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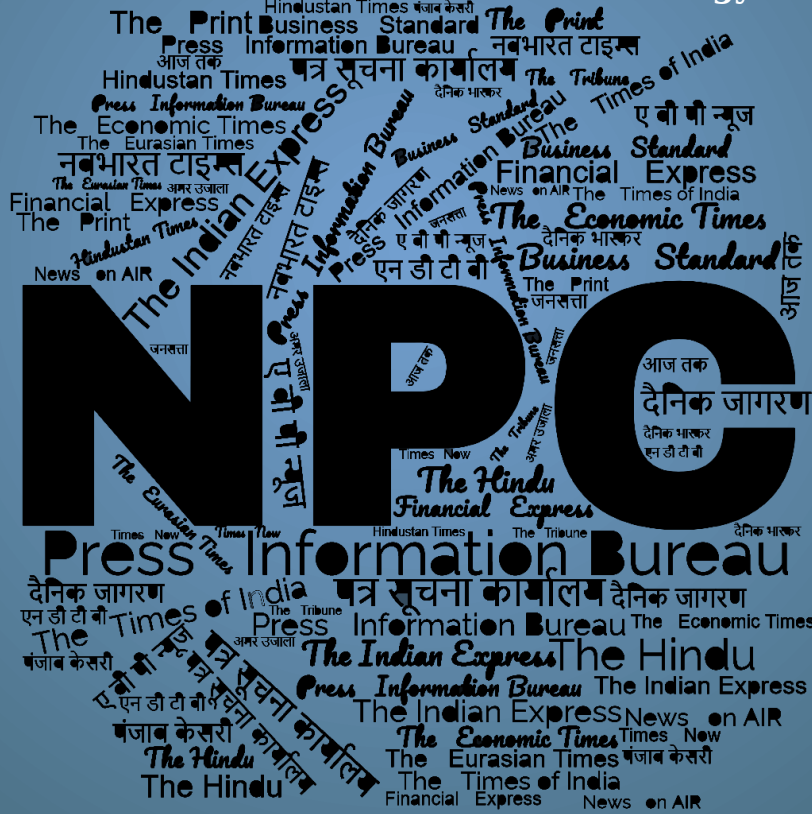
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Press Information Bureau
Government of India

Ministry of Defence

Tue, 20 Jun 2023

MoD Discusses Critical Issues & Ways to Enhance Efficiency of its Departments During Two-day ‘Chintan Shivir’

The two-day ‘Chintan Shivir’, organised by Ministry of Defence in New Delhi to discuss various issues & challenges faced by its departments & come out with new ideas for better governance, concluded on June 20, 2023. Department of Defence (DoD), Department of Defence Production (DDP), Department of Military Affairs (DMA) and Department of Ex-Servicemen Welfare (DESW) held separate brainstorming sessions, during which eminent subject matter experts shared their insights on a variety of relevant themes.

Department of Defence Production

The sessions of DDP, spread across two days, were aimed at collective brain-storming, experiential learning, making systemic course corrections and enhancing efficiencies within the indigenous aerospace and defence manufacturing sector. The event, presided over by Defence Secretary Shri Giridhar Aramane, was unique in its format as stakeholders’ participation included senior officials from the department, Chairman & Managing Directors of Defence Public Sector Undertakings, A&D Industry leadership, Quality Assurance Agencies and Academia.

The DDP sessions were based on five themes – ‘Increasing Aatmanirbharta: Road ahead for indigenisation’, ‘Enhancing Production and Defence Exports’, ‘Industrial Ecosystem & Skilled Workforce’, ‘Enhancing Level Playing Field’ and ‘Quality Reforms’ with a panel of experts sharing their viewpoints from diverse domains contributing to the A&D sector. The industry welcomed the open-house discussions in an interactive format and brought out that significant steps taken in the past are assurances that further ground will be covered to achieve the target of domestic A&D production of Rs 1,75,000 crore including A&D exports of USD 5 billion by 2024-25.

The DDP has collated the points emanating from the Chintan Shivir so as to make course corrections and reforms in due course for further growth of the indigenous A&D manufacturing sector and imbibe niche technology towards ‘Aatmanirbhar Bharat’.

Department of Defence

Over two days, various issues/challenges relevant to the area of work in DoD were discussed with a view to evolve ideas for better governance/ease of doing business. The broad themes deliberated upon include:

- Cyber Security Challenges to the National Security
- Comprehensive approach to National Security
- Performance Audit
- Sainik School Education System

Capacity Building in Defence Acquisitions

During the sessions, eminent subject matter experts from NSCS, Intelligence Bureau, DRDO, C&AG, Serving and retired officers and also from field of academics, addressed and shared their views on the themes with the officers of DoD. An open house session was also organised wherein, various suggestions for enhancing organisational efficiency were received from the participants.

