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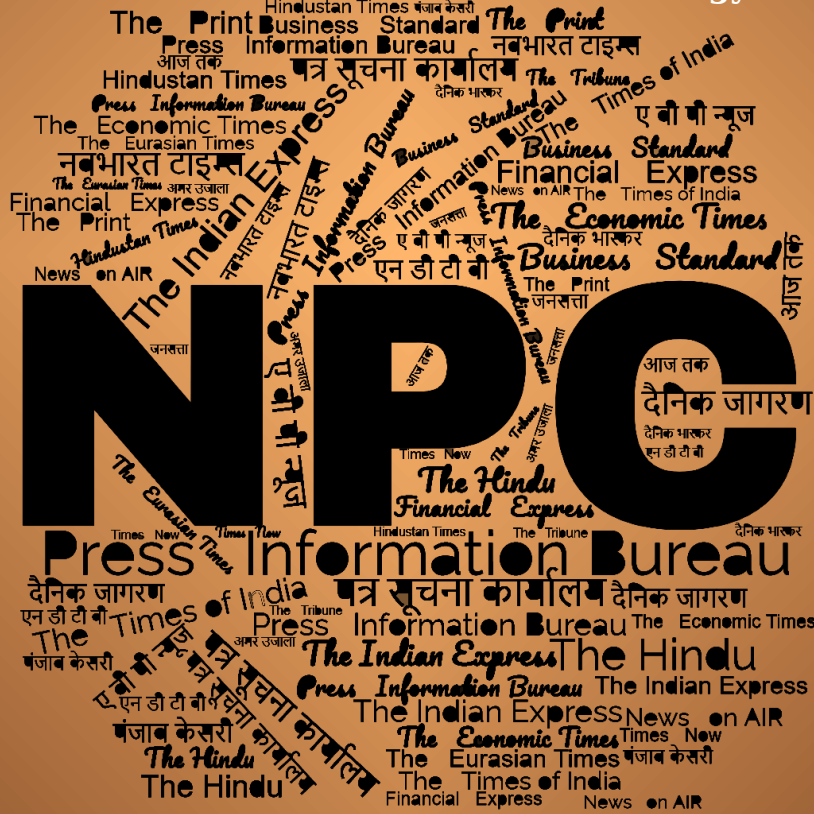
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Press Information Bureau
Government of India

Ministry of Defence

Thu, 25 May 2023

Raksha Mantri Says Technologically Advanced Military is Crucial to Protect the Interests of the Country

Shri Rajnath Singh inaugurates a two day DRDO – Academia Conclave in New Delhi

Calls upon DRDO and academia to work in partnership to make India a leading nation in defence technology

Raksha Mantri Shri Rajnath Singh has said that technologically advanced military is crucial to protect the interests of the nation. Inaugurating a two day DRDO- Academia conclave in New Delhi on 25 May, 2023, Shri Rajnath Singh stressed that for a country like India, it becomes vital to have such military as it faces double threat on borders.

“Today we are one of the largest armed forces in the world, the bravery and valour of our military is praised all over the world. Countries across the world express their willingness to conduct joint exercises with our armed forces. In such a situation, it becomes imperative that we have a technologically advanced military to protect the interests of the country. For a country like India, it becomes very important because we are facing double threat on our borders,” Raksha Mantri said.

Underscoring the significance of the theme of the conclave “DRDO-Academia Partnership - Opportunities & Challenges”, Shri Rajnath Singh said, it is dire need that DRDO and Academia work in partnership with each other to find solutions to the challenges being faced by us in the 21st century. “This partnership will prove helpful in making India a leading nation in defence technologies,” he said.

Raksha Mantri underlined that the path to acquire advanced technologies traverses through research and development (R&D) which plays a key role in the development of any country.

“Unless we do research, we will not be able to adopt new technologies. R&D has the ability to convert ordinary substances into valuable resources. It has been a key factor in the development of civilizations throughout the history,” Shri Rajnath Singh added. He expressed confidence that as partnership between DRDO and Academia reaches new heights, the fruits of this partnership will unlock potential of many new resources, which will benefit the entire country.

“I don’t see the partnership between DRDO and Academia from the point of view of 1+1=2, but as 1+1=11. That is, when these two entities cooperate with each other, not only both of them will get double benefit, but the entire nation will be benefited greatly from this partnership,” Shri Rajnath Singh said.

Elaborating on the benefits of the DRDO – Academia partnership, Raksha Mantri stressed, through this synergy, the DRDO will get a skilled human resource base from eminent institutions like IISC,

IITs, NITs and other universities from across the country as these institutions, nurture a large pool of talented and skilled youth.

“On the other hand, the academia will be benefited from the R&D fund of DRDO that it spends in developing new technologies, and will also get access to the advanced infrastructure and lab facilities of the defence research organisation. This symbiotic relationship will prove helpful in further enhancing the start-up culture in our country,” pointed out Raksha Mantri.

Shri Rajnath Singh further emphasised that such technologies developed through collaboration and collective efforts could have applications in both civil and defence sectors.

Raksha Mantri also urged the DRDO scientists and academia to deliberate on the option of deployment of the scientists of DRDO as faculty in the academic institutions for a specific period, which will give a new perspective to our Academia, whereas the intellectuals of Academia can also serve on deputation as a scientist within DRDO.

On the occasion, Raksha Mantri felicitated eminent scientists who have made outstanding contributions in the area of Aeronautics, Armaments, Life Sciences and Naval systems and other DRDO requirements through the grant-in-aid DRDO projects. He also released a Compendium of Invited talks about thrust areas for academia in understanding the requirements and opportunities in DRDO.

