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Press Information Bureau
Government of India

Ministry of Defence

Mon, 23 Oct 2023

Raksha Mantri Reaches Tezpur, Assam; to Celebrate Dussehra with Troops in Arunachal Pradesh

**Shri Rajnath Singh interacts with troops during Barakhana at 4 Corps HQs in Tezpur
Lauds the Armed Forces & their families for their sacrifices & ensuring the safety of the
country**

Raksha Mantri Shri Rajnath Singh reached Tezpur in Assam on October 23, 2023, ahead of his visit to Arunachal Pradesh to celebrate Dussehra with troops and perform Shastra Puja with them. After his arrival, the Raksha Mantri interacted with the troops during the Barakhana organised at Headquarters, 4 Corps in Tezpur. Chief of the Army Staff General Manoj Pande; General Officer Commanding-in-Chief (GOC-in-C) Eastern Command Lt Gen RP Kalita; GOC, 4 Corps Lt Gen Manish Erry and other senior officers were present on the occasion.

In his address, Shri Rajnath Singh appreciated the concept of Barakhana, stating that it brings together all ranks to eat together as the members of the same family. “Being among you at this Barakhana shows that more than just our position, we are a family and together we are the protectors of our country,” he said.

The Raksha Mantri described Indian military as a true example of brotherhood and oneness as they work & stay together in the same barracks and unit, despite being from different states, religions & backgrounds. He commended the efforts of the Armed Forces & their families for their sacrifices and always ensuring the safety of the motherland. The nation will be forever indebted to the brave soldiers, he said. Shri Rajnath Singh also highlighted that the valour and commitment of Indian soldiers is recognised all over the world. He added that India’s stature has grown on international stage under the visionary leadership of Prime Minister Shri Narendra Modi and a strong & brave military is one of the main reasons behind that progress. He expressed confidence that India will find itself among the top three economies of the world by 2027.

The Raksha Mantri recalled his recent visit to Italy, during which he paid rich tributes at Montone memorial (Perugia Province) recently built for Naik Yaswant Ghadge and other Indian soldiers who fought in the Italian campaign in World War II. He also mentioned about the contribution of Indian soldiers, who are maintaining peace and security in different parts of the world, through UN peacekeeping missions.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1970287>



**Press Information Bureau
Government of India**

Ministry of Defence

Tue, 24 Oct 2023

Raksha Mantri Visits Forward Posts in Arunachal Pradesh; Reviews Defence Preparedness along LAC

Celebrates Dussehra with troops & performs Shastra Puja at Tawang

No option but to strengthen country's security apparatus amid current global scenario; Govt ensuring that all major weapons & platforms are made in India: Shri Rajnath Singh

Raksha Mantri Shri Rajnath Singh, on October 24, 2023, visited the forward posts in Arunachal Pradesh and carried out first-hand on-ground assessment of the operational preparedness of the Armed Forces there. He interacted with the troops deployed in the frontline locations along the Line of Actual Control (LAC) and celebrated Dussehra with them. The Raksha Mantri expressed gratitude to the unyielding spirit, unwavering commitment and unparalleled courage of the troops, who are deployed on the borders in tough conditions, but always ensure that the nation and its people are safe. The entire nation is proud of the Armed Forces and is standing with them, he said.

Shri Rajnath Singh performed Shastra Puja with the troops at Tawang, where he reiterated that Dussehra signifies the victory of good over evil. In his address, he described the righteousness and dharma of the brave Armed Forces personnel as the living testament to the ethos of the festival of Vijayadashmi.

The Raksha Mantri pointed out that the valour and commitment of the Armed Forces is one of the main reasons that India's stature has grown on the international stage and it is now among the most powerful nations. Citing his recent tour to Italy, he stated that he paid a visit to Montone memorial (Perugia Province) which has been built to honour the contribution of Naik Yaswant Ghadge and other Indian soldiers who fought in the Italian campaign to liberate Montone in World War II. He added that not just Indians, but even Italian people pay their respects at the memorial, which is proof that the bravery of Indian soldiers is recognised globally.

In view of the current global scenario, Shri Rajnath Singh asserted that there is no option but to bolster the country's security apparatus, underlining that all efforts are being made by the Government to strengthen the nation's military prowess through indigenous production of defence equipment. "Under the visionary leadership of Prime Minister Shri Narendra Modi, giant strides have been made towards 'Aatmanirbharta' in defence.

Earlier, we used to rely on imports to upgrade our military. But today, a number of major weapons & platforms are being manufactured within the country. Foreign companies are being encouraged to share their technology and produce the equipment in India with domestic industry. In 2014, the value of defence exports was about Rs 1,000 crore, but today we are exporting defence equipment worth thousands of crores," he said.

The Raksha Mantri also visited the Tawang War Memorial, where he laid a wreath and offered tributes to the bravehearts who made the supreme sacrifice during the 1962 war. He was accompanied by Chief of the Army Staff General Manoj Pande; General Officer Commanding-in-Chief (GOC-in-C) Eastern Command Lt Gen RP Kalita; GOC, 4 Corps Lt Gen Manish Erry and other senior officers of the Indian Army.

