India’s Defence Preparedness

A seminar on India’s Defence Preparedness was organized by Nehru Centre recently. The seminar covered all the three wings of defence preparedness namely, Army, Navy and Air Force. The first one was Army. Major Shashikant Pitre (Retd.) spoke on defence preparedness of the Indian Army. His presentation was covered in the monthly Newsletters for June, August and September 2015.

Vice Admiral Vinod Pasricha presented a paper on the state of Indian Navy. Some excerpts from his speech were published in the monthly Newsletter for October, November and December 2015.

Air Marshal (Retd.) B. N. Gokhale, PVSM AVSM VM, Former Vice Chief of the Air Staff gave his presentation on the state of Indian Air Force Challenges and Opportunities. Some excerpts from his presentation were published in the monthly Newsletter for January 2016. Following are some more excerpts from his presentation.

Historical Perspective and Strength of IAF Combat Squadrons

When comparing preparedness of the Armed Forces it is best to compare the combat force potential. Such potential of course is not solely dependent on combat units but also on support capability, logistics, maintenance, human resource and infrastructure et al. However, an analysis of strength of IAF's combat squadrons will effectively illustrate various policies, plans and offensive potential. As such the historical perspective illustrates the build up of IAF's squadrons since independence.

Formative Years

The Indian Air Force was formed on 8th October 1932. Coincidentally late JRD Tata himself piloted the first commercial flight from Karachi to Mumbai in Puss Moth aircraft on 15th October 1932; to start Tata Airline to be known as Air India later, when it was nationalized in 1951. The formative years of IAF were spent basically in support of the British action in Northwest Frontier region and later in the Eastern front against Japanese during WW-II. However, the operational experience gained by IAF pioneers was of great value, laying a strong foundation of the IAF. It was this experience, which came in handy to rescue the grave situation in Kashmir valley during Oct. 1947. At the time of independence, out of the original 10 squadrons, the IAF had only 6 combat and ½ transport squadrons manned by about 1700 personnel.

contd. on page 2
In 1941 at the start of British India campaign against the Japanese, it was planned by Chatfield Committee to establish the air force with strength of 21 combat squadrons and 6 coastal defence squadrons. These were to comprise of 11 RAF and 10 IAF squadrons with about 325 aircraft. It is important to compare these figures in the context of post 1947 expansion of IAF. Despite the belligerent attitude of Pakistan from its very inception and threat of another war in 1951, the IAF force level was not raised by the Central leadership beyond 15 squadrons. It was only after Pakistan had joined SEATO in 1954 and CENTO a year later that the Indian authorities gave directions for increasing the squadron level to 23 of which 18 would be for Combat and 5 for Transportation role. However, the deployment remained Pakistan centric with no squadrons being deployed in the East despite steadily worsening ties with China.

Absence of Air Power in 1962 Indo-China War

Even after 52 years of debacle with China in 1962, the policy of not using IAF offensively against the Chinese continues to baffle the historians. With bi-lateral relations worsening with China and coinciding with the exile of Dalai Lama to India, it was only in 1959 that one British made Vampire Photo Reconnaissance squadron had been moved to Tezpur followed by one more French built Toofani fighter squadron. However, these combat aircraft were neither used offensively against the Chinese troops nor employed for interdicting their advances through narrow defiles of the mountains of Ladakh and Arunachal Pradesh. The second option though benign in nature would have made the Chinese advances and later their withdrawal difficult, as they would have suffered heavy toll on their logistics chain. White House Intelligence summary, Dec 1962 states “Use of combat air power would have made a material difference to the war on ground.”

Although not yet declassified, some portions of Henderson Brooks-Bhagat report are now available in the media. According to these it seems that inadequate preparation, incorrect assessment of intelligence inputs and lack of synergy in decision making were some of many reasons for not using air power offensively. The misplaced notion that use of air power was escalatory stymied the use of this option, which on the other hand had been used so very favourably in 1947.

1965 War with Pakistan

In the aftermath of this debacle, in March 1963 the Govt. decided to increase the strength of IAF and set up a committee under late JRD Tata to recommend the numbers of squadrons IAF should possess. Tata Committee recommended a 64 squadron air force to cater to the requirements of both Eastern and Western fronts. While this figure had been accepted by the Emergency Committee of the Cabinet, it remained only on paper. At the time of 1965 war with Pakistan IAF was in the process of expanding to newly approved strength of 35 combat squadrons and was stretched to its limit in terms of resources, infrastructure and shortfall in manning. Pakistan Air Force on the other hand was equipped with American F-86 and supersonic F-104 combat aircraft and better radar cover.