Secretary, Department of Defence R&D and Chairman of DRDO Dr Samir V Kamat, Scientific Adviser to Raksha Mantri Dr G Satheesh Reddy, Director General (Technology Management) Shri Hari Babu Srivastava, Former Secretary – Department of Science & Technology Prof Ashutosh Sharma, and senior officers of Ministry of Defence and senior scientists from DRDO and academia were present on the occasion.

The two-day conclave aims to create an interface between DRDO’s requirement and Academia’s capability by a synergistic dialogue between DRDO Directors, scientists and academicians. The Conclave will have one plenary session and four technical sessions on Aeronautics, Naval, Life Science and Armament. It is being attended by about 350 senior academicians across the country.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1927161>



Fri, 26 May 2023

Explore Cross-Movement of Scientists with Other Institutions: Rajnath to DRDO

Defence Minister Rajnath Singh on Thursday mooted the idea of the cross-movement of scientists between DRDO and other institutions as an option to enhance the links between the two research establishments leading to the development of new technologies.

Addressing a conclave here, Singh asked scientists from both sides to explore the possibility of deploying Defence Research and Development Organisation researchers as faculty in academic institutions while allowing scientists from other institutions to serve on deputation in DRDO.

Elaborating on the benefits of the DRDO–academia partnership, he said a synergy will help the defence research body get skilled human resources from institutions like the Indian Institute of

Science, IITs, NITs and universities. The academia, on the other hand, will benefit from the R&D fund of DRDO that it spends on developing new technologies.

Also, scientists from non-DRDO institutions will get access to the infrastructure and advanced laboratory facilities in the defence research organisation. "Such a symbiotic relationship will be helpful in further enhancing the start-up culture in our country," Singh said.

The Union government last year announced that the defence R&D will be opened up for industry, start-ups and academia with 25% of the defence R&D budget earmarked for such joint projects.

"Unless we do research, we will not be able to adopt new technologies.

R&D has the ability to convert ordinary substances into valuable resources. It has been a key factor in the development of civilisations throughout history," Singh added.

Addressing another conference largely attended by industry leaders, Singh asked the industry to become a 'leader' from an 'imitator' in futuristic technologies.

"Security equations are changing at an unprecedented pace and countries are focusing more than ever on technological advancements in the fields of artificial intelligence, quantum computing & genetics, etc. This is an opportunity to make a mark with the aim to help the nation leapfrog on the path of progress," he said at the CII annual session.

<https://www.deccanherald.com/national/explore-cross-movement-of-scientists-with-other-institutions-rajnath-to-drdo-1222001.html>



Thu, 25 May 2023

DRDO Begins Work on New Weapon Systems Like Laser Beams and High-Power Microwaves

The Defence Research and Development Organisation has begun work on new weapon systems like laser beams and high-power microwaves.

Speaking at a function today, the DRDO chairman, Dr Samir Kamat, said the shift towards cutting-edge technology, to fight the next war, has begun. For that, "space situational awareness" and "underwater domain awareness" was required. New technologies were also necessary to defend important military and strategic assets from hypersonic weapons. Direct energy weapons (like lasers and high-power microwaves) were necessary as well as cyber-related weaponry, both offensive and defensive.

For that, more resources were necessary and also, closer links with academia. Dr Kamat said that if India had to become a military-industrial complex like the United States, more resources were necessary. Currently research and development (R&D) gets five percent of the budget. In the United States and China, it is closer to ten percent.

We have to be risk averse," he said, as there are bound to be failures, temporarily perhaps, in R&D. He regretted that in the current circumstances, a string of failures would lead to a "CAG (Comptroller General of India) audit. Which is why tolerance for risk has to go up," he added. Even celebrated organisations like DARPA or the Defence Advanced Research Projects Agency of the United States faced failures.

One other option for DRDO was to create centres of excellence by collaborating with academia. This could work well as it has done in the case of the Massachusetts Institute of Technology (MIT) and Stanford University in the United States, he added.

<https://www.timesnownews.com/india/drdo-begins-work-on-new-weapon-systems-like-laser-beams-and-high-power-microwaves-article-100500451>

DRDO on Twitter



DRDO ✓
@DRDO_India



#DRDOUpdates | Hon'ble RM inaugurated DRDO Academia Conclave at DRDO Bhawan today. The two day event organised by DRDO aims to consolidate synergy between DRDO & Academia to meet challenges of next generation defence R&D for making country aatmanirbhar
@DefenceMinIndia



4:31 pm · 25 May 2023 · 8,493 Views



DRDO @DRDO_India · 17h

On this occasion, RM released scientific Compendiums and felicitated academicians who have made excellent contribution in areas of aeronautics, naval, armament and life sciences.



1 11 84 5,218



DRDO @DRDO_India · 17h

One technology each developed by IIT Delhi, IIT Bombay and CSIR-CMERI through directed research initiative of DRDO was handed over by these institutions to concerned DRDO Labs ADRDE, GTRE and VRDE respectively.



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Press Information Bureau
Government of India

Ministry of Defence

Thu, 25 May 2023

Innovate to Make India a ‘Leader’ from an ‘Imitator’ in Futuristic Technologies: Raksha Mantri Shri Rajnath Singh to Industry Captains at CII Annual Session in New Delhi

“R&D in cutting-edge technology must for India’s development & security, amid current global situation”

Country’s population an asset; Our aim is to convert the demography into a ‘wealth creating resource’ from ‘wealth consuming entity’: RM

Raksha Mantri Shri Rajnath Singh has called upon industry leaders to come up with innovative solutions to help India become a ‘leader’ from an ‘imitator’ in futuristic technologies and stay prepared to deal with challenges emanating from the current global security scenario. He was addressing the annual session of Confederation of Indian Industry (CII) in New Delhi on May 25, 2023. The theme of the session was ‘Future Frontiers: Competitiveness, Technology, Sustainability and Internationalisation’.

