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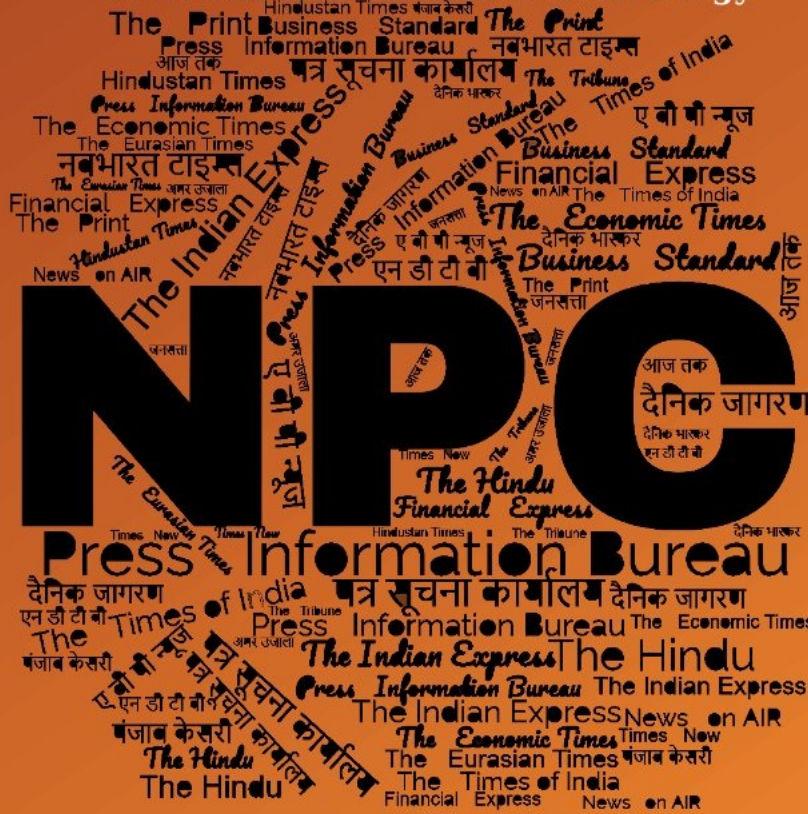
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समाचार पत्रों से चयित अंश Newspapers Clippings

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

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CONTENTS

S. No.	TITLE	Page No.
DRDO News		1-3
DRDO Technology News		1-3
1.	प्रलय जैसी बैलिस्टिक मिसाइल से बढ़ेगी सुरक्षाबलों की ताकत, DRDO की भूमिका बेहद अहम	1
2.	India should become World's Innovation Hub: Former DRDO Chief	2
Defence News		3-23
Defence Strategic: National/International		3-23
3.	Defence Production Department hits 100% Target in Special Campaign 3.0 Streamlines Government Processes	3
4.	Crest Unveiling Ceremony of Indian Navy's Project 15b Warship "Surat"	5
5.	Maritime Security Meeting between Indian Navy and Sri Lankan Navy	6
6.	Chanakya Defence Dialogue 2023 Concluded- Shaping Framework for Collaborative Security	6
7.	IL-38s that heralded Long-Range Surveillance for the Navy fly into sunset	11
8.	Army set to Induct 1st Batch of Apache Attack Helicopters	12
9.	Sweden's Saab bags India's First 100% FDI In Defence Project	13
10.	Work starts on shaping First National Security Strategy, long wait ends	14
11.	India's outlook focuses on Respect for Sovereignty of all Nations: Army Chief	15
12.	India-Nepal border forces' Talks to Begin in Delhi Tomorrow	16
13.	Bhutan's King in India as Beijing-Thimpu speed up border talks: Why New Delhi is concerned	16
14.	Russian Nuclear Submarine Test Launches Bulava Intercontinental Missile	18
15.	Pakistan Army Faces its Worst Crisis since 2014	19
16.	US and Arab Partners Disagree on the need for a Ceasefire as Israeli Airstrikes kill more civilians	20
17.	China urges Myanmar to Cooperate on Maintaining Stability on Border	23
Science & Technology News		24-28
18.	Inauguration of DSIR-CRTDH Conclave-2023 on 6th November 2023 at Indian Institute of Technology, Gandhinagar supported by Department of Scientific and Industrial Research, Ministry of Science and Technology	24
19.	New Technology for Converting CO2 to CO holds potential for Carbon Capture and Energy Saving in the	25

20. IIT-Kharagpur Study: India's Surface Temperature may *The Indian Express* 26
Increase by 1.1 to 5.1 Deg Celsius by 2100
-

अमरउजाला

Sun, 05 Nov 2023

प्रलय जैसी बैलिस्टिक मिसाइल से बढ़ेगी सुरक्षाबलों की ताकत, DRDO की भूमिका बेहद अहम

भारत की सीमाओं की रक्षा करने में सैनिकों (थल, जल और वायुसेना) के अलावा रक्षा अनुसंधान और विकास संगठन (डीआरडीओ) की भूमिका भी बेहद अहम है। रक्षा मंत्रालय से जुड़े सूत्रों ने बताया है कि आने वाले समय में सेना की रॉकेट फोर्स के पास प्रलय जैसी बैलिस्टिक मिसाइल के अलावा मध्यम दूरी तक मार करने वाली मिसाइलों की ताकत भी होगी। प्रलय के बाद, सेना की रॉकेट बल यूनिट के लिए पारंपरिक भूमिकाओं में मध्यम दूरी की बैलिस्टिक मिसाइलों का विकल्प चुना जा सकता है।

सेना के रॉकेट बल में प्रलय को शामिल करने पर जोर

खबरों के अनुसार, हाल के दिनों में रक्षा बलों को डीआरडीओ के वैज्ञानिकों की तरफ से विकसित किए गए प्रलय बैलिस्टिक मिसाइलों को शामिल करने की मंजूरी मिली है। सूत्रों के मुताबिक सेना के रॉकेट बल में पारंपरिक भूमिकाओं में इस्तेमाल करने के लिए महत्वपूर्ण संख्या में प्रलय को शामिल किया जाएगा।

पारंपरिक भूमिकाओं में 1,500 किमी तक का लक्ष्य

सुरक्षा प्रतिष्ठान- डीआरडीओ से जुड़े सूत्रों के हवाले से एएनआई की रिपोर्ट में कहा गया, सुरक्षाबल गैर-परमाणु पारंपरिक भूमिकाओं में इन बैलिस्टिक मिसाइलों का उपयोग करके मध्यम दूरी पर हमला करने की क्षमता विकसित करने की दिशा में काम कर रही हैं। प्रलय मिसाइल की मारक क्षमता 150-500 किमी के बीच के लक्ष्य हैं। सूत्रों ने बताया कि सेनाएं लंबी दूरी की बैलिस्टिक मिसाइलों के विकल्प पर विचार कर सकती हैं। केवल पारंपरिक भूमिकाओं में 1,500 किमी तक का लक्ष्य भेद सकती हैं।

चीन और पाकिस्तान की रणनीति

मिसाइलें मध्यम दूरी की श्रेणी में हो सकती हैं। उनका अत्यधिक गतिशील होना आवश्यक होगा। गौरतलब है कि चीन और पाकिस्तान दोनों ने सामरिक उद्देश्यों के लिए बैलिस्टिक मिसाइलों को तैनात किया है। सूत्रों के मुताबिक डीआरडीओ द्वारा विकसित 'प्रलय' मिसाइलें, सैन्य जरूरतों के अनुसार सीमा में और वृद्धि के लिए तैयार हैं।

DRDO ने मिसाइलों के कई संस्करण विकसित किए

मध्यम दूरी की मारक क्षमता वाली मिसाइलें रणनीतिक बलों के शस्त्रागार में मिसाइलों की मौजूदा सूची से ही हो सकती हैं। बता दें कि भारत के सुरक्षाबलों के लिए डीआरडीओ अग्नि श्रृंखला की हथियार प्रणालियों सहित

मध्यम से लंबी दूरी तक मार करने में सक्षम मिसाइलों के कई संस्करण विकसित कर चुकी है।

मिसाइलों के लिए अलग यूनिट बनाने पर विचार

सूत्रों के अनुसार, विभिन्न बलों के पास मिसाइलों की अपनी सूची है। ये बैलिस्टिक मिसाइलें होंगी और एक बार प्रक्रिया पूरी हो जाने के बाद, इनका एकीकृत तरीके से उपयोग करने के लिए सुरक्षाबल एक अलग फोर्स यानी रॉकेट यूनिट बना सकते हैं।

कूज मिसाइलों का लंबी दूरी का परीक्षण

रक्षा बलों को ब्रह्मोस कूज मिसाइलों की बढ़ी हुई रेंज के रूप में भी बड़ा हथियार मिला है। सुरक्षा मामलों से जुड़ी मीडिया रिपोर्ट्स के मुताबिक निकट भविष्य में कूज मिसाइलों का लंबी दूरी का परीक्षण भी होने वाला है।

<https://www.amarujala.com/india-news/defence-forces-mulling-over-medium-range-ballistic-missiles-like-pralay-drdo-2023-11-05>



Sun, 05 Nov 2023

India should become World's Innovation Hub: Former DRDO Chief

Dr G Satheesh Reddy, the former Chairman of India's Defence Research and Development Organisation (DRDO) and Scientific Advisor to the Defence Minister, emphasized the need for India to become the world's innovation hub. He delivered the 21st convocation address at NITK, Surathkal, where he encouraged the youth to develop state-of-the-art products that are both high-quality and cost-effective for the world. Dr Satheesh Reddy stated that innovation and technology are crucial for India to achieve a top position globally.