Department of Military Affairs

The sessions of DMA included topics of Integrating and optimising Human Resource aspects, Training and Operational issues towards achieving greater synergy and modernisation & capability augmentation of Armed Forces in the realms of strategic domain. Deliberations were held on measures to identify and abolish colonial practices and obsolete laws and further incorporate the country's own ethos and practices in functioning of the Armed Forces.

Department of Ex-Servicemen Welfare

The DESW held discussions on 'Leveraging SPARSH for better pension services and other welfare measures for veterans', 'Resettlement of veterans by improving employability and promotion of entrepreneurship for start of micro enterprises by veterans' and 'Improvement in the health services of the veterans'.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1933788>



Press Information Bureau
Government of India

Ministry of Defence

Tue, 20 Jun 2023

Indian Navy - Ocean Ring of Yoga International Day of Yoga (IDY 23)

21st June was recognised as the International Day of Yoga (IDY) by the United Nations General Assembly (UNGA) in Dec 14 at the initiative of Prime Minister of India Shri Narendra Modi. Since 2015, the IDY has been observed worldwide with great enthusiasm and fervour. To commemorate IDY 23, the Ministry of AYUSH has planned an event 'Ocean Ring of Yoga' (symbolising unity and solidarity) in coordination with Ministry of Defence and other ministries. In support of the IDY-23 initiative, Indian Navy ships deployed in the Indian Ocean Region are visiting various ports of friendly foreign countries and spreading the message of 'Vasudhaiva Kutumbakam' which is also the theme for IDY 23.

The Indian Navy has been an ambassador for Yoga across the seas for several years now and Yoga sessions are scheduled at most foreign ports visited by Indian Naval ships; thereby spreading the message of the benefits accrued from Yoga towards leading a healthy lifestyle. This year, Indian Navy is actively supporting the IDY at a global scale as port calls are planned at Chattogram, Bangladesh; Safaga, Egypt; Jakarta, Indonesia; Mombasa, Kenya; Toamasina, Madagascar;

Muscat, Oman; Colombo, Sri Lanka; Phuket, Thailand; and Dubai, UAE by IN Ships Kiltan, Chennai, Shivalik, Sunayna, Trishul, Tarkash, Vagir, Sumitra and Brahmaputra respectively.

In all, as part of IDY 23 Ocean Ring of Yoga, nearly 3500 naval personnel onboard 19 Indian Naval ships have travelled over 35,000 Km as ambassadors of Yoga in both national and international waters. This includes over 2400 personnel on 11 IN ships at foreign ports/international waters. Notably, IDY celebrations are also planned onboard ships of several foreign Navies in concert with our overseas Missions, involving over 1200 foreign Navy personnel.

The IDY-23 activities by the Indian Naval ships at foreign ports are planned to involve the ship's crew and personnel from the host country and would be focused on the 'Common Yoga Protocol' (CYP), to increase awareness about yoga on an international scale and to highlight its immense potential to enhance the physical, psychological, and emotional aspects of well-being, towards an endeavour to facilitate its worldwide adoption.

IDY activities at all naval ports, bases, ships and establishments have commenced. These activities include practising CYP and conducting Yoga-related activities daily in the run-up to the final event on 21 Jun 23. Yoga awareness campaigns to encourage maximum participation by naval personnel, defence civilians and families as promulgated in the portals of the Ministry of AYUSH including 'Har Angaan Yoga' are being ensured. Mass camps, workshops, poster-making competitions, quizzes and lectures on 'Health Benefits of Yoga' are being conducted across the Navy.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1933722>



Press Information Bureau
Government of India

Ministry of Defence

Tue, 20 Jun 2023

Raksha Mantri Shri Rajnath Singh to Attend International Day of Yoga Event Onboard INS Vikrant at Kochi Tomorrow

Raksha Mantri Shri Rajnath Singh will join Indian Navy personnel to perform yoga onboard indigenously built aircraft carrier INS Vikrant on the occasion of International Day of Yoga tomorrow on June 21, 2023.

Admiral R Hari Kumar, Chief of the Naval Staff; Smt. Kala Hari Kumar, President of Naval Welfare and Wellness Association along with other senior officers of Indian Navy and the Ministry of Defence will be present during the event.

Armed forces personnel including Agniveers will participate in the event embracing the spirit of unity and well-being. After the yoga session, the Raksha Mantri will address the gathering and felicitate the yoga instructors.

On the occasion, Indian Navy will stream an exclusive video on Indian Navy's outreach activities emphasising the theme 'Ocean Ring of Yoga', while Indian Navy units that are deployed in the Indian Ocean Region will visit various ports of Friendly Foreign Countries to spread the message of "Vasudhaiva Kutumbakam" which is also the theme for IDY 23. It may be noted that it is the ninth year since the UN recognised June 21 as the International Day of Yoga through a resolution in 2014.

