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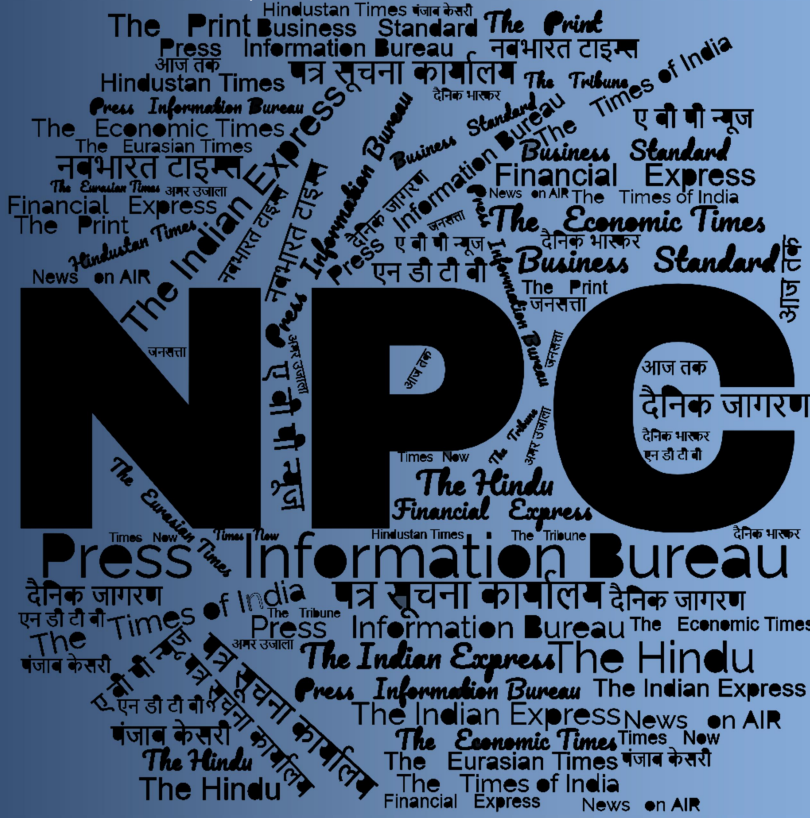
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CONTENTS

S. No.	TITLE		Page No.
	Defence News		1-14
	Defence Strategic: National/International		1-14
1.	Raksha Mantri Addresses the Senior Leadership of Indian Army During Army Commanders' Conference	<i>Press Information Bureau</i>	1
2.	Confident that Army can Deal with any Contingency along LAC: Defence Minister Rajnath Singh	<i>The Indian Express</i>	3
3.	Raksha Mantri holds Telephonic Conversation with Canadian Minister of National Defence; Discusses ways to further Develop Bilateral Defence Relations for Peace & Security of Indo-Pacific	<i>Press Information Bureau</i>	4
4.	8th India-Thailand Defence Dialogue to be held in Bangkok on 20th April	<i>Press Information Bureau</i>	5
5.	Indian Army Personnel to soon Begin Learning Mandarin to Engage with Chinese Military	<i>The New Indian Express</i>	6
6.	Air Marshal Sandeep Singh (Retd) Appointed Military Advisor to National Security Council	<i>India Today</i>	6
7.	Discussing MoU with India for Training, Cooperation on Electric Propulsion: U.K. Chief of Defence Staff	<i>The Hindu</i>	7
8.	China a 'Systemic Competitor', India and Britain are 'Natural Defence Partners': UK CDS Admiral Tony Radakin	<i>Times Now</i>	8
9.	Making Sense of Chinese Advanced Air Surveillance Radars near Indian Border	<i>India Today</i>	9
10.	US Navy Sails First Drone through Mideast's Strait of Hormuz	<i>The Week</i>	11
11.	First US Patriot Air Defence Systems Reach Ukraine, Kyiv's Defence Minister Says	<i>WION</i>	12
12.	North Korean Leader Kim Jong Un Orders Spy Satellite Launch as Planned	<i>WION</i>	13
13.	China may be Ready to Launch Supersonic Spy Drone	<i>The Times of India</i>	14
	Science & Technology News		15-19
14.	CSIR-IIP's One Week One Lab Campaign concludes	<i>Press Information Bureau</i>	15
15.	Awareness about Metrology and Precise Measurements are Needed to Make India Developed: Shri Pramod Kumar Tiwari, IAS, Director General- Bureau of Indian Standards	<i>Press Information Bureau</i>	17
16.	'1,000-Qubit Supercomputer, Boost to IT Sector' — All about National Quantum Mission Greenlit by Cabinet	<i>The Print</i>	18

Defence News

Defence Strategic : National/International



Press Information Bureau
Government of India

Ministry of Defence

Wed, 19 Apr 2023

Raksha Mantri Addresses the Senior Leadership of Indian Army During Army Commanders' Conference

The first Army Commanders' Conference of year 2023, commenced in a hybrid format on 17 April 2023. During the event, Indian Army's apex leadership is comprehensively deliberating upon all aspects of existing security scenarios, situation along the borders and in the hinterland and challenges for the present security apparatus. In addition, the conference is also focussing on issues pertaining to organisational restructuring, logistics, administration and human resource management. The main highlight of the third day of the conference was the address by the Hon'ble Raksha Mantri, Shri Rajnath Singh, to the senior leadership of the Indian Army, which was preceded by a brief on "IA contribution to Nation Building"

The Raksha Mantri reaffirmed the faith of the billion-plus citizens in the Indian Army as one of the most trusted and inspiring organisations in the country. He highlighted the stellar role played by the Army in guarding our borders and fighting terrorism apart from providing assistance to the civil administration whenever called for. The Raksha Mantri also remarked "The Army's contribution is applaudable in every domain from Security, HADR, Medical Assistance to maintaining the stable internal situation in the country. The role of Indian Army is very important in Nation building as also in the overall national development". He expressed his happiness to be present in the Army Commander's conference and complimented the Army leadership for successfully taking ahead the 'Defence and Security' vision of the Nation and the Hon'ble Prime Minister.

