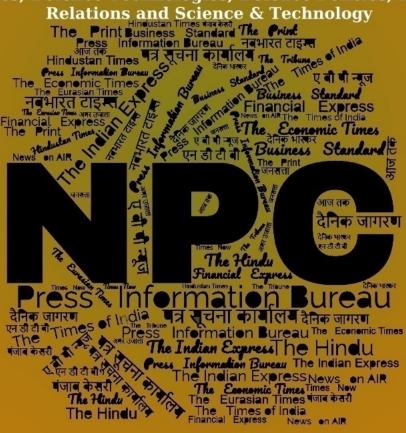
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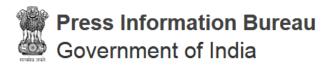
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Defence News

Defence Strategic: National/International



Ministry of Defence

Fri, 08 Mar 2024

Defence Secretary & Spanish Secretary of State for Defence meet in New Delhi; Focus on Defence Industrial Cooperation

Defence Secretary Shri Giridhar Aramane held talks with Spanish Secretary of State for Defence Ms Maria-Amparo Valcarce Garcia in New Delhi on March 08, 2024. A number of bilateral defence cooperation issues were discussed, with focus on industrial collaboration.

Both sides reviewed the ongoing projects, and discussed future joint plans in maritime and air domains. They appreciated the increased interaction at business-to-business level between the defence industries of both countries, including an ongoing visit from Spanish defence industry association TEDAE to India. The Defence Secretary highlighted the increased opportunities in India in the defence production sector.

Ms Maria-Amparo Valcarce Garcia is in India on a two-day visit, accompanied by a high-level delegation from the Spanish Ministry of Defence.

https://pib.gov.in/PressReleasePage.aspx?PRID=2012811



Ministry of Defence

Fri, 08 Mar 2024

President's Standard and Colours Presentation to Indian Air Force Units

On 08 March 2024, the Hon'ble President of India, the Supreme Commander of the Indian Armed Forces, Smt Droupadi Murmu, awarded the prestigious President's Standard to 45 Squadron and

221 Squadron, and the President's Colours to 11 Base Repair Depot (BRD) and 509 Signal Unit (SU) of the Indian Air Force (IAF). The award of the President's Standard and Colours is the highest honour that can be bestowed upon any military unit. This is the first time in the history of the IAF that four units have been awarded the President's Standard and Colours together in a single ceremony.

On arrival, the Hon'ble President was presented with an aerial salute by three Mi-171V helicopters in 'Dhwaj' formation trooping the National flag. General VK Singh (Retd), Min of State for Civil Aviation, also graced the occasion. Air Chief Marshal VR Chaudhari, Chief of the Air Staff and senior officers of the Indian Air Force were present on this momentous occasion.

The ceremonial parade was commanded by Group Captain KS Sanu Nair of 11 BRD. First Day covers for 45 Squadron, 221 Squadron, 11 Base Repair Depot and 509 Signal Unit were released by the Hon'ble President during the ceremony.

The President's Standard were received by Group Captain M Surendran, Commanding Officer of 45 Squadron and Group Captain Shubhankan, Commanding Officer of 221 Squadron. The President's Colours were received by Air Commodore Ashutosh Vaidya, Air Officer Commanding of 11 BRD and Group Captain Vivek Sharma, Commanding Officer of 509 SU during an impressive parade at Air Force Station Hindan, Ghaziabad.

Addressing the parade, the Hon'ble President congratulated the units receiving the President's Standard & Colours, and commended them for their services to the nation.

The Hon'ble President highlighted the courage, commitment and sacrifices of the Indian Air Force during war and peacetime operations, both within India and overseas. She also brought out the important contributions of the IAF in the ongoing space programmes of the country and the upcoming Gaganyaan mission.

The Hon'ble President also congratulated the women personnel of the IAF on the occasion of International Women's Day. She expressed happiness on the fact that women officers are provided with equal opportunities in every branch of the IAF, which provides them with greater opportunities for career advancement.

https://pib.gov.in/PressReleasePage.aspx?PRID=2012679



Ministry of Defence

Fri, 08 Mar 2024

Andaman & Nicobar Command carries out maiden All-Women Maritime Surveillance Mission

A maiden all-women maritime surveillance mission was undertaken by the Andaman & Nicobar Command on the 40th anniversary of INAS 318 and International Women's Day on March 08,

2024. The crew based at INS Utkrosh comprised Lt Cdr Shubhangi Swaroop, Lt Cdr Divya Sharma and Lt Vaishali Mishra.

The occasion highlighted the crucial role played by women combatants in all the walks of the Naval Air Arm, which included pre-flight briefing, meteorological briefing, medical check-up and Air Traffic Control (ATC) briefing, all of which were conducted by women officers. This milestone underscores the commitment of the Andaman & Nicobar Command towards providing equal opportunities to all genders and fostering gender neutrality within the Armed Forces. The successful completion of the mission affirms the capability of women to undertake independent operational tasks, highlighting their invaluable contributions towards the nation's defence and security.

INAS 318 is the elite Naval Air squadron in the Andaman & Nicobar Command, continuously engaged in surveillance role since its commissioning on March 08, 1984. The squadron commenced its journey with the induction of Islander aircraft which were replaced by Dornier aircraft in 1999. The Dornier aircraft is capable of carrying out long range maritime surveillance using state-of-theart Maritime Patrol Radars.

https://pib.gov.in/PressReleasePage.aspx?PRID=2012647



Ministry of Defence

Sat, 09 Mar 2024

India – U.S. Maritime Security Exercise 'Sea Defenders-2024' culminates at Port Blair

The comprehensive maritime security exercise 'Sea Defenders-2024' between the Indian Coast Guard (ICG) & United States Coast Guard (USCG) culminated at Port Blair on March 9, 2024. The exercise was aimed at enhancing maritime cooperation and interoperability between the two forces.

The Exercise included a variety of scenarios including a Pollution Response Demonstration, in which Indian Coast Guard ships and aircraft showcased their expertise in responding to oil spills and other environmental hazards at sea. It also simulated Visit Board Search and Seizure (VBSS) Operations for inspecting vessels suspected of illegal activity.

During the exercise, the Indian Coast Guard helicopter and Dornier aircraft conducted Search & Rescue and Pollution Response demonstrations, showcasing ICG's ability to undertake aerial surveillance and rescue missions. The exercise also included practice to neutralize asymmetric threats, akin to drone attacks on commercial merchant traffic. The exercise also provided a platform for both USCG and ICG personnel to hone their firefighting and damage control skills through a simulated scenario, where DCFF teams showcased capabilities to combat shipboard emergencies.

After the Exercise, the United States Coast Guard Cutter Bertholf departed from Port Blair. Its visit was marked by a series of engaging harbour activities and sea exercises designed to foster collabo-

ration. The activities included cross-visits, where crew members from both the Bertholf and ICG had the opportunity to tour each other's ships, gaining valuable insights into their capabilities and procedures. A friendly badminton competition was also organised, which provided a lighthearted opportunity for crews to interact and build camaraderie outside a professional setting.

