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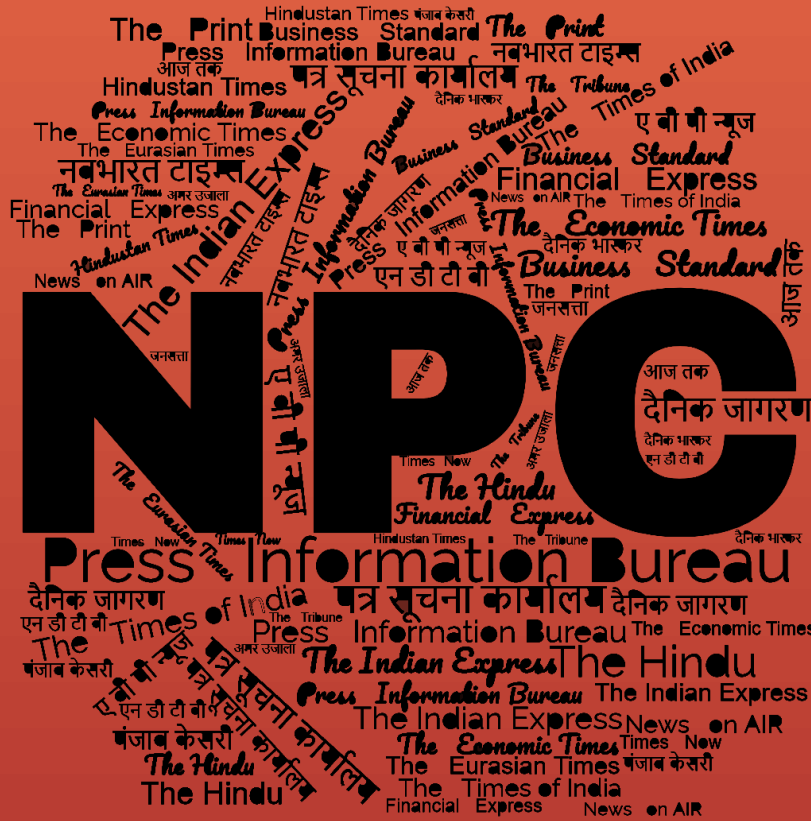
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Defence Strategic: National/International



Press Information Bureau
Government of India

Ministry of Defence

Sat, 04 May 2024

Keel Laying of the First Next Generation Offshore Patrol Vessel (Ex-GSL) on 03 May 24 at Goa Shipyard Ltd

Keel laying ceremony of the first NGOPV (ex-GSL) was held at M/s Goa Shipyard Ltd, Goa on 03 May 24. The ceremony was presided by VAdm B Siva Kumar, Controller Warship Production & Acquisition in presence of Shri B K Upadhyay, Chairman & Managing Director, GSL and other senior officials from Indian Navy and M/s GSL.

The contracts for indigenous design and construction of 11 Next Generation Offshore Patrol Vessels (NGOPV) were concluded on 30 Mar 23 between MoD and M/s Goa Shipyard Ltd (GSL), Goa and M/s Garden Reach Shipbuilders and Engineers (GRSE), Kolkata, with seven ships to be constructed by Lead Shipyard M/s GSL and four ships by Follow Shipyard M/s GRSE.

The NGOPVs will be utilised for performing missions such as Anti-Piracy, Coastal Defence & Surveillance, Search & Rescue and Protection of Offshore Assets. These ships will enable Indian Navy to maintain its combat capability to protect the economic and geopolitical interests of the nation in the Indian Ocean Region. This is yet another significant milestone in Indian Navy's pursuit towards indigenous shipbuilding and is in consonance with 'Aatmanirbhar Bharat' and 'Make in India' initiatives of the nation.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2019622>



Press Information Bureau
Government of India

Ministry of Defence

Fri, 03 May 2024

7th India-Indonesia Joint Defence Cooperation Committee Meeting Held in New Delhi

Defence Secretary & Secretary General of MoD, Indonesia agree to enhance collaboration in areas of defence industry, maritime security & multilateral cooperation

Defence Secretary Shri Giridhar Aramane and Secretary General of the Ministry of Defence, Indonesia, Air Marshal Donny Ermawan Taufanto, M.D.S. co-chaired the 7th India-Indonesia Joint

Defence Cooperation Committee (JDCC) meeting in New Delhi on May 03, 2024. During the meeting, both sides expressed satisfaction at the expanding scope of defence cooperation between the two countries. The progress made on various bilateral defence cooperation initiatives deliberated in meetings of Working Groups on Defence Cooperation and Defence Industries Cooperation was also reviewed by the co-chairs.

In addition, the dignitaries identified means to enhance existing areas of collaboration especially in the field of defence industry ties, maritime security and multilateral cooperation.

During the visit, the Secretary General visited the DRDO headquarters in New Delhi as well as TATA Advanced Systems and L&T Defence facilities in Pune. He also held deliberations with other Indian defence industry partners like Bharat Forge, Mahindra Defence & Mazagon Dock Shipbuilders Limited and discussed ways to enhance defence industrial capabilities by cooperation in research & joint production. He also called on the Chief of Defence Staff General Anil Chauhan during the visit.

The Secretary General is on a visit to India from May 02-04, 2024. He laid a wreath and paid homage to the fallen heroes at National War Memorial, New Delhi.

