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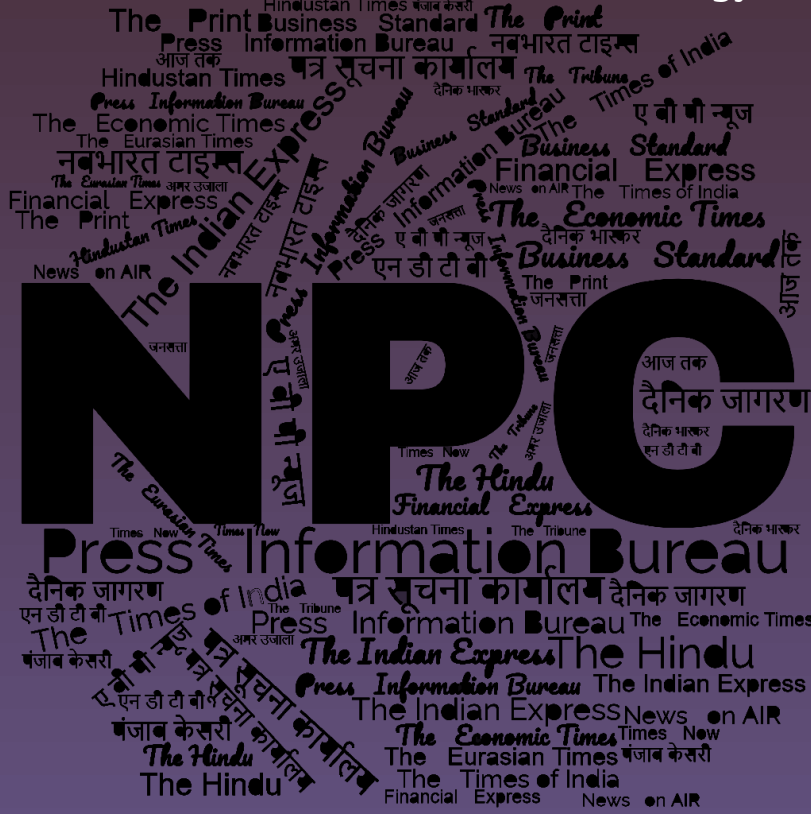
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# समाचार पत्रों से चयित अंश Newspapers Clippings

डीआरडीओ समुदाय को डीआरडीओ प्रौद्योगिकियों, रक्षा प्रौद्योगिकियों, रक्षा नीतियों, अंतर्राष्ट्रीय संबंधों और विज्ञान एवं प्रौद्योगिकी की नूतन जानकारी से अवगत कराने हेतु दैनिक सेवा

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*Sat, 29 Jul 2023*

## **DRDO Technology to Save 4 Lakh Litres of Water a Day on 400-Acre CRPF Campus in Coimbatore**

A sewage treatment technology developed by the Defence Research and Development Organisation (DRDO) will help the Central Training College of the Central Reserve Police Force (CTC-CRPF) spread over 400 acres at Kurudampalayam near Coimbatore to save around four lakh litres of water a day.

DRDO's anaerobic bio-digestion (ABD) tank technology used in the new sewage treatment plant (STP) that was commissioned on Friday will treat the entire sewage and faecal matter generated by 400 families and 1,000 trainees on the campus and convert them into odour-less water that can be used for all purposes other than drinking.

Though the STP set up at a cost of ₹2.16 crore has an installed capacity to treat four lakh litres of water a day, it was receiving around three lakh litres of sewage a day at present. The project is a joint venture of DRDO, CRPF, Central Public Works Department (CPWD) and Coimbatore-based MaK India Ltd.

According to officials, the MAK-DRDO ABD patented technology is the first of its kind in the country and it does not require power for digesting the content in sewage water.

"The first STP established in the college in 2012 started malfunctioning within a couple of years. We approached the CPWD for a better facility and it proposed DRDO's ABD tank technology. It does not generate foul odour. We are now able to irrigate the entire campus area using the treated water generated by the plant," said Ajay Bharatan, Inspector General and Principal of the CTC, after commissioning the project.

Manickam Athappa Gounder, chairman and managing director of MaK India Ltd., said 90 % of the pollution was caused by sewage water.

"The ABD tank technology solves this problem. More than 6,000 units of a smaller version of the ABD tank have been set up for houses and other establishments. The plant consumes minimal power that is required to operate a motor to pump the treated water," he said. In the CTC, the existing STP was operated with a 40 HP motor. The new plant is using a 9 HP motor that will consume about 100 units of power for running around 20 hours a day. If a unit costs ₹10, the entire cost for treating 4 lakh litres of water per day is just ₹ 1,000, Mr. Gounder explained.

Pawan Kumar Gupta, Chief Engineer of CPWD Madurai, Rajesh Kumar, Commandant CTC CRPF Coimbatore, Rajesh Dogra, Deputy Commandant (Training), and other officers were present.

<https://www.thehindu.com/news/cities/Coimbatore/drdo-technology-to-save-4-lakh-litres-of-water-a-day-on-400-acre-crpf-campus-in-coimbatore/article67131971.ece>

## DRDO Chief Lauds PSU's Launch of Autonomous Vessel

Defence Research and Development Organisation (DRDO) chairman Samir V Kamat on Friday hailed the launch of an autonomous underwater vehicle (AUV) by Garden Reach Shipbuilders and Engineers (GRSE), a Kolkata-based defence PSU, in collaboration with Aerospace Engineering Private Ltd. Kamat, who is also secretary of Defence Research & Development (DR&D), highlighted the role being played by the industry and start-ups in developing technology for defence purposes. GRSE chairman Cmde PR Hari (retd) and senior officials of armed forces, were present on the occasion. The 2.15m-long AUV will have an endurance of nearly 4 hours and is capable of operating up to a depth of 300 meters.