These joint exercises provide valuable training opportunities for both Coast Guards, allowing them to refine their skills and improve their ability to work together in a coordinated manner. The visit of the USCGC Bertholf to Port Blair serves as a powerful symbol of the growing partnership between the US and Indian Coast Guard. Through collaborative efforts, both nations are working toward a safer and more secure maritime environment.

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Ministry of Defence

Sat, 09 Mar 2024

Naval Commanders' Conference 24/1

05 - 08 MAR 2024

The first edition of the Biannual Naval Commanders' Conference 2024 was conducted from 05 to 08 March 2024. The Conference is an institutional forum that enables deliberations on important maritime security issues at the Military-Strategic level. The inaugural session of the Conference was held onboard the aircraft carrier INS Vikramaditya. Follow-on proceedings were conducted at New Delhi, in hybrid format, on 07 and 08 March 2024. The Hon'ble Raksha Mantri, Shri Rajnath Singh, presided over the inaugural session, with Chief of the Defence Staff, Defence Secretary and other senior MoD officials and Naval Commanders in attendance.

Commending the brave and prompt response by the Indian Navy to recent incidents and developments in West Asia and the adjoining seas, the Raksha Mantri exhorted the Commanders to remain poised for operations across the spectrum of conflict. He underscored the leadership role expected of the Indian Navy towards ensuring peace and prosperity in the Indian Ocean Region. In addition, the Hon'ble Raksha Mantri emphasised the importance of Tri-Services Jointness and Integration to favourably shape and influence the future battlespace.

The proceedings at New Delhi on 07-08 March 2024 included review of major operational, materiel, infrastructure, Logistics and personnel related initiatives. Besides, the senior naval leadership reviewed existing and future plans, including capability enhancements in the island territories, to mitigate contemporary and future challenges in the maritime domain. Service Chiefs of the Indian Army and the Indian Air Force also engaged with the Naval Commanders, sharing their assessment of the operating environment, outlining readiness levels to defend national interests amidst prevail-

ing and evolving security challenges; Numerous areas and domains to enhance Tri-Services synergy and cooperation.

On the sidelines of the conference, Naval Commanders also interacted with various 'Think Tanks' during a 'Sagar Manthan' event on 08 March 2024. The forum provided an opportunity to engage with MSMEs, innovators and Academia to deliberate ways, means and novel avenues to further *Aatmanirbharta* initiatives and enhance self-reliance in defence production.

https://pib.gov.in/PressReleasePage.aspx?PRID=2012965



Ministry of Defence

Sun, 10 Mar 2024

First Training Squadron Participates in Cutlass Express 24

INS Tir, the lead ship of First Training Squadron (1TS) participated in Exercise Cutlass Express - 24 (CE - 24) held at Port Victoria, Seychelles from 26 Feb – 08 Mar 24. The exercise was inaugurated by the President of Seychelles in attendance of dignitaries from India, USA and African countries. As part of Cutlass Express, the Indian Navy actively engaged with participants from 16 friendly foreign countries. Training was conducted on theoretical and practical aspects of Maritime Interdiction Operations, Visit Board Search and Seizure procedures and Diving operations. During the sea phase, the ship's VBSS team boarded Seychelles Coast Guard (SCG) ship LE Vigilant and demonstrated procedures of boarding operations. Indian divers along with US and Seychelles divers undertook joint diving operations post rigorous training week.

The ship hosted R Adm Calvin M Foster, Deputy Commander of US Navy 6th Fleet who shared his views on the importance of maritime cooperation and shared commitment in the region, appreciating the crucial role played by the Indian Navy. The exercise culminated at a closing ceremony held at Seychelles Defence Academy, Ile Perseverance on 08 Mar 24. The Indian Navy has been participating in the exercise since 2019.

Earlier INS Tir undertook joint EEZ surveillance with Seychelles Coast Guard from 01-03 Mar 24. During the ship's stay at Seychelles, as part of long-range training deployment, professional exchanges, cross deck visits and friendly sports fixtures were held with Seychelles Defence Forces. The Indian Naval band performed at National Museum, Port Victoria and enthralled a huge crowd. Further, a philanthropic activity was also undertaken wherein provisions and stores were donated for the elderly.

During the Port Call, Senior Officer, First Training Squadron, Capt Anshul Kishore paid courtesy calls on Designated Minister Mr. Sylvestre Radegonde, Seychelles Minister for Foreign Affairs and Tourism, Brig Michael Rosette, Chief of Defence Forces — Seychelles Defence Force and Shri Kartik Pande, High Commissioner of India to Seychelles. As a goodwill gesture and cooperation, the ship handed over spares for SCG ships and aircraft towards capacity building.

The extant deployment of INS Tir at Seychelles and participation in exercise Cutlass Express underscores close ties between Indian Navy and the regional Navies towards joint training fostering interoperability and building bridges of friendship.

https://pib.gov.in/PressReleasePage.aspx?PRID=2013170

THE ECONOMIC TIMES

Fri, 08 Mar 2024

India, Japan hold Joint Military Exercise at Rajasthan's Mahajan Field Firing Range

A joint military exercise between India and Japan was completed on Friday at the Mahajan Field Firing Range in Rajasthan, a defence spokesperson said.

The fifth joint military exercise named 'Dharma Guardian' between the Indian Army and Japan Ground Self Defense Force was successfully conducted at Mahajan Field Firing Range on Friday. India's Rajputana Rifles battalion and a group of 40 soldiers from Japan participated in the exercise, defence spokesperson Colonel Amitabh Sharma said in a statement.

The primary objective of the exercise was to promote military cooperation and enhance capabilities to carry out joint operations in semi-urban environments under the mandate of the United Nations. The exercise, conducted in two phases, initially focused on combat conditioning and tactical training which was successfully completed by both the contingents. The acquired skills were then applied in a second phase, the statement said.

The closing ceremony of the joint exercise also featured an armament and material display and 'Aatmanirbhar Bharat' exhibitions showcasing the country's prosperity and growing industrial potential, it said

https://economictimes.indiatimes.com/news/defence/india-japan-hold-joint-military-exercise-at-rajasthans-mahajan-field-firing-range/articleshow/108334873.cms



Sun, 10 Mar 2024

Japan to Export Communication Antennas to India for warships

The Japanese government is considering exporting naval ship communication antennas to India, Nikkei has learned. The NORA-50 antenna, dubbed "UNICORN," was jointly developed by a group of Japanese companies that includes electronics maker NEC and Yokohama Rubber.

The antenna deal would expand Japan-India security relations to defense equipment, which in turn would likely strengthen deterrence in the Indo-Pacific region. Japan hopes the deal will also lead to India decreasing its heavy reliance on Russia for defense equipment. The UNICORN is deployed on Japan Maritime Self-Defense Force escort vessel FFM, and is known for its stealth design in which several antennas are housed in a hornshaped structure.

It enables the SDF to detect the movement of missiles and drones with its ability to sense radio waves from a wide area. Under Japanese law, it can be difficult to export defense equipment that could be used as a lethal weapon. The UNICORN would not violate the law as it is a communication tool. Until now, the only precedent of Japan exporting fully assembled defense equipment -- not parts -- was the radar system to the Philippines. The Quadrilateral Security Dialogue (Quad), a framework including Japan, Australia, the U.S. and India, is expected to hold a summit in India this year.