Dr Satheesh Reddy highlighted India's self-reliance in missile technology, with a wide range of missiles in its arsenal.

He said India has achieved self-reliance in radars, aircraft, guns, communication systems, submarines, surface-to-surface missiles, anti-tank missiles, and many other varieties of indigenously developed missiles.

Dr Satheesh Reddy said the 'Make in India' initiative launched by the government has created opportunities for the private sector to participate in manufacturing equipment in various sectors, including defence.

He noted that many young entrepreneurs and startups have emerged in the country, driven by a globally competitive mindset. During the previous fiscal year, the Ministry of Defence exported equipment, arms, and ammunition worth Rs 16,000 crore, reflecting the world's confidence in India's defence technology, he said. He recollected that India's ability was tested during the Covid-19 pandemic when the country was tasked with manufacturing 30,000 ventilators within a short

timeframe.

CSIR-NIIST Director Dr C Anandharamakrishnan stressed the need for scientific intervention to address issues related to health, food, the energy sector, and climate change in the country. “We need to work on energy, water and food security. To achieve Amrit Kaal by 2047, we need to work together and plan for the next 24 years,” he said. NITK Director Prof. B Ravi mentioned that work on a lecture hall complex (D), an Olympic-sized swimming pool, and an elevated Sky track to connect both sides of the campus are currently in progress. Additionally, NITK's testing and consultancy services exceeded Rs five crore within a year, compared to less than Rs 3 crore in the previous fiscal year. NITK's student placement continues to be strong, with over 1500 students out of 1730 students securing placements at an average CTC of nearly Rs 16 lakh.

<https://www.deccanherald.com/india/india-should-become-worlds-innovation-hub-former-drdo-chief-2757258>

Defence News

Defence Strategic: National/International



Press Information Bureau
Government of India

Fri, 03 Nov 2023

Defence Production Department hits 100% Target in Special Campaign 3.0 Streamlines Government Processes

The Department of Defence Production has successfully conducted and completed the Special Campaign 3.0. The Special Campaign comprising both the preparatory (15-29 Sep, 2023) as well as the implementation phase (02-31 Oct, 2023) has encompassed various aspects with emphasis on inculcating Swachhata as a daily habit so as to ensure a cleaner and decluttered workplace which eventually culminates in the enhanced productivity. During the Campaign, the records management practices were reviewed that included inspection of the Departmental Record Room. There was heightened focus on various defence establishments this year. Meetings to review the action plan of all the concerned DPSUs and attached Offices were held at the highest level during the preparatory phase and in the implementation phase. The data was collected on a daily basis and the same was updated on the Special Campaign for Disposal of Pending Matters (SCDPM) portal of DARPG.

The Department of Defence Production has achieved 100 % disposal of all the identified targets across various parameters. A total of 8 references from MPs, 3 references from State Government,

2 references from PMO, 155 public grievances and 57 public grievance appeals on Centralised Public Grievance Redress and Monitoring System (CPGRAMS) has been disposed off during the implementation phase, which also includes simplification of 3 rules/processes. A total of 25,000 physical files have been reviewed, out of which 22,350 files have been weeded out. In keeping with the overarching thrust of this Campaign on gainful utilization of available resources and generation of revenue from disposal of scrap, the DPSUs and attached Offices of DDP have generated a revenue of Rs. 20,21,19,650/- by way of disposal of 3000 MT unserviceable stores/scrap which have resulted in 7,78,640 square feet of space freed up during this campaign.

Furthermore, the Pan-India Swachhata Abhiyan with people-centric engagement has been undertaken across 800 locations by DPSUs and attached Offices in various part of the country. It may also be worthwhile to mention that the journey of the Department of Defence Production during the Special Campaign 3.0 has been dotted with several milestones. As part of the best practices deployed during the Campaign, several best practices were adopted by DPSUs and attached Offices of DDP. Mechanised Cleaning, Beautification of Offices / Premises by reuse of scrap which follows the principle of Reduce, Reuse and Recycle of waste material or scrap, Construction of road using slag dump (500 MT) within the Plant, which has been accumulated over a period of time and the same has been used for laying road around the inner perimeter of MIDHANI. In order to keep the environment green and create a pleasant atmosphere within the plant, instead of procuring the plants from outside, inhouse nursey is developed in several DPSUs and attached Offices, Segregation of Medical Waste, Plantation of Trees, Utilisation of distilled water from AC units of gear Metrology.

In Goa Shipyard Limited (GSL) residential colony, a composting pit has been set up to process food waste from canteen, dead leaves and biodegradable waste. This initiative not only reduces the burden on landfills but also produces nutrient-rich manure. The resulting compost is utilized to support plant growth, contributing to a greener and healthier environment Bharat Electronics Limited (BEL) has taken a step forward in treating waste water to meet reusable standards thus recycling it for production purposes. Likewise, domestic waste water is treated and recycled for horticultural purposes. BEL residential complex of Bengaluru has achieved a water positive status with the commissioning of a sewage treatment plant (STP) to treat 10 MLD sewage and rejuvenate the local Bangalore. In house fabrication of podium from scrap using the waste from the office chair and included a holding pad for placement of paper/book.

Public awareness about the campaign has been spread using social media platforms, banners, posters, painting competitions etc. Notably, over 823 tweets have been shared on X (formerly known as Twitter) by DPSUs, its Attached Offices and DDP, all tagged with #SpecialCampaign 3.0.

The Swachhta Campaign 3.0 has made significant strides in enhancing cleanliness and efficiency in the defense production units and attached offices. By promoting a culture of cleanliness, actively engaging the employees, harnessing technology and involving the community, the Swachhta Campaign 3.0 has succeeded in realizing its core value and ideal of bringing the cultural change or change of mindset which requires consistent effort. Encouraging a culture of cleanliness will benefit the country in the long run.leaving a lasting impact on the defense production units and the nation at large.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1974496>



Sun, 05 Nov 2023

Crest Unveiling Ceremony of Indian Navy's Project 15b Warship "Surat"

The Crest of Indian Navy's latest, indigenous under-construction, guided missile destroyer, 'Surat', is scheduled to be unveiled by Shri Bhupendra Patel, the Chief Minister of Gujarat in presence of Adm R Hari Kumar, the Chief of the Naval Staff, at a ceremony to be held in the city of Surat on 06 November 2023. Hon'ble Raksha Mantri, Shri Rajnath Singh had earlier launched this warship on 17 March 2022 at Mumbai.

Amongst the latest frontline 'Warship Projects' under construction, the 'Project 15B' programme involves construction of four next generation stealth guided missile destroyers, of which 'Surat' is the fourth and the last ship. She is presently under construction at the Mazagon Docks Shipbuilders Ltd. Mumbai.

Construction of this warship testifies the nation's dedication to indigenous cutting-edge warship building technology and commitment to strategic military advancements. From a small navy at the time of independence, Indian Navy today is a highly capable, combat ready, cohesive, credible and future proof force.

It is a well-known fact that the city of Surat was the most important maritime trade link between India and many other countries from the 16th to the 18th century. The city was also a flourishing centre for ship building activities and the vessels built in Surat, during this period, were especially renowned for their longevity as some ships continued to be in service for more than 100 years.

It is a maritime tradition and a naval custom according to which many of the Indian naval ships have been named after prominent cities of our nation. Indian Navy is therefore immensely proud of naming its latest and technologically the most advanced warship after the city of Surat.

This is the first capital warship to be named after a city of Gujarat and this is also the first time that unveiling of the crest of a warship is being undertaken in the very city after which it has been named.

The ceremony for unveiling the crest is being conducted under the aegis of Western Naval Command by Gujarat Naval Area and is scheduled to take place on the evening of 06 Nov 23, at Surat.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1974881>



Press Information Bureau
Government of India

Sat, 04 Nov 2023

Maritime Security Meeting between Indian Navy and Sri Lankan Navy

The 33rd edition of annual IMBL meeting between the representatives of Navies and Coast Guards of India and Sri Lanka was held onboard INS Sumitra on Friday at the Indo - Sri Lanka Maritime Boundary Line off Point Calimere at Palk Bay. The interaction between the counterparts of both countries acts as a forum for the Navies and CGs of the two countries to further enhance ties and synergy in operations.

The Sri Lankan delegation was headed by RAdm BAKS Banagoda, Commander North Central Naval Area (NCNA), Sri Lanka Navy. The Indian delegation was headed by the RAdm Ravi Kumar Dhingra, Flag Officer Commanding Tamil Nadu and Puducherry Naval Area (FOTNA).

Representative from Coast Guard Regional Headquarters (East), Defence Advisor to the High Commission of India in Colombo and other senior officers from both countries also participated.

During the meeting, attendees from both the Navies and Coast Guard discussed maritime security in the Palk Bay and Gulf of Mannar region, safety of fishermen, measures to curtail trafficking of contraband among other issues. Ways and means to enhance existing communication network and timely sharing of information between the two Navies and Coast Guard aiding in timely actions were also discussed at length.

