

# समाचार पत्रों से चयित अंश Newspapers Clippings

दैनिक सामयिक अभिज्ञता सेवा  
A daily Current Awareness Service

Vol. 43 No. 69 14 March 2018



रक्षा विज्ञान पुस्तकालय  
Defence Science Library  
रक्षा वैज्ञानिक सूचना एवं प्रलेखन केन्द्र  
Defence Scientific Information & Documentation Centre  
मैटकॉफ हाऊस, दिल्ली 110054  
Metcalf House, Delhi- 110054

Wed, 14 March, 2018

## IAF conducts 'historic' landing of Globemaster

By Rajib Chowdhuri

*The giant aircraft is capable of carrying a payload of 40-70 tonnes up to a distance of 4,200-9,000 km in a single hop.*

Kolkata: Sending out a strong message to China, the Indian Air Force (IAF) on Tuesday flew its C-17 Globemaster aircraft carrying out a "historic" landing at Tuting advanced landing ground (ALG) amidst the hills of Arunachal Pradesh, close on the heels of the incursion by the Chinese troops on the Line of Actual Control (LAC) at Tuting in December last year after the Doklam stand-off.

The giant aircraft is capable of carrying a payload of 40-70 tonnes up to a distance of 4,200-9,000 km in a single hop. In a statement, IAF spokesperson Wing Commander Anupam Banerjee said, "The C-17 Globemaster of the Indian Air Force carried out a historic landing at Tuting advanced landing ground amidst the hills of Arunachal Pradesh today. The crew included Group Captain K. Rama Rao, Wing Commander Amiya Kant Patnaik, Wing Commander K. Trivedi and Sqn Ldr L Nayak." Giving details of the demography the statement elaborated, "The challenging airfield is in the midst of high hills in a narrow valley. The mammoth C-17 Globemaster could execute this mission flawlessly owing to its agile manoeuvrability superlative performance and the excellent flying skills of the pilots."

Wing Commander Banerjee added, "After completion of the trial landing the C-17 carried out an operational mission airlifting operation load into the austere airfield. The mission carried out today demonstrated C-17 aircraft's operational performance and capability of tactical air mobility of IAF."



Wed, 14 March, 2018

## Budget dashes hopes of modernisation, says Army vice-chief

By Rajat Pandit

### Highlights

- *The Indian Army is grappling with an alarming shortage of weaponry and equipment*
- *Senior military officers expressed frustration over inadequate fund allocation in the defence budget*
- *Following this, a parliamentary panel slammed the government for starving the armed forces of funds*

New Delhi: A marginal increase in the defence budget barely accounts for inflation, without helping address the glaring imbalance between cutting-edge weaponry and old equipment in the Indian armed forces, senior military officers have told the parliamentary standing committee on defence.

A modern military should typically have 30% of its weaponry and equipment in the state-of-the-art technology category, 40% in current category and 30% in vintage category. But the over 12-lakh strong Indian Army is grappling with an alarming 8% (state-of-the-art), 24% (current) and 68% (vintage) weaponry mix while it's engaged in daily cross-border firing duels with Pakistan and heightened tensions with China since the Doklam stand-off last year. The Army feels a two-front war scenario is a clear and present danger.

"The 2018-2019 budget has dashed our hopes ... The marginal increase barely accounts for inflation and does not even cater for taxes," Army vice-chief Lt-General Sarath Chand told the parliamentary committee on defence.

Allocated just Rs 21,338 crore for modernisation, the Army simply does not have enough money to pay instalments worth Rs 29,033 crore for 125 ongoing schemes and deals inked earlier as well as emergency procurements of ammunition made in the aftermath of the Uri terror attack and “surgical strikes” in 2016 to ensure reserves for 10 days of “intensive war-fighting”.

Similar is the case with road and infrastructure development along the China border, among other things. “We, in the Army, also identified as many as 25 projects for the ‘Make in India’ policy. However, there is no adequate budget to support this. As a result, many of these may end up foreclosed,” said Lt-Gen Chand.