Shri Rajnath Singh also visited the 4 Corps Headquarters at Tezpur in Assam. During the visit, he reviewed the operational readiness of the formation, which is deployed in one of the easternmost parts of the country. The Raksha Mantri was briefed on the infrastructure development along the LAC and the employment of cutting-edge military equipment and technology to enhance the operational efficiency of the troops deployed in the frontline. He commended the stellar work and yeoman services being rendered by all ranks of the Corps under challenging conditions.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1970391>



Tue, 24 Oct 2023

Defence Minister Rajnath Singh Celebrates Dussehra and Performs Shastra Puja with Troops at Tawang

Defence Minister Rajnath Singh on Tuesday carried out Shastra Puja with the troops at Tawang, Arunachal Pradesh and also interacted with the troops deployed in the frontline locations along the Line of Actual Control (LAC) and celebrated Dussehra with them.

The Ministry of Defence said, “Defence Minister Rajnath Singh, on Tuesday, visited the forward posts in Arunachal Pradesh and carried out a first-hand on-ground assessment of the operational preparedness of the Armed Forces there.”

The Defence Minister expressed gratitude to the unyielding spirit, unwavering commitment and unparalleled courage of the troops, who are deployed on the borders in tough conditions, but always ensure that the nation and its people are safe. The entire nation is proud of the Armed Forces and is standing with them, he said.

Rajnath Singh reiterated that Dussehra signifies the victory of good over evil. In his address, he described the righteousness and dharma of the brave Armed Forces personnel as the living testament to the ethos of the festival of Vijayadashmi.

In view of the current global scenario, Rajnath Singh asserted that there is no option but to bolster the country’s security apparatus, underlining that all efforts are being made by the Government to strengthen the nation’s military prowess through indigenous production of defence equipment.

Highlighting self-reliance in defence Rajnath Singh said, “Earlier, we used to rely on imports to upgrade our military. But today, a number of major weapons & platforms are being manufactured within the country. Foreign companies are being encouraged to share their technology and produce the equipment in India with domestic industry. In 2014, the value of defence exports was about Rs 1,000 crore, but today we are exporting defence equipment worth thousands of crores,” he said.

Tawang town inhabited by more than 50,000 people, called as the little Tibet by China, is one of the contentious areas which China claims as its own.

The Defence Minister also visited the Tawang War Memorial, where he laid a wreath and offered tributes to the bravehearts who made the supreme sacrifice during the 1962 war. He was accompanied by Chief of the Army Staff General Manoj Pande; General Officer Commanding-in-Chief (GOC-in-C) Eastern Command Lt Gen RP Kalita; GOC, 4 Corps Lt Gen Manish Erry and other senior officers of the Indian Army.

Rajnath Singh also visited the 4 (Gajraj) Corps Headquarters at Tezpur in Assam. Gajraj Corps handles the Counter Insurgency role in Assam and is also responsible for Defence of the Line of Actual Control with China in Western Arunachal Pradesh.

During the visit, he reviewed the operational readiness of the formation, which is deployed in one of the easternmost parts of the country. He was briefed on the “infrastructure development along the LAC and the employment of cutting-edge military equipment and technology to enhance the operational efficiency of the troops deployed in the frontline.”, MoD said.

He commended the stellar work and yeoman services being rendered by all ranks of the Corps under challenging conditions, added the MoD.

<https://www.newindianexpress.com/nation/2023/oct/24/defence-ministerrajnath-singh-celebrates-dussehra-andperformsshastra-puja-with-troops-at-tawang-2626599.html>



Tue, 24 Oct 2023

India’s Growing Economic Power Matches its Defence Capabilities: Rajnath Singh

Defense minister Rajnath Singh on Tuesday said India’s growing economic power matches its defence capabilities as he visited forward posts in Arunachal Pradesh along the Line of Actual Control (LAC) with China.

“People have realised that we are not only growing as an economic power but the same trajectory is seen in our defence capabilities as well. Earlier, we used to import almost all arms and weapons. Before 2014, our annual arms and weapons exports were worth around ₹1100 crores,” said Singh.

He added India was now exporting them for over ₹20,000 crores. “...all weapons are being made in India by Indians. Even weapons manufacturers from abroad are collaborating with Indians and making their products in India,” said Singh. He credited the dedication with which soldiers were protecting the borders for the rise in India’s stature globally. “The economic progress under Prime Minister Narendra Modi is one reason for India’s rise. ...if you had not protected the country’s borders and without your contribution, it would not have been possible.”

Singh cited the difficult circumstances under which soldiers were protecting India’s borders and added that every youth desires to join the defence forces. “...people of the country know the valour and honour associated with this uniform,” said Singh.

Singh also visited the Tawang War Memorial to pay tribute to the soldiers who laid down their lives during the 1962 war with China.