The Hon'ble Raksha Mantri stressed upon the present complex world situation which effects everyone globally. He stated that "Unconventional and asymmetric warfare, including hybrid war will be part of the future conventional wars. Cyber, information, communication, trade and finance have all become an inseparable part of future conflicts. This necessitates that Armed Forces will have to keep all these facets in consideration while planning and formulating strategies". Commenting on the current situation along the Northern borders, the Hon'ble Raksha Mantri expressed full confidence in the Army for any contingency though, the ongoing talks for peaceful resolution will continue and disengagement and de-escalation, is the best way forward. Expressing his gratitude, he remarked "It is our 'Whole of Government' approach to ensure availability of best weapons, equipment and clothing to our troops braving extreme weather and

hostile forces to defend our territorial integrity”. The Raksha Mantri complimented the efforts of BRO, which has led to the incomparable improvement of road communication in the borders both Western and Northern, while working under difficult conditions.

Referring to the situation along the Western borders, he complimented the Indian Army’s response to cross border terrorism, however the proxy war by the adversary continues. The Hon’ble Raksha Mantri said “I compliment the excellent synergy between the CAPF/ Police forces and the Army in tackling the menace of terrorism in Jammu and Kashmir. The synergised operations in the Union Territory of Jammu and Kashmir are contributing to increased stability and peace in the region and the same should continue, and for this I again compliment the Indian Army”. The Raksha Mantri commended the Army for the high standard of operational preparedness and capabilities which he has always been experiencing first hand during his visits to forward areas. He also paid tributes to all the brave hearts for making the ultimate sacrifice in the defence of the motherland. He complimented the significant contributions made by the Army in military diplomacy to further our national security interests by creating sustainable cooperative relationships with foreign Armies. He also applauded Indian Army for its effort in providing Humanitarian Assistance and Disaster Relief Mission post earthquake in Turkey during ‘Operation Dost’.

The Hon’ble Raksha Mantri stressed upon the technological advancement taking place in every sphere of our life and applauded the Armed Forces for aptly incorporating them. He appreciated the Army’s efforts to develop niche technologies in collaboration with civil industries, including premier educational institutions and thereby progressing towards the aim of ‘Modernisation through Indigenisation’ or ‘Atam Nirbharta’. He also stressed that as user we must impose our faith in own Industries and technologies which would inturn motivate the Industry to produce the best as also would boost ‘Atam Nirbharta’.

The Raksha Mantri also complemented the Army for its dedicated efforts towards the national vision of ‘Women Empowerment’ by grant of Permanent Commission and induction of women officers in most of the streams of Indian Army. He also complemented the Army in the execution of newly formulated recruitment scheme ‘Agniveers’ in the army as also the exuberance displayed by the youth of the county for the same.

The Hon’ble Raksha Mantri released the second edition of Indian Army UN Journal titled ‘Blue Helmet Odessey- Changing Contours of Peacekeeping Operations in the 20th Century” which is a compilation of inputs from missions and perspectives by senior military leadership and diplomats and a commemorative postal stamp on the occasion of 75 years of Indian Army. The Hon’ble Raksha Mantri also reviewed an equipment display focusing on niche technology, innovation, solutions for surveillance, Artificial Intelligence, Training, Robotics, Virtual Reality, Operational Logistics etc.

He concluded by saying that issues related to “Defence diplomacy, indigenisation, information warfare, defence infrastructure and force modernisation should always be deliberated upon in such a forum. War preparedness should be a continuous phenomena and we should always be ready for unpredictable and uncertain events that may crop up any time. We should always be honing up our fighting skills and weapons technologies so as to act effectively whenever required for. The Nation is proud of its Army and the Government is committed to facilitate the Army in their forward movement, on the road to reforms and capability modernisation”.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1917883>

Confident that Army can Deal with any Contingency along LAC: Defence Minister Rajnath Singh

Defence Minister Rajnath Singh on Wednesday asked the top commanders of the Indian Army to maintain a strong vigil along the Line of Actual Control (LAC) with China as the situation in the northern sector remained “tense” due to the deployment of Chinese PLA troops.

In his address at the Army Commanders’ Conference, Singh, referring to the eastern Ladakh border standoff, expressed full confidence in the Army to deal with any contingency while noting that ongoing talks for a peaceful resolution of the row will continue and that disengagement and de-escalation were the best way forward.

Singh said a “whole of the government” approach is being followed to ensure the availability of best weapons, equipment and clothing to the troops braving extreme weather and hostile forces to defend the country’s territorial integrity, according to the defence ministry.

The Indian and Chinese troops have been locked in a three-year confrontation in certain friction points in eastern Ladakh even as the two sides completed disengagement from several areas following extensive diplomatic and military talks.

The defence minister reaffirmed the faith of the billion-plus citizens in the Indian Army as one of the most trusted and inspiring organisations in the country. “The situation is tense due to the deployment of PLA troops in the northern sector. Our armed forces, especially the Indian Army, will have to continuously keep their vigilance in order to maintain the security of the LAC,” he said, according to sources.

The defence minister said the security of the country is the “topmost priority” for the government. In a statement, the ministry said Singh complimented Border Roads Organisation while noting that its efforts have led to an incomparable improvement of road communication in the borders.

The five-day Army Commanders’ Conference began on Monday. It is deliberating on India’s national security challenges along the borders with China and Pakistan and ways to boost the combat capability of the force. Chief of Defence Staff Gen Anil Chauhan, Army Chief Gen Manoj Pande, Navy Chief Admiral R Hari Kumar and Air Chief Marshal VR Chaudhari also addressed the commanders. Talking about the global geo-political scenario, Singh said, “Unconventional and asymmetric warfare, including hybrid war, will be part of the future conventional wars.” “Cyber, information, communication, trade and finance have all become an inseparable part of future conflicts. This necessitates that Armed Forces will have to keep all these facets in consideration while planning and formulating strategies,” he said.

On the situation along the Western borders, he complimented the army’s response to cross-border terrorism, adding the proxy war by the adversary continues. “I compliment the excellent synergy between the Central Armed Police Forces/Police forces and the army in tackling the menace of terrorism in Jammu and Kashmir,” he said. “The synergised operations in the Union

Territory of Jammu and Kashmir are contributing to increased stability and peace in the region and the same should continue, and for this, I again compliment the Indian Army,” Singh said.

The defence minister commended the army for the high standard of operational preparedness and capabilities which, he said, he has always been experiencing firsthand during his visits to forward areas. “In the Northeastern states too, there has been a lot of improvement in the internal security scenario following operations carried out by the Indian Army,” Singh said.

The defence minister said there is a need to ensure the use of real-time intelligence more effectively so that “we can be fully prepared to face any such future challenges.” He appreciated the army’s efforts to develop niche technologies in collaboration with civil industries.

He also stressed that as users the armed forces must put their faith in the country’s own industries and technologies.