The sources said one plan is to confirm the UNICORN deal there during a meeting between Japan and India's leaders. India traditionally has imported the vast majority of its arms and defense goods from Russia. New Delhi has not taken part in Group of Seven-led sanctions on Russia related to the Ukraine war. India has also been criticized by some for supporting Moscow by buying large amounts of Russian gas.

But India is beginning to diversify its supply of defense equipment through deals with the U.S., France and Israel. New Delhi is also aiming to manufacture more arms domestically to nurture its industries. Negotiations with Japan on importing communication antennas also include potential technology transfers and local production, the sources said.

 $\underline{https://asia.nikkei.com/Business/Aerospace-Defense-Industries/Japan-eyes-export-of-stealth-naval-ship-antennas-to-India}$

THE ECONOMIC TIMES

Sat, 09 Mar 2024

Tri-service exercise 'Bharat Shakti' to demonstrate Prowess of Indigenously Manufactured Equipment

Mega exercise 'Bharat Shakti' to be held at Pokhran on March 12 is expected to be witnessed by Prime Minister Narendra Modi along with the top military brass and will showcase the "shock and awe" impact that the armed forces seek to achieve in an operational situation with manoeuvre and fighting capabilities. 'Bharat Shakti' will demonstrate the prowess of indigenously manufactured defence equipment of the three services, Additional Director General, Army Design Bureau, Major General C S Mann told reporters here.

The integrated tri-service firepower and manoeuvre exercise at Pokhran will be held for about 50 minutes, he said. "Synergised joint operations will be decisive in the Indian context. Through live firepower and manoeuvre demonstration, it is endeavoured to showcase the tri-services operational

capabilities to counter any threat leveraging indigenous capability and the ability to undertake conflicts in the face of global upheavals," Major General Mann said.

Sources said Prime Minister Modi is expected to watch the integrated triservice exercise to be held at Pokhran field firing ranges in Rajasthan's Jaisalmer district. LCA Tejas, ALH Mk-IV, LCH Prachand, mobile anti-drone system, BMP-II and its variants, NAMICA (Nag Missile Carrier), T90 tanks, Dhanush, K9 Vajra and Pinaka rockets are among the platforms that will be demonstrated.

The first-of-its-kind exercise on such a scale is "not tailored towards any direction (northern or western border) or any adversaries", sources in the defence establishment said. The exercise at Pokhran will also showcase systems and platforms integrated with the use of artificial intelligence. "It will showcase live integrated multi-domain operations of the three services in offensive operations using indigenous equipment," as also "high synergy, multi-service, multi-domain capability, thereby demonstrating inter-Service synergy", he said.

The event, being conducted at Pokaran, imposes terrain restrictions on depicting naval manoeuvres. However, such equipment will be showcased as part of the static display that will follow the live demonstration. "Exercise 'Bharat Shakti' will showcase the 'shock and awe' that the three services seek to achieve in an operational situation by employing manoeuvre and fighting capabilities effectively," Major General Mann said. In this demonstration, "the latest indigenous equipment of all three services...what impact they will have on adversaries on their physical capabilities and their mental state, the 'shock and awe' will be showcased," he added.

The proceedings will commence with the Army's Special Forces, MARCOS of the Indian Navy and GARUDS of the Indian Air Force "infiltrating by all- terrain vehicles and slithering operations, while surveillance of the battlefield will be carried out by remotely piloted aircraft and drones. This will be followed by the degradation of targets by long-range vectors and artillery guns," he said. The IAF will achieve a "favourable air situation by engaging strategic targets in depth, whereas the Navy will undertake maritime operations for strategic effects," the senior officer said, some part of the naval segment (happening at sea) of the exercise will be displayed digitally on screen.

Besides firepower and ammunition, logistics capabilities for transporting equipment and evacuation of injured and casualties using the latest technologies will also be demonstrated. Various types of Radar, UAV-launched precision-guided munition, Quick Reaction Fighting Vehicles, and drones of various types, including logistic drones and swarms of drones, and 3D-printed bunkers will be part of the exercise.

The aspects of India's cyber and multi-domain operations capability are also being dovetailed along with the operations of the three services. Major General Mann termed the announcement of Make in India as a "watershed moment", wherein the year 2020 brought about a "paradigm shift with the launch of Atmanirbhar Bharat campaign". The campaign proved to be a catalyst for transformation in indigenous R&D, adoption of niche technology and establishment of the indigenous manufacturing ecosystem, ushering in the manifestation of India's quest for self-reliance, he told reporters.

This is evident from the fact that the global share in Indian armed forces capability development projects has "steadily declined", whereas the share of the domestic component has "increased considerably," the senior officer said. In 2023, subscribing fully to the government's objective of Atmanirbhar Bharat, "98 per cent contracts have been concluded with Indian industry," he added.

"Even in all the cases we have started for procurement, which begin with AoN (Acceptance of Necessity), the majority of them are those which we will procure from Indian industry," the officer said.

Major General Mann said the global situation has been "turbulent" and the recent conflicts have brought into "sharp focus the centrality of national interests and need for Atmanirbharta", adding the supply chain disruption is the first casualty during any global conflicts as experienced in the last few years.

"Therefore, an important aspect of self-reliance is to have minimal dependency on global supply chains especially in terms of critical and fastmoving spares," he said. Sharing further details on the exercise, Major General Mann said, how individual communication systems of the triservices are integrated, 'e-Tarang' software tool will be showcased, and GIS-related systems, topographical maps, hydrographic charts and air navigation charts with analysis and operational planning capabilities will be showcased.

A "very robust ammunition manufacturing ecosystem" has now taken root in the country, he said. "Consequently, out of our inventory of existing 175 ammunition items, 154 items are now being sourced from indigenous sources," he added.

https://economictimes.indiatimes.com/news/defence/tri-service-exercise-bharat-shakti-to-demonstrate-prowess-of-indigenously-manufactured-equipment/articleshow/108352024.cms

THE ECONOMIC TIMES

Fri, 08 Mar 2024

Trials for Submarines to start in a few months, want to work together on Ammo: Spain

Spain has said that its submarine, in contention for a Rs 43,000 crore procurement order by the Indian Navy, has been declared technically compliant and will be ready for trials in a few months. Speaking to ET, Amparo Valcarce, Spain's Secretary of State for Defence said that there is also keen interest to work together in producing ammunition and missiles and several areas of cooperation have been identified.

In the first official word on the progress in the P 75I submarine contest to supply six boats to the Navy that will be built in India, Valcarce said that a joint bid by L&T and Navantia (Spain) is soon moving to the trials stage. "We have been advised that the technical offer has been assessed as compliant. The next step is to undertake trials of the Air Independent Propulsion System (AIP) of the offered design. L&T and Navantia are working to commence the trials in a few months," Valcare said.

Spain's Navantia is in contention with Germany's TyssenKrupp Marine Systems (TKMS) for the mega Navy contract that involves significant transfer of technology to the Indian construction partner. TKMS has chosen Mazagaon Dockyards Limited (MDL) as its partner and is expected to un-

dergo trials in the coming weeks. The secretary's statement has brought clarity that Navantia, fully-owned by the Spanish government, will also be in a position to go for trials, despite speculation that the submarine may not be ready to demonstrate the allimportant AIP that gives it the ability to stay underwater for weeks, a key requirement of the Indian Navy.