Both sides reaffirmed the importance of mutual cooperation in operations and agreed to take forward the decisions taken, to strengthen the maritime security in area.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1974708>



Press Information Bureau
Government of India

Sat, 04 Nov 2023

Chanakya Defence Dialogue 2023 Concluded- Shaping Framework for Collaborative Security

The Chanakya Defence Dialogue 2023, a two-day groundbreaking event steered by the Indian Army in collaboration with the Centre for Land Warfare Studies (CLAWS), concluded on 4th November with takeaways on Security Challenges in South Asia and the Indo-Pacific. The event organised in Manekshaw Centre on 3rd and 4th November, in six different sessions, was centred around the theme, 'Serving India and Indo Pacific Region- Collaborating for Comprehensive

Security'. The Dialogue, inspired by the sagacity of the ancient strategist Chanakya, unfolded crucial discussions on global and regional security issues with a distinctive emphasis on South Asian and Indo-Pacific security dynamics, a roadmap for collaborative security in the region, optimisation of emerging technologies for defence and security, ways to enhance the collaborative capacity of the Indian defence industry and options for India to achieve comprehensive deterrence.

Shri Jagdeep Dhankhar, Hon'ble Vice President of India graced the occasion and delivered a Special Address on 3rd November 2023. Hon'ble Vice President congratulated the Indian Army for the conception of this ideation forum to dissect contemporary challenges to global security and peace. He expressed confidence that Chanakya Defence Dialogue will turn out to be a well-suited platform for in-depth analyses of security complexities in South Asia and the Indo-Pacific, ultimately paving the way for collective security solutions in the region.

He underscored the paramount importance of achieving and upholding peace through a multifaceted approach, combining ideation, advocacy, outreach, persuasion, and dialogue, while also being vigilant and prepared. He also noted that "being prepared for war is a pathway to peace," further emphasizing that a nation's strength stands as the most impactful defence and deterrent. He mentioned that peace can be established by possessing strength. In addition, he highlighted the significance of harnessing a nation's soft power and economic strength as integral components in enhancing the security environment.

Highlighting the emergence of deep technologies like AI, robotics, quantum, semi-conductors, biotechnology, drones and hypersonic, Hon'ble Vice-President stressed that "Prowess and mastery of these domains will determine the strategic haves and have-nots of the future".

Commenting on the aspect of technology, he also said that technology is changing the character of war and there is a need to continuously build our capabilities to meet such like changes and challenges. He also remarked that India's capabilities in space, cyber and the electromagnetic spectrum are complementing the traditional domains of land, sea and air.

General Manoj Pande, Chief of the Army Staff (COAS), delivered a plenary address. The COAS mentioned that the unprecedented churn in the global landscape has set into motion a chain of events and new trend lines. He said that the technology is driving geo-politics like never before and emerging as a new strategic arena of geo-political competition.

He highlighted that India's resolve, resilience and diverse capacities were put through a severe test during the Pandemic and our nation rode the storm well. He also remarked that agile, resilient, consumer-driven economy of our nation helped us to brave the economic downturn of the Russia Ukraine conflict. He added that India has a credible voice on the world stage, one that is distinct, rooted in Indian ethos and effective in articulating the concerns of the Global South.

He also mentioned that India's defence cooperation outreach is being enhanced. Highlighting the importance of military diplomacy in India's multilateral engagement efforts, he remarked that the scope and scale of joint exercises with friendly foreign partner nations have been enhanced. He iterated the national resolve to achieve self-reliance in defence hardware, that is being enabled by a resurgent Indian Defence Industry.

He envisioned that the outcome of the Chanakya Defence Dialogue is to foster collaborative efforts to address global issues and pilot the course of comprehensive security, within India's neighbourhood Indo-Pacific, with the perspective of ensuring the safety of the global commons.

He also remarked that the security discourses, such as this Dialogue, among like-minded countries, assume importance because of common interests and values India shares with them such as democracy, human rights, and the rule of law etc. He reiterated that India's outlook emphasises respect for the sovereignty and territorial integrity of all nations, equality of all, peaceful resolution of disputes, avoidance of use of force and adherence to international laws, rules and regulations.

Eminent speakers such as Dr Arvind Virmani (Niti Aayog), Prof Ajay Kumar Sood (PSA to Govt of India), Ambassador V Misri (Deputy NSA), Shri Vijay K Gokhale, Ambassador Ashok K Kantha, Admiral Sunil Lanba (Retired), Lieutenant General Prakash Menon (Retired), Lieutenant General Subrata Saha (Retired) and Lieutenant General DS Hooda (Retired), bestowed their insights, thus enriching the dialogues. The international delegations from nations across the globe including the USA, Australia, France, Japan, Indonesia, Bangladesh, Sri Lanka, The Philippines and Nepal, among others, contributed to the discussions with diverse perspectives and collaborative spirits.

Shri Vijay K Gokhale while delivering his Keynote Address on the first day, highlighted ongoing transitions in the world. He mentioned that global balance is now shifting from West to East. He also highlighted the role of technology in empowering all equally, which does not remain exclusive to the West anymore. He remarked that India needs to play a leading role in the emerging world order and for that, India has to work closely with all including USA and China.

Session I- Neighbourhood First; South Asia Prognosis: The first session was chaired by Ambassador Ashok K Kantha. Lieutenant General Rakesh Sharma (Retired), Ambassador Shamsheer M Chowdhury (Bangladesh), Mr Asanga Abeyagoonasekera (Sri Lanka) and Mr Chiran Jung Thapa (Nepal) delivered talks and participated in the discussion during the session. The discussion focussed on likely future challenges in South Asia and the ways forward for the region to deal with them. The session analysed the implications of India-China competition and the prospect of India as a geo-economic growth driver in South Asia. Besides, the session also considered non-traditional and contemporary security issues like human migration, ethnic divide, resource sharing, political divergence and climate change to enable a peaceful and prosperous future for South Asia.

Session II- Indo Pacific; The Decisive Frontier: The second session was chaired by Former Chief of the Naval Staff Admiral Sunil Lanba (Retired). Dr Troy Lee Brown (Australia), Vice Admiral Amarulla Octavian (Indonesia), Ms Lisa Curtis (US) and Mr Saurabh Kumar (India) delivered talks and participated in discussion, which dived deep into the shifting power dynamics in the Indo-Pacific, emphasizing India's role as an economic powerhouse, China's influence in the region and the crucial involvement of ASEAN Nations in shaping the region's fate. Ms Lisa Curtis said that Indo-Pacific is turning out to be a region of growing competition. Towards this QUAD, a non-military alliance, is likely to emerge as a successful multi-lateral organisation. Mr Saurabh Kumar highlighted the peculiarities of India's vision for Indo-Pacific Region and various initiatives taken by India. He reiterated the importance of QUAD as a potent platform to deal with contemporary challenges.

Session III- Collaborative Partnership for Security: The third session was chaired by Lieutenant General Prakash Menon (Retired). It witnessed participation from Dr Satoru Nagao (Japan), Ms Vani Sarraju Rao (India) apart from Dr R De Castro (Philippines) and Dr Paco Milheit (France). The session spotlighted potential security alliances in the Indo-Pacific, drawing from historical ties and projecting future alliances within the global spectrum, emphasizing the importance of multilateral alignments based on shared interests, especially for the security of the region's smaller nations. While highlighting strong India-USA relations, Ms Vani S Rao highlighted settlement of trade disputes in WTO, high academic linkages and enhanced defence cooperation. She also mentioned that this defence partnership is bilateral and not regional. She also remarked that the QUAD is a Plurilateral platform that provides viable solutions to issues of common interests including HADR, maritime security, health security etc.

The Day 2 commenced with the Special Address by Ambassador Kanwal Sibal who talked about options for India amidst ongoing global affairs. He stressed that India must continue maintaining strategic autonomy without being a fence sitter and maintain friendly relations with all like-minded nations.

Keynote Address for Day 2 of the dialogue was delivered by Dr Arvind Virmani from Niti Aayog who highlighted India's vision to be a responsible power in the emerging world order. He visualised India attaining the status of a great power by mid-21st century with USA and China being the superpowers.

Session IV- How Emerging Technology Impact Defence and Security: The fourth session was chaired by Prof Ajay Kumar Sood, Principal Scientific Advisor to the Government of India. The session witnessed talks and discussion on critical aspects of emerging technologies to include Space, Cyber Space, AI and Big Data covered by eminent speakers to include Dr Umamaheswaran R (Former Director of Human Space Flight Centre, Bangalore), Prof V Kamakoti (IIT Madras) and Prof Mayank Vatsa (IIT Jodhpur) respectively. The Session examined the impact of new technologies on defence and security to help build a clearer picture for the upcoming years. It encompassed the challenges and potential of disruptive technologies, with a focus on India's defence capabilities and preparedness for multi-domain conflicts in the face of global technological advancements, to integrate innovations with defence strategies.

Shri Giridhar Aramane, Defence Secretary in his address highlighted the importance of Atmanirbharta or Self Reliance in Defence. While highlighting India's key achievements in the field of Defence Diplomacy, he talked about India's contribution in training of military personnel of friendly foreign countries and participations in Bilateral and multilateral Joint Exercises. He also talked about India's role of being first responder in Indian Ocean Region besides contributions in HADR, coastal security and maritime awareness.

