indeed an honour for us to be entrusted with the responsibility of conducting an international event of this magnitude. While



the sheer scale and complexity involved made it a tough going, Hud-Hud only added to our woes. Looking back over the past few months, I feel that the grit and determination of the Eastern Naval Command over-shadowed all imposing obstacles. It was the outstanding leadership of our senior echelons which drew voluntary and unprecedented co-operation from the State Administration. The city of destiny showed its

resilience and the Indian Navy showcased its prowess and capability which arguably is unparalleled in the history of Indian Armed Forces and the Navy's finest till date. All in all, I feel the accomplishment befits the saying, 'Where there is Will, there is a Way'.

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AHOY, HELLO, NAMASTE

Captain Nitin Kapoor

Armed with the guiding principles inscribed in our ancient Hindu scriptures, 'Atithi Devo Bhava', the Foreign Cooperation and Intelligence Division (FCI) at the Integrated Headquarters of the Ministry of Defence (Navy), swung into action in preparation for the International Fleet Review (IFR) scheduled from 04-08 February 2016 at Visakhapatnam. A mini-task force led by the Assistant Chief of Naval Staff (FCI) with Principal Directors Naval Intelligence and Foreign Cooperation and assisted by Director Naval Intelligence (Foreign Liaison), set about listing the activities which needed to be accomplished to support this mega event.

To begin with, ensuring and facilitating participation of 50 foreign navies at this maritime event of unprecedented magnitude put our foreign liaison abilities and diplomatic skills on trial. No stone was left unturned and no diplomatic trick left untried - from Note Verbales (Diplomatic Notes) to Foreign Missions in New Delhi, formal communications from the Ministry of External Affairs to our missions all over the world and through them to foreign ministries of invited countries, a little forceful motivation of Indian Defence Advisors posted abroad to diplomatic persuasion of Resident Foreign Service Attachés (FSA) at New Delhi. The end result, was that flags of 50 friendly foreign countries graced Visakhapatnam with their presence during IFR 2016.

An operational appreciation of the tasks and analysis of the activities required to be accomplished ranged from the scale of being mundane and procedural to the

ambitious and wishful, from reception of over 100 foreign delegates entering the country through geographically dispersed airports en-route to Visakhapatnam to diplomatic clearances of 24 ships; from arranging briefings for FSAs to providing Protocol Advisories and establishing simultaneous liaison with defence wings of Embassies/ High Commissions of participating countries; from organising pilot vehicles and escorts to facilitating airport procedures; from obtaining Group Landing Permits for almost 4000 foreign navy personnel to disembark at Visakhapatnam to arranging immigration permissions for outstation cultural visits; from setting up a round-the-clock 'Welcome Kiosk' at the Indira Gandhi International (IGI) Airport, New Delhi to coordination of Liaison Teams at various airports; from arranging bilateral meetings with visiting Chiefs to preparation of customised programmes for all foreign dignitaries. Nevertheless, the traditional naval grit and determination prevailed and we were ready.

Armed with a colour coded itinerary sheet (with precise arrival details, names, designations, flights) at the IFR Kiosk, the first arrival was of Vice Admiral BJ Keys, Royal Navy on 02 Feb 16 at New Delhi as well as the near simultaneous arrival of Admiral Richardson, US Navy at Palam Technical Area. Parallel fronts were also opened with the arrival of other visiting chiefs across the country viz Mr Karl Nobin, Commissioner of Police, Mauritius at Bengaluru, Lt Col Michael Rossette, Chief of Staff, Seychelles Peoples Defence Force at Mumbai on 02 February 2016. The 'initial arrivals' or 'opening overs' did test our preparedness as the Liaison



Teams at various airports across the country played the first few overs rather cautiously liaising with Immigration, Customs, CISF, VIP Lounge managers etc. However, as the ball started striking the centre of the willow, one could see the Liaison Teams waltzing with ease in our spectacular airports, receiving our distinguished guests with aplomb.

Reports of arrivals started flowing back and forth to New Delhi and from there-on to Visakhapatnam to provide advance information to our Liaison Teams awaiting the arrival of their guests, were received with traditional Indian hospitality, day and night, from 02 February to as late as 05 February 2016, when the last arrival took place.

In true naval tradition with attention to the minutest detail, each dignitary was received by a country specific Chief Liaison Officer in addition to the Airport Liaison Teams and upon arrival handed over the IFR Invitation Folder with a customised individual programme card. This activity was undertaken across all Ports of Entry be it at New Delhi, Bengaluru, Hyderabad, Mumbai or directly at Visakhapatnam.

With the action shifting to Visakhapatnam, the ACNS (FCI) alongwith Principal Director Foreign Cooperation and his team established base at Novotel, Visakhapatnam. With capabilities and special skill sets known only to Indian Naval Officers, the team despite the packed schedule of IFR activities, managed to squeeze 21 one-on-one bilateral interactions between the Chief of the Naval Staff and the visiting

Chiefs of Navy. In addition to the one-on-one interaction, the team also ensured that the Chief of the Naval Staff interacted with every single Head of Delegation who had come to participate in this mega event as ambassadors of their countries and their navies.

With the spectacular event still on, post review by the Hon'ble President of India on 06 Feb 16, a few delegates were required to return to their countries to meet prior commitments. Again, following the ethos, that the 'match is not over till the last ball is bowled' our liaison teams remained prepared and geared up for facilitating the departures of our esteemed guests. The Liaison Teams went about their tasks with clockwork precision, day and night to ensure that the memorable experiences of our foreign guests at Visakhapatnam continued till their departure from Indian shores.

Commencing with a few departures on 07 Feb 16 and with majority on 09 Feb, flight after flight taking off from Visakhapatnam brought our distinguished guests to their airports of departure at New Delhi, Mumbai, Hyderabad and Bengaluru. Their smiling faces and cheerful countenance was an apt indicator of the success of the event. Long after the official closing ceremony of IFR 2016, departures went on for a few days, and Liaison Teams rested their oars only on 14 Feb 16 when R Adm Idris and Captain Mathew from the Nigerian Navy departed India.

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50 GLORIOUS YEARS OF THE SUBMARINE ARM

Vice Admiral AK Singh (Retired)

There is much excitement and anticipation among the veteran submariners, as they await the once in a lifetime opportunity to celebrate 50 years of the Submarine Arm, which falls due on 8 December 2017.

I vividly remember the period 1967 to 1971, which could be considered the first phase of Indian Navy's transition to a modern blue water submarine capability. Our first submarine the INS Kalvari was commissioned at Riga (former USSR, modern day Latvia) on 8 December 1967, and we were amazed with its blue water reach of 20,000 nautical miles and its outfit of 22 torpedoes which could be fired from 10 torpedo tubes. Three more Foxtrots joined the Navy in the next couple of years. In the initial period the excitement and curiosity, was palpable, as these new sharks of steel routinely did extremely well in various ASW exercises, and the "conventional submarine pioneers" laid the foundations of a very professional submarine force. The training of our pioneers with the Royal Navy and the Soviet Navy, had also contributed to the best values being amalgamated and imbibed. Between 1973 to 1975, four more Foxtrots joined the Indian Navy.

The period 1983 to 1988 could be termed the second phase of transition, as Indian submarine crews and maintainers trained at three different locations for three different modern platforms, the Soviet Kilo (project 887EKM) class, the German SSK (project 1500) class and the Soviet Charlie (project 670 later INS "Chakra") class, which was

India's first nuclear submarine. The 30 month "Chakra" training at Vladivostok, was particularly useful, and enabled the introduction of new submarine SOPs, apart from exposing our Navy to a "nuclear submarine operating and maintenance culture", which also required a change in the existing mindset. I was a part of the pioneering "Nuclear Submarine Group" comprising 60 officers and 134 sailors who spent over 30 months in Vladivostok, undergoing nuclear submarine training (including a year at sea and on simulators).

The excitement was even more palpable, with the induction of long range sonars, new types of torpedoes (wire guided and wake homing) and lethal underwater launched heavyweight anti-ship cruise missiles (the latter launched from the SSGN, INS Chakra). INS Chakra, was returned after three years of lease in 1991, but the Navy would continue to operate three classes of conventional subs, till 2010 when the last of the venerable Foxtrots was decommissioned. Automatic torpedo loading systems, auto steering and auto-depth keeping, along with greater underwater dived endurance and lower indiscretion rates resulted in a transformation in the manner which our submariners thought, trained and operated. The old tradition of celebrating 1000 dived hours became passé, as the new conventional submarines started achieving 4000 to 6000 dived hours in a single operating cycle.

I remember that during 1987 to 1988, as the CSO to FOSM, the Submarine Headquarters,



I had to revamp basic submarine training in INS Satavahana. Initially it was decided that the Foxtrot and Kilo boats would be taught simultaneously to the new trainees, but after a year, this was given up, and gradually the Kilo replaced the Foxtrot as the "basic" boat for the new trainees as also for the PCO(Q) EXO's course and the CO(Q) "Perisher" course, while the concept of special additional courses for the SSK was introduced. In a lighter vein, I also recall, how the venerable Foxtrots were prematurely "written off" by a few, who "did away" with Foxtrot training at INS Satavahana. A few years later, as FOSM, I had to re-introduce specialised Foxtrot class training (training aids had to be remade as the earlier lot had been destroyed), as the Foxtrots "refused to be decommissioned in a hurry" and served with distinction till 2010! I do hope that this bit of history is not repeated when the current lot of conventional submarines are replaced in the future by more capable conventional units with Air Independent Propulsion Systems.

New operating-cum-maintenance cycles had to be written and promulgated, as also new standardised Captains and Ships Standing Orders for the new boats. New SGMs and STMs had to be promulgated, as new lessons were learnt at sea. Other documents on "tactics" and "submarine search and rescue" too had to be revised and promulgated.

The period 2000 to 2010 could be termed as phase three of the submarine force transition. The modernised SSKs had new sensors, while the modernised Kilos had Tube Launched Missiles (TLM) for both the anti-ship and land attack roles. Unfortunately, the induction of new indigenous conventional submarines (Projects 75 and 75 (I),

Air Independent Propulsion System for conventional submarines has got somewhat delayed.

On 4 April 2012, the Akula class SSN, INS Chakra, entered Visakapatnam, to commence a 10-year lease with the Indian Navy, thus starting the fourth phase of transition. A glance at Janes Fighting ships or the internet, reveals that the Akula class SSN (INS Chakra) has introduced a new culture of operating third generation, deep diving and stealthy multi-role nuclear submarines, with true blue water capability.

Tragedy struck on the early morning hours of 14 August 2013, when the Kilo class submarine INS Sindhurakshak, sank in Mumbai harbour, due to an explosion, with the loss of 18 precious lives.

By 2016, media reports indicated some good news i.e. two DSRVs were to be inducted by 2018 (hopefully their mother ships or SRVs, too will be inducted in time); lease for a second Akula SSN may be signed with Russia; two SSK submarines (Shankul and Shalki) commissioned in 1992 and 1994, would be modernised to fire Harpoon, TLMs, and that one old Kilo class submarine had been sent to Russia for refit and upgrade while three others would undergo the same in India; our ageing conventional submarine fleet, will finally get a much needed boost by early 2017, when the first of the home built Scorpene class submarine, INS Kalvari is commissioned, heralding the fifth phase of transition. Armed with modern torpedoes and SM-39, TLMs, the Kalvari and her five follow-on submarines (hopefully joining at the rate of one annually), should strengthen our underwater combat capability by 2022.



Hopefully, again if the media reports are proved correct, end of 2016 may see the commissioning of India's home built SSBN (INS Arihant), which was launched by the Prime Minister on 27 July 2009. Arihant (and her three sister SSBNs, when commissioned), will usher in the era of sea based nuclear deterrence, and herald the sixth phase of transition.

And finally, media reports do indicate plans for home built SSNs and larger SSBNs, which

if true, will be the seventh phase of transition. As the Indian Navy re-enters the largely home-built nuclear submarine age, it will undoubtedly face new challenges, but given the core values on which our submariners are brought up, I have no doubt that these challenges too will be met professionally and overcome, with traditional fortitude by the "silent arm of the silent service".

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GOLDEN JUBILEE OF INDIAN SUBMARINE ARM

Rear Admiral JMS Sodhi (Retired)

Nearly half a century ago, on a cold and frosty morning on 08 December 1967, a convoy of official vehicles headed for the Naval Jetty at Riga in the erstwhile Soviet Union for the commissioning ceremony of India's first submarine INS Kalvari. The Chief Guest was the Indian Ambassador to the Soviet Union Shri S. Kewal Singh. The honour guard in the freezing cold was commanded by Lt. PS Bawa. After the Commissioning Warrant was read out by the first Commanding Officer, Commander KS Subra-manian, the Indian Naval Ensign was hoisted and INS Kalvari became a part of the Indian Navy. This was a very proud moment for all of us and history was made on this day with the commissioning of India's first submarine. The completion of 50 glorious years of submarining by the Indian Navy speaks volumes of the dedication and professionalism of the Indian Navy and its submarine arm.

The story of the quest of the Indian Navy for acquiring submarines is well known and the ball started rolling when the first batch of potential submariners comprising of four officers and some sailors were deputed to the United Kingdom in 1961 for training at HMS Dolphin. This was followed by four more batches in 1962, 1963, 1964 and 1965 and I was in the 1964 batch. At this stage, it became evident that the western powers were not keen to sell modern submarines to India because of its Non-Alignment policy. The Soviet Union with the benign efforts of Admiral of the Fleet of the Soviet Union, Sergei Goroshkov came into the picture and offered four conventional i641 class submarines to India. Accordingly, all UK trained submariners and some new-comers were assembled at INS Angre in February 1966 for Russian language training. On 22 June 1966, the first submarine crew and spare crew of 17 officers and sailors led by Commander KS



Subra-manian left Mumbai for Vladivostok via Moscow and Khabarovsk. At the training centre on Rooski Ostrov near Vladivostok we faced many difficulties but these were quickly overcome and we settled down to the task at hand to commission and operate the first Indian submarine. The Soviet method of training was very precise and fundamental as it catered for their compulsory military service and user-maintainer concept. We managed this very successfully and in end November 1967 the commissioning crew was flown to Riga to commission INS Kalvari.

In 1968 the second batch of submariners led by Commander MN Vasudeva arrived at the Rooski Ostrov and this was followed by the third and fourth batches. INS Khandheri was commissioned on 6 December 1968 and INS Karanj in September 1969 and Kursura on 18 December 1969. I was the commissioning Executive Officer of Kursura. INS Amba was commissioned at Odessa by Captain MR Schunker and arrived at Visakapatnam escorting INS Khandheri. With the commissioning of Kursura the first set of acquisitions was completed and the 8th Submarine Squadron was fully operational at the Naval Base Visakapatnam. On Kalvari's arrival at Visakapatnam in July 1968 the

foundation stone of the Submarine Complex comprising INS Virbahu and Satavahana and the Naval Dockyard was laid by the Chief of the Naval Staff, Admiral AK Chatterjee. In 1970 INS Virbahu was commissioned under the command of Captain KS Subramanian by the Defence Minister Mr. Jagjivan Ram. In the 1971 war, three submarines were on patrol whilst Kalvari was non-operational due

to non-availability of new batteries. The submarines performed their allotted tasks very well but were denied any kills due to NHQ policy of first positively identifying targets before attacking which is nearly impossible in such situations.



Naval Evaluation Team sails on Italian Submarine "Sauro" in the Adriatic sea on 19 April, 1979.

The next batch of submarines named the Vela class started

the commissioning process in 1973 with Vela being commissioned by Lieutenant Commander JMS Sodhi on 30 August 1973 followed in quick succession by Vagir, Vagli and Vaghsheer by Lieutenant Commanders KR Menon, Lalit Talwar and PS Bawa. There was substantial change in the attitude of the Soviets towards us as they now treated us as experienced submariners and not as under trainees as before. The 9th Submarine Squadron was formed at Mumbai and the Submarine Complex was also completed in the Naval Dockyard, Mumbai.



Naming Ceremony of I.N.S Vela at Riga on 31 August 1973.

The Navy was now planning to acquire SSK submarines and its efforts with Dr. Gabler of Germany did not yield any results. In 1976 the Navy decided to set up an SSK cell in Directorate of Submarine Arm and this cell was successful in drawing up the specifications of a SSK submarine and with Government approval eight European countries were invited to bid for construction and transfer of technology of SSK submarines. After visits to various shipyards and sailing on these submarines which included torpedo firings it was decided to acquire two submarines from Germany and build the other two in Mazagon Docks Ltd., Mumbai under German Collaboration.

In 1983 I was posted as Director of Submarine Arm at Naval Headquarters and soon was part of the Defence Delegation to the Soviet Union which was led by the Defence Secretary and the Naval team was led by VCNS, Vice Admiral S. Mookerji. Amongst various other ships and aircraft the Soviets offered us eight 877EKM class submarines which were far superior to the Vela class and were excellent in the SSK

role. The price being quoted was very high and we also wanted to see the submarines performance at sea. At that stage the Soviets stated that the submarine was only on the drawing board and we had no other option but to return empty handed. After a few months we were invited to Moscow again and I was sent off from Moscow directly to Vladivostok to witness the sea trials of the 877EKM submarine which had been undergoing sea trials for some time. After the trials, I reported to Vice Admiral S Mookerji who was at that time with the Soviet team in Moscow and told him of the positive and negative aspects of the sea trials and since the Soviets had agreed to reduce the price by almost 50%, this opportunity was not missed as the growth of the submarine arm was of paramount importance. The Contract was signed and the first of the Sindughosh class submarine arrived in India in 1986 together with the first of the SSK submarine Shishumar from Germany. The next decade saw the rapid growth of the submarine arm from four to over twenty submarines as the Soviets had delivered two more 877EKM submarines. Two more submarine squadrons were thus commissioned and the office of Flag Officer Submarines was established at Visakapatnam with Rear Admiral A. Auditto as the first FOSM. Unfortunately, FOSM was not given operational command as in the UK but was the Class Authority and Operational Readiness Inspector of all submarines.

In the meantime, the quest to build and acquire nuclear submarines was slowly moving forward and initially a submarine was leased from the Soviet Union and it operated as INS Chakra and was later replaced by the latest nuclear submarine from Russia also named Chakra.



Our nuclear submarine Arihant was launched a few years ago and now India is on the threshold of having a fleet of several attack and nuclear powered ballistic missile submarines.

Thus the last 50 years have indeed been glorious years for the growth of the submarine

arm and the Indian Navy and indeed the whole nation is very proud of its underwater fleet and its contribution to national security, especially with its second strike capability.

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MY ASSOCIATION WITH PIONEER SUMMARINERS

Commodore-At-Arms KK Garg (Retired)

It was in the year 1958 that during joint exercises off Trincomalee in then Ceylon, arrangements were made for our batch of Subs to board a British submarine for a day at sea. In the morning, just after breakfast, we were at the jetty where a submarine was berthed. We came to know that submariners stayed ashore in nice barracks, except for some duty personnel, as we saw some of them coming merrily with kit bags at their shoulders. Soon after we boarded this boat, as & a submarine commonly called, since they were quite small and an officer conducted us in the very congested spaces. There were four bunks in the wardroom itself used both for accommodation and messing of officers. Everyone was sweating due to the heat all the time as there was no air-conditioning. It was quite a claustrophobic environment. We could clearly see the ships on the surface through the periscope. The life of a submariner seemed to be very much tougher and challenging as compared to those on surface ships.

I had known some of the officers who went

to USSR for training and manning the submarines scheduled for induction in our Navy. Commander Subramaniam who was my course officer both at INS Tir and at TAS school commanded the very first submarine INS Kalvari.

Lt Commander VPS Shekhawat commonly called VP(later CNS) was my coursemate in 1954-President's Gold Medal winner, excellent sportsman, very forthright and always leading by example, downright to earth and result oriented setting and expecting highest of standards and meaning business. An excellent speaker and a good writer too. As a cadet on board INS Tir, his abundant stamina and great will power were proved to be more than adequate when he had fallen overboard and escaped safely before being sucked into the propeller. After his recovery, he had narrated that his full past as NDA cadet had come in front of his eyes as he was being sucked closer to the propeller and with total effort and amazing determination, he managed to get away. Hats-off to our most popular and friendly



colleague with whom I had the opportunity to be his Chief of Staff in his appointment as FOMA in 1987.

Whilst on board INS Vikrant in 1964, I got to know Lt Jagmohan Singh Sodhi commonly called Jack (later Rear Admiral) who was part of ship's Commanders' office along with me. He impressed me with his smartness, sharpness, pleasantness and professional knowledge. He soon left for training for the submarine arm. I was still on Vikrant when sometimes in early, 1965 I was strolling near Barry's restaurant close to Church Gate, a handsome young guy shook hands and started talking intimately as if he knew me well. It was only after a little while when he enquired about my wife that I realized that the gentleman was none other than Jack, my old shipmate. We then proceeded to our residence for dinner and our friendship continues till date.



In 1968, the first submarine INS Kalvari was scheduled to arrive Visakhapatnam. I as the NPM was briefed by Rear Admiral Nair, FOC-in-C, East to make proper security and parking arrangements and pilot Admiral Chatterji, CNS who had arrived to welcome the submarine at the jetty which was well

decked-up for this historical occasion. INS Kalvari arrived at the appointed hour on the dot with Commander Subramaniam, my course officer on board INS Tir as the Commanding Officer, Lt Cdr VPS Shekhawat as XO, Lt JMS Sodhi as Torpedo Officer and the ship's company all fallen-in on board on the upper deck. It appeared as if these lovely mysterious creatures have just emerged from underneath after ages and come to a new world altogether. We were all looking at them with great curiosity writ large on our faces and the well maintained new submarine with awe and great interest.

Admiral Chatterji during his welcome address explained that he was very closely associated with making plans to initiate this strategic arm in service which would make our Navy three dimensional and meet the emerging challenges. I remember Commander Subramaniam, Commanding Officer looking so very happy and addressing the ship's company in such a jovial manner about the great responsibility to conduct themselves in exemplary manner as the entire Navy keenly looked upon them with interest being the pioneers in the field. I did not spot my coursemate Lt Commander VPS Shekhawat at that time as he must have been down below looking after the guests. Later when I met him at his residence and accompanied him to the beach, with the kids for sea swimming. Next when he became CNS, I had gone to his residence at noon and found that he was in sports rig ready to go for a game of tennis. His love for outdoors was fabulous and his style of functioning was unique.



I found my old shipmate and friend Jack looking so very energetic and happy joking around and telling us of his experiences on board this submarine, his first stint. The Submarine HQ housed in some barracks near BRO where the submariners were lodged became a common meeting place as there were many friends with whom I interacted and cared for in meeting some of their requirements to transport them with luggage etc. Since as NPM, I was easily mobile, Rear Admiral Nair who had a great sense of humor had also appointed me as the Staff Officer (Abandoned Families) as he called the ladies ashore as such in a lighter vein when husbands were away. I continued my association with Jack during his various tenures at Mumbai and our friendship grew further.

The submariners were very friendly and a well-knit family. One of the sailors on return from leave brought a grizzly bear which became a mascot for the submariners, was fed and housed in Submarine HQ and provided lots of entertainment.

Special attention had to be paid to the security of this new strategic weapon. On arrival of the mothership INS Amba, some of the sailors having spent long time in USSR seemed to have been greatly influenced with the way of thinking believing in Soviet system for everyone even in service. This

caused serious consternation and some troublemakers posed problems for newly arrived vessels with very sophisticated equipment. Hence, special efforts had to be made in coordination with civil agencies to keep a check on some of these undesirables.

During my tenure, as Chief Security Officer, Naval Dockyard and outlying Depots, I had the opportunity to further know most of the submariners. Once I was invited by All India Radio to speak about Submarines in children's programme. My association with pioneer submariners came handy in delivering the talk.

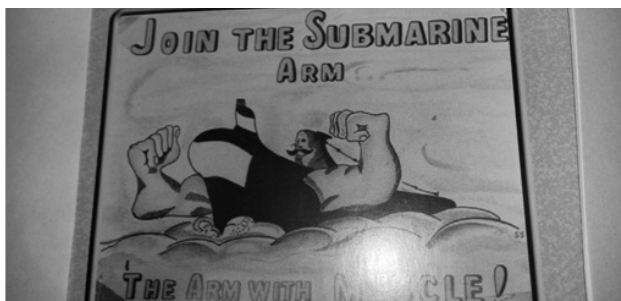
Having seen the submarine arm grow in strength from what started as a single submarine and developing into a force to reckon with for last 50 years with its ups and downs, one thing stands out that submariners are an adventurous lot and work very hard in tough, difficult and trying environments both in peace and war. Their constant motivation for 100% efficiency and highest degree of professionalism is of paramount importance. Wishing the Submarine Arm to grow further as the most potent force in the region specially with the addition of nuclear attack and ballistic missile armed submarines.

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THE SUBMARINE ARM AND THE BIRTH OF MARINE MEDICINE

Major General S Kundu (Retired)



While mankind has been sailing on the high seas on the surface since time immemorial, the underwater environment is one where he faces physical and psychological limitations. A deep understanding of human physiology and adaptability as well as specialized technology is needed to ensure safety and efficiency of human operations underwater. Submarines, unlike surface ships, by virtue of the medium that they operate in, are susceptible to a distinct set of problems which are quite different from those experienced by surface ships. Any disaster in a submarine at depth needs a well trained and efficient organization, geared up to meet various contingencies that are bound to come up. This would be essential to prevent/reduce morbidity and mortality normally associated with such events. Marine Medicine is thus the field which deals with these aspects.

The Indian involvement with Marine Medicine began in 1960 in the UK, when Surgeon Rear Admiral MS Malhotra, a renowned physiologist with DRDO published a paper on "Air Embolism During Decompression Underwater" in a journal with a HC Wright whose Physiology book (Samson and Wright) is considered a classic and a virtual stepping stone into the world of Medicine at medical colleges.

When the decision to have a Submarine Arm, was taken in 1960, no Medical Officer was sent to HMS Dolphin for submarine training. It was when the next team of officers went for training to erstwhile USSR, that two MOs viz Surgeon Lt Commanders AK Chatterjee and A Abraham were deputed for specialized training along with the rest. They were also initiated into deep diving and submarine escape training. Deep diving those days were carried out with a heavy copper helmet (the Hard Hat), special deep diving suits and lead boots.

When the first Indian submarines were



*From left: Surg Lt Cdr A Abraham and
Surg Lt Cdr AK Chatterjee*

commissioned in the USSR, Surgeon Lt Commanders Chatterjee and Abraham were the first submarine MOs. Meanwhile, Surgeon Lt AM Madhwal was also deputed as commissioning MO of the Submarine Rescue Vessel, INS Nistar. In fact, my initiation into this Arm was because of Surgeon Lt Madhwal. It was in mid 1972



when I was posted to INS Tir. We had sailed out with cadets and entered Cochin



and tied alongside Nistar. I went to Nistar to meet Surgeon Lt Madhwal who showed me around the diving and rescue vessel and talked about submarines. I, then decided to join submarine arm. I finally joined the 11th Submarine Course at INS Virbahu in Nov 1972, and never regretted that decision. By then Surgeon Lt Commander Madhwal had been appointed Base Medical Officer of Virbahu.

the US Navy at the Nuclear Submarine Base at Groton, New London and at the Diving School, Washington DC. I did follow in their footsteps three years later. It was here that we learnt the basics of diving and the management of diving related diseases. The final lot of submarine MOs who underwent training in Marine Medicine at the Kirov Military Medical Academy, Leningrad included Surgeon Lieutenants Bellubbi, S Nangpal and MJ John.

All the MOs had perforce to train for a specialty in not only in Submarine Medicine but also in Diving Medicine because these were interlinked in an underwater environment. The sum of these two became Marine Medicine – a separate specialty altogether where Respiratory Physiology formed the backbone and the lungs the crucial organ.

Gradually, the importance of training submariners in Escape Training was realized and at INS Satavahana, the Escape Training Tower and School came up in 1975, built by a Soviet Technical Team under the overall



Surg Lt Subroto Kundu training for Deep Sea Diving in the Potomi River, Washinton DC

Thereafter, Surgeon Lieutenants Joe Idicula and AR Gokulnath proceeded to train with

supervision of Surgeon Lt Commander AK Chatterjee. This was in keeping with the



role of the MO of a submarine where he is also the Escape Officer. The 30-metre tower of the ETS was in 1975 the world's third such facility.

Meanwhile, Surgeon Lt Commander A Abraham established Naval Medical Research and Training Centre within the Asvini campus and commenced training of MOs of ships in a course titled, Introductory course of Marine Medicine and subsequently for submarine MOs, the Primary Course of Marine Medicine. These two courses were the major building blocks towards the establishment of the Bombay University recognized Diploma in Marine Medicine. Surgeon Lt Commander Abraham soon became the first recognized PG Teacher of Bombay University in both Internal and Marine Medicine. He soon left for the USA to pursue his Fellowship.

Between Surgeon Commanders Chatterjee and Abraham, Marine Medicine as a specialty really took off. Their dedication to the Submarine Arm and their blessings that completely embraced all the young MOs following in their chosen paths led to the blossoming of a young specialty and even younger specialists

And one day, a Department of Hyperbaric Medicine emerged from within the folds of the Institute of Naval Medicine with the commissioning of a one-man Galliazi chamber and a Comex seven-man RCC under the supervision of Surgeon Lt Commander J Idicula in 1983. These two chambers were specific for treatment of Diving and Submarine accidents besides a variety of medical and surgical diseases, and research in diving protocols and evolvement of safety protocols. As time went by with the successful treatment of burns, crush injuries,

gangrene etc. it was by word of mouth that finally INM became an important Referral Centre for Bombay civil hospitals. Soon 5-6 ambulances with patients from civil hospitals were daily parked at INM for Hyperbaric Oxygen Therapy. And this continues to this day.

Marine Medicine specialists have been very involved in submarine rescue even going to the extent of diving in submersibles and mating with bottomed submarines in the Mediterranean, paving the way for introduction of our own rescue facilities on both coasts. With the type of engineering and medical expertise available today in our country, this should not be a problem.

With Commercial Deep Diving now well established in India, Marine Medicine specialists have begun to officially give cover for any major diving accidents. Again, as recreational diving gradually became viable in Goa and the A & N Islands, the advice of our Marine Medicine specialists is always being sought from distant shores and they have played a major role in the cure of such patients.

MARCOS and Marine Medicine specialists have integrated to the benefit of the young commandos. Medical officers as team members have solved many day-to-day and psychological problems for the team. I too went on regularly exercise with MARCOS (East), even to the extent of slithering from hovering Charlies in the forests of Arakku followed by tough route marches playing hide and seek with helos in the air attempting to seek us out.

Surgeon Commander Bellubbi, during a long return passage in a submerged platform from Vladivostok, even performed



an emergency appendicectomy under local anesthesia. The patient made an uneventful recovery. Marine Medicine specialists had become extremely versatile MOs not only underwater but also on surface ships, being appointed as FMOs of Fleets.

Thus, over the years from the pioneering services rendered by Surgeon Commanders Abraham and AK Chatterjee, the specialty of Marine Medicine which had its origins in Submarine Medicine has since evolved into a very specialized subject. Now they are also involved in submarine design and habitability, as also in the design of RCCs. Some of the RCCs so designed are installed and are operational in field environments of Siachin-Nubra Valley, at the hospital at Leh,

Kargil, etc. rendering yeoman service for soldiers, civilians and tourists suffering from High Altitude Sickness and cold injuries.

Thus, the Specialty of Marine Medicine since its birth along with the Submarine Arm in 1967 has made spectacular strides. The pioneers of this once budding specialty, Surgeon Commanders Abraham and Chatterjee will always be remembered by a very grateful Submarine Arm. Here too, I must mention Surgeon Lt Commanders Madhwal and Idicula who added to the pioneering efforts. These stalwarts have rendered yeoman service to not only the Submarine Arm but also to the Specialty of Marine Medicine.

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FLEA MARKET FOR THE CHAKRA

Surgeon Captain P Gokulkrishnan

In writing “Everyday Stalinism: Ordinary Life in Extraordinary Times: Soviet Russia in the 1930s” Shiela Fitzpatrick gives us a ringside account of life in a country that went on to win one of the greatest wars ever fought. Sheila Fitzpatrick shows us how Stalin’s collectivization transformed everyday life of the Russians. With the abolition of the market, shortages of food, clothing, and all kinds of consumer goods became endemic. In a world of privation, overcrowding, endless queues, and broken families separated over large distances, the regime’s promises of future socialist abundance rang hollowly.

Cut to early 2000 – its déjà vu in the glamorous city of St Petersburg. With families in tow we landed in the pristinely

beautiful city in its autumn colours. Scenes remind us of the life and times of 1930s in the northern capital – squalor and depravity alongside riches and rags. We were not as much unsettled by facing the technological leap in operating a new class of submarines, as we were in absorbing the most basic of human cognition – communicating with fellow men in a foreign land in a language that’s been taught to us for over four months. The natives indulged us “Indusi” with their flair for the newly learnt Russian trying to communicate; getting by more with pluck and sincerity of effort than with grammatical precision. Not all of the encounters were successful in the literary scale though we did manage to get our chores done with minimal pidgin Russian, spoken to the complete satisfaction of the family members, who



had no inkling that the teachers would've shuddered hearing us.

In this setting, the doctors and Medical Assistants were baptized by fire. We were to work in the Military Medical Academy and its various affiliated hospitals, including the oldest one of them all, the First Naval Hospital at the gates of Admiralty Wharf. Gone were the luxury of communicating with sympathetic instructors and indulgent shopkeepers who knew our antecedents. Here we were, thrown into the fold of care seekers who would certainly be wondering why an Indian is looking after them and trying to make sense of what their problems are. Can he be trusted with providing care and healing when it is almost certain he is only guessing what is being said?

Reality hit me in the first week – learn Russian or perish was ringing soundly. What we did know was grammatically sound and literary stuff. What we did not, was colloquial. The seasoned Colonel Training of the Academy, Col Aleksander Zaozerskyi had it well covered. On the mornings of Saturday and Sunday every week for a month he took me to the most wonderful place – The Flea Market of Udelnaya. To learn Russian, not just the language but also the unspoken, he said. Open on the weekends and with close to a hundred acres of dusty land, Udelnaya said to be the largest flea market in the world. Most goods are placed on blankets on the ground or cupped in an upturned hat or spread out on overcoats just cast away by the seller off his own shoulders. Austerity conveys a feel of it being impromptu, desperate, and hence cheap and affordable. Make no mistake, the sellers, poor as they are, are far from being gullible peasants and certainly aren't in it for making less than what they have shrewdly calculated, in a personalized estimate, having assessed you.

At Udelnaya you can find all kinds of items, from toys to imperial porcelain trinkets to Soviet-era military paraphernalia, firearms, some frighteningly large knives, sepia tinted photos, postcards, silverware, uniforms, phonograph records, coins, clothes, and a variety of obscure items. You will find bits and pieces of different ages for sale, all mixed up and not exactly in any order. The Colonel, knowing my passion for numismatics, advised me to be prepared to spend a good amount of time flipping books upon books of old coins and bills, with the decoy glance at cards, maps, and newspaper. Look disinterested, never touch, and always play phoney till you zoom in on the trump, he said. It's only now I realize Flea Market Udelnaya is not only a ring side into learning Russian but actually teaches you how the Russians deal with trade and contracts (Flea Market approach to Free Market).

The pretense of buying anything on display for cheap comes with the delicacy of a mind game of a chess championship. You rarely find something truly unique sold for nothing, because another bag opens and a bigger better and a more fascinating “add on” is soon offered and one thing leads to another. Generally, you get some goods at a low price, but at the end of the day you will find a few more that you never wanted to buy in the first place, but carefully slipped in during the course of the “total deal” with a lot of histrionics and rhetoric from the salesmen. Bargaining is not only possible but also necessary.

Lincoln foretold confusing intricacies of Russian language – it's all a matter of learning to differentiate between “Of the people, by the people and for the people”. It demands mastery over the genitive, instrumental and prepositional cases. Remember that in Russian - much like in Hindi – there are two separate pronouns for the second person



singular, differing in degrees of politeness - "ti", which is used in the same sense as the Hindi "tum" and "vi" for the Hindi "Aap". The word for the second person plural pronoun is also "vi." Calling everyone with respect is a reflection of the upbringing.

Even if your deputation in Russia is not long, you should make every effort to learn at least a few basic words and phrases in Russian. Your colleagues and others will be impressed and the gesture will be highly appreciated. Russians generally consider their language to be a very difficult one for foreigners to learn. They will not expect you to become fluent in Russian, but will be amazed if you are able to carry on a simple conversation, even with errors. Even if you fail to learn much Russian, learning the alphabet will make a quantum improvement in your ability to move around independently.

Never show interest in things that you did not intend buying. I was almost cornered into taking an assault rifle for a throwaway 25000 roubles, only because I started talking to the seller about its features. That I was only curious to know if it is a real rifle did not matter to him. He was more than happy to let me know that in his native Uzbekistan, the movie Khuda Gawah is still iconic though he did not really remember any character from the movie other than Benazir! It took a promise to give him a CD of the latest Shah Rukh Khan blockbuster to extricate myself from the deal, which by then had attracted all his cousins and sundry relatives numbering a half dozen burly guys. Yes, he did throw in a spare magazine by then!

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BAMBOO TARGET - MISFIRE REPORT

Admiral VS Shekhawat (Retired)

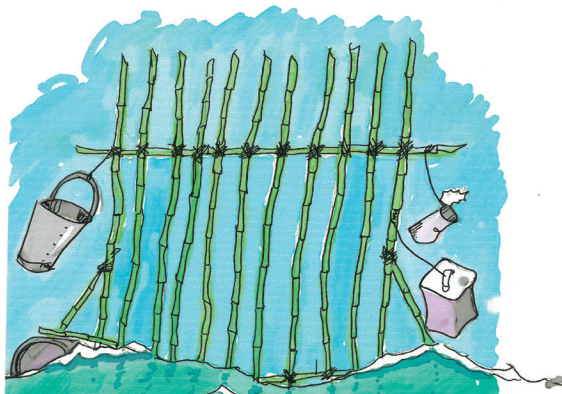
An exchange of letters between the Captain (P) 31, INS Kamorta and CO INS Karanj, October 1972.

In the early 1970s, Visakhapatnam was a sleepy Andhra coastal town where the small Indian Naval presence was rapidly expanding from just the Boys Training Establishment of INS Circars to a full-fledged naval base and dockyard. The submarines Kalvari, Khanderi, Karanj and Kursura had been formed into the 8th Submarine Squadron with INS Virbahu as their support establishment. The surface element consisted amongst others, of mainly the Petyas-Kamorta, Kadmatt, Kavaratti and Kiltan, the old destroyer Rajput, once the pride of the Navy, and assorted small craft.

With so many ship names beginning with 'K', there was bound to be confusion, sooner or later.

The Eastern Fleet, of which the Kamortas (Petyas) were the mainstay, nursed a sense of deprivation vis-à-vis the older and better provided Western Fleet. It did not have a suitable flagship or other large ships, the small, uncomfortable Kamortas had limited endurance and there was no replenishment tanker support. Nor was there an establishment support such as the submarines had, which also included the only large ship Amba, a submarine tender. There was much to be done to absorb Soviet technology and documentation as well as

devise more effective utilization of ship capabilities in Indian operating conditions. Fleet Staff constantly endeavoured to synthesize Indian, Western and Soviet origin know-how to achieve optimum results with the very limited afloat and ashore resources available.



One such fleet effort was a contraption named simply, Bamboo Target. As there was no BPT (Battle Practice Target) in Vizag, this innovation was to serve the purpose as best it could, towed by available vessel. To ensure its operational availability and well-being, an officer was nominated as Technical Advisor Bamboo Target (TABT), who was none other than my course-mate from the JSW (NDA), Dehradun, Lt Cdr “Vinnie” Chibber. Vinnie over the years had endured much leg pulling and assorted indignities from his course-mates for his diminutive size and gaffes during the time in cadet and midshipmen training ships, all of which he bore good naturedly.

One day while deployed to the west coast, submarine Karanj, which I then commanded, received a letter in the mail from the Captain (P), 31st Patrol Vessel Squadron, Visakhapatnam, addressed to the ships of his squadron; Karanj’s name featured incongruously at the bottom of the list.

The letter described how the squadron had ingeniously devised a Bamboo Target, how it was to be handled, transferred and maintained, how it would mitigate the absence of a BPT etc. The aforementioned Vinnie Chibber was entrusted with its husbanding and bestowed the impressive title of Technical Advisor Bamboo Target (TABT). The situation, the characters, the high sounding designation and the innocuous object of attention, all seemed to call for a response beyond the routine.

It was obvious to us in Karanj that the profusion of ship names beginning with ‘K’ was the cause of the mix-up, but we relieved the drabness of prolonged deployment by whatever humour one could extract from a situation and this was too good an opportunity to pass up, not least because of my knowing the TABT, Vinnie Chibber rather well.

It so happened that P (31), Captain (G) Avinash Malhotra was Head Boy in Col. Brown’s School, Dehradun when I joined in 1943 (yes, previous century!) as an eight year old boarder, though of course I only knew him by name. Subsequently we had often played hockey together in Western Fleet ship days, and his younger brother Harish Malhotra, was a friend and course-mate from the Academy and also a very good hockey player. So in a sense the dramatis personae were well acquainted with each other.