During her visit to the capital, Valcare met senior government officials, including Defence Secretary Giridhar Aramane and reaffirmed that Spain is willing to meet all technology transfer requirements. "The Spanish government fully supports the project, which includes military materiel export clearances. We perceive India as a very relevant player for ensuring stability in the Indo-Pacific," she said.

The Secretary added that Navantia is looking to participate in an upcoming tender for construction of Landing Platform Docks (LPDs) that are required by the Navy and will work with an Indian partner to make them locally. Valcare also mentioned the ongoing manufacturing of C 295 transport aircraft in Spain for an Indian Air Force order, emphasising that it demonstrates the ability and willingness to transfer technology as a bulk of the planes will eventually be made in India.

Other areas identified for cooperation were also identified between the two nations during the bilateral meetings. "We would like to open up new opportunities, for example, work jointly on missiles and ammunition. Our goal is to work jointly with India," the Secretary said.

https://economictimes.indiatimes.com/news/defence/trials-for-submarines-to-start-in-a-few-months-want-to-work-together-on-ammo-spain/articleshow/108335892.cms?from=mdr



Sun, 10 Mar 2024

PM Modi opens Sela Tunnel, puts Military Mobility in fast lane to counter China

Prime Minister Narendra Modi on Saturday dedicated the Sela tunnel project in Arunachal Pradesh to the country, with the infrastructure upgrade putting in the fast lane military mobility and logistics support for deployed forces in the strategic Tawang sector, where Indian soldiers hold posts close to the contested border with China.

Modi remotely inaugurated the tunnel, built by the Border Roads Organisation (BRO) at a cost of ₹825 crore, from Arunachal Pradesh's capital Itanagar during the "Viksit Bharat Viksit Northeast" (developed India, developed Northeast) programme. He laid the foundation stone for the tunnel, the world's longest twin-lane tunnel above 13,000 feet, in February 2019.

Sela tunnel's inauguration is a moment of great pride for the country, he said.

"When I had laid the foundation stone for it a few years ago, some people were unsure that this project will be completed soon because the work culture that prevailed for several decades normalised delays. But the NDA (National Democratic Alliance) government works with a different approach and the tunnel has been inaugurated, giving you all yet another reason to visit Arunachal

Pradesh," he wrote in a post on X, taking a dig at the previous Congress-led United Progressive Alliance (UPA) government ahead of general elections expected to be held this summer.

The new route will provide all-weather connectivity and allow quicker deployment of weapons, soldiers and equipment to forward areas near the Line of Actual Control (LAC) in the Tawang sector. The BRO, which is at the centre of India's border infrastructure push, has built the tunnel on the road connecting Tezpur in Assam to Tawang in Arunachal's West Kameng district. The army's Tezpur-based Gajraj Corps is responsible for guarding the Tawang sector.

In his address, Modi reiterated the government's unwavering resolve to develop the northeast, while stressing that the aim was to work to fulfil the country's needs, and not electoral considerations. He promised soldiers that he would visit the tunnel and meet them in his third term, once again expressing confidence that the ruling NDA will be voted back to power.

Arunachal Pradesh chief minister Pema Khandu and minister of earth sciences Kiren Rijiju were among those present at the programme.

"The tunnel will provide all-weather connectivity to Tawang across the pass, Sela, on the Balipara-Charduar-Tawang road, boosting the preparedness of the armed forces and augmenting the socio-economic development of the border region," the defence ministry said in a statement.

The project is significant as winter connectivity to Tawang over the 14,000ft Sela pass posed a logistics challenge for the army for decades, with the movement of men, weapons and stores severely affected for three to four months every year. The tunnel will cut down the travel time to Tawang by at least one hour. The tunnel has been designed for a daily traffic density of 3,000 cars and 2,000 trucks, with a maximum speed of 80 kmph, officials aware of the matter said, seeking anonymity.

The Sela project consists of Tunnel 1, which is 1,003 metres long, and Tunnel 2, a 1,595-metre twin tube tunnel. The tunnels have come up through two ridges west of Sela. The project also includes two roads measuring 8.6 km. Tunnel 2 has one bi-lane tube for traffic and an escape tube for emergencies. Only tunnels longer than 1,500 metres need to have an escape passage alongside.

The project will not only provide a faster and more efficient transport route in the region but is of strategic importance to the country, the defence ministry statement added.

The completion of the Sela tunnel project has put spotlight on India's border infrastructure push aimed at bridging the gap with China, which has fast-tracked the development of its forward areas. India and China have been locked in a dragging military standoff along LAC in eastern Ladakh since May 2020, and a full resolution of the border crisis through ongoing negotiations still appears elusive.

The BRO has completed 330 infrastructure projects at a cost of ₹8,737 crore in the past three years, and significantly improved the strategic mobility of the Indian armed forces along the contested border with China.

The Sela tunnel signals a monumental enhancement in the army's logistical prowess in the Tawang sector, Lieutenant General Harpal Singh (retd), who oversaw critical phases of the project as BRO chief, had said earlier.

"It will offer a fortified, expeditious and dependable conduit for troop mobilisation, equipment conveyance, and vital supplies distribution. The tunnel will allow the army to mount swifter responses to security challenges and assert a more resolute presence in the forward areas," said Singh, who was BRO's director general during 2018-20.

India's infrastructure push along its farthest frontiers is a firm and focussed response to China's thrust on developing its border areas, and has supported the military's pursuit of robust deterrence against the neighbour.

China's unrelenting infrastructure push over a span of just three to four years, confirmed by satellite images, encompasses new airbases, missile sites, roads, bridges, tunnels, reinforced bunkers, underground facilities to protect military assets from aerial strikes, accommodation for soldiers and ammunition depots.

China has an edge over India in border infrastructure, but the country is catching up fast with the neighbour on the back of speedy execution of strategic projects to support military operations, increased spending, and focussed adoption of technology and techniques.

https://www.hindustantimes.com/india-news/pm-opens-sela-tunnel-puts-military-mobility-in-fast-lane-to-counter-china-101710008142983.html

The Tribune

Sun, 10 Mar 2024

First of 180 Tejas Mark 1A aircraft set to be delivered by March-end

The first plane of the upgraded version of Light Combat Aircraft — Tejas Mark 1A — is set to be delivered by the end of this month and six more will be delivered this year.

In all, 180 such planes are planned in two tranches.

The planes can be used for warfare over land and also for maritime strikes.

The delivery commencing in March-end is of the 83 jets ordered by the Ministry of Defence in February 2021 under a Rs 48,000 crore order to public sector giant Hindustan Aeronautics Limited (HAL).

The Defence Acquisition Council had in November last year okayed the procurement of 97 more Tejas Mark-1A fighter jets. This will be in addition to 83 such jets ordered in February 2021.

The deal for 97 jets is expected to cost around Rs 1.15 lakh crore.

The prototype of the Mark 1A version is already flying. A series of validations are being done before deliveries commence.