The defence minister complimented the army in the execution of the ‘Agniveer’ scheme.

He also reviewed an equipment display focusing on niche technology, innovation, solutions for surveillance, artificial intelligence, training, robotics, virtual reality, operational logistics, etc.

The defence minister released the second edition of the Indian Army UN Journal titled ‘Blue Helmet Odyssey—Changing Contours of Peacekeeping Operations in the 20th Century’.

In his address, Air Chief Marshal Chaudhari talked about the IAF’s new doctrine and the integration between the services. The Chief of Naval Staff spoke about maritime security challenges and the increasing synergy amongst the three services. In his remarks, Gen Pande emphasised on the changing character of warfare in the present geo-strategic scenario and highlighted the transformation of the Indian Army towards a future-ready force.

The Army Commanders’ Conference is an apex-level biannual event that is held in April and October every year. The conference is an institutional platform for conceptual-level deliberations, culminating in making important policy decisions for the Indian Army.

<https://indianexpress.com/article/india/army-lac-defence-minister-rajnath-singh-8565584/>



Press Information Bureau
Government of India

Ministry of Defence

Wed, 19 Apr 2023

**Raksha Mantri holds Telephonic Conversation with
Canadian Minister of National Defence; Discusses ways to
further Develop Bilateral Defence Relations for Peace &
Security of Indo-Pacific**

**Shri Rajnath Singh invites Canadian defence companies to invest in India & carry out co-
production**

Raksha Mantri Shri Rajnath Singh held a telephonic conversation with Canadian Minister of National Defence Ms Anita Anand on April 19, 2023. The conversation was warm and cordial. Both Ministers discussed ways to develop bilateral defence relations, which shall be reflective of their democratic ethos and a shared interest in the peace and security of the Indo-Pacific.

Ms Anita Anand briefed the Raksha Mantri about Canada's Indo-Pacific Strategy and the importance attached to enhancing engagement with India. Shri Rajnath Singh welcomed increased Canadian naval presence in the Indo-Pacific. Both Ministers discussed potential areas of defence cooperation - from UN peacekeeping training to defence industrial cooperation.

The Raksha Mantri highlighted that India is an attractive defence manufacturing destination with competitive land and labour costs and two defence industrial corridors. He invited Canadian defence companies to invest in India and carry out co-production. They would also find value in integrating Indian defence companies in their global supply chains.

Both Ministers agreed to work on taking the defence relationship to next level and make defence an important pillar of India-Canada bilateral relationship.

Glad to speak with Canadian Defence Minister Ms @AnitaAnandMP. Welcomed Canada's Indo-Pacific strategy. Excellent discussion on ways to develop the bilateral defence relations including industrial collaboration. Invited Canadian defence companies to invest & manufacture in India.

— Rajnath Singh (@rajnathsingh) April 19, 2023

<https://pib.gov.in/PressReleasePage.aspx?PRID=1918016>



Press Information Bureau
Government of India

Ministry of Defence

Wed, 19 Apr 2023

8th India-Thailand Defence Dialogue to be held in Bangkok on 20th April

At the invitation of Government of Thailand, Special Secretary, Ministry of Defence Smt Nivedita Shukla Verma will pay an official visit to Bangkok between April 20-21, 2023. During the visit, the Special Secretary will co-chair the 8th meeting of India-Thailand Defence Dialogue with Deputy Permanent Secretary for Defence of Ministry of Defence, Thailand General Nuchit Sribunsong on April 20, 2023.

During the dialogue, the co-chairs will review the defence cooperation between the two countries and explore new initiatives to further strengthen bilateral engagements. Both sides will also exchange views on regional and global issues of shared interest. As part of her visit, the Special Secretary will also call on Permanent Secretary for Defence of the Ministry of Defence, Thailand General Sanitchanog Sangkachantra.

India & Thailand share a strategic partnership and defence is a key pillar of this cooperation. The bilateral defence engagements have expanded over a period of time to include wide ranging

contacts between the two countries including Defence Dialogue meeting, military-to-military exchanges, high-level visits, capacity building and training programmes and bilateral exercises.

<https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1917969>



Wed, 19 Apr 2023

Indian Army Personnel to soon Begin Learning Mandarin to Engage with Chinese Military

Indian Army personnel will soon begin learning the Chinese language.

A memorandum of understanding (MoU) was signed between the Army and Assam's Tezpur University on Wednesday for training the personnel in Chinese. It was signed by the 4 Corps on behalf of the Army and the Registrar of Tezpur University in the presence of Vice Chancellor Prof SN Singh. The 16-week course will be conducted at the Tezpur University.

Tezpur University, a central varsity established in 1994, is one of the pioneers in the Northeast in teaching foreign languages, including Chinese, with highly-qualified faculty.

“This Chinese language course will improve the in-house Mandarin expertise and empower the Army personnel to engage with the Chinese military personnel as and when the situation demands,” a defence statement said.

“With improved Chinese language skills, the Army personnel will be better empowered to convey their points in a much more cogent manner. It will also help in better exchange of viewpoints and understanding of the Chinese PLA's version of their activities during various interactions such as Commander Level talks, Flag Meetings, Joint Exercises and Border Personnel Meetings etc,” the statement further said.

In 2021, Indian Army personnel began studying Tibetan history, culture and language, apparently to counter Chinese influence.

<https://www.newindianexpress.com/nation/2023/apr/19/indian-army-personnel-to-soon-begin-learning-mandarin-to-engage-with-chinese-military-2567475.html>



Wed, 19 Apr 2023

Air Marshal Sandeep Singh (Retd) Appointed Military Advisor to National Security Council

Former Vice-Chief of Air Staff Air Marshal Sandeep Singh (Retd) has been appointed as the new Military Advisor to the National Security Council Secretariat (NSCS). The officer is expected to take over his new appointment on April 24.

Air Marshal Sandeep Singh was commissioned in the IAF as a fighter pilot on December 22, 1983. An alumnus of the National Defence Academy and National Defence College, Singh is an Experimental Test Pilot and Cat 'A' Qualified Flying Instructor.

He has flown several aircraft and has nearly 4900 hours of operational and test flying experience on Su-30 MKI, MiG-29, MiG-21, Kiran, AN-32, AVRO, Jaguar and Mirage 2000. He has played a key role in the induction, production and weaponisation of the Su-30 MKI aircraft in India.