Session V- Indian Defence Industry as Enabler for Collaborative Capacity Building: The fifth session was chaired by Lieutenant General Subrata Saha (Retired) which saw participation from Commodore AP Golaya, Mr RS Bhatia and Mr R Shiva Kumar on the topics 'Policy Initiatives', 'Industry Collaboration' and 'Start Ups' respectively. Key takeaway of session V was that India should prepare to win future wars with Indian solutions. The discussions focussed on the capabilities, potential and future trajectory of the Indian defence industry and its pivotal role in collabora-

tive and individual capacity building. It analysed the role of policy frameworks, the DRDO, private defence sectors and MSMEs in enhancing India's defence capabilities, both domestically and through international partnerships.

Session VI- Comprehensive Deterrence- The India Way: The sixth and last session was chaired by Lieutenant General DS Hooda (Retired). Ambassador DB Venkatesh Varma and Colonel KPM Das (Retired) delivered talks on the topics of Diplomacy and Technology. The focus of the session was to explore India's unique approach to comprehensive deterrence, unravelling its philosophy, practicalities and future developments including China's assertiveness and regional economic downturns influenced by various crises.

In his closing remarks, the COAS highlighted some of the key aspects discussed during various sessions. He iterated India's commitment in promoting regional stability and shared prosperity. He highlighted that Indo- Pacific remains central in the world's strategic discourse and iterated that 'Deterrence' should not be allowed to fail in this region.

He also underscored the importance of collaborative security and partnership amongst like-minded nations to achieve regional stability through military balance, as well as address transnational threats. He also noted that kinetic instruments of war have also undergone notable technological progression, and cumulatively, the battle space has become more complex, contested and lethal. He mentioned that niche technology does not remain superpower centric anymore.

Talking about the Indian Defence Industry, he mentioned that Government of India has facilitated industry's progression through enabling policies, establishment of Defence Industrial Corridors and handholding by multiple stakeholders. This has helped the Defence Industry rise to the challenges and efforts have commenced to show results.

He also remarked that comprehensive deterrence recognises the importance of a holistic approach to security, and it encompasses military, economic, diplomatic, technology and informational elements.

Summing up his remarks, General Manoj Pande said that the Peace is secured from a position of strength and the strength comes from unity of like-minded nations who respect international norms. He mentioned that the collective and collaborative security partnerships is the way ahead.

The event came to end with a Vote of Thanks to all speakers and participants by Lieutenant General MV Suchindra Kumar, Vice Chief of the Army Staff.

The Chanakya Defence Dialogue 2023 sowed the seeds for a future where discussions, ideas and strategies germinate into a secure, stable and prosperous global and regional environment. India, with its rich heritage and futuristic vision, stands resilient and welcoming, ready to play a pivotal role in the comity of nations towards collective security and prosperity in the region, near and far.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1974733>

IL-38s that heralded Long-Range Surveillance for the Navy fly into sunset

“A journey that commenced on October 01, 1977, with the commissioning of the Indian Naval Air Squadron (INAS) 315 at Goa, ends with the de-induction of the IL-38 today,” said Commander Mrinmoy Ghosh, Commanding Officer of the ‘Winged Stallions’ squadron addressing the members of the Commissioning crew and numerous others who gathered along with their families for the de-induction ceremony at INS Hansa last week.

Cheers erupted from the crowd while several became emotional reminiscing their long association with the aircraft that served for 46 years. The IL-38 Sea Dragon heralded long range maritime surveillance for the force and now the Navy has Dorniers at the lower end and the P-8Is at the higher end of surveillance and is looking to induct C-295 aircraft in the medium range Maritime Patrol Aircraft (MPA) role in the near future in addition to adding more long endurance Unmanned Aerial Vehicles (UAV).

“The aircraft (IL-38) has laid the foundation for long range patrol as well Anti-Submarine Warfare (ASW) for the Indian Navy. It has good Electronic Intelligence, Signal Intelligence and sensor capability. We used the aircraft in all major operations and exercises... Over a period of time it gets difficult to maintain the aircraft, and its coming to the end of its service life. Old has to give way to new,” Adm. Kumar said speaking to the media after the de-induction ceremony.

The glorious journey of ‘Winged Stallions’ over the last four and a half decades, clocking over 52,000 hours of operational flying showcases the focused efforts of all Stallions present in Panaji today, especially our aircrew, technical officers and sailors, civilians who have worked tirelessly to keep the oldest aircraft in the Indian Navy’s inventory flying and ensuring all tasks are met, Cdr. Ghosh said on its performance. In due course, the aircraft went through a major upgrade getting the Sea Dragon suite significantly augmenting their capabilities. In a tragic mid-air collision in 2002, two IL 38s collided and crashed at a celebration to mark the silver jubilee as well over 30,000 hours of accident-free flying, killing 17 including four pilots. Two of the five aircraft were lost.

“The squadron has had a total of seven airframes in its lifetime. 301....307. Every airframe that has graced our squadron has had a soul, and today, as the propellers of seven come to the final stop, and the aircraft gets de-energised, the soul of these seven sisters passes on to each Stallion here,” Cdr. Ghosh, also the squadron’s last CO, said addressing the gathering. The aircraft was part of the Republic Day flypast this year over the Kartavya path. IL-38 Sea Dragon served the Indian Navy for 46 years, de-inducted after clocking 52,000 hours of operational flying. Squadron achieved max engagements in Operational exercise TROPEX, showcasing its potent capability & dedication of crew. Video: [@dperi84pic.twitter.com/bDDvcBCWsv](https://twitter.com/dperi84pic) — The Hindu (@the_hindu) November 4, 2023 Post the de-induction, one aircraft is earmarked for the national maritime museum coming up at Lothal in Gujarat and another aircraft is going to Karnataka, the Navy Chief said.

To questions on the revival of the squadron, he said INAS-315 will be revived noting that there are plans for another MPA to be inducted. “We have Dorniers and P-8I in the manned aircraft. We have a plan for the C-295 in the medium-range MPA role. Inducting those aircraft might take time. Or inducting some of the P-8I into this squadron. We are examining what is the best way forward.”

On the Naval modernisation and way forward, Adm. Kumar said the P-8I is a game changer in many ways and has phenomenal capability, used by a large number of navies, very good sensors and weapons capability, no issues with support as the airframe is common with aircraft used in the commercial field. “It has been giving us very good service. We are very satisfied with their performance and we will see if we need to take up a case for more aircraft. We are examining that in light of the areas of interest that we need to keep under surveillance and the types of assets that we already have,” he stated.

Adding that they now have P-8Is and Dorneirs, have searcher and Herons in the UAVs and will be getting MQ-9Bs. “Holistically, we have to see where are the gaps and how much more is required,” he added. On the IL-38s achievements and prowess, Cdr. Ghosh said the contribution of the squadron in indigenisation programs has been immense. It is the only SIGINT (Signal Intelligence) capable aircraft in the Navy and has the unique capability of delivering spares, to warships that are deployed more than 2,000 km from the coast, using the Sahayak containers. “During the recently concluded Operational exercise TROPEX, the Squadron attained maximum confirmed engagements, be it surface, sub-surface or air asset, which clearly reflects the potent capability of the platform and the dedication of the crew.”

<https://www.thehindu.com/news/national/il-38s-that-heralded-long-range-surveillance-for-the-navy-fly-into-sunset/article67497853.ece>

THE TIMES OF INDIA

Sun, 05 Nov 2023

Army set to Induct 1st Batch of Apache Attack Helicopters

The Army is now gearing up for the induction of its own six heavy-duty Apache attack helicopters, armed with Stinger air-to-air missiles, Hellfire Longbow air-to-ground missiles, guns and rockets, under the Rs 5,691 crore deal inked with the US in February 2020. The deliveries of the six AH-64E Apache attack choppers, often called “tanks in the air”, will take place in batches in the February-June timeframe next year. They will follow 22 such helicopters already inducted by the IAF, under the Rs 13,952 crore deal inked in September 2015, to provide “integrated combat aviation cover to strike corps of the Army”, an officer said.

The new induction comes even as the Army and IAF have finalised a plan to order 156 more indigenous ‘Prachand’ light combat helicopters, which are capable of offensive operations in high-altitude areas like Siachen Glacier and eastern Ladakh, from defence PSU Hindustan Aeronautics (HAL), as was reported by TOI in September. As per the proposal, which will soon be taken up by the Rajnath Singh-led defence acquisitions council, the Army will get 90 of the new Prachand choppers, while 66 are meant for the IAF. These will add to the 15 such choppers (10 IAF and 15

Army) already inducted after the Cabinet Committee on Security cleared the first Rs 3,887 crore contract in March last year.

The Apache helicopters, of course, are much bigger and more lethal. "The Apaches are capable of delivering a variety of weapons, which include Hellfire and Stinger missiles as well as 70mm Hydra rockets," the officer said. "The chopper also carries a 30mm chain gun with 1,200 rounds as part of an area weapon sub-system. To add to the lethality, the Apache has a fire control radar, with a 360° coverage, and nose-mounted sensor suite for target acquisition and night-vision systems," he added. The Apache are the third iconic helicopters to be inducted by the Indian armed forces. While IAF has inducted 15 heavy-lift Chinook choppers for Rs 8,048 crore, the Navy has got the first lot of the 24 submarine-hunting MH-60 "Romeo" multi-mission helicopters under another contract worth Rs 15,157 crore inked in February 2020.