Later tomorrow, Raksha Mantri is also scheduled to inaugurate the Integrated Simulator Complex (ISC) 'Dhruv' at the Southern Naval Command, Kochi. ISC 'Dhruv' hosts modern state of the art indigenously built simulators which will significantly enhance practical training in the Indian Navy.
<https://pib.gov.in/PressReleasePage.aspx?PRID=1933675>

THE ECONOMIC TIMES

Tue, 20 Jun 2023

Army to Observe Yoga Day at Over 100 Locations Along Borders, to form 'Bharatmala'

The Army will form a 'Bharatmala' by conducting yoga sessions at more than 106 locations along the country's land and maritime borders on the International Yoga Day on Wednesday, sources said. Troops will hold yoga activities at different border locations -- from the Dong valley in Arunachal Pradesh to sand dunes of Longewala in Rajasthan; and from the glacial heights of Siachen in the north to the southern tip of Kanyakumari in Tamil Nadu, and the Andaman and Nicobar Islands.

Troops and their families including children and defence civilians will participate in the events. Locals will also be involved in the events at places, the source said.

Defence and military attache of different nations in Delhi have, meanwhile, been invited to attend a central event organised at Delhi Cantonment, where Army Chief General Manoj Pande will be the chief guest.

Continuing with the enhanced Indo-Africa partnership, an outreach was also organised in African nations through Indian Army troops deployed in United Nations mission areas and in training teams as part of the UN contingents.

The UN General Assembly had declared June 21 as the International Yoga Day following a resolution moved by India and co-sponsored by a large number of nations.

The first International Yoga Day was observed on June 21, 2015.

<https://economictimes.indiatimes.com/news/defence/army-to-observe-yoga-day-at-over-100-locations-along-borders-to-form-bharatmala/articleshow/101140365.cms?from=mdr>

THE ECONOMIC TIMES

Tue, 20 Jun 2023

Indian Navy to Form 'Ocean Ring of Yoga' on International Day of Yoga

An "Ocean Ring of Yoga" will be formed by the Indian Navy on International Day of Yoga on Wednesday, under which naval ships deployed in the Indian Ocean region will visit various ports in friendly foreign countries and spread the message of "Vasudhaiva Kutumbakam", the yoga day theme this year. The Navy said yoga sessions are scheduled at most of the foreign ports that will be visited by the ships. Port calls are planned at Chattogram in Bangladesh, Safaga in Egypt, Jakarta in Indonesia, Mombasa, in Kenya, Toamasina in Madagascar, Muscat in Oman, Colombo in Sri

Lanka, Phuket in Thailand and Dubai in the United Arab Emirates (UAE) by naval ships Kiltan, Chennai, Shivalik, Sunayna, Trishul, Tarkash, Vagir, Sumitra and Brahmaputra respectively.

As part of the IDY 23 Ocean Ring of Yoga, nearly 3,500 naval personnel on board 19 Indian Navy ships have travelled more than 35,000 kilometres as ambassadors of yoga in both national and international waters, the Navy said in a statement.

This includes more than 2,400 personnel on 11 naval ships at foreign ports or international waters.

IDY celebrations are also planned on board ships of several foreign navies in concert with India's overseas missions, involving more than 1,200 foreign Navy personnel.

The activities of the Indian Navy ships at the foreign ports are planned to involve the ship's crew and personnel from the host country and would be focussed on the "Common Yoga Protocol" (CYP), the statement said.

Yoga day activities at all naval ports, bases, ships and establishments have already commenced. Yoga awareness campaigns to encourage maximum participation by naval personnel, defence civilians and families, as promulgated on the portals of the Ministry of AYUSH, including "Har Angaan Yoga", are being ensured, the Indian Navy said.

Mass camps, workshops, poster-making competitions, quiz contests and lectures on "Health Benefits of Yoga" are also being conducted by the Navy.

The United Nations General Assembly declared June 21 as the International Day of Yoga (IDY) following a resolution moved by India and co-sponsored by a large number of countries.

The first IDY was observed on June 21, 2015.

<https://economictimes.indiatimes.com/news/defence/indian-navy-to-form-ocean-ring-of-yoga-on-international-day-of-yoga/articleshow/101140607.cms>



Wed, 21 Jun 2023

Defence Minister, Navy Chief Visit Hydrographic Ships at SNC

Defence Minister Rajnath Singh and Chief of Naval Staff Admiral R. Hari Kumar visited the Navy's hydrographic ships at the Southern Naval Command (SNC) here late on Tuesday night, ahead of World Hydrography Day (June 21).

They will join Navy personnel onboard the indigenous aircraft carrier INS Vikrant early on Wednesday morning to perform Yoga, on the occasion of International Yoga Day.