India and Indonesia have a Comprehensive Strategic Partnership and have arrived at a shared vision of the Indo-Pacific. In current times, this partnership is characterised by closed cooperation in bilateral and multilateral arena, including frequent high-level interactions. Indonesia is an important partner in India's Act East Policy and the Indo-Pacific region.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2019551>

THE ECONOMIC TIMES

Sun, 05 May 2024

Indian Army, IAF to Jointly Deploy Predator Drones in Gorakhpur, Sarsawa Air Bases

The Indian Army and the Air Force are planning to jointly deploy MQ-9B Predator drones at air bases in Sarsawa and Gorakhpur in Uttar Pradesh, for upgrading their surveillance capabilities all along the Line of Actual Control with China from Ladakh to Arunachal Pradesh.

The drone deal, expected to be worth around USD 4 billion is being done at tri services level with the Indian Navy leading the negotiations for it with the American side.

"The MQ-9B drones require a significant runway length for take off and landing which are available with the Indian Air Force. That is why, the Army drones are planned to be deployed with the IAF at airbases in Sarsawa and Gorakhpur," defence officials told ANI.

As per of the drone deal with the US, 31 MQ-9B drones are being acquired of which 15 would be for coverage of the maritime zone and would be deployed by the Indian Navy.

The IAF and the Army will have eight each of these highly capable long endurance drones and would be able to cover almost all the areas of interest along the LAC with support from other existing assets, the officials said.

The American side has given its letter of acceptance to the Indian side at a price tag of around USD 4 billion.

The American side is also looking at indigenisation of the parts and weapons to be used by the drones. There is also a provision of transfer of technology of some equipment to Indian entities under the agreement, they said.

With a flight time of over 36 hours at heights over 40,000 feet, the drones can be armed with Hellfire air-to-ground missiles and smart bombs, this fighter-sized drone specializes in (intelligence, surveillance, and reconnaissance) missions.

The Predator drones are expected to significantly enhance India's ability to conduct unmanned surveillance and reconnaissance patrols, particularly in the Indian Ocean Region (IOR) and along its land borders with China and Pakistan.

MQ-9B has proven to be a critical asset in safeguarding India's security interests as it was used to extensively to monitor anti-piracy operations from naval headquarters to get a clear picture of the actions taking place almost 3,000 km from Indian shores.

<https://economictimes.indiatimes.com/news/defence/indian-army-iaf-to-jointly-deploy-predator-drones-in-gorakhpur-sarsawa-air-bases/articleshow/109860800.cms>



Sat, 04 May 2024

Army Looks at Creating New Unit to Play Role of Enemy in Military Exercises

The Army is working on creating a new unit that can simulate the role of an adversary during military exercises and wargame training, senior officials aware of the development told The Indian Express.

Plans for the new unit — OPFOR, or “opposing forces” — are currently under discussion and will be implemented after final approval from the Army hierarchy.

During the Army Commanders’ Conference last month, top officers had decided to explore the feasibility of creating a tailor-made organisation to function as an adversarial force that can carry out realistic wargaming and training to enhance the force’s combat potential. Countries such as the US have already employed this concept extensively.

As per officials, the new unit will be raised from existing ones. It will look at employing weapons, operating methods and tactics of one or more adversaries so that regular troops experience a scenario that is close to an actual war.

Troops in a military exercise are divided into blue land or red/yellow land with the latter denoting adversaries. The Army teaches courses on the organisational role and tactics of adversarial forces, but these are largely restricted to officers.

There is also a REDFOR (red forces) unit representing adversarial forces under the Army’s training command, ARTRAC, which is responsible for vetting exercises and plans for wargames on paper and sand model exercises.

Additionally, commands have war centres where computer-generated models of different scenarios are tested, or wargamed, using artificial intelligence. The implementation of the OPFOR, however, would strengthen this concept by highlighting the strength and weaknesses of a participating formation during on-ground military exercises.

While all wargames and plans are restricted to officers and other select ranks at present, the implementation of OPFOR will help all participating troops get first-hand experience during on-ground exercises.

<https://indianexpress.com/article/india/army-looks-at-creating-new-unit-to-play-role-of-adversary-in-wargames-9306540/>

THE TIMES OF INDIA

Fri, 03 May 2024

India's First Indigenous Bomber UAV Unveiled in Bengaluru

Flying Wedge Defence and Aerospace Technologies, an Indian defence and aerospace company, Friday marked a milestone in Bengaluru by unveiling the FWD-200B, pegged to be the country's first indigenous bomber unmanned aerial vehicle (UAV).

The FWD-200B is a medium-altitude, long-endurance (MALE) unmanned combat aerial vehicle designed and manufactured entirely in India. With a payload capacity of 100 kgs, it can carry optical surveillance payloads as well as precision air-strike weapons, the firm said.

Addressing the unveiling ceremony in Bengaluru, Suhas Tejaskanda, founder, Flying Wedge Defence, said the FWD-200B fulfils India's long-awaited dream of producing a combat UAV indigenously after years of failed attempts by agencies like the Defence Research and Development Organisation (DRDO).

"A key highlight is the massive cost reduction achieved. While an imported US Predator drone costs a staggering Rs 250 crore, the Indian-made FWD-200B will be available for just Rs 25 crores — a tenth of the cost," the firm said.

Tejaskanda added that this demonstrated the company's commitment to self-reliance and positions India as a leader in cost-effective defence solutions.

"With a 12-20 hour endurance, 200 kts/370 kmph max speed, and 200 km ground control station range, the FWD-200B is envisioned as the "nation's eagle eye" and an aerial shield against threats," the firm said, adding that its unveiling marks a major boost to India's Make in India initiative and reduces dependency on costly imports for strategic defence equipment like UAVs.