India and China have since 2020 been locked in a military standoff in eastern Ladakh. The ties between the two countries deteriorated to a six-decade low after 20 Indian soldiers were killed in clashes in the Galwan Valley in June 2020. Beijing claimed that only four Chinese soldiers were killed.

Singh, who interacted with the troops, celebrated Dussehra and performed Shastra Puja with the troops at Tawang, reviewed the operational readiness on the second day of his two-day visit to Assam and Arunachal Pradesh. Army chief Manoj Pande is among those accompanying him.

Singh was briefed on the infrastructure development along the LAC, cutting-edge military equipment and technology for enhancing the operational efficiency of the troops deployed along the LAC.

Chinese People's Liberation Army soldiers attempted to transgress the LAC in December last year and triggered a skirmish with Indian soldiers in the Tawang sector.

China has built hundreds of xiaokang (moderately prosperous villages) across LAC stretching from Ladakh to Arunachal Pradesh. Some of the new settlements are in proximity to strategically important positions on the Indian side.

India is also setting up villages along its borders with China under the Vibrant Villages Programme to develop areas with sparse population, limited connectivity and infrastructure. The Chinese claim large parts of Arunachal Pradesh including Tawang.

<https://www.hindustantimes.com/india-news/indias-growing-economic-power-matches-its-defence-capabilities-rajnath-singh-101698134327331.html>



Press Information Bureau
Government of India

Ministry of Defence

Mon, 23 Oct 2023

Air Marshal Sadhna Saxena Nair Takes Charge as Director General Hospital Services (Armed Forces); Becomes the First Lady Officer to Hold the Position

Air Marshal Sadhna S Nair assumed the appointment of Director General Hospital Services (Armed Forces) in the office of DGAFMS on Oct 23, 2023, becoming the first woman to hold the position on promotion to the rank of Air Marshal. Prior to this appointment, the Air Officer was tenanted the appointment of Principal Medical Officer (PMO) at HQ Training Command (Air Force), Bangalore.

A graduate from the Armed Forces Medical College, Pune, Air Marshal Sadhna S Nair was commissioned into the Indian Air Force in Dec 1985. She holds a Post Graduate degree in Family Medicine and has undergone a two-year training program in Medical Informatics at AIIMS, New Delhi. She was trained in CBRN Warfare with the Israeli Defence Forces and in Military Medical Ethics in Switzerland. She is the first and only woman Principal Medical Officer of Western Air Command and Training Command.

For her meritorious service she has been awarded the AOC-in-C (WAC) and CAS Commendations as well as the Vishisht Seva Medal by the President of India. Three generations of her family have served in the IAF over the last seven decades.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1970212>



**Press Information Bureau
Government of India**

National Security Council Secretariat

Mon, 23 Oct 2023

Bharat National Cyber Security Exercise 2023 Concludes: Elevating India's Cybersecurity Preparedness to New Heights

The prestigious SCOPE Convention Centre in New Delhi bore witness to the Bharat National Cyber Security Exercise (NCX) 2023, an event of monumental significance spanning from October 9th to 20th October 2023. This momentous occasion is a remarkable milestone in India's unwavering quest for cybersecurity excellence.

This flagship event served as a unifying platform for over 300 participants, representing a diverse spectrum of government agencies, public organizations, and the private sector, all resolutely committed to the safeguarding of critical information infrastructure.

Organized by the National Security Council Secretariat (NSCS), Government of India (GoI), in strategic partnership with Rashtriya Raksha University (RRU), Bharat NCX 2023, the closing session had Air Chief Marshal VR Chaudhari, PVSM, AVSM, VM, ADC, Chief of the Air Staff, deliver the motivational address to the participants. He stressed upon the importance of cyber security in today's world and mentioned that future battle will be fought primarily in the cyber domain. He also stressed on the importance of operational technology in the domain of cyberspace.

Dr Samir V Kamat, Secretary DDR&D and Chairman Defence Research and Development Organisation, while speaking at the Closing Session made a special mention of such events which would enhance the Nation's cyber security posture.

Further enhancing the event's significance, Lt Gen M U Nair, National Cyber Security Coordinator, provided a strategic overview of India's cyber domain. His insights illuminated the evolving landscape of cyber threats, emphasizing the pivotal role of collective vigilance in safeguarding the nation's digital assets.

Colonel Nidhish Bhatnagar, the Director of RRU, expressed his admiration for the steadfast dedication of the GoI to cybersecurity during the event. He underscored the vital importance of such efforts in safeguarding India's digital security, particularly in a time marked by widespread digitization and an increased exposure to threats.

Bharat NCX 2023 represents a defining moment in India's unwavering commitment to cybersecurity excellence, underscoring the paramount importance of collaboration and knowledge-sharing among stakeholders from government, public, and private sectors.

Bharat NCX 2023, organised intense training for the participants over six days and a red on blue Live Fire cyber exercise over five days, wherein participants challenged their cyber skills against a determined adversary. The exercise also had a Strategic Track for leadership level discussions on cyber threat landscape, incident response, crisis management to handle real world cyber challenges.