<https://timesofindia.indiatimes.com/india/army-set-to-induct-1st-batch-of-apache-attack-helicopters/articleshow/104975357.cms?from=mdr>

THE ECONOMIC TIMES

Sun, 05 Nov 2023

Sweden's Saab bags India's First 100% FDI In Defence Project

India has cleared the first 100% foreign direct investment (FDI) in the defence sector, with permissions granted to Sweden's Saab to set up a new facility that will manufacture rockets. Sources said the FDI proposal, valued at under ₹500 crore, was cleared last month. India currently allows up to 74% FDI in the defence sector under the automatic route. Beyond that, clearances can be obtained on a case-by-case basis. While clearance rules were relaxed in 2015, no foreign company had, until now, been able to get permission for 100% FDI in defence. A new company, Saab FFV India, has been registered and will make the latest generation of the Carl-Gustaf M4 system. Likely to come up in Haryana, the facility will include advanced technologies, including the sighting tech and carbon fibre winding for the Carl-Gustaf system. The shoulder-fired rockets are already in extensive use by the Indian armed forces and can be exported as well once local production starts.

"We are proud to be the first global defence company to be approved by the Indian government for 100% foreign direct investment for our new CarlGustaf manufacturing facility in India," said Mats Palmberg, chairman and managing director, Saab India. "This is another step in Saab's commitment to 'Make in India,' and we look forward to continuing our collaboration with our Indian partners and to supporting the Indian armed forces with production of Carl-Gustaf in India." This will be Saab's first Carl-Gustaf M4 production line outside Sweden, with manufacturing to commence next year. The shoulder-launched weapon system is in use by the US, European and Indian armed forces and is used to take down fortified enemy positions, armour and personnel. In 2016, French firm DCNS became the first foreign company to seek approval for 100% FDI to set up an Indian subsidiary to develop advanced systems that would give submarines more underwater endurance. It had

sought clearance to invest over ₹100 crore in DCNS India Pvt Ltd to develop high-end critical defence technologies, but did not get the requisite permissions.

<https://economictimes.indiatimes.com/news/defence/swedens-saab-bags-indias-first-100-fdi-in-defence-project/articleshow/104977647.cms>



Sat, 04 Nov 2023

Work starts on shaping First National Security Strategy, long wait ends

India has set the ball rolling to bring out a National Security Strategy after years of discourse and deliberations within the military and the strategic community on the need to have one, The Indian Express has learnt. The National Security Council Secretariat (NSCS) is putting in place a comprehensive National Security Strategy in consultation with several Central ministries and departments. A final Cabinet approval will then be sought for it. This is the first time that India will come out with a national security strategy. Countries such as the US and UK have published national security strategies which are updated periodically. ADVERTISEMENT The document is aimed at putting together India's national security objectives and the ways to be adopted to achieve or realise them. Over the last few months, several ministries have provided inputs for the document on the entire gamut of challenges and threats facing India, including non traditional ones such as financial and economic security, food and energy security, information warfare, vulnerabilities in India's critical information infrastructure, and those associated with supply chains and environment. Ministers of the respective ministries are also involved in the process.

A senior official privy to the development told The Indian Express that given the complex nature of the various traditional and non-traditional threats, especially when rising geopolitical tensions have given way to uncertainties, it was felt that there was an urgent need to draft a national security strategy. This, the official said, would draw in from the comprehensive national power of the country. "This needs a whole-of-government approach. Several Central ministries and other stakeholders have their roles cut out for the various facets of national security, the vulnerabilities and threats and the ways to plug them," the official said, without divulging the timeline on when it would be ready or providing details on the exact contours of the strategy given the confidential nature of certain aspects that would be part of the draft.

The official document, once ready, will be made public. The official said it would be updated regularly, based on emerging situations and newer threat assessments. Another official privy to the development said the strategy may include other stakeholders to tackle the many non-traditional threats and vulnerabilities identified across domains such as civil society organisations, academia, media, think tanks and other institutions. The comprehensive document will consolidate and put together the challenges and threats unique to India and develop strategies to address them in the immediate and near future. This could include earmarking of resources, considering the existing internal and global situation.

The military and the strategic community have time and again emphasised the absence of, and the pressing need to have a comprehensive national security strategy for India. Last year, former Army chief General M M Naravane, while delivering a talk at the 4th General K V Krishna Rao Memorial Lecture, said it was essential to draft a national security strategy before taking the theaterisation process forward.

This, he said, would help in optimal utilisation of the military's resources for future wars and operations. Without such a well-defined strategy, he said, military reforms would be like "putting the cart before the horse". Speaking at an event a week ago, former National Security Adviser Shivshankar Menon said India needs a national security strategy and, in the interim, a white paper on defence detailing its thinking on important issues.

In the past, three attempts were made to come out with a national security strategy but there was hesitation at the political level, he said, adding that he sensed it could have been because of the accountability it would bring in defence management.

<https://indianexpress.com/article/india/work-starts-on-shaping-first-national-security-strategy-long-wait-ends-9012566/>



Sat, 04 Nov 2023

India's outlook focuses on Respect for Sovereignty of all Nations: Army Chief

Our outlook emphasises respect for sovereignty and territorial integrity of all nations, equality of all, peaceful resolution of disputes, avoidance of use of force and adherence to international laws, rules and regulations, Army Chief General Manoj Pande said Friday amid the ongoing military standoff with China at eastern Ladakh.

At the Chanakya Defence Dialogue, General Pande said that India is establishing defence wings in new locations around the world to give a fillip to defence cooperation outreach, adding that the Army is looking to enhance the scope and scale of joint military training and exercises with friendly foreign nations.

He said there is a need to take note of the growing salience of 'National Security' in international affairs and the renewed currency of hard power. "The pandemic, which began as the health crisis and ended up as a national security event, closed on the heels of the cataclysm in Ukraine. We are now faced with an escalating conflict in West Asia," he said.

"These instabilities and challenges are compounded by notable economic turbulence and the weaponization of a multitude of attributes and domains from information to supply chains. Issues like radicalisation, terrorism, piracy, illegal migration, refugees, and climate change, add to the bouquet of global concerns," he added.

He said technology is driving geopolitics like never before and is transforming strategic competition as well as war. He also said India remains the “bright spot” amid such despondency. “The nation’s resolve, resilience and diverse capacities were put through a severe test during the pandemic. Not only did we ride the storm well, ‘Vaccine Maitri’ won universal acclaim,” he said.

<https://indianexpress.com/article/india/indias-outlook-focuses-on-respect-for-sovereignty-of-all-nations-army-chief-9012624/>



Sun, 05 Nov 2023

India-Nepal border forces' Talks to Begin in Delhi Tomorrow

Border guarding forces of India and Nepal will hold a three-day bilateral meeting in New Delhi from November 6 and discuss measures to curb trans-frontier crimes and timely sharing of intelligence inputs, an official said.

The seventh edition of the annual coordination talks between the two countries is led by India's Sashastra Seema Bal (SSB) director general Rashmi Shukla and the visiting inspector general of the Armed Police Force (APF) of Nepal, Raju Aryal.

The meeting will be in Delhi from November 6 to 8, the official said on Sunday. "The talks at the level of two heads of the forces serve as a crucial platform for both forces to engage in discussions on border-related matters," an official statement said.

"The SSB and APF delegations aim to strengthen the coordination between the two border guarding forces for more effective management of the open and unfenced India-Nepal border," it said. The "focus" of the meeting shall be on the development of effective mechanisms to collaboratively combat trans-border crimes and facilitate the prompt exchange of critical information between the forces, it said. The SSB is a central armed police force under the Union Home Ministry and it is tasked to guard the 1,751 km India-Nepal open international border.

<https://www.thehindu.com/news/national/india-nepal-border-forces-talks-to-begin-in-delhi-tomorrow/article67500639.ece>



Sun, 06 Nov 2023

Bhutan's King in India as Beijing-Thimpu speed up border talks: Why New Delhi is concerned

The king of Bhutan, Jigme Khesar Namgyel Wangchuck, arrived in New Delhi on Sunday (November 5) to a red carpet welcome, with External Affairs Minister S Jaishankar receiving him at the airport.

The visit comes at a time Bhutan is engaged in crucial border talks with China, and the developments have led to some unease in New Delhi.

Last month, Bhutan and China held the 25th round of bilateral border talks in Beijing. Tandi Dorji, Bhutanese Foreign Minister who was in Beijing for the talks, made two declarations that startled India: Bhutan sincerely seeking a quick settlement of the border dispute, and establishing diplomatic relations with China at the earliest possible. Many experts point out that India has been caught unawares with this.

Prior to Dorji's visit to Beijing — the first ever by a Bhutanese foreign minister — the nations' attempts to settle the disputed border had proved futile. Also, this 25th round of talks was held after a gap of seven years. Crucially, this long hiatus had come after the Doklam standoff in the summer of 2017, when Indian and Chinese troops found themselves entangled in the remote yet sensitive Himalayan region where Bhutan, India (Sikkim) and China (the Tibet Autonomous Region) meet at a tri-junction. Apparently, it was the severity of the border conflict that led to the suspension of talks between Thimphu and Beijing. The talks were further "abandoned" amid the Covid-19 pandemic.