After drafting amidst much hilarity in the submarine wardroom, and egged on by the ExO, Ravi Ganesh who had a keen sense of picking on the ridiculous in a situation, a letter, reproduced below, was dispatched to Capt. (P) 31.



★ Submariners writing a letter to P31.

INS KARANJ
C/O F.M.O.
BOMBAY

423 10 Oct 72

The Captain (P)
31st Patrol Vessel Squadron

CARE AND MAINTENANCE OF BAMBOO TARGET

Refer to your letter 311 dated 29 Sep 72 (not to all addressees).

2. It is requested that 3 copy of the relevant order assigning INS KARANJ to the 31st Patrol Vessel Squadron be forwarded as the same does not appear to have been received on board.

3. GUNNERY LIMITATIONS OF INS KARANJ
The submarine has not yet been fitted with any medium or close range guns or gunnery systems. However the following weapons are available on board:-
a) Carbine, Lanchester . . . 9 mm
b) Pistol38 in
c) Pistol, Signal1 in
d) Spear, Assegai of Nigerian manufacture
(Nil Pattern: Single shot ballastic projectile)

4. The weapon at para 3 (d), above is the personal possession of one of the ship's officers, but is useable in emergency.

5. It is considered that the Bamboo Target is not suitable for the weapons enumerated at para 3. Confirmation is therefore requested whether the target can be utilised for practice torpedo firing. In this connection the feasibility of towing the target in an inverted aspect should be evaluated by the Technical Adviser Bamboo Target (T.A.B.T).

6. If inverted use is found suitable and approved, INS KAVARATTI be requested to transfer the target to INS KARANJ at an early date.

7. Detailed instructions regarding the maintenance routines, accounting procedures, and safety precautions are awaited.

Sd/- x x x
(VS SHEKHAVAT)
Commander
Commanding Officer

Copy to:-
The Commanding Officer
INS VIRBAHU

We thought no more of the matter and continued with our deployment. A few weeks later a letter arrived from Capt. (P) 31. It was evident that he had chosen to take things literally and was highly aggrieved; he made known his ire in his letter, reproduced below.

PERSONAL AND CONFIDENTIAL

Office of the
Captain (P)
31st Patrol Vessel Squadron
INS KAMORTA
Q/O Fleet Mail Office
VISHAKHAPATNAM

311 28 Oct 72

The Commanding Officer
INS KARANJ

CARE AND MAINTENANCE OF BAMBOO TARGET

Refer to your letter No.423 dated 10 Oct 72.

2. I have very carefully read your letter and scrutinised its contents.

3. To any recipient other than my squadron of my letter No.311 dated 29 Sep 72, it should have been obvious, that it was erroneously despatched and could have been simply returned to me as such.

4. Therefore, the purport of your letter in question specially when addressed to a senior authority smacks of impertinence and not in the interest of the service. Such correspondence should therefore be avoided as it is infructuous and serves no useful purpose.

(AC MALHOTRA)
Captain
Captain (P) 31st Patrol Vessel Squadron

Copy to:-
The Commanding Officer
INS VIRBAHU
C/O FMO VISHAKHAPATNAM

PERSONAL AND CONFIDENTIAL

Though I did not do my basic naval training with the Royal Navy, almost all my seniors, including Commodore AC Malhotra, were UK trained. Serving under them, we had also absorbed Royal Navy traditions and practices such as exchange of witty signals at sea (open Bridges in older ships singularly lent themselves to these), Midshipmen's pranks, ceremonials, administrative procedures, terminology etc. Royal Navy history records all kinds of letters, humourous, sarcastic, acrimonious, admonitory etc. exchanged between senior authorities and Captains of ships on far flung global missions and many popular books have been written richly conveying the feel of seafaring over centuries.

Before closed Bridges, computers and missiles came to sea and irrevocably changed equations, specialist Gunnery Officers were

a breed apart. With parade ground voices to match the roar of their guns, stern of visage and demeanour, they were conscious of the fire power they controlled. They strode the decks literally like the “Cocks of the Walk”

It was my practice to pay courtesy calls on commanding officers senior to me, especially those in the fleet and particularly if we were likely to exercise together. Many ships staff did not have much experience of operating with submarines and I thought it best to go over safety and other aspects with them before meeting up at sea and



“We are not amused - P31”

also to enhance exercise value. In that spirit on return to Vizag I paid a call on Capt. (P) 31, who received me courteously enough. To be better prepared for the conversation which might follow, I had taken care to pay a discreet prior visit to the Bamboo Target, inconspicuously bobbing astern of one of the Kamortas.

With his admonitory letter fresh in my mind, I made a suitable personal apology. P-31 was not to be easily mollified. He had

received no written contrition from me, his gunnery persona had been wounded and his pet project derided by a junior, that too a submariner! Only time would assuage the hurt. He restated the sentiments in his letter; I again expressed regrets and politely withdrew. The matter was then closed and when I met him on subsequent occasions he was his usual cordial self.

Like many colleagues of that distant past, Commodore Avinash Malhotra is no more in our midst. Were he here to read this piece, a smile might play on his lips rather than the frown which he put on for my benefit that long ago day. He was essentially a good natured, jovial person, popular with shipmates and a nippy player on the hockey field. But as a good gunnery product of Whale Island, Portsmouth, UK (where I also spent a few days as a salt-horse Gunnery Officer-designate of INS Talwar in 1959-60, before Lieut. (G), Madan Atal took over at Commissioning), he could not let a shot across the bow, particularly at his beloved Bamboo Target go without a return volley!

vijaishekhawat@gmail.com



★ Submariners writing a letter - P31

“Inspired by Ilya Repin’s painting of Zaporozhye Cossacks writing a letter to the Turkish Sultan link The Rudest Diplomatic Letter Ever Written? - Beachcombing’s Bizarre History Blog” -

Vice Admiral Ganesh Mahadevan (Retired)



SCHOOL FOR NAVAL AIRMEN

Lieutenant Commander PJR Chaitanya

History

The initial setup of Naval Aviation began in Dec 1952, when the Navy took over the civil airfield in Wellington Island at Cochin and named it as Venduruthy II. Thereafter, Sealand aircraft with trained Indian pilots formed a Squadron at the Base. The Base was commissioned on 11 May 1953 as INS Garuda. The requirement of technical and non-technical tradesmen and supporting facilities became essential for the aviation cadre. The first school for the aviation wing to train non-technical aviation sailors was setup on 17 Aug 1956. The school was thereafter commissioned on 17 Aug 1957



with Lt Cdr VS Ranjit as its first Officer-in-Charge. Sailors from all cadres were selected for Naval Aviation Cadre and were trained in aircraft handling, fire-fighting, safety equipment and photography. In due course, its profile and names changed to optimize requisite resources to impart quality training.

School for Aircraft Handling and Fire Fighting

The first school to train non-technical aviation sailors was set up on 17 Aug 1956 in the old Garuda barracks and was christened as School for Aircraft Handling and Firefighting.

Sailors from all cadres comprised the Naval Aviation cadre on selection basis and trained.

School of Naval Airmen



Soon enough the navy realized the requirement of training personnel for aircraft movement, aviation vehicle operations and servicing of safety equipment. Accordingly, the mandate of the school was increased to cater for these requirements and the school was renamed School of Naval Airmen in 1958.

School for Naval Airmen (SFNA)



With exponential growth of naval air assets and related equipment, the requirement for more professional approach stemmed out. The school was tasked to train all non-technical aviation sailors in Aircraft Handling, Safety Equipment and Motor Transport Driving and to train aviation officers and technical sailors in Airmanship, leading to

rechristening the unit as School for Naval Airmen in 1960. The commissioning of the first aircraft carrier, INS Vikrant on 04 Mar 1961 gave a new impetus to aircraft handling and air safety. The efficiency of every air operation on board the carrier during peace and war was dependent on the efficient performance of the Flight Deck team, which was trained at this school. The new SFNA complex was inaugurated by FOC-in-C, South on 28 Jul 2010.

Faculties

The school is broadly divided into three faculties namely Air Handling and Motor Transport, Photography and Safety Equipment. Each of these faculties is headed by a Head of Faculty.

Air Handling and Motor Transport

It is the oldest faculty of the school, which was setup right from the inception of School for Aircraft Handling and Fire-Fighting. Initially the faculty undertook training of only aircraft handling and fire-fighting. However, in 1960, a Motor Transport Driving Wing was added to train aircraft handler sailors to drive aviation vehicles including motor cycles, light and heavy motor vehicles. These vehicles are primarily employed on-board carriers and air stations for movement of aircraft. The first MT simulator was installed after re-appropriation of the abandoned civil terminal to house SFNA commenced and new driving track was constructed. This positive improvement in training facilities were further augmented with procurement of various MT simulators, R/T Lab, and BER aircrafts for aircraft movement practices. Some of the recent enhancement include night aircraft movement training, acquisition of a Kiran aircraft.

Photography

The induction of reconnaissance capabilities on fighter aircraft and helicopters capable of undertaking photo-recce sorties, necessitated induction of a photography branch. The seed to form the cadre was sown in 1964 through introduction of photography training at SFNA. The journey of photography in the Navy started with analogue photography/videography through recce sorties and it transformed as driven by the technological advancements and the requirements of the service.

Safety Equipment



As the Naval Air Arm was growing, the expansion led to new concepts. Though a common concept in present-day aviation, safety of the pilot in case of ejection or ditching was a novel thing in the post World War II era. The baby steps of safety consciousness of the erstwhile era have now matured to the famous present day Martin Baker Club. The safety equipment inventory for helicopters was also inducted and the faculty was at the forefront of seamless induction and training on new equipment including newly inducted MiG 29K, Hawk and P8I. The faculty was soon tasked with the additional responsibility of training personnel on preservation, servicing and packing of ship borne



life rafts as well servicing and maintenance of flying clothing.

Pre-flight Training

Being the alma-mater of the Naval Air Arm, the school also conducts stage zero training of the ab-initio pilots of the Navy prior proceeding to AFA for the basic Pilot Course. The training curriculum of these officers has matured from training limited to classroom instructions to CBT packages, visit to air-stations, squadrons, aircraft models and the latest induction being the Multi Tasking aviation exposure station.

Diamond Jubilee Celebrations



To commemorate the Diamond Jubilee various events were conducted which included workshops on photography and road safety and a seminar on 'Safe and Efficient Naval Air Operations - Afloat and Ashore'. In addition, 'Aviator for a Day' programme was conducted for school children to motivate young minds towards aviation. The celebrations culminated with the traditional Barakhana on 17 Aug 16 in the Vikramaditya Barracks.

Photography Camp

A Summer Photography Camp was undertaken from 26 to 28 Apr 2016. A total of 20 children/dependents participated in the

Camp. The children were very inquisitive and were introduced to the various techniques of photography.

Aviator for a Day

Aviator for a day programme was conducted on 28 Jun 2016 for 14 children from various schools of Kochi. The aim of the programme was to expose children to facets of being a Naval Aviator. The children were introduced to the intricacies of flying including importance of pre-flight briefing, pre-flight medicals and stress levels involved in undertaking flying operations. The event also included visit to various squadron and ATC to get a first hand experience of a naval aviator's life. The event has motivated the children to join and take up naval aviation as a profession in the future. It was a huge success, with enthusiastic participation by all the children.

Road Safety Awareness Workshop.



A Workshop on Road Safety Awareness was undertaken on 08 Jun 2016 for all MDL holders and all civilian drivers employed at SNC. A total of the 82 service and civilian Motor Transport Drivers attended the workshop. It included quiz conducted by the members of the Kuttukaran Institute and a Guest lecture by Mr. Sushil Thomas, Regional Manager, Popular Driving School.

Workshop on 'Safe and Efficient Naval Air Operations - Ashore and Afloat'



A one day workshop on Safe and Efficient Naval Air operations – Ashore and Afloat was conducted on 09 Aug 2016. The workshop highlighted various nuances of naval air operations, which benefited the trainees and personnel associated with exploitation of air assets.

Anniversary Celebration



The Diamond Jubilee was celebrated on 17 Aug 2016. The events were presided over by Commodore Deepak Bansal, CS NAY(K) and included cultural programme, tele-games followed by the traditional Barakhana. The presence of several serving as well as retired former Officers-in-Charge and training staff of SFNA along with their family members added colour to the celebrations.

“Samrakshahay Vayam Kartavyam”



pjr_563@yahoo.co.in



AN ILLUSTRIOUS JOURNEY FROM MGTOC TO INS EKSILA

Captain S Parthiban, Executive Officer, INS Eksila

INS Eksila was established as Marine Gas Turbine Overhaul Centre (MGTOC) on 22 October 1991. The idea of creating indigenous Marine Gas Turbine Overhauling facility was conceived in the early eighties.



Inauguration of MGTOC - 22 Oct 91

The project report prepared by the erstwhile Soviet specialists, suggested setting up of a dedicated facility for overhaul/repairs of next generation gas turbines, termed as 'Building 16A' at Naval Dockyard, Visakhapatnam. Subsequently, it was decided to create a composite, self-contained gas turbine overhauling facility to be manned by service personnel, which would cater for M3E Gas Turbines and 1250-E Gas Turbine Generators fitted onboard SNF class of ships and build up expertise for meeting the requirements of future acquisitions. The government sanction for the same was accorded in September 1984. Vice Admiral SC Chopra, the then Flag Officer Commanding-in-Chief, Eastern Naval Command laid the foundation stone on 25 August 1988. The establishment was inaugurated as Marine Gas Turbine Overhaul Centre by Admiral L Ramdas, the

then Chief of the Naval Staff on 22 October 1991.

The inauguration of the establishment was a milestone in IN's efforts towards self-reliance. The primary role and function is to undertake major overhaul of Marine Gas Turbines (GTs) and Gas Turbine Generators (GTGs). The extended objective of the establishment is to undertake Medium/Capital repairs of all main propulsion gas turbines and gas turbine generators installed onboard IN Ships, including future acquisitions.

MGTOC was commissioned as INS Eksila by Her Excellency Justice Ms. M. Fatima Beevi, Governor of Tamil Nadu, on 26 August 2000. The establishment has traversed a long and illustrious journey through the past twenty-five years since its inception to fulfil the entrusted mandate. Over the years, the unit has built up technical expertise in overhauling and repairs of ex-Soviet origin Gas turbines and Gas Turbine Generators and it is the only Naval Establishment of its kind in South East Asia where "Men in Uniform" undertake Capital Repairs/Major Overhaul of GTs that power its own Navy.





In the last two and a half decades, the Unit has put in concerted efforts towards infrastructure augmentation, consolidation of expertise, self-reliance through indigenisation and partnership with Indian Industry in the field of overhaul and maintenance of marine Gas Turbines. Innovative measures to keep vintage equipment operational and sustainable, judicious use of available resources to maximise the production capacity, sustained development of infrastructure and management of knowledge capital have been the forte of this establishment. The Unit as on date has a cumulative experience of overhauling more than 70 Gas Turbines (37 M3E GTs, 26 1250 E GTGs, 05 1250 2E GTG, 01 M15 CGT, 01 M15 CRG).

Eksila's success have, in large measure, been driven by the need of attaining self-reliance in the complex field of Gas Turbine Technology and the Unit has displayed professionalism in ensuring timely delivery of reliable Gas Turbines and Gas Turbine Generators to IN ships. The Unit has embarked with the significant task of building up expertise for overhaul of Gas Turbines and aggregates fitted on M-15 Class, P-15/ P-15A Class, Talwar/Teg Class of ships and Intermediate Level Maintenance of GE make

LM 2500 Gas Turbines fitted on-board P-17 class of ships.

Showcasing Innovation

M-15 Test House. M-15 Test House at INS Eksila was inaugurated on 24 March 2014 by Vice Admiral NN Kumar, then Chief of Materiel. Though the development of M15 Test House was originally planned to be built with involvement of OEM (Original Equipment Manufacturer), M/s Zorya Mashproekt, Ukraine, it was subsequently designed and constructed as an Indigenous Project.

Self reliance in M15 GT Testing. A Marine GT Test facility which is a truly 'Make in India' project has been created for the first time without the assistance of OEM and solely through indigenous industry. The biggest breakthrough during the execution of the project was the indigenous development of digital control system without OEM support. The project is an indigenous effort developed by conglomeration of 14 Indian Industries, with M/s RITES as the consultant. During the last one year, concerted efforts were put towards streamlining the testing methodology and two Gas Turbines have been successfully tested and the trial procedures documented. This project was showcased to Hon'ble RM on 04 December 2015 during Navy Day Celebrations at New Delhi and to Hon'ble PM on 06 February 2016 at the Maritime Exhibition during IFR-16 at Visakhapatnam. This project has been a game changer and stands as a testimony to the Unit's unflinching commitment to self-reliance through indigenisation.

Ship Based Control System Bay. An infrastructure to test/repair ship based



Inauguration of M-15 Test House by Vice Admiral NN Kumar, COM

control units of M-15 GTA of 1241 RE ships was commissioned in 2015 as part of upgradation of shop floor at INS Eksila. The Ship Based Control Systems Bay (SBCS Bay) is equipped with 13 automated interactive stands which are instituted for a comprehensive testing of various devices and blocks of M-15 GT Aggregates. The facility provides component level DI/DR on the analog and relay based control units, thereby enhancing the life cycle support of the vintage control equipment of M-15 class ships.

Growth - Key Infrastructure Augmentation Extension of Assembly Bay.

The Assembly Bay designed for undertaking overhaul of M3E Gas Turbines has been upgraded with required infrastructure for undertaking assembly of M-15 GT aggregates. The maiden overhaul of cruise GT and technology demonstration of dismantling and assembly of cruise RG and Boost GT of 1241RE class ships was undertaken in the year 2009.

M-36 GT Overhaul Bay. M-36 GT



overhaul bay infrastructure was inaugurated on 07 December 2015 by Vice Admiral Satish Soni, former Flag Officer Commanding-in-Chief, Eastern Naval Command. The facility is planned to be equipped with tools and equipment to undertake overhaul of M-36 GTs and also cater for the Talwar/Teg Class GTs.

Ignite – Training Auditorium. A fully



equipped training auditorium was inaugurated on 07 December 2015 by Vice Admiral Satish Soni, former Flag Officer



Hon'ble RM during at M-15 Pavilion at New Delhi in Dec 2015

Commanding-in-Chief, Eastern Naval Command. The training auditorium with a seating capacity of 200 personnel is equipped with state-of-the-art projection system for conducting video lectures/symposia.

Centre of Excellence

Eksila has had a vital role to play as the 'Centre of Excellence' in the field of Overhaul and Maintenance of Marine Gas Turbines. The Unit has displayed professionalism in ensuring timely delivery of reliable Gas Turbines and Gas Turbine Generators to the IN ships. Key initiatives displayed by the establishment in R&D and Indigenisation are contained in following paragraphs:

Marine Gas Turbine Maintenance Technology Research Centre.

The unit takes pride in undertaking research work and undertakes various projects which lead to refinements of maintenance/exploitation methodologies. To channelise the research & development efforts, the unit has constituted Marine Gas Turbine Maintenance Technology Research Centre which undertakes research & development activities and functions as the Technological



Hon'ble PM during Maritime Exhibition, IFR -16 in Feb 2016

Bureau, offering technical solutions towards problems encountered during maintenance and repairs of GTs/GTGs. A number of case studies have been undertaken by the centre:

Development of FAG and RAG Test Stand.

- Development of GTG 1250-2E transportation cradle through in-house design and ratification by numerical analysis using ANSYS.
- Jig for undertaking functionality check of air Bypass Band mechanism.
- Design of a test stand to ensure integrity of the Front Support and Rear Support prior final assembly of M3E Gas Turbine of SNF class ships.

Indigenisation of Spares for GT / GTG Overhaul.

To achieve the IN's goal of "Self-Reliance through Indigenisation", Eksila has been actively engaged in Indigenisation of spares for GT/GTG overhaul in the last few years. The major cases progressed include:

- Indigenisation of 58 types of Ferrous



spares for GTG 1250-E spares which includes Split Pins, Washers, Studs, Bolts and Loads.

- Indigenisation of 23 types of Ferrous spares for GTG 1250-2E spares which includes Gaskets, Sealing Rings and Ceramic inserts.

- Development of GTG Blades has been progressed with assistance of GTRE, Bangalore. Plastic and steel prototype blades were manufactured and tried out. Development of pilot samples is being steered by GTRE, Bangalore with EDC for supply of pilot samples as end 2016. Eksila is closely associated with this project at all stages.

Way Ahead

Eksila Perspective Plan. An Eksila Perspective Plan, a vision document to outline the growth of the Unit in terms of capacity building to cater to the growing requirements of IN with the induction of new platforms and embracing latest technology in Marine Propulsion, Power Generation and Auxiliary Equipment/Systems has been drafted.

Eksila has certainly emerged as one of the most efficient and vibrant operational Unit in the Eastern Naval Command and is surging ahead with proud strides in its Silver Jubilee Year. The celebration of Silver Jubilee by the establishment will be a reminiscence to all the commissions who had served and will serve in future, the very purpose of her existence.

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WHEN GAS TURBINE 3109 ROLLED OUT

Commodore Jasbir Singh (Retired)

When oft and on my couch I lie
In vacant or in pensive mood
Memories of MGTOC flash in my eyes
With 3109 rolling out!

Then as a Captain, I took over the reins of MGTOC (Marine Gas Turbine Overhaul Centre – now INS Eksila) from its first officer in-charge, Commodore S S Chandolkar in May 1995. GT Sr No. 3109, ex-Rajput Class was a well “exploited” gas turbine -- a fully

used engine in terms of running hours and calendar time and was to be taken up for overhaul which could not commence in my predecessor’s time due to non-availability of spares. As soon as the spares arrived, there were smiles all around as every one of our crew was looking forward to the pioneering overhaul of an advanced marine gas turbine.

The documentation room was full of booklets and “papkis”, -- folders containing leaflets of



drawings- some just an A4 size and some others which could not be spread even on a conference table. Though they were all well listed in a register against the serial number of various “SAs” - supplementary agreements, they pertained to various modified versions of GTs and were not easy to cross-link and comprehend for meaningful reference in repair work that was to commence. I remember an IT firm looking forward for a contract from us, offered to digitize the drawings and booklets. However, it could have added to more confusion if undertaken by raw IT personnel having no knowledge of gas turbines and the Soviet documentation system. This perception was shared with the Zoriya management team during one of their visits to the MGTOC who agreed to depute an experienced Chief Technologist and 4-5 other specialists on sub-assemblies such as LP Compressor, HP Compressor, Turbines, and Combustion chamber etc.

The team arrived within 2-3 weeks of signing the SA for deputation of specialists.

The Chief Technologist was a sharp and experienced Ukrainian engineer with years of hands on experience of GT repairs. He pasted a full sized section drawing of the gas turbine on the shop floor wall where dismantling was to commence. Then began the oral lessons to our ERAs and young officers most of whom were not conversant with the Russian language. For this period, assistance of translation officers from RTC (Russian Translation Cell) was sought on regular basis. Our own small teams of ERAs were formed for each of the sub-assemblies.

An expert team of final assembly specialists was also formed which was to oversee

the respective alignment of various sub-assemblies with each other which is so critical in GT overhaul. The teams prepared their own booklets on dis-assembly, inspection, repair and boxing up of sub-assemblies such as LP and HP compressors, turbines, and combustion chamber etc. After repair and final assembly was over in about three months' time, the GT was tested at the naval dockyard test house. The OiC of Gas Turbine Testing and Tuning Team was a thorough professional-- a senior Commander (E).

After testing was over and vibration signatures recorded, he declared that the test parameters and vibration signatures of GT 3109 after overhaul were far superior than those of several other GTs overhauled in USSR by a facility of the Russian Navy. We were happy that the job was well done and over. This was not to be the case, as far from saying that the job is over, the Chief Technologist declared that we had to do a “Revisia” -- meaning repeat strip opening and inspection and then a final assembly, followed by a re-trial on test bed. The proud team of ERAs, multi-skilled in various aspects completed the same in much quicker time.

However, during the repeat test at the test house, we found lube oil dripping from one of the sub-assemblies-- LP Compressor front support. We were thinking for days over this puzzle, as to how this leak could be taking place since the joints and unions were adequately tight. After 3-4 days of this riddle boggling us, our budding Indian technologists figured out the flaw in pressure setting of air pressure being fed to the sealing labyrinths.

The sensitivities of the GT overhaul procedure were thoroughly assimilated by



the crew of ERAs and the Final testing was “Tikitibu”. The Naval Headquarters flashed a “Bravo Zulu” -- I guess something more too as 3109 rolled out.

Then followed an evening party in one of the MGOTC lawns with colorful ceremonial flags and lights. Later, it became a tradition that the sailors will organise a party whenever a GT rolls out. I am not sure whether Eksila still follows this tradition!

Subsequently after my retirement in 2005, I came across some ex-MGTOC ERAs changing or boarding flights at Chennai/ Bangalore Airport. They were happy and well settled in civilian life. Yet another line from an old poem-

“May their tribe Increase!”

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KNOWLEDGE ENABLER BAY

Lieutenant Commander Aditya Taragi

“When you want to know how things
really work,
Study them when they are open and
kept apart”

Ancient Technical Adage

India's international stature is unceasingly growing in the region ranging from the Persian Gulf to the Strait of Malacca. The Indian Navy has been focusing on developing indigenous platforms, systems, sensors and weapons along with advancements in propulsion technologies as part of the modernisation and expansion of its maritime forces. The gas turbine technology entered our Navy almost 50 years ago with Petya class ships marking the advent and paving the way for one of the most reliable forms of propulsion, being the 'Power Behind the Punch' of our lethal warships over the years.

Gas Turbine Testing and Tuning Team (GTTT) was formed 28 years ago with a vision to ensure 'Mission Ready' gas turbines in perpetuum and its repertoire has grown leaps and bounds since then. It functions as an 'empathetic enabler' and confidence builder for over 210 Gas Turbine Aggregate assets users of the Western Naval Command. The unit is universally recognized as an expert in the field of gas turbines for acceptance, operation, maintenance and defect identification and rectification. Towards ensuring correct maintenance practices being followed and the crew learning from defects occurring in the past, a need for having a training facility within the proximity of the ships was envisioned. This led to the conceptualization and creation of a Unique Training Facility, using in-house resources at GTTT (Mumbai)

by installing two BER (Beyond Economical Repair) Gas Turbines of 1241 RE class of ship and was christened as 'Knowledge Enabler Bay' (KEB).

'KEB' was set up on the terrace of GTTT(Mumbai) by hoisting of the GTs having a combined weight of 5000 kg to a height of 70 ft. above ground level. The GTs were mounted on a specially manufactured platform under an all-weather protection shelter. Modifications were undertaken to enhance aesthetics, safety and green footprint and the terrace was transformed into a training cum 'Eco-Park'. The augmentation of training bay was carried out with spare fuel equipment, control equipment, tools and training aids. The envisaged vision of KEB was accomplished in a phased manner in a span of three months.

KEB has been set up to amalgamate the theoretical and practical facets of training and enhancing its efficacy. The training at KEB aims at covering special adjustment/tuning procedures which are critical for the



Demostation of Endoscopy at KEB



Demonstration of Test Equipment

proper functioning of the engines and cannot be practically covered on-board. The facility enables trial team to demonstrate various maintenance schedules and assembly/disassembly procedures of GT equipment. Apart from sharing experience with respect to recent failures, Defect Investigation/ Defect Rectifications and analysis of defects for ships at sea, GTs installed are being utilised for demonstration of endoscopy of GT internals and correct Vibration

Measurement procedures to Engine Room Crew. Moreover, enhanced in-house training for the newly joined sailors of GTTT is also being undertaken through KEB.

Since its inception, the engine room crew on-board GT ships have been exposed to the KEB, reaping benefits from its training sessions and giving an encouraging and overwhelming response. KEB has assisted immensely in tackling critical defect rectifications and technical analysis. At present, KEB sessions are being conducted on a bi-monthly basis with an aim to refresh knowledge of officers and sailors through continual focus on varied aspects of gas turbine maintenance and good engineering practices. The utilisation of 'Knowledge Enabler Bay' is undertaken with utmost professionalism with an endeavour to persistently strive towards training excellence.

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NAVAL MARITIME ACADEMY

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The Naval Maritime Academy (NAMAC), Mumbai was set up in 1998 to provide the required training to facilitate the transition of retired naval personnel opting for a second career in the Merchant Navy. Approved by the Director General of Shipping, NAMAC trains over 15000 naval, ex naval, dependents & civilian candidates each year. Using our quality infrastructure, an experienced merchant marine faculty supplemented by serving & retired naval personnel and the naval resources at Mumbai, NAMAC today conducts 53 courses that include Basic and Advanced Modular STCW courses, Offshore Safety courses as per the highest international standards and numerous value added courses. Recipient of the "Samudra Manthan Award" for the Best Offshore Training Institute, is a reiteration of our commitment to the highest quality of training. Courses can now be booked and payments made online.

Please visit our website www.namacindia.com



ADMIRAL SN KOHLI, PADMA BHUSHAN

Admiral Sourendra Nath Kohli took over as the Chief of the Naval Staff on 01 March 1973. Prior to this appointment, he was Flag Officer Commanding-in-Chief, Western Naval Command.

Born on 21 June 1916, Admiral Kohli was educated at St. Stephen's College, Delhi. He joined the Indian Navy as a cadet in May 1936 and proceeded to the United Kingdom for training. He was commissioned into the Royal Indian Navy on 25 June 1938. He qualified as a Communication Specialist in the United Kingdom in 1943. During the Second World War, he saw action in the Persian Gulf and also the Far Eastern theatre.

After Independence, he was one of those specially chosen to head the expanding Indian Fleet. He was deputed to the United Kingdom in December 1948 in connection with acquisition of destroyers and was appointed as Commanding Officer of INS Rana when the ship was taken over from Royal Navy. Among the important appointments held by him since then were Senior Officer of the Navy's former Flag Ship INS Godavari and later Commanding Officer of the Navy's former Flagship INS Mysore.

On his appointment as the Superintendent of the Naval Dockyard, Bombay he was promoted to the Rank of Commodore. Admiral Kohli held several staff appointments in addition to seagoing commands and had the distinction of being the Director of Naval Plans, twice. He had been the Naval Adviser



to the Indian High Commissioner of India to the UK. He served as Principal Staff Officer in Naval Headquarters, first as the Chief of Material and then as Vice Chief of Naval Staff. He rose to Flag Rank in August 1965. As Rear Admiral, he commanded the Indian Fleet from 1967 to 1969, spearheaded by the carrier INS Vikrant. He was awarded the Param Vishisht Seva Medal for exceptional and distinguished service in Jan 1968.

Prior to taking over as Flag Officer Commanding-in-Chief, Western Naval Command, on 12 February 1971, he was the Commandant of the National Defence College, which is the highest seat of learning of the Armed Forces of our country.

During the Indo-Pakistan War of 1971, Vice Admiral Kohli was responsible not only for all naval operations in the North Arabian Sea but also entrusted with the defence of our coastline from the borders with Pakistan to Goa. In addition, he was the controlling authority for the safe routing of the entire Indian mercantile fleet. The Western Fleet under his intrepid and imaginative leadership was instrumental in delivering crippling blows on the Pakistan Navy. The daring raids on Karachi have passed into the annals of naval warfare as master stroke of offensive policy. After the war, he was awarded the Padma Bhushan for "demonstrating exceptional ability, sagacity and fortitude in putting into effect the several plans for the defence of our harbours and coastline".



Discussion in Mazagon Docks in 1972 on the Frigate Project
(L to R) Vice Admiral SN Kohli (FOC in C WEST), Admiral SM Nanda (CNS)
Deputy Defence Minister and Vice Admiral BA Samson (Managing Director MDL)



Admiral SM Nanda handing over charge of the Navy to Admiral
SN Kohli - 1 March 1973





TRIBUTE TO ADMIRAL SN KOHLI

Rear Admiral JMS Sodhi (Retired)

In December 1959 our 16th Course NDA Batch completed its cadet training on INS Tir and we joined the flagship INS Mysore on 01 January 1960 as Midshipman. The cruiser Mysore with four triple turrets of six inch guns was an imposing warship and it was under the Command of Captain SN Kohli who was a dashing and handsome naval officer who inspired respect and confidence and it was natural for all youngsters to look up to him as a role model. The Fleet Navigating Officer, Commander Atkinson selected me as his doggy and this gave me all the opportunity to observe the functioning of the ship's Command from close quarters on the bridge.

Captain Kohli had a very pleasing personality and never lost his cool. Once whilst weighing anchor in Cochin harbour the Foxle Officer seemed to be taking a very long time to get the anchor in and the Bridge kept ordering hurry up hurry up. At this Lt. Cdr. RP Bhalla who was the Gunnery Officer as well as Foxle Officer stood ramrod straight facing the bridge and whilst saluting replied that even hurrying up takes time. The Captain quickly took charge of the situation and jokingly told Foxle to take all the time it requires.

During the JET exercises, we were to refuel from HMS Gold Ranger and the Captain used the high speed back down procedure to come alongside the Tanker. We came alongside at considerable speed and when half ahead was ordered after the half astern

the ships stern was seen moving towards the tanker. The OOW, Lt. Daljit Singh instead of moving both the telegraphs from astern to ahead at the same time had delayed the Port telegraph by a minute or so with the result that the ship veered to Port and the Starboard side of the stern touched the Tanker. No damage was done but it was an embarrassing moment for which the Captain was fortunately not blamed.

Later in 1965 when Admiral SN Kohli came to Mumbai from Naval Headquarters to brief the Western Command on all the new Soviet Acquisition Programme, I was nominated as his Liaison Officer and once again he displayed his great charm in his discussions with me on the long car drive to and from INS Hamla. I then met him in 1972 when he was C-in-C, Western Naval Command and I called on him as Commanding Officer of INS Kursura and he instantly resolved my two outstanding issues of married accommodation and telephone at residence which was unnecessarily being dragged by his Headquarters staff.

Admiral SN Kohli is no longer with us but his contribution to the development and operational efficiency of the Indian Navy will always be remembered specially his leadership during the 1971 conflict.

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MY ENCOUNTERS WITH ADMIRAL SN KOHLI

Commodore-At-Arms KK Garg (Retired)

I as a young Sub Lieutenant had the rare distinction of commanding two SPCs at the same time, the only ships based at Visakhapatnam under the command and control of Commodore, East Coast. NHQ decided to transfer them to Flag Officer, Bombay in 1961. Then the SPC 3118 was provided with a new C.O. We thus were mostly alongside Breakwater only awaiting NHQ orders as to the role that we were to play. These SPCs being of World War II vintage, the wooden hull was not in very good shape. We made some occasional trips for delivery of rations to ships at anchor and on return, chafing of hull while coming alongside resulted in damaging the strakes and developing holes. Hence the repairs. I found that I had lot of swelling on my feet and red sores developing on my left thigh. This was attributed to Filaria more prevalent in Visakhapatnam as elephantiasis thus I was medically advised to keep my feet horizontal to reduce swelling. One sunny afternoon, Commodore SN Kohli, Commodore Superintendent, Naval Dockyard turned up at the Breakwater and whilst going around found some clothes were hung for drying on the small deck. He enquired about me and my Cox'n informed him that I was unwell. Admiral Kohli was great stickler for appearance and I was only learning the nautical to achieve high standards, despite various constraints. This surprise visit revealed that Commodore Kohli did not remain confined to his high office only but believed in seeing for himself the situation on the ground. It was also realized that even a junior most Sub Lieutenant, was given respect due to a Commanding Officer and command privileges were given irrespective of rank.

On taking over as Chief Security Officer, Naval Dockyard in 1971, I had observed that one room on the ground floor was used for dumping confiscated canteen items as an anti-smuggling drive thus MCPO-in-Charge of Field Security Staff had no place to sit to do his work. Orders were issued to get rid of all the stuff strewn in the room and that in future, all duty-free items found more than entitlement at the Lion Gate to be returned to the ships concerned to be taken back on charge in the canteen. This caught the attention of HQ WNC and I was asked to send a draft for amending the WNC Standing Orders. Cdr MC Goyal, the Judge Advocate rang me up in this regard as this measure had been noticed by Admiral and duly appreciated.

Just a few days after my taking over, two LPMs got involved in some irregularity. Any misdemeanor on the part of security personnel tarnishes the image of this law and order enforcing agency. I ensured that I did not dilute the gravity of offence in any way and doled out deterrent punishments, so that such incidents did not recur. Report was duly forwarded to HQ WNC under the signature of Admiral BR Singh, the ASD. I was very surprised that Admiral Kohli, the FOC-in-C himself was on line to forcefully tell me that this was not good enough. The Admiral later decided that the Field Security Staff which were employed at various points to monitor any malpractices and collect intelligence will lose the privilege of working in plain clothes. This did not seem a deterrent punishment to my staff and did not meet the security objective of collecting early information of irregularity. Hence, I on behalf of ASD wrote



a very exhaustive, full two pages Note which was forwarded for personal attention of the FOC-in-C. It was gratifying to learn that Admiral soon withdrew his earlier stand. The tough exterior that Admiral presented and took tough stand on matters of discipline but also used an element of great flexibility for long term objective.

Just before the beginning of 1971 war, the Admiral was not stopped by the Dockyard security staff for any security checks as he was easily recognized and identified as he entered the Dockyard with his Flag Lieutenant and his staff car, flashing a red beacon and car flag fluttering. It came to my notice that Admiral had commented on the laxity in checking flag cars. Next, the Admiral's car was stopped for checks and he was asked by the DSC sentry to produce his identity card which could not be complied with. It was only when the Flag Lieutenant produced his own identity card and vouched for the identity of the Admiral that the access was allowed. Thereafter the Admiral always carried his identity card with a lanyard. This was the way the Admiral took pride in encouraging our security personnel while carrying out their duties. Consequently, all cars including the flag cars were stopped and had to undergo proper security checks.

Our security staff was close to his heart and he greatly applauded their role during Indo-Pak war. On the DSC Corps Day, he acknowledged that the DSC personnel had ensured security of not only the Navy but also of Mumbai in general. This greatly raised the morale of this silent section of the armed forces guarding various installations around the clock so that we can have a peaceful working environment and sleep peacefully.

His plan of striking Karachi with missiles on 4th December which caused great havoc was a big shock to Pakistan. The leadership exercised by him in utilizing all available resources to produce laudable results went long way in meeting the naval objectives and role of WNC was well recognized. At the end of the war, I was called by Commander Anderson, the COPO who produced me in front of the Admiral and I was given the task of arranging a film premiere of any suitable film to collect funds for welfare purposes. I got going meeting Chetan Annand, Sanjay Khan, Guru Dutt and few other well-known personalities for films being released shortly. Chhupa Rustom produced by Chetan Anand and another picture Savera could not be obtained due to some reason or the other though these seemed to be a bit more popular. Hence a film titled Tanhai featuring Rehana Sultan a National Film Award winner for her role in film Dastak and some young actors like Anil Dhawan were available and accepted a premiere show by WNC at Eros cinema. I was given the privilege of escorting the Admiral to the cinema stage during interval to address the audience. Admiral appeared so very informal and friendly and jovial during this interaction and was thoroughly enjoying the ambience. He always took great interest in all welfare, projects, such as Mulla Auditorium, Sailors' Widows' Home, Kohli Sports Stadium, INCS Complex etc. and personally visiting the sites often to ensure very prompt completion.

For the kind of charming personality that he was, I thought of presenting him with a raised model of Dockyard prominently showing the Lion Gate and the personal flag of ASD giving 3D effect which was my brainchild. The model created by arranging a photograph taken from adjacent Museum's



roof and then making a mould in the foundry shop and further finishing and coloring. The same was presented to him by me by stopping his flag car as a surprise whilst he was leaving the Lion Gate after his farewell by the Dockyard Workers' Union before proceeding to NHQ as CNS. He was mighty pleased as I could make out since he had commanded the Dockyard way back in 1961 and these premises were very close to his heart.

Admiral SN Kohli's contribution as FO C-in-C, West, especially for effective planning and organizing successful attack on Karachi harbor by missile boats on 4 Dec 1971 now celebrated as Navy Day taking Pak by surprise will always be remembered besides his sterling qualities of head and heart.

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RECOLLECTIONS OF ADMIRAL KOHLI

Commander Sati Taneja (Retired)

I served as the Command Gunnery Officer under Admiral Kohli when he was C-in-C, West during the 1971 war with Pakistan. Preparations for the war were underway for weeks, if not months, and the Ops team used to meet almost every evening before packing up for the day. My wife was at the time working with an advertising agency and was scheduled to leave for Delhi on 3rd December. My quandary was that I could not tell why I was not keen for her to leave. We had two little kids at home. Anyway my wife left on schedule and Mrs Ramdas who lived on the floor above was requested to keep an eye on my kids during the day.

The Ops team met as usual that evening and about midway we got the message that Pak airplanes had attacked some of our airfields and that what we had been waiting for, was happening. We all repaired to the War Room in the Naval Barracks and orders were given for the Missile Boat attack on Karachi. It became clear that this was going to be an all

night affair. Luckily I had a younger brother in town and was able to get him to spend the night with my children. Admiral Kohli led from the front directing affairs. It was in the early hours of the morning that we got news of the spectacular success of the attack. Admiral Kohli and the entire team were jubilant. His first thought after that was for his staff and he insisted all but the duty officer went home with instructions to resume work after we were well rested.

Later that morning, I was told that the Admiral wished to see me. Someone had obviously told him that my wife was away and he was concerned about that. He told me that I should have informed him and that some arrangements could have been made. Behind that serious exterior obviously was a soft heart. This was to manifest itself on many occasions with other officers who were fortunate to serve under him during those tense but exhilarating times.