The Raksha Mantri asserted that, in today’s era, security equations are changing at an unprecedented pace and countries are focusing more than ever on technological advancements in the fields of artificial intelligence, quantum computing & genetics etc. He termed it as both - a challenge of not lagging behind in the race of technology as well as an opportunity of making a mark, with the aim to help the nation leapfrog on the path of progress.

Shri Rajnath Singh described Research & Development (R&D) in cutting-edge technology as the only way to achieve this goal, stating that it opens new dimensions crucial for the development and security of any nation in today’s times. “We need to set new goals and achieve them through innovative methods to keep ourselves prepared to deal with any challenges arising out of the ever-evolving global situation. R&D has the ability to convert things, which are viewed as resources, into resources. Technology improves the utilisation of the available resources. It acts as a force multiplier,” he said.

The Raksha Mantri stressed on the need for R&D to achieve excellence in various fields, including defence, health, education, agriculture, commerce & communication, stating that it can give the country an edge over the others. “To keep ourselves strong, we need to maintain our edge in these sectors. It will be possible only if we become technology leaders,” he said.

Shri Rajnath Singh pointed out that there are two faces to the technology paradigm across the globe – one of a leader nation which grabs an opportunity, innovates & invents a new technology and the

other of an imitator which follows the leader. Stating that new technological avenues are coming to the fore without any established leader, he exhorted the industry captains to strive to make India a technology leader from an imitator. He urged them to increase their in-house R&D funding and make inroads in new & untouched sectors/products/goods & services through new technologies.

The Raksha Mantri listed out the key requirements for a nation to become a technology leader, such as a substantial capital, a robust R&D infrastructure, demography as well as the ability to adopt, understand & create a base of previous technologies. He stated that the Government has taken a number of steps, such as banking policy, regulatory policy, providing funds, labour policy, education & health policy, which provide a playfield to the youth and the industry to work together and take R&D in the country to greater heights.

Shri Rajnath Singh also shared his insights on another dimension of technology, which he called 'Socio-Economic Technology', commonly referred to as governance. He was of the view that the country's population, which was once considered a liability, is now being viewed as an asset. "India is currently passing through Demographic Dividend. Policies have been rolled out for the optimum utilisation of this population. We have strengthened the ease of doing business and ease of living in India through the socio-economic technology of good governance. Reforms have been made in the education and health sectors, which focus on making the population educated as well as healthy & skilled," he said.

Emphasising that an educated and healthy manpower helps in increasing the productivity manifold, the Raksha Mantri exuded confidence that the Government's efforts will convert the demography into a 'wealth creating resource' from mere 'wealth consuming entity'.

Shri Rajnath Singh described the youth as the most crucial aspect of the demographic dividend, stating that the continuous growth of start-ups in the country is a result of the potential, energy and enthusiasm of the young Indian minds. "Today, there are about one lakh start-ups in the country; of which more than 100 are unicorns. Without much resources, our start-ups are competing with bigger entities with their passion. Our industries need to work with the same passion to compete with global giants," he said. In the context of Global Giants and Indian industries, the Raksha Mantri spoke about the 'Technology incumbent Challenger model', in which the challenger has more incentive to invent new technology. "The global giants may be technology incumbents due to their superior technology; but our industry, which is relatively small, is a technology challenger. It will have more incentive to invent new technology," he said.

Secretary, Department of Defence R&D and Chairman, Defence Research and Development Organisation (DRDO) Dr Samir V Kamat, other senior officials of Ministry of Defence and industry captains were among those present on the occasion.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1927162>

THE TIMES OF INDIA

Fri, 26 May 2023

With Double Threat on Border, must Focus on Defence Technology: Rajnath

India must focus on rapid advances in defence technology in view of the "double threat" it faces along the borders with China and Pakistan, defence minister Rajnath Singh said on Thursday. "Today we are one of the largest armed forces in the world, the bravery and valour of our military is praised all over the world.

Countries across the world express their willingness to conduct joint exercises with our armed forces,” Singh said, inaugurating a DRDO Academia conclave here. “In such a situation, it becomes imperative that we have a technologically-advanced military to protect the interests of the country.

For a country like India, it becomes very important because we are facing a double threat on our borders,” he said. At a separate CII event, Singh also urged the domestic industry to come up with innovative solutions to help India become a “leader” from an “imitator” in futuristic technologies and stay prepared to deal with challenges emanating from the current global security scenario.

Security equations are changing at an unprecedented pace in today’s era, with countries focusing more than ever on technological advancements in the fields of artificial intelligence, quantum computing, genetics and the like, he said.

“We need to set new goals and achieve them through innovative methods to keep ourselves prepared to deal with any challenges arising out of the ever-evolving global situation. R&D has the ability to convert things, which are viewed as resources, into resources. ”

<https://timesofindia.indiatimes.com/india/with-double-threat-on-border-must-focus-on-defence-technology-rajnath/articleshow/100514509.cms>

THE ECONOMIC TIMES

Thu, 25 May 2023

MiG-29K Fighter Makes Maiden Night Landing on INS Vikrant; Navy terms it 'Historic Milestone'

For the first time, the MiG-29K fighter aircraft undertook night landing on indigenously-built aircraft carrier INS Vikrant, a feat described by the Indian Navy as a "historic milestone". The Navy said the "challenging" night landing trial demonstrated the resolve, skill and professionalism of the crew of the INS Vikrant and the naval pilots.

The milestone was achieved on Wednesday night when the ship was sailing in the Arabian Sea, officials said.

"The Indian Navy achieves another historic milestone by undertaking the maiden night landing of MiG-29K on INS Vikrant. This is indicative of the Navy's impetus towards Aatmanirbharta (self-reliance)," Indian Navy spokesperson Commander Vivek Madhwal said.

