

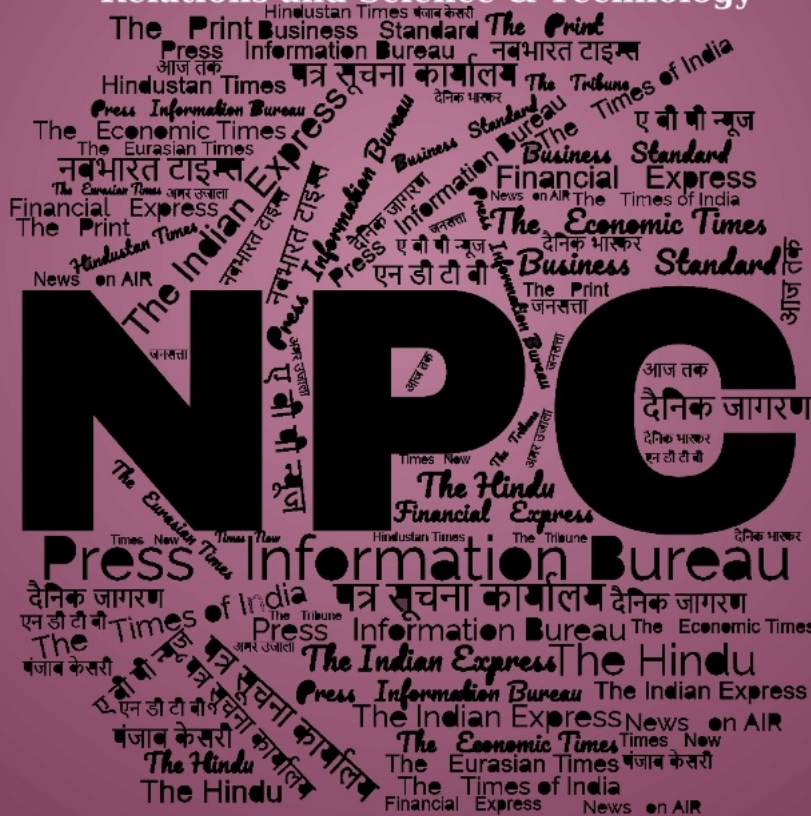
अक्टूबर
Oct
2024

खंड/Vol. : 49 अंक/Issue : 197
23/10/2024

समाचार पत्रों से चयनित अंश Newspapers Clippings

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Press Information Bureau
Government of India

Ministry of Defence

Tue, 22 Oct 2024

Raksha Mantri & his Singaporean counterpart co-chair 6th India-Singapore Defence Ministerial Dialogue in New Delhi

Agreed to further step up defence cooperation including industry collaboration in niche domains
Acknowledge long-standing ties based on shared outlook on regional peace, stability & security

Raksha Mantri Shri Rajnath Singh and Minister of Defence of Singapore Dr Ng Eng Hen co-chaired the sixth India-Singapore Defence Ministerial Dialogue in New Delhi on October 22, 2024. Both Ministers acknowledged the deep and long-standing bilateral defence relations based on shared outlook on regional peace, stability and security.

This meeting assumes significance in the backdrop of India marking a decade of its Act East policy, in which Singapore has played a key role in promoting economic cooperation & cultural ties, and developing strategic connectivity with countries in the region.

Both Ministers expressed satisfaction at the growing defence cooperation between the two countries. There have been regular engagements between the Armed Forces of the two countries in recent years.

As 2025 marks 60 years of establishment of diplomatic relations between India and Singapore, both Ministers agreed to further step up defence cooperation and agreed to achieve new feats. They also agreed to extend bilateral agreement on Joint Military Training Army for the next five years.

Recognising that both nations are natural partners for commencing co-development and co-production of defence equipment, both sides agreed to enhance industry cooperation, including exploring collaboration in niche domains such as automation and Artificial Intelligence. The two Ministers also decided to take forward the cooperation in emerging areas like cyber security.

Shri Rajnath Singh thanked Dr Ng Eng Hen for Singapore's support as country coordinator for India in ASEAN Defence Ministers' Meeting - Plus from 2021 to 2024. The Defence Minister of

Singapore acknowledged that India is a strategic voice for Asia's peace and stability. The bilateral relationship was recently elevated to Comprehensive Strategic Partnership during the visit of Prime Minister Shri Narendra Modi to Singapore.

Prior to the Dialogue, the visiting dignitary was accorded a ceremonial welcome and a Tri-Service Guard of Honour.

Earlier, the Singaporean Defence Minister laid a wreath and paid homage to the fallen heroes at the National War Memorial, New Delhi.

Dr Ng Eng Hen is on a visit to India from October 21-23, 2024.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2067046>

THE ECONOMIC TIMES

Tue, 22 Oct 2024

Singapore plays key role in Act-East policy: Rajnath Singh at India-Singapore Defence Ministers Dialogue

Dr. Ng Eng Hen, Singapore's Minister of Defence, has begun his three-day visit to India. As part of his visit, Dr. Hen co-chaired the sixth IndiaSingapore Defence Ministers' Dialogue in New Delhi, with his Indian counterpart Rajnath Singh.

The Summit began on Tuesday morning, with Indian Defence Minister Rajnath Singh welcoming the Singapore delegation warmly. He noted that the strategic partnership the two countries share is a "testimony of increasing closeness between our countries."

Singh said, " The meeting is happening at a time when India marks the decade of India's Act in Policy, in which Singapore has played a key role in promoting economic cooperation, cultural ties, and developed strategic connectivity with country institutions."

Building upon Singh's remarks, Dr. Ng Eng Hen said, "You reminded us that this is the 10th year since your Act East Policy. From Singapore's perspective, India has always been part of the East. Whether you choose to act or look, we consider you part of the area."

He said that while remembering the history of Singapore, India has been an important partner. " When we started the Singapore armed forces, one of the countries that we asked early on to see whether they could help us was India."

Hen highlighted that such historical memoirs serve as important reminders and "reflect how we feel that India is very part of our area. We are delighted that our ten years of bilateral relations have been very much improved in defence and all-round strategic partnership."

Hen also thanked PM Modi for visiting Singapore earlier this year and noted that the visit was an excellent meeting. A day before, the Ministry of Defence had announced the sixth IndiaSingapore Defence Ministers' Dialogue in New Delhi on October 22, 2024.