He held several important field assignments in his career, including Project Test Pilot of the Su-30 Project Team at Moscow, Commanding Officer of a frontline Su-30MKI Sqn, Chief Test Pilot at ASTE, Commander of two Flying Bases, Assistant Chief of Air Staff (Plans), Commandant ASTE, Senior Air Staff Officer of Eastern Air Command and Deputy Chief of the Air Staff. Singh was also the Air Officer Commanding-in-Chief of South Western Air Command before taking over as the VCAS.

In recognition of his meritorious services of an exceptionally high order, the Air Marshal was awarded Vayu Sena Medal in 2006, Ati Vishisht Seva Medal in 2013 and Param Vishisht Sewa Medal in 2022. He was appointed as honorary Air ADC to the President of India on 30 September 2021.

<https://www.indiatoday.in/amp/india/story/air-marshal-sandeep-singh-appointed-military-advisor-national-security-council-2362136-2023-04-19>



Wed, 19 Apr 2023

Discussing MoU with India for Training, Cooperation on Electric Propulsion: U.K. Chief of Defence Staff

The U.K. is keen to help India in its quest to develop maritime electric-propulsion technology for its future warships and both sides have held two rounds of discussions to discuss how the cooperation can be taken forward, according to the U.K.'s top military officer. The two sides are also discussing a Memorandum of Understanding (MoU) for military training, said Admiral Sir Tony Radakin, Chief of Defence Staff (CDS) of U.K., who is on a three-day visit to India which concluded on April 19. His visit is the latest in a series of high-level visits from the U.K. and continuing military-to-military engagements between the two countries.

“One of the topics under debate at the moment is a training memorandum of understanding which would allow the U.K. and Indian forces to have this training ethos and basis for us to come together in the future. And that’s across all domains, land, air, and maritime,” Adm. Radakin said speaking to a select group of journalists.

“And then the final piece is the other domains in terms of space and cyber. The U.K. is proud of being a joint force where maritime air and land work together we’re looking to more strongly include space and cyber domains.” Giving an overview of the conversation during his visit, the visiting Admiral, referring to defence industry cooperation and India’s Make in India effort, talked about how the U.K. contributed to it. “There are lots of ways and they’re exciting ways.

The sharing of maritime electric propulsion. We've been on that journey for 20 years, so can we help India to accelerate and know everything that we've learned over the last 20 years? We are doing that. Various working groups have come to India we've had a working group in U.K.," he stated. "Further, on the ongoing discussions on jet engine capabilities, we're talking about something incredibly exciting where the prospect of having Indian engines in Indian jets assisted by U.K. technology, which is at the very leading edge of the world in terms of jet engines," Adm. Radakin said.

"So that's what's going on and it's an opportunity to discuss all of those with the Indian military hierarchy and the Defence Secretary," he said summing the conversations during his visit.

Elaborating on electric propulsion, he said that U.K. would claim to be one of the world's leaders in terms of maritime electric propulsion, a journey of at least 20 years. "And the relationship that we have with India means that India doesn't have to go through a 20-year journey. We can accelerate India to where we are today. And that's what we're doing," the Admiral said terming it exciting and also as a reflection of how strong the relationship is. This also fits into the Make in India approach," he stressed.

During DefExpo 2022 in Gandhinagar, defence industry organisations from India and the U.K. announced the creation of a new Defence Industry Joint Working Group supported by the U.K. government. Further, the two countries established an Electric Propulsion Capability Partnership to establish a partnership between the Navies for the development of electric propulsion capability for India.

Earlier, India's Defence Research and Development Organisation (DRDO) and U.K.'s Defence Science and Technology Laboratory finalised the Letter of Arrangement for future cooperation.

In recent weeks, HMS Lancaster visited Kochi for Exercise Konkan, while five Mirage 2000 fighters of the Indian Air Force were in U.K. for multilateral Exercise Cobra Warrior. Later this month, Indian Army personnel will be in U.K. to take part in bilateral Exercise Ajeya Warrior. Also, earlier this month, HMS Tamar while concluding its patrol in the Indian Ocean made port calls at Andaman and Nicobar Islands, Chennai, and Visakhapatnam.

The visit of the CDS also coincides with the visit of the Chief of Royal Air Force, Air Chief Marshal Sir Mike Wigston.

<https://www.thehindu.com/news/national/india-uk-discussing-mou-for-training-cooperation-on-electric-propulsion-uk-cds-radakin/article66755968.ece>



Wed, 19 Apr 2023

China a 'Systemic Competitor', India and Britain are 'Natural Defence Partners': UK CDS Admiral Tony Radakin

Britain, which views China a "systemic competitor" and with its eye on the Indo-Pacific region, is looking at closer collaboration with India, militarily and equally importantly, collaborating on joint development and production, keeping in mind Make in India.

After a meeting with General Anil Chauhan, the Indian Chief of Defence Staff (CDS) and other senior officials, the British CDS, Admiral Tony Radakin, advocated for stronger military to military links and in the defence industrial sphere, particularly relating to jet engine technology and in terms of ‘maritime electric propulsion.’ Looking to strengthen relations in all areas whether it means exercises, joint production and information sharing, the Admiral said working together in the defence industrial sector would ensure that Britain and India would “strongly together for decades,” with the military relationship being the “icing on the cake”. He spoke of a future when there could be “Indian engines in Indian jets assisted by leading-edge British technology.”

Admiral Radakin spoke of an Memorandum of Association on training and another on logistics and spoke of a greater presence of the Royal Navy, particularly in the Indo-Pacific. Some of the Royal Navy’s frigates will be in the area and also, an amphibious response group, in the future. Asked about the possibility of a tour by the Prince of Wales, an aircraft carrier, he said “conversations are going on.” The Royal Air Force too will play a significant role here and more exercises, bilateral and multilateral are on the anvil. Closer links in areas like space and cyber security are also under discussion.

China, he said, was systemic competition and spoke of the need to value territorial integrity and the sovereignty of nations. He referred to tensions in the Taiwan Straits and also, of missile tests by North Korea. India and Britain are “natural defence partners” and the armed forces of both countries are respected all over the world.

<https://www.timesnownews.com/india/china-a-systemic-competitor-india-and-britain-are-natural-defence-partners-uk-cds-admiral-tony-radakin-article-99609057>



Wed, 19 Apr 2023

Making Sense of Chinese Advanced Air Surveillance Radars near Indian Border

By Bidisha Saha

Satellite images doing rounds among social media’s OSINT (Open Source Intelligence) circle bring into the spotlight the Chinese advanced surveillance radar system which has been positioned critically to blanket India’s northern frontier. Starting in 2017, China has been ramping up its air defence capabilities to counter strikes from its neighbour and neutralize aerial threats. It has now appended a 3-D long-range air surveillance and guidance radar, JY27A, near to the landmark spots of Pangong Lake at eastern Ladakh, and Mianwali Airbase in Pakistan overlapping to the time of standoffs.