<https://timesofindia.indiatimes.com/india/indias-first-indigenous-bomber-uav-unveiled-in-bengaluru/articleshow/109814474.cms>

THE ECONOMIC TIMES

Sun, 05 May 2024

Talks between India and China Going on "Well": Rajnath Singh on Possible Resolution of Eastern Ladakh Row

The theaterisation process in the military is making progress as consensus is emerging among the three services on the ambitious initiative, Defence Minister Rajnath Singh said in first clear remarks reflecting forward movement in the mega reform initiative.

In an exclusive interview to PTI, Singh said the talks between India and China are going on "well" for the resolution of the eastern Ladakh border row and hoped that a solution to the standoff will be found.

Singh also said that India has been developing infrastructure along the frontier with China at a rapid speed, and asserted that the country's borders will remain safe.

"The talks are going on well," he said on the India-China military dialogue on the eastern Ladakh row, declining to elaborate further considering the sensitive nature of the matter.

Asked whether he was hopeful of a positive outcome and an end to the nearly four-year face-off between the two militaries, Singh shot back: "If there was no hope, then why to have talks."

"They (the Chinese side) also have hope and that is why they are holding the talks," he said.

The Indian and Chinese militaries have been locked in a standoff since May 2020 and a full resolution of the border row has not yet been achieved though the two sides have disengaged from a number of friction points.

Broadly referring to military reforms, Singh said the armed forces are committed to the theaterisation initiative because it will integrate the capabilities of the three services and ensure better utilisation of resources.

Under the theaterisation model, the government seeks to integrate the capabilities of the army, air force and navy and optimally utilise their resources for wars and operations.

"The theaterisation process has started. There has been progress on it. Consensus is emerging on it among the three services as it will ensure better utilisation of resources and enhance the military's overall capabilities," the defence minister said.

Singh declined to provide a timeline for rolling out the theatre commands and said it took close to 20 years in certain countries where theaterisation plan was implemented.

"We are working on it," he said, refusing to share more details on the mega project.

As per the theaterisation plan, each of the theatre commands will have units of the Army, the Navy and the Air Force and all of them will work as a single entity looking after security challenges in a specified geographical territory under an operational commander.

The original plan entailed setting up around six new theatre commands.

At present, the three forces have a total of 17 commands.

Under the theaterisation plan, the defence ministry initially planned to create an Air Defence Command and a Maritime Theatre Command.

This Maritime Theatre command would be tasked to secure India from seaborne threats while the Air Defence Command would be mandated to deal with airborne enemies.

The defence minister also heaped wholehearted praise on the Indian Navy for its numerous operations in foreign waters where it assisted several merchant ships commandeered or threatened by pirates.

The Indian Navy has performed a "miracle" (karishma), Singh said.

The minister also dropped hints of the government's readiness to positively consider the Navy's proposal for the construction of a second aircraft carrier.

The Navy has been making a strong pitch for having the second indigenous aircraft carrier (IAC-II) with a displacement of 45,000 tonnes which is estimated to cost close to Rs 40,000 crore with the envisaged specifications.

Exuding confidence in the National Democratic Alliance (NDA) retaining power for a third straight term, he said the new government's focus would be to make India totally self-reliant in the defence sector.

Singh said India's annual defence exports crossed the Rs 21,000 crore mark for the first time in 2023-24 and that his ministry has set a target of increasing it to Rs 50,000 crore in the next five-six years.

"We will take it to more than 50,000 crore by 2029-30," he said.

On the Navy's operations in the strategic waterways, Singh said the force deserves praise.

"The Indian Navy has done a miracle. Congratulations to the Navy. (Indian Navy ne Karishma kiya. Nav ko Badhai)," he said.

In the last few months, the Indian Navy extended assistance to a number of merchant vessels in the Western Indian Ocean, the Gulf of Aden and strategic waterways around the Red Sea following attacks on them.

Late last month, the Indian Navy swiftly assisted a Panama-flagged crude oil tanker with 30 crew members including 22 Indians after the vessel came under missile attack from Houthi militants.

There have been growing global concerns over attacks on various commercial vessels in the Red Sea by the Houthi militants.

The Navy has foiled attacks by pirates on several ships in the region since January.

Asked about the Navy's push for a second indigenous aircraft carrier (IAC), Singh indicated that it is being favourably considered.

India's first indigenously-built aircraft carrier INS Vikrant (IAC I) was commissioned in September last year.

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.

The Navy has been pitching for three aircraft carriers to deal with China's growing naval prowess and its growing influence over the Indian Ocean region.

At present, India has two aircraft carriers — INS Vikramaditya and INS Vikrant.

INS Vikramaditya is a Russian-origin platform.

<https://economictimes.indiatimes.com/news/defence/making-progress-on-theaterisation-of-military-defence-minister-rajnath-singh/articleshow/109854114.cms>



Sat, 04 May 2024

“Game being Played by Pak”: Terrorists Attack IAF Convoy in J&K’s Poonch; Defence Experts React

An Indian Air Force convoy was attacked by terrorists in the Poonch district of J&K on May 04. As per the officials, 5 IAF personnel suffered injury in the attack and have been airlifted to the Command Hospital in Udhampur for further treatment. Soon after the attack, Rashtriya Rifles

started cordoning off the area, search operations in Sanai area near Jarran Wali Gali (JWG) Poonch, in Surankot. Meanwhile, Defence experts called out Pak for promoting terrorist activities and disturbing peace and hampering the LS elections in J&K.