"This challenging night landing trial also demonstrates the resolve, skill and professionalism of the Vikrant crew and the Naval pilots," he said. In February, Russian-origin MiG-29K and a prototype of the Naval variant of the indigenously developed Light Combat Aircraft (LCA) Tejas jets had conducted day landings on the aircraft carrier.

Defence Minister Rajnath Singh congratulated the Indian Navy for the successful maiden night landing trials of MiG-29K on INS Vikrant.

"Congratulations to the Indian Navy for successfully undertaking the maiden night landing trials of MiG-29K on #INSVikrant," Singh said on Twitter.

"This remarkable achievement is a testimony to the skills, perseverance and professionalism of the Vikrant crew and Naval pilots. Kudos to them," he tweeted.

In September last year, Prime Minister Narendra Modi commissioned India's first indigenously-built aircraft carrier INS Vikrant that made the country part of an elite group of nations capable of manufacturing aircraft carriers above 40,000 tonnes category.

The Navy had said the aircraft carrier would be able to play a role in ensuring peace and stability in the Indo-Pacific region.

Built at a cost of around Rs 23,000 crore, INS Vikrant has a sophisticated air defence network and anti-ship missile systems.

It has the capacity to hold 30 fighter jets and helicopters.

At the commissioning ceremony of the vessel, Prime Minister Modi called it a "floating city" and that it is a reflection of India becoming self-reliant in defence. The night landing of the MiG-29K aircraft came as part of flight trials onboard the aircraft carrier.

The INS Vikrant has over 2,300 compartments, designed for a crew of around 1700 people, including specialised cabins to accommodate women officers.

It has a top speed of around 28 knots and a cruising speed of 18 knots with an endurance of about 7,500 nautical miles.

The ship is 262 metres long, 62 metres wide and it has a height of 59 metres.

<https://economictimes.indiatimes.com/news/defence/mig-29k-fighter-makes-maiden-night-landing-on-ins-vikrant-navy-terms-it-historic-milestone/printarticle/100506302.cms>

THE ECONOMIC TIMES

Thu, 25 May 2023

Indian Army, IAF Conduct Joint Exercise Along Western Borders

Indian Army's Shatrueet Brigade and the Western Command conducted a joint exercise with the Indian Air Force along the western border, officials said on Thursday. The joint exercise was carried out to deploy paratroopers with new-generation weapon systems in support of mechanised forces deep inside enemy territory to facilitate and enhance the operational reach of their own forces.

C-130J Super Hercules, C-17 Globemaster and AN-32 aircrafts were used to insert troops and specialised equipment into designated areas in the obstacle-ridden terrain with clinical precision, an official statement here said.

"The exercise was carried out in realistic tactical settings and showcased the speed, agility and lethality of the paratroopers to induct into a hostile environment, secure dropping zones, and engage the enemy with surprise, precision and speed," it said. "A high level of operational preparedness and synergy was displayed between Western Command, strategic forces and the Indian Air Force to undertake integrated operations in an obstacle-ridden terrain," it added.

<https://economictimes.indiatimes.com/news/defence/indian-army-iaf-conduct-joint-exercise-along-western-borders/articleshow/100507972.cms>

Thu, 25 May 2023

GRSE Signs Contract for Ten 30 mm Naval Surface Guns

Kolkata, May 25 (UNI) Garden Reach Shipbuilders and Engineers (GRSE) Ltd., a Mini Ratna Category 1 Defence PSU and a leading warship-building company of India, has been awarded the contract for supply of Ten 30 mm Naval Surface Guns by the Ministry of Defence (MoD)/Indian Navy.

The contract worth Rs. 248.5 Crore for supply of these guns to the Indian Navy was signed by Cmde Vivek Dahiya Cmde (SR), Indian Navy and Cdr Shantanu Bose (IN, Retd), Director Shipbuilding GRSE on May 24, 2023.

This order marks a new chapter in the country's efforts for manufacturing critical weapons indigenously and a hallmark of GRSE's commitment to supporting the Indian Maritime forces.

The MoD has designated GRSE as the nodal agency for the indigenisation of Close in Weapons Systems (CIWS) guns for Naval applications in Mar 2022.

Under this mandate, GRSE has achieved this breakthrough in indigenizing the 30 mm Naval Surface Gun (NSG) a vital equipment to be indigenized under the CIWS.

The 30 mm NSG is a key weapon system fitted on small Warships and Auxiliary vessels of the Indian Navy and Indian Coast Guard.

GRSE remains committed to supporting the GoI's modernization efforts and 'Make in India' initiative.

The shipyard continues to pursue indigenisation opportunities and leverage its extensive capabilities in shipbuilding, engineering and defence technology to support the nation's maritime and land forces, according to a media statement here on Thursday.

<http://www.uniindia.com/grse-signs-contract-for-ten-30-mm-naval-surface-guns/east/news/2978850.html>



Fri, 26 May 2023

US Defence Secretary to Visit India in Early June, Defence Talks on Agenda

Lloyd Austin, the United States (US) secretary of defence, will visit India in early June to advance discussions on bilateral defence cooperation, Ely Ratner, the assistant secretary for Indo-Pacific security affairs in the department of defense said on Thursday.

Ratner, a key architect of the administration's defence posture in the region, also said that India and the US are now more strategically aligned than ever before and there is a clear directive from the top political leadership in the American system that the defence relationship with India was top priority and could not continue in "business-as-usual" mode.

He hinted at major announcements during Prime Minister Narendra Modi's state visit to the US on June 22, and expressed categorical support for co-production and co-development of defence systems to strengthen India's indigenous capabilities.

This will be Austin's second trip to India and his seventh visit to the Indo-Pacific since taking office in January 2021. Austin is travelling to Tokyo and then Singapore, where he will address the Shangrila dialogue before heading to New Delhi on June 4.