On board hydrographic vessel INS Jamuna, Mr. Singh released a navigational chart from Mauritius to Andaman Nicobar Islands that was prepared by the Indian Naval Hydrographic department (INHD), which functions under the Indian Navy as the nodal agency for hydrographic surveys and nautical charting in India. Vice Admiral Adhir Arora, Chief Hydrographer of the Navy, too was present. He spoke of how hydrographic surveys helped, among others, sustainable management of marine resources.

Addressing Navy personnel, Admiral Hari Kumar said the job of a hydrographer was complex, and it entailed long durations in difficult waters. Hydrographic charts that form the basis of all maritime activities helped secure navigation and trade routes, the blue economy, and also underwater Internet

cables. "These charts are often shared with friendly navies. Efforts are on to leverage Artificial Intelligence, remote sensing, and autonomous technologies in hydrography," he said.

A hydrography exhibition too was held. The International Hydrographic Organisation (HO) celebrates June 21 as World Hydrography Day to raise awareness about hydrography and its role in improved knowledge of the seas and oceans. The theme for 2023, 'Hydrography - Underpinning the Digital Twin of the Ocean', is in keeping with the development of virtual representation.

The INHD functions under the Indian Navy as the nodal agency for hydrographic surveys and nautical charting in India. The department has the mandate to undertake hydrographic surveys and publish navigation charts. Last year, it distributed over six lakh electronic navigation charts to seafarers and earned a revenue of over ₹70 crore.

The National Institute of Hydrography (NIH) in Goa is the centre for imparting training in hydrography, and it is accredited by the International Hydrographic Organisation for national and international trainees. Over 800 trainees from 41 countries have been trained at NIH.

In line with the Centre's SAGAR initiative, the survey ships of the Indian Navy have conducted various joint survey operations with friendly foreign nations, covering an area of 89,000 sq km.

<https://www.thehindu.com/news/national/kerala/defence-minister-navy-chief-visit-hydrographic-ships-at-snc/article66991260.ece>

THE ECONOMIC TIMES

Wed, 21 Jun 2023

Peace on LAC Essential for Normal Ties with China: PM Modi

India does not have a neutral stand on disputes between countries and has always been on the side of peace, Prime Minister Narendra Modi has said. In an interview to the Wall Street Journal, ahead of his first state visit of the United States, Modi said that peace and tranquillity at the border was essential for India to have normal ties with China, emphasising that India was committed and prepared to protect its sovereignty.

"All countries should respect international law and the sovereignty of countries. Disputes should be resolved with diplomacy and dialogue, not war... Some people say that we are neutral. But we are not neutral. We are on the side of peace... The world has full confidence that India's topmost priority is peace," Modi said.

India will "do whatever it can" to end the Russia-Ukraine war and backs "all genuine efforts to end the conflict and ensure enduring peace and stability".

Modi's official visit to the US comes at a juncture when India heads G20. It also has a key role as a leader of the Global South and its proximity to the US has increased with the two nations using the Quad grouping to counter China's growing hegemony.

"There is an unprecedented trust between leaders of the US and India," Modi said, hailing the growing defence cooperation as an "important pillar of our partnership" that extends to trade, technology and energy.

He said India has "a core belief in respecting sovereignty and territorial integrity, observing the rule of law and peaceful resolution of differences and disputes".

Modi underlined the growing significance of India on the world stage. "India deserves a much higher, deeper and wider profile and role... We do not see India as supplanting any country. We see this process as India gaining its rightful position in the world... There has to be an evaluation of the current membership of the (UN Security) Council and the world should be asked if it wants India to be there," Modi said.

Modi said that India celebrated diversity and practices tolerance towards all sections. "For thousands of years, India has been the land where people of all faiths and beliefs have found the freedom to co-exist peacefully and prosper. You will find people of every faith in the world living in harmony in India," Modi said. The Opposition has often accused the BJP government of promoting polarisation and has accused it of being 'anti-minority.'

The PM also spoke on multinationals setting up manufacturing bases in India. Foxconn will manufacture iPhones in its units in Telangana, Karnataka, and Tamil Nadu. An interconnected and interdependent world should have diverse supply chains to build resilience, he said. "I am the first prime minister to be born in free India... And that's why my thought process, my conduct, what I say and do, is inspired and influenced by my country's attributes and traditions. I derive my strength from it... I present my country to the world as my country is, and myself, as I am," Modi said.

<https://economictimes.indiatimes.com/news/defence/peace-on-lac-essential-for-normal-ties-with-china-pm-modi/articleshow/101143877.cms>



Wed, 21 Jun 2023

Defence, Technology on Agenda as PM Modi Begins Key US Visit

Prime Minister Narendra Modi arrived in New York on Tuesday afternoon eastern time (late Tuesday night IST) to reinforce what he termed ties “based on shared values of democracy, diversity and freedom” between India and the US, and to address the “shared global challenges” of the two countries.