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AS I KNEW HIM

Commodore HML Saxena (Retired)

My first contact with Admiral SN Kohli was in 1955, when he was a Captain and going to London from Bombay, on a passenger ship to take over the assignment of Naval Adviser to the High Commissioner of India. We six Lieutenants were also travelling on the same ship for specialisation courses three for ND and three for TAS.

The passage took about 20 days, with nothing in particular to do, except socializing, deck sports and relaxation between meals. No one talked much about the service. I often met SNK in Deck Sports. The three little Kohli daughters used to spend quite some time playing with the six of

us. It was most noticeable that Mrs Kohli used to be the first to leave the dining hall, much earlier than the rest, rushing to look after the girls.

At the end of the voyage, I remember him saying, "You are most welcome at our house, but not on Saturdays and Sundays. That is the only time I get with my children", or words to that effect.

In his London Office, whenever he saw one of us, he would stop and talk and invariably call him to his office. He liked talking one to one. He had the great quality of putting juniors 'at ease', make them talk and 'open up'. He liked getting them involved in subjects needing higher decisions.

I did not have the privilege of serving directly under him till in the seventies in NHQ, when he was the CNS.

A few of us of our vintage used to have lunch together.....the word went round.....and he frequently asked...." and what has the Captains' Club decided today".

Later as DOP, I found Admiral, extremely fair, and very conscious of 'good for the service,' and not showing any favoritism. He fully valued the proposals of juniors.

To end with I can only say Admiral SN Kohli had a VISION for the future of the Indian Navy, and FAITH in juniors, as they are the FUTURE.

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RECOLLECTIONS OF 1971 CONFLICT

Commander Bahadur Kavina (Retired)

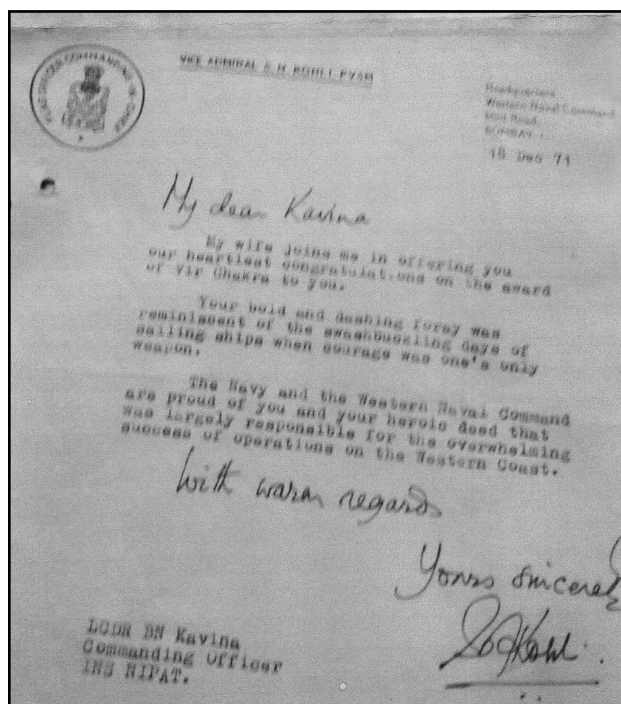
I was Oi/C Signal School from 1975-1977. I am happy that under your command Signal School is going to celebrate the Birth Centenary of the late Admiral S N Kohli. My first interaction with him was in 1971 when I was a Lt Cdr, Commanding INS Nipat. Those were demanding days when dark clouds were gathering which ultimately resulted in a war with Pakistan. As Missile Boat Nipat was designated to be one of the three ships to take part in Operation Trident, I along with Lt Cdr I J Sharma and Lt Cdr OP Mehta COs INS Nirghat and INS Veer respectively were called for briefing in the MOR. Soon after we were called to have a tete-e-tete with the C-in-C. Without mincing any words, he came straight to the point and said, "I AM SENDING YOU ON A VERY DANGEROUS MISSION AND SOME OF YOU MAY NOT RETURN I AM ACTUALLY WORRIED THAT THE PAK FIGHTERS WILL HARM YOU."

OP Mehta quickly replied, "Sir don't worry we are more worried about their mis-aim." With this he shook our hands and added I hope to receive you on your successful return. Now when one reflects back one appreciates the qualities of leadership, the calmness with which Operation Trident was launched knowing fully well it could have resulted in a disaster.

On 06 December when we returned C-in-C true to his word was waiting to receive us. Speaking to the officers and crew members he said, "I have not come here to welcome you but I am here to give you all a HERO'S

WELCOME. Your exploits will be written in letters of gold. The Navy and Western Command are proud of you.

When I was awarded the Vir Chakra he personally wrote a letter of congratulations which I still have. It was published in the 22KS magazine FIRST STRIKE last year.



The only other time I met him was at the time of inauguration of the War Memorial in the Signal School. We worked day and night to ensure it was ready for the opening ceremony by Admiral Kohli the senior most Communicator at that time.

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INS VALSURA IN IT'S PRISTINE GLORY

Commander S Mohan (Retired)

*O ye who rose electrified to VALSURA come,
For marches to salt-pans, to bone-factory runs,
To learn shocking skills and hone marching drills,
Come hither, come hither, come hither
Here you shall find no enemy but winter and rough weather.*

*Always run as a taut ship was this stone-frigate
By Ramnath, Lele, Schunker, and Agate.
Watching us hawk-eyed in the wint'ry sun
They drove us hard to perfection;
Be it spit-and-polish Brass or lessons in class
They ensured we shone, our bayonets gleaming with precision.
So come hither, come hither, come hither
Here you shall find no enemy but winter and rough weather.*

*Bristling with guns, radars, missiles, and sonars,
VALSURA has a formidable array, ArreYaar!
Though sail she may not,
Give a befitting reply to an enemy she can, dread not!
For Come hither, come hither, come hither
Here you shall find no enemy but winter and rough weather.*

*With LR Mehta and SBN as Training Commanders,
With Jetley, Devi, CKV, as our able instructors,
Officers under training Alan, Ray, Gokhale, HK, and self
Guffawed when "LP Raja" did repeatedly ask
Perplexed Devi in Gyro class "Jab eeghoomathai
To bar bar kyun O Sali phir athai?"
Yet Come hither, come hither, come hither
Here you shall find no enemy but winter and rough weather.*

- With apologies to William Shakespeare.

DRAMATIS PERSONAE

CAPTAINS KR RAMNATH, LELE, M.R. SCHUNKER, AGATE (RN).

VADM LR MEHTA –COM, VADM SBN SINGH – COM
LCDR CK. VISHWANATH, DEVIDATTA, RK JETLEY-
(Our instructors in 1967-68.)

My course-mates Commodores Alan Quadros, Ray D'Souza, Capt L.P. Singh, late Hari Krishna and late Vilas Gokhale.

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RECOLLECTIONS OF AN OCTOGENARIAN

Captain (L) S Prabhala (Retired)

The origin and founding of INS Valsura has been narrated in "Journey to Valsura 1942-1946", a book compiled by Colonel Robert Ward based on the diaries of his father Commander M.F.B. Ward RIN, the first Commanding Officer. Colonel Robert Ward made a visit to Valsura in October 2012 and presented the book. (Cdr Ward was a true blue Imperialist: he called Mahatma Gandhi a 'self-seeking poseur' while Jamsaheb was charm personified).

To those who have not read the book, here is a summary: early in 1942, Royal Indian Navy wanted to set up a Torpedo School because of the growing importance of submarine warfare; Cdr. Ward was asked to look for a place when Jamsaheb of Navanagar offered the Rozi island, a game reserve with cheetah, hare and partridges; a metre gauge railway connected the island to the town and a mile long concrete pier was a plus point; Jamsaheb's keenness to have the Torpedo School in his domain, blank cheque offering "take what you want" and lavish hospitality to the visiting British Officers won the day.

Cdr Ward chose 21 acres in the South East corner of Rozi island; foundation stone was laid by the Jamsaheb on 15 August 1942; construction proceeded with remarkable speed and HMIS Valsura was opened by Her Highness Gulabkunverba on 15 December 1942 in the presence of General and Lady Claude Auchinleck, C-in-C and Vice Admiral Sir Herbert Fitzherbert, Flag Officer in Command, RIN. Expectedly, the buildings were named after the shore establishments of Royal Navy: Vernon – Wardroom; Defiance–

bachelor officers' cabins; Warrior – Sailors' quarters; Collingwood – CO's house, etc. The temporary Torpedo School, which started in July 1942 in Bombay (present INS Hamla), was shifted to Jamnagar. By February 1943, total strength of Valsura had reached 163 men. Naturally, Cdr Ward became the first CO. From July 1943, he was also NOIC, Kathiawar Coast.

I had four postings to Valsura in my naval career. The first was in June 1954 as an Acting Sub Lieutenant for a six month induction course for newly commissioned Direct Entry Electrical Officers. I belonged to the fifth batch of Direct Entry Electrical Officers. My batchmates were RAdm BR Vasanth, Cdr PG Dongrey, Cdr HD Singh, Capt JR Mehra, Cdr NC Sinha and Cdr GC Bhatnagar. Electrical branch was still in its infancy; total strength of officers was about 60. Perhaps only half of them had a degree in Electrical Engineering.

We arrived by Virangam-Jamnagar metre gauge train after a three day journey from Cochin. Endless saltpans shimmering in the summer heat was my recollection of the five km journey by a 3-tonner from the railway station to Valsura. Among the non-descript buildings on the way, the Solarium stood out. And, Valsura of 1954 had changed little since it was built in 1942.

Cdr KR Nair (later RAdm) was the Commanding Officer and Lt Cdr PK Sinha (later Cdre) was the Training Commander. Lt KK Batta (later RAdm), Lt NP Rao, Lt BKS Nair, Lt K Satyanarayana, Lt PJ Duckworth,



Lt Varkey were some of the instructors whom I remember. Lt Cdr Kerawala was the Supply Officer. One day, he went on a hunt and accidentally shot his own foot and lost the left big toe. It was rumoured that on hearing this, his wife turned grey overnight!

We learnt the working of ship electrical systems, gyro compass, radio and radar and fire control computers. In those days ships used 220 Volts DC supply, electronics was valve-based, fire control computers were electromechanical and guns were moved by hand. M type transmitters and magslips were the means of transmitting range and angles. All very primitive by today's standards.

My next appointment to INS Valsura was in the rank of Lieutenant for instructional duties in early 1956 after my sea training in INS Delhi. Capt NE Warner was the Commanding Officer - a real gentleman and fatherly figure. A new Administration Block and married quarters were coming up, as well as sports and medical facilities. A makeshift open-air cinema showed films during weekends.

I slowly overcame my fear of facing a class and began to like teaching. Instructors were few and one had to teach all subjects. I found that teaching basic theory of electricity or electronics to boys fresh from school the most demanding, but rewarding at the same time. I found how little I knew till I started teaching.

I also assisted the Training Commander and was responsible for smooth conduct of examinations. I still remember some howlers in the Answer Papers. A gem among them was what one sailor wrote - Q: What is your

responsibility when a fault is reported to you?
A: I will try to set it right. If I can't, I will tell my LO. He will then complete the damage.

It was around this time that the distinctive colour stripe in the rank badge for non-executive officers was abolished. It was supposedly to avoid any discrimination between the various branches. It seemed specious and being proud of my green stripe I wore it as long as it lasted.

Among my colleagues was the maverick Lt PJ Shroff. He was brilliant, unconventional and a genius at repairing things besides being a good Piano player. He had a World War II disposals motor cycle which he looked after with loving care. He made a new carburettor all by himself which he claimed was more fuel-efficient. It was unfortunate that he later fell foul with his superiors in the Naval Dockyard for experimenting with electronic warfare by unauthorisedly modifying a radar and was forced to resign. He met a sad end a few years later when he fell off a suburban train in Bombay.

Another interesting person was Lt. H Gantzer who was the Supply Officer. After leaving the Navy, he acquired fame as a travel writer. His columns carry the byline of Hugh and Colleen Gantzer. Addition of his wife's name is to ensure that Travel Agencies pay travel and hotel costs for both!

Vice Admiral SH Carlill, Chief of the Naval Staff, visited Valsura and during his address to the officers told us about the plans for acquisition of INS Vikrant. I had read about the objections of the Air Force for Navy having an Air Wing and asked him if there



was any merit in it. He took no offence and patiently explained why the Navy needs an aircraft carrier and its own Air Arm. But Captain Warner was not amused and it was reflected in my annual report.

Jamsaheb would be invited to attend Dinner parties held in honour of any visiting VIP. He used to come with his family and a large entourage. The fleet of European and American limousines conveying them were the ultimate in luxury. Jamsaheb was very rotund. Therefore, he did not move about but stayed put in one sofa chair. He was a good talker and kept the crowd around him amused all evening. One of his bearers would have at hand ready a long thin stick for the Jamsaheb to scratch his back if it itched. Occasionally, Jamsaheb would invite the officers for a cricket match in the Palace followed by a sumptuous lunch. There was no doubt that he had a soft corner for Valsura.

My third stint was in 1958 after I returned on completing a course in AC Ship equipment in England. Captain BR Singh (later RAdm) was the CO. No one who came across him could but admire his vision, boldness and administrative acumen. Adulterated milk was a perennial problem from Cdr Ward's time. Capt BR Singh took the milk vendors head on and broke the cartel. To familiarize all officers with AC ship systems, he asked me to conduct classes from 6.30 to 7.30 am and he attended them every day to set an example. He disliked office work and spent little time in his office. He preferred to walk around and observe what was going on.

Cdr Leo Lunel was the Executive Officer. He was a TAS officer who switched to Electrical

branch. He was a short man but a live wire and the perfect foil to Capt BR Singh. His language was colourful but no one took offence because of his good nature.

Admiral VS Shekhawat's NDA batch of Cadet Entries came to Valsura for a week's familiarization course. In the test at the end, about the detection range of Radar 293, he cheekily gave two figures and left the choice to the examiner. Apparently, two different figures were given by two instructors.

In the middle of 1962 I was again posted to INS Valsura, now under the command of Captain BC Chatterjee, a fine human being who was loved by everyone for his gentle manner. He was ably assisted by Cdr LD Tewari, Executive Officer. The newly constructed Wardroom was commissioned at the end of the year.

I told Captain Chatterjee that it was my fourth spell in Valsura and third on instructional duties and that I would like to get experience of other types of work. My request was duly conveyed to Cdre BR Singh, DEE and I was told not to be impatient. I was transferred to NHQ in the beginning of 1963, in preparation for deputation to England for the Leander Project.

Valsura is now a vast and vibrant place brimming with latest technology. But the small, quiet and sleepy place of yesteryears had its own charm for octogenarians like me.

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MY MEMOIRES OF INS VALSURA

Commander Rajnish (Retired)

My earliest memories of INS Valsura date back almost 56 years ago, I had travelled to Jamnagar after a short leave at Shimla, Himachal Pradesh in June 1960, in a Meter Gauge train from Old Delhi Railway Station. The train was divided into rakes of two or three bogies each and reassembled to form a full train, at various railway station junctions enroute. The train connected to various destinations besides Jamnagar. On arrival at Jamnagar, we were received by a Chief Petty Officer with a number of other Midshipmen and transported in a three tonner to Valsura about 12 or 15 miles away. The establishment was a teenager at that time, 18 years old. This was evident from a number of old barracks, including our accommodation. The only few new buildings were administrative blocks, class rooms and training spaces. Jamnagar town and the Air Force Station buildings could be clearly seen from Valsura. Rozi Harbour and Rozi Light House, about three or four miles away were also easily visible.

At his introductory address to our course at the maiden session on commencement of the two weeks Electrical Acquaintance Course, Captain BR Singh, Commanding Officer mentioned that establishment of INS Valsura is located on 546 acres of land generously gifted by Jam Saheb of Nawanagar, Col Digvijay Singhji Saheb Bahadur. The piece of land was from his game reserve on Rozi Island. For the sake of satisfying Revenue Rules, Jam Saheb charged the Navy two rupees for that piece of land to set up a Torpedo School. Named

HMIS Valsura, she was commissioned by Her Highness, the Maharani of Nawanagar on 15 Dec 1942.

Our stay at Valsura was interspersed by some interesting and unforgettable incidents. Due to summer heat, the Midshipmen slept in the open with mosquito nets rigged over the charpoy; the place was infested by mosquitoes. One night, a few Midshipmen lifted charpoy with NC Vaish fast asleep on it, carried it several hundred meters away and put it down near a few bushes. On getting up the next morning, Vaish was rather perplexed; it took him a while to understand where he was sleeping. Other incident was when Vijay Jerath (Jerry), very well known amongst the course-mates for his habit of breaking things, knocked an earthen 'ghara' containing drinking water into pieces, in the middle of a dark night. Every one laughed which caused noticeable frowns on Jerry's face.

An open-air theatre screened regular movies. Air Force officers, airmen and many civilians came all the way from Air Force Station and from Jamnagar town to watch movies. To indicate whether screening of a movie in Valsura open-air theatre was on, two red lights were displayed at the truck of the main mast located near the parade ground and open-air theatre. These lights were visible from Air Force Station and Jamnagar Town.

One day a number of Midshipmen went to Rozi Harbour sea front on bicycles. Rozi Light House was located at the end of a long



breakwater. The breakwater was got almost submerged at high tide and boats were able to come along side it quite close to the shore to embark/disembark passengers. However, at low tide, water receded about a half a mile to the end of the breakwater where Rozi Light House was located. At this time boats came alongside there. Passengers had to disembark/embark there and walk carefully on the surface of the breakwater covered with slippery silt and small marine creatures crawling about. A few years later, I was appointed Navigating Officer, INS Tir, which called at Rozi Harbour and anchored in Rozi Roads quite far from shore. On one of the evenings, officers from Tir were invited to cocktails in INS Valsura. I too, with 15 other officers was detailed to attend. Landing was comfortable as it was high tide at that time. However, after the Cocktails at around 10 pm, when we returned to get back to our ship, water had receded due to low tide. To top it all, it was a new moon night, so it was completely dark all around. Fortunately, one or two officers had carried torches and the boat crew also helped by switching on an Aldis Lamp. We all had to trudge along the breakwater very carefully, holding on to one another by the arms to avoid falling down. One or two officers did indeed slip; their clothes were in a mess.

On another day in the afternoon Tiger Talwar, Soli Contractor and I visited a salt-pans area near Valsura to see for ourselves how salt was extracted from seawater. At high water,

dikes were dug up to let seawater flow in to large flat expanses of open and low-lying area. Then the dikes were closed. Seawater receded during low tide period. Seawater trapped inside the large basins took more than a month to evaporate leaving behind salt crystals. These were collected by labourers and loaded on to receptacles, which formed a train and pulled to a large dump nearby and then on a factory, by a locomotive for further processing.

Quite a number of years later in the year 2009, Rekha my wife and I along with three more couples got an opportunity to tour along the Coast of Gujarat starting from Jamnagar. I grabbed this chance and took my wife along to see, once again the Rozi Harbour. I could not easily locate the old breakwater; in its place a long high break water with a road on it had come up. I enquired about the old breakwater; he pointed down a small portion of it, the rest having got covered by high sea wall. At the seaward end of the breakwater a salt factory had come up to further process the crystal salt collected in the salt-pans. The factory was located quite close to Rozi Light House.

I will close my article by wishing Valsura a very Happy Platinum Anniversary leading on to a Centenary in a couple of years from now.

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BACK TO THE FUTURE

Mrs Kamlesh Khanna

I live in New Delhi and it is nearly a decade since my husband, Cdr Rakesh Khanna took premature retirement from the Indian Navy. Recently, I had an opportunity to visit INS Valsura, at the invitation of the present Commanding Officer. And what a surprise in store for us.,

My husband, Cdr Rakesh Khanna was posted as the Logistics Officer way back in 1997-99. This was also the time when the Saurashtra region faced a series of natural calamities commencing from the devastating cyclone in 1998. Many big and old trees, almost amounting to 5000, were uprooted, and portions of some the old buildings including the Naval Store were destroyed. Electricity was snapped and water supply interrupted for days. It took a few days then and tireless efforts from Valsurians to bring up the base to some shape.

But now, as we stepped into Valsura, after almost seventeen years, we realise that the place had grown beyond recognition! A few new buildings for officers and sailors alike, a new Logistic Complex, a War Museum and every corner looked spruced up! Overall, it looked far greener, spic and span.

But, the most fascinating and remarkable structure that surprised us, as much as anyone else visiting the base, is this lovely roundel edifice called "Pelicanoe", a kayaking centre aptly named after the Pelicans found in abundance. Further we learnt, that this was conceived and built in less than seven months' time on a meagre budget. It prides itself in being illuminated with LED lights

with source of electric supply being a lone 5KW windmill. The green mound is paved with tiles that were left unused from the other recently constructed buildings. It has a few wooden benches in the open to feel the beauty of the place. The enclosed hall inside is used for social events. Its walls adorn the photos of the birth of this structure, right from its conception to commissioning. At the Pelicanoe, ladies have their coffee mornings, men do the kayaking and sometimes vice versa. Visit the place at night; the waves in the salt-pans play music in your ears, close your eyes; the wind plays with your locks. The aura around the place is such that you will be compelled to hum your favourite song right there!

It reminded me of the famous song " Yeh Sama, Sama hai yeh pyaar ka, Kisike intzaar ka, Dil na chura le kahin mera, Mausam bahaar ka".... Kudos to the visionaries, the men behind its birth, the CO and his team!

The place used to witness many accidents in past, due to poor lighting in salt-pans and bad condition of approach roads. Now, Valsura is a self-contained smart base in every way so that the youngsters don't venture out into the city at night or otherwise. It has everything, a 3D cinema hall, golf course, high speed internet in every cabin, state of the art sports facilities to name a few.

The wardroom too is bustling with the entertainment facility with a Pub called Impulse that comprises of a bar, a live band, a V-Strike as the bowling alley and huge screen for watching TV. The place has



regular evenings to entertain one and all. To increase the participation of most young couples for the socials, the crèche facility has been made attractive and elegant, so that children push their parents to be there. before they make any excuse! Ha ha ha... bless these angels.

Wi-fi connectivity with smart classrooms, be it KV school or Kindergarten. A huge board decorated with the photos of meritorious students catches your eye and swells your heart with pride. speaks volumes about dedicated staff and the guiding lights of the place. I still remember the place when my son had to commute 15 km to attend school at the Air Force base as the reputation of the then K V was not considered up to the mark.

I see the place illuminated with LED lights, a new Sewage treatment plant in progress, growing their own “Kesaria Mango orchid”, Swatchch Valsura Abhiyaan, planting new saplings during monsoons. The most thoughtful act of illuminating the lives of less fortunate is, the Literacy programme run by the Naval ladies to educate the children of labourers in the base. They are provided with breakfast to attract them to the school.

Last but not the least, another milestone that Valsura boasts of is, a green nine-hole golf course! One can appreciate the difficulty in making greens on this land that is called, “Maru Bhoomi”, as land is salty and place with very scanty rain fall. We had the pleasure of playing golf, in the presence of mild to moderate winds from the salt-pan. A different experience from playing the game in a metro. Felt as if we were playing in a foreign shore!

The establishment has the writing at the main gate, designed by NID, Ahmedabad that reads, “The light that emanates from here, illuminates all”. It holds true in every way for any visitor entering Valsura.

It is with such thoughtful small acts, the humanity prospers. May Lord bless them all, those responsible to make it a Smart Base from an ordinary place! I went to Valsura to reminiscence the past, but ended up seeing the future of the Indian Navy. Back to the future!

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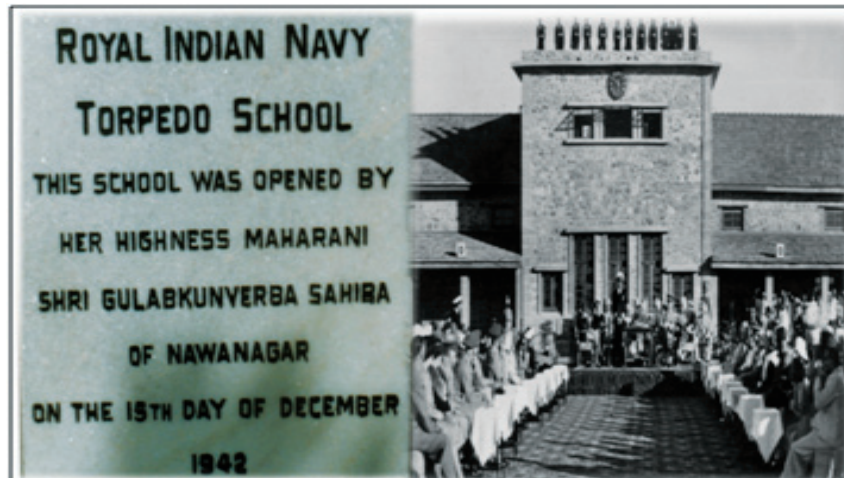
New Motto

“The Light That Emanates From Here Illuminates All”



THE LIGHT THAT EMANATES FROM HERE

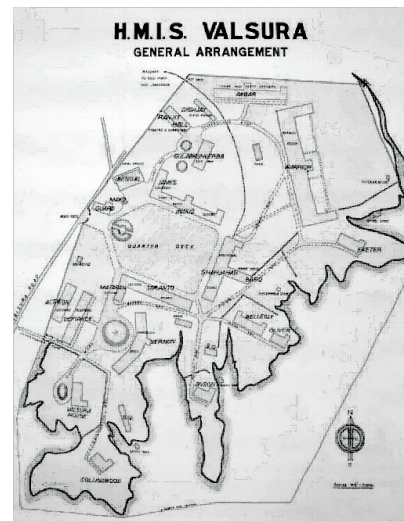
Commodore B Siva Kumar



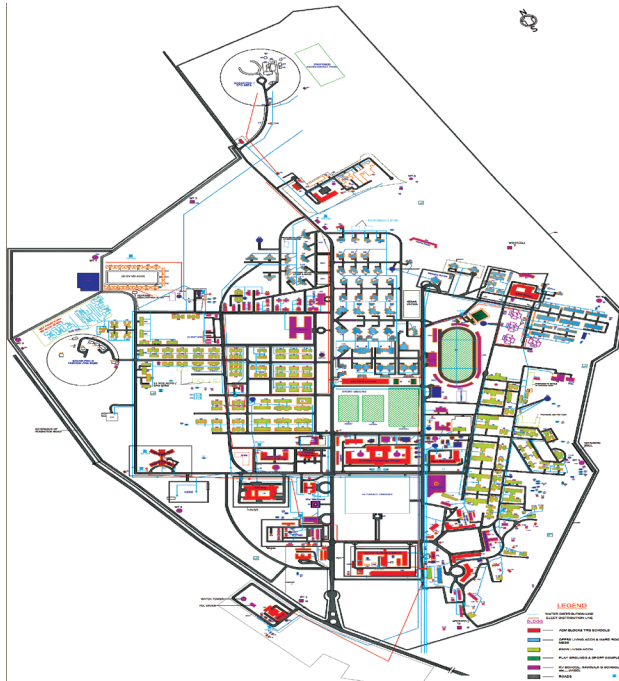
The history of Valsura (then HMIS) finds its roots in the global geostrategic and geopolitical scenario, prevalent during and immediately after the World War II. The success of U boats in general and Torpedoes in particular, in changing the contours of the War, perhaps brought about a rethinking on Torpedo training. During the war, it was decided to set up a dedicated Torpedo School for the Royal Indian Navy to augment the war efforts and Commander MFB Ward, Royal Navy was tasked with establishing a torpedo training school in the shallow waters of the west coast of India. After much deliberations at Kochi and Bombay, Cdr Ward settled for a tiny island off the mainland of Navanagar. The Maharaja of Navanagar, HH Shri Digvijay Singhji Jadeja, Saheb Bahadur readily parted with 30 acres of his game reserve located on Rozi Bet to pave way for the launch a permanent Torpedo School on 15 August 1942. Little was it known then, that five years hence, this very day shall mark a path-breaking event in the history of India. It is this tryst with destiny that Valsura shares with this great country, that has enabled it to overcome many natural and man-made disasters and stand tall in the service of the Nation. The

school was commissioned on 15 December 1942, within five months, a feat unparalleled even today.

It is interesting to note that Admiral



Nelson fought the Battle of Trafalgar without electricity. When it was introduced onboard RN ships primarily for mines, the maintenance, was then carried out by the Torpedo Branch in the form of 'wiremen'. However, by World War I, the Royal Navy had electricity and subsequently based on the need, the Electrical Branch was carved



out in the Royal Navy and Valsura became an Electrical School in 1946. Soon after independence, the HMIS was dropped and the establishment was renamed INS Valsura. This transformation into a multi dimensional training unit would not have been possible without the support and patronising of the Jam Saheb, who donated another 550 acres in the early fifties.

The infrastructure development in Valsura has always been systematic and well organised. While the training schools, accommodation and the other infrastructure were added in the next four decades, the expansion was logical and under the ambit of a broader plan. The entire landscape with two main parallel roads with perpendicular arteries, clearly demarcated areas for training, administration, in-living, married accommodation and sports facilities is so well planned that it is difficult to believe that this is the oldest, yet most organised base of the Indian Navy. The location of Valsura House, between the Officers' married and in-living quarters, is itself a master stroke.

As the establishment found its footing, more responsibility was entrusted upon the staff in the form of imparting training to all Officers and Sailors of the Indian Navy, Coast Guard and Friendly Foreign Countries in the domains of Electrical, Electronics and Weapon systems in the Service. Subsequently, Information Technology was added to the charter of its ever-expanding training curriculum. Today, Valsura conducts more than 100 courses for Officers and 60 courses for Sailors with an annual throughput of 1200 Officers and 3000 Sailors, a quantum jump from the humble beginning made more than seven decades ago. Valsura now has five schools with the latest training infrastructure for Virtual, Smart and Model class rooms integrated with the National Knowledge Network. Setting up of modern Labs that kept pace with technology inducted, introduction of new processes in Training and automation of Feedback systems have all ensured that Valsura stays ahead of its times. The award of ISO 9000 certification in 1998 for its training process is adequate proof of the establishment's dedication and commitment to the state-of-art training systems.

Valsura has always been the vanguard for training International students. By introducing tailor-made courses, setting up commensurate infrastructure and assuring quality training, Valsura has been successful in attracting trainees from 23 countries. An International Alumni Portal for all the training units of the Indian Navy aimed at fostering diplomatic relationship with the foreign trainee has been created.

Valsura in the last two decades, has borne the brunt of enormous calamities. Be it the devastating cyclone of 1998 that lashed the coast of Saurashtra, a severe two-year drought that partially shifted the training activities out of Valsura and the deadly



earthquake of 2001 that shook the region, the establishment, each time has recuperated to its pristine state and literally risen from the ashes like a proverbial phoenix. In each of these instances, the Valsurians put their comfort behind and lent a helping hand to not only make good the damages to the



establishment, but also assist every needy in the region with commendable success. The restoration of the earthquake ravaged Moda village with an all hands-on deck approach was yet another feather in the cap of Valsura. The immeasurable love and affection of the distraught villagers which was topped off by the Special Unit Citation awarded to the unit in 2001 for these efforts is a moment of unparalleled recognition.

Notwithstanding the limitations of the semi arid climate, the unit has assiduously pursued the Navy's Energy Conservation roadmap towards promotion of clean and green energy technologies and ecologically enriching environment through multifarious initiatives. Valsura is also home to more than

200 species of birds. A book titled Birds of Valsura with both photographic and textual credits of Cdr SC Das, chronicles each of these wonderful species for both reference and posterity. Use of solar energy generation systems, wind mills and energy efficient LED lighting throughout the base has only added to the conducive environment. It was therefore, not surprising that the establishment won the inaugural CNS Rolling Trophy for the Best Green Practices in 2015.

Valsura is an emerging SMART Military station. Use of advanced e-Learning Systems, high speed internet, e-Citizen services, Energy, Water and Waste management initiatives, GIS mapped utilities and use of eco-friendly internal transport have placed the unit in a favourable position to exhibit absolute compliance to the stringent smart city norms. With ongoing projects like construction of an Integrated Shopping Complex, 50m Swimming Pool, provisioning of Piped Natural Gas services, state-of-the-art Sewage Management System and setting up of Solar Energy farms will add fillip to these efforts.

Notwithstanding the infrastructure, the Valsurians contribute to the enviable quality of life. Creation of an Amiya Baug of 1100 Kesar Mango trees through a mass plantation drive, upkeep of the establishment through strict adherence to the Swachh Bharat Abhiyaan, conception of an out-of-the-mill community centric event Valsura Idol, Kite Flying and Star Gazing events as well as other contributive community initiatives enable not only the establishment, but also its residents to shine as an exemplary beacon of communal harmony and goodwill.

Towards conquering new summits, setting better and higher benchmarks for the establishment and the Service, Valsura



has been completely committed to excel. As a recognition of these untiring efforts, the establishment was felicitated with the Unit Citation in 2015. This not only provided a gargantuan boost to the morale

of the Valsurians, but also enabled them to rededicate themselves, to pushing the envelope to further limits.

As the humble Royal Navy unit transformed into a training institution for the Indian Navy, her motto too was amended to taken from the Katha Upanishad Second Chapter to roughly translate as “The Light That Emanates From Here Illuminates All”. True to what INS Valsura is committed to today, to illuminate the Navy with the radiance of impeccable knowledge and technical prowess through the people who pass through its portals.

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VALSURA WHERE THE SPARKS GENERATE

Commander Rajinder Dutta (Retired)



“What’s a Pilot doing in Valsura?” was the most oft query thrown to me by visiting Admirals, during official functions in the alma mater of ‘Sparks’. I was appointed First-Lt of this establishment from 1999-2003, after

I was medically grounded. My trepidation evaporated in thin air, on reporting to and interacting with CO, Commodore (later RAdm) TS Ganesan.

A few days later an Enterprise boat got grounded, out of sight of safety officer at the sailing club in receding tide during dusk hours. The motorboat that sped to its rescue met the same fate. Let me clarify: during Low tide the water recedes 3-4 km. yonder and the Sailing Club pops up like a lone building staring at marshy desert. When darkness fell, the establishment was alerted and SAR requisitioned from Air



Force Station, Jamnagar. The CO and ExO ascended atop the COMCEN with Motorola sets/GU-734 to communicate with the airborne Helicopter to direct it to the site. The stranded crew were winched up and brought to the Parade Ground. A relief party with emergency kit was winched down in the boats to return with flood tide at daybreak. Amongst the stranded crew one was destined to create history 13 years later by being the first Indian to circumnavigate the globe solo non-stop. Well you got it right; he was SLt Abhilash Tomy, undergoing his Subs courses those days. This event resulted in me being appointed OIC Sailing Club.

Gujarat also suffered extensive damage during the devastating Earthquake on 26th Jan 2001. Valsura too had suffered wall collapses and tragic demise of a school child. Despite its own agony, Valsura on behalf of Navy rendered immediate relief and assistance to the Saurashtra region. Village Moda near Jamnagar with a population of about 1700 had suffered extensive damage. The Navy and NWWA launched a unique rehabilitation programme “Nai Roshni” to rebuild Moda into a model village with 123 houses. This project was the first of its kind by the Navy. The Centre of Science for Villages (CSV), Wardha an NGO built the houses for the village. Commodore TS Ganesan, Commanding Officer, Cdr Satish, LOGO and Lt Cdr Mohan Lal played pivotal role in the construction phase that was rendered in seven months and the ‘NAVY-MODA’ village, a shining feather in Valsura’s cap, was inaugurated by the Governor of Gujarat on 28th Aug 2001.

Before handing over the baton to his successor Commodore (later VAdm) NN Kumar, Commodore Ganesan got another Valsura Wonder constructed - a Clock

Tower that poses tall on the starboard-wing overlooking the Parade Ground.

No sooner than Commodore NN Kumar had taken over the reins of Valsura, he beckoned me, “Dutta, I want you to undertake a task that Valsura has never executed before”. My unpretentious heart skipped a beat, even as I tried to keep my smile pasted on my lips. He



continued, “I want you to conduct a Whaler Sailing expedition around Saurashtra, from Valsura to Bhavnagar, as part of Diamond Jubilee: Duration 10 days. Show me your plan tomorrow”. Wow, I thought, since I love challenges and had conducted two whalers sailing expeditions of 430 nm a few years ago, in Narmada River for Gujarat Directorate NCC. “WILCO, Sir” I saluted and exited. Next day the plan was put up with a chart depicting overnight halts, sailing legs and computations in Time and Space. The expedition was planned encompassing Saurashtra over nine legs covering 780 nm touching Vadinar, Dwarka, Harshad, Mangrol, Veraval, Diu, Pipavav, Gopinath Mahadev to culminate at Bhavnagar port. Expeditiously I identified and selected my sailing team comprising Lt Raturi, three Sub Lts and 20 sailors. Training in sailing and pulling began in full earnest for the next one month. I undertook a pre-sailing recce along the coast in my own car, in company



of my better half and two brats. The Recce was accomplished in four days, meeting and tying up with the local administrators. The Ops Swan motorboat was tied up as the emergency safety vessel. The expedition was eventually flagged off by our CO on the morning of 11th Nov 2002 from Valsura Sailing Club on its first leg to CGS Vadinar. The bus with the ground party and standby crew followed by road. Each member was programmed for at least three legs of the expedition.

Two events happened that defined our expedition and can never be erased from crew memory. When we were transiting from Mangrol harbour to the Govt Guest House, after having secured our boat, we saw a traffic jam. I along with some crew went ahead and witnessed a ghastly site. A young man was lying on the road with blood oozing out from his forehead and appeared semi-conscious. The onlookers were just staring at the chaos. It was a case of hit and run. Expeditiously we picked up the man and took him to the Govt. Hospital. In the evening we looked him up. His parents profusely thanked us with moist eyes, even as the event was mentioned in next day's local daily.

At Diu the crew had an additional day's halt for rest and recuperation. The team also witnessed the shoot of Hindi movie 'Qayamat' at Diu Fort. Lt Raturi was the planned coxswain from Diu to Pipavav. After casting of the Boat, we reached Pipavav port and tried contacting the whaler on the the communication set. No joy. The sea looked ferocious. After Intermittent garble we heaved a sigh on establishing contact. Three hours after its ETA, we saw the boat crippling in with Rudder missing, the Main sail down and being steered by the oars.

On receiving the boat, Lt Raturi showed us the damages to the boat hull. The Rudder had broken in two pieces as it got stuck in the Pipavav rocks, in adverse wind and tide. The crew had a harrowing time in retrieving the boat from the rocks in heavy swell at the cost of the Rudder. We congratulated the crew for the courage in getting the boat out to safety. The Rudder pieces were carried to a carpenter in town to join it in one piece with parallel iron strips secured with nuts and bolts. In the evening RAdm SK Das, CMD Pipavav had organized a wonderful camp-fire for the expedition team, where the crew narrated their experiences

The CO drove down for the closing ceremony at Bhavnagar, where the Naval Unit NCC cadets had organized a captivating cultural program. At Bhavnagar port the Boat was hauled up on to a truck and brought by road to Valsura. The expedition was hailed as an important event of the Diamond Jubilee celebrations of Valsura.

Wishing INS Valsura, the Premier training institution of our fine Indian Navy, a very Happy and prosperous Platinum Jubilee celebrations scheduled for 15 Dec 2017.

Jai Hind!! Shano Varuna!!

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Diamond Jubilee Parade - INS Valsura



A JOURNEY OF LIFE IN VALSURA

Commander Amrit Kaur (Retired)



There is something about a 'Spark', that so intrigues me...

The Flash, Energy and Brilliance, so unique to see

How it so resembles, to "The Sparks" of our Navy...

Bright, Talented, Motivated, always a motivation to me!!

"INS Valsura" has such a special place in my life, as in here I spent the most memorable and eventful years of my life. While I grew up in this beautiful Base (my Dad was the Gunnery Officer), I did my schooling and passed out from the 'oh-so-memorable!' KV. I continued to stay in Valsura while I was doing my engineering and behold, my journey and destiny in life brought me back to INS Valsura as a 'Lieutenant' on first appointment after I joined the Navy.

While the growing years revolved around the school, the years I served as a young 'Lieutenant' were indeed remarkable. 'Remarkable' because I witnessed an indomitable 'Valsuraian' spirit as we fought many a battles year after year against nature's fury. In the midst of such challenges,



one imbibes the true lessons of military life; of Camaraderie, Team work and fierce Will to Win.

The ferocious cyclone of 1998 greeted me within months of joining Valsura. I witnessed trees uprooted, residences-offices-schools directly witnessing blue and black sky, everything that stood either 'flew or fell'. The Base looked ravaged. But it was that indomitable spirit of Valsurians to overlook any self-comfort and go out and help all those who needed help. The trees were lifted, blockages were cleared, falls were resurrected and confidence was restored. The first lesson in my military life; as a leader, you have to reach out, lead by example, work with your own hands and inspire people, because only then you overcome the challenges ahead.

As we restored sanctity and normalcy, the second challenge came hunting. Water refused to flow to Valsura, the taps went dry as the draught set-in. This havoc followed in the subsequent years with the draught of the century. The flora and fauna perished or vanished. I remember every day, there was this human chain in the Barracks, Blocks and Residences, to fetch water from the



Tankers and the Bowsers to the rooms. As the Check-dams were made, Water sumps were created, hand pumps were drilled; every single Valsurian stood up and contributed through Shramdaan adopting to the Water-less regime. Second lesson in my military life; Join Hands and 'Power' becomes the 'Punch'. We literally punched our way to nature's dare of two consecutive draughts.