In addition to the core exercise, Bharat NCX 2023 hosted the prestigious Bharat NCX CISOs Conclave, with a gathering of over 200 Chief Information Security Officers (CISOs) from government, public organizations, and the private sector. This exclusive gathering of industry leaders provided a unique platform for in-depth discussions and deliberations on the evolving cyber threat landscape.

Bharat NCX 2023 also showcased an exclusive exhibition spotlighting the innovation and resilience of Indian Cyber Security start-ups and Micro, Small, and Medium-sized Enterprises (MSMEs). The exhibition presented cutting-edge solutions and technologies developed by these dynamic entities, underscoring their pivotal role in fortifying India's cybersecurity ecosystem.

Bharat NCX 2023 while making endeavours to fortify our cyber defences also highlighted the need for a National Cyber Security Strategy resulting in governance structures supported by legal frameworks, efficient processes for threat intel sharing and enhancing Public Private Partnership.

In an era characterized by burgeoning digitalization, Bharat NCX 2023 serves as a compelling reminder of the paramount importance of collective vigilance and preparedness in safeguarding our nation's invaluable digital assets.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1970225>



Press Information Bureau
Government of India

Ministry of Defence

Mon, 23 Oct 2023

Exercise Harimau Shakti-2023” Commenced in Umroi Cantt, India – Indian & Malaysian Armies Participate

Joint bilateral training exercise “Exercise Harimau Shakti 2023”, between Indian & Malaysian Army commenced today in Umroi Cantonment, India. The Malaysian Army contingent comprises troops from 5th Royal Battalion of Malaysian Army. The Indian contingent is being represented by a Battalion of THE RAJPUT REGIMENT. Last edition of the Exercise was conducted in Pulai, Kluang, Malaysia in November 2022.

Ex Harimau Shakti, scheduled till 5th November 2023, will engage approximately 120 personnel from both sides. It is aimed at enhancing military capability for conduct of Multi Domain Operations in a sub conventional scenario. During the exercise, both contingents will establish a Joint Command Post & establish an integrated surveillance grid along with a Joint Surveillance Centre.

Both sides will rehearse employment of joint forces in jungle/ semi urban / urban environment. In addition, intelligence collection, collation and dissemination drills will also be rehearsed. The Exercise will also witness employment of Drones/UAVs & Helicopters. Two sides will also practice casualty management and evacuation drills. Both the contingents will discuss logistics management and practice survival training at the Battalion level.

The training will focus primarily on high degree of physical fitness, conduct of drills at tactical level and sharing of best practices with each other. The Exercise will culminate with a 48-hour long validation exercise in a semi-urban area.

“Exercise HARIMAU SHAKTI” is aimed to enhance the level of defence co-operation between Indian Army and the Malaysian Army, which will also foster the bilateral relations between the two nations.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1970076>

Indigenous LUH Set to Replace Aging Cheetah and Chetak Fleet

Indian Army is getting all set to induct the indigenous Light Utility Helicopters (LUH) which are expected to replace the ageing Cheetah and Chetak helicopters.

On the completion of their Total Technical Life (TTL), the army plans to gradually start phasing out these machines from 2027 onwards. The plan to replace these birds with the indigenous helicopters over a period of a decade.

It has been reported previously that in November 2021, the Defence Acquisition Council approved the procurement of 12 Limited Series Production (LSP) variants of the LUH at a cost of around Rs 1,500 crore. The army and the Air Force will get six each of the LSP variants of the LUH which have been designed and developed by the state-owned Hindustan Aeronautics Limited (HAL). However, the production has been delayed due to some issues related to the auto-pilot.

According to sources, “Trials have started following the issue being resolved by HAL of the auto-pilot of the LUH.” Once the trials are over the Indian army is expected to receive the first six LSP LUH between December 2024 and June 2025.

The larger contract for the Light Utility Helicopter (LUH) is anticipated to be finalized by January 2024, with deliveries projected to commence from 2026 onward, according to the aforementioned source. In the interim, the Army is exploring the possibility of leasing 20 utility helicopters to alleviate the existing shortage.

At present, the Army’s helicopter fleet consists of 190 units, including Cheetah, Chetak, and Cheetal helicopters, out of an original 246. Approximately 25 of these helicopters are typically undergoing maintenance at Hindustan Aeronautics Limited (HAL) at any given time, representing a deficiency of approximately 37 percent in this segment, as highlighted by the source. The majority of the fleet, nearly 130 out of the 190, are between 30 and 50 years old.

Among the 190 Cheetah and Chetak helicopters in service, more than 70 percent of them, around 134, are over 30 years old, as previously reported. These helicopters are also operated by the Navy and the Indian Air Force (IAF). For instance, the IAF operates approximately 120 Cheetah and Chetak helicopters, along with about 18 of the more recent Cheetal helicopters.

The light helicopter fleet plays a crucial role in transporting supplies and facilitating evacuations in high-altitude regions, including the Siachen glacier, especially given the increased commitments along the northern borders following the 2020 stand-off. In addition to these aging helicopters, the Army operates approximately 145 indigenous Advanced Light Helicopters (ALH), including 75 Rudra weaponized variants, with an additional 25 ALH Mk-III helicopters on order.