In a departure statement before leaving New Delhi, Modi, who is in the US at the invitation of President Joe Biden and First Lady Jill Biden, said the visit would reflect the “vigour and vitality of the partnership between our democracies”.

Saying that India-US ties were multifaceted, with deepening engagements across sectors, Modi said, “USA is India’s largest trade partner in goods and services. We collaborate closely in science and technology, education, health, defence and security fields.” He added that the initiative on Critical and Emerging Technologies (iCET) — which was launched this January — has added new dimensions and widened collaboration to “defence industrial cooperation, space, telecom, quantum, Artificial Intelligence and biotech sectors”.

“Our two countries are also collaborating to further our shared vision of a free, open and inclusive Indo-Pacific”, the PM said.

In New York, Modi is scheduled to meet a select group of about two dozen individuals from sectors as diverse as business, arts, think-tank community, health, science, and more, later on Tuesday. He will meet the chief executive officer of Tesla, SpaceX and chairman of Twitter Elon Musk, astrophysicist Neil deGrasse Tyson, Grammy award-winning Indian-American singer Falguni

Shah), Nicholas Nassim Taleb, Ray Dalio, Jeff Smith, Michael Froman Daniel Russel, Elbridge Colby, Peter Agre, Stephen Klasko and Chandrika Tandon.

Modi will lead the International Day of Yoga celebrations at the United Nations headquarters on Wednesday morning eastern time. HT had first reported on the details of the event on May 31, in which the UN General Assembly president, Csaba Korosi, diplomatic representatives from permanent missions of countries to the UN, New York mayor Eric Adams, and members of the diaspora are expected to join the PM. The UN, with the overwhelming support of member states, declared June 21 as Yoga Day nine years ago. "I look forward to this special celebration at the very location that supported India's proposal in December 2014 to recognise an International Day of Yoga," Modi said.

He will then depart for Washington DC on Wednesday. During what officials and observers are already billing as a historic visit, Modi will be accorded a ceremonial welcome in the White House, attend a state dinner hosted by the Bidens and a lunch hosted by vice president Kamala Harris, address a joint meeting of the US Congress, and engage with business leaders, Indian-American professionals, and the diaspora.

Modi said that his discussions with Biden and other senior US leaders will provide an opportunity to "consolidate our bilateral cooperation as well as in plurilateral forums such as G20, Quad and IPEF". The reference is to the Indo-Pacific Economic Framework, an economic grouping that the US launched last year with 13 other countries.

With the US Congress extending a rare invite to the PM to address a joint meeting between the House and Senate for a second time, Modi noted that the US Congress had always "provided strong bipartisan support to India-US ties".

Modi will address business executives and professionals at the Kennedy Centre in Washington on June 23, which will be followed by a community event where he addresses the diaspora at Reagan Centre in the US capital. "Strong people-to-people linkages have been instrumental in developing the trust between our countries. I look forward to meeting the vibrant Indian-American community that represents the best of our societies," the PM said, adding that he will meet some the leading CEOs to discuss opportunities for elevating "trade and investment relationship and for building resilient global supply chains".

In an interview to HT this week, US national security adviser (NSA) Jake Sullivan said that visit will be defined by "substantive outcomes" in the domains of defence, high-tech cooperation, economic investment and people-to-people ties. HT has also reported on the US administration pushing through approvals for the manufacture of GE F414 jet engines in India and other deliverables in the domains of space, higher education, semiconductor manufacturing, mobility, and trade.

<https://www.hindustantimes.com/india-news/defence-tech-in-focus-as-modi-begins-key-us-visit-101687286509648.html>



Wed, 21 Jun 2023

‘Modi's US Visit to Enhance Bilateral Ties, not About China, Russia’: White House

The main objective of Prime Minister Narendra Modi's visit to the United States is to strengthen the bilateral relationship between the US and India, with a focus on enhancing cooperation and

collaboration and has nothing to do about China or Russia, John Kirby, White House National Security Council Coordinator for Strategic Communications

During a press conference, Kirby stated that this visit is not about convincing PM Modi or the Indian Government to do something different.

Follow PM Modi in US LIVE updates

"This state visit is also not about Russia. And what we're trying to do with our bilateral relationship with India is improve the bilateral relationship for its own sake and on its own foundation, because it's that important to us. It's not about forcing or coercing or trying to convince Prime Minister Modi or the Indian government to do something different. It's about focusing on where we are in this relationship and making it more important, more robust, more cooperative going forward," said Kirby.

The NSC Coordinator also said that the US supported "India's emergence as a great power" and was looking to improve and deepen the defence cooperation between India and US.