China's calculations

"Shocked" and "alarmed" is how most experts in China had described Beijing's reaction to the 73-day Doklam standoff (Donglang crisis, as Chinese call it). The Galwan clash of 2020 was apparently to avenge the Donglang crisis, and also to permanently dig in Chinese heels in the sensitive Himalayan region along the Line of Actual Control.

Also, China blames New Delhi for the failure of its border talks with Bhutan.

It is of relevance here to note that out of the 14 neighbouring countries China shares a land border with, only Bhutan and India continue to have a disputed boundary. As a Chinese scholar recently claimed, "India is not only obstructing any progress towards resolving border problems, but New Delhi has also been blocking diplomatic relations between Bhutan and China" (In Chinese so-hu.com, April 2023).

However, what has now emerged is that the seven-year period was not all quiet, and Thimphu and Beijing maintained active engagement in this duration. In fact, a "three-step roadmap" (agreeing to the border "on the table"; then visiting the sites on the ground; and then formally demarcating the boundary) to take the talks forward was signed in 2021.

Bhutan's gains

Among several diplomatic, economic, and political gains Bhutan is looking at by expediting normalising relations with China, the biggest is to be able to establish diplomatic ties with a P5 country.

The Himalayan kingdom is a unique UN member-country, having diplomatic relations with only 54 nations, which are mostly small, regional countries. Significantly, Bhutan does not enjoy diplomatic relations with all five permanent members of the UN Security Council.

Moreover, besides diplomatic missions in New York (UN), Brussels (EU) and Geneva, Bhutan has embassies only in India, Bangladesh, Belgium, Australia, Kuwait, and Thailand.

Analysts in China describe this unique international status of Bhutan as “self-isolation.” But Bhutan is now emitting very clear signals (to New Delhi) that it aspires to have a dynamic foreign policy.

India’s concerns

India’s most serious concern with regard to Bhutan normalising relations with China is strategic. Currently, India’s immediate worry is the prospect of Beijing forcing Thimphu to acquiesce to Chinese pressure and give away access or even control over the Doklam plateau. It is pertinent to pay attention to the speed with which China and Bhutan have made surprising success in their border settlement talks.

In mid-January this year, the two countries held a fresh round of border talks in the southwestern Chinese city of Kunming – bordering the northeastern Indian state Assam. The success of the talks was underscored in the joint statement insisting that a “positive consensus had been reached by both, and that they would both be increasing the frequency of their talks” (SCMP January 2023).

The Indian Express had reported the concerns in New Delhi after the Kunming talks. “India will monitor any move to take forward the China-Bhutan talks. It views Chinese presence near Doklam as a major security concern close to the strategic Siliguri corridor,” the report had said.

Scholars and analysts in China have begun celebrating Beijing’s success with Thimphu, calling it a “major diplomatic breakthrough” in South Asia. It is not hidden from anyone in New Delhi that China is eyeing a foothold in the Himalayan Kingdom to ultimately make a great leverage out of it in cornering India.

<https://indianexpress.com/article/explained/bhutans-king-in-india-beijing-thimphu-border-talks-9014771/>



Sun, 05 Nov 2023

Russian Nuclear Submarine Test Launches Bulava Intercontinental Missile

Russia's new strategic nuclear submarine, the Emperor Alexander III, has successfully tested a Bulava intercontinental ballistic missile, the Russian defence ministry said on Sunday.

The missile, which the Federation of American Scientists says is designed to carry up to six nuclear warheads, was launched from an underwater position in the White Sea off Russia's northern coast and hit a target thousands of kilometres away on the Kamchatka peninsula in the Russian Far East, the defence ministry said.

"Firing a ballistic missile is the final element of state tests, after which a decision will be made to accept the cruiser into the Navy," a ministry statement said.

The Emperor Alexander III is the seventh of the Russian Project 955 Borei (Arctic Wind) class nuclear submarines and the fourth of the modernised Borei-A variant, according to Russian sources.

They are known in NATO as the Dolgoruky class of submarines, after the first boat - the Yuri Dolgoruky - became the first new generation of nuclear submarine launched by Russia since the Cold War.

The Borei class submarine is armed with 16 Bulava missiles. The 12-metre (40-foot) missile has a range of about 8,000 km (5,000 miles)

Since rising to power in 1999, President Vladimir Putin has increased military spending and sought to rebuild Russia's nuclear and conventional forces after the chaos that accompanied the 1991 fall of the Soviet Union.

The Ukraine war has triggered the worst crisis in Moscow's relations with the West since the depths the Cold War and Putin last month said he was not ready to say whether or not Russia should resume nuclear testing.

Kremlin spokesman Dmitry Peskov said in an interview aired on Sunday that relations with the United States were below zero.

"Relations are at zero - or I would say below zero," Peskov said, though he added that at some point the leaders of Russia and the United States would have to resume contact.

"Putin has repeatedly stated that he is ready for any contacts," Peskov said.

Russia aims to build a total of 10 to 12 Borei-class submarines to be divided between the Northern and Pacific fleets, according to the current plans disclosed by Russian media.

Three more Borei-class submarines are being built: the Knyaz Pozharsky, the Dmitry Donskoy and the Knyaz Potemkin. Two additional boats are also planned, according to Russian media.

<https://www.reuters.com/world/europe/russias-new-nuclear-submarine-test-launches-bulava-missile-white-sea-2023-11-05/>

THE ECONOMIC TIMES

Mon, 06 Nov 2023

Pakistan Army Faces its Worst Crisis since 2014

With a spate of high-profile raids and attacks on military installations, the Pakistani Army is facing its worst crisis since 2014, when it had launched its largest crackdown on militant groups under Operation Zarb-e-Azb. Last week's two attacks - a strike on an army convoy that killed 14 soldiers in Gwadar and a raid on the Mianwali training air base of the Pakistan Air Force that damaged some assets - are symbolic of what has been a testing year. What makes the losses glaring this year is that in 2014 the Pakistani Army had launched a massive crackdown on a network of militant groups, including Tehrik-e-Taliban Pakistan (TTP). However, this year, there has been no such

action. Moreover, Pakistani Army has faced the wrath of political protesters, who have attacked several installations after the arrest of former Prime Minister Imran Khan and even burnt down the house of the Lahore Corps Commander.

Some of the violence is being attributed to Taliban's presence in Afghanistan and its tacit support for militant groups operating along the border. "TTP has been empowered by support from a resurgent Afghan Taliban. It is receiving support, possibly even arms, from the Kandahar faction of the Taliban that is perhaps looking to create a long-term military buffer against the Haqqani faction. The current cycle of violence against security forces in Pakistan is a reflection of this play," said Kabir Taneja of the Observer Research Foundation. Other experts believe TTP has regained strength that it lost post-2014 operations. "This escalation can be attributed to resurgence of Noor Wali Mehsud, leading more than 30 local factions from Swat and Waziristan to pledge allegiance to him. This has seen TTP slowly regain the strength it once enjoyed during the pre-Zarb-e-Azb era," said Lt Gen Abhay Krishna (retd), who has commanded the South Western, Eastern and Central Commands of the Indian Army. He said Taliban in Afghanistan is facing a dilemma as any action against TTP could make the group form an alliance with ISIS and other factions. A lack of action could result in a military operation by Pakistan to target border areas. "Pakistan military finds itself stretched thin, as it must simultaneously address insurgency in Balochistan, confront TTP and maintain its role as a centre of political power during times of political turmoil in Pakistan," he said.

<https://economictimes.indiatimes.com/news/defence/pakistan-army-faces-its-worst-crisis-since-2014/articleshow/104992525.cms>



Sun, 05 Nov 2023

US and Arab Partners Disagree on the need for a Ceasefire as Israeli Airstrikes kill more civilians

The United States and Arab partners disagreed Saturday on the need for an immediate ceasefire in the Gaza Strip as Israeli military strikes killed civilians at a UN shelter and a hospital, and Israel said the besieged enclave's Hamas rulers were "encountering the full force" of its troops.

Large columns of smoke rose as Israel's military said it had encircled Gaza City, the initial target of its offensive to crush Hamas. Gaza's Health Ministry has said more than 9,400 Palestinians have been killed in the territory in nearly a month of war, and that number is likely to rise as the assault continues.

"Anyone in Gaza City is risking their life," Israel's Minister of Defense Yoav Gallant said. U.S. Secretary of State Antony Blinken met with Arab foreign ministers in Jordan a day after talks in Israel with Prime Minister Benjamin Netanyahu, who insisted there could be no temporary ceasefire until all hostages held by Hamas are released.

Jordan's Foreign Minister Ayman Safadi said Arab countries want an immediate ceasefire, saying "the whole region is sinking in a sea of hatred that will define generations to come."

Blinken, however, said "it is our view now that a cease-fire would simply leave Hamas in place, able to regroup and repeat what it did on October 7." He said humanitarian pauses can be critical in protecting civilians, getting aid in and getting foreign nationals out, "while still enabling Israel to achieve its objective, the defeat of Hamas." As he left church in Delaware on Sunday, US President Joe Biden hinted at progress in efforts to convince Israel to agree to a humanitarian pause, responding "Yes," to reporters' questions about any forward movement on the subject. He did not elaborate.