The Army recently issued a Request for Information for leasing 20 Light Helicopters specifically for reconnaissance and surveillance purposes. It has stipulated that from the signing of the contract the vendor should be able to deliver 20 helicopters in two year.

Overall, the Army and the IAF have a combined requirement of more than 400 helicopters in this category. The LUH, a 3-ton class helicopter with a glass cockpit, will serve roles in reconnaissance, surveillance, and light transport. It boasts a maximum speed of 220 kmph, a service ceiling of 6.5 km, and a range of 350 km with a 400 kg payload.

The LUH is powered by the TM/HAL Ardiden 1U/Shakti 1U single turbo shaft engine, designed to handle demanding high-altitude missions. The project commenced in February 2009, with the first prototype's technical flight successfully conducted by HAL in September 2016.

It's worth noting that HAL has an "in principle" order for 187 LUH, comprising 126 for the Indian Army and 61 for the Indian Air Force (IAF).

Over a decade ago, both the Army and the IAF began the search for a suitable replacement for the aging Cheetah and Chetak helicopters. In 2015, the Defense Ministry decided to split the order into two parts: procuring around 200 in collaboration with a foreign Original Equipment Manufacturer (OEM) and an additional 200 to be supplied by HAL through indigenous development. India entered into an inter-governmental agreement with Russia to manufacture 200 Ka-226T helicopters within India through a joint venture, but this arrangement has encountered delays and is currently pending formal cancellation. Consequently, the entire requirement will now be met by the LUH.

<https://www.financialexpress.com/business/defence-indigenous-luh-set-to-replace-aging-cheetah-and-chetak-fleet-3285693/>

THE ECONOMIC TIMES

Tue, 24 Oct 2023

Pakistan Successfully Conducts Training Launch of Ghauri Weapon System

Pakistan on Tuesday successfully conducted a training launch of the Ghauri Weapon System, according to a statement by the army, a week after holding the flight test of the ballistic missile Ababeel Weapon System. The purpose of the launch is "aimed at testing the operational and technical readiness of Army Strategic Forces Command (ASFC)," the statement said.

The launch was witnessed by Commander ASFC, senior officers from the strategic forces, scientists, and engineers of the strategic organisation.

The Commander of the ASFC also appreciated the scientists and engineers for their contributions towards the enhancement of Pakistan's strategic capability, the statement said.

Tuesday's training launch of the Ghauri Weapon System took place days after the US imposed sanctions on three Chinese companies for supplying missile-applicable items for Pakistan's ballistic missile programme.

China, an all-weather ally of Pakistan, has been the main supplier of arms and defence equipment to Islamabad's military modernisation programme.

President Arif Alvi, Interim Prime Minister Anwaarul Haq Kakar and Services Chiefs congratulated the participating troops, scientists, and engineers on the successful conduct of the training launch.

Earlier on October 18, Pakistan had successfully conducted the flight test of the Ababeel Weapon System to further strengthen its deterrence. That test of the ballistic missile system, a statement by the Inter-Services Public Relations (ISPR) - the media wing of the army had said, was aimed at "re-validating various design, technical parameters, and performance evaluation of different sub-systems."

<https://economictimes.indiatimes.com/news/defence/pakistan-successfully-conducts-training-launch-of-ghauri-weapon-system/articleshow/104670967.cms>

Tue, 24 Oct 2023

China Announces Removal of Defence Minister Missing for Almost Two Months with Little Explanation

China has replaced Defence Minister Gen. Li Shangfu, who has been out of public view for almost two months with little explanation, state media reported on October 24.

Mr. Li is the second senior Chinese official to disappear this year, following former Foreign Minister Qin Gang, who was removed from office in July with no explanation offered.

Mr. Li, who became Defence Minister during a Cabinet reshuffle in March, hasn't been seen since giving a speech on August 29. There is no indication that the disappearances of Mr. Qin and Mr. Li signal a change in China's foreign or defence policies, although they have raised questions about the resilience of president and ruling Communist Party leader Xi Jinping's circle of power.

Mr. Xi has a reputation for valuing loyalty above all and has relentlessly attacked corruption in public and private, sometimes in what has been seen as a method of eliminating political rivals and shoring up his political position amid a deteriorating economy and rising tensions with US over trade, technology and Taiwan.

Mr. Li is under U.S. sanctions related to his overseeing weapon purchases from Russia that bar him from entering the country. China has since cut off contacts with the U.S. military, mainly in protest over U.S. arm sales to Taiwan, but also strongly implying that Washington must lift the measures against Mr. Li, which Beijing refuses to publicly recognise.

<https://www.thehindu.com/news/international/china-announces-removal-of-defence-minister-missing-for-almost-2-months-with-little-explanation/article67453719.ece>



Wed, 25 Oct 2023

China's Defence Ministry Blasts Pentagon's Annual Report

China's defence ministry on Wednesday denounced the U.S. Defense Department's annual report on China, saying it distorts the country's security policy and military strategy.