<https://www.aninews.in/videos/national/game-being-played-by-pak-terrorists-attack-iaf-convoy-in-jks-poonch-defence-experts-react/>

THE ECONOMIC TIMES

Sat, 04 May 2024

IAF Takes Delivery of Second C295 Transport Aircraft

The Indian Air Force (IAF) on Friday received delivery of the second of the 56 C295 aircraft, which are set to replace its ageing Avro-748 fleet, the officials said.

In September 2021, India formalised the acquisition of 56 Airbus C295 aircraft to replace the legacy Avro fleet of the IAF at a cost of Rs 21,935 crore.

In a statement, Airbus Defence and Space said that of the total 56 aircraft ordered by the Indian customer, 16 will be produced by Airbus in Seville, Spain.

The remaining 40 C295s of the IAF order will be manufactured and assembled--in partnership with Tata Advanced Systems Limited (TASL)--at a Final Assembly Line (FAL) in Gujarat's Vadodara.

"The story continues: the 2nd C295 for India has been delivered to the Indian Air Force. Of the total 56 aircraft ordered by the Indian customer, 16 will be produced by Airbus in Seville, Spain. As part of an industrial partnership, the remaining 40 are going to be produced by Tata Advanced Systems (TASL) in the C295 Final Assembly Line in Vadodara in Western India," it said.

The aircraft will be manufactured under India's first-ever 'Make in India' Aerospace programme in the private sector. For the longest time, Hindustan Aeronautics Limited (HAL) has had a monopoly over the manufacture of military aircraft in India.

The first India-made C295 will roll out of the Vadodara factory in September 2026.

"Mark your calendars: The first 'Make in India' C295 is scheduled to roll out of the Vadodara plant in September 2026," the statement added.

The Indian Defence Ministry and Airbus Defence and Space, Spain, signed a contract for the procurement of 56 C-295 aircraft for the Indian Air Force in September 2021. The C-295MW aircraft is a transport aircraft of 5-10 tonne capacity with contemporary technology that will replace the ageing Avro aircraft of the Indian Air Force.

The aircraft has a rear ramp door for quick reaction and paradropping of troops and cargo. Sixteen aircraft will be delivered in flyaway condition from Spain within 48 months of the signing of the contract, and forty aircraft will be manufactured in India by the TATA Consortium within 10 years of the signing of the contract.

<https://economictimes.indiatimes.com/news/defence/iaf-takes-delivery-of-second-c295-transport-aircraft/articleshow/109831073.cms>

Field Evaluation of Bids for Navy's Mega Submarine Deal Underway; German Govt. to Acquire Stake in TKMS

The German government is expected to take up a stake in submarine manufacturer, the TKMS (Thyssenkrupp Marine Systems), and discussions are on, it has been learnt. Meanwhile, the Indian Navy's mega submarine deal under Project-75I, estimated to cost upwards of ₹43,000 crore, has moved to the evaluation stage with compliance checks of the two bids received, one of which is from the TKMS.

An Indian Navy team visited TKMS in March and conducted the Field Evaluation Trials (FET) and it has met the criteria specified, multiple sources confirmed. The FET of Navantia of Spain, the second bid, is expected to be completed before June, it has been learnt. An Indian Navy team visited the TKMS and carried out FET from March 22 to 28, two sources independently confirmed.

The German government's move to pick up a stake in the TKMS is in line with the company's desire to convince its stakeholders of the viability of the submarine business, sources said noting that it would automatically bring in the Government-to-Government part, essential for a deal of this size and technological sophistication. The TKMS was initially not inclined to bid for P-75I due to its scope and complexity but was later convinced by the German government to bid for it, the two sources cited above confirmed. The war in Ukraine and change in Europe's security outlook also contributed to the German government's interest in expanding defence cooperation in a big way, sources said.

The German government's move to pick up a stake in the TKMS is in line with the company's interest and would strengthen its shareholders' confidence, sources observed.

The design offered by the TKMS for P-75I is based on its highly successful Class 214 submarine as well as Class 212CD, with the submarine featuring angular design for minimised radar cross-section, it has been learnt. Meanwhile, Mazagon Dock Shipbuilders Limited (MDL), the Indian partner of the TKMS, has begun work on the first phase of submarine design, sources in the know said.

Indigenous content

The Request For Proposal (RFP) issued by the Navy detailing the specifications states that the first submarine should have indigenous content (IC) of 45% which should go up to 60% for the sixth and last submarine.

The final design will be done jointly by the TKMS and the MDL. "MDL will be able to give 60% IC from the first submarine itself and India will own the design which enables it to make any integration of indigenous equipment as desired even at a later stage," one source stated.

In a major decision as the deal moves forward, Germany early April granted small arms licence to India, a significant exception given the ban on exports to third countries, and in the last couple of months liberalised the licensing requirements for sale of military equipment as required under its BAFA (Federal Office for Economic Affairs and Export Control).

Only Germany and Spain submitted bids for the deal, the deadline for which saw several extensions before finally culminating in July 2023. The deal is being progressed under the Strategic Partnership model of the defence acquisition procedure. Larsen & Toubro (L&T) and the MDL are

the two Indian shipyards shortlisted to partner with foreign submarine manufactures to manufacture six advanced conventional submarines in India with significant technology transfer.

Navantia has offered a submarine based on its S80 class, the first of which was launched in 2021 and was commissioned into the Spanish Navy as S-81 'Isaac Peral' last November, while L&T will be responsible for constructing the submarines. The Spanish government has a stake in Navantia.