The secretary's visit comes in the run-up to Modi's state visit, where defence cooperation is expected to figure prominently among the outcomes. Austin is the fourth US cabinet-level secretary to visit India this year. Secretary of State Antony J Blinken, treasury secretary Janet Yellen and commerce secretary Gina Raimondo visited India in February and March.

Speaking at the Centre for Strategic and International Studies (CSIS), a prominent Washington DC think tank, in response to a question from HT, Ratner said Austin's visit comes amidst a "historic period in building out, deepening, modernising, advancing the US-India major defence partnership".

He referred to the launch of the initiative on critical and emerging technologies (ICET) this January which has a major component on defence industrial cooperation, a recent visit by Indian defence secretary for bilateral consultations with top Pentagon officials, Austin's upcoming visit, and Modi's visit, which Ratner said, will be "very rich".

Acknowledging that there have been "fits and starts" in the domain of bilateral defence industrial cooperation, Ratner said, "What we are seeing is closer than ever strategic alignment including on this question of what we have as a shared priority of deepening co-development and co-production and strengthening India's indigenous military capabilities as it is looking to strengthen its own military, as it is looking to be a net security provider in the region, and as it is looking to diversify away from Russian systems."

Ratner said these were all areas that the US supported. "This not only allows us to deepen our engagement from a technology and a systems perspective but also operate together and deploy these systems more than we have previously. We are very excited."

Ratner said that success in this area would require not operating in a "business-as-usual" mode. "Our leaders from the president, national security adviser (NSA) to the secretary of defence downwards have said in the case of India, it is not business-as-usual. This is a major priority. In this particular area of co-production and co-development, with ICET as the foundational institution for that, we want to see results."

The White House factsheet on ICET, released at the end of the NSA-level talks in January, had said that the US would conduct an "expeditious review" of an application from General Electric (GE) "to jointly produce jet engines that could power jet aircraft operated and produced indigenously by India". Both sides believe that a green signal to GE would be an important symbol of the deepening strategic relationship and of the US commitment to the Make in India initiative and India's quest for self-reliance.

Ratner said that work is progressing in the area. "On the questions of GE engines or other type of capabilities under defence capabilities under the ICET rubric, we are spending enormous amount of time on all this. We will be discussing all of this when the Secretary is in Delhi and are aiming to make major announcements when PM comes. Watch this space and you will know in a month's time whether we succeed."

Ratner served as deputy NSA to Joe Biden when he was vice president during the Barack Obama administration and is an influential figure in Pentagon. He has played a key role in supporting Japan's quest for military modernisation, operationalising the Australia-United Kingdom-US

(AUKUS) nuclear submarine deal, and deepening US defence cooperation with South Korea, Philippines and the Pacific Island countries in the past two years.

<https://www.hindustantimes.com/world-news/us-defence-secretary-lloyd-austin-india-pm-narendra-modi-us-visit-101685057725448.html>



Fri, 26 May 2023

China Building Border Defence Villages 11 kms from LAC in Uttarakhand, Say Sources

China, which is already locked in a lingering border standoff with India, has been building border defence villages adjacent to Uttarakhand, sources told India Today. These border villages, comprising 250 homes, are being built 11 kilometers away from the Line of Actual Control (LAC).

China has also been involved in the construction of around 55-56 houses around 35 kilometers away from the LAC adjoining Uttarakhand, which remain under the supervision of the People's Liberation Army (PLA). It has plans to construct 400 villages in the eastern sector along the border alone.

These villages are big complexes equipped with all the facilities. The Indian Army earlier said that it was monitoring the situation along the LAC, which is the border between India and China.

Earlier in April, the Indian Military expressed serious concerns over massive construction by China in the Amo Chu river valley in Bhutan. Amo Chu abuts the strategic Doklam plateau, from where India's Siliguri corridor is in the direct line of sight of China's PLA.

Pictures accessed exclusively by INDIA TODAY show the PLA's permanent habitation for its troops along with communication towers in Amo Chu. Close to 1,000 permanent military hutments as well as multiple temporary sheds have come up in recent months to house thousands of PLA troops.

<https://www.indiatoday.in/india/story/china-building-border-defence-villages-11-kms-from-lac-in-uttarakhand-sources-2384575-2023-05-26>



Fri, 26 May 2023

China not Responding to US Requests for Open Lines of Communication, Says Pentagon Official

The United States is keen to maintain open lines of communication with China in the military domain to avoid misperceptions both during peace time and crises but Beijing is either rejecting or not responding to American requests, Ely Ratner, the assistant secretary for Indo-Pacific security affairs in the department of defence (DOD), said on Thursday.

Speaking at a Washington think tank event, Ratner said the American strategy in the Indo-Pacific was one of deterrence aimed to make the costs of conflict in the Taiwan straits too high for China, while ensuring that activities aimed at deterrence did not lead to escalation and were in line with

the needs and preferences of allies and partners. It was due to this strategy that the US believes that a conflict across the Taiwan straits was “neither inevitable nor imminent” for the costs for Beijing were too high to bear at the moment. “And our job is to keep it that way,” Ratner said.

The US administration has consistently maintained that it wishes to have open lines of communication with China. During their meeting in Bali, President Joe Biden and China’s president Xi Jinping agreed to do so and announced a visit by Secretary of State Antony J Blinken to Beijing.

But days before Blinken was to depart for China in February, the US discovered a Chinese surveillance balloon over mainland American territory, leading to public outrage and the trip’s cancellation. In recent weeks, there has been a thaw in ties with US NSA Jake Sullivan meeting senior Chinese Communist Party foreign policy figure Wang Yi in Vienna, renewing the prospect of sustained high-level US-China engagement. But this hasn’t translated into the military domain yet.