The advanced anti-sheath radar system hosts the capability to detect early signs of airstrike over a radius of 500 km which overlays into parts of Jammu and Kashmir, Himachal Pradesh and Uttarakhand in the northernmost part of India. Pakistan, on the other side, has reportedly positioned the Chinese-made JY-27A counter radar in Mianwali Air Base, as identified in September 2019 satellite images by Jane’s Defence Weekly, a US-based defence weekly.

This 3D long-range air-to-air alerting radar system is adept at detecting stealth aircraft as potent as the American F-22 raptor from 500km (310 nautical miles) away using its active phased array antenna and very high-frequency waves. With its terrain-adaptive measurement technology installed either on land or locomotive, it is resistant to jamming and could also guide surface-to-air missiles (SAM) to strike incoming aircraft.

The hush-hush activity of buildup in the Pangong region has been traced back by India Today using satellite images from Sentinel Hub to August 2020, around the time when the long-standing skirmish was hemming at the disputed border in eastern Ladakh. While the lives of twenty Indian armed forces soldiers were lost in the violent face-off between India and China, an US intelligence report states that 35 Chinese troops were killed, with over 60 injured. The situation remained tense till February 2021, when after ten rounds of diplomatic talks between India and China from September 2020 to February 2021, troops from both sides reportedly withdrew from the area.

An analysis of the satellite imagery further suggests that the radar has been positioned approximately 50 km from the LAC (Line of Actual Control) in the Ngari prefecture area of Rutog town and doesn't lie in the Indian-claimed territory. However, the detecting range being approximately 500 km, it is skilled to detect early air signals of aircraft, missiles and jets originating from northern India including Ladakh, Uttarakhand, Srinagar and parts of Punjab, Haryana and Kashmir.

The timing of the build-up in the Pangong region coincides with the extended standoff between India and China in the eastern Ladakh region which implies that China started prepping up its air defence system anticipating future airstrikes emanating from India.

Jane's Defence, a US defence weekly, identified a JY-27A CVLO radar in the imagery of Mianwali Air Base in Pakistan captured on August 29, 2019. The radar is believed to have arrived at the airbase in northeast Pakistan between June 5 and August 29, and was not fully operational as of September 2, according to the report.

This move came after Indian warplanes conducted airstrikes in Pakistan in February 2019 which led to an escalation of tensions between the two nuclear-armed nations. It was the first time that an Indian aircraft had crossed the Line of Control to strike in decades. As per media reports, the Indian Mirage 2000 fighter jets dropped bombs on a "terrorist camp" in Balakot of Pakistan-controlled territory in the early dawn hours.

It was only after this, that Pakistan secured this advanced air-defence early detection radar system from its "all-weather" friend, China, which is supposed to act as a deterrent to India's growing air combat capabilities. The IAF's arsenal of combat aircraft include freshly acquired Rafael jets potent with beyond visual range (BVR) missiles.

While India signed the deal of 36 Rafale planes with France in 2016, the first batch of Rafale jets arrived in India on July 29, 2020. The Rafale series is a 4.5-generation aircraft with long-range air-to-air and air-to-ground missiles along with advanced radar and electronic warfare capabilities. It was inducted swiftly into the Indian Air Force at the peak of the conflict with China and started operating over Ladakh within a week of its arrival in the country. The French firm Dassault Aviation is also involved in the maintenance of the aircraft, whose serviceability is over 75 per cent.

No Threat to India's Airstrike Capabilities: Defence Expert

Experts have rejected the notion that such radars pose any threat to India's airstrike capabilities or IAF's air arsenal. India Today spoke to Group Captain Uttam Kumar Devnath on what this network of radars could mean for India, he says, "China has deployed similar long-distance surveillance radars at five more locations across LAC and IAF knows exactly all the locations and capabilities. We have adequately factored these radars into our war plans for future operations ie how to avoid, evade, degrade, and neutralise them."

He went on to add, "These PLAAF and PAF stations will face soft and hard kill options from IAF, within first few hours of war," and hinted at a few other pivotal spots of Chinese radar establishments like Shigatse, Ganbala, Lhasa in Conggor, Hoping, Chamdo Bangda and an upcoming surveillance site at Linzhi.

Damien Symon, who is an OSINT(open source intelligence) expert reported an early warning site of another JY-27A series radar at the expressway Kargilik in China with its surveillance overlapping into areas of Srinagar.

Unveiled at the 2016 Zhuhai Air Show, China Electronics Technology Group Corporation's (CETC), the early warning radar manufacturer had advertised the JY-27A as VHF (very high frequency) radar, which it states offers 3D electronic-scanning in azimuth and elevation.

Syria had been earlier known to use a series of three radar systems, a JY-27, a P-14 and a P-12/18, located at the Damascus airbase and responsible for guarding the airspace above Central Syria, but open-source intelligence(OSINT) sources indicate it getting destroyed by an Israeli airstrike in January 2019.

China has long acted forcefully to defend the country's territory and interests, but now it is pressing its territorial claims aggressively by operating with greater firepower than ever before. Its military assertiveness reflects a growing sense of confidence and capability, but also one of confrontation. The increased operational tempo this year follows a modernization program that began in 1990 and flourished under its authoritarian leader, Xi Jinping, focussing on naval and missile forces which have shifted the power dynamics in the Pacific.

<https://www.indiatoday.in/amp/india/story/making-sense-of-chinese-advanced-air-surveillance-radars-near-indian-border-2362084-2023-04-19>

THEWEEK

Wed, 19 Apr 2023

US Navy Sails First Drone through Mideast's Strait of Hormuz

The US Navy sailed its first drone boat through the strategic Strait of Hormuz on Wednesday, a crucial waterway for global energy supplies where American sailors often faces tense encounters with Iranian forces.

The trip by the L3 Harris Arabian Fox MAST-13, a 13-metre (41-foot) speedboat carrying sensors and cameras, drew the attention of Iran's Revolutionary Guard, but took place without incident, said Navy spokesman Cmdr. Timothy Hawkins.