AIP condition

The key determinant to qualify for P-75I is the Air Independent Propulsion (AIP) system. The P-75I process ran into rough weather, among other issues, over the specification that the submarine on offer should have an operationally proven AIP module with an endurance of two weeks. In addition, manufacturers had also raised the issue of unlimited liability on them, some of which have since been addressed by the Defence Acquisition Council, but yet to be fully resolved, according to sources. The AIP condition meant only two manufacturers were left in the race.

The AIP on offer by the TKMS has both fuel cell as well as Lithium-Ion battery, giving it enhanced performance, one of the sources said. The fuel cell gives long range endurance at low speed while Lithium-Ion battery offers high endurance at higher speed, the source said, elaborating, while stating that it's a fourth generation AIP with the technology having matured since first developed three decades ago.

An AIP module acts as a force multiplier as it enables conventional submarines to remain submerged for longer duration, thereby significantly enhancing the endurance while reducing chances of detection, as submarines are most prone to be spotted when they surface. An indigenous AIP module under development is set to be installed on the Scorpene submarines as they go for refit end this year or early next year onwards.

As reported by The Hindu earlier, Germany has presented a Government-to-Government (G-to-G) proposal to India for the sale of submarines under P-75I, and a senior German delegation was in Delhi in January for discussions. Sources said the German government is expected to continue talks on the G-to-G proposal in the next few weeks.

India and Germany discussed the deal at the highest level during the visit of German Defence Minister Boris Pistorius in June 2023, during which he made a strong pitch for the bid by the TKMS in his talks with Defence Minister Rajnath Singh.

MDL has in the 1980s manufactured two of the four older German HDW Type 209 submarines still in service with the Indian Navy.

<https://www.thehindu.com/news/national/field-evaluation-of-bids-for-navys-mega-submarine-deal-underway-german-govt-to-acquire-stake-in-tkms/article68142895.ece>



Fri, 03 May 2024

India, Maldives Review Withdrawal of Military Personnel

India and the Maldives on Friday reviewed the ongoing process of replacing Indian military personnel from the island nation with Male saying New Delhi would complete the withdrawal of its troops by May 10.

The two sides held the fourth meeting of the bilateral high-level core group in Delhi.

India has already withdrawn some of its military personnel who were operating three aviation platforms in the Indian Ocean archipelago.

The military personnel were replaced by civilian technical experts. The Indian personnel were operating three aviation platforms in the Maldives and New Delhi is now deploying civilian personnel to operate them. Maldivian President Mohamed Muizzu had set May 10 as the deadline for withdrawal of the Indian military personnel from his country.

"Both sides continued their discussions on wide ranging issues related to bilateral cooperation. This included defence cooperation, development cooperation projects, efforts to enhance bilateral trade and investment, and capacity building initiatives," the Ministry of External Affairs (MEA) said.

It said both sides also reviewed the ongoing efforts to enable "continued operation of Indian aviation platforms that provide humanitarian and medvac (medical evacuation) services to the people of Maldives," it said in a brief statement.

The Maldivian foreign ministry said both sides also reviewed the existing bilateral cooperation in the meeting. "Discussions were held on a wide range of issues of mutual interest, including development and defence cooperation," it said.

"Both sides noted with satisfaction that the Government of India will replace military personnel at the last of the three aviation platforms by May 10 and all the logistical arrangements are going ahead as per schedule," it said.

It said the two agreed that the fifth meeting of the high-level core group will be held in Male on a mutually agreeable date during the month of June or July.

The two sides decided to set up the core group following a meeting between Prime Minister Narendra Modi and Muizzu on the sidelines of the COP28 summit in Dubai in December.

The ties between India and the Maldives came under some strain since Muizzu came to power in November. Muizzu, widely seen as a pro-China leader, maintained after assuming charge as the president that he will keep his election promise of evicting Indian military personnel from his country. Muizzu, 45, defeated India-friendly incumbent Ibrahim Mohamed Solih in the presidential runoff held in September last year.

The Maldives is one of India's key maritime neighbours in the Indian Ocean Region and the overall bilateral ties including in areas of defence and security witnessed an upward trajectory under the previous government in Male.

<https://www.deccanherald.com/india/india-maldives-review-withdrawal-of-military-personnel-3007118>



Sat, 04 May 2024

U.K. Leverages Logistics Support Agreement to Expand Maritime Cooperation with India

The U.K. is leveraging a logistics support agreement signed with India to expand military to military engagements, especially in the maritime domain, as it also looks to augment its capability and deployments in the Indo-Pacific. A U.K. warship underwent essential maintenance for the first time in April at Larsen & Toubro's (L&T) shipyard at Kattupalli as a Royal Navy Littoral Response Group-South (LRG-S) visited India.

“The logistics-sharing agreement allows for the provision of logistic support, supplies and services between the UK and Indian armed forces, for joint training, joint exercises, authorised port visits and Humanitarian Assistance and Disaster Relief (HADR) operations,” Brigadier Nick Sawyer, Defence Advisor in the U.K. High Commission in India, said on social media platform X. “This agreement has been a real game changer. It has led to increased engagements between our armed forces. The vital logistics partnership supports longer deployments of our capabilities in the region and is clear evidence of the UK Indo-Pacific tilt in action, in sync with India.”

India has signed a series of agreements, beginning with the U.S. in 2016, that have significantly expanded the logistics support for Indian military, especially the Indian Navy which has expanded its operational turnaround across the Indian Ocean Region.