The next year brought in the biggest challenge of many lives. We stood on the Parade Ground that morning of 26th January of 2001. The XO had just announced "Guard Le Jao". Within minutes, the entire earth shattered, the imposing Mast on the Parade Ground swayed, the sound of fury of earthquake rattled all around. We thought our adversary has attacked us, only to realize that yes while it was indeed an attack but from the Mother Nature. I was the OOD that day and during all the chaos, I realized that Buildings, Schools, Barracks, Wardroom, Quarters all had got severely damaged. All the walls that stood either 'Cracked or Fell'.

While the Officers and Sailors rallied to restore the Schools, Administrative blocks, Work places and Barracks, the families rose to the occasion and handled the devastation of the residences. 'Hats off' to the Valsurian spirit; during winters, the families stayed in tents for days after the earthquake, withstanding the After-shocks, and yet comforting the kids. An exemplary courage on display indeed. True to the spirit of Military life, Valsura out-reached to the hundreds and thousands of civilians within days of the earthquake, also contributing money to buy Blankets and essential clothing for villagers.

In the biggest service to the disturbed balance of the Saurashtra region, Valsura also adopted a communally sensitive village "Moda" and restored it to a model village in the region. Lesson three; "Dar ke aage Jeet hai".

Such is the aura of the place that as I pen down my times, every minute of that time is emerging in front of my eyes. Such is the bonding of the people their mere memories are causing moist eyes. Such is the soul and spirit of Valsura that adrenalin flows with pride to have grown and served there.

An amazing experience, a very proud memory and an eventful personal journey sums up my life in Valsura.

There's something about the 'Spark', that so inspires me...

Wishing Years-Decades and Centuries of Glory,

as "The Spark" always deserves thee!!



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THE VAL-GUDI DAYS

Commander Vikesh Jain (Retired)

Happy we arrived,
Welcomed with a Smile.
First week in the mess,
VIP room that was the best.
Old Valsura tradition as they Say,
The good old Val-Gudi days.

Super New Area house we got allotted,
Wild life in house, day 1 spotted.
Garden snakes and night owls;
Wild lawn and jackal howls,
Neighbours to help you always;
The beginning of the Val-Gudi days.

Instructor at LTS was appointed,
Classes from day 1 slotted.
DO duties in addition,
Always the Naval tradition.
Preparation of subject lessons,
and then the teaching sessions.
Morning run and afternoon nap,
Evening walk and night coffee cup.
Liaison officer to late night parties,
Parade Commander to OOD duties.
Weeks and months passed that way;
The daily routine of the Val-Gudi days.

Then hit the Cyclone in Jun 1998,
That was probably in our fate.
Gusting winds all over the town,
Turned the whole base upside down.
Roof tops blown and trees uprooted,
With complete base damaged, life got shattered.
Only thing we could do was to pray,
The worst of those good Val-Gudi days.

No water and electricity for a week,
Being so remote no help we could seek.
God helps those who help themselves,
So we all had to restore the base ourselves.
Shramdhan for weeks continued,
Hand in hand we all stood.
It was the test of the time,
Within a month everything got fine.
Three cheers and Hip Hip Hurray;
A new chapter of good Val-Gudi days.

Continued later as SO(T) and Trg
Coordinator,
Duties changed from DO to UT Course
officer.
Morning PT to mustering them for a party,
Divisions to classes was a big duty.
Having them by surprise for dinner and
drinks,
Enjoyed every bit of their pranks.
Always reminded me of my UT days,
The good old Val-Gudi days.

Friendship does not have any boundaries,
Indian to foreign under trainees.
Made good friends over these 3 years,
Whether it be juniors or seniors.
The bonding and friendship still continues,
That is the essence of Naval values.
Enjoyed every moment of our stay,
May Valsura blossom in every way.
Success and prosperity is what we pray,
May others now enjoy the Val-Gudi days.

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ADIEU BELOVED ‘JUMP-JET’

Admiral Arun Prakash (Retired)



The First and the Last COs of INAS 300

On 11th May 2016, then CNS, Admiral Robin Dhowan presided over a brief ceremony at NAS Dabolim, in which INAS 300 bid adieu to the Sea Harrier and inducted the MiG-29K. As a prelude, a pair each of Sea Harriers and MiG-29Ks undertook a brief but impressive flying display. After both sections taxied-in, a ceremonial change of command took place; with Commander Shikku Raj passing the baton to Captain KHV Singh. The two dashing young men symbolized not just a change of guard but also a technological transition; the third generation VSTOL

‘jump jet’ giving way to a fourth-generation supersonic air-superiority, multi-role fighter.

As I watched the poignant ceremony in progress, a similar scene flashed across my mind’s eye. Thirty-three years ago, on 16th December 1983, INAS 300 had undertaken its first ‘technology-jump’ when a formation of three Sea Harriers, flew in from the UK; to be met, overhead Dabolim, by the Navy’s sole surviving Sea Hawk. On the ground, we were greeted by the CNS, Admiral Dawson, Vice Chief, Vice Admiral Tahiliani and FONA, Rear Admiral Chopra.

Amongst the audience on 11th May, there were many who had been in RNAS Yeovilton, where INAS 300 had re-equipped with and trained on the Sea Harrier in 1982. Of these, two were of more significance than the others. There was Lieutenant Robin Dhowan, the Squadron’s first Direction Officer, who had risen to become CNS. There was also, young Shikku Raj, a seven-year-old schoolboy, living with his father, Lieutenant Commander Pillai, in Yeovil village. Having achieved his life’s ambition of becoming a carrier-pilot, he had led the squadron with distinction; going down in history as the last Sea Harrier CO of INAS 300. And, of course, there was the coincidence that I and Commander Shikku Raj – the first and the last COs – should both be present at this significant moment in Dabolim.



In the late 1970s, when our elegant, first-generation Sea Hawk fighter grew old and weary, a search was mounted for a suitable replacement. Since the only suitable fighters (A-4 Skyhawk, F-8 Crusader and the Etendard) were either unaffordable or



unavailable, the future of naval aviation, and of our sole carrier INS Vikrant, began to look bleak. Coincidentally, the Royal Navy (RN) was in a similar plight; having lost its aircraft-carriers and surrendered its aircraft to the Royal Air Force (RAF). It was the Harrier which miraculously came to the rescue of Britain's as well as our own naval air arms.

Cold War psychosis had led the RAF to believe that runways in Central Europe would be rapidly destroyed by early Warsaw Pact strikes, and it keenly sought a fighter which had the attributes of a helicopter and could operate from jungle hide-outs. Using the revolutionary Pegasus engine, with its four swivelling exhaust nozzles, the Hawker Aircraft Company produced the Kestrel, which showed that vertical/short take-off and landing (V/STOL) operations were a practical proposition for a jet fighter. By the early 1970s, the experimental Kestrel mutated into the Harrier ground-attack fighter, acquired by the RAF and US Marine Corps. Eventually this machine became the radar equipped Sea Harrier Fighter Reconnaissance Strike Mk. 1 version for the RN.

The Indian Navy (IN) lost no time in placing an order for the Sea Harrier; initially for eight aircraft, followed by two more batches of 12 and eight; bringing the total to 28, including four trainers. Both Vikrant and our naval aviation had earned a reprieve.

In early-1982 an IN team of pilots and maintenance personnel belonging to INAS 300 ('White Tigers') arrived in the UK to commence training. As the Squadron Commander, designate, I vividly remember my first day in the RAF Harrier Conversion Unit. Addressing a mixed audience of

British, Spanish and Indian student-pilots the instructor gave us this, somewhat crude, but authentic advice: "Gentlemen, only astronauts and Harrier pilots fly on jet-thrust. But never forget, that the cold, clammy hand of the Harrier, forever, rests between your legs. A single mistake and you'll go - Ouch!" We were, soon, to learn the reason for these earthy, words of warning.

Conventional aircraft fly on the aerodynamic 'lift' generated by the airflow over the wings. This lift also enables the pilot to control the aircraft. The Harrier's wings, on the other hand, as it slows down for a vertical-landing, rapidly lose lift; and below about 100 knots, it is about as flyable as a brick. The aircraft is, now, airborne, only on jet-thrust and its fuel-guzzling engine is running at full power; at very high exhaust temperatures. In this 'jet-borne' state, even small mistakes by the pilot could lead to disaster.

However, once we mastered the Harrier's versatile 'vectored thrust', it was easy to become a fan of the amazing 'Jump Jet'. You could take-off and land at any speed from zero to 160 knots. There were five modes of landing and four of take-off. Best of all; while others 'landed and then stopped', Harrier pilots had the luxury of first stopping (hovering) and then landing!

By February 1983 the IN detachment commenced functioning at RNAS Yeovilton. Our technical personnel, who had been attached to various UK factories, began to converge on Yeovilton. A training unit was formed, to conduct operational flying and maintenance training, with a core of British instructors; both pilots and engineers.



The 'White Tigers' spent 1983 in taking delivery and re-equipping the squadron with new Sea Harriers at the RN Air Station, Yeovilton. While the pilots learnt to exploit the Sea Harrier's weapons and sensors, our technicians gained experience in maintaining and repairing the complex machine. By mid-December 1983, we were ready to ferry the first batch of three Sea Harriers from Yeovilton to INS Hansa in Goa. Our 5400-mile ferry flight, across the Mediterranean and Arabian Seas took three days, and we were delighted to be welcomed home, on 16th December, by a Sea Hawk.

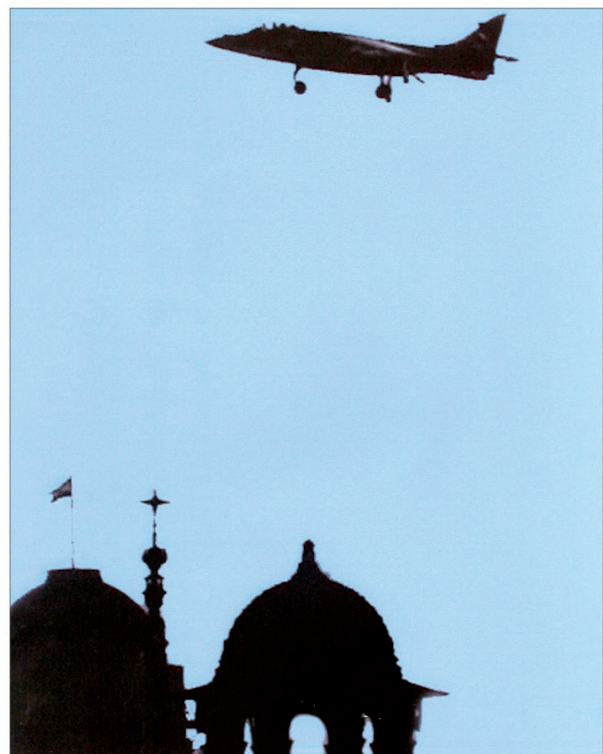
Five days later, when we landed on INS Vikrant two unpleasant surprises awaited us. Firstly; since the ship was not (yet) equipped with a ski-jump, we would exit from the deck at just 40 feet above the sea and a pitching deck could make the launch very exciting. Secondly; high ambient temperatures, in our tropical operating conditions, led to loss of engine thrust, which meant that one had to return to the ship with less fuel – and therefore land very, quickly after a brief hover. The subsequent installation of a ski-jump on Vikrant made life much easier.

Minor teething problems apart, induction of the Sea Harrier brought with it, not just a significant enhancement of defensive and offensive capabilities but also a quantum jump in technology for the IN. Its advanced avionics, navigation and weapon aiming computers and complex engine were all representative of 3rd generation state-of-the art.

At that juncture, the main threat to our carrier task-force emanated from Pakistan Navy's P-3 Orions and Atlantiques, as well as PAF

Mirage fighters; all armed with anti-ship missiles. Our air-defences being limited, the Fleets had to be deployed with due caution. The Sea Harrier, with its multi-mode Blue Fox radar and a weapon suite that included air-air and anti-ship guided missiles, enhanced the self-confidence of our men at sea and expanded the Fleet Commanders' options.

An event that demonstrated the Sea Harrier's unique capabilities deserves mention here. In 1985, eager to show off the Navy's new acquisition, NHQ mooted Sea Harrier participation in the Republic Day fly-past. Considered an IAF preserve, the MoD refused to permit us entry into this event, but eventually allowed a brief display before the Beating Retreat ceremony. On 29th January, a Vic of three Sea Harriers made



During the 'Beating Retreat' ceremony in New Delhi 29 January 1984, an enthralled audience saw a sea harrier flown by Cdr (later Admiral) Arun Prakash fly slowly into Vijay Chowk, stop in hover, turn to face the President of India, dip the aircraft's nose in salute, turn away and take off skywards.



a high-speed pass down Raj Path, and after executing a 'bomb-burst' over Vijay Chowk, the Leader looped back to hover in front of the President, PM and other assembled dignitaries.

Defying the grim predictions of their British mentors, personnel of INAS 300 showed extraordinary maintenance and flying skills in sustaining safe and efficient carrier-borne Sea Harrier operations for over three decades. In early 2016, a decision was taken to withdraw the remaining eight Sea Harriers from service. By now INAS 303, the new MiG-29K squadron was already serving on board INS Vikramaditya. To many, it seemed that the withdrawal of the Sea Harrier would also mean the end of the road for INAS 300; the fabled White Tigers of Bangladesh fame. However, NHQ, in their wisdom decided

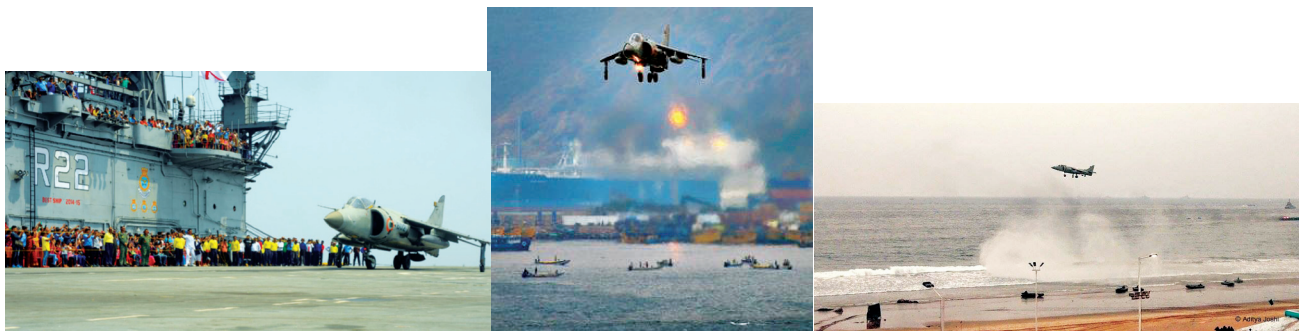
otherwise; the squadron would remain in commission and be re-equipped for a second time with the MiG-29K.

The unique 'Jump Jet', no doubt, made an extraordinary contribution to our maritime capability for 33 years. But even the most proud and misty-eyed old White Tiger would acknowledge that the MiG-29K was a generation ahead in performance. Operating from a big-deck carrier like Vikramaditya or Vikrant, the new INAS 300 will enable the IN to look every other navy - and many air forces - squarely in the eye.

Even as the old order changeth, INAS 300 liveth on. Adieu beloved Jump Jet..... welcome MiG-29K.

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Glimpses of Sea Harrier Operations



Final flight of Sea Harrier in company with MiG 29K





END OF AN ERA

Commander Shikku Raj



Neil Armstrong, the legendary American astronaut and first person to walk on the moon, was once asked at a press conference, to describe the most satisfying and memorable achievement of his illustrious career. Most expected him to talk about his historic landing on the moon in the Apollo 11 Lunar Module, but much to everyone's surprise, he described his first dark-night deck-landing on a rolling and pitching aircraft carrier as the most challenging and even more gratifying achievement ever.

Naval Aviation has always been a realm inhabited by legends and the life of a Naval Aviator has been much publicized through popular media. This glamorous but demanding profession is one which requires true grit and steadfast focus along with a healthy mix of caution and controlled aggression. Very few on the planet can stake claim to an Aviator's life and even fewer to that of a Naval Aviator - one encompassing all three dimensions of Land, Sea and Air. In these rarified environs exist heroic men and magnificent machines. On 11 May 2016, one such machine, an epitome of all that naval aviation stands for, flew for the very last time.

The Sea Harrier was, for the last three decades, the razor-sharp edge of the Indian Naval Fighting Sword. The aircraft ushered in the era of modern carrier borne fighter aviation into the Indian Navy when they



replaced the pioneering, valiant and venerable Sea Hawks. India was introduced to the world of Vertical Short Take Off and Landing (VSTOL) fighters in December 1983 and thousands upon thousands since have been bewitched by the uncanny abilities of this versatile jump jet.

The aircraft entered Indian Naval service fresh from a highly successful Falklands campaign where its exploits in aerial combat had already become legendary. The Sea Harriers had claimed 20 kills against the Argentinian Air Force losing only two aircraft in combat to anti-aircraft ground fire. They were inducted to play the role of fleet air defence fighters and created a new facet to naval air operations that had, till then, only been restricted to strike role by the Sea Hawks. The battle-hardened jets quickly ensured an impenetrable protective umbrella for the Carrier Battle Group and reigned supreme as the alpha male in the Indian Ocean region for a long time. Over a period of nine years extending from 1983 to 1992, the Indian Navy inducted 23 Sea Harrier FRS 51 fighters and four Harrier T-60 trainer aircraft. Two trainers were lost to crashes in the 1990s and therefore two more refurbished trainers, the Harrier TMK 41 were put in to service in 2002. While the T-60s had similar weapon carrying capability as the FRS 51, these T-4 were not equipped for any armament role. In the late nineties,



the Navy decided to replace the existing Blue Fox radar with a more advanced radar and induct a more potent missile with greater range. The search for the most likely replacements was time consuming since size and weight would have serious implications on aircraft performance given the nature of VSTOL operations in tropical temperatures. The ageing avionics and weapon fit finally underwent an upgrade in 2007 with HAL taking on this key programme. The Limited Upgrade Sea Harrier, LUSH in short, was now better prepared and more equipped to handle modern day threats. Although there was no upgrade to the power-plant or airframe, the new ELTA radar and Beyond Visual Range (BVR) Derby missile proved to be game changers. The aircraft were also fitted with an advanced Combat Manoeuvre Monitor and Flight Recorder (CMMFR) that dramatically enhanced mission planning capabilities while providing a much required and capable data link system. Although old in the tooth by now, these aircraft were once again back on top of the food chain as the fiercely territorial guardians of the Indian Naval Fleet. The jump jets took part in numerous inter service as well as multinational exercises where they were pitted against the best modern fighters in the world. Whether it was the MiG 29, Mirage 2000 and Sukhoi 30 of the IAF or the US Navy's F-18s, the Royal Navy's GR 9s and the French Rafales, the indomitable Sea Harriers always proved to be a worthy adversary, best to be taken seriously.

INAS 300, the 'White Tigers' had a glorious 33 years' operating the Sea Harriers, years replete with superlative achievements and amazing feats. The squadron held its own against far more advanced 5th generation fighters every time they sparred, and not only earned the grudging respect of modern navies the world over but also the admiration of our very own Indian Air Force. This magnificent aircraft had been a fighting force

to reckon with till the very end and history will always sing its praise.

The Sea Harrier has been many things to many different people, but to the men who have maintained or flown her and to the women married to such men, the aircraft meant much more. The wily jet never did like playing the role of second fiddle and was always the first love of its maintainers and pilots alike. The aircraft demanded unwavering focus and dedication from everyone even remotely involved and had scant regard for age or experience. Everything else paled in comparison to this challenging and unforgiving yet satisfying machine and every other task became easy. Only a select few have had the good fortune of being part of this elite family, one that has shared many a pain as also celebrated numerous joyful moments.

Although the era of VSTOL fighter operations in the Indian Navy came to an end with the Sea Harriers bowing out gracefully, a new, more advanced, more capable warrior has taken its place. These formidable planes have ushered the Indian Navy into the age of Supersonic STOBAR operations. The MiG 29K is a more than worthy replacement for the Sea harrier. A state-of-the-art modern fighting marvel, the aircraft packs an immensely lethal punch in every aspect of modern aerial combat including Air Dominance and a very credible Strike potential. Equipped with these true swing role fighters, the White Tigers have gained not just sharper teeth and claws but also greater reach. The Carrier Battle Group has once again become a potent strike element with far reaching areas of influence whilst still being able to ensure a much superior Air Defence umbrella. These supersonic White Tigers have very large boots to fill but given the rich and experienced legacy, they will surely carry the Indian Navy far into the glorious future of Blue Water aspirations.

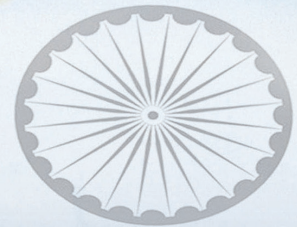
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INS VIKRANT MEMORIAL

Commodore M Bhada (Retired)



The Vikrant Memorial, located on K Dubash Marg, opposite the Lion Gate, was unveiled by Vice Admiral SPS Cheema, then Flag Officer Commanding-in-Chief, Western Naval Command at 1800 hrs on 25th Jan 2016. This project was steered by the Vikrant Memorial Forum whose members are Admiral Arun Prakash (Retired) Vice Admiral MP Awati (Retired), Vice Admiral IC Rao (Retired) and Commodore M Bhada (Retired), Convenor.

INS Vikrant was commissioned into the Indian Navy in 1961 and decommissioned in 1997. During the intervening period, she was actively involved in projecting India's Sea Power and her carrier borne Air Power in the region and the neighbouring littoral states. She participated in the 1971 Operations in the Bay of Bengal and played a sterling role in the early success of the War and the creation of a new Nation. It was owing to her presence in the Bay of Bengal that the Country's promulgation of contraband control was effectively enforced using her air power.

In spite of the concerted efforts by the Indian Navy, the State Govt and the Central Govt, for a period of 17 years, to preserve her as a Museum, she could not be retained and finally had to be sent to the scrapyard in 2014. The Plaque on the Memorial reads as follows:-

This memorial is a living testimony of deep gratitude to a majestic Ship, which charted a glorious innings in the service of our nation, from those to whom her deck was a haven of warmth and safety. Those who took forward her immeasurable legacy as pioneers of Indian Navy's embarked aviation cadres. She played a vital role in the early victory of the 1971 War, representing India's multi-dimensional Sea Power. We, her shipmates, offer this little monument to the iconic Aircraft Carrier, Indian Naval Ship VIKRANT, fabricated from her recovered memorabilia, as an offering of our everlasting tribute.

The Vikrant Memorial Forum and the Mumbai Citizens Group is deeply indebted to Mazagon Docks Limited



for their prompt sponsorship and assistance in setting up this Memorial. We acknowledge the unstinted support of the Western Naval Command without whose continuous involvement this Memorial would not have been possible to create and sustain thereof. We thank the Municipal Corporation of Greater Mumbai for providing a most appropriate venue and facilitating setting up and the installation of the Memorial.

This project was conceived and steered by the author, a former pilot of INS Vikrant who donated parts of the mighty Vikrant for this monument which has been designed and crafted by Mr Arzan Khambatta, a sculptor known to bring life to metal, who has maintained the pristine condition of the parts whilst projecting Vikrant's Air Power.

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LIFETIME ACHIEVEMENT AWARD

Captain Raj Mohindra (Retired)

Capt Raj Mohindra, IN (Retd) was awarded 'Lifetime Achievement in Education Leadership Award' by the Education World, Bangaluru at a ceremony held at Delhi recently. Capt Mohindra is an alumnus of the Joint Services Wing (3rd Course), National Defence Academy, Dehradun. He was commissioned in the Indian Navy on 1st September, 1954.

An extract from the Citation is given below:

"For his extraordinary contribution to the growth and development of primary and secondary education, particularly for enabling the entry of globally benchmarked International Educational institutions in India and for his tireless advocacy of private entrepreneurs to establish and administer educational institutions of their choice, the Board of Directors and Editors of Education World are privileged to present Capt Raj Mohindra the EW Lifetime Achievement in Education Leadership Award 2016 and induct him into the EW Hall of Fame of Indian Education."



educon@rmc.net.in

Capt Mohindra being awarded the 'Lifetime Achievement in Education Leadership Award 2016'



KARWAR REVISITED

Commander Sati Taneja (Retired)



INS Kadamba with the Parade Ground in the Background

The 7th Course JSW/16th course IMA is arguably the only NDA course that has a reunion every year. This is thanks to the core group led by Maj Gen RP Chadha ably assisted by Brig BM Kapoor till now, and others. They select the venue, generally make an advance trip to the location, sort out accommodation, programme, reception and other administrative details in conjunction with the local authority. The system has worked well and we have had some memorable reunions over the years. Some that I fondly recall are the Golden Jubilee reunion at the NDA in 2003, the one at Bombay in 2006, at INS Shivaji in 2010, Vadodara 2013. The list goes on as do the many fond memories. The last reunion which marked the Diamond Jubilee of our passing out from the JSW, Dehra Dun in December 1953 was at the Naval Base at Karwar in December 2015.

Memories of Karwar go back to the years when I was a midshipman on INS Delhi in 1955. The Fleet in those days used to sail out for what was known as the summer

cruise. There was also a winter cruise and individual sorties of ships in between. In those days Karwar was a favourite anchorage where the fleet exercised general drills and other harbour activities. Lt Cdr. Awati (later Vice Admiral) was our Training Officer and a great one for sailing and pulling (rowing, invariably in whalers, for the lay person). He was a hard but fair taskmaster but a session under him left us totally exhausted. And we were very fit in those days. Ladies beach was another place where we used to land for a swim.

Our Course core group had gone to Karwar on 14th Dec, a day before the rest of us, numbering 45 including ladies, fetched up late at night due to delayed flights. Some travelling by train arrived even later. A tired but happy lot met up with course-mates over drinks with the usual banter that school kids might indulge in. After a midnight dinner, we dispersed to our cabins. The following day saw most of us up bright and early. Some walked on the glorious beach just opposite the Naval Officers' Institute where our group was staying. Some had been accommodated in a hotel in town, whilst Admiral Shekhawat and Lt Gen Zaki were in VIP suites in the Naval Mess a few kilometers away.

The programme for the day started with a warm welcome by Rear Admiral RJ Nadkarni, Flag Officer Commanding Karnataka Naval Area, followed by a presentation on the Base and high tea. Thereafter, we were taken on a windshield tour of the establishment. We were impressed by the cleanliness, the greenery and the expanse of the huge establishment. We returned to the Institute



for some beer and lunch followed by a well-earned rest. That evening we had our Anniversary Dinner – a sit-down banquet affair.

A few words about Kadamba would be in order. INS Kadamba was commissioned in May 2005 after years of work on what was called 'Project Seabird'. It is spread over an area of 25kms of pristine coast. Phase 2 expansion includes a Naval Air Station with two runways of 3000 and 6000ft. Under this phase, further expansion will include an Armament Depot, Dockyard complex, missile silos etc. and become the largest naval base east of Suez by 2022.

Returning to our programme, we were taken to the city on the 16th where we first went to a jewellery shop which was a great hit with some, women mainly, but also one of our course-mates who outdid every one by buying the most. Thereafter, we visited a small aquarium and walked through a missile boat, INS Chapal, hoisted on blocks near the aquarium. This was a great draw, not just for civilians but also our Army and Air Force friends, and ladies who bravely went up and down narrow and steep ladders with commendable enthusiasm. A stop at some shops in town saw some frantic buying of local produce especially cashew nuts.

Others quenched their thirst with coconut water, available freely in this coastal town. Some preferred to wait till we got back to the Institute and quenched their thirst with beer.

Early evening saw us board a water boat beautifully decked out to receive us. We were welcomed with a soft drink and presented caps and then settled down for a delightful cruise of the harbour where we saw from seaward the areas we had been around earlier. What impressed us most was the clear water quite unlike Bombay harbour. This reminded me of a cruise in London a few years ago on the Thames from the Embankment Pier to Greenwich. The Guide proudly announced that we could drink the water of the river and promptly drank a glass of Thames water to prove his point. I recall the Thames of earlier years and this feat was indeed remarkable. One wondered why we cannot replicate this in our filthy rivers. One hopes the Clean Ganga Project achieves something like what the Brits have managed to do.



The Harbour cruise

This was our last evening and we were hosted by the Base to a fine meal at the Naval Mess. We were overwhelmed by our reception by the officers who went out of their way to make us feel welcome. This



was undoubtedly one of the finest of the many get-togethers we had, and we left with many of us determined to return to Karwar at some later date. We dispersed the next morning. Some of us spent the next day at INS Hansa. We were disappointed at not being able to see the Vikramaditya because she was disembarking her squadron that day and Hansa was busy with this evolution. After a quiet morning we went for a trip to a couple of beaches and then ended the evening with a sumptuous dinner hosted by Gen Bobby Dutta at his floating restaurant FLOR DE MAR anchored off Panjim.

In retrospect we had a most enjoyable few days spent with friends whom we had known for over 60 years in the midst of beautiful surroundings. Thanks are due not only to our core group led by Raj Chadha but also to Rear Admiral Nadkarni and his staff who went out of their way to make us feel welcome. And lastly, all this would not have happened if it had not been for the intervention of Vice Admiral IC Rao who persisted and got the necessary approval for us to be in Karwar.

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A SEQUEL TO “IS IT THAT LONG AGO?”

Rear Admiral Subir Paul (Retired)

Promotion

It is 01 Jan 1952. After one year of strenuous cadetship, we are now Midshipmen. Our pay/pocket money jumps from 2s.6d. per diem to 12s. per diem and we are on top of the world. We change our London abode from Bernhard Baron Club to nearby Frobisher Court Hotel, which has better facilities, enjoy an Indian meal at either Veeraswamy's or Shafi's, the only two Indian restaurants in central London, go for a show (A Street Car Named Desire, or South Pacific) or queue up at Lyon's Corner House for self-help meals at about 5s. or so.

Most of us Mids(x) are posted to Home Fleet ships, except Karve and probably Ratra who are posted to fleet ships across the oceans. Mids of the technical branches proceed to their alma maters for professional courses at Mannadon and Collingwood. Unfortunately, three of our cadets could not quite make the grade and are withdrawn from service. Two

of them return home (DC Gupta and SB Lal) to start a new career whilst the third one, Mukherjee, stays behind, makes his way to Europe and I believe ties his future with a well-to-do Swiss lady and never looks back.

Vernon Francis Rebello travels to Portsmouth to find three ships berthed alongside - the aircraft-carriers, Indomitable and Implacable and the battleship Vanguard. Vernon marches up the gangway of the first carrier with his luggage, goes down below, changes into his resplendent Evening Mess Dress (Undress as it is strangely called) and appears in the gunroom. One of the senior Mids on board comes up to him and asks, Vernon, what are you doing here? This is Indomitable and I understand your appointment is to Implacable. Never at a loss for words, Vernon replies, Yes, I know. I came here to say hello to you all before I join my ship.



Self is appointed to the carrier Indefatigable and join ship at Weymouth. This ship does not fly aircraft and is a training ship for sailors. There are a few other Mids onboard and I try and find my way in this huge ship. During my stay on board, Indefatigable sails only once to Gibraltar and back. I am assigned the duty of running the liberty boats. One evening whilst approaching the jetty, I put the kitchen rudder tiller the wrong way and hit the jetty squarely. My misery is compounded with the snotties nurse Lt Cdr Prescott-Decie watching the incident from the jetty. No dressing down on the spot, no reprimand back on board but my shore leave is stopped for a week...

All in all, the time onboard is not very exciting. Not much organised training and we are expected to be mature enough to do private self-tuition, and hence, inevitably plenty of scope for "gup-shup".

History is Made

It is now Mar 1951. An order arrives transferring three Mids, Rebello, Velu and Paul back to India to join flagship INS Delhi for the introduction of Mids' training in India. We realise that Indian naval history is being made and we three are the forerunners and harbingers for participation in the introduction of this historical decision. We travel to Bombay (21 days of holiday cruise) on board Anchor Lines "Cilicia" and report on board INS Delhi, flying the flag of Rear Admiral Barnard, Flag Officer Commanding Indian Fleet. The ship is commanded by Captain SG Karmarkar. Our erstwhile INA London, BA Samson, is the Executive Officer and he welcomes us on board. We get white uniforms stitched at Rs.5 for a pair of shorts and shirt. Both tailors, Peter Fernandes and FX Fernandez are good and reliable.

The gunroom is at present also accommodating a dozen of first batch

Direct Entry Sub Lieutenants, a friendly lot, yet I suspect slightly in awe at the sudden appearance of three young sea veterans. We settle down quickly and are assigned such duties as boat running, Captain's Doggy, Commander's Assistant, NO's tanky, helping in chart and publication corrections, brushing up seamanship knowledge with the Ch.Bos'n and so on.

Summer Cruise

INS Delhi sets sail for Mombasa in early July together with attendant destroyers and frigates in typical monsoon weather - heavy grey clouds, almost continuous rain and poor visibility. Lt Cdr Atkinson, the FNO, poor chap, has only the ARL table to estimate the ship's position. After seven miserable days we sight land ahead. Great excitement onboard; the Captain is informed who in turn passes the news to the Admiral. After a leisurely breakfast the Admiral arrives on the bridge, looks ahead through his binoculars, walks up to the Captain (SGK, once sitting on his chair never gets up till it is time to go down) and exclaims—this is not Mombasa, this is Pemba (an island 40 miles south of Mombasa) - pin-drop silence on the bridge with embarrassed faces all around. The kind hearted Admiral eases the situation—it is good that we have one day in hand; we can spruce up the ships and enter harbour in grand style tomorrow. During this cruise, we also visit Dar-e-Salam, Zanzibar, Mogadishu and one or two more ports. At all the places, we receive tremendous welcome and goodwill from the local population as well as Indians settled there.

The annual joint exercises at Trincomalee involving a large number of ships of Commonwealth Navies takes place towards the end of the year. Apart from usual replenishment at sea, manoeuvres, NEX and the like, various sports activities and fair amount of social meets are also on the cards.



Incidentally, in the early fifties, Tricomalee offered many attractive items for shopping which at present are scarce in India.

The first ever Midshipmen's Seamanship Board held in India takes place in Feb 1952 with Captain RD Katari as President and Captains A Chakraverti and MK Heble as members. We three fare well with good results and thus this phase of our training is over.

Another three weeks of sea cruise-cum-holiday, this time on Anchor Lines' "Circassia" and we are back in Pommy's country. We are promoted to Acting Sub Lieutenant on 01 April 1952 and are to go to sea for further four months; Velu to Contest, Rebello to

Redpole and self to Starling - all Portsmouth based ships. Starling is attached to HMS Dryad for navigational sea training and during this tenure I pick up many useful tips on navigation and anchoring ship in pre-determined position. My Captain Lt Cdr Mules has a very likeable personality and I strike a good rapport with my cabin mate SLt Norton, a cheerful and good hearted soul. Enjoyable three months on board.

Now in end August 1952, we are ready to join Royal Naval College, Greenwich for a two- term general education course----sort of brush up our academic knowledge after over two years at sea.

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NAVY 36 - THE GOLDEN GET-TOGETHER

Mrs Nandini Guha



Over the last 16 years since I lost my husband, Commander Subroto Guha, I have received calls on and off, from many of his NDA course-mates. Sometimes, the calls come even from names I had heard of from Subroto, but never met. The calls have always been warm and full of nostalgia.

Last November, I was pleasantly surprised to hear from Commander Ajit Gupchup after many years. He had been going through old photographs which triggered memories and the compulsion to call. He later sent me the photographs on WhatsApp. What followed was an invitation, which really touched me. I not only felt honoured, but it reinforced my experience of being part of a larger family – The Indian Navy.

The Naval Officers of the 36th NDA Course, were organising a reunion at Goa to commemorate their Golden Jubilee. Ajit told me, that all Subroto's course-mates had unanimously decided to invite me to join them in Goa as their special guest.

I cannot express my feelings on receiving this invitation. Wouldn't it be extremely



difficult for me after so many years to meet all Subroto's friends in one venue? Wouldn't I feel his absence even more acutely? However, my children were keen I accept the invitation. They felt it would be wonderful to be part of such a reunion. Ajit was also very persuasive and insisted that I join them in Goa.

I was made part of the Navy 36 WhatsApp group, and suddenly became part of a family of familiar names and faces. I was now in direct contact with many friends after ages, and with some for the first time. I got a warm welcome from everyone on joining the group.

All arrangements were made and from different parts of the country, Navy 36 and their spouses converged on Goa by the evening of 4th February 2016. I was meeting some friends after almost 30 years. How many memories, so much to catch up on. And it all made for an amazing get-together.

Our first evening commenced with a moment of silence in remembrance of all course-mates who were no more. I was asked to cut a cake especially in memory of Subroto. Needless to say it was a very emotional



moment for me and this beautiful gesture touched me deeply.

As no one was interested in sight-seeing, most of us being familiar with Goa, our two days together were, therefore, filled with fun at a beach resort, swimming, eating, drinking and exchanging notes on each

other's lives. There was no one who wasn't capturing these golden moments on camera.

On popular demand, Commander Kuruvila gave us a Power Point presentation on his post retirement venture of producing quality cocoa and chocolates. Commander K K Sharma was a great hit with the ladies, with his expertise on health remedies.

On the last day, we all had breakfast together while watching, quite fittingly, the International Fleet Review, being telecast live from Visakhapatnam. Commanders Surendra and Gupchup, who had made all the arrangements, completed all the formalities.

The Kuruvilas distributed prettily packed boxes of their fabulous chocolates. Commodore and Mrs. Aspi Marker had brought lovely gifts for everyone. Specially ordered caps commemorating the reunion were given to all the veteran officers. I was lucky to get a Veteran's cap as well. All the ladies were given small mementos. The Bengali sweets I had carried were also highly appreciated.

With promises to get-together again in 2017 at another reunion of Navy 36 to be organised by Commodore Marker, each of us left for homes as per our departure schedules. There is no doubt that we all parted with lovely memories to treasure for a lifetime. The WhatsApp group is actively in contact

I don't know how to thank Subroto's coursemates for making me a part of Navy 36, even in his absence. They have proved that our Armed Forces are special and unique. Long live the Indian Navy!

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CHEEK-TO-CHEEK

Commander Noel Lobo (Retired)

It happened one starry evening on the deck of SS Jal Azad, way back in 1954. I was returning to India after several years with the Royal Navy (in those days all passages to and from England were always by Passenger Ships).

Our hands happened to touch; she did not withdraw hers. I led her on to the dance floor and before I knew we were dancing Cheek-to-Cheek.

Sheila was a striking Australian girl. Mercifully her husband Jim discreetly left the scene, and was seldom seen while the warmth of our proximity blossomed till our arrival at Ballard Pier, a few days later. Where a cable awaited Jim saying that they were to stay at the Taj Mahal Hotel till an escort arrived to take them to the School where Jim was to be a Master.

Alas, their funds were at rock bottom as she sadly confided to me. This gallant naval officer rose to the occasion.

Yes, I did recover the Rs 600/- some weeks later but it meant going all the way to the School.

Happy ending to my Cheek-to-Cheek

episode? Yes, though unhappy in one way (though I played down this aspect while telling Anjali the story one loving evening in Pune).

Let her have the last word as becomes a wife of fifty odd years together: "You know I could see the truth unfolding when her husband left the dance floor after seeing you both Cheek-to-Cheek."

The story above is absolutely true, every word of it. I reckon I can chance it after fifty years together through thick and thin.

But to any of my juniors who may be tempted to follow suit in a weak moment with a true story of a youthful indiscretion, here is some advice which was given to me, a senior Lieutenant, and to Anjali just out of College, after a few years of our marriage by our family doctor and true friend.

"You may think it quite innocently acceptable at the time, but you never know how it will appear to your partner when a patch of stormy weather engulfs you both."

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"It's what each of us sows, and how, that gives us character and prestige. Seeds of kindness, goodwill, and human understanding, planted in fertile soil, spring up into deathless friendships, big deeds of worth, and a memory that will not soon fade out.
We are all sowers of seeds-and let us never forget it!"

George Matthew Adams



VIVA LA GOA!

Commodore RK Dass (Retired)

I first visited Goa, in 1968 on board INS Beas and then twice in 1969 on board INS Ranjit as a navigating officer. Due to ship's short stay and routine, I hardly got a chance to step ashore during these visits. In early 1970, we went on a training cross country during our Observers' course. There was no Hansa Mess and we stayed at the Gomantak Mess. Goa was a very laid-back and friendly place those days famous for its lovely beaches and Fenny. The people were fun loving and easy going the attitude being susagade, which meant take it easy. They loved their afternoon siesta and were very hospitable. Cashew or Coconut Fenny being the popular local brew. One could leave the scooter unlocked with helmet on the seat and find it safe even after a day. Goa was the only place in the country where motor cycle taxi service was available. They were known as hot riders and kept a spare helmet for the passenger. Public dances at several places were common on Friday and Saturday evenings. Live Band by the local musicians was generally in attendance. The dance venues of Panjim and Madgoan being the more popular ones. Except for periods like Lent etc. they were a regular feature. These dances were patronized in large number by the young naval officers posted at INS Hansa and INS Gomantak.