The AUV could play an important role in mine countermeasure operations, officials said, adding that it hits its targets precisely during anti-submarine warfare, they said. "The lightweight and man-portable AUV has been designed to operate in a totally autonomous manner and its modular design enables it to carry out a variety of roles depending on the payload," read a statement.

<https://indianexpress.com/article/cities/kolkata/drdo-chief-lauds-psus-launch-of-autonomous-vessel-8865855/>

### DRDO on Twitter





**Press Information Bureau**  
**Government of India**

**Ministry of Defence**

*Fri, 28 Jul 2023*

### **10th Meeting of Sub Committee on Military Cooperation Between India & Malaysia Held in New Delhi**

The 10th meeting of Sub Committee on Military Cooperation between India and Malaysia was held in New Delhi on July 27, 2023. The Indian delegation was led by Joint Secretary (International Cooperation), Ministry of Defence Shri Amitabh Prasad, while the Malaysian side was headed by Assistant Chief of Staff, Defence Operations and Training Division Maj Gen Dato' Khairul Anuar bin Abd Aziz.

During the meeting, the existing defence cooperation between the two countries was reviewed and wide-ranging discussions were held on issues of mutual interest. Both sides explored effective and practical initiatives to further expand the bilateral defence engagements. The Indian side highlighted the potential of the Indian defence industry with capacity and capability to cooperate with the Malaysian Armed Forces in its shipbuilding and maintenance plans. Both the co-chairs also deliberated on the possible outcomes for the 12th Malaysia-India Defence Cooperation Committee (MIDCOM) meeting which will be held at the level of Defence Secretary in India in September this year.

Both sides reaffirmed their commitment to fully implement the Enhanced Strategic Partnership based on mutual trust & understanding, common interests and shared values of democracy & rule of law. The Enhanced Strategic Partnership was established during the visit of Prime Minister Shri Narendra Modi to Malaysia in 2015.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1943623>

## THE ECONOMIC TIMES

*Sun, 30 Jul 2023*

### **Indian Air Force Moves Tejas Fighter Jets to Kashmir**

The Indian Air Force has moved its indigenous Light Combat Aircraft Tejas to Jammu and Kashmir for the fleet to gain experience in flying in the valleys of the union territory situated along the border with Pakistan. The Indian Air Force keeps moving its aircraft in the Northern sector

including Jammu and Kashmir and Ladakh to give pilots the experience of flying there in their unique terrain.

The Indian Air Force has multiple bases in the Union Territory which are critical for operations on both fronts including China and Pakistan. "The pilots of the fleet are carrying out extensive flying there," defence officials told news agency ANI.

The IAF is strongly supporting the indigenous LCA Tejas fighter aircraft programme and more and more capabilities are being to the aircraft.

Earlier this month, Tejas completed seven years of service in the Indian Air Force. Christened Tejas in 2003, the aircraft is a multi- role platform that has been designed to undertake the air defence, maritime reconnaissance and strike roles. The first IAF Squadron to induct the Tejas was No 45 Squadron. In May 2020, No 18 Squadron became the second IAF unit to operate the Tejas.

Tejas has taken part at various international air shows, including Dubai Air Show-2021, Singapore Air Show and and Aero India Shows. While it has participated in exercises with foreign air forces domestically, Ex-Desert Flag in the United Arab Emirates in March 2023 was the Tejas' maiden exercise on foreign soil.

In 2021, the Indian Air Force had ordered 83 Tejas fighter jets (LCA Mk-1A) which will have updated avionics, as well as an Active Electronically Steered Radar, updated Electronic Warfare suite and a Beyond Visual Range missile capability. The new variant will be capable of firing a plethora of weapons from increased stand-off ranges. Deliveries for The LCA MK-1A is expected to commence in February 2024 and it will see a substantial increase in the overall indigenous content of the aircraft.

<https://economictimes.indiatimes.com/news/defence/indian-air-force-moves-tejas-fighter-jets-to-kashmir/articleshow/102244466.cms>



*Sun, 30 Jul 2023*

## **Defence Forces to Jointly Maintain Common Weapon Platforms Like Rafales, Apaches, Predators**

In a step aimed to help save funds in a big way, the Department of Military Affairs (DMA) is working towards creating a system where maintenance of common weapon systems and platforms are done jointly by forces.

Working towards creating joint fighting formations under the Theatre Commands, the DMA has already started joint procurement of weapon systems and is now looking at joint maintenance of weapon platforms, defence officials told ANI.

A number of discussions have been held between the stakeholders from the three services and integrated defence staff on the matter.

Even if we look around today, the light helicopters including the Cheetah/ Chetak fleet are operated by the three services and if they are maintained jointly, they can lead to savings, they said.

The Dornier aircraft is another example which is operated by the Indian Air Force, Navy and the Coast Guard and if they are maintained jointly, we can even improve serviceability along with savings.

The relatively new aircraft fleet would also be now maintained jointly as the Apache attack helicopters coming from the United States for the Indian Army would be maintained along with the existing fleet of the Indian Air Force.

The Army has already posted its personnel to the Indian Air Force units operating these attack choppers for training on operations of these choppers.

Officials said the Indian Navy decision to go for the Rafale, which is common fighter aircraft also flying with the Indian Air Force, will help in joint maintenance of the fleet and can help in improving the management of their spares and other equipment.

The joint acquisition case of buying 31 Predator drones from the US for all the three services caters for a common maintenance, repair and overhaul facility within the country.

The Defence forces have also now started working in combined acquisitions and major programmes like the major ones to buy light helicopters, Indian Multirole Helicopters, Medium Altitude Long Endurance drones would all have common maintenance facilities.

The weapon systems acquired by the defence forces are maintained using their revenue funds and commonality of platforms and maintenance facilities can help in savings.