The release noted that between India and Singapore, "The engagements have diversified to include wide-ranging contacts between the Services, military-to-military exchanges, high-level visits, capacity building and training programs, cooperation in UN Peacekeeping, ship visits and bilateral exercises."

Inaugurated in 2016, the India-Singapore Defence Ministers' Dialogue is a key platform to strengthen bilateral defence cooperation between Singapore and India. The fifth edition of the Defence Ministers' Dialogue took place in January 2021 through virtual teleconference.

During the meeting, the two parties showed confidence in the outcomes of the meeting that would result in providing impetus to the entire spectrum of the bilateral engagement as well as to the regional security architecture.

<https://economictimes.indiatimes.com/news/defence/singapore-plays-key-role-in-act-east-policy-rajnath-singh-at-india-singapore-defence-ministers-dialogue/articleshow/114454403.cms>



Tue, 22 Oct 2024

India, Singapore to step up defence ties in key areas

India and Singapore on Tuesday agreed to crank up their military cooperation, including training and industrial collaboration, during the 6th India-Singapore Defence Ministerial Dialogue co-chaired by defence minister Rajnath Singh and his Singaporean counterpart Ng Eng Hen.

Both leaders acknowledged the deep and long-standing bilateral defence relations based on shared outlook on regional peace, stability and security, the defence ministry said in a statement.

Singh and Hen agreed to extend the bilateral agreement on joint military training for the next five years, enhance industrial cooperation including exploring collaboration in niche domains such as automation and artificial intelligence, and take forward the cooperation in key emerging areas such as cyber security.

The dialogue came in the backdrop of India marking a decade of its Act East policy in which Singapore has played a key role in promoting economic cooperation, cultural ties and developing strategic connectivity with countries in the region. Also, the two countries will mark the 60th anniversary of the establishment of their diplomatic relations next year.

On October 10, Prime Minister Narendra Modi said India-Asean (Association of Southeast Asian Nations) friendship assumed significance at a time when conflicts and tensions were raging in several parts of the world, pointed out that the 21st belonged to India and the regional bloc, and unveiled a 10-point plan, covering key areas such as trade, tourism, cyber and health, to deepen ties with the multi-nation alliance.

In his address at the 21st Asean-India Summit at Vientiane in Laos, Modi reiterated India's support for the bloc's "unity, centrality and outlook" on the Indo-Pacific --- a vast region in which China is racing to expand its influence, with its aggressive moves fuelling global concerns about its intent.

Singapore is a part of the alliance.

<https://www.hindustantimes.com/india-news/india-china-reach-agreement-on-patrolling-along-lac-101729519635052.html>

THE ECONOMIC TIMES

Tue, 22 Oct 2024

We are trying to restore the trust: Army chief after India-China talks breakthrough

A day after India announced reaching an agreement with China on patrolling along the LAC in eastern Ladakh, Army Chief Gen Upendra Dwivedi on Tuesday said as of now "we are trying to restore the trust" and both sides will have to "reassure each other" to achieve this.

He was speaking at an interaction session here after delivering a lecture hosted by defence think-tank USI. India on Monday announced it has reached an agreement with China on patrolling along the Line of Actual Control (LAC) in eastern Ladakh.

This is seen as a major breakthrough in ending the over four-year-long military standoff ahead of a likely meeting between Prime Minister Narendra Modi and Chinese President Xi Jinping in Russia this week.

"As far as we are concerned, we were looking at... we want to go back to the status quo of April 2020. Thereafter, we will be looking at disengagement, deescalation and normal management of Line of Actual Control. And, this normal management of the LAC will not just start there. There are phases in that also," the Army chief said.

"So, this is what I am saying. This has been our stance since from April 2020...and even today remains the same. So, as of now, we are trying to restore the trust. How the trust will get restored. It will get restored once we are able to see each other, and we are able to convince each other" related to the buffer zones that have been created, he said. "And, both will have to reassure each other," the Army chief added.

Patrolling gives you that kind of advantage and, that is what is commencing. "And, as we restore the trust, the other stages will follow through," he said.

Foreign Secretary Vikram Misri on Monday said the agreement was finalised following negotiations by the two sides over the last several weeks and that it will lead to a resolution of the issues that had arisen in 2020.

External Affairs Minister S Jaishankar on Monday said Indian and Chinese soldiers will be able to resume patrolling in the way they had been doing before the border face-off began and the disengagement process with China has been completed.

<https://economictimes.indiatimes.com/news/defence/we-are-trying-to-restore-the-trust-army-chief-after-india-china-talks-breakthrough/articleshow/114460649.cms>



Tue, 22 Oct 2024

Navy has set up two special task forces for development of niche technologies: Vice Chief

The Navy has set up two special task forces headed by Rear Admirals to look for imbibing and inducting niche technologies, said Navy Vice Chief Vice Admiral Krishna Swaminathan. He said they were looking for new technologies not only to plug the capability gaps but also to acquire the next level of technologies.

These task forces are in addition to the Navy's technology development accelerator cell (TDAC).

"We want to induct technologies as fast as possible. We ensured that the three task forces are not working on the same technologies. They work in different areas. They are looking at fuses, radars, quantum computing, interface devices, electronic and weapon technologies, and indigenisation of ammunition..." Vice Adm Swaminathan said in response to a question from The Hindu at a curtain raiser event on the Naval Innovation and Indigenisation Organisation (NIIO) seminar, Swavlamban to be held next week.

The TDAC would continue the process of engaging with start-ups and MSMEs, while the special task forces would work in smaller areas but hopefully with quicker turnaround times, he said.

Tech advancements

Speaking on the highlights of Swavlamban 2024 with the theme 'Strength and Power through Innovation and Indigenisation', scheduled to be held on October 28 and 29, the Vice Chief said the event would showcase the remarkable innovation and indigenisation efforts of the armed forces, innovation partners and the Indian industry, and that this year's event was envisaged to be larger and more impactful than before, and would focus on technological advancements that would strengthen India's defence capabilities significantly.

In the last two years, a total of 22 Acceptance of Necessity (AoN) of approximate value of about ₹2,200 crore were issued through various challenges launched to the indigenous startups and MSMEs, among which 13 AoNs worth ₹1,194 crore were converted into contracts.