310 Squadron shifted base from Cochin to Goa in Apr 1971. On return from the long embarkation of 1971 war the Squadron returned to Goa in early 1972 to a hero's welcome. Due to shortage of Mess accommodation the bachelor officers were accommodated in Dias Flats Bldg 'A' after a short stay in NOFRA. The bachelor officers joined their colleagues of 300 Squadron for the weekend dances. The regular dance venues being Panjim or Madgoan. Both



approximately 30 km apart. Going to Panjim involved crossing the river at Cortallim by a ferry. The last ferry was at 2300 hours and if you missed it you landed up spending the night on the bench till the first morning ferry at 0600 hours. Drinks were freely available in Goa those days, notwithstanding the same the officers generally carried their stock in the scooter dicky. Saturday being a non-flying day the aircrew were little relaxed and could afford to stay up till late on Friday nights. Friday and Saturdays were therefore relaxed and fun filled. The naval officers were held in high esteem in Goa specially after the 71 war and were respected as gentlemen by the locals and a dance partner was never a problem. Some officers had a fixed partner and those without a fixed partner would request one of the present girls for a dance and the proposal was normally accepted.

Two of our colleagues were very fond of the weekend dance on a regular basis. They would often leave at about 2200 hours and return early morning. The road from Vasco to Panjim/Madgoan those days was a single unlit road. In addition, it was winding with lot of sharp turns. A little lack of concentration coupled with high spirits could lead to a mishap. Our friends somehow or the other would land up with a minor injury either



whilst going or coming back from the dance. One Saturday evening, an outstation crew joined us at the Dias Flats and it got rather late by the time the guests left. Our two colleagues were keen to go for the dance, whilst we felt it was unsafe

since lot of spirits had been imbibed. At the cost of little unpleasantness, we took the bold step of bolting their rooms from outside when they went to change and therefore they could not go. Next week they went for the dance and on their way back their scooter skidded resulting in some bruises. They were familiar figures at the INHS Jeevanti, MI Room being accident prone. As on previous occasions they went to the MI Room to get First Aid. Whilst the duty LMA was giving them first aid he asked "Sir, where were you last week? I was waiting for you", leaving both of them non plussed.

Another incident which comes to mind was when two bachelor officers decided to visit a married officer at NOFRA, a long overdue visit. They were welcomed by the lady of the house and made comfortable till the host joined in. As usual, a drink was called for whilst the host was serving drinks the lady got busy preparing snacks. She asked the maid, a young girl to go and serve the guests. The maid returned to the kitchen and refused to go out to serve the visiting officers. Despite requests by the lady the maid refused to budge resulting in the lady serving the guests herself. The mystery cleared itself after the two bachelor officers had left. On much cajoling the maid revealed the reason for refusing to come out and



serve the officers. The previous week-end she had gone for the dance and one of the visiting officers was her partner and she had introduced herself as a college student.



The road leading to NOFRA and INS Hansa from the main road those days was unlit and was the resting place for cattle. At night, they could only be spotted when you were too close. One evening a friend was returning after a party in high spirits. He failed to spot the cattle and ran into it. He moved back and

again rammed into it saying "Ye raste se hut ti kyon nahi." The cattle did not move but the officer landed up in the hospital.

Goa, I am sure has also grown and changed over the years like all other places since my last visit in 1998. I missed visiting Goa for the Golden Jubilee celebrations of 310 Squadron and hope will be able to visit soon and party at the Hansa Beach, till then Viva la Goa.

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THE RAJPUT CLASS TRUE BLUE WARRIORS

Commodore Srikanth B Kesnur

Our course was commissioned into the Navy in the mid-eighties. Future naval historians will recollect that the eighties were exciting times for the Indian Navy. That decade saw the induction of several new classes of ships, submarines and aircraft. In fact, almost our entire inventory underwent a sea change during this period. Add to this, our prolonged deployment in Op Pawan and the sharp intervention in Op Cactus (Maldives); thus, the Navy occupied a much larger space in national consciousness than hitherto, as seen in the memorable 'TIME' magazine cover of late eighties captioned 'Super Power India' with INS Godavari on its cover. In an era before cable TV, internet and social networks, these were indeed heady times for the Silent Service.

Amidst all this, the ships that stood out from the rest were undoubtedly the 'Rajputs' variously called the SNFs, the Kashins or the R class. There was something forbidding and menacing about their silhouette bristling with firepower. Whether at sea or in harbour, they had a distinctive look which, elicited great deal of 'oohs' and 'aahs'. At sea, the outline of the SAM launcher and the Yatanagan fire control system was a sure shot recognition marker for greenhorn officers. In retrospect, the SNFs were, to use a much hyped word, a 'paradigm shift' in the way we operated in our Navy. We had also seen some big ships earlier, the (old) Delhi class and Vikrant. But with the Rajput class, size, 'multi-facetedness' and new methods of maritime combat - all seemed to come together. Everything was bigger, larger or better. There was a huge array of armament – surface to surface missiles, surface to air missiles, medium range guns, close range guns, torpedoes, ASW rockets, depth charges all with associated sensors. The helicopter gave added anti-surface and

anti-submarine capability. New concepts like area defence and point defence came to be bandied about and one learnt of variable depth sonars to outwit submarines. This was matched by enormous power generation and, above all, the speed of a mustang courtesy four powerful gas turbines. These ships were every 'fantasy comes true' for a naval officer, a platform that ticked every box. Thus, they brought in a huge change in our Fleet operations and, indeed, in the way we thought tactics or imagined combat.

But to look at these platforms as merely upping our combat potential is to miss the point. There was a whole culture associated with these ships. While the Leanders were all about sleek elegance, the SNFs were macho and had a swagger about them. This rubbed on the crews too. Be it the different cummerbund that officers wore over 6As or the need to have special Identity card to get on-board or the obsessive secrecy about almost everything on board, the crews made sure that an aura was invested around these ships. It was like you are honoured to set foot on the ship and to be posted there was the very purpose in life. Hell, even poverty was romanticised. Lack of water or double bunking or the drab yellow paint or Spartan living conditions were deemed par for course for warriors and you were considered a sissy if you complained of these things.

I joined INS Ranvir in Jul 1987 within a few months of her arrival in India post commissioning. Consequently, most of the commissioning crew were still on board. We were young Sub Lieutenants sweating for our watch-keeping tickets and the officers made sure that we strained every nerve and sinew to get there. While the hype and hoopla of the preceding years had receded somewhat, the business-like air, the stentorian atmosphere,



particularly, for the under-trainees, and the aura of SNF distinctiveness were still the dominant themes. It was good old fashioned slogging and going through the grind – guided and goaded by the ship’s staff all of whom were ‘hotshots’ in their field. There were also wonderful moments of fun and mirth and our skipper Captain (later Admiral and CNS) Madhvendra Singh or Madhu as he was called could be very gentle and warm while being a hard taskmaster. While I owe a debt of gratitude to everyone on board at that time, I would like to make a particular mention of our training officer Lt Cdr (later Cmde) Arvind Shiggaon and Lt (later RAdm) SY Shrikhande. Both of them taught us much in the professional realm, but they also taught us how to conduct ourselves and what leadership in its truest sense meant.

I obtained my ticket in Apr 88 but stayed on till July that year, thus, spending almost a year on board. While there are several wonderful memories of those formative times I will make a brief mention of few. First, within days of our joining the ship we set sail for Colombo, in Aug 1987, being amongst the very first ships to be deployed for Op Pawan. We spent about a month patrolling off the coast and at anchorage, but operationally at alert because of the possible LTTE threat. However, retrospectively, one realised that we were a part of a historical process that pre-saged Indian Navy’s enhanced international engagement. A trip in the ship’s helicopter to Colombo when Madhu went to call on some high functionaries, including the eminent JN (Mani) Dixit our then High Commissioner in Colombo (later our Foreign secretary and National Security Adviser) were the highlights. The second significant memory is that this was the time when ‘Viraat’ joined the Fleet. This implied an entirely new thrust towards carrier centric Fleet operations. Our lives at sea were mostly spent, in AD and ASW screens and station keeping.

The Ops rooms were buzzing with activity and spouted new jargon, with several new ships in the Fleet. They were exhilarating times indeed not only honing our tactical techniques but also sharpening our station-keeping skills. The third takeaway was the contrasting management approaches of Captain Madhvendra Singh and the second CO, Captain (later VAdm and VCNS) PJ Jacob. While Madhu was thorough, knew his ship inside out and wanted to be in total control, Jakes believed in seeing the big picture and delegating down the chain. Both were equally effective but exposed us to different styles of leadership. Young officers bunked together can always be expected to party hard, play mischief and generally be a nuisance and we were all of that within the boundaries of what the Navy considered kosher those days. Above all, this stint on ‘Ranvir’ was my first exposure to Bombay, the maximum city that we had all heard and read about in childhood. On those few occasions, that the ship was in harbour and I was not on duty, I ventured out into the city and had my first brush with things that were to shape my passions later – cinema of Guru Dutt, theatre at NCPA and Prithvi, cultural activities at Kala Ghoda, street food, history, art appreciation at Jehangir and so forth.

Over the years, the Rajputs may have lost their glamour as newer ships now hog the limelight. From show-ponies they have moved on to become work-horses. But even now, with most of them well beyond 30 years, they are showing remarkable resilience while their compatriots like the Godavari class and Viraat are slowly fading away. More importantly, they have reinvented themselves and after a midlife upgrade they now boast of new generation missiles, modern sensor suites and modified bridge arrangements that make them better Command and Control platforms. And no matter how old, even now, the distinctive



whine of the gas turbines sends a thrill up the spine and that sexy silhouette makes them, the best lookers in our surface force.

Over the years, the 'Rajputs' have seen many officers pass through their decks and, not surprisingly, many have attained high leadership positions in our service. In fact, almost all our Chiefs over the past 20 years including the present CNS have been SNF Captains. As our Navy moves from strength

to strength the SNF design has provided inspiration for our indigenous platforms and the best practices of these ships have been incorporated in our journey towards self-reliance. In other words, the soul of these brave Rajput warriors will continue to animate our Gen-next. For all those who served on the R class there can be no better tribute.

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THE EARTHQUAKE

Mrs Dulcie Suresh

*I felt the tremors
a year ago;
they only laughed
as I was old
"You dream woman
and age has made you fear;
we too feel
a quake or two,
our drinks we down
it's good for you
we tell the new groom,
it keeps you sleeping late
beside your newly wedded mate."*

*The quakes shook on,
the village elders
met
reported
the matter to government men,
who promised;
nothing emerged however;
the village ate
celebrated*

*consummated
until the Earth shook;
walls fell, chimneys tipped,
debris trapped man, beast, child
in vice like grip.*

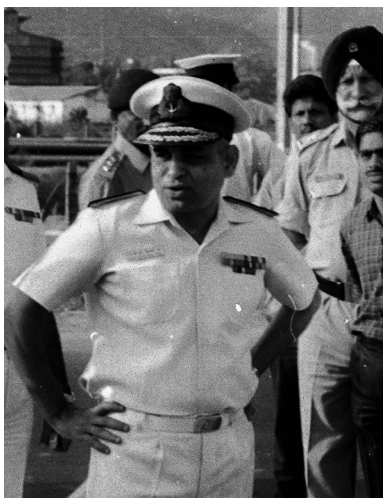
*I mourn now midst rubble
boulders, scattered clothes,
empty vessels
broken pots
and promises;
and curse myself
for not reading
the writing on the wall,
not collecting other women
to raise a storm
or tear our hair,
for letting Mother Earth raze the home
where I was born;
for not listening to Nature's warning
In my ear.*

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A TRIBUTE - LATE VICE ADMIRAL AVR NARAYANA RAO

Commander BLN Rao (Retired)



Vice Admiral AVR Narayana Rao or AVR Narayana as he is fondly known was born in Teacher's family in a small town Eluru of Andhra Pradesh. A bright student always, he studied Electrical Engineering and joined the Navy, way back in 1962.

He has served as Electrical Officer of INS Kadmat during the Indo-Pak War of 1971 under the command of legendary Captain MP Awati. He was later the O/ic of Base Maintenance Unit (now called FMU) and was seen always in around Petyas or Kamortas at BRO jetty of Vizag with a screw driver in his hand. Later he was the Manager Weapons and was the founding father of the present WECORS complex of Naval Dockyard, Visakhapatnam.

He was Cdr (L) of INS Mysore, (1976) and became DGM (Weapons) of ND, Bombay – a unique coincidence of heading Weapons departments of both Dockyards. In the rank of Rear Admiral, he served at NHQ and came

back to Vizag as DGNP in 1990. Later as ASD (V), he almost abandoned his office and spent most of his day going around various work centers, meeting/checking dockyard workmen. He almost turned the yard upside down and corrected improper practice and brought unruly Trade Unions under control. He of course initiated several Labor Welfare schemes and was very dear to workers. On attaining the rank of VAdm, he moved to IHQ as the Chief of Materiel and continued his efforts to streamline the systems in the Navy.

Second Innings (contributed by Mr. Shekhar Movva, President, Synergies Castings Limited)

"Admiral Rao was the first person to join me on this adventure to build a world-class company. I was 29 years then, and he had just retired from the Navy, as COM. He had many choices of careers, yet he believed in my Vision to build a globally recognized world-class alloy wheel company based in Visakhapatnam. I was lucky that he agreed to join us.

We shall always remain grateful for all that he did for us; through the project phase, as well as during the production phase. I do not want to dwell on all he did, but would like to mention a few less known things about him; and refresh all the values he taught us through following examples:

- Never give up, nothing was too big or too tough.
- Do not compromise on 'values' for



short term profits; Never compromise on quality.

- Always evolve rules after discussion and consensus, but once established, everyone must follow a rule.
- Workers are our family. We need to take care of them.
- His versatility was inspiring, despite his body not cooperating, he had great pride in working for the Company till his last day, was always amongst the last people to leave the Company

premises, and always felt he should do more for the Company.”

August 31, 2015, we lost Vice Admiral Narayana Rao who died a peaceful death at INHS Kalyani, barely three weeks after his 75th birthday. Truly a special person, and a great loss to many.

May his Soul rest in peace!!

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AN UNTOLD STORY OF 1971 WAR

Commodore Mediona Bhada (Retired)

December, 1971, on board INS Vikrant in the Bay of Bengal.

Our Mission was to destroy a target in the Chittagong harbor. A formation of four Seahawk aircraft armed with rockets took off from the aircraft carrier early in the morning. The formation was lead by our Squadron Commander, Lt Cdr SK Gupta, affectionately called Gigi. I was fortunate to be included as one of the four pilots and being the junior most, was No 4 in the formation. Our Mission was to fly low upto the target, to avoid enemy radar, thereafter to pull up and carry out a rocket attack and immediately leave the scene of action. As a ruse, we were instructed to fly in a different direction before heading back for the carrier. We had to maintain strict Radio Silence throughout the sortie.

As the formation approached the target,

the Leader waggled his wings to indicate that he was pulling up for his attack. A few seconds later he was followed by No 2, then No 3 and I, as No 4 was the last in the attack. All actions were done with clockwork precision and I had the target in my gun-sight but, all the training, practice and drills notwithstanding, I made a cardinal mistake. I used my fore-finger instead of my thumb. As a result I fired the 20 mm guns instead of releasing the rockets. An unforgivable error. By the time I realized it I had already crossed the minimum height for pull out from the dive. I had no choice but to abandon the attack with all my rockets still slung under my wings. In the meanwhile the other three aircraft had left the scene of action and were well on their way back. I could not break radio silence to inform the Leader. I also realized that landing back on the aircraft carrier with live rockets could be extremely dangerous for the ship.



In that split second I took a decision to turn back and complete the mission by carrying out a second attack on the target. I accomplished this successfully, in the face of anti-aircraft fire. There was absolutely no sign of the rest of the formation but I followed the earlier briefing and to my great relief sighted the Carrier, on schedule. Simultaneously I heard the Leader break radio silence indicating the position of the formation which was orbiting on one side of the ship. I quickly positioned myself and slipped in as No 4.

Thereafter it was all "Operations Normal". The four aircraft were recovered on board the carrier as programmed.

Except for the fact that the Radar Operators on board the carrier had observed that a "straggler" was late in joining the formation, none was the wiser of the incident. In the euphoria of the successful attack no one bothered to investigate the "straggler". I later confided in Gigi and narrated the whole incident. Nothing was said.

Nothing was ever recorded. Until this moment, 45 years later.

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Post Script

By Vice Admiral JC DeSilva

December 1971, on board INS Beas, somewhere in the Bay of Bengal.

Yes, I clearly remember the day.

I was the Gunnery Officer on INS Beas, an

anti aircraft frigate working with the Vikrant formation as one of the escorts. That morning we were the Plane Guard. We got the flying programme and all hands were excited and tense with the quick developments in the last two days. We were at Action Stations. I was at my position on the Gun Direction Platform. As the sortie took off many of the crews of the gun turrets and signalmen came out on deck and counted the aircraft as they took off. Then as the sortie disappeared into the distance we got back to stations and kept waiting. Bhada and Co. may have been busy but for us ever vigilant for counter strikes, it was the longest 40 minutes ever, waiting for that first strike to return.

Then as the carrier turned into the wind for launching and recoveries for the next sortie, we got back into plane guard station and were looking out for the returning sortie. First the radar reported a blip (Friend or Foe) opening to three, all positively Identified as friendly. Sigh of relief. But where's the fourth. Gloom! The message had already spread through the whole ship, even reached the boys in the magazines, engine room crew, et al. Only three have returned. It was morale shattering. Then a few moments later the fourth appeared. Joy unlimited. Hugging and back-slapping and shouts of Joy. All four have returned safely.

We would not come to know the result of the strike till after the War, but every man was confident that we had socked it to them. Well Done White Tigers.

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AN UNFORGETTABLE INCIDENT

Commodore SM Sundaram (Retired)

This happened in Tbilisi, capital of Georgia in the erstwhile USSR.

The officers of INS Rana were permitted to take their families with them to Poti where the crew underwent training. Except the Captain and HsOD, the other officers were young and had small children. Carin, daughter of Lt Cdr Vijay Shankar, a very small baby, fell ill at Poti. Poti hospital did not have a specialist to handle Paediatric case. The hospital recommended that she with her mother Girija, be shifted to a bigger hospital in Tbilisi, where a specialist was available. The baby and mother moved to Tbilisi and were admitted in the hospital there.

While they were still there, we got a small break and the officers with their families were permitted to go on a sight-seeing visit to Tbilisi. I, my wife and two daughters went by a night train and reached Tbilisi next morning. We did sight-seeing during the day and by 3:00 p.m. finished going round the city. We decided to visit the baby and Girija in the hospital. We asked for the directions to the hospital and someone recommended a bus in which we boarded.

One young Russian girl met us in the bus and asked us where we were from. When we said that we are from India, she started speaking to us in Hindi. She introduced herself as Natasha. We asked her where she learnt Hindi. She said, "Swayam Seeki Hu" (I learnt myself). She asked us as to where we were going. We showed her the paper in which we had written the name of the hospital in Russian. She said that we were in the wrong bus and asked us to get down

at the next stop. She got down with us and hired a taxi to go to the hospital. On reaching the hospital she talked to the receptionist in the hospital and guided us to the room of Girija and the baby.

We spent about fifteen to twenty minutes in the hospital and she was waiting for us at the reception. When we returned, she told us that she has kept the taxi in which we came, waiting for us to go to the station as there was not enough time to go by bus. She informed us that she has already given directions to the taxi driver as to where to take us. As she was talking to us she saw a bus approaching and said that it was the bus in which she has to go home. We thanked her profusely for her help. She then ran towards the bus, got in, wished us safe journey and disappeared.

When we reached the station we asked the taxi driver as to how much we should pay. He said nothing. He told us that the girl who came with us has paid the fare and before we could say anything, started the taxi and went away.

We felt sheepish and ashamed. A girl whom we did not know from Adam not only guided us to the hospital but paid for the taxi also. What impressed us most was not only the kindness and generosity of Natasha, but also the honesty of the taxi driver. We felt sad that we did not take her address at least to write a letter of thanks to Natasha. Natasha we will remember you forever. May God bless you wherever you are!

A very touching incident indeed!

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FIFTY YEARS OF GOLF

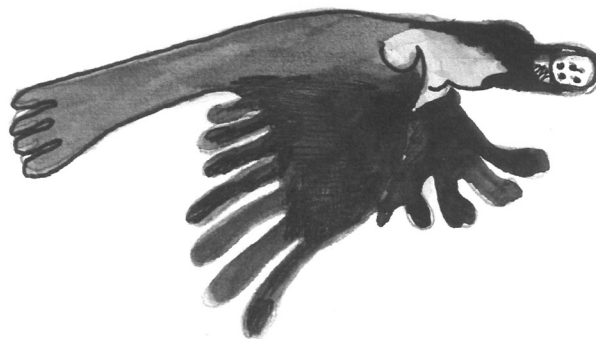
Commodore Ravi Sharma (Retired)

At my age, golden jubilees keep coming every year. The other day while playing golf, it suddenly occurred to me that I have been playing golf for over 50 years, 51 to be precise!

It all started while I was a Divisional Officer at NDA Kharakvasla in 1965. Two of my bachelor mates, Lalit 'Tiger' Talwar and Subodh Gupta literally dragged me to the golf course. Dimitri 'Dimmy' Juralov, a self-announced 'blue-blooded' czar who found his way from Russia to India after the Bolshevik Revolution was in-charge of the golf course and was a good coach. He was in his 60s and while he could not drive more than 150 yards and played only irons, he was straight as an arrow and unfamiliar with the roughs. There was little grass on the course which made it necessary to play off a mat. Thanks to us hackers, most of the mats were hole-ridden and it was a race to be the first on the course so that one could get a decent mat.

I was then transferred to Delhi as Flag Lt to Commandant NDC and continued my golf at the Race Course, Air Force Golf Club which then was the only golf course in Delhi apart from the Delhi Golf Club. It was then a 9-hole course basically confined to the front of the clubhouse. My mentor, Mohinder, who is still seen on the course occasionally, was an excellent coach. One of my memories of the Course dates back to 1966 when we were told to clear the golf course for landing of a Caribou plane for trials! Fascinated, we watched it land and resumed our game after it took off.

Meanwhile, Tiger Talwar, who had also fetched up in Delhi, and I applied for membership of the Delhi Golf Club which we got within a month. At the DGC, one got to rub shoulders with famous players of the time like Billoo Sethi and Ashok Malik. Youngsters like Vikramjit Singh and Manmohan Singh were snapping at the heels of Sethi and Malik. My favourite player of those days, Rajkumar 'Pit' Pitamber, a Bombayite, was a frequent visitor for major tournaments like the India Open. At the 1966 tournament, Billoo Sethi was leading the famous Australian 5-time British Open champion Peter Thomson by a stroke after the 9th hole on the final day. On the 10th, Billoo was sitting pretty with his second close to the pin whereas Thomson was barely on the green. That's when fortunes turned. Thomson made a monster putt while Billoo missed his. Thomson then slotted in birdies after birdies to overwhelm Billoo by, I think, four strokes!



Back to the Navy end-1966 and the scene shifted to US Club, Bombay. The feature there was the infamous crows which would pick up your ball in one fell swoop and deposit it in the ventilators of the nearby



Nursing Officers' Mess! I believe this still happens though caddies rush to cover the balls with pieces of red cloth.



Navy had very few golfers then and the Secretary Indian Naval Sports Control Board was hard put to find golfers to form a team for the Inter-Services tournament. In 1968, the then Secretary, Lieutenant Commander Rusi Mehta, ran into me on the golf course. He asked me if I had a set. On my saying yes, he informed me that I would be included in the Navy team!

The next few years saw me representing the Navy in the august company of later Admirals Ronnie Pereira, Tony Jain, Subhash Chopra and Krishen Batta. But our champion golfer was Kulbhushan 'Ustad' Sood who was the Navy Champion for many years. He was always cool as a cucumber and nothing could faze him. Once when I was playing with him at the Army Course, Dhaula Kuan, he put his second shot in the deep front bunker guarding the 1st hole in the old days. On my commiserating with him, he said, "Doesn't

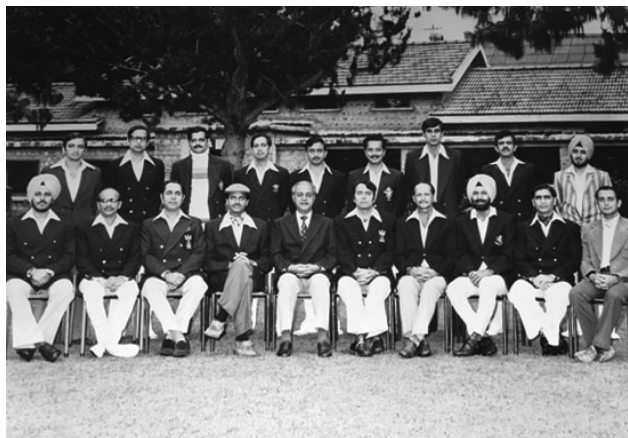
matter. I'll put it close to the hole and get my par"- and he did, not just that day but every time his ball went into that bunker!

While at Cochin in 1970-71, Bolghatti Course was the only course to play on. 9 short holes around the island formed the fare. I was perhaps the only Navy regular with a bunch of tea-wallahs for company. Then came Admiral Vasu Kamath as FOCSOUTH. He was a keen golfer and my weekends were reserved for golf with him. A ride in the Admiral's barge was a bonus!

The palm trees-filled Bolghatti was the home of many curious incidents. The one I remember most was the time when on the short 3rd hole I struck a tree pretty high up. The ball did not come down and I had to play another. The next day I hit a similar shot and to my delight, two balls dropped including the one of the previous day!

Transferred to Vizag as the first FCO of Eastern Fleet, the golf scene shifted to East Point Golf Course in Waltair Uplands. When Admiral Ronnie Pereira took over as FOCEF, it was standard practice for him to personally drive up to my flat in Naval Park and pick me up for golf. He would not disturb his staff car driver's weekend!

In 1978-80 I was a DS in the Staff College at Wellington and those were excellent golfing days. Kailash Kohli was my regular partner and we were an unbeaten combination. In '79, I was made the Golf Captain and the DSSC team with excellent players including the Commandant, Maj Gen Mohinder Singh, won almost every tournament it participated in.



During 1985-88, my golf scene moved to Singapore. As Defence Advisers/Attaches, we were given membership of the hilly Sembawang Country Club. We had to pull our own carts and if you could last 18 holes in that terrain and climate, you were S1A1 without a medical test! In 1987, I was the DA champion and won a voucher of 200 Singapore dollars at a crocodile leather shop. Akhila, my wife promptly went and bought herself a handbag leaving some paltry balance plus out-of-pocket money for a belt for me!

Singapore is an ideal place for golf with around 16-17 lush courses in the island state including the Singapore Country Club and the scenic Sentosa. Towards the end of my stay, the new Raffles Country Club started functioning. That course was designed by a possible sadist with more water hazards than I have seen on any course. A golf get-together was organized there to bid farewell to the departing Malaysian High Commissioner to which all HCs including our own Shri Sankaran Nair, an avid golfer, Ambassadors and DAs were invited. All of us sank 4-5 balls in the hazards but the worst

hit was the chief guest who lost a dozen and walked away after 13 holes!

Once on a visit to Delhi from Singapore, I called on the then CNS, Admiral Tahiliani. Earlier, the Admiral had told me many times that he didn't understand how naval officers found time to play golf but now I learnt that he had been bitten by the bug. I asked him how his game was progressing and he said he had shot a 67 at the DGC. I wowed and said that was excellent. His wry reply, "Yeah, for 9 holes?".

Shortly after my return to India I left the Navy and have settled down in Delhi. Since 1989, my home course has been the Army Dhaula Kuan course which over the years has expanded from 12-holes to a full-fledged 18. After 40 years of golf, this course presented me with my first hole-in-one on the 9th in 2005. There have been two more after that with the third one on, seriously, 01 April 2015!

Dhaulta Kuan has provided many curious incidents but a remarkable one occurred when my third shot on the long 14th collided in mid-air with someone playing his second on the 11th! On another occasion, my friend Rocky Mehta was walking towards his ball on the 17th unmindful of eggs that a quail had laid on the ground. The mother bird started screaming and chasing him with Rocky waving his club and running for his life just like the Hitchcock movie "The Birds".

As the cliché goes 'Golf' is a way of life and I hope I can continue this way as long as I can. Amen!

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HAPPINESS

Commander VK Mohan (Retired)

We always wish to remain happy. If certain circumstances cause unhappiness to us, we try to find ways and means to be happy, once again. Therefore, happiness is our intrinsic nature. Accordingly, let us consider the causes which lead to unhappiness. At the outset, anger must be controlled at all costs. The anger is defined as the punishment we inflict on ourselves due to others fault. Moreover, anger generates a hormone called adrenaline, which lowers immunity of the body to with stand infection. Consequently, the short tempered persons catch infection more often than those who remain stable attitude of gratitude towards others is very helpful. If others criticize us, we should find whether they are right or wrong. If they are right, we should thankfully accept their remarks and correct ourselves. In case they are wrong, we must remain stable and forget their criticism.

Everyone has qualities and drawbacks. Hence, instead of criticizing, we should praise others for their qualities. However, if we think that they should change for the

better, we need to gradually and lovingly/ respectfully do so. Instead of competing against others, we should compete against ourselves. The latter enables us to progress as per our capacity, capability and speed. Thus, we avoid stress and continue to remain stable with such state of mind we continue to gain more experience, thereby keep solving more and more complex problems.

It is common to note that most of us visit one another provided our visits are reciprocated. However, having learnt the art of stability, we happily visit others, even if they don't reciprocate, provided they appear to be happy with our visits.

Lastly, it may be stated that happiness is governed by a unique mathematical formula i.e. the more it is divided, the more it gets multiplied. Moreover,

Happiness is part of life.
Retaining it, is art of life.

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OPERATION CACTUS

Captain Ashutosh Varma (Retired)

Operation Cactus conducted by the services in the year 1988 to protect the interest of President Mohd. Abdul Gayoom after coup in the Island Nation of Maldives, is well documented. However, there are few anecdotes which happened during the operation onboard INS Godavari, where I was posted as Senior Engineer Officer.

INS Godavari commanded by then Captain

S V Gopalachari, was returning from a foreign cruise after attending the Bicentenary celebrations of Australia in Nov 1988. We touched Port Blair to complete the Customs formalities, take fuel, ration etc. All were in a hurry to reach Mumbai due to various family commitments, being away for three months. We sailed on 03 Nov 1988 morning from Port Blair and decided to attempt non-stop sailing to Mumbai in five days to cover



almost 2160 nautical miles, since 08 Nov 1988 was Diwali, Captain's wife's birthday, our marriage anniversary etc. In other words, everyone had at least one personal reason to reach Mumbai as early as possible. So we were doing 120 rpm until about 03rd Nov 1988 evening. Suddenly there was an order from the Captain to give 160 rpm (about 23-24 knots, the fuel consumption almost doubles), I was in the MCR and we joked that Captain wants to reach a day before to buy gift for his wife. However, this high speed continued until midnight with no sign of reducing, and that is the time we realized that something is amiss.

On 04th morning we came to know that we are in the midst of some operation code named "Operation Cactus" and we have to catch a merchant vessel named "Progress Light" which has been high-jacked by the mercenaries along with some hostages from Maldives after the failed coup attempt. Day and night we were doing 160 rpm, a very high speed for a Frigate. On 05th morning we sighted "Progress Light" and started following her. Our attempt to communicate with the vessel and stop her failed. An action scene was unfolding in the Indian Ocean. Very soon US war planes started circling us, "Progress Light" was complaining to BBC and Singapore Radio Stations. Since they were fast approaching Sri Lankan waters, we were directed by the Naval Headquarters, to stop the vessel at any cost. We fired our anti-aircraft guns around the vessels, not hitting directly, but to scare them. They continued. Captain decided to launch our onboard helicopter with Depth Charges. The Sea-King helicopter took-off from the ship and dropped two depth charges in succession in front of the bows of the vessel. There was a tsunami of waves, the vessel was thrown vertically

upward out of the water and dropped twice in quick succession. This was sufficient to scare the 80 odd mercenaries holding up inside the vessel. They all came up on the fore-castle deck with their hands raised. In the panic they forgot about the hostages, who ran towards the quarter-deck. In the meantime the oil drums kept in the mid ship caught fire. This fire automatically separated the hostages from the mercenaries. We took advantage of this situation, lowered our boats in water and rescued 14 hostages including the ship's crew. Only the Second Engineer was missing. The hostages included Maldives Transport Minister and his wife. After tending to the hostages with the help of our Doctor, we decided to pay attention to the mercenaries. We had no hand-cuffs, compartment etc. to keep them locked. They were all in the age group of 18 to 21, very fit and agile, trained for fighting guerrilla wars. We decided to cut 6 mm nylon ropes in two feet size and used them to tie the hands and legs of each mercenary and keep them in the Helicopter Hangar. In the meantime, we came to know that their group leader was Mr Lutfi, who had attempted the coup and declared himself as the President of Maldives. Surely, Lutfi also came on board in one of the group and identified himself as the President of Maldives and asked why India was interfering in their internal matters?

Flash back, in Maldives/India on 03 Nov 1988.

The President of Maldives Gayoom was scheduled to visit India to meet PM, Shri Rajiv Gandhi on 03 Nov 1988. Accordingly, Lutfi planned the coup on this day assuming no security at Male Island. However, Gayoom was indisposed and resting at his residence. Since Lutfi came from Sri Lanka by sea-route



was not aware about the change in plan. Lutfi came to Male Island, fired a few rounds and declared himself the President of Maldives. He then visited his mother to seek her blessings. He presumed that everything was in order and they had full control of the island nation. As soon as Gayoom came to know



about the coup attempt by Lutfi, he asked his personal secretary to get in touch with Shri Rajiv Gandhi. Luckily his call went through. The President of Maldives requested for immediate assistance from India. The PM summoned all three service chiefs to render assistance to the island nation. Fortunately, the 6th Battalion of Parachute Regiment had just landed after an exercise and was battle ready. The transport aircraft from Indian Air Force (IAF) was also ready at Agra. They were directed to immediately take off to land at Maldives' Hulhule Island at the earliest. IAF aircraft along with the Army commandos landed at Hulhule Airport exactly nine hrs after the request was made by Gayoom. The Army commandos took over few boats from the airport island and landed on Male island (about 2-3 km away) within minutes. Lutfi was taken aback by the surprise landing of Indian Army and ran away from Male after taking a few hostages and hijacking a merchant vessel "Progress Light" from the harbour.

The boarding party from Godavri searched the vessel and found the dead body of the Second Engineer. The vessel was loaded with cars and scotch whisky. INS Betwa also arrived for our assistance. The merchant vessel was left under the command of INS Betwa to tow the vessel to Cochin. Godavari sailed for Male to drop off the hostages and handover the mercenaries.

Just before leaving we noticed a vessel floating at a distance and a man waving a white flag folding hands in namaskar, begging to be rescued. The Captain stopped the ship and ship's boat was lowered to take this last person onboard. When on board he was identified as Raju from Jaffna, the second in command to Lutfi in the entire operation. Our Executive Officer (XO) oversaw that he was brought on board safely as he was the most dreaded of the lot. Later we learnt that he had killed the Second Engineer of the merchant vessel, so he was to be extensively scrutinised to ensure that there were no explosives on his person.

Suddenly, we heard XO shout, "get back, get back he is hiding a pistol in his briefs". All the boat crew took cover. Now we heard Raju pleading repeatedly, "No Saar, No Saar. But XO was not ready to take any chances and ordered that his brief be removed. Raju, continued pleading, "No Saar, No Saar, but the orders were for very strict compliance. Raju's brief was removed but no pistol or other explosives were found. The onlookers burst out laughing and we later celebrated our successful intervention!!

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NIGHT WATCH

Commodore RPS Ravi (Retired)

Sometimes one remembers incidents decades after these have happened. This is one of those.

We were cadets on the Cadet Training Ship Cruiser Delhi. We were learning the skills required to do a Watch on the Bridge of the ship, from where the ship is controlled.

The watches on board a ship are divided into four hourly watches dependent upon the time of the day; i.e. Forenoon Watch from 0800 to 1200 hrs, Afternoon Watch from 1200 to 1600 hrs, First Watch from 2000 hrs to midnight, Middle Watch from midnight to 0400, Morning Watch from 0400 to 0800 hrs. That leaves the time from 1600 to 2000hrs; instead of calling it the Evening Watch, it is usually divided into two watches of two hours each called the Dog Watches. It is done so that in a three watch system there would be odd number of watches and people wouldn't end up doing the same watch over and over again.

In the officers' roster on Delhi, there was this Lieutenant (Lets call him Lieutenant A in order to maintain anonymity) who had a bad reputation of closing up late on his watch. Generally one is supposed to close up fifteen minutes earlier so as to facilitate proper handing/taking over between the outgoing and incoming watches; but, Lt. A had the reputation of closing up 30 minutes or more late. This was especially true for the night watches, i.e. First Watch, Middle Watch, and Morning Watch.

Once when he was required to close-up on Middle Watch, i.e. Midnight to 0400 hrs, the officer who was closed-up on the First Watch, i.e. from 2000 to midnight, sent one of the cadets to wake him up one hour before his closing up time, i.e. at 2245 hrs (10:45

PM) so that, for once, Lt. A would be on time. Cadets were in mortal fear of Lieutenants on board as they could take it out on the cadets at the slightest pretext. The difference or the seniority gap between the cadets and the Lieutenants was perceived by us to be more than between the Lieutenants and the Admirals.

Now, you imagine a Cadet going into the mess of the Lieutenants, finding the right bunk and then waking him up with all dexterity at his disposal without causing inconvenience and annoyance to the other Lieutenants sleeping there.

Our brave cadet entered the mess and by hook or crook managed to find the bunk of Lieutenant A and whispered to him to wake up. There was no visible effect. So, he raised his voice a bit and said, "Sir, it is time for your watch."

This earned the Cadet a few angry "shhs" from the adjoining bunks and no reaction from Lieutenant A.

So, he thought of going back to the Bridge and informing the Lieutenant already on watch that Lt. A was sound asleep. But, he disposed-off these thoughts as impracticable since, one, 15 minutes had already gone by and he himself was getting close to being relieved by another cadet; and two, the Lieutenant on watch had already warned him to return to the Bridge only after Lt. A had fully awoken and out of his bed.

Hence, our man realised that this kind of challenge was what separated men from boys. He thought of the tales of resolve of intrepid Captains of ships who stood on the decks of burning and sinking ships and unflinchingly went down with the ship rather



than abandon. Cadet M decided to stand bravely there and do everything by word or gesture to wake up Lieutenant A.

Some of his exhortations are now famous nautical poems:

“Sir, sir, sir, sir, sir
Please, please, please, please
Wake-up, wake-up, wake-up
It is time, time, time
For your watch, watch, watch.”

To his horror, he found that Lieutenant A's mother had really given birth to a very stubborn child who was as far from waking up as our politicians are in the parliament when discussions on defence budget start.

Cadet M, at this time when more than 30 minutes had gone by, decided that he had to quickly decide whether to be slanged by the incoming OOW (Officer of the Watch) or being sent on the Crow's Nest (the highest point of the mast) by the relieving OOW. Sterner action was, he concluded, required.

So, he shook the sleeping figure of Lieutenant A hard and started a much louder version of the nautical poem mentioned above.

Cadet M told us later that with this even Kumbhakaran, the sleeping God, would have been awake. But, Lieutenant A was undeterred by this rough treatment and continued to sleep like a baby in its mother's arms.

Now, for Cadet M, it had finally become a matter of 'Do or Die', the kind of challenge that real men serving the nation sometimes face.

He spotted a tumbler lying there, filled it up, and returned to the bunk where the modern-day avatar of Kumbhakaran slept. He poured

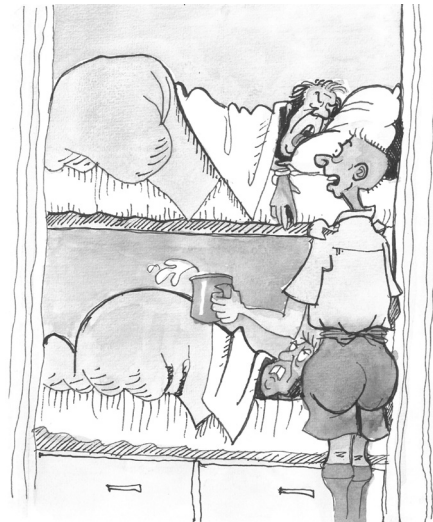
a handful in his right hand and sprinkled it on the face of Lieutenant A.

Eureka! There was a small movement and Lieutenant A stirred in his bed and in his heavy droll asked Cadet M, “Whhhatissittttt?”

Cadet M was close to success and had started seeing visions of being nominated for the gallantry award. So in his best, loudest, firmest voice he said, “YOUR WATCH SIR.”

The stirring in the bunk hadn't totally died down. Lieutenant A, took out both his arms from under the white sheet, and with the right hand carefully removed his wrist-watch from the left wrist, gave it to Cadet M, and went to sleep again.

Can you picture Cadet M, standing there



in Lieutenant's Mess, after 45 minutes of cajoling, being rewarded with having one more watch at his hands than the one he was doing?

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THE PLEASURE OF GLIDING

Commander SK Deshpande (Retired)

It was a summer morning with gentle breeze flowing and greenery all around, at Newton Air Force Mess, UK in 1987. I was part of NCC Youth Exchange Delegation, it was going to be our first day of flying Gliders on foreign soil. While all of us were anxious to fly the glider aircraft, I was vexed about meals. All preparations were non-vegetarian and I was a hardcore vegetarian!