<https://www.aninews.in/news/world/asia/defence-forces-to-jointly-maintain-common-weapon-platforms-like-rafales-apaches-predators20230730173610/>

## THE ECONOMIC TIMES

*Fri, 28 Jul 2023*

### **Soldiers of India, Mongolia Participate in Exercise Nomadic Elephant**

Soldiers of Indian Army and Mongolian Armed Forces are participating in the ongoing Exercise Nomadic Elephant 2023 in Mongolia.

Additional Directorate General of Public Information, IHQ of MoD (Army) informed about the troops participation in the exercise in a tweet.

Additional Directorate General of Public Information, IHQ of MoD (Army) tweeted, "Exercise #NomadicElephant 2023 Achieving Synergy & Interoperability. Troops of both the Nations in action during the Joint Exercise at #Mongolia."

On July 16, Indian Army contingent comprising of 43 personnel reached Ulaanbaater by an Indian Air Force C-17 aircraft. The exercise, which began on July 17, is being conducted at Mongolia's Ulaanbaatar. The exercise Nomadic Elephant-23 is due to end on July 31.

The exercise is an annual training event with Mongolia which is conducted alternatively in Mongolia and India. The last edition of Nomadic Elephant-23 was held at Special Forces Training School, Bakloh in October 2019. The scope of this exercise involves platoon level field training exercise (FTX).

Ministry of Defence in the press release said, "The aim of this exercise is to build positive military relations, exchange best practices, develop inter-operability, bonhomie, camaraderie and friendship between the two armies. The primary theme of the exercise will focus on counter-terrorism operations in mountainous terrain under United Nations mandate."

During the exercise, Indian and Mongolian troops will engage in various training activities designed to enhance their skills and capabilities. These activities include endurance training, reflex firing, room intervention, small team tactics and rock craft training. Soldiers from India and Mongolia will learn from each other's operational experience.

According to press release, India and Mongolia have a shared commitment to regional security and cooperation. The exercise will be yet another significant milestone in the defence cooperation between the Indian Army and Mongolian Army which will further foster bilateral ties between the two nations.

<https://economictimes.indiatimes.com/news/defence/soldiers-of-india-mongolia-participate-in-exercise-nomadic-elephant/articleshow/102213499.cms>



*Fri, 28 Jul 2023*

## **Lack of Indigenous Chips Hurt Indian Defence Industry**

Semiconductors are now the fundamental components of military equipment and systems.

How critical is the semiconductor industry as governments around the world are investing billions of dollars in building domestic semiconductor capabilities? The importance that governments across the globe attach to the semiconductors industry is evident from such initiatives and investments such as India's \$10 billion Semiconductor Mission, the US government's \$208 billion Chips Act, and China's grand \$1.4 trillion investment vision for its semiconductor sector by 2025.

Currently, India's semiconductor demand stands at around \$24 billion and is expected to reach \$100 billion by 2025.

While the Indian government has increasingly focused on building India's domestic semiconductor ecosystem and enhancing India's role within the global semiconductor value chain, the country's semiconductor demand is largely met through imports.

Taiwan's chipmaker Foxconn's exit from its joint venture with Vedanta has also raised critical debate on the chip manufacturing proposition with India. Foxconn earlier planned to invest \$20bn in semiconductor manufacturing in India over the period.

### **Chips challenges**

Despite the greater ambition and government's effort, India's quest for manufacturing semiconductor chips seems to be constrained by the lack of investment. The falling out of the Foxconn-Vedanta deal puts the whole thing back on the square.

### **What is needed then?**

Recently, the Ministry of Electronics and Information Technology (MEITY) highlighted that to set up the chip manufacturing units, India needs 10,000-13,000 skilled and specialized human resources to meet industry requirements by 2027.

A Meity official further clarified that while India has a big pool of semiconductor design engineers, but to handle semiconductor plants (wafer fab), talents will initially come from overseas, and gradually resources will be developed in the country. The key aspect still remains the investment and incentives to attract the chipmakers. As the government recognized the challenge amid the global rush to lure such entities, doling out massive subsidies and incentives among other benefits.



Keeping that in mind, India launched its production-linked incentive (PLI) scheme. Especially for semiconductor and display manufacturing projects, the government has launched financial incentives of up to 50% of the project costs, totalling \$10 billion.

Sanjay Gupta, Vice President & India Managing Director at Netherlands-headquartered NXP Semiconductors, explained: “The subsidies that the government is planning to give through the PLI scheme, as well as the design-linked incentive (DLI) scheme, is a huge commitment. Why it is unprecedented is because earlier schemes used to be on tool cost and this time it is on project cost, which includes everything.”

### **Chips for military**

Chips as semiconductors are now part of the widest range of military platforms or systems such as combat jets, unmanned systems (drones), helicopters, warships, submarines, missiles, and communication networks. The key ‘autonomous part’ of such equipment is driven by the chips which command, control and store data.

Currently, India’s sole military research agency, Defence Research and Development Organisation (DRDO) develops semiconductors for military systems. However, India has to import a majority of the chips for indigenous equipment.

In fact, the Ministry of Defence (MoD) has asked for 5 lakh chips for various military applications.

That is an impediment as we are dependent on foreign manufacturers, which also restricts future upgrades, says a senior military official who was part of the military drones project.

Additionally, with the critical military network based on IoT and 5G/6G technology in India, the demand for semiconductor chips will increase exponentially. The government has set the primary goal to have two versions of indigenously designed and developed ‘secure chips’. About 50,000 such chips are expected to be deployed in systems and equipment for the armed forces.

Additionally, the “deployment-linked incentive (DLI)” facilitates indigenous designing and manufacturing of secure semiconductor devices, says a Meity official.