Vice Adm Swaminathan also launched the maiden set of five Hackathon Challenges for Swavlamban, a national-level competition aimed at addressing real-world operational challenges with innovative technological solutions. The five challenges include speech separation; drone

swarm coordination; navigation and real-time tracking of flying objects; application load balancer on load stock; and maritime situational awareness.

This year's edition will feature a range of activities, including unveiling of challenges, release of Swavlamban 3.0 Document, discussions during domain-specific sessions on niche technologies, funding the innovation ecosystem and felicitation of innovators.

There is a prize pool of ₹25 lakh for each problem statement with ₹3 lakh for the first prize and ₹2 lakh for the second prize. With a focus on India's advanced industries, participants will get the opportunity to collaborate, innovate and present solutions across multiple technological domains, the ViceChief added. The results of the Hackathon will be announced during Swavlamban 2024.

<https://www.thehindu.com/news/national/navy-has-set-up-two-special-task-forces-for-development-of-niche-technologies-vice-chief/article68784359.ece>

THE ECONOMIC TIMES

Tue, 22 Oct 2024

Not easy to come to any kind of settlement: Navy Vice Chief on India-China talks breakthrough

Navy Vice Chief Vice Admiral Krishna Swaminathan on Tuesday said the naval force was happy to learn about India and China reaching an agreement on patrolling along the LAC in eastern Ladakh as he underlined that in national security issues, it is "not easy" to come to any kind of a settlement. He said this during a media interaction held at Kota House ahead of the third edition of Navy's flagship seminar Swavlamban. His remarks came a day after India announced that it has reached an agreement with China on patrolling along the LAC in eastern Ladakh.

"In national security issues, it is not easy to come to any kind of a settlement. It's not easy, because there are views, there are perceptions, there are emotive issues. There are land issues and there are national security considerations. So, at one time you address several elements of national consciousness. You go and talk, negotiate," Vice Admiral Swaminathan said. "So, if you come to any kind of settlement, I don't know what the details are, and I don't even need to know it, but I... know there is some kind of settlement, and all of us are happy," he added.

Foreign Secretary Vikram Misri on Monday said the agreement was finalised following negotiations by the two sides over the last several weeks and that it will lead to a resolution of the issues that had arisen in 2020. External Affairs Minister S Jaishankar on Monday said Indian and Chinese soldiers will be able to resume patrolling in the way they had been doing before the border face-off began and the disengagement process with China has been completed.

<https://economictimes.indiatimes.com/news/defence/not-easy-to-come-to-any-kind-of-settlement-navy-vice-chief-on-india-china-talks-breakthrough/articleshow/114463877.cms>

What are the implications of India reverting to pre-Galwan LAC patrolling terms with China?

India and China have agreed to return to the patrolling agreements along the Line of Actual Control (LAC) in eastern Ladakh that were in place before the Galwan clashes in 2020 after several negotiations.

The agreement covers the areas of Depsang and Demchok, reported TOI External Affairs Minister S Jaishankar had recently said that around 75 per cent of “disengagement problems” with China had been sorted out and that the key issue now was increasing militarisation of the frontier.

“Now, those negotiations are going on. We made some progress... We still have some things to do,” he had said.

Jaishankar said that the two countries “gone back to where the situation was in 2020” after the foreign ministry’s announcement.

“We can say that the disengagement process with China has been completed. There are areas which for various reasons after 2020 because they had blocked us so we had blocked them. So what has happened is we have reached an understanding, which will allow the patrolling,” he said.

However, there was no mention in particular about withdrawal of tens of thousands of additional troops stationed by the two countries along the border in Ladakh, neither was there any statement from Beijing on the matter.

Strategic areas

Demchok is close to the southernmost part of the LAC in Ladakh, near the state border with Himachal Pradesh. During the 1962 conflict, a village in the region was the site of Chinese incursion but PLA troops did not venture beyond. This was the first place where China prevented Indian authorities from building civic infrastructure, including a road.

Depsang Plains is a flat area of Daulat Beg Oldie (DBO) in the northwest portion of the disputed Aksai Chin region in the Union territory of Ladakh. The land was occupied by China until India began making headway into the region and now has a road leading to it.

The flat terrain allows for easy movement of troops and vehicles, including tanks. Galwan Valley was the site of clashes in 1962 and is a key strategic area. It is also the place where Shyok and Galwan rivers meet. It has India’s Darbuk-Shyok-DBO (DSDBO) road, which leads to DBO — a military base with an airstrip — passes near the valley.

The Galwan region provides a vantage point overlooking the road to DBO for China.

Tensions since 2020 clashes

Foreign secretary Vikram Misri said on Monday the agreement made by Indian and Chinese negotiators after weeks of talks aimed at resolving the issues which arose after the Chinese military's action in eastern Ladakh in 2020.

The two countries' troops clashed on May 25, 2020, on the north bank of the Pangong Tso lake. Further, there was a major clash on the night of June 15 between an Indian patrol and PLA troops in Galwan Valley with casualties on both sides.

There were satellite images showing China constructing bunkers and trenches and setting up tents along Pangong Tso lake amid claims and counter-claims regarding the capture of Indian territory in May and June 2020. China aggressively built up its presence along the LAC in Ladakh, including by bringing in troops and armoured vehicles.

A Wide-Ranging Dispute

The Line of Actual Control was formed after the 1962 Sino-Indian war. But it is not properly demarcated and has been the focus of a long-standing dispute between the two countries. It involves areas stretching from Arunachal in the east to Ladakh in the north.

LAC divides the areas of physical control rather than territorial claims. According to India, the de facto border is 3,488km long, but China says it is considerably shorter.

Beijing claims about 90,000 sq km of India's territory in the northeast, including in Arunachal, while New Delhi says 38,000 sq km of land in China occupied Aksai Chin should be part of Ladakh.

<https://economictimes.indiatimes.com/news/defence/what-are-the-implications-of-india-reverting-to-2020-lac-patrolling-terms-with-china/articleshow/114450538.cms>

THE ECONOMIC TIMES

Wed, 23 Oct 2024

Army showcases integration of indigenous technologies at training exercise

The Army concluded on Tuesday its integrated fire and manoeuvre training exercise Swavlamban Shakti at the Babina Field Firing Ranges. More than 1,800 personnel, 210 armoured vehicles, 50 specialist vehicles, and multiple air and aviation assets participated in this exercise conducted by White Tiger Division under Sudarshan Chakra Corps over six days from October 17.