"This is a big week here at the White House. This visit will affirm the strong ties between our two countries (US and India) and elevate our strategic partnership. We want to improve and deepen the defence cooperation between India and the USA. We support India's emergence as a great power," Kirby said.

Speaking about defence cooperation, he said that cooperation between the two countries has improved and the US is looking to deepen that, to broaden and to find opportunities to improve that defence cooperation.

"I won't speak for Prime Minister Modi or the Indian government and where and how they see their defence cooperation going forward. All I can tell you is what I said earlier that we have seen in recent years, particularly since the beginning of the Biden administration, that defence cooperation between our two countries has improved. And we're looking and you'll see quite a focus on it this week in particular, we're looking to deepen that, to broaden and to find opportunities to improve that defence cooperation between India and the United States," said Kirby.

The White House official said PM Modi's visit will strengthen the shared commitment to a free, open, prosperous and secure Indo-Pacific.

"With Indians, we believe in a safe, secure and prosperous Indo-Pacific region, so it makes sense to look for ways to improve our defence cooperation," Kirby said.

He further said that when leaders will summarise their meeting at the end, the discussion will be more on the focus of the future and on the future of the Indo-Pacific.

"We have a shared interest and a shared common goal of a free, open, prosperous and secure Indo-Pacific. India is a major exporter of security in the Indo-Pacific region, and they certainly have equities of their own to speak to. So we're looking forward to where this is going," he added.

Speaking on the price cap on Russian oil, Kirby said, "The price cap is working and proven effective. It's working and we are gratified to see that. It is up to India to decide and we hope that India will continue to buy oil in keeping within the price cap."

In December last year, the United States and its allies went after Russia's all-important oil revenues after a European ban and price cap on Russian oil.

Europe, along with the United States and other major economies, like the United Kingdom, Japan, Canada, and Australia, has agreed to a maximum of USD 60 per barrel on Russian seaborne oil, which means anyone who still wants to buy Russian oil has to pay that price or less if it wants to ship cargo through operators or insurers based in the EU or other countries who signed on to this

price cap. Replying to a question on if India could be a mediator in the Russia-Ukraine war, Kirby said, "It would be on Prime Minister Modi to take an assertive role. We would welcome a constructive role by any third party. It is a question that only PM Modi can answer."

Kirby further said that India has been a tremendous contributor to humanitarian assistance and said, "We welcome the humanitarian assistance given by India to Ukraine."

He said that PM Modi's visit concerns not just the red carpet and a terrific meal. It is about anchoring the relationship.

"A state visit is not just about the red carpet and a terrific meal. It is about anchoring the relationship. Take a look at the region, in which the bilateral relationship has improved and is going to go in 10-15 years from now. All these are a reason enough to have a meeting with India to see the future ahead. The full scope of the agenda, sitting down with Modi and his team. India has a vibrant democracy and they too work on it. No democracy reaches perfection. The idea is to become more perfect. We are going to work on this bilateral relationship," said Kirby.

He also informed that Vice President Kamala Harris will be hosting a lunch for PM Modi where several Indian-Americans will also be present.

Prime Minister Narendra Modi has arrived in New York for his first historic state visit to the United States.

PM Modi was invited by the US President Joe Biden and First Lady Jill Biden.

Prime Minister will also lead the celebrations of the International Day of Yoga at the United Nations Headquarters on June 21.

During his visit to New York, PM Modi will meet CEOs, Nobel laureates, economists, artists, scientists, scholars, entrepreneurs, academicians, and health sector experts.

PM Modi will then travel to Washington DC, where he will receive a ceremonial welcome at the White House on June 22 and meet Biden to continue their high-level dialogue.

The invitation to deliver such a historic speech was extended by both the House of Representatives and the Senate, demonstrating bipartisan support and respect for Prime Minister Modi in the United States.

He would be the first Indian Prime Minister to address a joint session of the United States Congress twice.

<https://www.hindustantimes.com/india-news/modis-us-visit-to-enhance-bilateral-ties-not-about-china-russia-white-house-101687288842860.html>

The Tribune

Wed, 21 Jun 2023

Jet Engines, Drones, Space: Aiming Entry to Next League of Tech

Expected defence cooperation agreements between India and the US during Prime Minister Narendra Modi's visit will lay the foundation for India getting into the next league of technology in making engines for aircraft, operating cutting-edge armed drones and use of space.

General Electric of the US is expected to ink an agreement with public sector Hindustan Aeronautics Limited (HAL) to produce jet engines (GE-F414) in India. New Delhi has chosen the GE-F414 engine for the light combat aircraft Tejas Mark 2 and also for the naval twin-engine fighter jet. The existing version of the Tejas Mark 1 is powered by a GE-404 engine. The forthcoming version, Tejas Mark 1A, is also to fly with the GE-404.

