

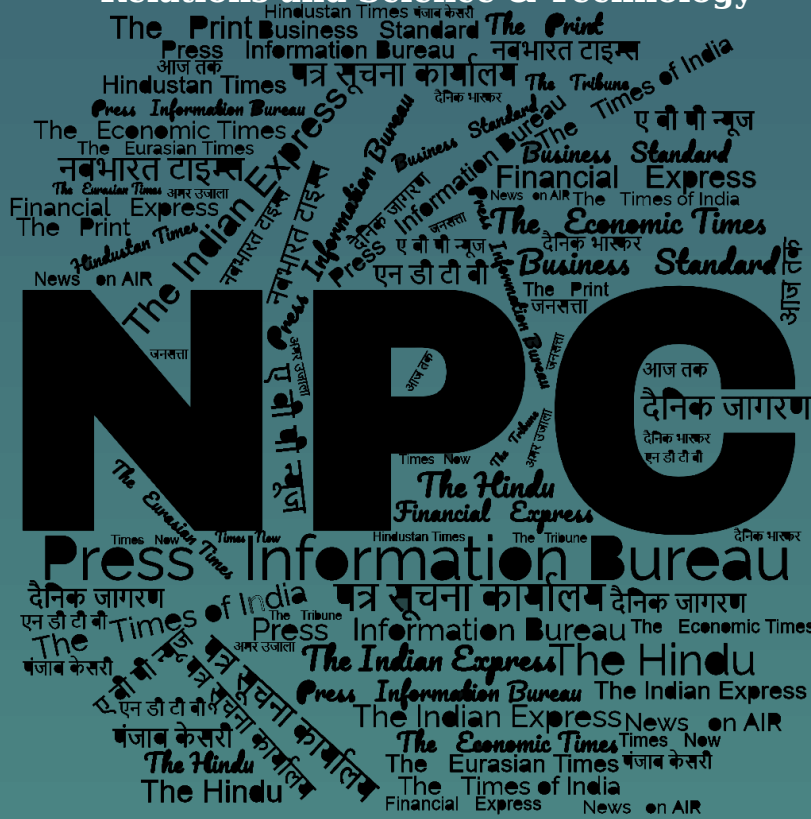
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Government of India

Ministry of Defence

Wed, 13 Dec 2023

Raksha Rajya Mantri Flags-in ‘Mission Antarctica’ Carried out by a Team of Himalayan Mountaineering Institute, Darjeeling

The team enters Asia Book of Records for hoisting 7,500 sq ft & 75 kg National Flag atop Mt Rhenock in Sikkim Himalayas

Tri-colour displayed over Mount Vinson Peak, the highest peak of South Pole as part of the expedition

Such out-of-the-box initiatives promote adventure & patriotism among the youth: Shri Ajay Bhatt

Raksha Rajya Mantri Shri Ajay Bhatt flagged-in, in New Delhi on December 13, 2023, a team of Himalayan Mountaineering Institute, Darjeeling that carried out ‘Mission Antarctica’. The expedition, which commenced in 2021, was undertaken by a team of three trekkers, led by Group Captain Jai Kishan. The team hoisted the National Flag, measuring 7,500 sq ft and weighing 75 kilograms across the length and breadth of the country, including atop Mt Rhenock in Sikkim Himalayas at an altitude of 16,500 feet. It was recorded as the biggest Indian National Flag hoisted atop a mountain in the Asia Book of Records and India Book of Records. During the expedition, the team also displayed the Tri-colour over Mount Vinson Peak, the highest peak of South Pole.

During the flag-in ceremony, the Raksha Rajya Mantri witnessed the final display of 7,500 sq ft National Flag at the Air Force Bal Bharati School in the national capital. The event also witnessed the culmination of the mega roadshow ‘Mera Yuva Bharat Yatra’, wherein holy soil and water from the higher reaches of Himalaya (16,000ft) in Sikkim were presented to Shri Ajay Bhatt.

Addressing the gathering, the Raksha Rajya Mantri lauded the efforts put in by the expedition team, terming these as out-of-the-box initiatives aimed at promoting the spirit of adventure and patriotism among the youth. Stating that the country, under the leadership of Prime Minister Shri Narendra Modi has entered into Amrit Kaal, he called upon the school children to become part of this great journey and will make the nation Viksit Bharat.