Absence of military engagement

Ratner said that Lloyd Austin, secretary of defense, had emphasised the importance of these lines of communication. “But unfortunately, we have had a lot of difficulty when we have proposed phone calls, meetings, dialogues.”

He said whether it was at the level of Secretary Austin, chairman of the joint chiefs of staff Mike Milley, Indo-Pacific command (INDOPACOM) commander Admiral John C Aquilino, deputy assistant secretary of defence for China Michael Chase, or other civilian or uniformed engagements, American requests have either been rejected or not answered. “The US and DOD have had an outstretched hand on this question of military to military engagement but we have yet to have consistently willing partners.”

Ratner said that lines of communication were important both during peace time and during a crisis “to prevent misperception and miscalculation and to prevent crises from spinning out of control”. The aim of these mechanisms was to discuss how both sides thought about “emerging domains” and how they were conceiving their strategy in domains “which may have high escalatory potential”.

On whether Austin will meet his Chinese counterpart, General Li Shangfu, during the Shangrila dialogue in Singapore in early June, Ratner said that Austin and DOD had initiated a request to meet with Li several weeks ago. “That request has not been answered one way or the other. We are aware of what PRC (People’s Republic of China) has said about the fact that Li is under CAATSA sanctions. What is indisputable is that those sanctions have no legal or technical bearing on whether he can meet with Austin in Shangrila. Frankly the ball is in their court.”

While saying that the US-China relationship was not similar to the US-Soviet relationship, Ratner brought in a Cold War analogy. “The Cold War was a time of military rivalry between major powers. Folks often remember the intricate military to military mechanisms that were set up to manage that. But of course that came out of the Cuban Missile Crisis. The question for PRC is that do we need a major crisis because we take it seriously. Our argument is let us do it now and not wait for that to be the context.”

The Taiwan question and deterrence

Responding to a question on the situation in the Taiwan straits, Ratner first said that American policy had not changed. “We have maintained our consistent behaviour under the Taiwan Relations Act, one China policy. We have a clear objective to maintain status quo in the Taiwan straits. We do not support Taiwan independence. I repeat: We don’t support Taiwan independence. It is a talking point for critics of ours but it is not true. We want to maintain status quo.”

But Ratner added that under the same Act, the US had a commitment to provide Taiwan with defensive arms to defend itself as well as maintain America's own capacity to resist efforts at coercion. "We continue to do that through revisions of our force posture, through developments of new concepts, introduction of capabilities, our work with allies and partners. Where we are confident we are today is that deterrence is real and strong."

That is why, Ratner said, Pentagon leaders have maintained regularly that they don't believe that conflict across the straits was either "inevitable or imminent". "And the reason for that is because we have done all these activities, because we believe deterrence is real... Deterrence is strong and costs of conflict for Beijing remain not something they would be willing to bear... This will be a challenge as PRC continues to modernise. We certainly feel a sense of urgency. But deterrence is strong... and our job is to keep it that way."

Twin balance

Ratner said that the a key test for the strategy of deterrence was the US's ability to maintain balance in its policy in two ways.

The first was as it related to allies and partners. "How do we make those sustainable where PRC remains a geographic, economic, political, historical, cultural reality for every country in the region? We are not asking partners to choose between US and China. We meet them where they are in terms of their security concerns, be it sovereignty or energy. We are focused on supporting their priorities of modernisation and believe that benefits us through stability in the region."

Ratner claimed that the US was not trying to build a "major anti-China coalition" as critics alleged, and instead was adopting a unique approach. "We are moving at a very rapid pace, but alongside our allies and partners." The US, he said, wasn't "dragging" its partners along but "racing alongside them".

The second test, Ratner said, was building deterrence but not engaging in deterrence activities in a way that they would lead an escalation or crisis. "Getting the gears on that correct in a way that provides deterrent value in a way that is stabilising is a huge focus of ours."

<https://www.hindustantimes.com/world-news/united-states-china-relations-taiwan-straits-ely-ratner-joe-biden-xi-jinping-101685062057372.html>

Airforce Technology

Thu, 25 May 2023

France Commits to Strengthening its Navy, Air Force, and Army

France has long been a committed member of NATO and the European Union, with a well-established defence industrial base and a strong emphasis on domestic and European defence firms.

The defence budget is expected to grow from \$47.1 billion in 2022 to \$57.6 billion by 2028, according to GlobalData's "France Defence Market 2023-2028", reflecting the French government's commitment to strengthening its naval force, air force, and army capabilities.

France's defence strategy protects its territories, population, and national interests while respecting international security commitments. As such, the armed forces aim to develop operational

autonomy, integrate cyber capabilities into all operations, strengthen logistical agility, and exert global leverage across alliances and organizations.

Recently, France announced it would provide tanks, armoured vehicles and training for Ukrainian soldiers in a new wave of military aid as Ukraine prepares for an expected counteroffensive in its fight against a Russian invasion.

The French military has a well-established defence industrial base with sufficient domestic R&D and manufacturing capabilities to supply enough hardware and capabilities for the entire French army.

The French government tends to favour domestic and European defence firms over non-European suppliers, which may impede the entry of non-European defence companies into the French market.

The French government has also introduced additional limitations on foreign-led acquisitions of key suppliers within the domestic defence sector due to concerns over supply chain vulnerabilities and foreign access to sensitive information.

France's defence industry is supported by several trade associations and defence clusters that work closely with the government to promote collaboration, commercialization, and innovation.

France's commitment to modernization and addressing security concerns reflects its determination to maintain a strong naval force, air force, and army, ensuring the country's readiness to face future challenges.