Over the next decade, the People's Republic of China will rapidly modernise, diversify, and expand its nuclear forces, the Pentagon said in its report to U.S. Congress, laying out China's national ambitions, including its defence policy and military strategies.

The Pentagon said China has more than 500 nuclear warheads and will probably have more than 1,000 warheads by 2030. The report said China would use new fast-breeder reactors and reprocessing facilities to produce plutonium for its nuclear weapons, despite publicly saying the technologies are intended for peaceful purposes.

"We express our strong dissatisfaction and resolute opposition to this report," Chinese Defence Ministry spokesperson Wu Qian said in a statement, adding that it "exaggerates and hypes the non-existent 'Chinese military threat'".

Wu said the development of China's armed forces is aimed at containing the threat of war, safeguarding its own security and safeguarding world peace, and is not aimed at any specific country or target.

China and the United States have recently traded barbs over global and national security concerns, military interactions in the South China Sea and over Taiwan, which China claims as its own territory.

The Pentagon said in 2022 that China "amplified diplomatic, political, and military pressure against Taiwan".

"The so-called report on China's military power released by the United States is full of all kinds of wrong content, including the statement on the Taiwan issue," a spokesperson for China's Taiwan Affairs Office said at a media briefing on Wednesday.

Calling the military-to-military relationship an important part of Sino-U.S. relations, the Defence Ministry's Wu said, "we maintain frank and effective communication with the United States through military diplomacy".

But he added the difficulties and obstacles facing relations between the two militaries are created by the United States.

"The United States pretends to be confused, while doing things that harm China's security interests, but at the same time shouting that it wants to manage the crisis and strengthen communication," Wu said.

The latest exchange between the two countries comes days before China hosts foreign defence officials at the 10th Xiangshan Forum in Beijing from Oct. 29 to 31.

The United States accepted China's invitation after China turned down a meeting a few months ago between the two countries' defence chiefs.

<https://www.reuters.com/world/chinas-defence-ministry-blasts-pentagons-annual-report-2023-10-25/>

Science & Technology News



Wed, 25 Oct 2023

अंतरिक्ष यात्रियों के दिल की धड़कन बताएगी IIT-BHU की डिवाइस: लाइफ सिस्टम की हर पल होगी मॉनिटरिंग; एस्ट्रोनॉट के BP-पल्स, हार्ट, मसल्स का पता चलेगा

गगन यान मिशन के साथ स्पेस में जाने वाले अंतरिक्ष यात्रियों (एस्ट्रोनॉट) के सर्वाइवल, फिटनेस, ट्रीटमेंट की बखूबी तैयारियां की जा रही हैं। 2 साल बाद 2025 में गगन यान को लॉन्च किया जाएगा। जिसमें अंतरिक्ष यात्री जाएंगे। वाराणसी के IIT-BHU में एक ऐसी डिवाइस बन रही है जो एस्ट्रोनॉट्स के हेल्थ मैनेजमेंट पर काम करेगी।

IIT-BHU में बीते 5 महीने से इस डिवाइस पर टेस्टिंग चल रही है। यह डिवाइस एक छोटे मोबाइल फोन के साइज जैसी हो सकती है। जो स्पेस में 24 घंटे शरीर की जरूरी हरकतों की निगरानी करेगी। एस्ट्रोनॉट्स का हेल्थ डेटा रियल टाइम में धरती पर ISRO को मिलेगा। जिससे किसी भी मुश्किल हालात में अंतरिक्ष यात्री अपने आप को यान में मौजूद लाइफ सपोर्ट सिस्टम की मदद से बचा सकेंगे।

पहले जानते हैं, बॉडी को सिक्वोर करने वाले वो कौन से 7 पैरामीटर्स हैं, जिनकी टेस्टिंग चल रही है...

- SPO2- ऑक्सीजन लेवल
- हार्ट रेट- धड़कन की गति
- बॉडी टेंप्रेचर
- ब्लड प्रेशर
- ब्रेथ एनालाइजर
- ECG (इलेक्ट्रोकार्डियोग्राम) - हार्ट में कोई एक्टिविटी।
- EMG (इलेक्ट्रोमायोग्राफी) - मसल्स की गतिविधियां।

लैब में ECG, हार्ट रेट और बॉडी टेंप्रेचर पर हमारी टेस्टिंग सफल रही है। डिवाइस में इस कमांड को अप्लाई किया जा चुका है। बाकी पैरामीटर्स पर टेस्टिंग चल रही है।