As, I looked around a pretty girl, standing by my side said, "I am Nancy, what will you have sir?" Startled, I said, "good morning, I am a vegetarian and there seems nothing for me in your Menu!" She smiled and said, "Of course, we have Eggs and Fish in the Veg spread." I was taken aback, but she was my only hope then, and I did not want to go hungry for flying, so I asked for boiled potatoes if possible. "Surely sir, will serve you boiled potatoes." Her concern for my state, made me quite comfortable to fly that morning.

By then flying briefing was announced. I headed towards the briefing room, only to be told that my sortie was slotted as the last one for the day since I was late for the briefing. The instructor, Group Captain Jim seemed a terrible person because of his strictness. I could just stand and see gliders taking off under tow of a power glider and ascending to 800 odd feet before detaching tow and then a flight time of about 16 -20 minutes turning into thermal conditions, against Rohini gliders in India which generally offered a flight time of 3-7 minutes. I was watching out of the crew room, and heard a voice, "how's it going sir, Groupie Jim is a strict man, I hope he did not pull you up for being late, enjoy the grilled

potatoes with pepper and salt Sir" –Nancy was standing with a tray. "Well Nancy, so nice of you, you are really caring." "No sir, it's my job to ensure that everybody is well fed before they fly".



As my flying turn came the gliders looked classy in their red belly and white top canopies. Groupie Jim was my instructor pilot in rear cockpit; he did not exchange any pleasantries and asked me to rattle out pre-flight checks and emergencies. I was bang on and made no mistakes! He then gave me additional points about R/T procedures etc. We took off and Jim said, "Unless you rely on yourself, you won't be able to fly this machine. All yours! To my horror, the glider had already started rolling with front power glider towing and speed increasing every second, luckily take off detaching the tow cable and flight were good, but landing was hard. As the cockpit canopy opened on the parking bay, Jim said, "You fly well Cadet, see you doing a solo soon."

As we all assembled in crew room for



debriefing, I realized everyone had a good joy ride except for me, as they were talking of the beautiful green country side view.

In the evening, we all assembled at the Mess for drinks and snacks followed by dinner. Of course before I could look for Nancy she was in front, with her cute smile greeting me with potatoes. "Sir don't worry these are your French fries. What's your drink? Phew, I didn't expect this welcome! I wanted to talk to her for her graciousness was killing me, but she won't budge as it was her time on job and not to talk informally.

As days passed, I was cleared for solo and was flying solo, but Nancy refused to meet me during working hours, however she took care of my meals. So I confronted Nancy one morning during breakfast and asked her to meet sometime the same day. She said, of course today is my half day at work, I will meet you in the evening for a drink. I was a bit confused as how can a waitress be allowed in Officers' Mess to have a drink informally.

That evening, I was sitting alone on a corner table of Mess lawns, all my fellow Cadets kept enquiring why was I not joining them, I excused myself as I had a guest. After 20 minutes, she walked up to me and said hi, she was looking so different and beautiful, that she did not look any bit of a waitress who had cared for me. As the conversation flowed, I realized Nancy was an officer's daughter with a strong sense of dignity of labor and was doing the job of a waitress for her pocket money. She was a science student and intended to fly in the RAF one day. I offered her a glider joyride if Groupie Jim permitted, as a gratitude for the care she took of me, and as a precursor to her ambition to fly one day. Well, she gave me a very naughty smile but then expressed excitement at the offer and asked me to try to take permission from Jim.

Next day I was heading to the glider, I saw Groupie Jim and said, sir I have a request, what's the matter are you not feeling well? enquired Jim. I said, sir Nancy the stewardess; she took care of my Vegetarian meals so well that I need to repay her debt. She is keen to fly, so I want to take her along for a sortie. I added she made me realize what the dignity of labor and dedication to job is. Hmmm said Jim, I will fly her on your behalf. I said but sir, today before we leave the base for good. He said sure, it's a commitment. And he called for Nancy to strap up, I felt happy. As I walked for my penultimate sortie in UK, I was surprised to see Nancy, strapped up in front cockpit and waving at me, I looked around - Jim spoke, your sortie... take her around, express your gratitude to her yourself. My joy knew no bounds!

As we rolled for take-off under tow, Nancy seemed excited. As aircraft was gaining height, she was enjoying the view and expressing her desire to fly often. Nancy was very jovial and I expressed my gratitude in air, she expressed her heartfelt thanks for the flying experience. I realized it was time to land as we were on end of circuit turning for finals. She firmly said "Controls with me." I was shocked and thought it's gonna be suicidal, if she persisted on landing. She added, I am qualified Glider Pilot License holder with 250 sorties on this type of aircraft, and Jim is my father. I called ATC for Jim on radio, "it's true" said Jim. "Controls with Nancy" were my words, stunned at attitude displayed by Nancy, and the way the machine was brought down gently without any bumps or panic, probably it was the best touchdown till then I had experienced.

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PREPARATIONS AND COMMISSIONING - INS RAJALI

Vice Admiral V Pasricha (Retired)

My association with naval airfields on the East Coast started in 1981, when I was commanding INS Katchall. One day, when my ship was under refit, FOC-in-C, East Vice Admiral MK Roy, rang up and asked me to join his office, since his NA was going on urgent leave. During those two months, we discussed the lack of naval air stations in ENC, with just one helicopter flight operating from naval land just outside Vizag airport.

Soon thereafter, I got transferred to NHQ as DDNAS, where my responsibilities covered all air stations and adjoining lands. Consequently, there were many meetings with Mr Premnath, DDGCA. Fortunately, he was most understanding and agreed to our flying regularly from Meenambakkam, as also the use of maintenance facilities and hangar next to OTA. He also mentioned that DGCA could hand over two other airports, but with a proviso that civil operations would continue from them. That is how INS Dega and Utkrosh were commissioned. After I moved back to Vizag as COPO in 1982, I pursued the matter with Premnath. As a result, ENC got enclaves/hangars at Bhuvaneshwar and Kolkatta, as also DGCA's unused airfield at Ramnad. (now INS Parundu).

However, the take-over and build-up of Arkonam, which was one of many airfields built along the Indian coastline during WW II, remains truly historic. Built in 1941, RIAF's No 2 Squadron was based here for a year, flying Westland Lysanders. In late 1942, No 2 Squadron moved away and this airfield was put to disuse. After NHQ decided

that IL-38s would operate from Arkonam, the government transferred this airfield to the Navy in 1972 and we took over 2280 acres of land in 1975. Even though the IL-38 Squadron was commissioned on 01 Oct '77, there was no follow-up and Arkonam remained on the back-burner!

During one of his visits to Chennai, Vice Admiral Roy visited Arkonam in a helicopter, with Captain KV Vijayagopalan (CWO) and me. We saw a totally barren strip, with no boundary walls and villagers using these footpaths as shortcuts to Arkonam city.

On our return to Vizag, Vice Admiral Roy immediately ordered a Board of Officers with Captain Vijayagopalan, nine specialists and me as President, to develop an airbase for TU-142s. We stayed at INS Adyar for over three weeks and made many four-hourly road-trips to Arkonam and back. Our Board Proceedings (BPs) were over 500 pages, with Arkonam divided into five sectors:-

- Operational areas, with hangars, dispersals, workshops and airstores and ample scope for expansion.
- Offices, ATC and hospital in the centre.
- Officers' accommodation, Mess and an Institute/golf course, within walking distance.
- 1500 multi-storied sailors' flats, parks and gardens. (Though the manpower sanctioned was only 580, PMB approved housing for the sanctioned strength on commissioning. Thus, for the first time in IN history, sailors chose which house/ floor they wanted).



- Accommodation for unmarried sailors and DSC personnel.
- Schools, canteens, cinema, and recreational facilities were created near the centre of all residential areas.

Initially, the Board considered a subway under the runway. However, because of water-logging during heavy rain, this idea was abandoned. The entire operational area was double-fenced for security reasons.

- Safety zones around armament magazines and fuel dumps were at safe distances from all villages.
- Many IAF units came to Arkonam for flying. They were impressed with the phased areas and took back ideas!
- Since land was barren, the airstation got special sanction of Rs 1 Crore for mangoes, coconuts, tall flowering trees along double roads and shrubs on road-dividers. (Today, this barren land looks like a forest!)
- A water-treatment plant. Though planned for drinking, because of personal apprehensions, this water was used only for gardening.
- A road, outside the boundary, from the villages to Arkonam. Since this increased the distance by 2 kms, the Govt agreed to an additional bus route.
- Even after three decades, very few changes have been made to the BPs.

Though Vice Admiral Roy retired in March '84 and joined MoD for the nuclear submarine project, his dream to activate Arkonam remained! Since he had studied in Tamil Nadu, his command over Tamil helped tremendously, including his rapport with President Venkataraman, who was from his college. Thus, with him in Delhi and three succeeding C-in-Cs, East,

Admirals JG Nadkarni, SC Chopra and VS Shekhawat, this project remained on fast-track. CCPA approved it on 19 June 1986 with two Committees (Project Management Board - under Addl Defence Secretary and Project Management Authority - under the Project Officer) and sanctioned Rs 99.24 Crores. Three additional naval officers were also sanctioned; Captain KV Vijayagopalan (Project Officer), Cdr DC Joshi DDNAS (for speedy movement of files within MoD) and LCdr AM Thyagarajan, Deputy Project Officer. To ensure fast completion of all works, CE Madras, Brig LD Sharma issued directives to CWE Arkonam, Mr Sudesh Dhiman and all MES officers under him. In fact, the MES Officers' Mess got ready in record time and Quarterly PMB meetings were held there, with monthly meetings in Delhi.

In April '85, I left for Mumbai to command INS Vindhyagiri and then commissioned Viraat in England. During this period, Prime Minister Rajiv Gandhi laid the Foundation Stone on 12 Nov '88. I had the good fortune to sailing him when I was in command of INS Viraat. Thus, during this ceremony, he stressed the importance of this airstation, from where our LRMP aircraft would exercise control over the Indian Ocean.

In Nov '89, after I was appointed DNAS and later ACNS(Air), I got involved with PMB and PMA. By now, Shri K Nambiar from the TN Cadre was the Additional Defence Secretary. His push ensured that the project continued on fast-track. Since CCPA had specifically directed that additional sanctions were necessary, only if the total expenditure exceeded the total amount sanctioned, it became possible to complete this major project in a record three years. INS Rajali



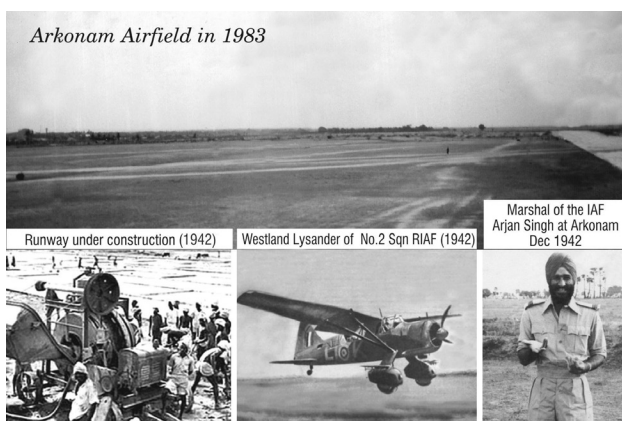
was thus commissioned on 11 March 1992, by President R Venkataraman.

Some events/developments/actions that ensured that Arkonam operationalised soonest include:

- On commissioning day, the runway was not fully ready, as without completing this work the contractor. It was then handed over to Border Roads, who completed it in four months.
- Though TU-142s were planned to operate as soon as Rajali was commissioned, the runway non-completion delayed this. Thus, Cdr SJS Gill (Sqn Cdr 312 Sqn) did a practice landing on 07 Mar '92, two flypasts on 08th & 09th and the first official landing on the commissioning day.
- HTS shifted from Kochi to Arkonam, before the onset of the monsoon and was temporarily housed in the maintenance hangar till its own got ready. Thus, the training course completed ahead of schedule.
- After detailed discussions with DGCA, a small corridor with direct routeing to sea for all aircraft. Since civil aircraft, doing ILS, flew at 3000 ft over Kanchipuram and this was

very close to Arkonam, local/ circuit flying was kept below 2000 ft. For all other flying, Arkonam had a hot-line with HAL Bengaluru.

- There was continuous interaction between ATC Meenambakkam and ATC Arkonam, with DGCA staff visiting Arkonam on a Sunday, as guests.
- The height of the runway had been designed so that trains, on the railway line just adjacent to the runway, would not interfere with TU-142 landings. Because of recent electrification, which has much higher poles, this track will soon be re-routed.
- To set up communication/landing aids, the Navy wanted more land. However, since the area to the West had a lake, which provided water for irrigation, we could set these up on pedestals, with no transfer of land! Also, our boundary walls had small grills at the foundation for drainage
- As the road journey for women going to MH Chennai and back took over five hours, our sick-bay was immediately sanctioned an AMC lady doctor.
- Thanks to Min HRD, Shri Arjun Singh,





a KV school upto Class VIII started even before Rajali commissioned, with their teachers/staff given Govt accommodation – both perhaps for the first time ever!

- First Line maintenance of Alouettes started immediately, with sailors going regularly to HAL to collect spares whenever required.

- A Bank and the Post Office were set up well before commissioning.

- Since many officers joined before commissioning, three married flats were converted into a Wardroom/ dining hall and accommodation for bachelors, since the Officer's Mess and cabins would get ready only after three months.

- All Commanders were given bungalows, though later this design had to be modified.

- The name/crest was designed by Major Balakrishnan.

- Lt Cdr Thyagarajan was instrumental in ensuring that all land transfers were smooth and very quick.

- Rajali is one of those defence projects, which not merely completed in the planned time, but also did not over-run its sanctioned budget.

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INS RAJALI'S GLORIOUS 25 YEARS

Commodore RS Vasan (Retired)

By all counts, 2017 would be a landmark year for so many institutions and individuals.



Commissioning Warrant being read out by Captain RS Vasan CO INS Rajali on 15th March 1992

This includes the Centenary year of Late Admiral SN Kohli, fifty glorious years of the Submarine Arm, Platinum Jubilee of Valsura, Diamond Jubilee of SFNA and of course the Silver Jubilee of Rajali of which I had the honour of being the commissioning Commanding Officer.

The Senior Aviators with vision and the leadership in Delhi need to be complemented for embarking on this prestigious strategic project on the East Coast in the late 80s. It is not that there were no earlier efforts to rejuvenate this former Air Force base that



provided logistic support during the second World War. Over decades of disuse, the runway was battered and served as drying area for paddy grown from the lake nearby. Most of the land was also encroached and villages had come up around the base. It is a coincidence that during the same period during the second World War the Royal Air Force operated from Arkonam, the Royal Navy operated from Tambaram. Today it is exactly the other way around, Rajali with the Navy and the Tambaram Station with the IAF.

Coming back to the genesis, the induction of TU 142 the long-range MR ASW aircraft in the 80s while adding a phenomenal punch to the Navy was restricted in its ability to take-off with full weight from Dabolim due to the runway length. INS Hansa was already getting congested with the maintenance, logistic and support facilities stretched to the limit due to the mix of aircraft with diverse requirement of providing fleet support.

While there were many Board proceedings for creation of a new air station at Arakkonam, most of the credit for taking this forward should go to Vice Admiral Pasricha who took it upon himself to ensure that this moved on fast track. Rajali as a project set unparalleled precedents and the most important one was the creation of the Project Management Board (PMB) headed by AS (Navy). Along with the DCNS, ACNS (Air) DNAS, Finance and other representatives of the MES, this was a formidable combination that was involved at all stages of the progress after the sanction. The foundation stone was laid by then PM, Rajiv Gandhi and it was identified as a priority project.

The Project Director, Commodore Vijay Gopal, who has since settled down in Arakkonam did a splendid job in sorting out the land acquisition process and being part of the local team that worked relentlessly with the MES for commencing works.

This was also the first project where an arboriculture project worth more than a crore was sanctioned. This was also the first time that the MES was asked to change the design of the houses and include modern tiling and fitments. Piped water had to be brought from the Palar river bed some 70 kilometers and the entire electrification was underground with no overhead cables.

While serving in NHQ, little did I know that I would one day be selected to be the Commissioning Commanding Officer. All the briefing, interaction with the top brass in Delhi and the first-hand knowledge acquired as Director of Air Operations and Training came extremely handy on being posted as the CO Designate. When I reported in July 1991 some nine months before the commissioning, work was going on in full swing and there was so much to be done. There were many hiccups due to the failure by contractors and litigation. There were also issues of non-sanction of manpower and then Chief of the Naval Staff had even threatened to close-down the Air Station if the sanctions were not given. Finally, a sanction of some 540 personnel was accorded and we had started working on infusing life into the Navy's biggest 'Naval Air Station' with many firsts to its credit.

The Runway length was only 3200 meters whereas another 1000 meters plus, aprons,



shoulders and taxi links were yet to be completed due to litigation. The BRO was involved and took over the balance work on the Runway. In a first for a shore station, Harbour Acceptance Trials (HATS) were undertaken for BEL communication and navigation equipment. The large number of labourers employed by many contractors were all living within the perimeter of the air station and posed challenge to the security. The surrounding villages were notorious for encroaching into the territory and stealing various items from the station. The completion of the perimeter road and regular patrols ensured that this was controlled.

The PMB met every month at Rajali and took key decisions including the date for commissioning and carried out on site inspection. 11th March 1992, was the D-day.

During my visit to Dabolim prior to commissioning, there was a concerted effort to try and fly an Alize to Rajali as the "last of the hookers and the first to land in Rajali". Unfortunately, despite many air tests, this aircraft was not ready and was not airworthy. I had even volunteered to fly in this aircraft but the aircraft just did not want to go to East Coast! The Alize arrived later by road and has a pride of place opposite to the Administration building. The honour of test landing finally went to an Islander in the presence of then C-in- C, East, Admiral Shekhawat. That was some evolution to say the least as all the civil workers were crisscrossing the runway and trying to reach their places of work which was in full swing. On the day of first landing, it became necessary to line up on either side of the

Runway with service personnel to prevent any mishaps due to inadvertent crossing.

A decision had already been taken to shift the Helicopter Training School (HTS) and create second line facilities for maintaining the Chetaks along with annual tasking even before commissioning. Likewise, the shift of the sonobuoy simulator for the TU142 and the facilities for the Base Support Facility (BSF) needed to be shifted by road from Goa. The entire commissioning crew needs to be complemented for the professional and time-bound manner, in which all facilities were shifted and operationalized.

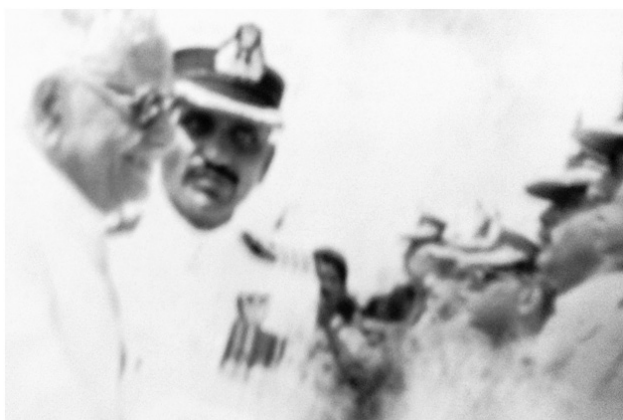
The commissioning on 11th March posed its own challenges as the runway was not complete and many of the facilities were yet to be operationalized. It was also decided to bring the President (late) Shri Venkataraman and the entourage in Seakings from Chennai and then take them back directly from Rajali in the President's Boeing soon after commissioning. The flurry of air activity on the commissioning day was unprecedented. With the unidirectional runway, due to the unfinished work, it was a challenge for the aircraft to be parked in a convenient fashion that would allow ease of manoeuvring.

The commissioning by the President of India itself was spectacular with then CNS Admiral Ramdas, C-in-C, East Vice Admiral Shekhawat, DCNS Vice Admiral Guha, ACNS (Air) Rear Admiral Pasricha and many other dignitaries being present to witness the historic commissioning ceremony.

The roaring flypast by the TUs, IL38s, Dorniers and Helicopters heralded a new



era of great strategic significance on the East Coast of India. It was remarkable that soon after the commissioning the VVIP Boeing landed on the commissioning day and took off with the Supreme Commander



Hon'ble President meeting the Heads Of Department and Squadron Commanders of INS Rajali

of the Armed Forces of India. It was just the beginning of a long process of infusing life in to Rajali a unique bird belonging to the grey eagle family.

There was never a dull moment from the commissioning date. By end of the month, the TUs landed in Rajali and started operations despite many constraints. The runway lighting and other facilities were operationalized. ILS, Navigation facilities and Radar were being installed on a priority. It is to the credit of the TU Squadron that the Form Green sorties were being flown virtually from Day 1. In the meanwhile, the HTS (Helicopter Training School) was shifted methodically and commenced flying training with half a dozen Chetaks within three months of commissioning and the very first course from Rajali passed out in November 1992. The maintenance facility

for Chetaks and the BSF started with full-fledged maintenance work. Rajalika the theatre, Officers' Institute, Squash court and para-sailing club were commissioned one by one.

Another challenge was to get the KV School. Here the efforts of DNE and Mrs Lalitha Ramdas need to be acknowledged. Also, as even small children had to go all the way to Avadi every morning, it was essential to commission the KV School without any delays. By sustained efforts at all levels, the sanction came through. Play Schools and small markets were improvised from within the existing buildings and we were self-sufficient on most counts.

From those days, Rajali has moved on leaps and bounds and has become the most important strategic base for the Navy. The induction of the P8i Poseidon to replace the TUs, creation of additional maintenance and support facilities have added a formidable punch to Rajali the pride of India and the envy of our neighbours.

On the occasion of the Silver Jubilee, I would like to acknowledge the contribution of the Project Team, the commissioning crew who worked relentlessly and successive commissions for the last 25 years who have added value with each commission and made Rajali what it is today.

Safe flying and happy landings to all those lovely birds nested in Rajali, an Air Station par excellence. Jai Hind.

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FIRANGIS IN RAJALI

Commander DPS Aujla (Retired)

“Whaaat...? say again” shouted Commodore Bawa Handa into the phone and listened with occasional nod and hung up. He was always calm as a cucumber whether in the office or at the Golf course and ran a taut ship at INS Rajali in 1997. I had gone to discuss some routine matter. He wondered loudly “Call from Guard Room. Some white ladies apparently, foreigners want to enter the base.... Just go along with RO and see what they want.” So I proceeded to the Main Gate with Lt Cdr (SDREG) Jagdeeshan the Regulating Officer and an old Rajali hand.

Among the Naval Stations, the one at Arakkonam in North Arcot District of Tamil Nadu is by far the most ‘God forsaken’ in naval parlance. The nearest big town Chennai is good three hours’ drive away it was a nightmare for any visitor to reach this base. With Puliamangalam shopping complex coming up, the base was more or less self-contained. Everyone knew each other including what is happening in their lives.

As we approached the Main Gate, we could see DSC Sepoy Selvam in deep animated discussion with a middle aged European lady which neither of them actually understood. An even older lady was waiting in the old Ambassador taxi parked in the shadow of the massive boundary wall and the driver was reading the Tamil paper. We called the younger lady to the Guard Room and enquired the purpose of her visit. She introduced herself as Loretta, laid on the table an old manila envelope containing tattered documents and letters and narrated her story.

Both Loretta and her mother Maria sitting in the cab were Australian citizens of Italian origin.

Maria was a young woman in Pamerno Italy expecting her child when her husband Antonio left for the African shores to fight the allied forces in 1940. Intense land battles raged from 1940 to 1943 which see-sawed between Rommel’s and Montgomery’s forces. Finally, the Italians were pushed through Libya into Tunisia and large scale surrender took place. Maria received the news of Antonio’s capture and subsequent transfer to Indian POW Camp. Arakkonam was a POW Camp for Italian prisoners in the Second World War. The place was carefully selected by British as there was no escape route from here. You couldn’t out run the Cobras and scorpions. Further due to the fear of Japanese invasion on the East Coast, runways were to be built for defence. No better place for utilizing this labour force.

Sometime in 1945 while Loretta was still a toddler, Maria was intimidated by the Imperial War Office that Antonio had committed suicide by jumping into a well at Arakkonam. A map of the area where the prisoner died was also attached by the meticulous British. Distraught, Maria brought up her only child and later migrated to Australia. While life went on its regular course, both harbored an intense desire to visit the spot of Antonio’s death and contacted the Australian High Commission in India. The High Commission wrote to Defence Ministry where some insensitive babu expressed inability due to the Base being a high security defence installation. Now with Maria approaching



nearly 80 years, they had decided to visit India and take a chance.

I explained the situation to the Commanding Officer and he ordered for the ladies to be escorted inside the Base. I sat in front of their taxi and another vehicle followed us. I knew the location of this well in the Golf Course next to the ruins of the prisoners' barracks. It was a heart wrenching moment and I was transformed back in time to 40s. How difficult it must have been for those prisoners to survive this harsh climate, with heat and insects in plenty. Every slab on the old runway bears testimony to the toil and sweat of these Italian prisoners. Here was an old widow whose husband left her alone for more than fifty years and a daughter in her 50s who had no memories of her father except for a photograph showing him as a young soldier.

The ladies started sobbing as we parked near the Draupadi temple and walked towards the well. It was not possible for us to hold back the tears as we stayed some

distance behind to offer them privacy in grief. Human emotions run deep cutting across all barriers of language or creed. The taxi driver who only understood Tamil was weeping inconsolably. The ladies meanwhile offered flowers, some photos, letters etc. into the well and cried their emotions pent up for so long. After reading the prayers from the Bible they decided to head back. On the way, they accepted a cup of tea in the Officers' Mess and were now composed after finishing the task.

The sturdy heart merely the size of a fist which pumps 2.5 billion times in a lifetime is in reality so very fragile that it bleeds saline water thru eyes at any suffering even to a fellow human being. I often wonder as to what relation I had with an unknown obscure Italian soldier to weep in sympathy. By nature, we are all fine people but it is the fog of war that blinds and make us commit irrational acts.

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ANECDOTE

"I am Commander Air, Cdr RAJ Anderson," he said with an air of confidence.

"Raj Kapoor," said the legendary Raj Kapoor of Shri 420 fame, smiled his very own quintessential smile, and shook hands loosely with the Cdr Air of INS Vikrant. The place was the quarterdeck of INS Vikrant. There were many other guests too; largely senior naval officers and pilots.

"What do you do?" the Commander asked Raj Kapoor indifferently. Raj Kapoor was not amused.

The Tamil Anglo Indian Anderson continued sipping his Johnny Walker Black label encircled by a group of officers and regaled them by his witty and feisty anecdotes.

This was the version of the incident we often heard, when I was Midshipman on board INS Vikrant in 1970. Unbelievable isn't it? I am not contesting. I too heard it but was not witness to such strange and unbelievable interlude.

Captain AK Malik (Retired)



GENESIS OF RAJALI

Commander Rajinder Dutta (Retired)

The genesis of INS Rajali lies in the think-tanks of Navy acquiring the maritime aircraft in mid-seventies, the Super Constellation, or Superconnies from IAF and the IL-38 from Russia and later the TU-142Ms in 1988, all of which had INS Hansa, Goa as their home base apart from the Alizes, Kirans, Harriers and Kamovs. Although the Superconnies were phased out in 1984, Hansa was getting saturated with fresh induction of TUs and a need was felt for a separate Airbase for the TUs. Extensive studies resulted in homing on to Arakkonam near Chennai which had an abandoned airfield of British times. The airfield was abandoned after the WW-II and lay unused until the 1980s, when it was transferred to the Indian Navy who rehabilitated and commissioned the airfield as INS Rajali on 11 March 1992. Even as INS Rajali celebrates its Silver Jubilee this year with fresh inductions of Poseidon P8I, I am reminded of my association with the first maritime Aircraft of Indian Navy.

The Navy's first Long Range Maritime Reconnaissance squadron was commissioned with five ex-IAF Super Constellation aircraft on 08 Nov 1976 at INS Hansa, Goa. Then Cdr RD Dhir was the commissioning Squadron Commander. I and my course-mate Gopa Kumar had flown the resilient Superconnie for two years in early 80s at INS Hansa Goa, the largest Naval Air Base of Asia prior to Arakkonam. Resilient, I mention, because in its sunset days with

the Navy at Goa, the aircraft although seemed to display fatigue with malfunction of Hydraulics and misfiring of spark plugs, but always brought its crew back safely, after having tested their emergency actions. The aircraft gave some harrowing times to the poor Flight Engineer (FE) stationed behind the co-pilot, keeping an eye on the 72 spark plugs of the four piston engines, on a scope that resembled an ECG monitor in an ICU. Either you could see the FE busy feathering one of the four engines, due to shorting of a spark plug or pumping away the emergency hydraulic pump to get the undercarriage down, after an inadvertent drop of Hydraulic pressure due to a small leak somewhere on the old pipelines.

We were known as the mighty albatrosses. A crew room of the mighty albatrosses was a fun room with crew engaged in scrabble, chess and the never-ending tea flowing in. Our ever-smiling Snr 'O', Late Commmander Rajesh Sharma was an instant wit, who heralded the era of stand in comedy. If ever there was Life in the Navy, Haminasto-Haminasto-Haminasto (it was here, it was here, it was here).

Best Wishes to INS Rajali on its Silver Jubilee on 11 Mar 2017. The Naval Aviation has come off age! Shano Varuna. Jai Hind!

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INDIAN NAVAL INDIGENISATION

Vice Admiral Pradeep Chauhan (Retired)

With all the hype and hoopla attending the 'Make-in-India' and 'Make-for-India' campaigns, one encounters considerable confusion between the terms 'Make-in-India' and 'Indigenisation', which is really a 'Make-by-India' issue. The former two campaigns encourage largely-foreign major manufacturing-companies to set-up manufacturing-units in India — whether for consumption by the Indian market itself or for export from India to markets in other countries. As such, their principal aims are job-creation, skill-development, and the transfer and absorption of cutting-edge manufacturing-technology and management-techniques. 'Indigenisation', on the other hand, involves Indian industry manufacturing products and processes that would otherwise have had to be imported by India.

Conscious of its acute reliance upon state-of-the-art technology, the Indian Navy has consistently (since the early 1960s) maintained 'indigenisation' as a fundamental tenet of its planning and growth. Not only does indigenisation support and encourage the resurgence of India's own industry but also cut costs and dependence-levels since an importer has to depend upon the subsequent imports of spares, upgrades and accessories throughout the life cycle of the equipment. The Navy has a long and steady record of supporting indigenisation — a commitment of which it is extremely and justifiably proud.

The results, guided by two main naval organisational-pillars, are impressive across a range of capabilities. A staggering 119

combat-platforms have been built in India under the aegis of the Navy's Directorate of Naval Design (DND), headed by a two-star Director General (DGND). This is the first pillar. The often-unsung heroes of the DND have churned out as many as 19 different warship-designs — from modest patrol vessels to formidable destroyers and our first indigenous aircraft carrier, the Vikrant, which is currently under construction in Cochin Shipyard. Indian shipyards have as many as 41 indigenously designed warships in various stages of construction.

The DND's Golden Jubilee year — 2014 — was an aptly high-profile one. It saw new 'Commissioning Pendants' being flown aboard three different 'Types' and 'Classes' of the Indian Navy — the Kolkata (the first of a new class of guided-missile destroyers), the Kamorta warfare (the first of a new class of anti-submarine warfare corvettes), and, the Sumitra (the fourth of a new class of Naval Offshore Patrol Vessels). 2015 was no less impressive as witness the launch, in April, of the stealth-enhanced guided-missile destroyer, the Visakhapatnam — the first of its Class. The Kolkata's sister ship, the hugely capable Kochi, was commissioned in September, while a month later, it was the turn of the Torpedo-Recovery-cum-Research Vessel, the Astradharini, to break the President's Commissioning Pendant upon her own mainmast. In September 2016, the second ship of the Kolkata Class, the Mormugao once again underscored the sterling contribution of the DGND and his tireless staff.

Admirably supplementing the DGND's



efforts is the Indian Navy's 'Directorate of Indigenisation' (DOI) — the second pillar. Established in 2006, the DOI functions as the nodal directorate for navy-wide indigenisation activities, with attendant spin-offs that would build capacity and enhance capability amongst India's regional friends and partners. These indigenisation efforts are guided by two keystone documents, the "Indian Naval Indigenisation Plan (INIP) 2015-2030", and the "Science and Technology Roadmap-2025" aimed at the development of indigenous technology in respect of naval applications. Commendable as these are, one would have liked to have seen far greater focus upon the most effervescent element of India's burgeoning economy — the Micro, Small and Medium Enterprises (MSME) sector. This is particularly because in the medium term, any future naval conflict involving India and Pakistan — whether Pakistan is acting alone or in collusion with China — will involve significant offensive action by the Indian Navy in Pakistani littoral waters — a crowded, messy and confusing maritime space. Likewise, over the next couple of decades at the very least, the imperatives of coastal security — involving 'State', 'non-State', and 'State-sponsored non-State' malevolent entities — will see significant preventive and punitive defensive operations by Indian Naval surface and airborne combatants in the brown waters of India's littoral waters — once again a crowded, messy and confusing maritime space. Conventional maritime conflict under the India-Pakistan-China nuclear overhang is very likely to be time-compressed and 'Special Ops'-intensive. There is, therefore, a huge operational void that appropriate technology can and must fill and it is here that India's MSME sector — whether acting

on their own initiative, or as part of the offsets required to be effected by one or another of Indian or foreign defence-'majors' — can play a very significant role in several critical areas: paper-batteries to power hand-launched micro-UAVs; camouflaging of the ends of GPS-trailing-wire antennae for use in specific environments (such as the creek areas of Gujarat and Sindh or the swampy areas of the Sundarbans); electrical high-speed outboard motors (OBMs) and noise-cancelling/sound-blanking solutions for two-stroke and four-stroke IC-engine OBMs; portable power-ascenders for boarding operations, amphibious raids, etc.; 'Low Observable Technology' semi-submersible craft; diver-scooters and diver-propulsion vehicles; image-recognition software that can provide 'suspicion-indicators' (such as a fishing-vessel not conforming to the local design or layout); etc.

Likewise, given the challenge of training the police (the authorised custodians of the country's law-and-order set-up) to be effective within the territorial waters of India, there is a wide opportunity-space for innovative training-products such as 'Intelligent Tutoring Systems' or game-based training using mobile phones, or 3-D full-immersion technology simulations. The Indian MSME Sector, with its abundant tech-savvy youth-dividend at hand, is ideally placed to dominate this field.

This notwithstanding, Indian industry is increasingly entering into a number of new and exciting partnerships with global players on the one hand and the Indian Navy, on the other. Top-end examples include major systems required for aircraft carrier operations, such as Electro-Magnetic



Launch Systems, arrestor-wires and aircraft-lifts. Indeed, the Navy's indigenisation drive has already yielded impressive and encouraging results in a number of critical war-fighting areas.

The DRDO has frequently received adverse media-attention, but it has many success stories as well — at least insofar as the Navy is concerned. The range of Electronic Warfare Suites such as the revamped 'AJANTA', as also the 'ELLORA', 'KITE', 'HOMI' and 'PORPOISE', all of which are fitted on the Navy's latest frontline surface, airborne and subsurface combatants are certainly achievements of which we ought to be proud — and these have all been designed by the Defence Electronics Research Laboratory (DLRL), Hyderabad, and are manufactured by Bharat Electronics Limited (BEL). The same is true of the Navy's advanced underwater-sensors such as the APSOH, HUMSA NG and USHUS family of sonars, developed by the Naval Physical and Oceanographic Laboratory (NPOL), Kochi. Likewise, an indigenous state-of-the-art electro-optical Fire Control System (FCS) the 'EON 51 Mk II', designed by IRDE, Dehradun, and productionised by BEL, is now a standard fit.

Pitching-in directly with its own formidable expertise, the Navy's WESEE (Weapons and Electronics Systems Establishment), along with the Centre for Development of Telematics, has spearheaded indigenisation-efforts through its series of world-class 'Combat Management Systems' (CMS) and data-link systems (LINK-II Mod 3), now being manufactured by Bharat Electronics Limited (BEL). These form the heart of the entire C4I2SR set-up on board most classes

of the Navy's frontline warships. Deserving of special mention are four indigenously developed system-management suites, viz., the 'Integrated Machinery Control System (IMCS)', the 'Integrated Bridge Management System' (IBMS), the 'Integrated Propulsion Management System' (IPMS) and the 'Battle Damage Control System' (BDCS) that now equip the Shivalik, Kamorta, Kolkata and Visakhapatnam classes of warships, as also the Vikrant. Likewise, the indigenously designed and developed 'REVATHI' three-dimensional 'Central Acquisition Radar' (CAR), which is installed aboard the Kamorta Class Anti-Submarine Warfare (ASW) Corvette is an excellent example of the growing 'Public-Private Partnership' (PPP) in defence production. The successful leveraging of Navy-designed IT networks and IT-security platforms stands in sharp contrast to the grave concerns often expressed in respect the country's remaining critical infrastructure.

The Defence Metallurgical Research Laboratory (DMRL), Hyderabad, in collaboration with M/s Steel Authority of India Ltd (SAIL), and with active participation from the Indian Navy, has successfully undertaken the indigenous development and production of warship-grade 'DMR249A' steel plates and bulb structural sections for ship and submarine applications. This represents an enormous step in freeing ourselves from the yoke of pressures and prices associated with the import of steel. The results are evident in the construction of the Navy's big-ticket platforms such as the Vikrant and the future submarines being constructed under 'Project 75-India'. In recognition of the criticality of the PPP-model, regular buyer-seller meets and vendor-development programmes are being



conducted by the Navy and procedures and processes are being tweaked to make them both simple and transparent.

The Navy is aware of the urgent need for the country to develop 'green-field' shipyards, with latest technologies and ship-building techniques/practices and is proactively incorporating private shipyards into warship-construction.

And yet, there is much that remains to be done. Armed combat is brutal, real, and

terminal in nature. We cannot afford the luxury of a media-debate when precious lives are at stake. As a consequence, there is certainly a need to encourage far greater synergy between the uniformed and civilian segments of the Ministry of Defence and continuously refine the Defence Procurement Procedures.

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INDIGENISATION OF COMMAND & CONTROL AND COMMUNICATION SYSTEMS

Rear Admiral Arun Saxena (Retired)

Introduction

In the 1970s, when a number of indigenous warship building projects were initiated by the Navy, the weapons and sensors for these ships were imported from diverse sources and these were required to be integrated. This was an onerous task and as the OEMs were not willing to take it on, it fell upon the Navy to take on this challenge. Weapons & Electronic Systems Organization (WESO) was set up on 26 July 1978 to undertake the task of integration of diverse equipment for warships. The immediate task was system integration for P 16 Ships (Ganga, Gomati, Godavari) and modernization of INS Vikrant. Subsequently, Weapons and Electronics Systems Engineering Establishment (WESEE) was created on 31 May 1985 as a permanent autonomous establishment of the Ministry of Defence.

Combat Systems and Communication Networks for the Navy

The work at WESEE consists of projects which are handled from their initial stages of project definition and all the way through the various stages of design, development, testing, integration, field trials and transfer of technology for production and life cycle support. The projects handled by WESEE are mainly in the areas of -

- **Combat System Engineering and Integration.** Naval combat systems comprise of a number of indigenous or imported sensors, weapons, fire control systems, command and control system and navigation systems. The ultimate goal is to integrate the systems in a manner so as to meet the ship's operational requirements and this is the essence of



combat system engineering. In keeping with its role and charter, the development of combat system engineering and system integration on all warships and submarines is undertaken at WESEE.

- **Command & Control Systems.**

A Computerized Action Information System (CAIS) is germane to the success of a mission for a ship, submarine or an aircraft. These systems are software intensive and have embedded intelligence. The complex and sophisticated features of the CAIS put a serious limitation on import and acquisition of these systems. Against this background, the Navy initiated the development of a command and control system designated EMCCA (Equipment Modular for Command & Control Applications) at WESEE. This system has been inducted into the Navy on P 16A ships Brahmaputra, Betwa and Beas.

- **Data Links and Communication Networks.** Modern maritime operations demand mutual exchange of tactical data between various units afloat and ashore in a fast, reliable and secure mode. Data links facilitate exchange of tactical data so that the participating units form a homogeneous force for surveillance, navigation, targeting. Inter-unit dependency assumes greater significance in the face of very small reaction time for countering various threats. The Data Link Fitment Policy for the Navy was

promulgated in 1987. This covered new acquisition and retrofit on warship including those with over the horizon capability, long range maritime patrol aircrafts, helicopters, airborne early warning units, fighter aircrafts (up link only) and submarines. WESEE put in considerable design and developments efforts and significant technological breakthroughs were achieved. Several variants of Data Link Equipment (DLE) have been developed to meet the requirements on different platforms.

CAIO for Project 17 Ships. With EMCCA, WESEE entered into software engineering and has played a significant role in the development of several variants of command and control systems for various warships. A major initiative was the conceptualization and development of CAIO 17 in collaboration with Russia for Project 17 ships. The system design for CAIO 17 was envisaged to be generic in nature so that it could be installed on different types of platforms each having its own sensors and weapons configuration. The CAIO 17 automates tactical data handling from the ship's sensors, gathers data from other ships/helicopters/aircrafts operating in the fleet through data link to present a comprehensive tactical picture of the area of operation and provides the command with a decision support system. It also provides target designation to the interfaced fire control systems for sub-surface, surface and air targets.