Two USCoast Guard cutters, the USCGC Charles Moulthrop and USCGC John Scheuerman, accompanied the drone. The trip saw the drone safely pass with the accompanying ships through the strait, a busy waterway between Iran and Oman which at its narrowest is just 33 kilometres (21 miles) wide. A fifth of all oil traded passes through the strait, which connects the Persian Gulf to the Gulf of Oman. “The Iranians observed the unmanned service vessel transiting the strait in accordance with international law,” Hawkins told The Associated Press.

He said an Iranian drone and at least one Houdong-class fast-attack vessel operated by Iran's paramilitary Revolutionary Guard observed the MAST-13 drone.

The US Navy's Bahrain-based 5th Fleet patrols Mideast waters, particularly the Persian Gulf and the Strait of Hormuz, to keep open the waterways for international trade, as well as protect American interests and allies. However, Iran views the Navy's presence as an affront, comparing it to its forces running patrols in the Gulf of Mexico.

Iranian state media did not acknowledge the drone voyage. Iran's mission to the United Nations did not immediately respond to a request for comment.

The 5th Fleet launched a special drone task force last year, aiming to have a fleet of some 100 unmanned drones, both sailing and submersible, operating in the region with America's allies.

Iran briefly seized several of the American drones being tested in the region in late August and early September, though there hasn't been any similar incident since.

The MAST-13 now is operating in the Gulf of Oman, where a maritime shadow war has played out as oil tankers have been seized by Iranian forces and suspicious explosions have struck vessels in the region, including those linked to Israeli and Western firms.

Iran has denied involvement in the explosions, despite evidence from the West to the contrary.

The MAST-13's video feeds can transmit images back to shore and to ships at sea, helping sailors see ships before approaching them, Hawkins said.

That can come in handy, particularly as the Navy and Western allies have increasingly seized weapons it believes were from Iran bound for Yemen. “It puts more eyes out on the water, enabling us to better monitor what is happening,” Hawkins said.

<https://www.theweek.in/wire-updates/international/2023/04/19/fgn26-iran-us-drone-boat.html>



Wed, 19 Apr 2023

First US Patriot Air Defence Systems Reach Ukraine, Kyiv's Defence Minister Says

Ukraine said Wednesday that it has received the first Patriots, considered one of the most advanced US air defence systems in the world. Kyiv's defence minister informed about it on Twitter.

"Today, our beautiful Ukrainian sky becomes more secure because Patriot air defence systems have arrived in Ukraine," Oleksiy Reznikov said on Twitter.

He further said that the United States, Germany and the Netherlands had "kept their word".

Germany announced in January that it will be sending one of the most advanced missile defence batteries to Ukraine. The Netherlands followed suit and said it would supply parts of a Patriot air defence system to Ukraine, specifically two launchers and missiles.

The US announced in December last year that it will send the Patriot missile defence system to Ukraine. This was around the time Russia pounded Ukraine's energy infrastructure from the air. Around 100 Ukrainian troops had trained on the Patriot missile defence system in the United States in January this year since Patriots need extensive, hands-on training outside of Europe.

Ukrainian President Volodymyr Zelensky said the system will "significantly" strengthen Ukraine's defence against Russian strikes.

Meanwhile, Russian President Vladimir Putin had said that Russian forces will destroy the Patriot missiles. A Patriot battery is capable of shooting down attack planes, cruise missiles, and some ballistic missiles before they even strike targets, Brigadier General Pat Ryder, spokesman for the US Defense Department, had said.

What is the Patriot missile system?

The MIM-104 Patriot is the US Army's top-tier surface-to-air guided missile system which is manufactured by the Virginia-based Raytheon Technologies. The defence system is known for targeting ballistic and cruise missiles as well as manned and unmanned aircraft that were first deployed in the 1980s.

The US Army said that it currently has 16 Patriot battalions. Notably, the Patriot batteries are regularly deployed across the world, they are currently being operated in or bought by at least 16 countries, including, Taiwan, Japan, Israel, South Korea, Qatar, and so on, reported the Associated Press.

<https://www.wionews.com/world/first-patriot-air-defence-systems-reach-ukraine-kyivs-defence-minister-says-584065>



Wed, 19 Apr 2023

North Korean Leader Kim Jong Un Orders Spy Satellite Launch as Planned

North Korean leader Kim Jong Un has ordered officials to go ahead with the launch of the first spy satellite as planned, state media reported on Wednesday (April 19). Kim said that the satellite launch will boost the nation's capability of military observation of a region to locate an enemy or ascertain strategic features, in order to counter "threats" from the United States and South Korea. News agency Reuters mentioned that a state media photo showed Kim, accompanied by his daughter, talking to officials in front of a blurred image of an apparent satellite.

Last year in December, North Korea conducted what it called an important "final phase" test for a spy satellite. It also said it would complete preparations for the launch by April.

State news agency KCNA said that during a visit to the National Aerospace Development Agency on Tuesday, Kim demanded that the satellite be launched on time and that other reconnaissance satellites be launched in various orbits to improve the nation's monitoring capabilities.

"Securing real-time information about the hostile forces' military scenario" is the "most important" task," Kim said, also denouncing the deployment of US strategic assets in the region as an attempt "to turn South Korea into an advanced base for aggression and an arsenal for war."

"He (Kim) said that possession of such satellites is a primary task to be indispensably fulfilled to bolster up the armed forces of the DPRK ... and belongs to its sovereignty and legitimate right to self-defence," KCNA said, using the initials of the country's official name.

According to the state media, Kim also said that "as the US and South Korea are scheming to further tighten their military posture against the DPRK ... it is quite natural for the DPRK to develop its military deterrence strong enough to cope with the serious security environment at present and in the future."

<https://www.wionews.com/world/north-korean-leader-kim-jong-un-orders-spy-satellite-launch-as-planned-583897>

THE TIMES OF INDIA

Thu, 20 Apr 2023

China may be Readyng Supersonic Spy Drone

A leaked US military assessment says the Chinese military may soon deploy a high-altitude spy drone that travels at least three times the speed of sound, The Washington Post reported late on Tuesday. The newspaper cited a secret document from the National Geospatial-Intelligence Agency.

The document, which Reuters could not confirm or verify independently, features satellite imagery dated Aug 9 that shows two WZ-8 rocket-propelled reconnaissance drones at an air base in eastern China, about 560km inland from Shanghai, according to the newspaper.

The US assessment said China's People's Liberation Army (PLA) had "almost certainly" established its first unmanned aerial vehicle unit at the base, which falls under the Eastern Theatre Command, the branch of the Chinese military responsible for enforcing Chinese sovereignty claims over Taiwan, the newspaper reported.