The Sudarshan Chakra Corps is a strike corps of the Army and is headquartered in Bhopal. This large-scale manoeuvre and live-fire exercise focused on testing New Technology Equipment (NTEs) from the Indian defence industry, to shape future combat strategies.

The exercise showcased the Army's integration of indigenous technologies, aligning with the government's Aatmanirbhar Bharat initiative, an Army release said.

The concluding event was attended by Lieutenant General Dhiraj Seth, General Officer Commanding-in-Chief, Southern Command, Lieutenant General Prit Pal Singh, GOC Sudarshan Chakra Corps and other senior officials from army and industry partners.

"Exercise Swavlamban Shakti underscores our commitment to self-reliance. The Indian industry's innovations are transforming our capabilities, and we will continue to integrate advanced technology into our operations," said Lieutenant General Dhiraj Seth.

Over 40 industry partners, including DRDO, Tata Advanced Systems, Bharat Forge, and several emerging defence startups, provided over 50 cutting-edge technologies that were tested under battlefield conditions, the Army release stated.

These included Swarm and Kamikaze drones for precision strikes and reconnaissance, logistic swarm drones for rapid troop resupply in contested zones, and hand-held drone Jammers for neutralising enemy drones.

Technologies such as Software Defined Radio-based mobile network systems for secure and real-time communications, robotic mules and All-Terrain Vehicles (ATVs)/Light Armoured Multipurpose Vehicles (LAMVs) for enhanced mobility and troop support were deployed.

Additionally, LASER-based communication systems and directed energy weapons for next-generation aerial defence and long-endurance UAVs for extended surveillance missions technologies were integrated into war-fighting drills or Tactics Techniques and Procedures (TTPs), paving the way for revolutionising the way the Army approaches complex modern battle scenarios, the release said.

The highlight of the event was the Southern Star drone fair held on October 21 and 22 which provided a platform for MSMEs, startups, and defence innovators to showcase the latest drone and anti-drone technologies.

"The drone mela underscores our resolve to innovate and adapt rapidly to emerging technologies. It offers a window into the evolving requirements of the armed forces while highlighting government support for the drone industry," Lt Gen Seth stated.

The event reaffirmed the Army's commitment to forging strong ties with the private sector, as it seeks to modernise its forces and ensure readiness for the future battlefield.

This collaboration, coupled with the drive for Aatmanirbhar Bharat, is positioning India as a leader in defence technology innovation, the release added.

<https://economictimes.indiatimes.com/news/defence/army-showcases-integration-of-indigenous-technologies-at-training-exercise/articleshow/114471547.cms>

THE ECONOMIC TIMES

Tue, 22 Oct 2024

First of two stealth frigates being built in Russia likely to be commissioned in Dec: Sources

INS Tushil, the first of two stealth frigates being built in Russia, is likely to be commissioned in December, sources said on Tuesday. India and Russia signed an agreement in 2016 to build four stealth frigates, two of which were to be constructed at a Russian shipyard, while the remaining two frigates were to be built in India by the Goa Shipyard Limited.

'Tushil' is the first of the two Russian-made ships and this will be followed by 'Tamal', the sources said. The first of the two stealth frigates being built in Russia, 'Tushil', is likely to be commissioned in December this year, a source in the defence establishment said.

Reportedly, construction and deliveries of these have been delayed due to COVID-19 pandemic, the Ukraine conflict and western sanctions.

<https://economictimes.indiatimes.com/news/defence/first-of-two-stealth-frigates-being-built-in-russia-likely-to-be-commissioned-in-dec-sources/articleshow/114473632.cms>

The Tribune

Wed, 23 Oct 2024

Theatre command plan to be sent to govt soon: Army Chief

Indian Army Chief Gen Upendra Dwivedi has provided the first official update on the creation of integrated theatre commands for the Indian Armed Forces, stating that the plan has reached a “mature” stage and is ready to be presented to the government for decision-making. Speaking at the annual Col Pyara Lal Memorial Lecture at the United Services Institution (USI) in New Delhi, General Dwivedi highlighted the progress made toward establishing these commands.

The Army Chief mentioned that there is significant consensus among the three service Chiefs and the Chief of Defence Staff (CDS) on the plan. “We have been able to devise a complete structure and plan nearly everything. I think now it’s at a mature stage to be presented to our decision-makers,” he said.

Unique structure for India

Theatre commands, which aim to streamline and integrate the operations of the Army, Navy, and Air Force, are being designed with India’s unique security conditions in mind. General Dwivedi explained that the commands are meant to address both short-term threats and long-term

challenges. He also noted that the existing threat spectrum necessitates an integrated response from the armed forces.

The Army Chief outlined the progress made so far, including the establishment of joint logistics nodes, with three already fully operational. He emphasised advancements in joint doctrines, standard operating procedures, and the creation of maintenance and repair organisations. “We have made great progress on joint doctrines and standard operating procedures,” he added.

According to General Dwivedi, around 200 issues related to jointness between the forces have been identified, and approximately 30 per cent of them have already been addressed. A common operational planning process is also in the works, incorporating wargames, communication technology, common digital maps, geo-referencing systems and the aggregation of UAVs (unmanned aerial vehicles). Intelligence-gathering resources are being harmonised to support integrated operations.

<https://www.tribuneindia.com/news/india/theatre-command-plan-to-be-sent-to-govt-soon-army-chief/>

THE TIMES OF INDIA

Tue, 22 Oct 2024

IIM-I signs MoU with Army Training Command

The Indian Institute of Management (IIM), Indore, has entered into a memorandum of understanding () with the Army Training Command (ARTRAC), Shimla, to conduct specialised Management Development Programmes (MDPs) focusing on logistics and supply chain management.

This MoU, which will remain in effect for three fiscal years—2025-26, 2026-27, and 2027-28—aims to augment the knowledge and operational efficiency of senior officers in the Indian Army.

Professor Himanshu Rai, director, IIM Indore, said, "At IIM Indore, we believe in shaping leaders who can respond to the complex and dynamic challenges of today's world. Through this MoU, we are honoured to contribute once again to the Indian Army's readiness and operational excellence by imparting advanced management skills. This programme aligns with our mission of nation-building and supporting our defence forces with intellectual and professional rigour."