Senior Hamas official Osama Hamdan told reporters in Beirut that Blinken "should stop the aggression and should not come up with ideas that cannot be implemented." The spokesman of the Hamas military wing, who goes by Abu Obeida, said in a speech that fighters had destroyed 24 Israeli vehicles and inflicted casualties in the past two days.

Egyptian officials said they and Qatar were proposing humanitarian pauses for six to 12 hours daily to allow aid in and casualties to be evacuated. They were also asking for Israel to release a number of women and elderly prisoners in exchange for hostages, suggestions Israel seemed unlikely to accept. They spoke on condition of anonymity because they were not authorized to brief the press on the discussions.

Israel has repeatedly demanded that northern Gaza's 1.1 million residents flee south, and on Saturday it offered a three-hour window for residents to do so. An *Associated Press* journalist on the road, however, saw nobody coming. The head of the government media office in Gaza, Salama Maarouf, said no one went south because the Israeli military had damaged the road. But Israel asserted that Hamas "exploited" the window to move south and attack its forces. There was no immediate Hamas comment on that claim, which was impossible to verify.

Some Palestinians said they didn't flee because they feared Israeli bombardment. "We don't trust them," said Mohamed Abed, who sheltered with his wife and children on the grounds of al-Shifa hospital, one of thousands of Palestinians seeking safety at medical centers in the north.

Swaths of residential neighborhoods in northern Gaza have been leveled in airstrikes. UN monitors say more than half of northern Gaza's remaining residents, estimated at around 300,000, are sheltering in UN-run facilities. But deadly Israeli strikes have also repeatedly hit and damaged those shelters. The UN agency for Palestinian refugees has said it has lost contact with many in the north.

On Saturday, two strikes hit a UN school sheltering thousands just north of Gaza City, killing several people in tents in the schoolyard and women who were baking bread inside the building, according to the UN agency. Initial reports indicated that 20 people were killed, said spokeswoman Juliette Touma. The health ministry in Gaza said 15 people were killed at the school and another 70 wounded.

Also Saturday, two people were killed in a strike by the gate of al-Nasser Hospital in Gaza City, according to Medhat Abbas, health ministry spokesman. And a strike hit near the entrance to the emergency ward of al-Quds Hospital in Gaza City, injuring at least 21, the Palestinian Red Crescent said. The World Health Organization called attacks on health care in Gaza "unacceptable."

Also hit was the family home of Hamas' exiled leader Ismail Haniyeh in the Shati refugee camp on the northern edge of Gaza City, according to the Hamas-run media office in Gaza. It had no immediate details on damage or casualties. Israel has continued bombing in the south, saying it is striking Hamas targets. An airstrike early Saturday destroyed a home in the southern town of Khan Younis, with first responders pulling three bodies and six injured people from the rubble. Among those killed was a child, according to an AP cameraman at the scene. "The sound of explosions never stops," said Raed Mattar, who was sheltering in a school in Khan Younis after fleeing the north.

At least 1,115 Palestinian dual nationals and wounded have exited Gaza into Egypt, but on Saturday authorities in Gaza didn't allow foreign passport holders to leave because Israel was preventing the evacuation of Palestinian patients for treatment in Egypt, said Wael Abu Omar, a spokesman for the Palestinian Crossings Authority. The U.N. said about 1.5 million people in Gaza, or 70% of the population, have fled their homes. Food, water and the fuel needed for generators that power hospitals and other facilities is running out. Anger over the war and civilian deaths in Gaza sparked large demonstrations in Paris, Washington, London, Pakistan and elsewhere on Saturday. "Against apartheid, free Palestinians," a banner in Rome read. Turkey said it was recalling its ambassador to Israel for consultations, and Turkish media reported that President Recep Tayyip Erdogan said he could no longer speak to Netanyahu in light of the bombardment.

Thousands of Israelis protested outside Netanyahu's official residence in Jerusalem, urging him to resign and calling for the return of roughly 240 hostages held by Hamas. Netanyahu has refused to take responsibility for the October 7 attack in southern Israel that killed more than 1,400 people. "I find it difficult to understand why trucks with humanitarian aid are going to monsters," said Ella Ben Ami, whose parents were abducted.

She called for aid to be halted until the hostages are released. Thousands of people also joined a demonstration of hostages' families in Tel Aviv.

Air raid sirens sounded Saturday evening in southern Israel as Hamas launched rockets into Ashkelon. Rocket fire has continued in the area throughout the conflict, forcing tens of thousands of people to evacuate their homes. Fears continued of a new front opening along Israel's border with Lebanon. The Israeli military said it had struck militant cells in Lebanon trying to fire at Israel, as well as an observation post for Hezbollah, an ally of Hamas.

Throughout the war, Israel and Hezbollah have traded fire almost daily. Hezbollah and Israel fought a monthlong war in 2006 that ended in a tense stalemate. "We are not interested in a northern front, but we are prepared for any task," Gallant, Israel's defense minister, said after touring the border. He said the Air Force is "preserving most of its might for the Lebanon front," according to a video statement.

Among the Palestinians killed in Gaza are more than 3,900 Palestinian children, the Gaza Health Ministry said, without providing a breakdown of civilians and fighters. The Israeli military said four more soldiers have died during the Gaza ground operation, bringing the confirmed death toll to 28.

<https://indianexpress.com/article/world/us-arab-partners-disagree-gaza-ceasefire-civilians-killed-airstrikes-9013884/>

China urges Myanmar to Cooperate on Maintaining Stability on Border

Last week, Myanmar's ruling military said it was trying to restore order near the border after an alliance of ethnic minority armies battling for self-determination launched a series of coordinated attacks on junta targets.

"Myanmar is called on to cooperate with China to maintain stability along the China-Myanmar border, earnestly ensure the safety of the lives and property of Chinese border residents, and take effective measures to strengthen the security of Chinese personnel," said Nong Rong, assistant Chinese foreign minister.

A spokesperson for Myanmar's ruling military was not immediately available for comment.

The Asia Times news site reported that one Chinese citizen was killed and several were wounded on Saturday when a shell fired by the Myanmar military over-shot its target and struck on the Chinese side of the border.

Mr. Nong, who visited Myanmar on November 3-5, said China hoped Myanmar would restore stability, and it supported all parties to properly handle differences and achieve reconciliation through dialogue as soon as possible.

Thailand is trying to bring home 162 of its nationals trapped by the fighting in Myanmar.

Chaos in Myanmar

Myanmar has been in chaos since a military coup in February 2021 unseated a democratically elected government led by Nobel laureate Aung San Suu Kyi.

Pro-democracy insurgent groups have in some areas teamed up with ethnic minority guerrillas who have been campaigning for decades for greater autonomy to battle junta forces. While Western governments have condemned the Myanmar military and imposed sanctions on it, China, along with Russia, have been supportive of the generals. China says it supports Myanmar in finding its own path and has urged the international community to respect its sovereignty.

China's foreign ministry said last week it was closely following the conflict in Myanmar. "We urge parties to immediately stop the fighting, settle differences peacefully through dialogue and consultation, and avoid escalation," spokesperson Wang Wenbin said at a regular press briefing. Nong, during his visit, urged Myanmar to strengthen the security of Chinese institutions and projects there.

He also visited a 793-km natural gas pipeline, part of China's Belt and Road infrastructure and energy network, linking Ramree Island on the Myanmar west coast with the Chinese border city Ruili in Yunnan Province.

<https://www.thehindu.com/news/international/china-urges-myanmar-to-cooperate-on-maintaining-stability-on-border/article67503457.ece>



Sun, 05 Nov 2023

Inauguration of DSIR-CRTDH Conclave-2023 on 6th November 2023 at Indian Institute of Technology, Gandhinagar supported by Department of Scientific and Industrial Research, Ministry of Science and Technology

The Department of Scientific and Industrial Research (DSIR) has a mandate to carry out the activities relating to indigenous technology promotion, development, utilization and transfer with a mission to invigorate industrial research in the country; create an enabling environment for development and utilization of new innovations and enhance innovations. In line to its mandate, DSIR has been implementing a program known as “Common Research and Technology Development Hubs (CRTDHs)” which aims to encourage Micro, Small, and Medium Enterprises (MSMEs) for conducting industrial R&D/innovation activities and strengthening R&D infrastructure in Public Funded Research Institutions (PFRI). This program recognizes the importance of MSMEs in the overall economy of India and therefore focuses on the creation of R&D infrastructure in driving scientific advancements, technological innovations and socio-economic development.

CRTDH program, initiated in the year 2014-15, has now entered the 10th year of successful implementation with 18 CRTDHs across the country. These CRTDHs have notable achievements along with success stories of some of the stakeholders associated with them which are truly forwarding the vision of “Atma Nirbhar Bharat” and strengthening the momentum for “Vocal for Local”. These exemplary and unremitting achievements need to be showcased to various stakeholders including those stakeholders also who are not a part of the network of these CRTDHs at present. In view of this, DSIR is organizing DSIR-CRTDH Conclave 2023 on 6th-7th November 2023 at Indian Institute of Technology, Gandhinagar wherein all 18 CRTDHs will participate and showcase their achievements during two days’ conclave. This will facilitate to break silos and work together with a large domain of stakeholders and to unlock the vast potential of our unexploited resources. Two such conclaves have already been successfully conducted by DSIR at CSIR-Centre for Cellular & Molecular Biology (CCMB), Hyderabad in 2019 and CSIR- Indian Institute of Toxicology Research, Lucknow in 2022.