However, the challenge remains in addressing the critical materials for the semiconductors such as carbon fibre, silicon, tungsten and boron carbide. For these materials, high capital investment is required initially. The present geopolitical conflicts further pose challenges for the supply chain for military equipment in case of dependencies on foreign suppliers.

<https://www.financialexpress.com/business/defence-lack-of-indigenous-chips-hurt-indian-defence-industry-3191377/>



*Fri, 28 Jul 2023*

## **India's Indigenous LRSAM Defence System Set to Revolutionise Defence Capabilities**

India's Defence Ministry is progressing with an ambitious proposal to develop a cutting-edge three-layered Long-Range Surface-to-Air Missile (LRSAM) defence system. The indigenous project aims to equip India with the capability to strike down enemy aircraft and missiles at an astounding range of approximately 400 kilometers. Defence sources reveal that the proposal is at an advanced stage and is expected to be taken up for clearance shortly, marking a significant boost for self-reliance in the country's defence sector.

With an estimated cost of over USD 2.5 billion, the indigenous LRSAM project will elevate India to an elite group of militaries equipped with advanced surface-to-air missile capabilities, allowing interception and destruction of enemy assets from substantial distances. The three-layered system will include surface-to-air missiles designed to engage targets at different ranges, enhancing India's ability to counter airborne threats effectively.

### **Indigenous System Comparable to Russia's S-400 Air Defence System**

The forthcoming LRSAM system demonstrates remarkable progress in India's collaboration with Israel, which previously yielded the medium-range surface-to-air missile system MRSAM capable of engaging aerial targets up to 70 kilometers. The indigenous LRSAM is expected to be on par with the highly acclaimed S-400 air defence system acquired from Russia, which is currently deployed along India's borders with China and Pakistan.

India's Defence Research and Development Organisation (DRDO) has been achieving significant milestones in the development of advanced air defence weapons for both ground-based and warship-based systems. The upcoming LRSAM project marks a crucial step towards self-sufficiency in defence capabilities, enhancing India's strategic preparedness and contributing to its goal of promoting indigenisation in defence hardware.

### **Indian Armed Forces to benefit from Indigenous LRSAM Capabilities**

The Indian Navy has already made significant progress in indigenous LRSAM development, and the Army and Indian Air Force (IAF) have also named similar systems as MRSAM. With the LRSAM project lead assigned to the IAF, the armed forces are keen on furthering indigenisation efforts, providing a decisive edge to India's defence capabilities.

The S-400 air defence system, already operational in three squadrons, has showcased its prowess in intercepting targets at maximum distances of 400 kilometers, including shorter-range threats. As India's defence forces look forward to deploying the indigenous LRSAM system, they aim to augment their air defence capabilities significantly, ensuring preparedness and safeguarding the nation's territorial integrity.

### **Towards a self-reliant India in Defence Technology**

As the indigenous LRSAM project progresses, India takes significant strides towards reducing reliance on foreign imports for critical defence systems. The project aligns with the government's vision of achieving self-reliance and fostering innovation in the defence sector through initiatives like the DRDO-led iDEX (Innovation for Defence Excellence) program. The forthcoming deployment of the three-layered LRSAM defence system is poised to strengthen India's national security, reaffirming its commitment to technological advancement and self-reliance in the realm of defence and security.

<https://www.republicworld.com/india-news/general-news/indias-indigenous-lrsam-defence-system-set-to-revolutionise-defence-capabilities-articleshow.html>

# THE ECONOMIC TIMES

*Sat, 29 Jul 2023*

## **Indian Navy Ends 'Colonial Legacy' of Carrying Batons with Immediate Effect**

In line with government's direction to shed colonial legacy, the Indian Navy has ended the practice of carrying batons by all its personnel with immediate effect.

In a communication issued by the force, the Indian Navy said: "With the passage of time, carrying of batons by naval personnel has become a norm. The symbolism of authority or power pot heated through the holding of a baton is a colonial legacy that is out of place in a transformed navy of Amrit Kaal."

In light of this, "Carrying of batons by all personnel including those from the provost be discontinued with immediate effect," the letter said.

The Navy has now instructed that a ceremonial baton be placed appropriately in the office of the head of the organisation of every unit.

The Navy has stated that the ceremonial handover of the baton may be undertaken within the office as part of a change of command only.

The Indian Defence forces have taken multiple steps to shed the legacies of the colonial era and the Indian Navy changed its insignia as well.

The new ensign or 'Nishaan' of the Indian Navy was also unveiled last year by Prime Minister Narendra Modi where it removed the remnants of the colonial past and reflects the country's rich maritime heritage.

The new ensign is inspired by the seal of Chhatrapati Shivaji.

<https://economictimes.indiatimes.com/news/defence/indian-navy-ends-colonial-legacy-of-carrying-batons-with-immediate-effect/articleshow/102232928.cms>



*Sun, 30 Jul 2023*

## **Two Indian Military Aircraft Visit Australia's Strategic Cocos Islands**

Expanding the strategic reach of the Indian military and improving interoperability with Australia, an Indian Navy Dornier maritime patrol aircraft and an Indian Air Force (IAF) C-130 transport aircraft visited Australia's Cocos (Keeling) Islands (CKI) in the Southern Indian Ocean, close to Indonesia and strategic maritime choke points earlier this month, diplomatic and official sources confirmed.

"Cocos can be an important base for refuelling and Operational Turnaround for the Indian military, especially once the runway there is expanded to accommodate large aircraft like the P-8 long range maritime patrol aircraft," an official source said on condition of anonymity, while confirming the visit by the Dornier and C-130 aircraft. According to diplomatic sources, the aircraft were at Cocos for close to a week.

Neither the Indian Navy nor the IAF responded to questions from The Hindu on the subject.