Pakistan also had the advantage of surprise aided with the initiative of clandestine infiltration of troops into the Kashmir Valley under code name Op Gibraltar. Intelligence failure has been a bane of Indian preparedness, forcing a reaction than a pre-emption, which can be decisive in war. PAF had also started the war preparation well before with war plan No 6/65 issued on 29th June 1965, almost 2 months before the actual war codenamed Op Grand Slam. In initial days of the war IAF suffered number of losses in the East. This is because the IAF was constrained by initial Indian policy of not retaliating to the PAF attacks from East Pakistan due to misplaced apprehension of alienating the predominantly Bengali population.

On the day of Chinese withdrawal from India on 20th November 1962, late Shri YB Chavan took over as the Defence Minister in place of his much criticized predecessor late Shri Krishna Menon. Within a short period of time he made very important contribution to the Indian Armed Forces by initiating reequipping and modernization, rebuilding trust and morale and more importantly bringing about synergy between the politicians, bureaucrats and military personnel. This played dividend in 1965 war and India could foil the initial Pakistani advances. Regarding the use of air power, Chavan took a calculated and prompt decision of using 1AF in the nick of time when the Indian Army was on the verge of losing control in Chamb Jaurian sector. The urgency of situation was such that Chavan, unable to contact the Prime Minister on phone, took this important decision himself.

What Nehru said...

What does a democratic government want from a newspaper? I think normally a government likes or should like criticism from a newspaper. It does not matter how hard the criticism is, provided it is free from malice and ill-will. Criticism is a necessary thing. Criticism, to be worth-while, must have depth....

A Space Science Lecture on “NASA’s Search for Water in the Solar System” was delivered by Dr. Jaydeep Mukherjee, Director, NASA Florida Space Grant Consortium, Florida, USA on Saturday, 5 December 2015 at 5 pm. in the Hall of Culture, Discovery of India Building, Dr. Annie Besant Road, Worli, Mumbai 400018. We bring you the summary of the talk.

As NASA missions explore our solar system and search for new worlds, they are finding water in surprising places. The atmospheres and interiors of the four giant planets -- Jupiter, Saturn, Uranus and Neptune -- are thought to contain enormous quantities of water, and their moons and rings have substantial water ice. Ganymede, Europa and Callisto at Jupiter, and Enceladus and Titan at Saturn show strong evidence of oceans beneath their surface. A few weeks ago, NASA confirmed that liquid water flows on today’s Mars. NASA spacecraft have found clear evidence that, in the distant past, Mars had water on its surface for long periods. The New Horizon spacecraft sent us images that show Pluto has blue skies and frozen water. We learn how planets, moons, comets formed 4.5 billion years ago from the disk of gas and dust that surrounded our sun by studying the distribution of water in our solar system. Our concept of what makes planets suitable for life is closely tied with water.

One of the questions not fully answered is “where did the water on earth come from?”. Earth’s early history, including epochs with high ambient temperatures and no enveloping atmosphere, implies that surface water would have evaporated and drifted back into space. The water we encounter today, it seems, must have been delivered long after Earth formed. The consensus is that most of the water came from asteroids and not from comets. Comets have more heavy water compared to the amount of heavy water on earth. The ratio of heavy water to water on asteroids, specifically carbonaceous chondrites, is the same ratio on earth.

We do live in a watery solar system. The DAWN mission to the dwarf planet Ceres has found evidence of ice under the surface of Ceres. Observations from the Galileo spacecraft and Hubble Space Telescope point to the evidence of a huge salty ocean under Europa’s surface. Jupiter’s moon Ganymede is thought to have a salty ocean under the surface by observing the oscillation of its auroral bands. The Cassini spacecraft has shown that one of Saturn moon’s, Enceladus, has a global ocean by studying the wobble in Enceladus rotation and also observing jets from its South Pole region. The European spacecraft Huygen descended on Saturn’s moon Titan and found a very hazy atmosphere and hydrocarbon lakes.

New observations have found evidence of flowing water, not in the too distant past, on Mars. The New Horizon spacecraft just went past Pluto and sent us amazing pictures of a very icy world.

39th Anniversary Celebrations – 2016

To celebrate the 39th Anniversary of the Nehru Planetarium (3rd March 2016), the following competitions are being organized by the Planetarium from 24 February 2016 to 1 March 2016.