The DSIR-CRTDH Conclave 2023 will begin on 6th November 2023 with welcome address by Prof. Amit Prashant, Dean R&D, IIT Gandhinagar and an overview of the CRTDH by Dr. Sujata Chaklanobis, Scientist G & Head-CRTDH, DSIR. There will be an inaugural talk by Shri Sandip J.

Sagale, IAS, Industries Commissioner, Govt. of Gujarat. Subsequently, the Conclave will be inaugurated by Dr N. Kalaiselvi, Secretary, DSIR & Director General, CSIR along with release of DSIR-CRTDH reports and inauguration of Network-CRTDH portal by the Secretary, DSIR & DG-CSIR. The inaugural session will proceed with the inaugural address of the Guest of Honour, Dr N. Kalaiselvi. The inaugural session will conclude with the vote of thanks by Prof Chinmay Ghoroi, Coordinator CRTDH at IIT Gandhinagar. Next, Dr. N. Kalaiselvi, Secretary, DSIR & DG, CSIR and Shri Sandip J. Sagale, IAS Industries Commissioner, Govt. of Gujarat will inaugurate DSIR-CRTDH Exhibition. The exhibition will display the products/prototypes developed by various CRTDHs along with its associated MSMEs / Start-ups incubated at the CRTDH including posters. Other activities and achievements of these CRTDHs will also be showcased during the exhibition. The exhibition will not only give opportunity to different CRTDHs to know the accomplishments of the CRTDHs but also prospects to different MSMEs/Start-ups to interact with other CRTDHs to whom they are not associated.

Total five technical sessions will be conducted during two days' event, three sessions on Day 1 and two sessions on Day 2 which will have detailed deliberation on the challenges, learning, and success stories of different CRTDHs and MSMEs associated with them. Each session will start with keynote address of an eminent expert and will continue with experience sharing by CRTDH PIs and MSMEs. Day 1 will witness the sessions on "Innovation and Technology Adoption in Chemical Industry MSMEs", "Catalyzing Healthcare Innovation: Role of MSMEs" and "Empowering India: Renewables and Indigenous Electronics" whereas Day 2 will start with session on "MSMEs Driving Low-Cost Machining & Environmental Innovation" and conclude with "Innovate to Impact: Unleashing Potential and Driving Change through New Hubs". The Conclave will follow with formulation of action items for various stake holders. Dr. Vipin C. Shukla, Scientist -F & Member Secretary, CRTDH, DSIR will extend vote of thanks.

The event will be attended by Dr Ranjeet Bairwa and Dr Suman Mazumdar from CRTDH scheme division of DSIR along with CRTDH team of different CRTDHs. Representatives from Micro, Small and Medium Enterprises (MSMEs) and start-ups, industry associations will also participate in this event to explore the benefits of CRTDH in their R&D endeavors.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1974857>



Press Information Bureau
Government of India

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New Technology for Converting CO₂ to CO holds potential for Carbon Capture and Energy Saving in the Steel Sector

A new energy-efficient carbon dioxide capture technology that converts carbon dioxide to carbon monoxide under electro catalytic conditions under ambient temperatures in the presence of water has been developed with potential for application in the steel sector.

In efforts to support India's goal for net-zero emissions by 2070, the DST-supported National Centre of Excellence in Carbon Capture and Utilisation (NCoE-CCU) at IIT Bombay is actively working towards developing novel, scalable and affordable pathways on capturing CO₂ from various emission sources, and converting it into usable chemicals or permanent storage, representing a crucial pathway for greenhouse gas mitigation.

In a significant development, a team of investigators led by Dr. Arnab Dutta and Dr. Vikram Vishal, along with dedicated research scholars at the national centre has been granted a patent for CO₂ to carbon monoxide (CO) conversion technology. The innovation is also accepted for publication in the international journal, *Nature Communications*.

Carbon monoxide (CO) is a widely used chemical in the industry especially in the form of syn gas. In the steel industry, CO is an essential ingredient for converting iron ores to metallic iron in blast furnaces. Currently, CO is generated by partial oxidation of coke/coal, which leads to a significant production of CO₂ as an end product of this process. If this emitted CO₂ can be captured and converted into CO, it can lead to a circular economy in this process while reducing the carbon footprint and associated costs. The process for CO₂ to CO conversion that is widely in use currently occurs at elevated temperatures (400-750 °C), and the presence of the equivalent amount of H₂ is necessary for driving this reaction forward making it an energy-intensive process.

The newly developed process by IIT Bombay's NCoE-CCU requires only minimal energy as it can proceed under ambient temperatures (25-40 °C) in the presence of water. The energy required for this electrocatalysis reaction can be harnessed directly from a renewable energy source (in the form of a solar panel or windmill), which ensures a carbon-neutral operating scenario for a facile CO₂ to CO conversion.

This technology holds promise for various industrial applications and is being actively pursued for scaling up through the recently incubated start-up *UrjanovaC Private Limited* for potential application in the steel sector. In addition, another aqueous-based CO₂ capture and conversion to calcium carbonate technology emerging from the activities of the DST-supported NCoE-CCU is also licensed to *UrjanovaC Private Limited* incubated through SINE at IIT Bombay.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1974375>



Sun, 05 Nov 2023

IIT-Kharagpur Study: India's Surface Temperature may Increase by 1.1 to 5.1 Deg Celsius by 2100

Surface temperatures over India were likely to increase by 1.1 to 5.1 degree Celsius by the year 2100, a new study by IIT-Kharagpur has indicated. In a research paper titled "Enhanced surface temperature over India during 1980– 2020 and future projections: causal links of the drivers and trends" published in a Nature journal last month, said in high emission scenarios temperature rise

over the Indian region could go up to as high as 5.1 degree Celsius, almost at par with the upper-end estimates for the global average rise in temperatures. The actual rise in temperatures over the Indian region till now has been significantly lower than the global average. “The Earth’s surface temperatures have increased significantly since the beginning of industrialisation. The high emissions of greenhouse gases have contributed to global warming and climate change, which is expected to continue. We have investigated the long-term trends. We have investigated the long-term trends of surface temperature in India using surface, satellite and reanalysis data for the period of 1980–2020, and assessed the influence of geophysical drivers on temperature change using the causal discovery,” the research by the Centre for Ocean, River, Atmosphere and Land Sciences (CORAL) at IIT Kharagpur says.

The study, titled “Enhanced surface temperature over India during 1980–2020 and future projections: Causal links of the drivers and trends”, found increasing temperature trend during the pre-monsoon and post-monsoon seasons in the northwest, northeast, and north-central regions of India. “Analyses with the Coupled Model Intercomparison Project 6 (CMIP6) results show that temperature can increase up to 1.1–5.1°C by the year 2100 under the Shared Socioeconomic Pathways (SSP5)–8.5 scenario. The increasing trend of temperature in India is a big concern, which calls for adaption and mitigation measures to alleviate adverse effects of accelerated warming and regional climate change,” it said. The study was conducted in association with the Indian Institute of Tropical Meteorology in Pune which provided meteorological data based on which the research paper was made. “We have looked into the surface temperature in India in the last forty years and then made projections for the same till 2100. We have used a lot of data, especially from the Indian Meteorological Department which was provided by the Indian Institute of Tropical Meteorology in Pune. We have also used global data. We have made projections for different scenarios,” lead researcher and associate professor at IIT-Kharagpur’s CORAL, Jayanarayanan Kuttippurath told The Indian Express.

“Under moderate emissions scenarios, the average surface temperature over India as a whole is likely to be about 1.2-2°C by 2100. These are the intermediate greenhouse gas emissions at current levels. Under the high emission scenario (emissions increasing by 3 times by 2075), the average temperature is likely to increase by 3.5-5.1°C by 2100. These numbers agree with the global average and the recent Intergovernmental Panel on Climate Change (IPCC) evaluation. However, the high emission scenario could be unlikely because so many measures are being taken to bring down the emissions. But it can come up to maybe 3°C, if the emissions do not come down,” the professor elaborated.

The IIT-Kharagpur professor along with his three PhD students and a scientist from the Indian Institute of Tropical Meteorology in Pune worked on the study. It took them more than two years to arrive at these projections

The study also said that temperature increases in the last four decades in the country have ranged from 0.1 to 0.3°C per decade during pre-monsoon and 0.2- 0.4°C per decade during post-monsoon. According to the study, post-monsoon season displayed increasing temperature trends across the entire country, with the most significant values in the western Himalayan region (0.2-0.5°C per decade) and northeast India (0.1-0.4°C per decade).

west coast of India and peninsular India have increased by about 0.01 to 0.03°C per year in the last four decades during the October and November period. During the December-February period in the past four decades, parts of extreme north India, extreme north-west India, the temperatures in west coast of India and south peninsular India have increased by about 0.01 to 0.02°C per year.

<https://indianexpress.com/article/cities/kolkata/iit-kgp-study-indias-surface-temperature-may-increase-by-1-1-to-5-1-deg-celsius-by-2100-9012672/>