Shri Ajay Bhatt urged the students to study hard and participate enthusiastically in the extracurricular activities for the overall development. He appealed to the students to take part in the Government’s initiatives such as Khelo India, and Mera Yuva Bharat. During the event, the

students of Air Force Bal Bharti School presented a patriotic cultural programme. Senior civil and military officials of MoD, students, parents and school faculty were present on the occasion.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1985842>



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Ministry of Defence

Wed, 13 Dec 2023

Commissioning of INS Tarmugli

The Indian Navy will be inducting a Fast Attack Craft, INS Tarmugli on 14 Dec 23 in a ceremonial commissioning ceremony at Naval Dockyard, Visakhapatnam . The ship has a unique distinction of having served under the flag of two nations with three names during her distinguished service till date. Commissioned in the Indian Navy as INS Tillanchang, a Trinkat Class ship, she was in active service till 2006, and thereafter gifted to the Maldives National Defence Force (MNDF) by the Govt of India, as part of diplomatic outreach in the IOR.

The ship was commissioned into MNDF as MCGS Huravee on 16 April 2006, and served there till its decommissioning in May 2023. The ship was returned to the Indian Navy, which also provided an in-service Waterjet Fast Attack Craft, INS Tarmugli, to MNDF as the new MCGS Huravee. After detailed examination of the returned ship, a decision was taken to refurbish, repair and re-induct her into the force levels of the Indian Navy. The ship has undergone extensive repair and upgradation by the Indian Navy at Naval Dockyard, Visakhapatnam, over the last six months, and is scheduled to be commissioned as 'INS Tarmugli' on 14 Dec 2023 at Visakhapatnam. VAdm Sandeep Naithani, Chief of Materiel will be the Chief Guest for the commissioning ceremony.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1985936>



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Ministry of Defence

Thu, 14 Dec 2023

INS Kadmatt Arrived at Manila, Philippines

As part of the ongoing Long Range Op Deployment, INS Kadmatt arrived at Manila, Philippines on 12 Dec 2023. The visit is aimed at bolstering maritime cooperation between India and Philippines.

A Wide range of engagements between personnel of both the Navies planned during the Port Call. These include professional interactions, Subject Matter Expert Exchange and cross deck visits, aimed at enhancing cooperation and exchanging best practices. Visits by school children and community outreach/ social impact activities are also planned during the visit.

Post departure from Manila, a Maritime Partnership Exercise is scheduled in the South China Sea between INS Kadmatt and BRP Ramon Alcaraz, an off-shore patrol vessel of the Philippine Navy.

INS Kadmatt is an indigenously designed and built Anti-Submarine Warfare Corvette, equipped with state-of-the-art anti submarine weapon suite.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1986090>



Thu, 14 Dec 2023

Mazagon Dock Submits Bid to Defence Ministry to Build 3 Submarines for Navy

The Defence Ministry has received bids from Mazagon Dockyard Limited (MDL) for the construction of three submarines for the Indian Navy, aimed at bolstering naval operations in the Indo-Pacific region.

According to sources, MDL has submitted bids for the construction of these submarines as part of the "Make in India" initiative, based in Mumbai.

The Indian Navy obtained clearance for the procurement of these submarines in July of this year, just before Prime Minister Narendra Modi's visit to France.

The addition of these three new submarines will supplement the six submarines ordered in 2005. The initial contract involved the acquisition of six Scorpene-class submarines from Naval Group, with manufacturing undertaken by MDL through technology transfer.

The commissioning of these submarines has been an ongoing process, with the first in the series, INS Kalvari, entering service in December 2017, and the fifth, INS Vagir, joining the fleet in January 2023.

The sixth submarine, Vagsheer, is currently undergoing trial phases and is anticipated to be delivered to the Navy in early 2024.

Notably, the three additional submarines are expected to feature a higher indigenous content and will be equipped with the DRDO-developed Air Independent Propulsion (AIP) system, enhancing their endurance and overall capabilities.

<https://www.indiatoday.in/india/story/mazagon-dock-submits-bid-defence-ministry-build-submarines-indian-navy-2475747-2023-12-14>



Wed, 13 Dec 2023

Defence Ministry Approves Rs 2800 Crore Rockets for Pinaka Weapon System

In a major boost for the Indian Army, the Defence Ministry has approved a Rs 2,800 crore proposal for buying around 6,400 rockets for Pinaka multi-barrel rocket launcher systems.

The Defence Ministry's Defence Acquisition Council's recent meeting had cleared the proposal for the acquisition of two types of these rockets, known as Area Denial Munition Type 2 and Type-3, defence sources told ANI.

The rockets would be procured by the Indian Army from indigenous sources only and two main contenders include the Economic Explosives Limited of Solar Industries and the Munitions India Limited-- one of the ammunition-producing companies created by the corporatisation of the erstwhile Ordnance Factories, they said.