The Indian Air Force already has 40 Tejas Mark 1 jets. The Tejas Mark 1A is an improved version of the aircraft. It features advanced mission computer, high performance digital flight control com-

puter, smart multi-function displays, advanced electronically scanned array radar, advanced self-protection jammer and electronic warfare suite.

https://www.tribuneindia.com/news/india/first-of-180-tejas-mark-1a-aircraft-set-to-be-delivered-by-march-end-599333

THE MOR HINDU

Fri, 08 Mar 2024

Backed by BrahMos, Navy's Minicoy Base to keep watch over Arabian Sea

Radars, jetties, airfield and BrahMos supersonic cruise missiles - the Indian Navy's newest base being established on Minicoy Island in Lakshadweep, INS Jatayu, will have all these and many more. The upgrade is part of a long-term capability development plan which officials and experts say will shore up India's security footprint in the islands located very close to critical Sea Lanes of Communication (SLOC). This is especially significant as Chinese naval footprint, which includes 'research vessels', has seen massive expansion in the Indian Ocean. Minicoy is also just few hundred miles from Maldives.

In addition to INS Jatayu, new infrastructure and facilities were inaugurated at the Karwar naval base in Karnataka by Defence Minister Rajnath Singh on Tuesday. These include two major piers and seven residential towers comprising 320 houses for officers and civilian defence personnel as well as 149 single officers' accommodation. "New radar facilities at Minicoy will augment surveillance and coastal batteries of extended range BrahMos supersonic cruise missiles with a range of around 450 km will give huge flexibility in responding to threats," officials in the know said.

It will be a phased expansion and in sync with the overall effort to develop the island chains around the country, officials stated. "As we commission Jatayu, it is crucial to recognise the pressing need for heightened surveillance amidst the prevailing geopolitical developments which underscore the strategic significance of Lakshadweep to India. The Indian Ocean Region is witnessing an upsurge in maritime terror, crime, and piracy," Navy Chief Admiral R. Hari Kumar said at the commissioning of INS Jatayu.

"INS Baaz to the east in Andamans and now, INS Jatayu in the west at Minicoy, will serve as the eyes and ears of the Navy," he stated. Lakshadweep, India's smallest Union Territory, is an archipelago consisting of 36 islands with an area of 32 sq km. It comprises 12 atolls, three reefs, five submerged banks and 10 inhabited islands. All Islands are 220-440 km away from Kochi in Kerala.

"Jatayu will be the 'watchkeeper' for Bharat at the gateway of Arabian Sea," said Vice-Admiral Shekhar Sinha, former Western Naval Commander, noting its proximity to the busy Nine Degree Channel, the approximately 200-km wide area between Minicoy and Kalpeni/Suheli Par islands of Lakshadweep.

Situated at the tip of India's Exclusive Economic Zone (EEZ), it also serves as a deterrent against any future adversarial presence, making Jatayu a "formidable static aircraft carrier". "Unfolding

geopolitical canvas in the Indian Ocean calls for fortification of Minicoy Island, a valuable asset. Apart from becoming a tourist paradise, Minicoy has potential of becoming a formidable gatekeeper of Arabian Sea," he told The Hindu. The first Commanding officer of INS Jatayu is Commander Vrat Baghel, and it will function under the operational control of Naval Officer-in-Charge (Lakshadweep), Southern Naval Command.

In recent years, there has also been a particular increase in smuggling of narcotics while illegal, unreported, and unregulated (IUU) fishing has been observed in Central Arabian Sea and Southwest Indian Ocean beyond the Indian EEZ. While trawlers from China, Hong Kong and Taiwan are engaged in IUU fishing, a majority of them are Chinese. Further, Vice-Admiral Sinha added that surveillance assets at Jatayu could feed into the Information Fusion Centre for Indian Ocean Region's (IFC-IOR) Maritime Domain Awareness network and provide the edge to Quad in the emerging world order.

"Creation of strong countermeasure assets would become essential to protect India's national interests." There is already an ongoing effort for infrastructure augmentation by the Central government in coordination with Island Development Authority and NITI Aayog. For instance, the NITI Aayog has joined hands with the Ministry of Civil Aviation and Airports Authority of India for expansion of Agatti airfield amid increased demand from tourists while Larsen & Toubro has been given a ₹4,500- crore contract to expand the runway to 2,800 meters.

For Minicoy, there is plan for the development of greenfield dual-use airfield which will have a longer runway making it capable of handling the Navy's P-8I long-range maritime patrol aircraft and medium- and long-endurance Unmanned Aerial Vehicles

Karwar naval base The Phase I construction of Karwar base under Project Seabird, which was completed in 2011, was designed to accommodate 10 ships and comprised a breakwater, a pier capable of berthing 10 ships, a 10,000-tonne ship lift and dry berth, a naval ship repair yard, logistics and armament storage facilities, accommodation for 1,000 personnel, a headquarters, and a 141-bed Naval Hospital.

The Cabinet Committee on Security has since granted approval for Phase IIA of Project Seabird which will see the base expanded for berthing of 32 ships and submarines, along with 23 yardcraft and include piers designed to accommodate ships and submarines, providing a berthing space of more than 6 km, technical facilities, electrical substations, switch gears, and support utilities. "The centrepiece of Phase IIA works is an iconic Covered Dry Berth, standing at a height of 75 meters, taller than the Qutub Minar in Delhi, and spread over 33,000 sq.m land area," according to the Navy.

"This dry berth is designed to facilitate simultaneous docking and comprehensive enclosed maintenance of up to four capital ships." In Phase IIA, four different townships encompassing residential accommodations, with about 10,000 dwelling units of all types for officers, senior and junior sailors and defence civilian staff, is being constructed while a green field dual-use naval air station with 2,700-metre runway is in the works along with a civil-enclave which will facilitate operations of commercial aircraft flights.

Once fully operational, with an estimated 50,000 individuals residing in the naval facilities spread over a 25-km expanse, a substantial contribution to the local economy is foreseen, the Navy added.

The ongoing situation in the Red Sea with continuing drone and missile attacks on commercial shipping and increasing piracy attacks in Gulf of Aden underscore the importance of the region for global trade. For instance, over 90% of the India's trade flows through the sea.

 $\underline{https://www.thehindu.com/news/national/minicoy-island-to-see-deployment-of-brahmos-missiles-in-future-as-part-of-expansion/article67929292.ece$

The Tribune

Mon, 11 Mar 2024

Nature of War vs Character of War

- by Lt Gen DS Hooda (Retd)

WARS have always been a subject of intense scrutiny and debate among scholars and strategists because of their impact on shaping the fate of nations. At the heart of this discourse lies a crucial distinction: the nature of war versus the character of war. The nature of war, immutable and unyielding, encompasses the enduring elements of conflict anchored in the fundamental aspects of human conflict. Conversely, the character of war is mercurial, shaped by time, technology, societal norms and geopolitical landscapes.

We are living in an era marked by rapid technological advancements, and the character of war is evolving with a velocity and complexity unseen in previous ages. Therefore, much of the emphasis of the current study of warfare is on the character of war and the adoption of technological tools to our warfighting techniques. However, as we embark on strategic and structural changes to meet future challenges, we must pay equal attention to the nature of war, which, at its core, is characterised by violence, uncertainty, a clash of wills and the pursuit of political aims through force.