Top officers of IAF, Navy and Coast Guard also sounded similar alarms, leading the committee to slam the government for starving the armed forces of requisite funds for both modernization and day-to-day operational sustenance.

“We are aghast to note this dismal scenario where the representatives of the Services have themselves frankly explained the negative repercussions on our defence preparedness due to inadequate fund allocations,” said the committee, chaired by BJP leader Major General B C Khanduri, in a series of reports tabled in Parliament on Tuesday.

The picture is indeed grim, with even defence secretary Sanjay Mitra admitting before the committee that the finance ministry “is not supporting the defence ministry as per its requirements”. The “net” defence budget for 2018-2019 at Rs 2.79 lakh crore works out to just 1.49% of the GDP, the lowest such figure since the 1962 war with China.

The Army, for instance, has got just 60% of its projected requirement under the capital head for modernisation and new weapon systems. The Navy and IAF, in turn, got 56% and 46%. The capital outlay shortfall is Rs 17,757 crore for Army, Rs 15,692 crore for Navy and Rs 41,925 crore for IAF.

The allocated funds are not enough to even pay for “committed liabilities or instalments” of earlier arms contracts, leaving virtually nothing for new modernisation projects. The story was similar under the revenue head for day-to-day operating costs, which in any case dwarfs the capital outlay in a skewed 67:37 ratio due to a ballooning salary bill.

Similarly, taking note of the “unsympathetic attitude” towards naval modernisation, the committee said, “A budget deficit of nearly 40% will indeed have a cascading impact on the operational preparedness and technological up-gradation of the Navy.”

Despite being the world's largest arms importer, India does not get enough bang for its buck in the absence of concrete long-term planning to systematically build military capabilities in tune with its geopolitical objectives. Consequently, the Army has critical gaps in artillery guns, infantry weapons, light helicopters, night-fighting capabilities and the like. While the IAF does not have enough fighters, mid-air refuellers, AWACS and drones, the Navy is grappling with the lack of adequate number of submarines, multi-role helicopters and minesweepers.



*Wed, 14 March, 2018*

## **Defence budget inadequate, can't modernise forces: Parliamentary Standing Committee**

*By Sushant Singh*

The committee is scathing on the 4.5 per cent increase in the revenue component of the Army's budget, as it will all go towards the hike in pay due to implementation of the recommendations of the Seventh Pay Commission. In an indictment of budgetary allocations made for the services, the Parliamentary Standing Committee on Defence has noted that the fund allocation “is not supportive to the inevitable needs of the

Army”. The committee also found that there are “huge deficiencies and obsolescence of weapons, stores and ammunition existing in Indian Army”.

In its 41st report presented to the Parliament Tuesday, the committee, headed by BJP MP Maj Gen (retd) B C Khanduri, observed that the “allocation of Rs 21,338 crore for modernisation is insufficient even to cater to committed payments to the extent of Rs 29,033 crore, earmarked for 125 ongoing schemes, emergency procurement of armaments and weaponry for 10 days of intense war {10 (I)} and other Director General Ordnance Factories requirements”.

The committee is scathing on the 4.5 per cent increase in the revenue component of the Army’s budget, as it will all go towards the hike in pay due to implementation of the recommendations of the Seventh Pay Commission. Out of a projection of Rs 40,073 crore for operations and maintenance, the committee notes that only an allocation of Rs 30,791 crore has been made. “The budget for operations and maintenance is a critical component for ensuring operational preparedness at any given point of time,” the committee said.

In its submission to the committee, the Army had stated that “the budget for modernisation has to be anything between 22 to 25 per cent of the overall budget, lest the Army is found to be wanting” but it was “a mere 14 per cent of the allocation, which is grossly inadequate”.