The comprehensive syllabus for the MDPs will encompass essential management concepts, including supply chain metrics, risk management, agri-based supply chain, and contract negotiations.

Additionally, officers will have the opportunity to delve into advanced topics such as cold chain management, reliability-centred maintenance, and e-procurement.

Major General MK Mathur said, "The Indian Army has always been at the forefront of adapting to new strategies and technologies to maintain operational superiority. This MoU with IIM Indore

will enable our officers to gain invaluable insights into modern logistics and supply chain management, ensuring that our forces remain agile, responsive, and efficient in all situations."

Air Commodore AVG Patnaik said that recognised as one of the top management institutes in India, IIM Indore's expertise in cutting-edge management education will play a pivotal role in enhancing the strategic and logistical capabilities of the Army, helping our defence personnel stay ahead in an everevolving global landscape.

<https://timesofindia.indiatimes.com/city/indore/iim-indore-and-army-training-command-collaborate-for-advanced-logistics-training/articleshow/114471779.cms>

THE  **HINDU**

Tue, 22 Oct 2024

Russian submarine visits Kochi

Russian submarine *Ufa* that docked here on Tuesday was given a warm welcome by the Indian Navy.

A symbol of the 'unshakable friendship' between India and Russia, the maritime cooperation between the two countries continues to sail strong, said the Defence PRO (Kochi) in a post on X. The visit of the submarine coincides with the visit by Prime Minister Narendra Modi to Russia for the 16th BRICS summit.

In August, Russian naval ships Varyag and Marshal Shaposhnikov had called at Kochi on a goodwill visit. The visit saw professional interactions, cross-deck visits, social engagements, and friendly sports fixtures.

<https://www.thehindu.com/news/cities/Kochi/russian-submarine-visits-kochi/article68782216.ece>

THE  **HINDU**

Tue, 22 Oct 2024

Reliance Infra arm to set up explosives, ammunition, small arms factory in Maharashtra

Reliance Infrastructure Ltd. of the Anil Ambani-led Reliance Group on Tuesday announced the setting up of an integrated project for manufacturing of explosives, ammunition and small arms in Ratnagiri, Maharashtra.

This project will be undertaken by Reliance Infrastructure-promoted Reliance Defence Ltd. The company said it has been allotted 1,000 acre of land in Watad Industrial Area of Ratnagiri,

Maharashtra to develop Dhirubhai Ambani Defence City (DADC) which, it said, would be the 'largest greenfield project' in defence sector in India 'by any private sector company.'

Reliance Infrastructure said it will invest more than ₹10,000 crore over the next 10 years in this project. The ammunition range will include small, medium, large caliber and terminally-guided munition (TGM).

The small arms portfolio will address export markets, both civil and military applications, the company said. The proposed projects envisage potential joint ventures with up to six leading Global Defence Companies, it added.

Reliance Infrastructure's wholly owned subsidiaries Jai Armaments Ltd. and Reliance Defence Ltd. already have licences from the Government of India for manufacturing of arms and ammunition.

<https://www.thehindu.com/business/reliance-infra-arm-to-set-up-explosives-ammunition-small-arms-factory-in-maharashtra/article68783853.ece>



Tue, 22 Oct 2024

India-Germany talks to focus on defence, trade, renewable energy and skilled migration

India and Germany are set to hold high-level talks later this week, with defence, trade, renewable energy, mobility, and skilled migration topping the agenda. These discussions come as part of the 7th Intergovernmental Consultations (IGC), which will see German Chancellor Olaf Scholz visit India from October 24 to 26, 2024, at the invitation of Prime Minister Narendra Modi.

The IGC serves as a framework for ministers from both countries to discuss and collaborate on various sectors, reporting their findings and proposals to the heads of government.

The upcoming talks come at a crucial time, as both nations seek to strengthen their already robust bilateral ties. The visit will focus on fostering collaboration in several critical areas, including defence cooperation, enhanced economic partnerships, renewable energy, and the mobility of skilled professionals.

The two countries have a longstanding strategic partnership that dates to 2000, and the upcoming consultations are expected to deepen this relationship across multiple sectors.

Defence and Security Cooperation

Defence cooperation will be a key focus during Chancellor Scholz's visit. Germany and India have been working to expand their military collaboration in recent years, with an emphasis on bolstering their defence-industrial partnership and enhancing resilience in supply chains. As reported by Financial Express Online, Defence Minister Rajnath Singh recently held talks with his German

counterpart Boris Pistorius, where both leaders reviewed ongoing defence cooperation efforts, including joint exercises in the air and maritime domains.

According to the Ministry of external affairs (MEA) one of the highlights of the visit will be a scheduled port call by the German naval frigate “Baden-Wuerttemberg” and combat support ship “Frankfurt am Main” in Goa as part of Germany’s Indo-Pacific deployment.

This move underscores Germany’s growing focus on the Indo-Pacific region, which aligns with India’s strategic interests in promoting security and stability in the area.

Recently, the German envoy to India, Philipp Ackermann, noted the significant improvements in military-strategic cooperation between the two nations, citing increased German defence production and sales in India. The discussions during the IGC will likely explore ways to further enhance defence collaborations, including technology transfers, joint ventures, and defence manufacturing partnerships.

Boosting Trade and Economic Ties

The 7th IGC will also focus heavily on expanding economic cooperation between India and Germany. Both nations are keen to explore opportunities for deeper trade ties, particularly in the context of the Asia-Pacific region. On October 25, Prime Minister Modi and Chancellor Scholz will address the 18th Asia Pacific Conference of German Business (APK 2024), which will take place in New Delhi. This biennial event brings together business leaders, executives, and political representatives from Germany and Indo-Pacific countries to discuss trade and investment opportunities.

With over 650 business leaders and CEOs expected to attend, the conference is seen as a crucial platform to boost trade and investment between India and Germany. The event will also highlight the growing importance of the Indo-Pacific region in global trade, with India positioning itself as a key player in this dynamic economic landscape. The business leaders will explore sectors such as manufacturing, technology, infrastructure, and clean energy, which offer significant opportunities for collaboration.