In a July 7 article published by The Strategist, the commentary and analysis site of Canberra-based think tank, the Australian Strategic Policy Institute, David Brewster and Samuel Bashfield wrote that this week, several aircraft from the Indian Navy and the IAF made a "ground-breaking visit" to Australia's CKI.

"This week's visit by Indian Navy Dornier maritime patrol aircraft and a C-130 Hercules from the IAF effectively elevates the Cocos Islands as a staging point for Australian and Indian air surveillance of the maritime choke points through Southeast Asia and the entire eastern Indian Ocean," they wrote in the article titled 'Indian aircraft visit Cocos Islands as Australia strengthens its maritime security network'. "The visit represents an important step in the bilateral relationship

as the two countries increasingly give each other access to their military facilities in the Indian Ocean,” they added. This is the latest in a series of India’s growing military to military engagements, deepening interoperability broadly in the region and especially with Australia. In February, in another first, an Indian Navy Kilo class conventional submarine, I.N.S. Sindhukesari, which was on operational deployment, travelled through the Sunda Strait and docked in Jakarta, Indonesia for Operational Turnaround.

Even before the Indian military reached there, Cocos Islands had been a point of cooperation between the space agencies of the two countries for India’s Gaganyaan human space flight mission. Australia’s active support in establishing a temporary ground station at CKI for the Gaganyaan missions, and potential opportunities for cooperation in earth observation, satellite navigation, space situational awareness, weather and climate studies using satellite data, were the highlights of the discussion, an Indian Space Research Organisation (ISRO) statement had said during the visit of Enrico Palermo, head of the Australian Space Agency (ASA) to the ISRO’s headquarters in September 2022. According to reports in the Australian media, the Australian Defence Force’s (ADF) plans to upgrade the runway for handling larger military aircraft to use as a forward operating base have been delayed by a significant escalation in the cost of the proposed plan.

According to the ADF, due to insufficient length and strength of the existing airfield pavement at CKI, large defence aircraft are unable to operate out of there. “Subject to Parliamentary approval, works are expected to commence in late 2023, with construction to commence in late 2024. All works are forecast to be complete by early 2026,” the ADF website states on the proposed expansion. The scope of the project has been increased to include a 150-metre runway extension and additional supporting infrastructure, according to a spokesperson of the ADF.

India’s access to CKI as well as Christmas Island, which is even closer to the strategic choke points, has been under discussion for a while. A turnaround from either of the islands would significantly enhance the on-station time of the Indian Navy’s P-8Is to monitor movements into the Indian Ocean, especially by China’s People’s Liberation Army Navy, whose forays into the region have significantly gone up in recent years.

India and Australia have also been holding exercises focussed on anti-submarine warfare with P-8 aircraft being cross-deployed. The fourth such iteration was held in the first week of July with Australian Air Force P-8A deployed to I.N.S. Rajali Naval Air Station in Tamil Nadu. During these P-8 missions, naval personnel from each country has flown on P-8s of the other country, as reported earlier. The first such P-8 iteration was hosted by Australia at Darwin in April 2022.

This August, Australia is set to host the Malabar multilateral naval exercise for the first time this year, including India, Australia, Japan and the U.S., at Sydney.

India-Australia defence cooperation has been one of the fastest growing in recent years with a series of exchanges, high-level visits and exercises, both bilateral and multilateral. In addition, Maritime Domain Awareness, subsurface domain awareness, and anti-submarine warfare, have been major focus areas for the Quad group of countries comprising India, Australia, Japan and the U.S. in the backdrop of the rapid expansion of Chinese naval presence in the Indian Ocean Region.

CKI is an Australian external territory located in the Indian Ocean, approximately 3,000 km north-west of Perth in western Australia, and comprises two coral atolls made up of 27 smaller islands.

India and Australia signed a Mutual Logistics Support agreement in 2020, and the two Navies had signed the ‘Joint Guidance for the India – Australia Navy to Navy Relationship’ document in August 2021.

<https://www.thehindu.com/news/national/dornier-c-130-aircraft-deployed-to-australias-strategic-cocos-keeling-islands/article67138889.ece>

## **‘India, Japan are Natural Partners’: Jaishankar at Event with Yoshimasa Hayashi**

Japan’s foreign minister Yoshimasa Hayashi on Friday held up India as an “indispensable” partner for achieving a free and open Indo-Pacific, while his Indian counterpart S Jaishankar said the two sides are “natural partners” for taking on challenges in areas ranging from the economy to emerging technologies.

The two ministers were speaking at the second India-Japan Forum organised by the external affairs ministry. India was the first stop on Hayashi’s three-nation tour, which will also take him to Sri Lanka and the Maldives. During talks on Thursday, Jaishankar and Hayashi discussed ways to step up Japanese investments in India and deepen defence cooperation.

Building on the “Free and Open Indo-Pacific (FOIP)” vision unveiled by Japanese Prime Minister Fumio Kishida during a visit to New Delhi in March this year, Hayashi said Japan intends to deepen cooperation with India in all areas. Japan and India are also working closely together under their presidencies of the G7 and the G20 respectively, he said.

Pointing to Kishida announcing the new FOIP plan in New Delhi, he said: “This fact itself is a reflection of the critical importance Japan places on India, as your nation is an indispensable partner in achieving FOIP.” Hayashi added: “At a time when there are many pressing challenges, including Russia’s aggression against Ukraine, Japan and India fully share the necessity to lead the world to cooperation, rather than to division and confrontation.”

Lauding the Indian G20 presidency’s focus on the Global South, Hayashi said the call to uphold a rules-based international order may sound like a slogan if there isn’t an adequate commitment to address challenges facing developing countries. At the same time, he noted that food security has deteriorated because of Russia’s aggression against Ukraine.

Hayashi said India and Japan have made progress in new initiatives in areas such as cyber and space, while discussions are underway for “substantial cooperation” in defence equipment and technology.