एस्ट्रोनॉट के बॉडी में होने वाले बदलावों को मापेगा

IIT-BHU के रिसर्चर नवीन कुमार अपने प्रोफेसर डॉ. प्रियरंजन के मार्गदर्शन में एक 'कंप्लीट इलेक्ट्रॉनिक सिस्टम' (CES) पर काम कर रहे हैं। IIT-BHU के डायरेक्टर प्रोफेसर प्रमोद कुमार जैन ने कहा कि ISRO (इंडियन स्पेस रिसर्च ऑर्गेनाइजेशन) का रीजनल सेंटर होने के नाते संस्थान को ISRO के कई प्रोजेक्ट्स मिले हुए हैं। जिस पर काफी युद्ध स्तर पर रिसर्च और स्टडी हो रही है। यहां पर गगन यान समेत ISRO के कई स्पेस प्रोजेक्ट्स मटेरियल साइंस, टेलीकम्युनिकेशन इलेक्ट्रॉनिक डिवाइस पर वैज्ञानिक स्टडी कर रहे हैं। यह संस्थान के लिए गौरव का क्षण है।

रिसर्चर नवीन ने कहा कि एयरफोर्स के 3 कमांडों को गगनयान के ह्यूमन मिशन के लिए चुना गया है। वे 400KM की ऊंचाई पर 72 घंटे बिताएंगे और फिर धरती पर लौटेंगे। यहां हवा न के बराबर, तापमान में बदलाव, माइक्रो ग्रेवेटेशनल फोर्स यानी कि कम गुरुत्वाकर्षण होगा।

इस परिस्थिति के अनुसार, वहां एस्ट्रोनॉट के शरीर में जो भी बदलाव आ रहे हैं, उनका मापन इन्हीं 7 पैरामीटर्स पर किया जा रहा है। शरीर के 3 पैरा मीटर्स की टेस्टिंग पूरी हो चुकी है। जिसमें ECG, हार्ट रेट और बॉडी टेंप्रेचर शामिल है। जो डेटा तैयार हुए हैं, उन्हें नोट कर लिया गया है।

इस बेस पर बनेगा एस्ट्रोनॉट्स लाइफ सपोर्ट सिस्टम

स्पेस में मौसम कैसा रहेगा, इसके लिए लैब में ही स्पेस जैसा वातावरण क्रिएट किया गया है। पिछले 5 महीने से लगातार यहां अंतरिक्ष यात्रियों की प्रॉपर हेल्थ मॉनिटरिंग के लिए एक डिवाइस पर काम चल रहा है। सैंपल के आधार पर, एस्ट्रोनॉट के शरीर में जो भी बदलाव आ रहे हैं, उसे जांचने के लिए संस्थान में एक प्रोटोटाइप डिवाइस बनाई गई है। स्पेस में ह्यूमन बॉडी के बदलावों का पूरा-पूरा मेजरमेंट करके ही एस्ट्रोनॉट्स के लिए ISRO द्वारा लाइफ सपोर्ट सिस्टम तैयार किया जाएगा।

यूनिफॉर्म में ही रखी जा सकती है डिवाइस

नवीन ने कहा कि मोबाइल जैसा यह डिवाइस हो सकता है। इसे एस्ट्रोनॉट्स की जेब या कहीं यूनिफॉर्म में रख दिया जाएगा। इससे उनके शरीर की 7 बेसिक जरूरतों की मॉनिटरिंग होती रहेगी। जिसका रियल टाइम डेटा ISRO के

सेंटर्स और एस्ट्रोनॉट्स तक आएगा। यदि, पैरामीटर्स में कोई बदलाव आएगा तो उसके अनुसार ट्रीटमेंट किया या कोई दूसरी एक्टिविटी की जा सकती है।

हर हरकत लैब में जांची जा रही

गगन यान थर्मोस्फियर में 3 दिन रहेगा। यह पृथ्वी के वातावरण का दूसरा सबसे मोटा और ऊपरी परत है। समुद्र तल से इसकी ऊंचाई लगभग 80KM से लेकर 700KM तक है। तापमान 500 डिग्री से ज्यादा रहता है। यहां पर ऑक्सीजन, हीलियम और नाइट्रोजन के साथ ही कई तरह की गैसें होती हैं। इनमें आपस में टकराव भी होता है। इसी परत में NASA का इंटरनेशनल स्पेस सेंटर है।

नवीन कुमार ने कहा कि ग्रैविटी और एटमॉस्फियर के अनुसार, स्पेस में क्या-क्या बदलाव आएंगे, उस आधार पर बॉडी पैरामीटर्स की जांच चल रही है। स्पेस में हर समय कुछ न कुछ बदलाव होते हैं। अलग-अलग टाइम में क्या बदलाव आएंगे, इन बदलावों के दौरान बॉडी पर क्या प्रभाव पड़ रहा है। इन हरकतों की जांच करके डेटा दिया जाएगा। जिसके आधार पर ISRO उस खास सिचुएशन में बॉडी पर कंट्रोल कैसे रखना है इसकी तैयारी करेगा।

3 दिन बिना शारीरिक समस्या के बिताएंगे एस्ट्रोनॉट

इससे पहले 21 अक्टूबर को फ्लाइट एबॉर्ट टेस्ट यान के क्रू एस्केप सिस्टम की टेस्टिंग सफल रही। क्रू मेंबर्स द्वारा धरती पर सुरक्षित लैंडिंग के सफल परीक्षण के बाद अब यह तय किया जा रहा है कि स्पेस में जाने वाले यात्रियों के 3 दिन बिना किसी शारीरिक समस्या या बीमारी के कैसे गुजरेंगे।