Renewable Energy and Green Development

Germany has long been a leader in renewable energy, and this expertise will play a critical role in the upcoming talks. Both countries have committed to strengthening their Green and Sustainable Development Partnership, an initiative launched during the 6th IGC in 2022. The partnership focuses on promoting clean energy technologies, sustainable development practices, and climate resilience.

India, which has set ambitious renewable energy targets, stands to benefit from Germany’s experience in areas like solar power, wind energy, and hydrogen technologies. The two nations will explore avenues for deeper collaboration in renewable energy, with a focus on innovation, technology transfer, and joint research initiatives. As part of its green development goals, India aims to transition towards a more sustainable energy mix, and Germany’s support will be instrumental in achieving this vision.

Skilled Migration and Mobility

Another critical issue that will be discussed during Chancellor Scholz's visit is the mobility of skilled professionals between India and Germany. The two nations signed the Migration and Mobility Partnership Agreement (MMPA) two years ago, which has since facilitated the movement of skilled workers, professionals, and students between the countries. With India having a large pool of highly skilled talent, particularly in sectors such as information technology, engineering, and healthcare, Germany views this partnership as a way to address its own labour shortages.

German companies have expressed significant interest in attracting skilled workers from India, with several German states maintaining offices in India to connect with local talent. The discussions during the IGC are expected to focus on expanding these opportunities, with both governments working to make it easier for Indian professionals to find employment in Germany.

A Strengthening Partnership

The upcoming visit of Chancellor Scholz marks an important moment in India-Germany relations. As both nations celebrate 50 years of Science and Technology collaboration and prepare for the 25th year of their strategic partnership, the IGC provides a platform to strengthen ties across multiple sectors. From defence and trade to renewable energy and skilled migration, the consultations will lay the groundwork for deeper cooperation that reflects the shared values and interests of both countries.

As Chancellor Scholz travels to India with a delegation of senior ministers, the visit is expected to reinforce the importance of the Indo-German relationship in addressing global challenges and promoting mutual prosperity. With discussions set to cover key regional and global developments, the two leaders will also explore ways to work together on broader international issues, further enhancing their strategic partnership.

<https://www.financialexpress.com/world-news/india-germany-talks-to-focus-on-defence-trade-renewable-energy-and-skilled-migration/3646877/>



Tue, 22 Oct 2024

Global aerospace, defence sector plagued by employee crunch

There is a growing global dearth of employees in the aerospace and defence sector industries, particularly in drone technology, semiconductor engineering, and advanced manufacturing, a report by Huntr, a UAE-based AI-driven platform says.

With a focus on data analytics and workforce management, Huntr provides valuable insights into labour market trends and helps connect skilled workers to sustainable projects.

A Huntr release said on Tuesday, "The global Aerospace & Defense (A&D) industry is grappling with an alarming talent shortage triggered by the rapid expansion of air travel and rising defense expenditures. As demand for specialised skills continues to soar, industries are struggling to fill

key positions, particularly in drone technology, semiconductor engineering, and advanced manufacturing.”

Samuel Joy, Founder and CEO of Huntr, said, “We should steer away from viewing this talent shortage only as an immediate challenge but rather understand it as a key indicator of the shifting landscape in the A&D sector.”

“The industry is rapidly evolving, and specialised roles are becoming even more critical. The time required to fill these positions has significantly increased, taking an average of 90 to 120 days. We cannot fill such gaps through traditional recruitment strategies. Through AI-backed recruitment, closing these positions in as little as 60 days is quite possible.”

In aerospace manufacturing, Boeing and Airbus have also reported difficulties in maintaining production schedules due to the scarcity of machinists, welders, and chip engineers. This shortage can be further detrimental due to the increasing integration of advanced technologies, including AI-driven systems and sophisticated avionics, boosting the demand for software engineers and chip technicians.

Huntr has called for targeted upskilling efforts and workforce development initiatives to prevent the further widening of the skills gap.

The global shortage of semiconductor engineers is projected to exceed one million by 2030. The shortage is especially acute in sectors requiring specialised knowledge in avionics, aerospace electronics, and chip design.

Despite significant investments in semiconductor production in the US and Europe, the industry is facing difficulties in filling key positions in advanced fabs and chip engineering roles critical to defence projects.

In the drone sector, global market demand is expected to surpass \$90 billion by 2025, fueled by both commercial and defence applications.

However, the growing reliance on Unmanned Aerial Vehicles (UAVs) in military settings has led to a severe shortfall in skilled drone technicians and operators. There is a very evident and escalating need for qualified drone operators, particularly in military environments, where UAV usage has become a key strategic asset, the Huntr release added.

Welding, another critical area for aerospace and defence manufacturing, is also facing a labour crisis. It is estimated that the US will see a shortfall of 4,00,000 welders by 2024, a trend mirrored globally. This shortage is particularly detrimental to industries like aerospace, where welders skilled in advanced materials, such as aluminum alloys and titanium, are essential for constructing aircraft and defence systems.

<https://www.theweek.in/news/defence/2024/10/22/global-aerospace-defence-sector-plagued-by-employee-crunch.html>

U.S. Uses ‘Canadian Shoulders’ To Fire On India; Washington Pushing India Into Sino-Russian Camp: OPED

There are two ways of looking at India and China agreeing to end the 54-month-old military standoff in eastern Ladakh and resume joint patrolling along the Line of Control in the disputed border areas so as to maintain peace and tranquillity. The convenient way is to describe it as an important prelude to the top leaders of India, China, and Russia meeting during the 16th BRICS summit in Russia (September 22-23).

In fact, this “highly positive development” took place on the eve of Indian Prime Minister Narendra Modi’s departure for the Kazan summit. There, he will interact with Russian President Vladimir Putin, and there is every possibility of him meeting Chinese President Xi Jinping separately on the sidelines of the summit.

“Building upon the Annual Summit held in July 2024 in Moscow, my visit to Kazan will further reinforce the Special and Privileged Strategic Partnership between India and Russia”, Modi said this morning (September 22) while departing for Russia. He did not say anything about China or Xi, but reports suggest that there will be parleys now that such an important breakthrough has taken place in Ladakh.

India-China Breakthrough: A Message To USA?

But there is another way that the Ladakh-breakthrough could be seen. And that could be conveying a strong message to the United States that India has the option of reconsidering its otherwise growing ties with Washington, given the way the primacy is being given to the Khalistani terrorists in dictating the contours of Indo-US relations, along with the narratives that India under Modi is becoming an autocratic country without any religious freedom.