In contrast to the requirement of the armed forces to have one-third of its equipment in the vintage category, one-third in the current category and one-third in the state-of-the-art category, the report states that “the current position in the Indian Army reveals that 68 per cent of equipment is of vintage category, just about 24 per cent of the current category, and only eight per cent of the state-of-the-art category”.

The report also states that the increase of only 2.84 per cent in the Navy’s budget “would not even cater to the inflationary pressure. Matters such as maintaining the requisite armament level as well as emergency procurements would indeed require more funds”.

A shortfall of Rs 6,440 crore in the revenue budget of the Indian Air Force, the committee states, “is likely to impact the operational preparedness, ability to procure spares & fuel, apart from leaving gaps in training programmes, serviceability of older systems and provision of basic amenities to Air Force personnel”.



*Wed, 14 March, 2018*

## **Coast guard seeks Rs 4,950 crore, but granted only 46%**

The annual budget of the Indian Coast Guard (ICG)’s has been decreased to 46 per cent in 2018-19. There has been steadily declining of budget of ICG since the year, 2015-16. In 2018-19, the ICG projected a requirement of Rs 4,950.00 crore but only Rs 2,700.00 crore has been allocated under the Capital Head. This is approximately 46 per cent less than the projected amount.

Similarly, under the Revenue Head, the allocation has been only to the extent of Rs 2,091.42 crore against the projection of Rs 2,408.41 crore. In total, while the ICG projected a requirement of Rs 7,358.41 crore, the allocation has been just Rs 4,791.42 crore, which approximately amounts to 65 per cent of the projected requirement.

Expressing concern over decreasing Budget, a parliamentary standing committee on defence, headed by BJP MP BC Khanduri, AVSM (retd) has stated in a report that lesser allocation to the organisation would affect new schemes, which have been prioritized as per budget availability.

“The budgetary issue should be taken on priority as non-fructification of New Schemes would affect acquisition of the much required Capital assets to protect our coast lines and thereby avoid recurrence of unfortunate incidents such as that of 26/11 in Mumbai,” the committee said in its report.

The ICG has to guard 7,516-km of coastline, 2.3 million sq km of Exclusive Economic Zone and also has the responsibility for Search & Rescue operations in 4.6 million sq km area. Besides, it has to perform duties and functions related to security of off shore installations, provide assistance in collection of scientific data, safety of life and property at sea, assist the Customs Department in anti-smuggling operations, prevent and control marine pollution, preserve and protect marine environment and also protect and assist fishermen in distress.

ICG envisaged 214 ships, Air Cushion Vehicles (ACVs) and interceptor boats by the end of the 12th plan.

However, it has been able to acquire only 134 assets. As stated, 66 surface platforms/16 aircraft are under construction/production at various shipyards/HAL.

During the same plan period, the Indian Coast Guard envisaged adding 100 aircraft by the end of the plan but it has been able to acquire only 63 aircraft. Considering the importance of coastal surveillance, the Committee had earlier recommended that the Coast Guard should have a proper monitoring system for tracking boats, which come to the harbours through its 42 Coast Guard stations functioning in different parts of the country

“For attending to the assigned tasks, the Coast Guard needs enhanced Capital Budget to buy offshore vessels, helicopters, aircraft etc. As per the admission made by the representatives of the Coast Guard,” the report said.



*Tue, 13 March, 2018*

## **NASA probe set to uncover mysteries of rare ‘relic galaxy’**

*The researchers learned that the relic galaxy has twice as many stars as our Milky Way*

NASA’s Hubble Space Telescope is set on an Indiana Jones-type quest to uncover a rare ancient “relic galaxy” hidden in our cosmic backyard that has remained unchanged for the past 10 billion years.

The wayward stellar island may provide valuable insights into the origin and evolution of galaxies.

The galaxy, NGC 1277, started its life ferociously churning out stars 1,000 times faster than seen in the Milky Way today.

However, it abruptly went quiescent as the baby boomer stars aged and grew ever redder.