In his speech, Jaishankar highlighted key challenges confronting the world, including artificial intelligence, building reliable supply chains, ensuring trust and transparency in the digital domain, and upholding democratic values.

Jaishankar said India and Japan are natural partners for jointly addressing these challenges. “I would say today whether it is the future of the international order, strategy, economics, technology, culture or indeed whether it’s history or geography, I think India and Japan have a lot going for each other,” he said.

Hayashi also spoke about Japan’s plans to revise its “Development Cooperation Charter”, the basic document for development cooperation. “Under this revised charter, we will continue to undertake efforts to build quality infrastructure in India, including high-speed rail and urban transportation,” he said.

When a Japanese reporter pointed out that a bilateral partnership is tested by a war or a crisis and asked how the two sides would collaborate in case of a war in the Taiwan Strait or a conflict on the India-China border, Jaishankar replied: “I fundamentally disagree with your question because I think it is actually peacetime cooperation which is when you are tested, because if you don’t work

every day to build a relationship and to put in place capabilities, comfort and structures, then when something more severe comes – if I can't handle a good day, how will I handle a difficult day.”

Jaishankar said the real challenge for the two sides is to bolster cooperation in economics, supply chains, the digital domain, critical technologies and maritime security. “If you do all of this, I would say you are contributing to the strengthening of peace, stability and security. So many of the worst fears don't happen, if you actually work ahead of it,” he added.

Hayashi said India-Japan security cooperation includes joint military exercises between all three services while economic cooperation contributes to more stable and strong relations. All of this “will be working against any of these scenarios”, he said.

<https://www.hindustantimes.com/india-news/india-and-japan-strengthen-partnership-for-free-and-open-indo-pacific-discuss-defense-and-economic-cooperation-101690560110835.html>



*Mon, 31 Jul 2023*

## **Possible Chinese Malware in U.S. Systems a 'Ticking Time Bomb': Report**

The Biden administration believes China has implanted malware in key U.S. power and communications networks in a "ticking time bomb" that could disrupt the military in event of a conflict, The New York Times reported Saturday.

The Times, quoting U.S. military, intelligence and security officials, said the malware potentially gave China's People's Liberation Army the ability to disrupt U.S. military operations if Beijing were to move against Taiwan at some point.

The systems affected, the Times said, could allow China not only to cut off water, power and communications to U.S. military bases, but also to homes and businesses across the United States.

The report comes two months after Microsoft warned that state-sponsored Chinese hackers had infiltrated critical U.S. infrastructure networks.

Microsoft singled out Guam, a U.S. Pacific territory with a vital military outpost, as one target but said malicious activity had also been detected elsewhere in the United States.

It said the stealthy attack, carried out since mid-2021, was likely aimed at hampering the United States in the event of a regional conflict.

Authorities in Australia, Canada, New Zealand and Britain warned at the same time that Chinese hacking was likely taking place globally, affecting an extensive range of infrastructure.

Discovery of the malware, the Times said, sparked a series of meetings in the White House Situation Room involving top military, intelligence and national security officials in an effort to track down and eradicate the code.

The newspaper quoted one congressional official as saying the malware operation amounted to "a ticking time bomb."

The White House issued a statement Friday that made no mention of China or military bases.

"The Biden administration is working relentlessly to defend the United States from any disruptions to our critical infrastructure, including by coordinating interagency efforts to protect water systems,

pipelines, rail and aviation systems, among others," said Adam Hodge, acting spokesman for the National Security Council.

He added that President Joe Biden "has also mandated rigorous cybersecurity practices for the first time." Reports of the malware operation come at a particularly strained point in U.S.-China relations, with China aggressively asserting its claim that Taiwan is Chinese territory and the U.S. seeking to ban sales of sophisticated semiconductors to Beijing.

<https://www.thehindu.com/sci-tech/technology/possible-chinese-malware-us-systems-ticking-time-bomb-report/article67140958.ece>



*Fri, 28 Jul 2023*

## **UK Strengthens Indo-Pacific Defence Ties**

The UK has strengthened its defence ties with key partners in the Indo-Pacific following the visit of a senior defence minister, demonstrating our commitment to the security and stability of the region as the UK Armed Forces carry out joint exercises in the area.

Minister for the Armed Forces James Heappey visited Australia, Fiji, Malaysia, the Republic of Korea, and Singapore, as part of a regional engagement plan to demonstrate the UK's continued commitment across Asia and the Pacific.

The Minister's visit coincided with a large-scale deployment of over 150 members of the Royal Marines, Army and RAF for the Australian-led Exercise Talisman Sabre. This is the largest training activity between Australian, UK and US Armed Forces and ensures interoperability in regional operations. In addition, UK forces are also deployed on Exercise Mobility Guardian, which saw an RAF A400M conduct its longest ever flight of twenty-two hours from RAF Brize Norton to Guam, demonstrating the UK's ability to deploy into the region.

The UK's commitment to the Indo-Pacific region was reaffirmed in the recently published Integrated Review Refresh and Defence Command Paper Refresh (DCPR). The DCPR confirmed the continued deployment of the Royal Navy's Offshore Patrol Vessels HMS SPEY and HMS TAMAR, which have been deployed in the region since leaving the UK in September 2021. The UK's persistent maritime presence is only set to be increased with visits from Commando Force Littoral Response Group later this year, and the Carrier Strike Group which will return in 2025, building on its maiden voyage in 2021.

Minister for the Armed Forces, James Heappey, said:

The UK is committed to strengthening our existing partnerships with friends and allies in the region, towards maintaining peace and protecting the rules based international order.

During my meetings with defence ministers, military chiefs and senior government officials across the region, I reaffirmed the UK's commitment to playing a full and active role in ensuring a free, safe and open Indo-Pacific.