Perhaps not enough attention is given to the fact that there have been occasions when India wanted to be closer to the U.S., but the rebuffs it received from the latter pushed it closer to Moscow. U.S. diplomat and author Dennis Kux’s book, “India and the United States: Estranged Democracies,” documents the tortuous strategic relationship between the United States and India between 1947 and the early 1990s, despite the two sharing concerns about communism, Islamic fundamentalism, ideals of democracy, liberalism, and pluralism.

Given their similarities, India and the U.S. could have been “natural partners” in more than one sense. But if that has not happened, it is more due to the U.S. not proving itself to be a dependable friend. Significantly, if one reads the CIA’s highly “secret” documents on “Indo-Soviet Relations that were declassified in 2008, it becomes apparent that the then Soviet Union was always treated with suspicion by India’s two Prime Ministers – Jawaharlal Nehru and Indira Gandhi.

These declassified documents show how Indian communists, who supported the Soviet Union, actively and violently opposed the Nehru government. Up until the 1950s, Indo-Soviet relations were limited to trade, cultural, and diplomatic exchanges. Things changed after Nehru's visit to Moscow in 1955 at the invitation of Nikita Khrushchev. But that was the time when the United States wooed Pakistan to become a member of the CENTO and SEATO military alliances. Washington did not support India in the United Nations on the issue of Kashmir, which Moscow readily did.

CIA documents say that India did not like Moscow's so-called neutral role during the India-China conflict. In fact, Indo-US relations improved substantially between 1962 and 1965. In those three years, the United States provided India with both grant assistance and military sales. But all this came to a halt with the 1965 India-Pakistan war. Predictably, Moscow took advantage of it, though New Delhi thought that it was being forced to cease-fire to end the war to establish Moscow as a "peace-maker."

CIA has also revealed how India resented the then USSR's military cooperation with Pakistan following the Indo-Pak War and Soviet maps showing disputed Himalayan border areas as Chinese, not Indian, territories. Understandably, India did not respond to Russian leader Leonid Brezhnev's proposal for "Asian Collective Security" and agreed only to the bilateral Indo-Soviet Treaty of Friendship and Cooperation in 1971, mostly due to Pakistani actions in Bangladesh, which were supported by the United States.

The point that emerges is that there has been a strong linkage between New Delhi-Washington and New Delhi-Moscow relations. Whenever two democracies were estranged, New Delhi came closer to Moscow, and this was reflected in the economic ties, too. For instance, as the late U.S. Ambassador John Kenneth Galbraith clearly mentioned in his "Ambassador's Journal," the famous Bokaro Steel Plant that Russia helped in the establishment in Jharkhand state, was supposed to be built with American aid and collaboration for which he had convinced President Kennedy.

On May 10, 1963, he wrote, "The President came out strongly on the side of helping the Indians build the Bokaro steel plant, and he said it should be supported in the public sector. It was a marvelous, no-nonsense statement."

However, when after Kennedy's assassination in November that year, the U.S. Congress refused to finance the building of the plant, it went to the USSR, which started building it in 1964. One could argue that the Cold War years saw more downs than ups in relations between India and the U.S. After the end of the Cold War in the 1990s, the relationship has seen more ups than downs, be it in the areas of security, space, technologies, trade, or common global issues.

America's nearly 5 million-strong Indian-origin diaspora is now well integrated into American politics, administration, and business, with an Indian-origin candidate in the running for President. However, the last few months have seen a carefully orchestrated narrative in the United States, to which American policymakers, civil servants, and intelligentsia are parties, that projects India to be an enemy country that is after the lives of American citizens. India is being projected as a country where democracy is doomed. So much so that American courts would not mind now arresting India's National Security Advisor if he visits the U.S. And getting the clue, American satellite state

Canada expels Indian diplomats on the spurious ground that they were on the killing mission of “Canadian nationals.”

Who are these “citizens”? They are a bunch of hard-core terrorists who want to break India’s unity and integrity and establish a separate country called Khalistan. Their leader, Guruwant Singh Pannun (a dual citizen of the U.S. and Canada), has threatened to bomb Air India flights and kill non-Sikh Indians and diplomats. If, for the United States (or, for that matter, Canada), the lives of Khalistanis (who are said to be facing manufactured, not real, threats by ‘Indian agents’) are dearer than the partnership of a country like it, then let it be.

They need to be told that India can do business with Russia and China, which the Americans perceive as their existential threats. India seems to have been pushed by them to do this.

<https://www.eurasiantimes.com/u-s-uses-canadian-shoulders-to-fire-on-india/>

Science & Technology News



Press Information Bureau
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Ministry of Science & Technology

Tue, 22 Oct 2024

Novel polymer nanocomposite creates base for road safety sensor for accident prone turnings

A prototype of a road safety sensor that can be implanted at high-risk turning points where accidents are frequent, has been developed from a new polymer nanocomposite with pressure sensing and energy harvesting properties.

Scientists are constantly trying to develop new materials for self-powered energy generating and pressure sensing devices and using them for several applications. Flexible, portable, long-lasting, and wearable sensors and energy harvesting devices can play an essential part in today's artificial intelligence era. Polymers and nanoparticles serve critical roles in today's flexible electronic systems.

Researchers from Centre for Nano and Soft matter Sciences (CeNS), Bengaluru have developed a polymer nanocomposite for pressure sensing and energy harvesting applications and used it to invent a prototype of a road safety sensor.

The prototype may be implanted in the movable ramp and secured to the road just 100 meters before acute and fatal turning points. Thus, any vehicle approaching from the opposite side will see

the signal on a screen and be alerted. This prototype works on the principle of piezoelectric effect so it can generate energy that can be stored and used further to power electronic gadgets as well.

The novel polymer nanocomposite, from which the prototype has been crafted, has been made of transition metal dichalcogenide.

The scientists, Shri Ankur Verma, Dr. Arjun Hari Madhu, Dr. Subash Cherumannil Karumuthil synthesized vanadium disulfide (VS₂) with a very high surface charge which has the capacity of improving the piezoelectric characteristics of polymers. Polymer nanocomposite films were prepared by integrating these nanoparticles at various concentrations into a well-known piezoelectric polymer, poly (vinylidene difluoride) (PVDF).