At the heart of every conflict lies a political aim, a truth famously articulated by Carl von Clausewitz when he described war as "the continuation of policy (politics) by other means". This principle, though simple in theory, is often found missing in practice. Military leaders tend to see war as separate from the political process and frequently frame military successes as victory in a war. There are numerous examples in military history where battles were consistently won but the war was lost.

American Colonel Harry Summers, author of On Strategy: The Vietnam War, recounts a conversation with Vietnamese Colonel Tu after the war had ended. When Harry told him, "You know, you never beat us on the battlefield," Colonel Tu responded, "That may be so, but it is also irrelevant."

Problems also occur when political objectives are poorly defined or are overambitious. When the US invaded Iraq in 2003, it was unclear whether the aim was to punish a state sponsoring terrorism, eliminate weapons of mass destruction or promote democracy. Gen George Casey, commander of the coalition forces in Iraq from 2004 to 2007, admits that he found it difficult to answer the question: "What are we really trying to accomplish?"

Improbable political objectives can lead to the application of military force with little hope of success. When Russian President Vladimir Putin announced the start of the 'special military operation', he said the purpose was to "demilitarise and denazify Ukraine". Ukrainian President Zelenskyy has vowed to retake all the occupied territory, although this does not appear militarily feasible. Amid the pursuit of these unattainable objectives, the war continues with neither side in a position to achieve a decisive victory.

Wars are, by their nature, violent and extract a heavy cost. The advent of technology has enhanced their destructive power. Cyber and information warfare are necessary warfighting tools but cannot ensure a non-kinetic victory. Even where one side has clear military superiority, there is no bloodless victory. In the First Gulf War, the US-led coalition force suffered less than 300 battle-related deaths, but casualties on the Iraqi side ranged from 1,00,000 to 2,00,000, most of them civilians. Ongoing conflicts in Syria, Yemen, Ukraine and Gaza reveal the horrific human costs of war.

The costs are not only human but also material. In the Ukraine war, Russian units are firing as many as 6,00,000 artillery shells per month, and the Ukrainian forces approximately 2,40,000 shells every month. A May 2023 report by the UK's Royal United Services Institute found that Ukraine lost roughly 10,000 drones every month.

These staggering figures have led many countries around the globe to reassess battle losses and scale up defence production capability. Russia has ramped up its capacity to manufacture two million artillery shells annually. The Russian defence minister has stated that the country produced 1,530 tanks and 2,518 armoured fighting vehicles in 2023. Ukraine's drone industry is projected to manufacture one million drones in 2024. Countries unwilling to bear the cost of war will not win.

The assertion that war is a clash of wills underscores its intrinsic nature as a struggle not only of military might but also of determination, resolve and the capacity to endure. The Soviet and US invasions of Afghanistan and the Vietnam War pitted negligible military forces against the strongest powers in the world. Yet, the outcome was very different from what would have been arrived at by the traditional method of bean-counting the number of tanks, ships and aircraft, and technology levels.

The US war in Afghanistan began on October 7, 2001, and Kabul was captured on November 13. After the swift military victory, then President George W Bush stated that a "revolution in our military is only beginning, and it promises to change the face of battle. These past two months have shown that an innovative doctrine and high-tech weaponry can shape and then dominate an unconventional conflict." Twenty years later, this assertion fell apart as the Taliban's enduring tenacity and strategic adaptability forced a hasty and chaotic US withdrawal from Afghanistan.

Facing challenges on both its continental and maritime frontiers, the Indian military is undergoing reform and transformation. The Indian Army has declared 2024 as the year of technology absorption. However, even as we adapt to the changing character of war, the transformation must address some fundamental questions: Will wars be long or short? What are the political objectives? What is the nature of the adversary? How much are we prepared to sacrifice for victory? What is the national strategy to be adopted? The immutable nature of war provides more complete answers to these questions.

Military leaders must heed Clausewitz's words: "The first, the supreme, the most far-reaching act of judgment that the statesman and commander have to make is to establish... the kind of war on which they are embarking; neither mistaking it for, nor trying to turn it into, something that is alien to its nature."

https://www.tribuneindia.com/news/comment/nature-of-war-vs-character-of-war-599226

THE ECONOMIC TIMES

Sat, 09 Mar 2024

India's Security Dynamics involves Multi-Faceted Threats, says Air Chief Marshal V R Chaudhari at OTA

Air Chief Marshal V R Chaudhari addressed the passing out parade at the Officers Training Academy, emphasizing the changing nature of warfare due to technological advancements. He stressed the need for multi-domain capabilities and urged young officers to stay updated with technological developments.

Air Chief Marshal Chaudhari highlighted India's security dynamics, which face diverse threats and challenges. He emphasized the importance of building multi-domain capabilities and conducting operations efficiently and swiftly. "India's security dynamics involves multi-faceted threats and challenges. It would require us to build multi-domain capabilities and execute operations simultaneously and in shortened timeframes," he said and called upon the young officers to stay abreast with technological advancements.

He noted that the officers are entering the profession during a period of significant technological transformation. The armed forces have invested heavily in advanced war-fighting machines, and he urged the future operators to be proficient in their use through rigorous training and a professional approach. "Our Armed Forces have invested heavily in acquiring the next generation war fighting machines.

You, as future operators of these highly potent systems, need to be fully conversant with them, and this can be achieved only through rigorous training, dedication and a professional approach," the Air Marshal said. As future officers, Chaudhari encouraged them to study military history, geopolitics, and international affairs to understand the complex and dynamic world better. Quoting Field Marshal Sam Manekshaw, he emphasized the nation's expectation of exceptional professionalism and unquestioned integrity from the officers.

He urged them to maintain high standards of personal conduct and moral values. He advised the officers to be fair, consistent, and selfless in their work, and to be compassionate and understanding when dealing with subordinates. 184 officer cadets and 36 women cadets were commissioned into various arms and services of the Indian Army after completing rigorous training.

Additionally, three officer cadets and six women cadets from friendly foreign countries completed their training, promoting international camaraderie and cooperation. Air Chief Marshal Chaudhari

presented awards including the sword of honour, silver medal, gold medal, and bronze medal to outstanding cadets.

The passing out parade at the Officers Training Academy was a testament to the dedication and professionalism of the future officers of the Indian Army, as they prepare to serve the nation in an era of rapid technological change and evolving security challenges.

https://economictimes.indiatimes.com/news/defence/indias-security-dynamics-involves-multi-faceted-threats-says-air-chief-marshal-v-r-chaudhari-at-ota/articleshow/108342825.cms

THE ECONOMIC TIMES

Sat, 09 Mar 2024

India, Bangladesh Border Forces vow to stop attacks on Security Personnel

Border guarding forces of India and Bangladesh Saturday agreed to undertake joint efforts to "bring down to absolute minimum" the incidents of attack on BSF personnel by criminals from the neighbouring country along the 4,096-km-long International Border (IB) shared by them, an official statement said. The bi-annual Director General (DG) level talks between the Border Security Force (BSF) and Border Guard Bangladesh (BGB) ended in Dhaka with the signing of a joint record of discussions.

The Indian delegation led by BSF DG Nitin Agrawal travelled to Bangladesh for the 54th edition of these talks held between March 5-9 at the BGB headquarters at Pilkhana in Dhaka. BGB DG Maj Gen Mohammad Ashrafuzzaman Siddiqui headed the Bangladeshi delegation.