The Minister first visited Singapore where he met his counterpart, Deputy Defence Minister Zaqy Mohamad, to discuss ongoing defence cooperation, the UK's Defence Command Paper Refresh and lessons learnt from Russia's war against Ukraine.

In a subsequent visit to Fiji, Minister Heappey met Prime Minister Sitiveni Rabuka and thanked him for Fiji's continued contribution of service personnel to the UK Armed Forces and discussed

the UK and Fiji's work to tackle maritime security threats in the South Pacific and support for UN peacekeeping missions.

In Australia, Minister Heapey met with Deputy Prime Minister Richard Marles, the defence ministerial team, chiefs and senior officials to discuss the UK's security ties with Australia - including Five Eyes and AUKUS - and the direct link between security in the Euro-Atlantic and Indo-Pacific regions. The Minister also met the crews of the ships maintaining the UK's persistent presence.

This was followed by a visit to Malaysia where Minister Heapey met the Minister of Defence, Mohammad Haji Hasan, to strengthen our bilateral defence partnership, in addition to the UK's continued contribution to the Five Powers Defence Agreement.

The trip culminated with a visit to the Republic of Korea, where Minister Heapey represented the UK at national commemoration events for the 70th anniversary of the signing of the Korean War Armistice. The Minister laid a wreath at the Battle of Imjin Memorial, also known as the Gloster Hill Memorial, in memory of personnel from The Gloucestershire Regiment who died in one of the conflict's deadliest battles. He accompanied 11 British Korean War Veterans and four who served in Korea following the War, at national commemorative events.

<https://www.gov.uk/government/news/uk-strengthens-indo-pacific-defence-ties>

## THE TIMES OF INDIA

*Fri, 28 Jul 2023*

### **British Defence Ministry Sends Sensitive Information to Russian Ally due to a Typo**

A typographical error resulted in a serious mishap when the British Defence Ministry accidentally emailed sensitive information to a Russian ally, Mali. A ministry spokesperson confirmed that although the number of emails sent was small, they contained confidential information, and unfortunately, they were sent to the wrong email domain, posing a threat to both British and Russian interests.

The issue was first reported by The Times (UK), revealing that the mistake occurred due to a minor omission of the letter 'i' from the domain address 'mil', resulting in it being sent to 'ml' instead. What's even more alarming is that despite the ministry's assurance that the emails did not contain critical information, they were meant for the Pentagon and thus included confidential data.

A ministry official stated, "We are confident they did not contain any information that could compromise operational security or technical data." Nonetheless, the spokesperson emphasized that the Ministry of Defence in Britain would review its current protocols for handling confidential information to prevent such errors in the future.

This incident brings to mind a similar occurrence in the United States, where sensitive information from the US Military was leaked through emails mistakenly sent to Mali's domain address ('ml') instead of the intended 'mil' (military). However, the scale of that incident was much larger compared to this recent mishap.

Mali is one of the African nations that receives significant support from Russia. In a Russia-Africa summit in St. Petersburg, Russian President Vladimir Putin pledged to provide several countries,



including Mali, with thousands of tons of grain despite Western sanctions. Currently, due to US sanctions, Moscow is unable to send grain and fertilizers as a form of assistance to other nations.

<https://timesofindia.indiatimes.com/etimes/trending/british-defence-ministry-sends-sensitive-information-to-russian-ally-due-to-a-typo/articleshow/102203771.cms>

# THE ECONOMIC TIMES

Sun, 30 Jul 2023

## Vladimir Putin Says Russian Navy to get 30 New Ships this Year

President Vladimir Putin reviewed a parade of warships and nuclear submarines in his native St Petersburg on Sunday and announced that the Russian Navy would receive 30 new ships this year. Forty-five ships, submarines and other vessels took part in Russia's annual Navy Day event, a traditional show of military might which takes place in the Gulf of Finland and on the River Neva in St Petersburg. Around 3,000 navy personnel also took part in a parade on land, the Kremlin said.

Putin, accompanied by Defence Minister Sergei Shoigu and Admiral Nikolai Yevmenov, the head of the Navy, inspected some of the ships from a launch boat on the Neva before making a speech.

"Today, Russia is confidently implementing the large-scale tasks of our national maritime policy and is consistently building up the strength of our Navy," said Putin. "This year alone, 30 ships of different classes are being added to the fleet," he said.

He made no substantive comments on what Russia calls its "special military operation" in Ukraine.

Four African heads of state attended Sunday's event and five other African countries sent representatives, according to the Kremlin.

They were invited after a Russia-Africa summit in St Petersburg which concluded on Friday at which delegates discussed grain supplies and potential peace talks on Ukraine.

<https://economictimes.indiatimes.com/news/defence/vladimir-putin-says-russian-navy-to-get-30-new-ships-this-year/articleshow/102249050.cms>

## Science & Technology News

# THE HINDU

Sun, 30 Jul 2023

## ISRO's PSLV-C56 Puts 7 Satellites in Orbit; Four More Missions this Year

The Indian Space Research Organisation (ISRO) on Sunday successfully launched the PSLV-C56 carrying Singapore's DS-SAR satellite and six other satellites.

The PSLV-C56 carrying the DS-SAR satellite along with six other satellites lifted off from the Satish Dhawan Space Centre in Sriharikota at 6.31 a.m.

“PSLV-C56 carrying seven satellites including the primary satellite DS-SAR and six co-passengers has been successfully placed in the right orbit. This is a PSLV mission for New Space India Limited [NSIL] and I want to congratulate the customers sponsored by the Government of Singapore for having this mission onboard PSLV and their continued faith in our launch vehicle for deploying their spacecraft,” ISRO Chairman S. Somnath said after the successful launch of the mission.

The DS-SAR satellite is developed under a partnership between DSTA (representing the Government of Singapore) and ST Engineering.