The Indian-made Pinaka weapon system, named after the bow of Hindu god Shiva, has been developed by the Defence Research and Development Organisation.

The weapon system is one of the first few Indian military terms to have been exported to foreign countries, including Armenia.

Private sector companies involved in the project include Larsen & Toubro, Tata Defence and Economic Explosives Limited have set up production lines for the Pinaka system that are being supplied in bulk to the armed forces.

As part of larger artillery modernisation plans, the army has a requirement of 22 regiments of the Pinaka MBRL.

Pinaka regiments of the Indian Army include launchers with automated gun aiming and positioning systems and command posts.

The trials of the Pinaka rockets have also been conducted recently by the forces in Pokharan firing ranges in Rajasthan and multiple successful test firings have been carried out during these tests.

<https://economictimes.indiatimes.com/news/defence/defence-ministry-approves-rs-2800-crore-rockets-for-pinaka-weapon-system/articleshow/105968162.cms>

THE TIMES OF INDIA

Thu, 14 Dec 2023

Solar Grp, MIL to Make 9,000 Pinaka Rockets

Economic Explosives Limited (EEL), a private ammunition manufacturer from the city, and newly created defence public sector undertaking (DPSU) Munition India Limited have bagged an order worth Rs4,800 crore for making more than 9,000 Pinaka rockets for the Army, said sources.

EEL, which is headed by businessman Satyanarayan Nuwal, is a wholly owned subsidiary of Solar Group, which makes commercial explosives used in the mining sector. The order follows the request for proposal (RFP) invited for the area denial munition (ADM) version of the Pinaka rockets. It has been learnt that EEL's bid has been lower than that of its immediate contender MIL. With this, as per norms, EEL is supposed to get 60% of the order with the rest going to MIL, said sources.

The Pinaka order gives a major push to EEL. This will be the biggest ever defence contract for the company in terms of value. With its share of 60%, EEL will get an order worth over Rs2,800 crore, said sources. It's earlier order include making hand grenades and 30mm ammunition for the forces, which are of considerably lesser value as compared to the Pinaka. The finalization will happen after the deal goes through the cost negotiation committee (CNC), said sources.

For MIL too, this comes as a big push. Now the PSU will have to maintain a financial viability for which the revenues need to be shored up. MIL, which is headquartered at Pune, has ordnance

factories at Bhandara and Chandrapur under it. The hardware of Pinaka rockets is made by Yantra India Limited (YIL), another defence PSU created out of ordnance factories having its headquarters at Nagpur.

The Pinaka, with a range of over 38km is one of the latest systems for the artillery. The bulk order for making the rockets was first given to the ordnance factories in 2007 when the ordnance factory board (OFB) was in existence.

<https://timesofindia.indiatimes.com/city/nagpur/solar-grp-mil-to-make-9000-pinaka-rockets/articleshow/105973271.cms>



Wed, 13 Dec 2023

U.S. has Made Great Progress in further Bolstering Defence Relations with India: Pentagon

Pentagon to further bolster Defence ties with India in 2024 while working towards common vision of Free and Open Indo-Pacific region

The U.S. has made great progress in bolstering its defence relationship with India and the Pentagon is looking forward to making further progress in Military-to-Military ties in 2024, a Senior Official has said. “In terms of the relationship between the U.S. and India, you know, with obvious focus on the Department of Defence, I think it has been a very good year. I think we've made great progress in terms of further bolstering our relationship and cooperation,” Pentagon Press Secretary Pat Ryder told reporters at a news conference in Washington.

“You've heard us talk about things like INDUS-X and working on Defence Cooperation efforts to include in the industrial base as far as developing things like jet engines in India, working collaboratively to produce armoured vehicles in India, the ability of our ships to go to India .Our navy ships to go to India to be repaired,” he said in response to a question on December 12.

“So all of this working toward the common vision of a Free and Open Indo-Pacific region where sovereignty is respected, and countries can operate in International Airspace, sail the International Waterways freely and without harassment. We will continue to work closely with our partner, India. And we look forward to further progress in 2024,” Mr. Ryder said.

<https://www.thehindu.com/news/international/pentagon-to-further-bolster-ties-with-india-in-2024/article67634129.ece>



Wed, 13 Dec 2023

Australian High Commissioner Proposes Deeper Defence Ties with India

Phillip Green, the Australian high commissioner to India, emphasized the need for a stronger defence relationship between India and Australia, proposing that Indian officers serve at Australia's Joint Headquarters.