The US defense department did not immediately respond to a request for comment. The Chinese government could not immediately be reached for comment. The Washington Post said it obtained the assessment of the program from a trove of images of classified files posted on the Discord.

<https://timesofindia.indiatimes.com/world/china/china-may-be-readyng-supersonic-spy-drone/articleshow/99626914.cms>

Science & Technology News



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Wed, 19 Apr 2023

CSIR-IIP's One Week One Lab Campaign concludes

Chief Minister of Uttarakhand Sh. Pushkar Singh Dhami & other State Govt. Functionaries attend the Valedictory Function of OWOL on its campus

The weeklong celebration of CSIR-IIP's One Week One Lab campaign concluded on 19th April 2023. On the last and final day, the campaign marked an exciting event, "Meeting with Uttarakhand State Govt. Functionaries", followed by the Valedictory function. The event witnessed Sh. Pushkar Singh Dhami (Chief Minister of Uttarakhand) as the chief guest (virtually), Prof. Durgesh Pant (DG, UCOST) as the guest of honour, and Prof. Pradeep Kumar (Director, CSIR-CBRI) as the special guest.

On the 7th day of its "One Week One Lab" campaign, CSIR-IIP organized a meeting with the Uttarakhand State Govt. Functionaries at its laboratory campus. The program was initiated with Saraswati Vandana, followed by a presentation on the offerings of CSIR-IIP for the development of Uttarakhand. The technology presentations were made for Room temperature bio-diesel, Bio-aviation fuel, Waste plastics to fuel, Domestic PNG burner, Biomass Chulha, Improved Gur Bhatti, Medical Oxygen plants and Compressed bio-gas into pipeline quality natural gas technologies by eminent scientists of CSIR-IIP. The forum was then open for the discussion with the state government functionaries. The event was attended by Dr Deepak Kumar (Sec. program Implementation Govt. UK), Dr Vijay Kumar Jogdande (Sec. Skill development Govt. UK), Mr Rajendra Kumar (Deputy Director, Dept. of Industry Govt. UK). The event also witnessed the participation of Directors from different Government Institutes of Uttarakhand, namely, Dr Sudhir Kumar (NIH, Roorkee), Dr M K Gupta (CPPRI, Saharanpur), Dr Kalachand Sain (WIHG, Dehradun), Dr Abhishek Rajvansh (CIPET, Dehradun), Dr R Pradeep Kumar (CBRI, Roorkee), Mr B M Tripathi (KDMIP, ONGC Dehradun), Mr Gautam Dikshit (ONGC, Dehradun), and Dr P P Gothwal (Head CFTRI Lucknow Branch). The guests presented their views on the offerings by CSIR-IIP and complimented the Director CSIR-IIP for taking up such an initiative.

Prof. Deepak Kumar said that an R&D institution like CSIR-IIP should reach out to the government bodies with their technologies for the sustainable development of the Uttarakhand state and make it a model state. Dr Vijay Kumar Jogdande focused on utilizing 20–25% reduced derived fuel (RDF) from municipal solid waste (MSW). He also talked about the scaling up of existing technologies for waste management to mitigate the energy crisis and make the technologies more affordable and accessible. Dr Kalachand Sain, Director of WADIA Institute of Himalayan Geology, appreciated the technologies developed at CSIR-IIP and insisted on

developing hybrid processes for the systematic and viable utilization of energy using static and dynamic sources. Dr Sudhir Kumar, Director NIH Roorkee, talked about the impact of climate change on rivers and glaciers. He addressed that energy from natural resources can efficiently reduce carbon footprints. Dr Abhishek Rajvansh, Director CIPET Dehradun, discussed the need for R&D on plastics other than polyethylene (PE) and polypropylene (PP) to make fuel and its viable disposal efficiently. He also appealed to share the research facilities available at CSIR-Indian Institute of Petroleum and CIPET to make the technologies for the development of Uttarakhand. Dr Gautam Dikshit, Group General Manager ONGC, KDMIP, insisted on developing robust models to enhance the connectivity of Scientists and students in rural areas and farmers. Dr M. K. Gupta, Director of CPPRI Saharanpur, stressed the segregation of dry waste into paper and non-paper waste so that it could be efficiently recycled as it will help reduce the import cost of paper.

Subsequently, the OWOL campaign was concluded with the valedictory function. Dr Anjan Ray, Director CSIR-IIP, presented the summary of the week-long OWOL program. He also suggested five key points: the task force for waste to wealth, reduction in per capita water use, standards for the industry and domestic purpose, livelihood generation for grassroots, rural climate health system, and GEP measurement parameters.

Chief Minister, Uttarakhand Sh. Pushkar Singh Dhama could not attend the event in person due to his urgent commitments but greeted the august gathering through his video message. The CM, in his message, applauded the efforts made by CSIR-IIP towards the development of socio-economic technologies. He also thanked CSIR-IIP for adopting the villages at Champawat Block and for going beyond the limits to make ADARSH CHAMPAWAT a model block. He also urged CSIR-IIP scientists to develop technologies to mitigate the problems of forest fires, crop storage, and pollution from the transportation of fruits & vegetables.

Prof. Durgesh Pant, DG UCOST, stressed on creation of a state-level task force from the leading R&D institute in Uttarakhand and government administration. It will improve the quality of life in rural areas and the state as a whole. He also emphasized the gross environmental product (GEP) for the development of the state using the refinement of four factors: soil, forests, water, and air.

Prof. R. Pradeep Kumar, Director CBRI Roorkee, appreciated the efforts made by CSIR-Indian Institute of Petroleum to organize this seven-day OWOL program. He congratulated CSIR-IIP on developing medical-grade oxygen that helped people during the COVID-19 pandemic. He urged the gathering to differentiate between one's general needs and expectations and stressed on improving our lifestyle. He said that without a change in our lifestyle, no technology could bring about a sustainable change in society that could lessen environmental harm.

Mr Anjum Sharma, Sr. CoA, CSIR-Indian Institute of Petroleum, proposed the vote of thanks. Dr Kritika Kohli compeered today's event, and Dr G D. Thakre coordinated the program. The guests then visited the state-of-the-art lab facilities and indigenous technology-based pilot plants like Bio-Jet fuel, waste plastic to diesel, room temperature bio-diesel, and medical-grade oxygen plants.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1918044>



Press Information Bureau
Government of India

Ministry of Science & Technology

Wed, 19 Apr 2023

Awareness about Metrology and Precise Measurements are Needed to Make India Developed: Shri Pramod Kumar Tiwari, IAS, Director General- Bureau of Indian Standards

CSIR-NPL organises today “Metrology Conclave” under “One Week One Lab” Program.