The co-passengers on the missions are VELOX-AM, a 23 kg technology demonstration microsatellite, ARCADE Atmospheric Coupling and Dynamics Explorer (ARCADE) which is an experimental satellite, SCOOB-II, a 3U nanosatellite flying a technology demonstrator payload, NuLioN by NuSpace, an advanced 3U nanosatellite enabling seamless IoT connectivity in both urban and remote locations, Galassia-2, a 3U nanosatellite that will be orbiting at low earth orbit and ORB-12 STRIDER which is a satellite developed under an International collaboration.

After the launcher placed all the seven satellites into a 535 km circular orbit, PS4 stage was brought back to a lower orbit of 295 km x 300 km orbit.

“The stage is purposefully manoeuvred to a 295 km x 300 km orbit. It now spends significantly less time in space, reducing its duration from over two decades to less than two months, before re-entering the earth’s atmosphere.” ISRO and India remain committed to reduced space debris and sustainable use of space for the benefit of all,” the space research organisation said after the success of the PS4 stage de-orbiting experiment.

Mr. Somnath said ISRO was set to launch four more missions this year which included another PSLV mission in August or early September, the Gaganyaan test vehicle, third development mission of Small Satellite Launch Vehicle and Geosynchronous Satellite Launch Vehicle mission for launching INSAT-3DS.

<https://www.thehindu.com/sci-tech/science/isro-launches-pslv-c56-carrying-singapores-ds-sar-and-six-other-satellites/article67137876.ece>

## THE ECONOMIC TIMES

Sun, 30 Jul 2023

### **ISRO Scientists Reap Success with Unique Scientific Experiment in Latest PSLV Mission**

It was a double delight for scientists at ISRO on Sunday as the space agency scripted a successful mission and also reaped victory in a unique scientific experiment using the fourth stage of a PSLV rocket. In a dedicated commercial mission earlier in the day, ISRO successfully placed seven Singaporean satellites into intended orbits on board a Polar Satellite Launch Vehicle (PSLV).

During the mission, the scientists decided to perform a unique scientific experiment in which the fourth stage of the rocket would be lowered into a 300 kilometre orbit after placing customer satellites at an altitude of 536 km "to mitigate the space debris problem", according to Chairman S Somanath.

In an update after the successful launch of PSLV-C56 mission, ISRO said the unique attempt by the scientists is "successful" and "ISRO/India remains committed to reduced space debris".

According to ISRO, normally after a successful mission, a rocket before re-entering into the Earth's atmosphere would travel for "decades" in an orbit as a space debris. However, with Sunday's experiment, the duration is now reduced to "two months".

"PSLV-C56/DS-SAR Mission: The PS4 stage de-orbiting experiment is successful. The stage is purposefully manoeuvred to a 295 kms x 300 km orbit," ISRO said in a social media post.

The fourth stage of the rocket now spends significantly less time in space, reducing its duration from over decades to less than two months, before re-entering the Earth's atmosphere, ISRO said.

"Reduced time in Space = Less risk of debris. India remains committed to reduced space debris and sustainable use of space for the benefit of all," the space agency added in the social media post.

Earlier, addressing scientists from the Mission Control Centre, Somanath said: "We are going to have many exciting further activities on the PS4 stage after this (successful launch). The PSLV fourth stage, which is currently in the orbit of the satellite which is at almost 535 km circular orbit in a 5-degree inclination, will be brought back to a lower orbit of 300 km."

He said the reason for bringing back the PS4 stage to a lower orbit was "to mitigate space debris problems".

"The experiment is being done with an intent to have a lower lifespan of the stage being spent in space, primarily to make sure that the space debris mitigation problems are addressed through our conscious efforts to bring back the PSLV upper stage in a controlled manner, and to demonstrate that in this mission," Somanath, who is also Secretary, Department of Space, said.

Echoing the Chairman's view, PSLV Mission Director S R Biju said, "As our Chairman indicated, we have not completed the mission. The primary objective of the mission is completed (to place the seven Singapore satellites into intended orbits) and it has become a habit for PSLV (sic) to do some experiments (in the fourth stage of the rocket)."

"We are embarking on it after the completion of the primary mission because we are taking the PS4 stage back to another orbit, because this orbit of 536 km-570km is very much in demand for many satellites. So, we thought we will not be wandering there and we decided that we will take the PS4 stage or the spent stage to another orbit, to another objective for two purposes," he said.

"One, our chairman has told us to do whatever is best possible to mitigate the menace of debris in orbit and another thing, this precious orbit will not be occupied with spent PS4 stage as debris and we will give space for future satellites. These are two objectives with which we are doing this experiment, and that experiment is in progress," he said.

In April, ISRO undertook a similar exercise during the launch of the PSLV-C55 mission where the fourth stage of a PSLV rocket was utilised as an orbital platform to carry out scientific experiments using the PSLV Orbital Experimental Module (POEM) in the rocket.

<https://economictimes.indiatimes.com/news/science/isro-scientists-reap-success-with-unique-scientific-experiment-in-latest-pslv-mission/articleshow/102247393.cms>

## THE TIMES OF INDIA

Sat, 29 Jul 2023

### Experts can Access NISAR Data: ISRO

Isro on Friday offered an opportunity for Indian researchers and scientists to access, analyse and interpret the data from the NASA-Isro Synthetic Aperture Radar (Nisar) satellite mission,

scheduled for launch in early 2024, through the Nisar Utilisation Programme (Nisar-UP). “Nisar offers vital data to observe and study Earth’s intricate processes,” Isro said. “Researchers are invited to join the programme leveraging Nisar data to make discoveries and create a sustainable future for our planet,” the space agency said.

<https://timesofindia.indiatimes.com/city/bengaluru/experts-can-access-nisar-data-isro/articleshow/102221410.cms>