In his policy speech in New Delhi, Green highlighted the shared interests of the two nations in the Indo-Pacific region, advocating for enhanced maritime domain awareness and deeper security cooperation.

Green's vision includes increased interoperability and integration of personnel and equipment, as well as collaboration in defence technology.

He stressed the importance of both countries using each other's offshore territories to extend their strategic reach and jointly developing autonomous vessels for maritime operations. He cited the example of Sydney-based OCIUS, which is working with the Australian Navy and exploring opportunities with India in this field.

Additionally, Green pointed out significant opportunities in green technology, critical minerals, and clean technology supply chains, expressing a desire for Indian batteries, green steel, and solar panels to be made with Australian resources.

Green also addressed the need for India to act swiftly in these sectors, considering the global interest in partnering with Australia.

However, he acknowledged existing challenges and differences in the relationship.

"We are also learning about each other at a deeper level: we've had our differences and we're managing sensitive issues, including the concerns we have about alleged activities on US and Canadian territory," the veteran diplomat said.

He emphasized the importance of deeper understanding, honesty, and sensitive management of these issues as the partnership grows.

"We are taking a bigger interest because, as we build this partnership, your trajectory is more important to us than it was before..." Green added.

<https://www.livemint.com/news/australian-high-commissioner-proposes-deeper-defence-ties-with-india-11702471503385.html>



Wed, 13 Dec 2023

South Korea's Defence Minister Warns North Korea of 'Hell of Destruction'

South Korea's defence minister threatened on Wednesday to unleash a "hell of destruction" on neighbouring North Korea in retaliation for any reckless actions.

The heightened rhetoric comes after North Korea said last month it would no longer abide by a military pact between the neighbours in 2018 that aimed to reduce tension.

Pyongyang's step came after South Korea said it would partially suspend the deal, following the launch of a spy satellite by the North.

"North Korea has only two choices - peace or destruction," a South Korean defence ministry statement quoted the minister, Shin Won-sik, as saying.

"If North Korea makes reckless actions that harm peace, only a hell of destruction awaits them."

The remarks, made during a meeting of top military commanders, come less than a week after Shin visited the South's missile command, which he said would be tasked with "lethally striking the heart and head of the enemy" in the event of a war.

North Korea has defended its development of missiles and nuclear weapons as a sovereign right necessary to counter moves by the United States and its allies.

"The U.S. aggression and hegemonic moves for strengthened alliance are the root cause of aggravating the regional tension," ruling party newspaper Rodong Sinmun said on Tuesday in a commentary on U.S. drills with Australia and Japan.

In his meeting with the commanders, Shin outlined steps the military was taking to boost its capabilities.

These include launching its own satellites, improving soldiers' welfare, and "dramatically" strengthening the South's "three-axis" defence system designed to counter the North's military threats, including war plans that call for pre-emptive strikes if necessary.

On Tuesday the ministry requested a hike of 4.5% in next year's defence budget, aiming to boost the "three-axis" system with more submarines, U.S.-made F-35A stealth jets, and missile defence systems.

Last week, the national security advisers of the United States, South Korea and Japan, meeting in Seoul, agreed on new initiatives to respond to North Korea's threats in cyberspace, from cryptocurrency abuses to space launches.

South Korea and the United States will hold talks on nuclear deterrence on Friday as part of Washington's commitment to give Seoul more insight into its plans in the event of conflict with North Korea.

Since their 1950-53 war ended in a truce rather than a peace treaty, the neighbours remain technically in a state of war.

<https://www.reuters.com/world/asia-pacific/skoreas-defence-minister-warns-north-korea-hell-destruction-2023-12-13/>

Science & Technology News



Wed, 13 Dec 2023

ISRO to Develop ECLSS for Gaganyaan after Failing to Get it from Other Countries: S Somanath

Indian Space Research Organisation (ISRO) chairman S Somanath on Wednesday said the space agency has decided to indigenously develop the environmental control and life support system (ECLSS) for the upcoming human space flight mission Gaganyaan, after it failed to get it from other countries.

The Gaganyaan project envisages a demonstration of ISRO's human spaceflight capability by launching a human crew to an orbit of 400 km and bringing them safely back to earth by landing in Indian sea waters. It is expected to be launched in 2025.

"We have no experience in developing an environmental control life support system. We were only designing rockets and satellites. We thought that this knowledge would come from other nations, but unfortunately after so much discussion, nobody is willing to give it to us," Somanath said.

He was addressing the 5th edition of Manohar Parrikar Vidyan Mahotsav 2023 at Dona Paula, an event organised by Goa's Science, Environment and Technology Department.