The LRG(S) is a multi-functional amphibious task force equipped to undertake a wide spectrum of activity in the littoral environment, according to Brig. Sawyer, and consists of the ships RFA Argus and RFA Lyme Bay, with embarked forces centred on a Royal Marines strike force. While there have been a record number of Royal Navy ship visits to India in the past 12 months, a new landmark was achieved this time when the LRG(S) vessels docked at the L&T shipyard in Kattupalli near Chennai, he noted. “This was the first time a Royal Navy vessel underwent essential maintenance in an Indian shipyard — a direct result of the logistics-sharing agreement signed between the UK and India in 2022,” Brig. Sawyer said.

“In recent deployments, Royal Navy ships have received spare parts manufactured by Indian shipyards within a short notice period, showcasing the growing interoperability between our navies,” he added. Elaborating further on the logistics agreement, Brig Sawyer said that it was not just the ships, but Royal Air Force flights travelling in the region had benefitted from taking logistics halts in India twice so far, allowing opportunities for the two air forces to share best practices and invaluable experiences.

The U.S. warships were the first to arrive in India for repairs. L&T’s shipyard was the first to enter into a Master Shipyard Repair Agreement (MRSA) with the U.S. and has so far repaired three U.S. Navy fleet support ships. After L&T, Mazagon Dock Shipbuilders Limited and Cochin Shipyard Limited also entered into MRSA, enabling them to repair U.S. Navy ships.

Prior to entering Kattupalli, the U.K. task group had conducted maritime exercises with INS Trishul in the Arabian Sea. Following the completion of the maintenance, RFA Argus and RFA Lyme Bay conducted a maritime exercise in the Bay of Bengal. INS Sahyadri joined the U.K. Task Group, conducting maritime manoeuvres, aviation, and replenishment serials, the Defence Adviser stated. “These activities strengthen the foundation laid for future maritime engagements as part of the 2030 UK-India Roadmap,” he said.

<https://www.thehindu.com/news/national/uk-leverages-logistics-support-agreement-to-expand-maritime-cooperation-with-india/article68139751.ece>



Fri, 03 May 2024

China Unveils Third Aircraft Carrier: The Rise of Fujian

China’s ambitions to solidify its position as a dominant maritime force are taking a giant leap forward with the unveiling of its third aircraft carrier, the Fujian. Standing as a testament to China’s

relentless pursuit of naval supremacy, the Fujian has garnered attention from naval experts worldwide, who have dubbed it the epitome of a “super-carrier.”

Embarking on its maiden voyage for sea trials on May 1, the Fujian represents a significant milestone in China’s quest to assert its dominance in the Asia-Pacific region.

Unlike China’s previous two carriers, the Liaoning and Shandong, which employ ski-jump take-off techniques, the Fujian’s electromagnetic catapults (EMALS) enable more efficient launches, allowing jets to carry heavier payloads and reducing the time between successive launches.

China’s latest carrier is also possibly the world’s first conventionally powered carrier with an Electromagnetic Catapult (CATOBAR) Launch System (EMALS). Whereas almost all other carriers in service today are nuclear powered, with EMALS being used by the US Navy and the French Navy.

The Fujian, boasting a weight of 80,000 tonnes, is comparable in size to its US counterparts and even surpasses carriers manufactured by other prominent naval powers such as the UK, France, India, and Japan. Its significance lies not only in its size but also in the technological advancements it incorporates.

According to reports from the Chinese Communist Party-owned Xinhua News Agency, the Fujian embarked on its inaugural test voyage from Jiangnan Shipyard in Shanghai, setting sail for a week-long sea trial in the East China Sea. These trials aim to assess the reliability and stability of the carrier’s propulsion and power systems.

Named after the Fujian province, this state-of-the-art carrier is equipped with groundbreaking technology. Measuring around 316 meters in length and boasting a deck width of 76 meters, the Fujian features three catapult runways, enabling rapid deployment of fighter jets. This strategic design ensures operational continuity even in the event of system failures, an evidence of China’s thorough planning and preparation.

What is onboard?

Boosted with advanced indigenous surveillance and self-defence systems, including the HQ-10 short-range surface-to-air missile system and H-P11 autocannon, the Fujian is set for combat readiness. Deploying state-of-the-art aircraft such as the New J-15, fifth-generation stealth fighter J-35, and KJ-600 Airborne Early Warning (AEW) aircraft, the Fujian underscores China’s commitment to modernizing its naval arsenal.

While the Fujian undergoes rigorous sea trials over the next two years to ensure seamless integration of its complex technologies, China’s future plans for additional carriers remain on the horizon.

The deployment of the Fujian signifies China’s continued efforts to strengthen its maritime capabilities and extend its influence beyond its immediate periphery. A report by the US Department of Defense highlights the Fujian’s potential to enhance the striking power of the Chinese Navy’s carrier battle groups in regions beyond China’s immediate vicinity.

India Watching

As China expands its maritime capabilities, the challenge for neighbouring India intensifies. With two aircraft carriers currently in service and plans for a third underway, India aims to counter China’s growing influence in the Indian Ocean region.

In the face of escalating tensions along the Line of Actual Control (LAC) and beyond, India remains vigilant, closely monitoring China’s maritime advancements.

With the potential to alter the balance of power in the Indo-Pacific, the rise of the Fujian signifies a new chapter in naval warfare, one where China emerges as a formidable challenger to traditional maritime powers. As the world watches China's rise, the implications for regional security and stability loom large, shaping the dynamics of naval strategy for years to come.