General Electric is expected to open a manufacturing base with the HAL where specific technologies will be brought in. Some of the manufacturing processes, especially metallurgy, are top secrets, including the single-crystal turbine blades. Super-alloys in these blades make them heat-resistant. The two sides are looking for a licensing agreement that will allow progressive transfer of technology of engines. This sort of technology transfer has not been done by the US for anyone outside its group of allies.

India is set to acquire MQ-9B Guardian armed drones, which is again the high-end technology. Only a select group of countries have these drones made by General Atomics. It is available in multiple variants and can be used to target enemy positions on ground, warships at sea, airbases and even small targets like planes, besides 24x7 surveillance capability.

The armed drones will change the battle-scape and New Delhi's prowess. At present, India does not have long endurance armed drones that can fire missiles at desired targets and return to the base. New Delhi will be getting the same drones as available to the US forces and its allies like the UK, Canada and Australia. Indian armed forces are looking for the drones, both for attack and surveillance.

In space technology, India and the US have already signed a Space Situational Awareness (SSA) arrangement. The India-US Civil Space Joint Working Group spans cutting-edge earth observation capabilities to interplanetary exploration and supports new opportunities for collaboration, including in areas of human space flight and exploration.

The NASA-ISRO Synthetic Aperture Radar, or NISAR, satellite is set for launch in late-2023. It has been designed to observe the Earth and its changes.

In US' select club

- General Electric is expected to ink pact with HAL to produce jet engines in India
- GE-F414 engines will be used for light combat aircraft Tejas Mark 2 and naval twin-engine jet
- Such technology transfer hasn't been done by the US for anyone outside a 'select club'
- India will also get MQ-9B drones, so far available only to US forces and closest allies

<https://www.tribuneindia.com/news/nation/jet-engines-drones-space-aiming-entry-to-next-league-of-tech-518887>

Business Standard

Tue, 20 Jun 2023

India to Buy 31 Predator Drones from US for \$3.5 bn; All you Need to Know

Last week, India's Defence Acquisition Council (DAC) approved the purchase of US-Made Predator drones, arguably the best in the world. The deal will cost India around \$3.5 billion for 31

high-altitude, long-endurance Predator-B drones. India already operates two Sea Guardian drones, an unarmed version of the deadly Predator series.

What are Predator Drones?

Developed by a San Diego-based defence contractor, General Atomics, Predators drones are considered the best in the business. Primarily developed to conduct surveillance-related operations, one of these drones famously identified Osama bin Laden in Afghanistan in 2000.

Thereafter, armed versions of the Predator drones were developed that came with lethal Hellfire missiles. With continuous revisions and updates, today's predators have become far more superior compared to their earlier versions.

These drones can operate at heights up to 50,000 feet for over 27 hours with a payload capacity of 1,746 kg. India is interested in the MQ-9B SkyGuardian and MQ-9B SeaGuardian variants of these drones, which are designed to operate via satellite and have endurance of more than 30-40 hours, a report in The Times of India said. These drones can fly in all weather conditions with payloads of more than 2000kg.

Predator drones operational history: A brief

Since it started serving with the American armed forces in 1995, Predator drones have seen extensive usage in the conflict zone. The Predator was first deployed over Bosnia in the summer of 1995 and General Atomics was awarded the first contract of series production in August 1997.

Later, it was deployed in Afghanistan, Iraq, Yemen, Libya, Somalia, and Syria to support operational requirements. With extensive and proven experience in war-torn zones, Predator drones have made a reputation for themselves. Predators' superiority in unmanned warfare is unmatched so far.

Other drones in the world

While American Predator drones are the gold standard when it comes to the best drone technology, other countries are also making strides in developing their own unmanned aerial vehicles (UAV).

Israel's Elbit Hermes 450: It is an assault UAV equipped with two Hellfire missiles. With an endurance of over 20 hours, it can be used for reconnaissance, surveillance, and communications relay. These drones are also operated by the US.

Turkey's Bayraktar drones: Turkey has made significant advances in drone making. Its Bayraktar drones have shot to fame after its operational prowess came to light as Ukraine used them to zero in on Russia's land-based targets which were turned to fumes seconds later after they were locked.

The Bayraktar can carry laser-guided and has a compact body that can be carried on a truck. Importantly, they only cost a fraction of American Predator drones. The drone is sold to 13 countries and is said to have the ability to change the course of wars.

These very drones were used to decide the fate of the Azerbaijan-Armeia war when the two countries fought in 2020 over Nagorno-Karabakh.

Where does India stand in the drone race?

While India recognises the quintessential role drones can play in modern warfare, its own development of the same is abysmal. However, with a renewed push towards the drone industry, startups in the country are focused on developing and identifying new applications and use cases for drones, a KPMG report said.