<https://www.airforce-technology.com/news/france-commits-to-strengthening-its-navy-air-force-and-army/>



Thu, 25 May 2023

Russia begins Deployment of Tactical Nuclear Weapons in Belarus

Russia moved ahead on Thursday with a plan to deploy tactical nuclear weapons in Belarus, whose leader said the warheads were already on the move, in the Kremlin's first deployment of such bombs outside Russia since the 1991 fall of the Soviet Union.

President Vladimir Putin says the United States and its allies are fighting an escalating proxy war against Russia after the Kremlin chief sent troops into Ukraine in February last year.

The plan for the nuclear deployment was announced by Vladimir Putin in an interview with state television on March 25.

"The collective West is essentially waging an undeclared war against our countries," President Putin's defence minister, Sergei Shoigu, said at a meeting with his Belarusian counterpart in Minsk, according to Russia's defence ministry. The West, Mr Shoigu said, was doing all it could "to prolong and escalate the armed conflict in Ukraine."

Belarus President Alexander Lukashenko said that tactical nuclear weapons were already on the move after he said Vladimir Putin had signed an order, though there was no confirmation of that from the Kremlin itself.

"The movement of the nuclear weapons has already begun," President Lukashenko told reporters. Asked if the weapons were already in Belarus, he said: "Possibly. When I get back I will check."

Mr Shoigu said the documents he was signing in Minsk concerned the process for storing tactical nuclear weapons in a special facility in Belarus.

President Putin has repeatedly warned that Russia, which has more nuclear weapons than any other country, will use all means to defend itself, and he has cast the Ukraine war as a battle for the survival of Russia against an aggressive West.

The United States and its allies say they want Ukraine to defeat Russian forces on the battlefield but deny that they want to destroy Russia - and deny that the Ukraine war is in any way linked to post-Soviet enlargement of NATO.

It is still unclear exactly when the Russian tactical nuclear weapons will be deployed in Belarus, which has borders with three NATO members - Poland, Lithuania and Latvia. Russia will remain in control of the weapons. Tactical nuclear weapons are nuclear weapons used for specific tactical gains on the battlefield, and so are usually smaller in yield than the strategic nuclear weapons designed to destroy the biggest cities of the United States or Russia.

Russia has a huge numerical superiority over the United States and the NATO military alliance when it comes to tactical nuclear weapons: the United States believes Russia has around 2,000 such working tactical warheads.

The United States has around 200 such tactical nuclear weapons, half of which are at bases in Europe. These 12-ft B61 nuclear bombs, with different yields of 0.3 to 170 kilotons, are deployed at six air bases across Italy, Germany, Turkey, Belgium and the Netherlands.

Mr Shoigu said that Iskander-M missiles, which can carry conventional or nuclear warheads, had been handed to the Belarusian armed forces, and some Su-25 aircraft had been converted for the possible use of nuclear weapons.

"Belarusian servicemen have received the necessary training," Sergei Shoigu was quoted as saying by his ministry. He said the two countries could take further measures to ensure their security.

"NATO's military activities have become as aggressive as possible," Mr Shoigu said.

The United States has said the world faces the gravest nuclear danger since the 1962 Cuban Missile Crisis because of remarks by Vladimir Putin during the Ukraine conflict, but Moscow says its position has been misinterpreted.

The Treaty on the Non-Proliferation of Nuclear Weapons, signed by the Soviet Union, says that no nuclear power can transfer nuclear weapons or technology to a non-nuclear power, but it does allow for the weapons to be deployed outside its borders but under its control.

<https://www.ndtv.com/world-news/russia-begins-deployment-of-tactical-nuclear-weapons-in-belarus-4067168>

ThePrint

Thu, 25 May 2023

South Korea, US Hold Largest Live-Fire Drills to Respond to 'Full-scale Attack' from North Korea

South Korean and U.S. forces began their largest-ever joint live-fire exercises on Thursday, simulating a "full-scale attack" from North Korea, South Korea's defence ministry said. Some 2,500 troops from the South and the United States took part as the five-day exercise began in

Pocheon near the border with the North, the ministry said. Multiple tanks, howitzers and fighter jets were also involved, it said.

“The exercise demonstrated our military’s capability and readiness to strongly respond to North Korea’s nuclear and missile threats and to a full-scale attack,” the ministry said in a news release.

Last week, North Korea’s state media reported that leader Kim Jong Un had approved final preparations for the launch of the North’s first military spy satellite. Kim has said it is necessary to counter threats from the U.S. and South Korea.

Analysts say the satellite will improve North Korea’s surveillance capability, enabling it to strike targets more accurately in the event of war.

Recent commercial satellite imagery showed progress on a new launch pad in the North’s satellite launching station, with activity at a “new level of urgency,” most likely in preparation for the launch, the U.S.-based monitoring group 38 North said.

U.S. and South Korean forces have been carrying out various training in recent months, including air and sea drills involving U.S. B-1B bombers, after hopes for diplomatic efforts and COVID-19 restrictions led to many drills being scaled back.

North Korea has reacted angrily to the drills, which it sees as preparation by U.S. and South Korean forces for an invasion.

<https://theprint.in/world/s-korea-us-hold-largest-live-fire-drills-to-respond-to-full-scale-attack/1593950/>



Thu, 25 May 2023

US Army Testing New Patriot Replacement Sensor Capabilities at Missile Range

The US Army is testing two of its new air-defence sensors at White Sands Missile Range (WSMR) in New Mexico, the service recently announced.