A BSF spokesperson said in Delhi that the two sides, during this meeting, carried forward the agenda for which the "highest leadership of the two countries had laid the foundation of a lasting and mutually beneficial relationship".

"On the incidents of assault/attack on BSF personnel by Bangladesh-based trans-border criminals and miscreants, both sides agreed to undertake combined efforts to bring down such incidents to absolute minimum by increasing coordinated patrols especially during late hours of nights to early morning in vulnerable areas and educating bordering population regarding the sanctity of IB. "Both sides also agreed to aid victims of human trafficking and to facilitate their rescue and rehabilitation as soon as possible as per law of the land," the spokesperson said.

The spokesperson added that both the countries also agreed to share an approved design of six developmental works on Indian side and a similar number of developmental works on three Bangladesh side. As a goodwill gesture, he said, the BSF agreed to a BGB proposal of construction for preserving of 18 graves of their martyred freedom fighters of that country at Tamabil and Sylhet, located across the border.

The two forces agreed to pursue and share real-time information and investigation reports of human traffickers and remain extra-vigilant to curb a variety of trans-border crimes like illegal cross-

ing, smuggling of various items and put all out efforts to make India-Bangladesh border crime free, he said. Incidents of death at the border will be brought down to zero with active mutual cooperation in the near future, the two sides decided.

The BSF also put across certain other points regarding action against Indian insurgent groups in Bangladesh, issues related with border infrastructure, joint efforts for effective implementation of the coordinated border management plan, confidence building measures and other miscellaneous activities.

The BGB agenda included prevention of border crimes, illegal crossing and intrusion into Bangladesh territory by BSF and Indian nationals/miscreants and issues related to border infrastructure within 150 yards of the IB, the spokesperson said. Both sides expressed their satisfaction over the outcome of the conference and reiterated their commitments to work jointly for maintaining peace and tranquillity at the border, he said.

The DG-level border talks were held annually between 1975 and 1992 but they were made biannual in 1993 with either side alternatively travelling to the national capitals of New Delhi and Dhaka. The last talks were held in Delhi in June, 2023 while he next are being expected to be held here during September-October.

 $\frac{https://economictimes.indiatimes.com/news/defence/india-bangladesh-border-forces-vow-to-stop-attacks-on-security-personnel/articleshow/108354086.cms$



Sat, 09 Mar 2024

Women's Day: Indian Army to raise two sports companies for girls

The Indian Army will be setting up two Army Girls Sports Companies (AGSCs) in a phased manner within two of its centre of excellence nodes at Mhou and Pune to identify young talent, educate them and train them to become champions in their respective sporting discipline. The move is in line with the national vision of 'women empowerment' and demonstration of 'Nari Shakti'.

The AGSCs will be situated at two key Army Centre of Excellence nodes: the Army Marksman-ship Unit in Mhow, Madhya Pradesh, and the Army Sports Institute in Pune. Their primary goal is to provide training to young girls hailing from all corners of the country, focusing on disciplines such as Shooting, Archery, Athletics, Boxing, and Weightlifting.

These two locations, which will become fully operational from April 2024, boast state-of-the-art training infrastructure, including a sports medicine center, rehabilitation facility, and coaching amenities.

Utilising its wealth of experience in scouting young talent, as exemplified by the successful track record of Boys Sports Companies, the Indian Army is expected to play an important role in shaping the future of aspiring athletes.

This young talent at AGSCs will learn from the experience of senior Army teams and athletes training at these locations.

Girls enrolled in AGSCs will not only be eligible for recruitment as direct entry Non-Commissioned Officers and Direct Entry Junior Commissioned Officers but also have the option of enrollment as Agniveers.

Subedar Preeti Rajak, a champion trap shooter and Asian Games Silver medalist, started as a Havildar in the Corps of Military Police in December 2022. She made history, becoming the first woman soldier promoted to Subedar in January 2024. She trains at the Army Marksmanship Unit in Mhow, one of the locations establishing an Army Girls Sports Company.

Similarly, Jasmine Lamboria, Bronze medalist in the Commonwealth Games 2022, became a non-commissioned officer in the Indian Army in October 2022.

 $\underline{https://ddnews.gov.in/national/women\%\,E2\%\,80\%\,99s-day-indian-army-raise-two-sports-companies-}$

girls#:~:text=The%20Indian%20Army%20will%20be,in%20their%20respective%20sporting%20d iscipline.

THE ECONOMIC TIMES

Sun, 10 Mar 2024

Maldives purchases drones from Turkey to patrol country's vast maritime area

Maldives has for the first time acquired surveillance drones from Turkey for patrolling its vast exclusive economic zone, according to media reports on Sunday. Efforts have begun by the state to establish a drone base in Noonu atoll Maafaru to operate the military drones brought from Turkey to conduct monitoring of Maldives' ocean territories, Editon.mv news portal reported.

Turkey was the first foreign country visited by Mohamed Muizzu after he was sworn in as president in November. During his visit, he had seen the various military vehicles produced by the country and formed an agreement with a Turkish company to import military drones into his country, the report said

However, the Maldives government has not disclosed the details of the agreement so far. The surveillance drones from the Turkish company Baykar TB2 drones were delivered on March 3, reports said.

Pro-Beijing President Muizzu, upon his return from China in January, had indicated that the government was looking to acquire surveillance drones. On March 4, Muizzu also announced that his country is working to establish a 24/7 monitoring system for the Maldivian waters this month to ensure control of its Exclusive Economic Zone (EEZ) despite its significantly large area.

Adhadhu news portal also reported that earlier this year, the President's Office has amended the Import Duty Waiver Procedure to give the President the discretion to remove import duties on items for use by the security services. "This is believed to be an amendment to the rules to facilitate the purchase of military drones," it said.

https://economictimes.indiatimes.com/news/defence/maldives-purchases-drones-from-turkey-to-patrol-countrys-vast-maritime-area/articleshow/108368719.cms

THE ECONOMIC TIMES

Sat, 09 Mar 2024

Top PLA general calls for crackdown on 'fake combat capabilities' in Chinese Military

In a surprise development, a top Chinese military general has cast aspersions on the PLA's much-publicised 'real combat-oriented exercises' as 'fake combat capabilities' at a time when Chinese President Xi Jinping has ordered it to prepare for "maritime military struggles" to win wars.

The remarks by General He Weidong, the second-ranked vice-chairman of China's powerful Central Military Commission (CMC), the overall high command of the three Armed Forces headed by Xi, during a discussion with a People's Liberation Army (PLA) delegation on Tuesday, according to minutes of the meeting made available to media.

Though it was just one line – Gen He called for a crackdown on 'fake combat capabilities' in the military -- military analysts say the remark by a top official in the backdrop of the recent purges carried out by Xi, questions the authenticity of the real-time combat exercises as insisted by Xi since he took over power in 2012-13 and the quality of the equipment, Hong Kong-based South China Morning Post newspaper reported on Saturday.

Xi recently sacked Defence Minister Gen Li Shangfu last year, which was followed by the removal of another nine senior generals, many of them from the key Rocket Force, which operates the country's missile forces. Since Xi took over, the Chinese military, at all levels, is carrying out real-time drills splitting forces into two groups to test their combat skills. Analysts say the message from Gen He, China's number three military official, was "brief and ambiguous", but could relate to the procurement of flawed equipment, and also deception among the ranks during training.