Submarine Combat System (SCS). Leveraging on the development of EMCCA, WESEE launched the development of a Submarine Combat System (SCS). A SCS



provides decision support to the command onboard a submarine and is designed to accept real/non-real time data from various sensors. The data is centrally collected, collated, processed, and presented to the command in a suitable form for decision-making. In addition, this data is disseminated to the requisite weapon systems for the engagement of targets.

Sanchar and Naval Enterprise Wide Network (NEWN)

Sanchar was an automatic message switching system (AMSS), which was developed by WESEE and M/s KELTRON in mid 1980s for handling the signal traffic of the Navy. It was conceived, designed and developed at a time when networking was in infancy. Based on the rapid developments in the field of information technology, both in terms of hardware and software and our experience of operating Sanchar, there was a need to upgrade the hardware and software and add more features to make the system current with the state-of-the-art. In December 1996, WESEE initiated the setting up of Naval Enterprise Wide Network (NEWN) to provide integration of voice, fax, data, e-mail and video applications over a common IT network backbone and provide a path for present and future applications. With several upgrades and enhancements, this network is the mainstay of enterprise wide communication in the Navy.

Asynchronous Transfer Mode (ATM) Network

The ATM data network on Project 17 ships was designed and developed by WESEE for ship-wide interface and transfer of data and integrate various functional requirements viz., CAIO, ship's internal voice and data communication requirements comprising

of broadcasts, intercoms, telephones and CCTV, Communication Control System, external data link interface to share and distribute information and communicate in real-time or non-real-time between all ships, aircraft and establishments in operational scenario and distribution of ship's house-holding data for tactical and non-tactical processing and presentation.

Security of Computer Systems and Networks

Networked computers and communication systems are the backbone infrastructure in the form of NEWN. These computers and networks hold sensitive data and classified software and electronic break-ins and penetration of such systems through illegal entry, information theft, alteration, or destruction by unauthorised personnel can render such a system very vulnerable. It is therefore imperative that the computer systems, software, data and the communication media be absolutely secure. WESEE has been in the forefront in developing and implementing IT security solutions starting from physical access control and moving up the value chain with IT access control and cryptography. WESEE collaborated with IIT, Kanpur to develop a robust algorithm for encryption/decryption of text, data, voice, graphics and video. This software was embedded into personal computer hardware, thereby enabling any computer to be used as a terminal for secure messaging. This was significant breakthrough in development of cryptography and has been successfully deployed in data link and Sanchar equipment. Subsequently, WESEE has developed and implemented many innovative solutions in this field and is recognized as a leader in this technology.



Network Centric Warfare

Network Centric Warfare (NCW) is the military's adaptation of IT and refers to a battle strategy based on total combat power rather than platform firepower. Due to swift pace of modern battle, rapid exchange of information and real time command and control between participating units has become imperative for success. These capabilities have been enabled due to increased computer processing power, networking capabilities and software enhancements and corresponds to a shift from platform centric warfare to network centric warfare.

WESEE mooted the idea of NCW in 1997 with a paper on "Revolution in Military Affairs". With the development of tactical systems and support services networks such as command and control systems, data links, enterprise wide network, security, systems engineering firmly in place and being continuously enhanced, WESEE has

laid the foundation of the Navy's network centric systems and there is continuous ongoing effort to enhance the functional capability, particularly in terms of automation in functions like data gathering, surveillance, processing, fusion, correlation, distribution and forming foundation for tactical decision making and warfare functions.

Future Perspective

Over the years WESEE has developed, designed and engineered systems and solutions to meet the most challenging and ever-increasing operational needs of the Navy. It has imbibed technology and kept pace with the state-of-the art to ensure a futuristic outlook. It has delivered what it was tasked with. It has expertise, vision and outlook in consonance with the Navy's perspective, planning and priorities. Its dynamics are eminently suited to inducting technology and finding innovative solutions.

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MAKE IN INDIA - NAVY UNEQUALLED

Captain S Prabhala (Retired)

'Make in India' may be a new slogan for India, but it has been a philosophy of the Navy for over five decades. It is not an empty boast; it is based on my six years' experience in Mazagon Docks and seventeen years in Bharat Electronics Limited.

The Concept

'Make in India', and its variants 'Made in India' and 'Make for India', are mere sound bites but the underlying principle is Self-reliance, especially in Defence equipment. It was

enunciated by Nehru as early as in 1956 when the Industrial Policy Resolution was approved by All India Congress Committee in its Adyar session. Defence Public Sector Enterprises were born as a result.

'Make' means manufacture. Since liberalization of our economy started in 1991, manufacturing as a percentage of our GDP has fallen to 15%. (It is around 25-30% in healthy economies). For instance, hardware for our Information Technology and Telecom sectors are all imported. In



fact, our electronics import in a couple of years will exceed even oil imports. Above all, there has been no growth in employment in manufacturing sector. Manufacturing with a long supply chain has the potential to create many jobs. Hence the imperative for 'Make in India'.

As for defence requirements, it is matter of concern that despite 40 Ordnance Factories, 9 Defence PSEs and 50 DRDO Laboratories, 70% of our defence requirements is still being imported. The reasons for this situation are many but cannot be gone into in this short paper. Enough that Make in India is therefore even more essential.

Self-reliance

So far as Defence industry is concerned local manufacture alone is not sufficient; it is only a half-way step. True self-reliance involves not only local manufacture but local design and development. Being able to create a product employing contemporary technology and meet the needs of the Defence Services is the essence of self-reliance. It is evident that self-reliance in Defence is the only option for our country since we are not part of any military alliance. It is well known that in politics there are no permanent friends; when the chips are down, no one will come to our aid.

Self-reliance is a step by step process for a country with a low industrial base like India at the time of Independence. The first step was to develop competence in manufacturing. The design of a product may be foreign but making it gives insight into the manufacturing processes and the requirement of tooling, jigs and fixtures. Design capability is built up by designing variants of the product for different applications and technology upgrades. With enough expertise developed,denovo design of the next generation product can be taken up.

The process looks simple but it is not. For, modern weapon systems such as warships, aircraft and missiles are integration of many technologies embedded in their subsystems from multiple sources. No one company can be in the forefront of such myriad technologies. A complete 'ecosystem' of designer-manufacturers is needed for total self-reliance.

Navy Does It

Decision to build six Leander Class Frigates (F32) in Mazagaon Docks was a bold step for its time – early 1960s. India had not built such a major ship till then. Local industry was in an infant stage. Mazdocks, primarily a ship repair yard till it was nationalised, needed extensive modernization. Admiralty licensed the design for a fee and Vickers and Yarrow provided the know-how for another fee. But know how was confined to the ship, not its machinery and other equipment.

From the start, Navy decided that making as many equipment in India as possible was important apart learning how to build ships. The list of equipment that was sourced from India for Leanders is amazing: Steel for the hull – Rourkela Steel Plant; Steam Turbines - BHEL; Boilers – Naval Dockyard, Bombay; Generators – BHEL; Voltas – Air-conditioning; Auxiliary Turbines – HAL; Main Gears - Walchand Industries; Water Tight Doors and Hatches – Todji; Valves – Leader; Insulation – Fibre Glass Pilkington; Axial and Centrifugal Fans – ACCL; Electric Cables – BICC; Switch Boards – GEC; Audio System – Philips; Wireless Communication – BEL; Radars and Fire Control Systems – BEL; VCS Consoles – BEL; Junction Boxes – Control & Switchgear, and many other items I can't recall now. Technology was licensed from parent companies abroad in many cases while some were entirely an indigenous effort.



Meanwhile Naval Constructors began making changes in Leander design to accommodate Sea King helicopter and more modern electronic systems. Design for “Godavari” class frigates with 20% higher displacement than Leanders was taken up. Project 15 and Project 17 designs followed. Gas Turbine propulsion was introduced. The weapons and electronics fit was a mix of Russian and Indian equipment. By the 1990s, it can be truly said that Naval Design came of age.

Of all equipment and systems, maximum progress in indigenization took place in Electronics. Navy took the initiative and commissioned the development of Solid State S and L Band Radars and Navigational Radars, Computer Aided Ops Room system EMCCA, etc. by Bharat Electronics. Navy also supported the development of APSOH Sonar and its variants, Sonar Transducers, EW systems, Torpedoes by DRDO Laboratories. For nuclear propulsion, Bhabha Atomic Energy Research Centre was tasked. In all these developments, Navy took an active part by periodic monitoring of progress, providing facilities for ship trials, lending technical personnel and timely decisions on trade-offs.

How Navy is Different

Why is the Navy so different from Army and Air Force when it comes to indigenization? There are three reasons. First, warships have long gestation periods. A medium-size ship takes at least three years to build. They are expensive and budget is limited. Therefore, there will never be more than ten ships of any design class. And, warships last for about 30 years. Clearly, dependence on foreign suppliers for spares and technical support through the life of a ship is not only expensive but unwise because geopolitical factors may lead to denial of support at critical times.

Second, Navy alone has a department for design manned by qualified ship designers, no doubt following the practice of Admiralty. Navy also created WESEE to integrate electronic equipment from different sources. Army doesn’t design its guns or tanks nor does the Air Force design its aircraft or helicopters. Navy thus has an in-built preference for indigenous design and far better understanding of trade offs involved in any design and the truth of “the best is the enemy of good”. Respect for the ‘art’ of design in turn enables it to work with industry in a cooperative mode, in contrast with the hands-off or confrontational mode adopted by the other two Services.

Third and most importantly, Navy trusts its junior officers with demonstrated talent, gives them freedom to innovate and backs their efforts through the design and development cycle. The bold design of Godavari Class ships, development of APSOH Sonar and the seamless mix of electronics of different origins in TALWAR class ships is the result of unstinted support for the initiatives of young officers.

The Way Ahead

While Navy’s record in indigenization is unmatched, there is still a long way to go on the road to self-reliance. For submarines, gas turbines for propulsion, missiles and aircraft we are still dependent on foreign sources. While the entry of private sector and investment by foreign companies in joint ventures is a welcome development, only time will tell whether they go for ‘screw driver technology’ or establish truly indigenous design and build capability.

Meanwhile, Navy should continue with the motto of self-reliance with greater vigour and lead the way for others to follow.

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SALAAM TASHKENT

Mrs Monila Gupta



"We are all travellers in the wilderness of this world, and the best we can find in our travels is an honest friend" - R.L Stevenson.

I begin my article with an ode to the memory of two of our dear course-mates Cdr Brian Fernandes and Cdr Vijay Chawla both of whom we lost recently. Perhaps they would have been the most enthusiastic readers! In fact, it was Cdr Chawla who was insistent that I write about our travels for the Quarterdeck so that more and more readers could know about them.

The excitement of our earlier trip to Sri Lanka had not yet died down and we wanted to extend the joy. This time the destination was to be Tashkent, the capital and largest city of the state of Uzbekistan. We were to assemble at the Delhi airport early morning of the 5th of April. It was almost 5.30 am in the morning when all of us met in the Indira Gandhi international Airport. It was an emotional moment when some of us met

after long years.... so much so that it was difficult to recognize some of them! We had all changed with the years but lo and behold! As soon as the hugs and pleasantries were over we were back to the days of the NDA, teasing and bonding like before. We the wives were pulled into this wave of happiness and camaraderie!

It was around late afternoon when we reached Tashkent by the Uzbek Airways. The trip was around four hours and seemed to be more like a domestic one. The immigration process took some time and we were looked at with some suspicion. We realized that it would be tough to move around without knowing how to converse in the local tongue. As we came out of the airport, a whiff of icy cold breeze hit us. It was 10 degree C and summer in Tashkent! Suddenly we saw a smart young man coming up to us and greeting us in English!! It was Jessu our young and enthusiastic guide who guided us to the rather comfortable

bus parked alongside. And...off we went strolling through the streets of Tashkent. At first glance, the city looked clean and well planned with trees lining up the streets. We were treated to a typical Uzbek lunch at a restaurant in Broadway Street where the vegetarian options were only potatoes and cabbage! Jessu kept us informed about the city till we reached the Hotel Tashkent International. As we entered the hotel some of us had made up our minds...we would need more warm clothes for this trip. At about 5pm five of us set about to explore the local Charsu market. The place was interesting and looked more like the Sarojini Nagar market in Delhi! Jessu did the bargaining for us, as no one seemed to understand what we were saying except 'jeans' and 'jacket'! We bought jacket to keep us warm in case weather turned colder.

The evening was nice and pleasant and we went for dinner at Pind Baluch - an Indian restaurant in Broadway Street. Interestingly, there are a number of Indian restaurants in Tashkent as the whole year they continue to get lot of tourists from India. Broadway Street seems to come alive in the nigh, it is the central hub of the city lined with restaurants and shops. As we soon discovered, these hotels attracted tourists not only because of their cuisine but more because of the belly dancers! We were treated to a glimpse of Uzbek local dance performances and some of us even joined them in the fun!

The second day we were all set to visit the mountains, the Charvak mountains surrounding the Tashkent region. These are the magnificent mountains of the Western Tien Shan with many tourist routes and trails, waterfalls, caves, gorges, walnut groves and orchards. The highlight of the trip was the honey badam, a local specialty on the way and the thrilling ropeway ride to the extreme

peak of the mountains! It was freezing cold on top and we were glad we had invested in jackets. The view from the top was out of the world with snow capped mountains and deep valleys stretched below. The most exciting thing of course was the jumping down from the slowly moving chaircar and climbing it the same way while on our way back! But it was heartening to find our friends following us and that we were all in a line! On our way back we visited the beautiful huge Chimgun Lake and lunched at the resort in the vicinity. We also saw the Charvak Lake, a man-made lake, which supplies drinking water to Tashkent. The dinner was once again at another Indian restaurant.

The next day was a leisurely trip around the important spots of Tashkent, the Independence Square Park in all its pristine glory, the National Monument symbolizing the rebuilding of Tashkent after the severe earthquake in 1988-89 and lastly Lal Bahadur Shastri's statue standing lonely in a park in the street called after him. The thought of this great leader's tragic end in this city brought tears into my eyes. Later we were treated at a local Uzbek restaurant where we tasted some Uzbek delicacies. On another day we took a metro ride to Amir Taimur Square, walked up to the central area, did some shopping in a mall, posed for the wayside artists in Broadway street and enjoyed fast food. Tashkent in the pre-Islamic and early Islamic times was known as 'chanch' and later named Chachkhand or Chashkand. This modern Turkish name comes from Kara-khand rule in the 10th century. Due to its favourable location on the Great Silk Route there have been several cultural influences. After its destruction by Chinghis Khan in 1219, the city was rebuilt and profited from the Silk route. The Russian Empire conquered it in 1865 during which it witnessed major growth and

demographic changes. Today it is the capital of independent Uzbekistan and retains a multi-ethnic and cosmopolitan nature.

"The world is a book and those who do not travel read only a page." - St. Augustine.

The morning after was rather cloudy but that did nothing to dampen our spirits. We were travelling on a bullet train to Samarkand city the oldest historical and architecturally beautiful city known for its culture and scientific knowledge! About 2750 years old the city has seen many conquerors right from the nomadic Turk tribes, Arabs headed by the Commander Kuteiba ibn Muslim and various other powerful dynasties. In 1220 Chinghis Khan invaded Samarkand and later it began to rise and prosper during the reign of Timur who made it the capital of his huge empire in 1370.

When the train stopped at the Samarkand station it was raining so our first move was to buy umbrellas. We then headed straightaway to Timur Mausoleum. The architecture was breathtaking and we kept gazing at the blue, light blue and white tiles organized into geometrical and epigraphic ornaments! The interiors were equally majestic; there was an aura of spirituality echoing from the walls, the tombs and the people who prayed. Amir Timur built this mausoleum for his favourite grandson in 1403. After two years he died himself and was buried near his grandson's tomb at the feet of the tomb of his spiritual teacher Seyid Bereke. The somber nature of the place reminded one of the famous lines "Sceptre and crown must tumble down".

After this visit we enjoyed typical Uzbek hospitality at a lunch comprising samsa'non' the local bread and a different style of biryani called plov, with soup salad and chicken

kebab. We then visited the local badaam market and had a great time bargaining for varieties of pistachio, walnuts, apricot and kishmish amongst many others. We also took a glimpse of the Ulughbek madrasah. Bibi Khanum cathedral mosque, Registaan Square and many other monuments on our way back. We then took a tour of the local carpet making factory. In the evening after return we enjoyed a grand farewell dinner at an Indian restaurant. We laughed and danced till late night wishing it would go on forever!

The final day had arrived. We checked out in the morning after breakfast. There were still few more places we had not seen. Hence our next stop was the exquisite Hast- Imam Ensemble in old Tashkent. There was a mosque where the Text of the religious Quran had been preserved in the Treasury of the Caliph. The huge complex also hosted shops of delicate art items and curios, designed and displayed by the students of the Madrassa and some beautiful gardens. After this memorable Centre of Islamic culture our last stop was at a shopping mall near the Old Samarkand Gate where we had lunch and to top it all, experienced earthquake tremors as well! No one around seemed to notice it though, they were quite accustomed to earthquakes but it did shake all of us for a moment. As we entered the Tashkent airport we felt alive and ready to face the world for is it not that travel enhances knowledge and empowers the soul?

"We shall not cease from exploration and the end of all our exploring will be to arrive where we started and know the place for the first time." - T S Eliot.

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IN CHINGGIS KHAN'S COUNTRY

Dr Shreelatha Banger



It was when I visited the Great Wall of China in the year 2014, that I heard the stories of the great warrior and founding father of the Mongol nation CHINGGIS KHAN - about his heroism, barbarism and bravery. The Chinese Emperors had to build a Great Wall towards the north of China to prevent him from invading their country. Chinggis Khan was a fearless Nomad King, great military general, statesman and a national hero, today. Chinese and Mongolians worship him, but Russia, Europe and Muslim countries like Turkey regard him as a barbarian for the

genocide of Muslims. Then itself I decided that I must visit this great country created by this warrior king, Chinggis Khan who in the 11th and 12th century occupied the whole of Europe, China and Mongolia.

Finally, the opportunity came in July 2015 when I took 10 days' tour along with a group of ladies as we flew from Mumbai via Seoul, South Korea to Ulaanbaatar, the capital of Mongolia. As the plane was descending to land at Chinggis Khan International airport at 6 am, I peeped through the window and was stunned to see the beautiful vast landscape with rugged mountains reflecting rainbow colours of the sun, glacier capped peaks, sweeping plains, steppes coniferous forests, giant fresh water lakes and great deserts.



As the aircraft descended closer to land, I could see clusters of white GERS (tents) and live stocks. As we approached Ulaanbaatar for the landing, I could see multi story office buildings and hotels but even amidst the multi-story buildings, one could see a couple of GERS where nomads still dwell.

Mongolia is a land-locked country. Located in the plateau between China on the West, South and East and Russia in the North. It is 1580mts above sea level and is the world's emptiest country with only three million people live in vast country area of 1,560,500km with live stock of 52 million. Mongolians are nomads. There are 20 Ethnic groups. The traditional Mongolian way of life is governed by seasonal requirement of livestock, keeping in harsh environment. Many nomadic families use the steppe in buffer zone of the park for pasturing their livestock.

Most of the passengers in the aircraft were Mongolians, they are generally tall, fair, strong and heavily built with a large body frame. Their eyes are bigger than Chinese with a depression on the bridge of the nose, probably a mixture of Russian genes. They are friendly and polite. Mongolian families are very well known for their hospitality. Visitors are always warmly invited to their GER home for a cup of tea called 'Airag' in the local language. It is fermented mare's milk. This I experienced many times when I was there. 75% of Mongolians follow Buddhism. Ulaanbaatar: capital of Mongolia is a city of boulevards and blocks, contrasting with



the Jurtas (Gers) housing estates. I could visualize the nomads dwelling in Gers in the middle of the concrete jungle. These Gers are portable ones, can be dismantled in hours and rebuilt in two hours. Actually, I had witnessed one being built.

Places of interest: Gobi Desert

The unique natural land scape in the middle of the mountains and the natural habitat of the rarest animals, with its desert, semi-desert, ecosystem, high mountains, sand dunes. Forests, sands, steppes and with its rich animal kingdom. Gobi Desert occupies 30% of the country's vast territory.

Bayanzag-Flaming Cliff



This is an important site for both Archeological and Paleontological site. Discovered by the American Explorer Roy Chapman Andrew in 1920. These cliffs look like fire in the middle of the mountain – hence named flaming cliff.

Khongnor Sand Dunes

Khongnor Sand Dune is also called 'singing sand dune' because of its melodious sound of the wind blowing through the sand.

Gobi Temple Ruins

One of the largest monasteries in the Gobi region. During the repression in 1930, the temples were destroyed and many lamas/monks were executed and imprisoned.

Kharakhorum

Ancient capital city of Mongolia in 1241. Chinggis Khan's grandson Kublai Khan shifted the capital to Khanbalik now Beijing. On the top of a small hill there is a huge monument dedicated to the great dynasties of Mongolia.

Erdenzuue Monastery

This is the oldest Monastery and Archeological of Mongolia. It was built by Abtai Khan in 1586, a powerful relative of Chinggis Khan. Its 1500sqm area surrounded by 108 stupas Buddhist shrines.

Hustai National Park

Established in 1993 for re-introduction project of the 'Takhi' endangered horse to increase its population. Takhi is an Asian wild horse with 66 chromosomes unlike the



normal horses which has 64 chromosomes. It is named after the Russian discoverer Przewalski's that helped in this project and discovered the chromosomes.

Every place we stayed in GER camps, was a unique experience in itself.

As the plane took off from Ulaanbaatar for the flight back home, I looked down at this beautiful land of Chinggis Khan and recollected my experiences in the last couple of days. It was one of the most memorable experience of my life. I would definitely like to return to Mongolia the other regions of this great country.

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"Where faith is there is courage, there is fortitude, there is steadfastness and strength... Faith bestows that sublime courage that rises superior to the troubles and disappointments of life, that acknowledges no defeat except as a step to victory; that is strong to endure, patient to wait, and energetic to struggle... Light up, then, the lamp of faith in your heart... It will lead you safely through the mists of doubt and the black darkness of despair; along the narrow, thorny ways of sickness and sorrow, and over the treacherous places of temptation and uncertainty."

James Allen



OBITUARY LIST

Sl	P No	Rank	Name	Next of kin	Date	Address
1.	81917-Z	Lt Cdr	MS Rawat	Mrs. Gangotri Rawat (Wife)	17 Jan 16	220-D, Pocket - A, Mayur Vihar, Phase-II, New Delhi – 110091. Mob : 9910116980
2.	02247-F	Cdr	Anil Kumar Yadav	Mrs. Anju Yadav (Wife)	24 Jan 16	E-30, Paryavaran Complex, IGNOU Road, New Delhi-110030. Tele : 011-29534925, Mob : 9350886178 (Daughter) E-mail ID: anjana.singh24@gmail.com
3.	83927-T	Lt Cdr	DP Sharma	Mrs. Sudesh Sharma (Wife)	01 Feb 16	Plot No. 13, Rout No. 05, Sector 11, New Panvel (East), Raigarh, Maharashtra-410206. Tele : 022-27453780, Mob : 9224780683
4.	03020-N	Cdr	KN Reddy	Mrs. Shylaja Reddy (Wife)	08 Feb 16	H. No. 1-5/B-74, 2nd Avenue, 4th Cross, Sainikpuri, Secunderabad-500094. Mob : 9849010156(Son)



Sl	P No	Rank	Name	Next of kin	Date	Address
5.	50287-N	Cdr	BK Jena	Mrs. Vandana Jena(Wife)	26 Feb 16	N-2/75, IRC Village, Nayapalli, Bhubaneswar, Odisha-751015. Mob : 9437922438 E-mail ID : vikash_jena@yahoo.com (Son)
6.	83650-N	Cdr	Dilbagh Rai	Mrs. Somitra Rai (Wife)	07 Mar 16	C/o Mr. Sanjeev Rai, 2404, Building No. 5, Raheja Classic, Link Road Andheri (West), Mumbai- 400053. Mob : 9820222887,
7.	00965-T	Cdr	RK Hukku	Mrs. Rashmi Hukku (Wife)	04 Apr 16	House No. E-190, Sector-21, Jalvayu Vihar, Noida-201301. Tele : 0120-2534323, Mob : 9811341601
8.	40376-N	Cdr	VK Chawla	Mrs. Uma Chawla (Wife)	05 Apr 16	House No. J-180, Sector-25, Jalvayu Vihar, NOIDA. Mob : 9891168803
9.	00094-N	Cdr	Bishwanath Dutta	Mrs. Tanima Dutta(Wife)	18 Apr 16	407, Udit Ashtami, Udayan Survey Park, Kolkata-700075. Tele : 033-24189107, Mob : 09830575724
10.	00826-A	Cdr	SS Kahlon	Mrs. Paramjeet Kaur Kahlon (Wife)	27 Apr 16	Block Q-4, H. No. 357, Sector -21, Jalvayu Vihar, Noida, 201301. Mob : 09818689996



Sl	P No	Rank	Name	Next of kin	Date	Address
11.	02717-Z	Cdr	AK Pathak	Mrs. Ritu Pathak (Wife)	28 Apr 16	House No. A-12, Sector-31, Jalvayu Vihar, NOIDA – 201301. Mob : 09910286118
12.	86813-A	Lt(SDP)	Joginder Singh	Mrs. Satwant Kaur Baweja (Wife)	12 Jun 16	C/o Col Guvinder Singh, E-179, Kalkaji, New Delhi-110019. Mob : 9758039354
13.	50045-N	Cdr	NN Mukherjee	Mrs. Eva Mukherjee (Wife)	26 Jun 16	E-97, Sarita Vihar, New Delhi-110076. Mob: 9810883717
14.	40160-Y	Cdr	AR Samant	Mrs. Kalpana Samant (Wife)	29 Jun 16	9/166 E, Mumbaidevi Sadan, Hindu Colony, Dadar, Mumbai-400014. Tele : 022-24142150, Mob : 9819773501, E-mail ID : arkal1629@gmail.com
15.	70149-B	Cdr	SP Puri	Mrs. Veena Puri (Wife)	02 Jul 16	14012, ATS Paradiso, CHI-4, Greater Noida – 201306. Mob : 08860608699
16.	01115-H	Cdr	Subhan MA Raihan	Mrs. Inayet Raihan(Wife)	14 Jul 16	4860, Credit View Road, Mississauga ON L5M5M3, Canada. Tele : 647.783.3795, E-mail ID : innu-raihan@hotmail.com
17.	02745-N	Cdr	Raman Kadyan	Mrs. Sujata Kadyan (Wife)	18 Jul 16	158, Sector-28, Noida. Mob: 9811810166



Sl	P No	Rank	Name	Next of kin	Date	Address
18.	01915-A	Cdr	RP Katyal	Ms. Divya Katyal (Daughter)	25 Jul 16	Q4/368, Sector-21, Noida -201301. Mob : 9810825754, 9674495590.
19.	00282-R	Cdr	LK Mathur	Mr. Sanjay Mathur(Son)	31 Jul 16	A-4/257, Konark Apartments, Kalkaji Extn., New Delhi-110019. Tele : 011-29982154, Mob : 9871049905
20.	50146-T	Cdr	Sisir Kumar Chatterji	Mrs. Biroti Chatterji(Wife)	04 Aug 16	Sanand, 35 Dhrubesh Chat-topadhyay Lane, Uttara, Kolkata-712258. Mob : 9493202124, 9433038110
21.	89012-Z	Cdr	Sardar Singh	Mr. Vijay Kumar(Son)	29 Aug 16	H. No. 7336, B-10, Vasant Kunj, New Delhi-110070. Tele : 011-26893309, Mob : 9810344841
22.	86820-T	Lt Cdr	VM Sharma	Mrs. Sheela Sharma(Wife)	05 Sep 16	E-115, Sector 21, Jalvayu Vihar, Noida-201301. Mob : 7838381073(Son)
23.	60122-R	RAdm	SV Purohit	Mrs. Medhavani Purohit	07 Sep 16	Mrs. Medhavani Purohit 12, Archana Aboli Apartments, 850/8, Shivaji Nagar, Pune-411004. Mob: 8600145058 E-mail: nilusub-odh@yahoo.co.uk



Sl	P No	Rank	Name	Next of kin	Date	Address
24.	40014-R	Cdr	Om Prakash	Ms. Preeti Bhavani (Daughter)	13 Sep 16	Johair Mansion, 1st Floor, Arthur Bunder Road, Colaba, Mumbai-400005. Tele : 022-22841722, Mob : 9819548050 E-mail ID : preetibhavani@yahoo.co.in
25.	00115-K	Cdr	TN Singhal	Ms. Gitanjali Singhal (Daughter)	15 Sep 16	349, 1st Block, 6th Main Koramangla, Bangalore-560034. Tele : 080-25531320, Mob : 9886725655 E-mail ID : gitanjalisinghal@yahoo.com
26.	88512-N	Lt	TJ Gabriel	Mrs. Kochu Theresia(Wife)	16 Sep 16	37/968, Thattil House, Fatima Church Road, Ernakulam, Kochi-682020. Tele : 0484-2206879
27.	79039-H	Surg Cmde	JK Gupta	Mrs. Krishi Gupta(Wife)	20 Sep 16	Mrs. Krishi Gupta, 43, Sector-28, Jalvayu Vihar, Noida -201301. Mob 9167730894(Son), 9312403511 (Daughter)
28.	86811-Y	Lt Cdr	Harbhajan Singh	Smt. Navjit Kaur (Daughter)	12 Oct 16	Mrs. Navjit Kaur(Daughter) E-80, Jalvayu Vihar, Sector-21, Noida-201301. Mob : 9869927077



Sl	P No	Rank	Name	Next of kin	Date	Address
29.	40307-F	Lt Cdr	Dilip Kumar Chatterji	Mrs Archana Chatterji(Wife)	26 Oct 16	Tarun 203, Sector-16, Plot – 16, Kalamboli, Navi Mumbai – 410218. Mob : 9821031266
30.	00058-F	Cdr	Pran Nath Parashar	Dr.Karan Parashar, Mr. Bharat Parashar (Son)	26 Oct 16	D-119, Defence Colony, New Delhi-110024. Mob : 8826416374
31.	00834-W	Cdr	Rajesh Sharma	Mrs. Ranjana Sharma(Wife)	31 Oct 16	J-132, Sector-25, Noida-201301. Mob: 9999669626 (Prashant) Email ID : purva-canvas@gmail.com
32.	60116-A	Cdr	DP Gupta	Mrs. Sudha Gupta(Wife)	24 Oct 16	B-2021, Indira Nagar, Lucknow – 226016. Mob : 9899211162(Son)
33.	00542-F	Cmde	MV Karnik	Mrs. Priya(Wife)	02 Nov 16	No. 3, Jalvayu Vihar, Kammanahali Main Road, Bangalore – 560043. Mob: 9686430330(Priya), 9886209976 (Nayantara)
34.	00401-K	Cmde	Suresh Bhandoola	Mrs. Janki Bhandoola (Wife)	04 Nov 16	72,Venus Apartments, Cuff Parade, Next to Hotel President, Colaba, Mumbai-400005. Tele : 022-22189786 Mob : 09833987105



Sl	P No	Rank	Name	Next of kin	Date	Address
35.	75579-W	Surg Vadm	CD Sasikumar	Mrs. Seetalakshmi Sasikumar (Wife)	13 Nov 16	C/o Mr. UR Rao, Flat 1B, Sunny Side Apartments, 4 Bride Street, Langford Town, Bangalore-560025 Tele : 080-22278287, 22270074 Mob : 9845010125
36.	81909-F	Lt Cdr	Chirammel Joseph Jose	Mrs. Moni Jose(Wife)	18 Nov 16	D2/C-27, Moti Bagh, New Delhi-110021 Tele : 011-26873021 Mob :7042023482
37.	00959-B	Lt	Madhukar Jain	Mrs. Diepa Jain(Wife)	14 Nov 16	I-59, South City 1, Opp Unitech House, Near Gurudwara, Gurgaon-122001 Mob : 9711377989
38.	60183-B	Cmde	Makhan Singh	Mrs. Sujan Kaur(Wife)	25 Nov 16	C/o Madhvindra Singh, 24062, ATS Paradiso, Sector-CHI-04, Greater Noida-201308 Mob : 09953554833
39.	50057-R	Capt	Inderjit Singh	Mrs Jagjit Kaur(Wife)	03 Dec 16	N-170(2nd Floor), Greater Kailash, New Delhi -110048 Tele : 011-29234053
40.	60171-A	Cdr	NK Sharma	Mrs. Nalini Sharma(Wife)	04 Dec 16	L-184, Sector-25, Jalvayu Vihar, Noida- 201301 Mob : 07382957297

A TRIBUTE - COMMANDER PRAN PRASHAR

Vice Admiral Subhash C Chopra (Retired)

He was very fond of recalling that when he was an ADC to the late Admiral of the Fleet, Earl Mountbatten of Burma, who was then the Governor General of India, he got called in to his office one morning to be told, "Pran, I have just had the Punditjee to agree that Indian Navy should acquire an Aircraft Carrier. You should volunteer for flying straight away." That is how the saga of this totally dedicated naval aviator began. It was the year 1948.



Instructor course and Balbir the Maintenance Test Pilot's course.

They were thereafter appointed to Fleet Requirement Unit, at Lee-on-Solent from where they ferried Sea Furies and Fireflies to Malta. Pran broke the existing speed record by

almost 15 minutes which was widely covered by British papers and attracted the attention of his previous boss Admiral Mountbatten then commanding the Mediterranean Fleet who directed that on his next ferry, a Firefly, stop by, which he did and got introduced to a whole lot of Admirals and royalty in his flying overalls.

An ex-Dufferin cadet Pran's naval career had begun in 1943, via the Royal Naval College, which had been moved from Dartmouth to Duke of Westminster's palace at Chestor after being bombed during the WW II. He must have done well during his naval training to be appointed ADC to the Governor General of India in 1948 as a young Lieutenant.

Next came the sordid saga of our Air Force bitterly opposing the Carrier project of the Navy and after many manipulations and course corrections the Navy managed to get approval for 10 Sealands which were an amphibian aircraft. But it was an important, though a thin wedge which worked remarkably and a part of the Navy was airborne. Pran and Balbir returned to India after having converted to Sealands. It was from them that I learnt the art of water landings – landing on runways was by then passé.

A batch of ten naval officers were chosen after a very careful selection by I.A.F at Jodhpur. They sailed for training as pilots with the Royal Navy in March 1949. Out of a batch of 10 only five qualified as pilots and given wings after a year's training – two as fighter pilots and three as pilots for anti-submarine aircraft. Other five were given the choice to become Observers/Photography and ATC duties.

Both these gentlemen were not about to rest on their oars, together they worked hard to get the Naval Plans for aviation back on track along with British naval officers on loan to Indian Navy. Whilst Balbir was suave and smooth Pran was blunt and forthright. He worked with total commitment to get the Carrier project brought back on the approved list. Whilst working on the staff

Pran Prashar and Balbir Law, the fighter pilots continued to fly in England, converting on a variety of aircraft switching from one squadron to another, generally keeping flying fit, piling up flying hours and undergoing a variety of courses. Pran did an Air Weapons

of Commodore Later Rear Admiral David Kirke, he spent many a night at office. Pran described his boss as “a ball of fire” and they kick started the Carrier project all over again such that no boffin or Air Chief could put a stop to it again.

After Vikrant arrived in India he was appointed the first Commander (Air) after much controversy - because Cdr. Y N Singh our senior most aviator, who was stand-by for the job during the commissioning and work-up stage was not cleared for it. Pran had to hurriedly convert on both the Seahawk and Alize’ aircraft and deck qualified before taking on his job. His two and half years’ tenure on board Vikrant was full of professional fun and games with catapult playing the final referee and the taskmaster. Once he had to move the whole squadron of Seahawk aircraft from ship to Santa Cruz by road a dramatic sight on the eastern highway. Later he launched the Alizes in harbor with ship at anchor and he piloting the first one, just in case, after the catapult had gone to sleep on board. Those were unusual days indeed and required bold decisions. It did not make him entirely popular but neither did he flinch from the job on hand.

He personally supervised the recovery of a rogue Seahawk from Changi, Royal Air Force Base in Singapore by crane and a barge when others had said “no can do”- later he recovered an Alize’ aircraft which had diverted with total electrical failure to Colombo airport at night, bursting two of her wheels. Despite mounting crescendo of diplomatic objections, he personally flew the aircraft out after repairs. The Sri Lankan authorities had initially refused to accept the Indian aircraft without lights landing at Colombo. It was only later that we learnt that Chinese President was landing at the same airport next day and they felt the Indians had

come in on a spying mission by a dramatic night aircraft diversion.

There was a lot of Bravado involved in these operations but the integrity of the Air Department was never breached, he seemed to be in total command. It was a great pity that these events somewhat affected his career prospects and he was sent ashore as Commanding Officer INS Hansa at Coimbatore - to move it from there to Dabolim, Goa. A hilarious exercise in which he moved Hansa lock, stock, and barrel with last brick up his sleeve in a record time – even before Dabolim was fully ready to receive them. I was there and was amazed at his energy - he built Hansa at Dabolim thereafter mostly by Shramdan, MES notwithstanding and roughed up many a staid feather in the bargain.

It is difficult to say whether his inordinate energy or complete dedication to task on hand resulted in his promotion to next rank being delayed but he promptly decided to go in for premature retirement. He moved to Hong Kong initially to drive the Hydrofoil, Hong Kong – Macau ferry, which was later converted to Jetfoil. So, successful was he in this venture that his Chinese boss started a shipping line followed by an airline and made him the CEO of them all.

On the family front his wife Damyanti was a rare gem of a person, restraining and loving her man with unbelievable intensity. She epitomized a naval wife perfectly, moving with him from station to station without being a bother to his work. Those of us who knew him in his heyday remember him with rare professional pride, he fought for Indian naval aviation from up front.

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A EULOGY ON LATE REAR ADMIRAL SV PUROHIT

Rear Admiral SA O'Leary (Retired)

Remembering the life of a Great Logistician - Rear Admiral Suhas Vasudev Purohit. On 07 Sep 2016, one of the Navy's greatest logisticians, Rear Admiral Suhas Purohit, 23rd NDA Course, aged 73, passed into history.



Till the early 1980s, stores management in the Navy was essentially store-keeping, steeped in procedures handed down from the British. Then came a realisation, that the old, had to give way to the new and the Logistics Branch came into being. At the forefront, were pioneers like the late Admiral, who got down to the grassroots, to build a new and effective system to service the needs of an ever-expanding Navy. His efforts were bolstered by Vice Admiral Verghese Koithara, Controller of Logistics who set about getting the New Management Strategy in place, introducing the computerised Integrated Logistics Management System (ILMS) and re-writing manuals for all the Controllerates in the Materials Organisation.

Until the early 80s, the Controllerate of Material Planning (CMP) was housed in the Naval Dockyard and the Controllerate of Procurement (CPRO) in Sewri. The physical distances between the Naval Dockyard, Sewri and Ghatkopar made functioning in unison difficult and a need was felt to house the CMP and CPRO, in the precincts of the Controllerate of Warehousing in Ghatkopar. In a short while this was accomplished and the two Controllerates were housed in two refurbished storehouses.

However, there was no resting on the oars

as there was a lot to be done, like setting up of computer networks, providing accommodation for Officers and establishing a Mess. Living in Ghatkopar was no picnic but the Admiral was the first to shift out of his comfortable Colaba abode, to a then God forsaken place. However, in a few years the Materials Organisation was transformed by the new crop of Logisticians, that headed the

organisation and bringing it up to a vibrant set up it is today.

The late Admiral then went on to Naval Headquarters where held various assignments. His knowledge, intelligence, innovative approach, and integrity was widely acclaimed. He however posed a threat to the well entrenched middlemen, who were getting exposed. He led Logistics delegations to Russia, after the breakup of the Soviet Union, with the sole aim of establishing direct contact between the firms and the Navy that could be dealt with directly. This again led to a conflict of interests with 'middlemen' who had mushroomed to get in between the Navy and the Russian firms and whose very survival was at stake. In due course he was slated to take over as the Controller of Logistics, when mysteriously some totally baseless allegations were aired in a newspaper. The Government decided to probe the charges and he was exonerated on all counts. However, till he retired, his case remained in limbo and was not promoted. He endured all this silently. Who perpetrated this crime will remain a mystery, but there can be no doubt, there were vested interests that kept his promotion on hold.

To me he will remain a father figure who could have taken the Logistics Cadre to a higher plane. The cadre was poorer for his early departure from the service. Those who served with him would have gained tremendously from his insights into matters of logistics and will do well to emulate his example of the highest degree of honesty and integrity. He never pushed his Officers and believed that to function effectively in Office, they needed to have a happy family life.

It remains for me to bid him a final adieu, by

saying, Thank you, Sir, for your example and leadership.

May his soul rest in eternal heavenly peace in the company of those God loves most. May the Lord Almighty grant courage and patience to all his family and his relations, friends and well-wishers in the naval fraternity to bear this irreparable loss with faith and fortitude.