Somanath said that ISRO has now decided to indigenously develop the ECLSS.

"We are going to develop it in India using the knowledge we have and using the industries that we have," he said.

Speaking about the challenges before the Gaganyaan programme, he said India has been into knowledge building design capability development over the last so many years and the pinnacle of this is going to be the Indian human space flight programme.

"When we send humans to space through our Gaganyaan programme, I think the amount of skill and confidence that we need to have has to be higher than what we currently have," he said.

Somanath said that the confidence-building process is happening all across ISRO today with the support of national laboratories.

The first part of the Gaganyaan programme is the rocket.

"The rockets are always bound to fail; whenever it is ready for launch our tension and heartbeats go up because even if the rocket is built very safely having all the processes followed, something can still go wrong," he said.

"And if it goes wrong, then there is nobody who is able to correct it or adjust it. Thousands of elements should work without any flaw to make a launch happen," he said.

Somanath said that there is always a risk of failure.

"When you have a failure possibility, then you must have protection against it in human space flight. This is a core of human space flight that we should not put the risk of having the astronaut lost due to the failure in the rocket," he said.

"So it calls for intelligence in the rocket. This is what we are working on today," he said.

The people in the new generation understand what intelligence is and how to create intelligence in machinery by sensors, data processing, artificial intelligence to create signals of various natures and then come to a conclusion that the rocket is going to fly safely or it is going to fail, he added.

Somanath said the decision in case of failure has to be taken in less than a fraction of a second.

"Then you have to tell the rocket that you are going to fail now and you better abort even before failure happens. This is a challenge of working on intelligence in the rocket and we are working on such technologies today, looking at the data which is available in measurements and then making a synthesis of it," he said.

Somanath said that ISRO was developing many new technologies to handle human space flight.

<https://www.deccanherald.com/science/isro-to-develop-eclss-for-gaganyaan-after-failing-to-get-it-from-other-countries-s-somanath-2809063>

ISRO to Launch Female Robot Vyommitra to Space before Astronauts in Gaganyaan

Science & Technology Minister Dr Jitendra Singh on Wednesday said that India will launch Vyommitra, a female robot astronaut to space ahead of the manned mission.

He was speaking at the Aaj Tak Agenda.

Isro's ambitious Gaganyaan project is set to demonstrate India's capability in human spaceflight. Before the manned mission, a test flight carrying 'Vyommitra,' a female robot astronaut, is scheduled for next year. Additionally, the Deep Sea Mission project, expected to be realised within three years, will explore deep-sea resources, showcasing India's prowess not only in outer space but also in the ocean's depths.

India's space sector is on a trajectory of rapid growth, Dr Singh announced and added that the nation's space economy, currently valued at a modest \$8 billion, is projected to reach an impressive \$40 billion by 2040. This projection aligns with international observers' even more optimistic potential of \$100 billion, as cited in the Arthur D. Little (ADL) Report. He emphasised the significant strides made in attracting private investment to space startups, which have collectively raised over Rs. 1,000 crore since April of this financial year.

The minister credited Prime Minister Narendra Modi's reforms for the exponential increase in the number of space startups in India. From just one startup in 2014, the country now boasts 190 space startups, with some already evolving into profitable enterprises. This surge in entrepreneurial activity in the space sector is a testament to the government's commitment to fostering innovation and private participation.

Isro, India's premier space agency, has been instrumental in earning foreign revenue through satellite launches. To date, it has launched over 430 foreign satellites, generating substantial income—more than 290 million Euros from European satellites and over 170 million US Dollars from American satellites.

Dr. Singh also highlighted the cost-effectiveness of India's space missions, drawing a comparison between the expensive Russian moon mission and India's Chandrayaan-3 mission, which was accomplished at a fraction of the cost. He attributed this efficiency to India's rich human resources and skills. The Chandrayaan-3 mission made a historic discovery of water molecules on the moon's surface, a feat that had eluded even earlier missions by the USA and Soviet Union.

The Union Minister pointed out that space technology in India is not just about exploration but also about practical applications that touch everyday lives. It plays a crucial role in various sectors, including disaster management, infrastructure development, agriculture, telemedicine, and robotic surgery. In a nod to gender inclusivity in the space sector, Dr. Singh acknowledged the leadership roles women are now taking on in major space projects, such as the Aditya L1 Mission and Chandrayaan-3.

<https://www.indiatoday.in/science/story/gaganyaan-mission-will-carry-female-robot-astronaut-vyommitra-to-space-2475613-2023-12-13>

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