<https://www.financialexpress.com/business/defence-china-unveils-third-aircraft-carrier-the-rise-of-fujian-3476330/>

ThePrint

Fri, 03 May 2024

Russian Cyber Attacks Targeted Defence, Aerospace Sectors, Berlin Says

A series of cyber attacks attributable to the Russian military intelligence service GRU targeted Germany's governing Social Democrats as well as the country's logistics, defence, aerospace and IT sectors, the interior ministry said on Friday.

APT 28 – the group that orchestrated the attacks in 2022 and reports to the GRU – exploited a then-unknown vulnerability in Microsoft Outlook over a longer period of time in order to compromise email accounts, the ministry said.

“The Russian cyber attacks are a threat to our democracy, which we are resolutely countering,” Interior Minister Nancy Faeser said in a statement, adding that Germany was acting alongside the EU and NATO. “Under no circumstances will we allow ourselves to be intimidated by the Russian regime.”

Faeser added that it was particularly critical to counter such attacks from Russia ahead of the European and other elections this year.

Earlier on Friday, German Foreign Minister Annalena Baerbock warned Russia that it would face consequences for the attacks, which saw a series of German websites knocked offline.

APT28, also known as Fancy Bear, has been active worldwide since at least 2004, primarily in the field of cyber espionage. According to Germany's domestic intelligence agency, it is one of the most active and dangerous cyber actors worldwide.

<https://theprint.in/tech/russian-cyber-attacks-targeted-defence-aerospace-sectors-berlin-says/2068354/>

THE ECONOMIC TIMES

Fri, 03 May 2024

An AI-powered Fighter Jet Took the Air Force's Leader for a Historic Ride

With the midday sun blazing, an experimental orange and white F-16 fighter jet launched with a familiar roar that is a hallmark of US airpower. But the aerial combat that followed was unlike any

other: This F-16 was controlled by artificial intelligence, not a human pilot. And riding in the front seat was Air Force Secretary Frank Kendall.

AI marks one of the biggest advances in military aviation since the introduction of stealth in the early 1990s, and the Air Force has aggressively leaned in. Even though the technology is not fully developed, the service is planning for an AI-enabled fleet of more than 1,000 unmanned warplanes to be operating by 2028.

It was fitting that the dogfight took place at Edwards Air Force Base, a vast desert facility where Chuck Yeager broke the speed of sound and the military has incubated its most secret aerospace advances. Inside classified simulators and buildings with layers of shielding against surveillance, a new test-pilot generation is training AI agents to fly in war. Kendall traveled here to see AI fly in real time and make a public statement of confidence in its future role in air combat.

"It's a security risk not to have it. At this point, we have to have it," Kendall said in an interview with The Associated Press after he landed. The AP, along with NBC, was granted permission to witness the secret flight on the condition that it would not be reported until it was complete because of operational security concerns.

The AI-controlled F-16, called Vista, flew Kendall in lightning-fast maneuvers at more than 550 miles an hour that put pressure on his body at five times the force of gravity. It went nearly nose to nose with a second human-piloted F-16 as both aircraft raced within 1,000 feet of each other, twisting and looping to try force their opponent into vulnerable positions.

At the end of the hourlong flight, Kendall climbed out of the cockpit grinning. He said he'd seen enough during his flight that he'd trust this still-learning AI with the ability to decide whether or not to launch weapons.

<https://economictimes.indiatimes.com/news/defence/an-ai-powered-fighter-jet-took-the-air-forces-leader-for-a-historic-ride-what-that-means-for-war-a/articleshow/109823834.cms>



Fri, 03 May 2024

Defence Chiefs from U.S., Australia, Japan and Philippines Vow to Deepen Cooperation

Defence chiefs from the U.S., Australia, Japan and the Philippines vowed to deepen their cooperation as they gathered on Thursday in Hawaii for their second-ever joint meeting amid concerns about China's operations in the South China Sea.

The meeting came after the four countries last month held their first joint naval exercises in the South China Sea, a major shipping route where Beijing has long-simmering territorial disputes with a number of Southeast Asian nations and has caused alarm with its recent assertiveness in the waters.

U.S. Defence Secretary Lloyd Austin told reporters at a news conference after their discussion that the drills strengthened the ability of the nations to work together, build bonds among their forces and underscore their shared commitment to international law in the waterway.

Australian Defence Minister Richard Marles said the defence chiefs talked about increasing the tempo of their defence exercises.

“Today, the meetings that we have held represent a very significant message to the region and to the world about four democracies which are committed to the global rules-based order,” Mr. Marles said at the joint news conference with his counterparts.

Mr. Austin hosted the defence chiefs at the U.S. military's regional headquarters, U.S. Indo-Pacific Command, at Camp H.M. Smith in the hills above Pearl Harbour.

Earlier in the day, Mr. Austin had separate bilateral meetings with Australia and Japan followed by a trilateral meeting with Australia and Japan.

Defence chiefs from the four nations held their first meeting in Singapore last year.

The U.S. has decades-old defence treaties with all three nations.

The U.S. lays no claims to the South China Sea, but has deployed Navy ships and fighter jets in what it calls freedom of navigation operations that have challenged China's claims to virtually the entire waterway. The U.S. says freedom of navigation and overflight in the waters is in America's national interest. Aside from China and the Philippines, Vietnam, Malaysia, Taiwan and Brunei also have overlapping claims in the resource-rich sea. Beijing has refused to recognise a 2016 international arbitration ruling that invalidated its expansive claims on historical grounds.

Skirmishes between Beijing and Manila in particular have flared since last year. Earlier this week, Chinese coast guard ships fired water cannons at two Philippine patrol vessels off off Scarborough Shoal, damaging both.