Though Hubble has seen such “red and dead” galaxies in the early universe, one has never been conclusively found nearby.

Where the early galaxies are so distant, they are just red dots in Hubble deep-sky images. NGC 1277 offers a unique opportunity to see one up close

“We can explore such original galaxies in full detail and probe the conditions of the early universe,” said Ignacio Trujillo, at the University of La Laguna in Spain.

The researchers learned that the relic galaxy has twice as many stars as our Milky Way, but physically it is as small as one quarter the size of our galaxy.

Perhaps like all galaxies it started out as a compact object but failed to accrete more material to grow in size to form a magnificent pinwheel-shaped galaxy.

About one in 1,000 massive galaxies is expected to be a relic galaxy, like NGC 1277, researchers have said.

Massive galaxies tend to have both metal-poor (blue) and metal-rich (red) globular clusters.

The red clusters are believed to form as the galaxy forms, while the blue clusters are later brought in as smaller satellites are swallowed by the central galaxy.

“I’ve been studying globular clusters in galaxies for a long time, and this is the first time I’ve ever seen this,” said Michael Beasley, from University of La Laguna.

The red clusters are the strongest evidence that the galaxy went out of the star-making business long ago. However, the lack of blue clusters suggests that NGC 1277 never grew further by gobbling up surrounding galaxies.

By contrast, our Milky Way contains about 180 blue and red globular clusters.

It is a markedly different environment for NGC 1277. The galaxy lives near the centre of the Perseus cluster of over 1,000 galaxies, located 240 million light-years away.

NGC 1277 is moving so fast through the cluster, at two million miles per hour, that it cannot merge with other galaxies to collect stars or pull in gas to fuel star formation. In addition, near the galaxy cluster centre, intergalactic gas is so hot it cannot cool to condense and form stars.

The upcoming NASA James Webb Space Telescope - scheduled for launch in 2019 - will allow astronomers to measure the motions of the globular clusters in NGC 1277.

This will provide the first opportunity to measure how much dark matter the primordial galaxy contains.

## पंजाब केसरी

Wed, 14 March, 2018

# बुद्धिमता से संबंधित करीब 500 गुणसूत्रों की पहचान हुई

लंदन, (भाषा): वैज्ञानिकों ने दुनियाभर के 2,40,000 से अधिक लोगों के डीएनए की तुलना की और करीब 500 ऐसे गुणसूत्रों (जीन) की पहचान की है जिनका संबंध बुद्धिमता से है। ‘मॉलिक्यूलर साइकियाट्री’ में प्रकाशित एक अनुसंधान में लोगों की बौद्धिक क्षमता में अंतर में जीन की भूमिका पर नई रोशनी डाली गई है। अमेरिका के हार्वर्ड विश्वविद्यालय, एडिनबर्ग विश्व-विद्यालय और साउथेम्पटन विश्वविद्यालय के अनुसंधानकर्ताओं ने ऐसे 538 जीन की पहचान की है जिनकी बौद्धिक क्षमता में भूमिका

● वैज्ञानिकों ने पाया कि बौद्धिक क्षमता से जुड़े कुछ जीन का संबंध लंबी आयु से भी है



होती है। उन्होंने मानव जीनोम में ऐसे 187 क्षेत्रों की भी पहचान की है जो सोच-विचार करने की क्षमता से संबंधित हैं। अनुसंधानकर्ताओं ने कहा कि बुद्धिमता से जुड़े जीन के बारे में पाया गया है कि वे अन्य जैविक प्रक्रियाओं को भी प्रभावित करते हैं।

वैज्ञानिकों ने पाया कि बौद्धिक क्षमता से जुड़े कुछ जीन का संबंध लंबी आयु से भी है। एडिनबर्ग यूनिवर्सिटी के डेविड हिल ने कहा, “हमारे शोध में बड़ी संख्या में ऐसे जीन की पहचान हुई है जिनका संबंध बौद्धिक क्षमता से है।”