“To God we belong and to Him will be our return”

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EULOGY ON LATE COMMODORE SURESH BHANDoola

Major General SK Sharma (Retired)

It is fairly easy to pen your thoughts about an acquaintance who is no more. It is infinitely more difficult to do the same of a buddy whom you have intimately known for decades. Bobby and I were in the same class in St Columbus. We left school together to join NDA and later became officers in the armed forces. We did the Staff Course at Wellington together. Although later our professional careers did not cross we remained periodically in touch.

The bonding developed over those lovely years and the memories created suddenly engulfs me as I fondly remember the school days where Bobby not only was in the top five in academics but was also a great sportsman. Games came naturally to him. He was a fierce competitor on the sports field. I had the privilege to meet his parents as we would invariably spend our holidays

together. They were the most wonderful people on earth. It was no wonder that he developed excellent character qualities of caring, compassion, impeccable manners and above all camaraderie. He was large hearted and generous to a fault. He exuded confidence and was a thoroughbred professional. Leadership came naturally to him and he followed the dictum by personal example. He was a doting husband and a devoted father. In the ultimate analysis, he was a wonderful human being worthy of emulation.

He lived life to the full always leading from the front and as in Frank Sinatra's song led it "my way". God bless. One great human being less on this earth but a sizeable gain in heaven above.

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A TRIBUTE - COMMANDER RK HUKKU

Commodore VB Mishra (Retired)

It was indeed shocking to read Rashmi's (Mrs. Rashmi Hukku, wife of late Cdr Raj Hukku) message on our WhatsApp group that our beloved Raj was no longer amongst us. Raj Kumar's will power made him drive upto the Hospital but alas, it was so near yet so far - he had lost the battle of life. His untimely demise was unexpected, considering he was in fine fettle.



end, many a times against all odds and very often - all by himself.

A charismatic Kashmiri with his trademark brown beard, and Scottish features, he charmed one and all. He was equally warm at heart, had an endearing personality which left a lasting impression on whoever he interacted with.

RK was the "Ranchor" of three Idiots amongst his batch mates - extremely sharp, with an excellent memory and a great sense of humour. He was a great fighter who battled all odds with stoicism and fortitude. Once he was convinced about an issue, he would willingly take the fight to its logical

The unmistakable gait of Raj taking his regular evening stroll with his dogs and the trademark 'bhutta' (corn-cob) in his hand, will sourly be missed by residents of Sector 21 and 25, Jal Vayu Vihar, Noida.

RIP Raj Kumar Hukku.

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A TRIBUTE TO VICE ADMIRAL LR MEHTA

Rear Admiral Arun Saxena (Retired)

Vice Admiral LR Mehta was an Electrical Officer who did his initial training in the United Kingdom and held several important appointments during his distinguished career in the Indian Navy viz., Training Commander INS Valsura, Electrical Officer INS Trishul, Director of Weapon and Equipment and Director of Leander Projects, Chairman and Managing Director, Goa Shipyard Ltd., Admiral Superintendent, Naval Dockyard, Mumbai, Chief of Materiel at

NHQ and Chairman and Managing Director (CMD), Mazgaon Docks Ltd (MDL).

Immaculately turned out at all times and a charming personality, he had a penchant for doing everything in the 'propah' way—be it running his part of ship or shipbuilding.

In 1986, when MDL was making losses, the Defence Ministry stepped in and Vice Admiral Mehta was appointed as CMD. He

speedily moved to refurbish the machinery and equipment and inculcated discipline and efficiency in the organization.

His professional and administrative ability were the hallmarks of his outstanding career and in every appointment he displayed a keen sense of purpose, a well-defined aim and goal to be achieved within a time frame. He followed these meticulously, whether it was ship production as CMD of GSL and MDL or keeping ships fighting fit and operational as ASD and COM.

Vice Admiral Mehta was extremely gracious in his demeanor and very well versed in social etiquette. He was fond of the good things in life and was a connoisseur with flamboyant tastes in food and wine.

With the fading, away of Vice Admiral Mehta, the naval fraternity has lost a fine gentleman and an impressive and inspiring personality who articulated his values and beliefs forthrightly. A true mariner with an old-world charm.

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FARE THEE WELL - COMMANDER NK SHARMA

Commodore DR Acharya (Retired)

A man full of laughter, a man who loved to talk, and a man who announced his entry in a party with a joke and was always last to leave after a joke, was lying silently on the hospital bed with his mouth open as if to say something humorous to those around him before undertaking his last journey. Commander NK Sharma breathed his last in Mool Chand Hospital on 04 December 2016.

I first met NK Sharma in 1969 and developed an instant liking for a man who regaled all around him with humour and mimicry of the senior officers whom we the Sub Lieutenants dared not face. NK was always full of life and life of all our parties or informal social gatherings.



I found NK an outstanding officer in handling complicated issues skilfully. As the Drafting Officer, Supply Sailors, he earned a very good name in handling the tricky issue of retinue staff and others in short supply very competently which earned him kudos. When he was Supply Officer, INS India, the establishment started distributing entitled rations to married officers and sailors residing in Delhi and NCR, the task of distribution of rations was indeed difficult. NK accepted this enormous challenge and created an outstanding infrastructure for distribution of the rations to officers and sailors from within the available space and facilities. Storing the perishable ration, especially during the summer was a serious challenge and a mammoth task. With ingenuity, NK collected discarded ACs

from the scrapyard of DOA and constructed a small Cold Room out of the available Gypsum and plywood sheets and locally got repaired the discarded ACs with the help of technical sailors and staff from INS India.

NK's administrative and motivational skills were once again put to test when late Vice Admiral Gopalachari receiving many complaints from officers staying in Kota House, Naval Officers' Mess appointed him as Secretary to take charge of the organisation. Through his motivational skills and organisational capabilities, NK made the staff to turn a sleepy organisation into a place full of life. Not only improvements in catering but many other facilities and innovations were skilfully introduced by NK.

In one of philosophic moods he told me about many essential components which

make a man happy, lucky and successful. But he singled out just two; 'dutiful wife' and one good friend. He was distinctly fortunate to have both. Nalini, his most faithful and dutiful wife who left no stones unturned in tendering, caring, attending, nursing him relentlessly all through the worst phases of illness. Through internet she very quickly learnt all about nursing skills, medicines to be administered for various symptomatic ailments, etc. The second of the most essentials; a good friend in Commodore Vinod Thakur. He was with NK, attending to every single call until the end.

Surely, NK is in the very spiritual company in Heavens. May all gods grant eternal peace to good soul of NK.

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REMEMBERING REAR ADMIRAL VS CHAUDHARI

Vice Admiral John C DeSilva (Retired)

I was very sad and sorry to hear about the departure of our old friend Rear Admiral VS Chaudhari to a better place.

Chau and I were shipmates, in fact if you can call it that, we were the Commissioning crew of the Warship Work-up Organisation (WWO). We set it up together. We were just five officers and five sailors – I was heading it as a Cdr, four specialist Lt Cdrs – KS Sandhu, S Sreedharan, AK Chopra and V S Chaudhari. There were three MCPOs and two Leading hands. We set up WWO in one room of the old water tower below the Fleet Office in Mumbai.

We put on our thinking hats, read old naval

magazines and journals, interviewed old-time Royal Navy trained and Russian trained officers and drew up tasks and schedules as to how we conceived a Work-up should be done. Then we revised and re-revised them, using old typewriters and cyclostyling machines, requesting and scrounging services of the Fleet Office, upstairs. For this we called up all our experience and imagination on how an ideal Work-up should be done. All the officers and the sailors had very worthy contributions to make.

The first tasks and schedules that we made were so good and so tough that not even the best ships would be able to pass. So, we watered them down and came to good

workable tasks and schedules. Finally, we went into action with our first ship, a Rajput class destroyer. Fingers crossed. We fared pretty well! This was all due to the professionalism of the officers and sailors, Chau was the junior most but one of the most staunch and rigid guys (pun intended) who would not bend even an inch. Being in-charge, I had to deliver and it was hard convincing our good man Chau that the Best is the Enemy of the Good and that sometimes we need to soften our stand. Very, very reluctantly he would agree. The ships to be worked up were all commanded by four stripers, all with outstanding professional reputations - the likes of Vice Admiral PS Das, Vice Admiral B. Guha, etc. and their crews thought themselves to be even more than cats' whiskers. "Who the ----- are these youngsters trying to teach, to teach us to suck eggs". Thanks to Chau and the rest of my team, all equally professional like him, we did not water down too much and finally by the end of the year we had gained enough of a reputation that we could take in the slack and even tighten the screws.

Just to narrate how seriously Chau used to take his job: One evening on a ship being worked up on harbour tasks, Chau was overseeing the fire-fighting exercise. Suddenly I heard Chau yelling at the top of his voice, "For Exercise, FIRE-FIRE-FIRE-FIRE-FIRE, Fire in the Electrical Store, etc., etc." Everyone hearing that were running back and forth trying to take some action. Even a Dockyard Matey snoozing in the alleyway jumped and started running. Mind you, nothing ever wakes up a Dockyard Matey on duty except the "WORK OVER" siren. This is just to show how Chau took the smallest of tasks very seriously. You will all be familiar with the lackadaisical style of how routine fire-fighting exercises happen in the surface Navy. Even a person next door would not know that there was a fire there.

The success of that initial WWO team and the reputation it earned was solely due to the professionalism of that first team. Chau was a no nonsense tough cookie and he had all the answers. No one could pull the wool over his eyes. My job was to stand by him and soften the blows till the end of the Work-up, when the whole crew would be praising us.

Gradually, the performance of the ships was showing up in the Fleet. The WWO got more importance and ships completing their refits or crew changes were requesting and clamouring for a work up; and we did not have the capacity to take them all and had to make a roster. The result was that a few years later, it was upgraded to the Command of a Captain, then Commodore and later a Flag Officer Sea Training, as FOST. I visited the organisation many years later when I was the Chief of Personnel and it was heartening to see the schedules and tasks all bound in spiral laminated sheets, but amazingly, the contents were absolutely the same just the same that Chau and the rest of us had put together. I was happy to hear that the clock had turned right around and our dear Chau had also become the FOST. I am sure he tightened those screws even tighter to ensure even better worked up ships.

With this personal account, I want to point out the professionalism and uprightness of the young Chau, then a junior officer who was instrumental in a success story of the Navy. The Navy should be very-very proud of him. We cannot see him straightening out the team wherever he is Up There and no bending There as the Master up There is Perfect.

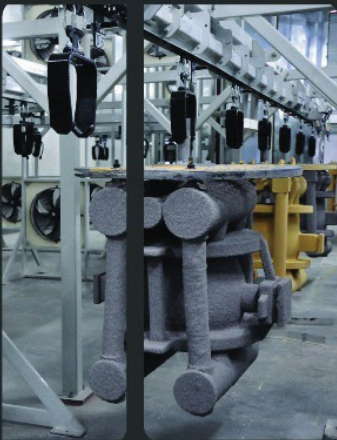
May his soul RIP. Glad to have been associated with him.

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NAVY FOUNDATION - AGM/GCM





PUNE CHARTER



Veterans of Pune Charter have been very active during the year with quarterly get-togethers, interesting talks, and a Seminar on Maritime domain.

Annual General meeting was held on 24 June 2016. In his opening address, President NFPC welcomed and thanked all for sparing their precious time for attending AGM. He also thanked Rear Admiral S G Vadgaonkar for once again making it possible to hold AGM at Sub Area Mess. He was felicitated by presenting a memento by Vice Admiral V Pasricha.



One minute silence was observed in the memory of departed souls since last meeting held in March. New members were welcomed and they individually gave their introduction. Captain Bhandarkar was felicitated for being an octogenarian. The General Body approved the minutes of last meeting and the Balance Sheet. The audience was apprised of the difficulty in opening new FDRs due to non-availability of PAN Card of NFPC. Approval in principle for deferring the registration/obtaining PAN Card for NFPC was accorded unanimously. President welcomed special invitee Mr. OS Shinde, Sr. Manager, Bank of India who joined the meeting to clarify issues about pension.



A Resolution was passed unanimously in which Commodore P K Malhotra was re-nominated as President and Cdr Mohan Philip as new Secretary/Treasurer. Commodore Rajan Vir was felicitated by Vice Admiral SCS Bangara as an "Outstanding Pune Veteran of the decade"; recognizing his contribution in the maritime domain.



Before thanking all present President stated that “We would like to put on record the contribution of Admiral J G Nadkarni and Vice Admiral J S Bedi for enhancing NFPC corpus”. In his concluding remarks, President acknowledged the unstinting contribution of Commander Pranaya Rawat as VP, Secy. He also congratulated Vice Admiral SCS Bangara for taking over the mantle as The Patron of The Maritime History Society, Mumbai.

Under the aegis of IMF, a seminar on “Indigenisation in the Maritime domain” was organized on and a series of three lectures on ‘Maritime Security’ were delivered by Vice Admiral P Chauhan.

Next Get-together has been scheduled on 16 October 2016 at the Sub Area Mess Pune to welcome C-in-C, West and Mrs. Luthra. In addition, Serving Officers of Western Naval Command directly involved with veterans’ matters are also being invited to attend for

BANGALORE CHARTER

The important activities undertaken by Navy Foundation Bangalore, Charter were as follows:-

(a) The Annual General Body Meeting of the Charter on 06 September 2015 including a presentation by Ms Vinny D’Souza about Holiday planning and a lecture by Surgeon Captain Bhangra about Chemical Warfare. Gathering enjoyed PLD followed by sumptuous meal.

(b) A Special GBM followed-by get-together on 01 November 2015 with PLD and Lunch.

(c) FO C-in-C, West farewell visit and Dinner on 09 November 2015 at NOM.

(d) Veteran’s Dinner on 11 December 2015 by FOK at NOM.

(e) Get-together on 20 March 2016 at NOM. Implementation of OROP and the future plans of IEMS were briefed and lecture about harmful effects of Talcum Powder. Thereafter, gathering enjoyed Tambola, PLD and sumptuous meal.

(f) The President NFBC attended the AGM of Navy Foundation in Kochi Chaired by CNS.

(g) Felicitation of three Octogenarians and tree plantation by them at NOM Premises.



Kerala Charter



2016 Independence Day celebration by NFKC members

Navy Foundation Kerala Charter with 257 members and 54 Honorary Members has been a vibrant and very active Charter with varied programmes and activities undertaken during the year as mentioned below.

The members were taken on an outing to the Elephant training Centre at Kodanad followed by visit to Naval Officers' Retirement Homes (NORHOMES) at Thottuva an initiative of the Charter. On another occasion a back water boating trip and visit to the Country Club at Narackal were held.

The members of the Charter attended various Navy Week activities of the Southern Naval Command. During this period the Charter conducted its own Outreach Programme in the form of conducting a free Homeopathic Medical Camp for the residents of Morakkal and Pallikara in the out skirts of Kochi. An institution 'Home of Hope' which caters to the need of housing and caring for the differently abled children were provided with an Automatic Washing Machine and a

Computer to meet their needs. The outreach work is undertaken through voluntary contributions made by the members of the Charter. This has brought the Navy closer to the needy section of the society and brought publicity for Navy.

The 24th Navy Foundation GCM and AGM-2015 were held at Kochi at the Sagarika Hall and was chaired by the then Chief of the Naval Staff, Admiral RK Dhowan. The members of the Kerala Charter attended in good strength.

The Octogenarians of the Charter who are not active were visited by the Committee members at their respective residents and interacted with them and their family members. Their welfare was looked at and necessary help and advice were provided to the family members also. On behalf of the NFKC they were honoured with a bouquet and draped with a shawl. This gesture was highly appreciated by the senior members.



The Annual General Body Meeting of the Charter was held on 24 July 2016 at the SNC Officers' Mess. Rear Admiral PK Nair (Retired), President chaired the meeting and was well attended by the members. During the elections of Office Bearers Vice Admiral RP Suthan (Retired) was elected as the President, Captain Rajan George (Retired) as the Secretary, and Commander CR Babu (Retired) as the Treasurer. A PLD and lunch was hosted by the Charter thereafter in which large number of serving Admirals, Senior Officers, Commanding Officers and other Officers of the Command were invited as guests. The Flag Officer Commanding-in-Chief, Southern Naval Command, Vice Admiral AR Karve was the Chief Guest. He is also the Patron of the Charter. He was welcomed by the Charter on this occasion. The meeting gave a very good opportunity for the veterans to interact with the serving officers of the Navy.

The Charter observed Independence Day celebrations. Large number of members with spouse assembled at the Durbar Hall Ground in the heart of the City. All veterans turned up in the white NFKC T-Shirts. The National Flag was hoisted by the President and all together sang the National Anthem. This was followed by walk through the city streets to show the presence of Veterans and ended up with a breakfast arranged at a restaurant.

The new President introduced the system of having a get-together every month for providing opportunity for frequent interaction. The first such get-together was held in August 2016 at the NOI, Kochi with live music in accompaniment. The get-together was very well attended. The Outgoing Office Bearers

were dined out on this occasion. On 25 September 2016, a dinner get-together was held in honour of the former CNS, Admiral Arun Prakash (Retired) who was in town to deliver a lecture on Leadership at the Rotary Leadership Seminar.

The Charter celebrated Onam in all traditional gaiety at the NWWA, Kala Kendra, the old Sailing Club of Kochi. Large number of members and guests from the Navy attended and the C-in-C, Vice Admiral AR Karve was the Chief Guest. Apart from the Pookalam, lighting of traditional lamp etc. a classical art form called the 'Ottamthullal' was done by an artist and which mesmerised every one. The Charter lady members danced the traditional 'Thiruvathirakali' dance. The veteran members sang the traditional Onam boat song. NFKC merit Scholarship awards were given away to the children who passed 12th Standard this year. A needy student from the local society was also given merit scholarship for his outstanding performance and to encourage him to continue his efforts to do well in his higher studies. The function ended with PLD and the traditional Sadya on plantain leaf.

INS Viraat invited all the officers who had served on board. This was a farewell reception given by the ship to the Port and City of Kochi before she makes her final return journey to Mumbai after essential dry docking at Cochin Shipyard. A veteran's visit to INS Vikramaditya was held when the ship came to the Kochi port.

Cdr RM Nair (Retired) No: 00783 B, a member of this Charter was recently honoured with 'Life Time achievement Award' by the Govt. of India for his work in the Inland waterways.



VISAKHAPATNAM CHARTER

Moment of Glory



The prestigious International Fleet Review 2016 was conducted at Visakhapatnam from 01 to 08 Feb 2016. But what the Navy Veterans have contributed to this great event is a moment of Glory to the Navy Foundation, Visakhapatnam Charter.

In keeping with the tradition of participation of veterans in Republic Day Parade, the Indian Navy decided to include a Naval Veterans' contingent in the International City Parade (ICP) held on 07 Feb 2016.

Accordingly, members of Navy Foundation and Veteran Sailors' Forum (VSF) from Visakhapatnam Charter came forward enthusiastically to participate in the City Parade. A total of 28 Veterans were short listed from a large group of volunteers.

To give local flavour, IHQ, MoD (Navy) decided that the head-gear for the veteran



participants be the one popularised by Late NT Rama Rao, the legendary Chief Minister of Andhra Pradesh. The brave hearts with chest full of medals marched smartly and received repeated applause from VVIP galleries and the general public.

For the First time a mixed contingent of nine Officers including a senior Commodore and 18 VSF members marched together. The contingent was led by Commander V Sriramulu (Retired) at a ripe age of 93 Years and winner of Gold Medals in World Half Marathon for age group 80-85 held in USA. He also won Gold Medal for 10 km Race walk for the 90-95 age group on 15 Aug 2015 held in Lyon, France

The Indian veterans interacted with visiting international sailors and exchanged views on professional and cultural matters. This helped to foster bonhomie amongst the sailors of the participating maritime nations. Besides the participant veterans have become heroes in their neighbour hoods





Felicitation of Cdr. V Sriramulu I.N.(Retd.)
by
Navy Foundation, Visakhapatnam Chapter- 10 OCT 2015

Citation

1. Born in Machilipatnam on 18th July 1923 to Shri V Venkatarayudu and Smt V Kanahadurga as one of the six siblings, Cdr V Sriramulu graduated from the Hindu College, Machilipatnam. After a short stint as a local auditor in the Military Accounts Department, he joined the then Royal Indian Navy in March 1944 during the World War II.
2. Right from the initial days in the Navy, while being in Karachi where sailing and boat pulling facilities were abundant, he had taken seriously to sailing and yachting. He took part in many National and International events and brought laurels to the Navy. The fact that quite early in his career, then Capt BS Soman offered to be his crew in the sailing competition during Joint Exercises off Trincomalee (JEF)-1950 and together they won a Silver Medal. These high profile sailing competitions speaks volumes of his skills.
3. From the day of their marriage on 06 Mar 1948, his good lady Smt Satyawathi had been a true companion taking part in many boat pulling, sailing and badminton competitions and winning many. The fact that they took their 03 months old son on a sailing expedition, shows their love and passion for the sea. The boy was named SagorVihari conforming to their love for sea faring. Later he became a medical doctor and settled with his family in USA.
4. The couple had two daughters, the elder one Padma is married and settled with family at Bangalore and the younger one Jaya, a doctor by profession, is married and settled at London.
5. Finding that there were no sailing facilities at Visakhapatnam, Cdr V Sriramulu took up race walking and running very seriously after retirement. He participated in four Asian/World Masters Athletic Championships.:
6. In the Asian Masters Athletic championships held in December 2010 he took part in 4 events, 5 Kms race walk and runs of 400 M, 800 M and 1500 M in the age group of 84 to 89 Yrs and won gold medals in all the four events.
7. In the World Masters Athletic Championships held in Sacramento, California USA from 6th to 17th July 2011, he won a gold medal in 20 km race walk and silver medals in 10 km as well as 5 km race walks.
8. After a long forced rest for 3 yrs owing to his severe knee fatigue, he resumed his sporting activities and participated in the World Masters Athletic Championships held at Lyon, France from 4th to 15th August 2015 and won a gold medal in 10 km race walk.
9. He is also a keen trekker and mountaineer. Along with his son Dr SagorVihari he climbed Mount Kilimanjaro in Africa in 2002. Later he made two trips to Himalayas, once to Everest Base Camp and next to the Pindaric Glacier. He and his team mate actually set up their tent and slept for one night on the glacier.
10. He is a regular participant in Annual Visakha-Bheemli Beach road walk. All members of the Navy Foundation Visakhapatnam Chapter and their spouses feel greatly honoured to felicitate Cdr V Sriramulu (Retd), who is an epitome of great human sporting spirit defying his age and keeping good fitness. We also acknowledge that any length of citation will not be sufficient to cover the great achievements during the length of his journey.
11. We also note with a sense of pride in the fact that at an age when most people get confined to home, if not bed, he successfully participates in many International sporting competitions.
12. We all wish him a long life, many more sporting years of winning laurels.





DELHI CHARTER

The year 2015-2016 was an exciting period for the members of the Delhi Charter. The entire period was extensively covered with news and happenings concerning the pensioners, mostly an update on pensions and medical facilities under the ECHS. A monthly News Letter was published electronically for the benefit of all members.

Some of the important activities and social events conducted during the last one year were:

(a) Admiral RD Katari Memorial Lecture was held on 27 February 2016. The distinguished speaker was Dr C Raja Mohan, the renowned Defence analyst. He covered on "India's Strength on Naval Diplomacy." The Lecture was indeed educative. The High Tea was arranged on culmination of

the Lecture and later with Cocktails for the members of the Charter.

(b) The members of Delhi Charter bid farewell to Admiral and Mrs RK Dhowan on 10 May 2016 on Admiral Dhowan's retirement as CNS, The Dinner was attended by an overwhelming presence of over 300 members, their spouse and guests.

(c) The Delhi Charter held its AGM on 14 October 2016. Many suggestions put across by the members were well covered. Cocktails and Dinner followed the AGM.

(d) The Delhi Charter welcomed the new CNS, Admiral Sunil Lanba and Mrs Reena Lanba on 14 October 2016. An overwhelming strength of over 300 NFDC members, their spouse and guests graced the occasion.





MUMBAI CHARTER



The Activity report of NFMC for QD-2017 are as follows :--

a) 28 Feb 2016

About 70 Veterans along with their families were taken for a walk around the Dockyard -heritage places by Cmde Sanjay Tewari (Retd) .

b) 03 Apr 2016

13th Admiral Soman Memorial Lecture was conducted by M/S Meher Moos on “A Journey to Antarctica”

c) 05 Jun 2016

AGM of NFMC was conducted at INS Shivaji, Lonavla. RAdm R M Bhatia replaced RAdm Arun Auditto as the New President of the Mumbai Charter. A Memento was also given to each Octogenarians by the President wishing them Happy and Healthy Life. Rs. 5000/- cash award was also given to six Veterans whose articles appeared in QD-2016 .

d) 05 Jun 2016

On completion of the AGM, a Gazal Nite for 250 Veterans and their spouses was organised at the Sailing Club which was very well enjoyed by one and all.

e) 16 July 2016

2nd RGC(W) meeting of the Mumbai,Pune,Bangalore and Goa Charter chaired by - C-in-C (W) was held in the Command Mess.

WNC NEWS



Three Immediate Support Vessels (ISVs) were commissioned at Mumbai on 29 Sep 2015. INS Kochi, the second ship of Kolkata class stealth guided-missile destroyers was commissioned by Hon'ble Raksha Mantri, Shri Manohar Parrikar at Mumbai on 30 Sep 15, in the presence of CNS, FOC-in-C, West and RAdm R Shrawat (R) CMD MDL.



IN Ships Nipat and Veer, 1241 class missile vessels were decommissioned on 28 Apr 2016. These ships served under the illustrious 22nd Killer Squadron.





Overseas Deployment (OSD)

IN Ships Delhi, Deepak, Tabar and Trishul were deployed to Persian Gulf in Sep 15. IN Ships Beas and Betwa were on OSD to Iran in Aug – Sep 15.

(Interaction with Rear Admiral Fahad (His Excellency Ambassador Mr TP Abdullah Al Ghuteri, Eastern Seetharamand Mr Anurag Bhushan, Fleetat Al Jubail) Consul General during reception onboard INS Deepak) INS Trihand visited the port of Djibouti between 10- 13 Aug 15.



(Col Abdourahman Aden Cher, Chief of (CO, Trihand presenting ships' crest to Commander, Djibouti Navy on board Trihand) Naval Base, Haifa)



CHANGE OF COMMAND



(The Baton Passes over)



(Handing Over division)

Rear Admiral Puneet Kumar Bahl assumed charge as the Flag Officer Goa Naval Area on 06 Oct 2015.



(The Baton Passes Over)



(Handing over Division)

Rear Admiral Ravneet Singh, assumed Command as FOCWF on 12 Oct 15.
Vice Admiral Sunil Lanba, took over as FOC-in-C, West from Vice Admiral SPS Cheema who retired on 31 Jan 16.



(Ceremonial Parade)



(The Baton Passes Over)

Vice Admiral Girish Luthra, took over as the FOC-in-C, West from Vice Admiral Sunil Lanba on 30 May 16.





37th Founder's Day. To commemorate the 37th Founder's Day, a lecture on 'India and Indian Ocean: Old Questions New Perspectives' was delivered by Prof Laxmi Subramaniam, Department of History Centre for Social Studies in Social Sciences, Kolkata.



(The Speaker of MHS Founder Day Commemorative Lecture Dr Laxmi Subramaniam, flanked by the then C-in-C West & Chairman MHS, Vice Admiral Sunil Lanba and Cmde Odakkal Johnson, Curator MHS).

World Meteorological Day 2016 was celebrated on 23 Mar 16 at Command Met Office, Mumbai. A presentation was made on the theme 'Hotter, Drier and Wetter – face the future', followed by an exhibition of Met instruments and environment related posters.



MCPO Conference - In a new initiative to integrate and empower senior sailors, Western Naval Command conducted the maiden MCPOs Conference on 14 Sep 16. The two-day conference was inaugurated by FOC-in-C, West. The first ever conference of sailors with rich expertise and experience was aimed at participative management, with analysis and view being put forward in professional and frank manner. The conference covered the entire spectrum of Naval Operations, HR issues, Technical and Administrative challenges and Maintenance Philosophies and harnessing of Information Technology.



A 24-quarters Ashiyana I was commissioned on 17 Dec 15 for CPO/MCPO and equivalent in New Navy Nagar. It was inaugurated by FOC-in-C, West and Mrs Gagandeep Cheema, President NWWA, Western Region.

A 24-quarters Ashiyana III was commissioned on 09 May 16 for PO and equivalent in New Navy Nagar. It was inaugurated by FOC-in-C, West and Mrs Reena Lanba, President NWWA (WR).



New Class Rooms in NWWA 'Kala Kendra'



UNIT CITATION



INS Sindhudhwaj was awarded 'The Best Innovation Trophy' by Hon'ble Prime Minister, Shri Narendra Modi as part of Navy Day Celebrations-15. The Innovation undertaken by the submarine to repair their ventilation system under challenging circumstances at sea during a Search and Rescue Operation.

VISIT OF AMBASSADOR OF VIETNAM



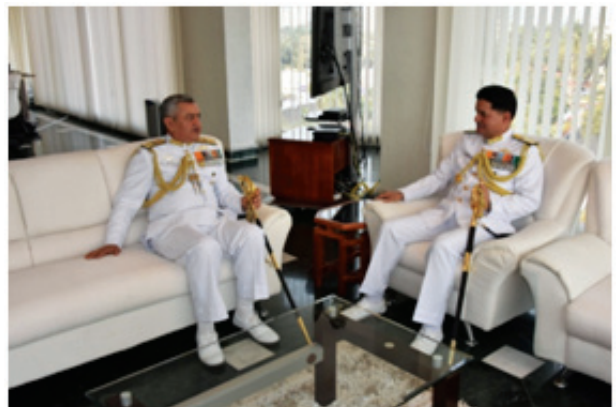
His Excellency Mr Ton Sinh Thanh Ambassador of Vietnam to India, accompanied by a three-member delegation, visited Visakhapatnam on 10 Dec 15.

INS KADMATT 'THE PERFECT POUNCER'



INS Kadmatt, the second indigenously built stealth Anti-Submarine Warfare Corvette was commissioned by CNS on 07 Jan 16.

VADM HCS BISHT TAKES OVER



VAdm HCS Bisht assumed Command of the Eastern Naval Command from VAdm Satish Soni on 29 Feb 16. VAdm Satish Soni retired on completion of forty years of illustrious Naval career.



VADM AK JAIN TAKES OVER AS CHIEF OF STAFF

VAdm AK Jain, took over as the Chief of Staff, Eastern Naval Command on 27 Feb 16.

SPORTS OLYMPIAD

ENC Olympiad, for Service and Defence Civilian personnel and their families, held at Command Stadium on 20 Feb 16. The Event comprised eight different disciplines juxtaposing the conventional games like volleyball, basketball and handball with Navy specific Jal Tarang, Walkathon, Yachting and Tug-of-War and with the more exotic Tele-games and athletics.

INTERNATIONAL FLEET REVIEW 2016

The most awe inspiring and awaited event, IFR-2016 was conducted on the morning of 06 Feb 16. Shri Pranab Mukherjee, Hon'ble President of India, reviewed the second IFR.

IFR BAND CONCERT



The Hon'ble President witnessed an Indian Naval Symphonic Orchestra on 06 Feb 16. A commemorative stamps was also released by the Hon'ble President.

OPENING CEREMONY



A grand opening ceremony to kick start the IFR-16 was held on 05 Feb 16. Shri ESL Narasimhan, Hon'able Governor of AP was the Chief Guest and Shri N Chandrababu Naidu, Hon'ble Chief Minister of Andhra Pradesh graced the occasion as the Guest of Honour.

IFR 2016- NWWA COFFEE MORNING

IFR coffee morning was hosted by NWWA on 05 Feb 16 for the wives of the foreign delegates to showcase Indian culture and tradition.

INTERNATIONAL MARITIME CONFERENCE





Shri Manohar Parrikar, the Hon'ble Raksha Mantri was the Chief Guest of the International Maritime Conference on 07 Feb 16.

MARITIME EXHIBITION

The Maritime Exhibition, on the theme – “Innovation, Youth and Indigenisation” was inaugurated on 04 Feb 16 by Shri N Chandrababu Naidu, Hon'ble Chief Minister of Andhra Pradesh at AU Engineering College grounds. The Exhibition showcased the “Make in India” theme through an array of 74 stalls. IFR Village co-located with the Maritime Exhibition consisting of 100 craft stalls depicting the rich cultural heritage of India.

OP DEMO AND CITY PARADE

The city of destiny witnessed an Operational Demonstration and the International City Parade at picturesque RK Beach on evening of 07 Feb 16, in the presence of Hon'ble Prime Minister, Shri Narendra Modi with a release of book on “Maritime Heritage” during the event.

ANNUAL REFIT CONFERENCE -16



Annual Refit Conference and Annual Infrastructure Review Meeting was held on 14 Mar 16.

INS AIRAVAT PARTICIPATION IN EXERCISE



INS Airavat participated in ADMM(ASEAN Defence Ministers' Meeting) Plus Maritime Security and Counter Terrorism Exercise conducted by the Brunei Navy from 01 to 09 May 16.

FAREWELL VISIT OF CNS



Admiral RK Dhowan, Chief of the Naval Staff accompanied by Smt Minu Dhowan, President, Navy Wives Welfare Association arrived Visakhapatnam on his farewell visit on 14 May 16.

GOLDEN JUBILEE SEMINAR AND TECHNICAL EXHIBITION

A seminar with theme “Modern Trends in Marine Ship Building Infrastructure:



Challenges and Opportunities” was organised by DGNP(V) on 12 May 16 as part of its Golden Jubilee Celebrations.

AWARDS CEREMONY TO SHIPS OF LOCAL FLOTILLA



The Annual Flotilla Awards Ceremony for the year 2015-16 was held 24 May 16. INS Konkan bagged the “Most Spirited Ship” Trophy and INS Cuddalore was adjudged as the “Best Ship”.

COMMISSIONING OF INS TARMUGLI

Named after an island in the Andaman group, the 320-tonne INSTarmugli was commissioned by Vice Admiral HCS Bisht, Flag Officer Commanding-in-Chief, Eastern Naval Command.



INS SAHYADRI WINS ‘BEST SHIP TROPHY’



The Fleet Awards Function-16, was held on 07 May 16. VAdm HCS Bisht, Flag Officer Commanding-in-Chief, Eastern Naval Command awarded INS Kuthar as the ‘Most Spirited Ship’ whereas the ‘Best Ship Trophy’ was awarded to INS Sahyadri.

EXERCISE MALABAR – 2016





IN Ships Satpura, Sahyadri, Shakti and Kirch participated in the 20th edition of Ex MALABAR-16 with the USN and Japanese Maritime Self Defense Force (JMSDF).

MOUNTAINEERING EXPEDITION

VAdm HCS Bisht, Flag Officer Commanding-in-Chief, Eastern Naval Command, flagged off the expedition of summiting the twin peaks of Mt Kamet (7756 m), the highest peak climbable in the country and Mt Abi Gamin (7355 m) on 29 Apr 16.

CNS AT EASTERN NAVAL COMMAND



Admiral Sunil Lanba, the Chief of the Naval Staff visited the Eastern Naval Command on 10 Jul 16. The Admiral was accompanied by Mrs Reena Lanba, President NWWA.

INS KARNA COMMISSIONED

Admiral Sunil Lanba, CNS commissioned INS Karna on 12 Jul 16, Smt Reena Lanba unveiled Commandos Unit as 'INS Karna.

ANNUAL JOINT DISASTER RELIEF

EXERCISE

The first ever three-days long Joint Disaster



Management Exercise named Prakampana aimed at synchronising resources and efforts of all agencies involved in disaster management was conducted from 30 Aug 16 onwards.

RIMPAC- 2016

RIMPAC-16 witnessed participation of 26



Nations, 45 Ships, 05 Submarines, 17 Land Forces, over 200 Aircraft and 25000 + personnel. Participation of INS Satpura from Eastern Fleet in RIMPAC-16 enhanced the interoperability aspects in order to operate comfortably as part of multi-national force. INS Satpura's performance in RIMPAC-16 showcased IN as a capable player in Asia-



Pacific region and profound interactions at various levels made a strong impression of IN being one of the tool for demonstrating Government's Look-Act East Policy.

CHANGE OF GUARD AT ND(V)

RAdm Narayan Prasad took over as the



Admiral Superintendent in Jul 16.

JUDICIAL COMMITTEE ON OROP

One Man Judicial Committee on "One



Rank One Pension" (OROP) headed by Justice (Retd) L Narsimha Reddy, Former Chief Justice of Patna High Court visited Visakhapatnam on 26 Aug 16. The Committee interacted with Ex-Servicemen to make recommendations on

"Removal of anomalies that may arise in the implementation of OROP".

DGMS(NAVY) VISITS ENC

Surg VAdm Tapan Sinha, DGMS (Navy)



visited Visakhapatnam on 18 May 16.

TEACHERS' DAY CELEBRATIONS

On the occasion of Teachers' Day Celebrations, the Eastern Naval Command complemented the teachers of fourteen CBSE affiliated Schools under the aegis of the Command for their hard work and dedication. The 'Best in Academics Trophy' to the best performing school in X and XII Board exams for the academic year 2015-16 were awarded to Naval Children School, Visakhapatnam. Vice Admiral HCS Bisht, AVSM, ADC, Flag Officer Commanding-in-Chief, Eastern Naval Command awarded the rolling trophy to Dr Parul Kumar Principal, Navy Children School, Visakhapatnam.



SNC NEWS

VICE ADMIRAL A R KARVE TAKES OVER SOUTHERN NAVAL COMMAND



Exchange of baton between the outgoing and incoming Commanders-in-Chief

Vice Admiral AR Karve, took over command as the Flag Officer Commanding-in-Chief of the Southern Naval Command on 29 May 16 from Vice Admiral Girish Luthra.

SNC MARSHALS RESOURCES FOR KOLLAM TRAGEDY



A major fire was reported at the Puttingal Devi Temple in Kollam in the early hours of Sunday, 10 Apr 16 following which

the Southern Naval Command at Kochi pressed into action medical team along with equipment and materials using ships and aircraft.

Six Aircraft (two Dornier fixed wing aircraft, two ALH helicopters and two Chetak helicopters) and three IN ships namely Kabra, Kalpeni and Sunayna were earmarked for the requirement. Two ALH with a nine member medical team along with three doctors, paramedics, supplies and equipment was rushed to the scene.

A relief camp was set up at Kollam to co-ordinate all relief activities by the Navy, which was visited by the Hon'ble CM of Kerala.

PASSING OUT PARADE OF OFFICER TRAINEES HELD AT NAVAL BASE



Rear Admiral RB Pandit awarding The Chief of the Naval Staff trophy to Sea Trainee Jaswant Singh

One hundred sixty five Officer Trainees (including six International Officer Sea Trainees) passed out at Naval Base, Kochi on completion of sea training of 24 weeks

to join various frontline warships of Western and Eastern Fleet for practical orientation.

The POP which marked the final phase of formal training in the grooming of a Naval officer was reviewed by Rear Admiral RB Pandit, Chief of Staff, Southern Naval Command who also presented the awards and trophies to the winners. The coveted Chief of the Naval Staff trophy and 'Telescope' for the best 'All Round Sea Trainee' was awarded to sea trainee Jaswant Singh.



The Industry Exposition being inaugurated by Vice Admiral AR Karve, Flag Officer Commanding-in-Chief, Southern Naval Command at naval base, Kochi

NAVAL INSTITUTE OF AERONAUTICAL TECHNOLOGY CELEBRATES DIAMOND JUBILEE

The Naval Institute of Aeronautical Technology (NIAT), the premier Aviation technical training establishment of the Indian Navy celebrated 60th anniversary on 17 Jun 16. An International Seminar on "Challenges in Maintenance and Training of Fixed and Rotary wing Naval Air Assets" along with Industry Exposition (Aero-Expo) showcasing emerging technologies in field of Aviation and Marine was conducted. A special day cover was also released jointly



by Vice Admiral A R Karve FOCINC (South)

Inauguration of MRI Centre by Vice Admiral Girish Luthra

and Smt. Sumathi Ravichandran, Post Master General, Kochi for commemorating the occasion.

INHS SANJIVANI GETS MRI FACILITY

A state of the art MRI Centre was inaugurated by Vice Admiral Girish Luthra, Flag Officer Commanding-in-Chief, Southern Naval Command, at Naval Hospital INHS Sanjivani, Kochi on 11 May 2016.

INHS Sanjivani is a premier hospital of the Indian Navy, established in the year 1958. Over the years, the hospital has evolved as a modern multi-specialty hospital and at present is the biggest defence service hospital in Kerala and Tamil Nadu.

CIVILIAN ATHLETIC CHAMPIONSHIP AT SOUTHERN NAVAL COMMAND

450 participants representing 5000 Civilian employees working in various units of Southern Naval Command participated in 35 athletic events. The athletic meet had almost 50% women participation.

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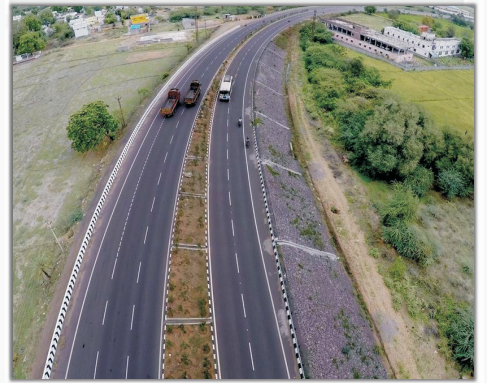
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