**Astro-Painting Competition**
Wednesday, 24 February 2016 (10 am to 1 pm)
Open to students of standards IV to VII.

**Astro-Elocution Competition**
Thursday, 25 February 2016 (10 am to 1 pm)
Open to students of VIII and IX standards.

**Astro-Poetry Competition**
Friday, 26 February 2016 (10 am to 1 pm)
Open to students of standards V to IX.

**Science Quiz Competition**
Saturday, 27 February 2016 (10 am to 1 pm)
Open to students of standards VII and VIII.

**Astro-Quiz Competition**
Tuesday, 1 March 2016 (10 am to 1 pm)
Open to students of VIII to IX standards.

Those desirous of participating in the above competitions may send their names (clearly indicating the competition in which they would like to participate) to Shri Suhas B.Naik-Satam, Programme Coordinator, Nehru Planetarium, Dr. Annie Besant Road, Worli, Mumbai 400 018. or fax to: 24924133 or email: suhasnasa@gmail.com before 20th February 2016
Year 2016 started with no planets in the evening sky except for planet Mercury that was seen for a brief period of a week or so above the western horizon soon after the sunset. This month Jupiter will be seen rising above the eastern horizon about two and half hours after the sunset. It is possible to make one of its four satellite using a small telescope, like Galileo Galilei who saw it more than 400 year ago.

Venus’ appearance in the morning sky is now nearly over though it is still can be seen fairly up above the eastern horizon at dawn.

The planets which are now prominent above the eastern sky in the pre dawn sky are Mars and Saturn. On 1st of February Mars can be easily identified as a red glowing object. It will be below and to the right of moon. If you carefully watch Mars you can see a star just next to it. It is part of our Vishakha nakshtra. It's English name is Zubenelgenubi. Actually it is not one star but there are two stars close to each other. They can be seen well separated using a pair of binoculars.

Saturn is right below Mars. To its right and slightly above is star named Antares. This star gets its name from the Ancient Greek meaning “equal to-Ares” that is “equal to-Mars” in colour. It is our Jyeshthā nakshtra. Compare this star with Mars above it and you will note the similarity of colours.

Earth is slowly approaching Saturn. It will be closest to this Lord of Rings on 3rd of June. The distance between the two would be 1349 million km. To cover this distance the light would take almost one and quarter hour.

The map shows slightly more sky than that will be visible from a given location. Thus the map can be used elsewhere in India at 21:00 hrs Indian Time. Hold the chart vertically before your eye sand turn it until the geographical direction you are facing shows at the bottom of the chart.

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(Disclaimer: The Indian names of the stars and planet, given in parenthesis for the purpose to remind the reader that India has a rich astronomical tradition. We do not subscribe to astrology.)
The programme is dedicated to the memory of Veteran Marathi Stage Actor, Singer, Drama Producer & Sangeet Natak Akademi Award Winner, late Shri Bhalchandra Pethkar (alias - Anna).

Celebration of मराठी भाषा दिवस वारसा संगीत नाटकाचा (Tradition of Marathi Sangeet Natak)

Duration: 2 Hours 30 minutes with 10 minutes interval

To commemorate the जणतीक मराठी भाषा दिवस, Nehru Centre is organizing discussion on tradition of Marathi Sangeet Natak titled “वारसा संगीत नाटकाचा”.

The participants of this programme are:

Shri Ramdas Kamath, renowned Marathi stage actor and singer, Smt. Faiyyaz Shaikh, ex-chairperson of Akhil Bharatiya Marathi Natya Parishad and renowned Marathi stage actress and singer; Shri Dnyanesh Pethkar, Marathi stage actor and singer, will participate.

They will share their experience about Marathi Sangeet Natak and also enacts some scenes from the Sangeet Nataks. The programme will be coordinated and compered by Smt. Uttara Mone.

During the programme, projection of video clippings of some of the Marathi Sangeet Nataks produced by Nehru Centre and also some video bytes of associates of Marathi Sangeet Nataks, will be presented.

26th February 2016, 6.30 pm
Nehru Centre Auditorium

Entry: Entrance Cards will be available on Tuesday, 23rd February 2016 from 10.30 am until availability of entrance cards from the Booking Counter of the Nehru Centre Auditorium.

27th Mushaira (Recitation of Poetry in Urdu)

Nehru Centre’s 27th Mushaira was held at the Nehru Centre Auditorium on 16th January 2016. Renowned local and outstation poets enthralled the audience with their treasure of ghazals and nazms and made the evening thoroughly enjoyable.