The Lower Tier Air and Missile Defense Sensor (LTAMDS) has begun contractor verification testing (CVT), the army's Program Executive Office Missiles and Space (PEO MS) announced on 18 May. The army envisions the radar as a key technology for air defence in Guam and as a replacement for the Phased Array Tracking Radar to Intercept on Target (Patriot), service officials said. Raytheon Missiles and Defense won a USD383 million contract in 2019 to build six prototypes for the service. Joe DeAntona, Raytheon Missiles and Defense's vice-president of business development, told Janes in March 2023 that the service had begun some testing of the sensors. The system's primary sector CVTs are focused on regression, identification of friend-or-foe, and engagement operations centre testing “in preparation for live air-breathing threat search/track missions”, according to PEO MS's announcement. Raytheon officials said in 2020 that LTAMDS could track weapons that travel at hypersonic speeds – some of which are air-breathing missiles – but did not provide further details at that time. There are two sensors at WSMR undergoing testing, Scott Stearns, spokesperson for the range, told Janes on 24 May. Developmental test activities will begin at the range “later this year”, according to PEO MS.

<https://www.janes.com/defence-news/news-detail/us-army-testing-new-patriot-replacement-sensor-capabilities-at-missile-range>

Thu, 25 May 2023

Iran Unveils Latest Version of the Khorramshahr Ballistic Missile

Iran's defence ministry on Thursday unveiled a new ballistic missile with a range of 2,000 kilometres (1,242 miles) and a capacity to carry warheads weighing over a tonne.

The Kheibar missile -- the latest version of the Khorramshahr which is Iran's longest-range missile to date -- was unveiled alongside a replica of the Al-Aqsa mosque in east Jerusalem, in a live broadcast on state television.

Iran's Defence Minister Mohammad-Reza Ashtiani said the missile was unveiled as part of moves to "provide comprehensive support to our friends and countries that are on the path of fighting against the domination system".

State news agency IRNA said the Kheibar is "a liquid fuel missile with a range of 2,000 kilometres and a 1,500 kilogrammes warhead".

Its name references the ancient town of Khaybar -- located in modern-day Saudi Arabia -- known for a decisive seventh-century battle in which the army of Prophet Mohammed defeated its thousands of Jewish residents.

According to state media, the speed of the high-mobility tactical missile "can reach Mach 16 outside the atmosphere and Mach 8 inside the atmosphere".

The unveiling comes amid heightened tensions in the Israeli-Palestinian conflict and just over 10 days into a fragile Gaza ceasefire that ended five days of cross border conflict between Israel and the Iran-backed Palestinian militant group Islamic Jihad.

Days after the Khorramshahr was unveiled in 2017, then US president Donald Trump issued a stark warning at Tehran, casting growing uncertainty over whether a nuclear deal clinched with Iran would survive.

The 2015 deal formally known as the Joint Comprehensive Plan of Action, or JCPOA, gave Iran relief from international sanctions in return for curbs on its nuclear programme.

But the deal collapsed in 2018 after the United States unilaterally withdrew from it and reimposed sanctions, prompting Iran to suspend the implementation of its own commitments to curb nuclear activity including uranium enrichment.

In January 2020, Iran launched a missile attack on US forces at the Ain al-Assad military base in Iraq's Anbar province, days after a US drone strike at Baghdad airport killed revered Revolutionary Guard commander Qasem Soleimani and his Iraqi lieutenant Abu Mahdi al-Muhandis.

<https://www.deccanherald.com/international/world-news-politics/iran-unveils-latest-version-of-the-khorramshahr-ballistic-missile-1221854.html>

Fri, 26 May 2023

Expand User Scientific Community to Justify Expensive Space-Missions: ISRO Chief

Indian Space Research Organisation (ISRO) chairman S Somanath has urged Indian scientific institutions to identify talented students and take steps to motivate them in effectively using the data emerging from science-based space missions.

“Building a science payload, putting it on a satellite, launching it... involves huge money and contributions from thousands of scientists. It implies that the data be utilised and results justifying the investment be produced,” said Somanath.

He was addressing students and scientists during the day-long ‘User Meet of XPoSat’ organised at the ISRO headquarters in Bengaluru on Thursday.

ISRO is collaborating with the Raman Research Institute (RRI) to build X-Ray Polarimeter Satellite (XPoSat), scheduled to be launched sometime this year. XPoSat will be India’s first, and only the world’s second polarimetry mission using X-Ray. XPoSat aims to study the dynamics of the bright astronomical X-Ray sources under extreme conditions. It has two payloads – an X-Ray Polarimeter named POLIX and X-ray SPECTroscopy and Timing identified as XSPECT.

“In all our deliberations and meetings on science-based space missions, we discuss how well the data will be utilised; what value will be added to the science community; how it will contribute to the nation’s (scientific) progress and what scientific capabilities can be added. We cannot say that (a science-mission) will be of great value unless there is creation of a pool of scientists and make it a sustainable (effort). Many discussions on science-based missions are going on parallelly (with ISRO), but they do not reach a definition and has been a bottle-neck,” said Somanath.

About XPoSat, Somanath, also the secretary of the Department of Space Commission, said, “It is very important to create a pool of talent in the (respective) domain. In comparison to the scientific communities created during other (science) missions, the XPoSat user community is very small. And this is a point of concern, at this point. ”

Offering a suggestion to address the problem, the ISRO chief said, “Institutions need to identify talented young students and expand the community. We need to mentor them so that they use and work on the data even in future.”

While praising some of the recent science-based space missions like Astrosat and Mangalyaan with respect to their data collection and dissemination methods, the ISRO chairman pointed at the main challenge – of finding experts who can design instruments based on the need of the required measurements. “But, some institutions, with the help of ISRO, have done well on missions like Astrosat, Mangalyaan and Chandrayaan-1,” he noted. Much of XPoSat’s testing is nearing completion and the mission is in its advanced stages. Thursday’s meet was also attended by AS Krian Kumar, former ISRO chairman, senior scientists from ISRO and RRI and students.

<https://indianexpress.com/article/india/expand-user-scientific-community-justify-expensive-space-missions-isro-chief-8629165/>