Further they investigated how the surface charge of nanoparticles will affect the piezoelectric properties of polymer nanocomposite. In addition, a laboratory-scale demonstration of a road safety sensor and smart door was established, with the prototype as a pressure sensor.

This study demonstrates that PVDF-VS₂ nanocomposites will provide significant value to flexible, long-term energy generating and pressure sensing applications. This work was recently published in the Journal of Material Chemistry A and an Indian patent application filed.

This study is part of an ongoing project “Materials for self powered energy generating and pressure sensing devices” funded by Department of Science and Technology under INSPIRE –faculty fellowship programme.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2061992>



Tue, 22 Oct 2024

Scientists Create Soundscape of Earth’s Magnetic Field Flip from 41,000 Years Ago

Researchers discovered Earth’s polarity flip in terms of sound with the help of art and science. This was done by combining data from the Laschamp event when for thousand of years Earth’s magnetic field flipped in the wrong way around 41 000 years ago. During the event the magnetic field of the whole earth decreased to only 5% of the present value and cosmic radiation entered the atmosphere freely.

This weakened magnetic shield affected Earth’s environment HRESULT, and scientists are now able to listen it. The primary manifestation of geomagnetic reversal currently detailed in the Laschamp event is a brief flip of the planet’s magnetic poles. Although this change only occurred relatively recently in geological terms – in a ‘geological blink of an eye,’ in fact – it led to the drastic tearing away of the so-called ‘protective’ magnetic field.

Cosmic rays and the sun added up exposure on the planet, which may have had an impact on the life on the Earth. Scientists collaborating at the Technical University of Denmark, and the German Research Centre for Geosciences have recently translated this event into a new form, namely sound Using data from ESA's Swarm satellite mission.

Creating the Tone of Earth's Magnetic Reversal

Researchers translated the motion of the magnetic field lines of the Earth during the Laschamp event into sound for the soundscape. The integration of natural materials are sound – creaking woods, falling rocks – with processed sounds that are simultaneously recognisable and definable. It shows how sound can be used to create a whole new layer of meaning while at the same time contributing to the work's credibility.

The end result is an experience that is hauntingly room-like and would have produced the acoustics of the Earth's magnetic field during this process. An earlier version of the soundscape relocating Swarm satellite data was implemented using 32 speakers to signify the change of magnetic field on Earth at various sites over the past 100000 years in a public square in Copenhagen.

The Journey of Learning about Earth's Magnetic Field through Liberate Sound

The Swarm constellation of satellites developed by ESA remains an invaluable source of information for defining the Earth's magnetic field.

The Swarm mission records the strength and direction of the magnetic fields from the core, mantle, crust, oceans, ionosphere and magnetosphere of the planet. Such data are crucial for the understanding of events such as geomagnetic reversals, such as the Laschamp event and other phenomena within the Earth's core. Hence this creative auditory perspective presents an effective approach of enlightening the public concerning the challenging magnetic history of our planet.

<https://www.news9live.com/science/scientists-create-soundscape-of-earths-magnetic-field-flip-from-41000-years-ago-2729672>

THE TIMES OF INDIA

Wed, 23 Oct 2024

Electronic warfare & AI boost demand for cybersecurity talent

Till quite recently, having a robust cybersecurity solution in place used to be an afterthought. Today, fear over the weaponisation of everyday electronic devices, following the pager and walkietalkie explosions in Lebanon, and the rapid increase of AI-powered cyberattacks, cybersecurity is centrestage. Cybersecurity solutions, and cybersecurity talent are in big demand.

Himanshu Kumar Gupta, senior director of government business & channels for India & Saarc at Trend Micro, says as smart homes become more common, the potential entry points for cybercriminals also expand. Malicious actors, he says, can exploit vulnerable consumer devices to

gain access to personal data, compromise individual privacy, and even facilitate larger-scale attacks, such as Distributed Denial of Service (DDoS) attacks.

Governments, he says, are beginning to recognise that compromised consumer devices could pose national security risks. “It is likely that nations will respond by introducing more stringent cybersecurity regulations for consumer devices. This trend may have several implications, including an increase in job opportunities in the cybersecurity sector, particularly for tech professionals,” he says.

For such professionals, this shift signifies a growing demand for expertise in securing consumer technology, says Ajay Biyani, VP for Apac, India, and MEA at Securonix.

“The expansion of regulations will create a need for cybersecurity engineers, ethical hackers, and compliance specialists to ensure devices meet these new guidelines. Additionally, companies will need skilled cybersecurity experts to develop secure products, perform risk assessments, and manage ongoing compliance efforts. Furthermore, there will be increased opportunities to develop security solutions for IoT, smart homes, and other interconnected environments.”

Huzefa Motiwala, senior director of systems engineering for India & Saarc at Palo Alto Networks, says the Indian government has demonstrated a forward-thinking approach to enhancing cybersecurity, with stringent regulations such as the Code of Practice for Securing Consumer IoT and the Digital Personal Data Protection Act – both aimed at protecting consumer devices and personal data. Huzefa says as the regulatory landscape evolves, it will spur demand for skilled cybersecurity professionals.

Only AI can beat AI

The rise of AI-powered cyberattacks is the other pressure point facing govts and industry. Kaushik Ray, co-founder and COO of WhizHack Technologies, says AI generated attacks use social engineering skills to create personalised, human-like messages that appear credible and convincing.

“They use attack vectors like phishing, ransomware, and deepfakes, DDoS attacks that can adapt to network defences, brute force attacks that can rapidly guess passwords, and chatbots that can simulate human conversation to extract personal information,” he says.

Pratim Mukherjee, senior director of engineering at McAfee, says there will be an increased demand for AI-powered cybersecurity technologies to counter AI-powered threats. And that will lead to an expansion of roles within the cybersecurity sector to deal with the emerging threats powered by AI.

“Cybersecurity professionals will need to adapt and acquire new skills to tackle these emerging challenges. They will need to stay abreast of the latest developments in AI and machine learning and understand how these technologies can be used both as a threat and a defence mechanism in the realm of cybersecurity,” says Mukherjee.

<https://timesofindia.indiatimes.com/technology/times-techies/electronic-warfare-ai-boost-demand-for-cybersecurity-talent/articleshow/114484323.cms>