CSIR-NPL is celebrating the 'One Week One Lab' (OWOL) programme, from 17-21 April 2023, inaugurated by the Union Minister of Science & Technology and Vice President - CSIR, Dr. Jitendra Singh. Being National Metrology Institute (NMI) of India, one-day event- “Metrology Conclave” highlighted the core aspects of CSIR-NPL, i.e., Metrology.

In recent times, Metrology and accurate measurements are the key elements that define product quality and play a pivotal role in achieving standardization. The country's economy and its growth depend on its metrological capabilities. Metrology Conclave aims to create awareness among the general public about precise and accurate measurement and its need for a nation to achieve prosperity. The programme was inaugurated by the chief guest Shri Pramod Kumar Tiwari, Director General- Bureau of Indian Standards (DG-BIS), and Guest of Honour Shri Jaxay Shah, Director- Quality Council of India (QCI) along with Prof. Venugopal Achanta Director, CSIR-NPL, Dr.Ritu Srivastava, Co-Ordinator- OWOL, and Dr. Naveen Garg Sr. Principal Scientist & Convener of the event.

Prof. Venugopal Achanta, in his presidential address, gave a brief overview of the evolutionary aspects of metrology and provided insights into the various efforts of CSIR- NPL in the field of metrology. One of the major highlights of Prof Achanta’s address was the NPL “Waste to Wealth” policy aimed towards dealing with the silicon waste that is being generated on a large scale based on increasing demand of the same in the country. He also emphasized the need to establish secondary standards metrology laboratories in collaboration with CSIR laboratories, BIS and QCI.

In his address, Shri Jaxay Shah, Director- QCI, stated that keeping in view the Honourable PMs vision, “Atmanirbhar Bharat,” in context to quality and quantity of the Make in India products (with the focus on Skill, Scale and Speed), he emphasized that we should not only meet the global demands but must also increase our product acceptance rate. The credibility and quality can only be met with support from the four pillars, i.e., CSIR-NPL, Legal Metrology, BIS and QCI-NABL. This will also help in making INDIA a developed country by 2047.

Shri Pramod Kumari Tiwari, IAS, DG-BIS, highlighted the importance of creating awareness about the metrological activities among the general public through various initiatives such as conducting training, empowering MSMEs, etc. To generate a trained workforce in the coming years, he suggested that the educational institutions of our country can work on a policy of framing courses and conducting training in the field of metrology. He also advised to create a pan-India database of testing, calibration and validation laboratories under various umbrella.

On this occasion, lectures covering almost all fields of physical quantities with their metrological aspects were delivered by renowned scientists. It included Metrology for Environment, Metrology for Heavy Engineering industries, Metrology for Bhartiya Nideshak Dravya (BNDs), Metrology for Health and Quality of Life, Metrology for E-Mobility and Energy, Metrology for Photo-Voltaic Metrology, etc. The event also showcased the CSIR-NPL's Role and Efforts in Metrology and CSIR-NPL Road Map for Future and Developing National and International Collaborations. A Handbook on Advances in Metrology at CSIR-NPL was released. The book contains all the latest developments that have taken place in NPL and will be helpful for students, researchers, and industry personnel. A panel discussion was on the theme "Expectations from CSIR-NPL & Future directions." Here experts from BIS, NABL, Legal Metrology, Industries, and Research and calibration labs discussed their challenges in the metrological sector and the possible solution the NPL can provide. It was a fruitful session that opened up a new collaboration dimension and will be helpful for the nation's growth in the coming years. For students, a quiz competition was conducted that was attended by many students, including students from IIT and other engineering colleges in Delhi. They benefitted from the lectures and showed their interest in pursuing a career in Metrology. The event ended with the award ceremony and a formal vote of thanks to everyone for making the event a grand success.

For more details about CSIR-NPL and its "One Week One Lab" program, please keep visiting NPL website: <https://www.nplindia.org/> and NPL social media handles (You Tube, Facebook, LinkedIn, Instagram, Twitter). The live streaming of the program is on the NPL YouTube Channel.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1917918>

ThePrint

Wed, 19 Apr 2023

'1,000-Qubit Supercomputer, Boost to IT Sector' — All about National Quantum Mission Greenlit by Cabinet

India's foray into the research and development of quantum technology got a big boost Wednesday as the Union Cabinet approved the National Quantum Mission (NQM) at a cost of Rs 6,003.65 crore. The mission will have defined milestones that are expected to be achieved over the course of eight years (2023-24 to 2030-31).

Speaking at the cabinet briefing, Science and Technology Minister Jitendra Singh said that the mission will aim to seed, nurture and scale up scientific and industrial research and development, and create a "vibrant and innovative" ecosystem in quantum technology in India.

This will accelerate quantum technology-led economic growth, nurture the ecosystem in the country and make India one of the leading nations in the development of Quantum Technologies & Applications (QTA), he added.

Six countries — the US, Finland, Austria, France, China and Canada — are already working on quantum technology. In terms of R&D, Singh said India is at par with the advances in these countries.

Quantum technology harnesses the principles of quantum mechanics, a theory in physics that deals with the behaviour of matter and energy at the most fundamental level — at the scale of atoms and subatomic particles. The field of quantum mechanics was born about a 100 years ago, during the times of Albert Einstein, Werner Karl Heisenberg and Erwin Schrödinger, when the structure of the atom could not be explained by mechanical physics.

The principle is used in semiconductors, lasers, Blu-ray, transistors, mobile phones, USB drives, MRI, electron microscopes, and even the basic light switch.

Quantum computers, which are still far from achieving their true potential, can perform certain calculations much faster than classical computers. Several countries have built prototypes, with the United States, China and the Netherlands in the lead.

To understand the potential of quantum computing, imagine you have to search through a lengthy phonebook to find a specific name. A classical computer would have to search through the book one page at a time, while a quantum computer could search through all the pages at once. Moreover, it is far more secure and difficult to hack into.

Speaking to ThePrint on the sidelines of the cabinet briefing Wednesday, Akhilesh Gupta, mission in-charge and senior adviser in the Department of Science and Technology, said: “This is the first time that India is not borrowing a new technology from another country, rather, we are developing it ourselves.”

<https://theprint.in/science/1000-qubit-supercomputer-boost-to-it-sector-all-about-national-quantum-mission-greenlit-by-cabinet/1528358/>