Janab Mateen Amrohavi inaugurating the Mushaira by lighting the traditional Shama. Also seen in the picture are Prof. Shiehpur Rasool, Janab Shmilir Tarique and Janab I. M. Kadri, General Secretary, Nehru Centre

Janab Shamim Tarique doing the Nizamat at the 27th Mushaira. Also seen in the pictures are the participating local and outstation poets.
Programmes for February 2016

**JYOTI PURI**

Jyoti though has no formal art education expresses herself through her paintings. Her figurative paintings are in charcoal, soft pastels and oils on canvas. She has exhibited her paintings in India and abroad and won many awards.

*Tuesday 2nd February to Monday 8th February 2016 (AC Gallery)*

**RIMA ROY . PANCHU GHARAMI**

Rima graduated from NIFT, Kolkata. She has had many exhibitions in Kolkata. Her figurative paintings are in acrylic on canvas. Her paintings reflect the inner feelings of a human being.

Panchu obtained B.V.A. from Government College of Art, Kolkata. He has also widely exhibited his works in Kolkata. His paintings are in acrylic on canvas. His paintings are with multiple colours which explains various feelings.

*Tuesday 2nd February to Monday 8th February 2016 (Circular Gallery)*

**“EXPRESSIONS IN WOOD 3” by ANJALI KALE**

Anjali graduated from Sir J. J. Institute of Applied Art. Anjali has found expressions in most basic and unique forms. With her vivid imaginations, striking use of colours, she has transformed wood into a unique canvas.

*Tuesday 9th February to Monday 15th February 2016 (AC Gallery)*

**SIDHALING ANKALKOTE**

Sidhaling received G.D.A. in Applied Art from Abhinav Kala Mahavidyalaya, Pune. He has had solo shows and participated in many group shows. His pen and ink paintings are with detailed drawings of famous monuments in India.

*Tuesday 9th February to Monday 15th February 2016 (Circular Gallery)*

**WATER COLOUR STUDY CAMP at CHAUL, ALIBAG AND NEARBY VILLAGES**

Nehru Centre hosts these Water Colour Study Camps to various places in India for the past 22 years. The 23rd Study Camp was taken at Chaul village, Alibag and nearby villages. The participating selected students were from the art colleges of Mumbai, Pune and Sangli. The exhibition is of the selected paintings done during the camp on locations. Shri Kishor Nadavdekar accompanied as a guide to the students during the camp.

*Tuesday 16th February to Monday 22nd February 2016 (Both AC Gallery & Circular Gallery)*
ARUNA MASCARENHAS

Aruna has no formal art education but has pursued her passion for painting after her service in Air India. She has been exhibiting in India and abroad. Her paintings on flowers and birds of different kinds are in acrylic on canvas and water colours on paper.

Tuesday 23rd February to Monday 29th February 2016
(AC Gallery)

RAHUL SUTAR

Rahul has completed A.T.d. from Kalaniketan Mahavidyalaya, Kolhapur. His landscapes are in water colour.

Tuesday 23rd February to Monday 29th February 2016
(Circular Gallery)

Indian Master’s Retrospective
Shri Deenanath Dalal
B:1916  D:1971

Nehru Centre Art Gallery celebrated the Birth Centenary year of Shri Deenanath Dalal by showcasing an exhibition of his paintings. The exhibition was inaugurated on 17th December 2015 by Shri Ratnakar Matkari, Eminent Writer. Shri Girish Kuber, Editor, Loksatta was the Guest of Honour. The inauguration was attended by a large number of artists and art lovers. A catalogue on Shri Deenanath Dalal published by Nehru Centre was also released on this occasion.

The exhibition was open from 18th December 2015 till 3rd January 2016 for the art lovers. The exhibition was appreciated by the art lovers and also people from all walks of life.
NEHRU CENTRE PUBLICATIONS

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* GOVIND MALADKAR
13. NAGESH B. SABANNAVAR
14. NARAYAN L. SONAVADEKAR
15. "GURU-SHISHYA"
BABA GAJBAR & GANPATRAO WADANGEKAR
16. D. G. KULKARNI (DIZI)
17. MILLENNIUM SHOW
(A Century of Art from Maharashatra)
18. BALAJI TALIM & HARISH TALIM
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Book Discussion

G. A. Natesan and National Awakening by Prabha Ravi Shankar

Date and Time:
Thursday, 25th February, 2016, 5.00 pm

Venue: ‘Who Are We’ Hall, First Floor
Discovery of India Exposition

(Open to all)