<https://money.bhaskar.com/local/uttar-pradesh/varanasi/news/iit-bhus-device-will-tell-the-heartbeat-of-astronauts-132046881.html>

THE TIMES OF INDIA

Wed, 25 Oct 2023

Gaganyaan: ISRO will Attempt Air Drop Test using Chopper, Pad Abort Planned too

The Indian Space Research Organisation (Isro), which successfully carried out an in-flight abort test as part of Gaganyaan last week will attempt an integrated air drop test involving dropping of the crew module from a helicopter next, while other abort tests are scheduled to be carried out thereafter.

As of Tuesday the space agency was carrying out analysis of the recovered crew module (CM) from Saturday's mission while other data from the crew escape system (CES) and CM from its descent was also being studied.

Aside from understanding the data for the performance of the various systems, which Isro chairman S Somanath had said prima facie, performed as planned, the space agency will also look at how the systems within the CM have survived after the impact on the Bay of Bengal.

Close on the heels of this mission, Isro, as per current plans, will carry out an integrated air drop test, A Rajarajan, director, Satish Dhawan Space Centre (SDSC), the spaceport in Sriharikota, told TOI.

“When this test will be scheduled will depend on what we learn from the in-flight abort test, tentatively, we are looking at December. The integrated air drop test will see the module being dropped using a helicopter over the sea. It will help understand impact from various heights and velocity which we can compare with designs for nominal conditions,” he told TOI last Thursday.

Once the air drop test is complete, Isro is expected to conduct another pad abort test (PAT) — where an anomaly would be simulated while the vehicle carrying the CES and CM is still on the launch pad, leading to an abort and taking the crew module to safety.

While the space agency had carried out a PAT in 2018, testing multiple new technologies in one mission, Isro chairman S Somanath had told TOI earlier this year that they will have to redo the crucial PAT as there has been substantial design changes since the previous PAT.

“...So, that PAT is no longer valid. The complete system of the Gaganyaan crew module and CES has seen major changes, which means we have to repeat PAT.

The spaceport is also creating multiple new infrastructure as part of preparations for Gaganyaan, which will be the precursor to more ambitious goals — establishing a space station by 2035 and sending humans to Moon by 2040 — set by Prime Minister Narendra Modi.

<https://timesofindia.indiatimes.com/india/gaganyaan-isro-will-attempt-air-drop-test-using-chopper-pad-abort-planned-too/articleshow/104684621.cms>

THE ECONOMIC TIMES

Tue, 24 Oct 2023

Skyroot Unveils Vikram-1 Rocket, Set to Launch Satellites Early Next Year

Space start-up Skyroot Aerospace on Tuesday unveiled its indigenously built Vikram-1 rocket which is expected to deliver satellites to low earth orbit early next year. Science and Technology Minister Jitendra Singh also inaugurated 'The MAX-Q Campus', the new headquarters of the start-up at the GMR Aerospace and Industrial Park at Mamidipally in South Hyderabad.

Singh toured the Skyroot headquarters spread across 60,000 sq ft and billed as the country's largest private rocket development facility under one roof.

Vikram-1 is a multi-stage launch vehicle with a capacity to place around 300 kg payloads in Low Earth Orbit. It is an all-carbon-fibre-bodied rocket that can place multiple satellites into orbit and features 3D-printed liquid engines.

Planned to be launched in early 2024, Vikram-I will be Skyroot's second rocket, after the successful launch of the Vikram-S rocket on November 18 last year.

Skyroot's new headquarters houses integrated design, manufacturing and testing facilities for building space launch vehicles, and design space for the 300-member strong workforce.

"Every rocket, during its travel to space, has to push through a point of maximum stress called 'Max-Q'. Our MAX-Q headquarters serves as a powerful symbol of our unwavering commitment to pushing boundaries and accomplishing the extraordinary, all in pursuit of our mission to Open Space For All," Pawan Chandana, co-founder and CEO of Skyroot Aerospace said.

"Skyroot is not only an example of India's superlative talent and scientific acumen but it also has a message for all of us that a huge potential was lying dormant for several decades before Prime Minister Narendra Modi came and broke the taboos of the past and opened India's Space Sector for Public Private Partnership (PPP)," Singh said.

The unveiling of Vikram-1 space launch vehicle on the same day as the company's new headquarters inauguration is a moment of great pride, said Bharath Daka, Co-Founder and COO of Skyroot.

"Our design prowess and cutting-edge home-grown technology have been integral to the creation of Vikram-1. As we eagerly prepare for the early 2024 launch, we will keep sharing further updates on the orbital mission with Vikram-1," Daka said.

<https://economictimes.indiatimes.com/news/science/skyroot-unveils-vikram-1-rocket-set-to-launch-satellites-early-next-year/articleshow/104677601.cms>