The repeated high-seas confrontations have sparked fears of a larger conflict that could put China and the United States on a collision course. The U.S. has warned repeatedly that it's obligated to defend the Philippines — its oldest treaty ally in Asia — if Filipino forces, ships or aircraft come under an armed attack, including in the South China Sea.

President Joe Biden's administration has said it aims to build what it calls a “latticework” of alliances in the Indo-Pacific even as the U.S. grapples with the Israel-Hamas war and Russia's ongoing invasion of Ukraine. Beijing says the strengthening of U.S. alliances in Asia is aimed at containing China and threatens regional stability.

<https://www.thehindu.com/news/international/defence-chiefs-from-us-australia-japan-and-philippines-vow-to-deepen-cooperation/article68135028.ece>

Science & Technology News

THE TIMES OF INDIA

Sat, 04 May 2024

Chandrayaan -2 Discovers Water Reserves inside Lunar Polar Crater

The Chandrayaan-2 mission, spearheaded by the Indian Space Research Organisation (ISRO), has made a groundbreaking discovery that could redefine our understanding of the Moon. Recent findings from the mission have revealed the presence of substantial water reserves within the Moon's polar craters. This discovery is a scientific triumph and opens up future possibilities of

lunar exploration and long-term human habitation on the Moon. A collaborative effort between ISRO's Space Applications Centre (SAC) and esteemed institutions such as IIT Kanpur, the University of Southern California, the Jet Propulsion Laboratory, and IIT (ISM) Dhanbad, led to this significant finding. The study, published in the International Society for Photogrammetry and Remote Sensing journal, indicates that the subsurface ice in lunar polar craters is estimated to be 5 to 8 times more abundant than the surface ice, particularly within the first couple of meters.

The implications of this discovery are far-reaching. Accessing these water reserves will be a significant aspect of supporting future lunar missions. The ability to tap into the Moon's water resources could provide the necessary support for a sustainable human presence, aiding in everything from life support to fuel production.

The study also sheds light on the regional disparities in water ice distribution. The northern polar region of the Moon boasts twice the amount of water ice compared to the southern polar region. This insight is invaluable for mission planning and site selection for future lunar expeditions.

The origins of the subsurface water ice date back to the Imbrian period, approximately 3.8 to 3.2 billion years ago, a time marked by intense volcanic activity and the formation of impact basins and maria. The primary source of this water ice is believed to be outgassing during this period of volcanism.

The methodology employed by the research team was comprehensive, utilizing seven instruments aboard NASA's Lunar Reconnaissance Orbiter (LRO). These included radar, laser, optical, neutron spectrometer, ultra-violet spectrometer, and thermal radiometer, which collectively contributed to a deeper understanding of the origin and distribution of water ice on the Moon.

The insights gained from this study are not only crucial for ISRO's future in-situ volatile exploration plans on the Moon but also for selecting landing and sampling sites for missions aimed at exploring and characterizing lunar volatiles. As spacefaring nations around the world set their sights on the Moon, the presence of water ice becomes a strategic asset. It could potentially reduce the cost and complexity of lunar missions by providing in-situ resources, thereby accelerating the pace of space exploration.

The discovery by ISRO scientists is a pivotal moment in our quest to understand the Moon and harness its resources. It is a reminder of the relentless pursuit of knowledge and the spirit of collaboration that drives scientific advancement. As we continue to explore the cosmos, findings like these will undoubtedly shape the future of humanity's relationship with the Moon and the universe at large. The presence of water in the lunar poles is not just a scientific curiosity; it is a ray of hope that guides us toward a new era of discovery and exploration.

<https://timesofindia.indiatimes.com/etimes/trending/chandrayaan-2-discovers-water-reserves-inside-lunar-polar-crater/articleshow/109837400.cms>



Fri, 03 May 2024

Chang'e 6 Mission: China Launches Probe to Get Moon's Far Side Samples, Pakistani Satellite also Aboard

China launched its lunar probe, Chang'e-6, on Friday, with the objective of collecting samples from the far side of the moon. The Long March-5 Y8 carrier rocket lifted off from the Wenchang Space launch site in China's Hainan Province.

This mission is the first-ever attempt to obtain samples from far-side of moon, according to the China National Space Administration (CNSA).

The Chinese mission also carries Pakistan's miniature satellite, ICUBE-QAMAR cubesat, developed by the Institute of Space Technology (IST) in collaboration with Shanghai University SJTU and SUPARCO. Around 7 kgs in weight, this satellite has camera to take photo of lunar's far side.

The Chang'e-6 mission aims to land in the South Pole-Aitken Basin to collect dust and rock samples, offering valuable insights into the lunar region's composition and characteristics.

Alongside Chinese scientific instruments, payloads from France, Italy, the European Space Agency, and Pakistan will be part of the mission, underscoring international collaboration in lunar exploration.

In 2020, China achieved a significant space mission of returning samples from the moon's near side, a feat not accomplished since the US Apollo programme in the 1970s. Analysis of these samples revealed the presence of water in tiny beads embedded within lunar soil, PTI reported.

Furthermore, within the past week, three Chinese astronauts concluded a six-month mission aboard the country's orbiting space station, just as the replacement crew arrived.

Chandrayaan-3: India's moonshot

India has made significant strides in lunar exploration with the successful launch of Chandrayaan-3, which included the Pragyan rover. This achievement positions India as the first country to softly land near the lunar south pole, marking another milestone in its space exploration endeavours.

<https://www.hindustantimes.com/science/change-6-mission-china-launches-probe-to-get-moons-far-side-samples-pakistani-satellite-also-aboard-101714722619605.html>