The Chinese government early this week hiked the defence budget by 7.2 per cent to USD 232 billion as it continues with the massive modernisation of its military amid prevailing tensions over Taiwan, the disputed South China Sea as well as border frictions with India and increasing rivalry with the US. China is the second largest spender after the US, whose military budget last year was USD 886 billion.

Fu Qianshao, a former equipment expert with the PLA, said He appeared to be partly referring to the procurement of flawed weapons, which could affect the military's combat capabilities. "The weapons and equipment should reach the technical standards. So, counterfeiting will surely have an impact on how they function," he told the Post. "Fake combat capabilities" could also refer to "fake" drills that do not reach the standards required, such as "night exercises" being conducted around sunset – something military mouthpiece PLA Daily has reported about in recent years, the Post said.

Xi, who heads the ruling Communist Party and has the Presidency, places a premium on the combat readiness of the military as its battle readiness has not been tested in recent decades. For his part, Xi has called hi-tech integration of the armed forces, which is vital to joint operations. Xi also ordered the PLA to prepare for "maritime military struggles" and protect maritime rights, state-run Xinhua news agency reported.

"The preparations for the military struggle at sea, the defence of maritime rights and interests and the development of the maritime economy must be integrated," he said, adding, "Strategic capabilities in emerging areas are an important part of national strategies and are of great significance to the country." During the PLA discussion at the parliament in Beijing on Tuesday, there was more emphasis on loyalty to Xi than in previous years, according to the Post report.

Earlier, Xi's anti-corruption drive also targeted the military with dozens of top generals either sacked or investigated in the last 10 years. Besides the sacking of nine generals, the government also removed three senior executives from the state-owned aerospace and defence sector from the top political advisory body, the Chinese People's Political Consultative Conference (CPPCC) in December.

The PLA, meanwhile, is under pressure to boost combat readiness, with President Xi calling for the military to step up "real combat" exercises and training to prepare for "stormy seas" ahead at a time when geopolitical tensions are rising and rivalry with the US is heating up. Fu, the former PLA equipment specialist, said He's comments also hinted at the problems with training, and that it "should be conducted according to the actual combat requirements – it must not become a show."

https://economictimes.indiatimes.com/news/defence/top-pla-general-calls-for-crackdown-on-fake-combat-capabilities-in-chinese-military/articleshow/108352091.cms

Science & Technology News

THE TIMES OF INDIA

Sun, 10 Mar 2024

1 mission, 2 rockets: ISRO's plan for Chandrayaan-4

In a first, Isro will launch two rockets to complete a single mission, the country's fourth moon mission Chandrayaan-4 that will bring moon rocks and soil (regolith) back to Earth. Two separate

rockets — heavy-lifter LVM-3 and Isro's workhorse PSLV — will carry different payloads for the same moon mission and will be launched on different days

If successful, Chandrayaan-4, which is slated to be launched not before 2028, will make India fourth nation with capability to bring back samples from the lunar surface. "Aim of the mission is to collect samples from the lunar surface and return the samples safely to Earth for scientific studies," according to a recent presentation by Isro chairman S Somanath at National Space Science Symposium.

Unlike previous Moon missions, which involved 2-3 modules, Chandrayaan-4 mission will consist of five spacecraft modules. These are propulsion module, descender module, ascender module, transfer module and re-entry module, the presentation said.

https://timesofindia.indiatimes.com/city/delhi/isro-to-launch-two-rockets-for-chandrayaan-4-moon-mission/articleshow/108358320.cms



Sun, 10 Mar 2024

India's Samudrayaan set to explore Ocean Bed by 2025 end: Kiren Rijiju

India should be able to send its scientists to study the deep ocean 6 km under the sea surface in its own Samudrayaan by the end of next year, Earth Sciences Minister Kiren Rijiju has said.

In a video interview to PTI, Rijiju said India's deep-ocean submersible Matsya6000, which will take humans up to a depth of 6,000 meters under the sea, was "well on course" and could be tested by the "end of this year".

"When you talk about Samudrayaan, you are now talking about our mission to go up to around 6,000 meters, 6 km deep inside the ocean, where even light cannot reach. I can say that as far as our Matsaya, the machine which will take human beings inside, (is concerned), it's well on course," Rijiju said.

The minister said he had reviewed the project and scientists should be able to carry out the first shallow water testing by the end of this year.

"But broadly I feel confident that by the end of 2025, that means next year, we should be able to send our human crew to the deep ocean, more than 6,000 meters deep," Rijiju said.

Samudrayaan, or the deep ocean mission, was initiated in 2021. The mission entails undertaking a crewed expedition to reach a depth of 6,000 metres to the ocean bed in the central Indian Ocean using Matsya6000, designed to accommodate a crew of three members.

The submersible will be equipped with a suite of scientific sensors and tools, and have an operational endurance of 12 hours, which is extendable up to 96 hours in the event of an emergency.

So far, countries such as the US, Russia, China, France and Japan have carried out successful deep-ocean crewed missions.

India is poised to join the ranks of these nations by demonstrating expertise of and capability for such missions.

 $\underline{https://www.hindustantimes.com/science/indias-samudrayaan-set-to-explore-ocean-bed-by-2025-end-kiren-rijiju-101710042383976.html}$



Sat, 09 Mar 2024

AgniKul Cosmos to launch India's second Privately Built Rocket

IIT-Madras incubated startup AgniKul Cosmos is all set to launch its 3D printed sub-orbital rocket Agnibaan SOrTeD later this month from its private launchpad at the Satish Dhawan Space Centre at Sriharikota.

The announcement of the launch window for India's second privately built rocket was made by the Chennai-based space startup through a cryptic post on X.

"March 22-28, 2024," AgniKul Cosmos said in a post on the social networking platform.

In August last year, AgniKul started the process of integrating its Agnibaan SubOrbital Technological Demonstrator (SOrTeD) at its private launchpad in Sriharikota.

Skyroot Aerospace, a Hyderabad-based space startup, had become India's first private company to launch a sub-orbital rocket Vikram-S, which reached an altitude of 89.5 km in 155 seconds.

Skyroot plans to start launching small satellites in orbit later this year using the Vikram-1 rocket.

India's space regulator IN-SPACe released an integrated manifesto last month for the next five quarters, which mentioned AgniKul's SOrTeD launch in the last quarter of the current fiscal.

Agnibaan SOrTeD is a single-stage launch vehicle powered by AgniKul's patented Agnilet engine, a 3D-printed, single-piece, 6 kilonewtons (kN) semi-cryogenic engine.

The Agnibaan rocket is a two-stage launch vehicle equipped to place payloads of up to 100 kg into a low earth orbit at a distance of 700 km.

Established in 2017 by aerospace engineers Srinath Ravichandran and Moin SPM, along with IIT-Madras faculty member Prof. Sathyanarayan R Chakravarthy, Agnikul emerged as the first Indian company to sign an agreement with ISRO in December 2020.

https://www.financialexpress.com/business/defence-agnikul-cosmos-to-launch-indias-second-privately-built-rocket-3419985/