Centre is taking a keen interest in improving indigenous know-how of drone technology and its liberal policies and other initiatives like drone shakti are supporting the market's growth, the report

added. Drone Shakti is a production-linked incentive scheme designed to bolster domestic drone development.

DRDO Rustom

The DRDO Rustom is a medium-altitude long-endurance unmanned air vehicle (UAV) being developed by the Defence Research and Development Organisation. It has been derived from National Aerospace Laboratory (NAL's) LCRA (Light Canard Research Aircraft developed by the team that worked under the late Prof Rustom Damania in the 1980s.

The Rustom will have three variants namely, Rustom-1, a tactical UAV with an endurance of 12 hours.

The second is Rustom-H, a larger UAV with a flight endurance of more than 24 hours which will also have a higher range and service ceiling. Service ceiling refers to the maximum height an aerial vehicle can achieve.

The third, Rustom-2 (TAPAS-BH-201) will be a UAV based on Rustom-H. It is being developed on the lines of General Atomics MQ-1 Predator. Its first flight took place in November 2016.

https://www.business-standard.com/india-news/india-to-buy-31-predator-drones-from-us-for-3-5-bn-all-you-need-to-know-123062000324_1.html



Tue, 20 Jun 2023

Strengthening Bilateral Defence Ties: Exploring Technological Autonomy and Collaboration between Brazil and India

With a focus on promoting technological autonomy and strengthening defense industries, a former Brazilian Army officer shared insights into the burgeoning relationship between India and Brazil in the defense sector.

In an exclusive conversation with Financial Express Online, General Luis Antônio Duizit Brito, the Secretary of Defense Products Division in Brazil, sheds light on the growing relationship between Brazil and India in the defence sector. With a focus on promoting technological autonomy and strengthening defense industries, General Brito discusses the potential for collaboration, challenges faced, and the role he played in establishing joint ventures between Brazilian and Indian companies.

When did you visit India?

General Brito's first encounter with India came during his mission in Lucknow in January 2020. This experience ignited his understanding of India's growing significance and the mutual interests both nations shared in bolstering their defense industries. With a 45-year career in the Brazilian army, his expertise in ordnance, ammunition, and aircraft maintenance further deepened his perspective.

When asked about the interest of Brazilian companies in India and the products showcased during a defense exhibition in Brazil, General Brito emphasized Brazil's vast technological capabilities. He highlighted the importance of each country's pursuit of technological autonomy to safeguard their sovereignty. Expressing admiration for India's defense industry, he stressed the potential for fruitful collaboration between the two nations.

Role in establishing two joint ventures

The Brazilian Army officer has an instrumental role in establishing two major joint ventures between Brazilian and Indian companies, namely Companhia Brasileira de Cartuchos (CBC) Brazil, and Taurus Armas S.A. CBC is the world's second-largest ammunition manufacturer and has a joint venture with Stumpff Schuele & Somappa India (SSS Defence).

Financial Express Online has reported earlier about the joint venture agreement with Taurus Armas of Brazil with Jindal Defence, part of OP Jindal Group. This joint venture is related to manufacturing of small arms in India.

He highlighted the initial challenges posed by differences in culture, laws, and organizational structures. However, despite facing obstacles during the Covid-19 pandemic, both partnerships have thrived and contributed to enhancing the defense capacities of both Brazil and India. This collaboration has not only strengthened the defense industries but has also fostered a long-standing friendship between the two nations.

Exploring further avenues of collaboration, Lieutenant General Breto suggested potential areas such as aircraft manufacturing, satellites, space control, electronic warfare, cyber defense, and the integration and exchange of raw materials. Recognizing the challenges of establishing identical factories in both countries, he highlighted the significance of leveraging each country's strengths to promote a healthy exchange of resources and to avoid embargoes.

Responding to a question about the presence of Indian defense companies in Brazil, he acknowledged the progress made in enhancing business relationships between the two nations. While focusing on defense industry generalization, he highlighted the existing partnerships in other sectors, including automobiles and others. He expressed optimism for continued growth in collaboration between Brazil and India, building upon the strong foundation of friendship and shared values.

Naval Cooperation

To a specific question related to naval cooperation, especially submarine development programmes, he refrained from delving into the specifics of strategic projects but emphasized the importance of honest and open conversations between governments. He encouraged sustained dialogue and highlighted the potential for collaboration in diverse fields beyond defense, such as science and technology.

Role of BRICS

He shed light on the positive role played by BRICS in facilitating dialogues and strengthening economic ties between Brazil and India. Lieutenant General Breto talked about the importance of continuous communication, paving the way for joint initiatives and progress in various sectors.

When asked about his future visits to India, he expressed his heartfelt desire to return, not only for work-related engagements but also to explore India's rich culture and embrace the warmth of its people. He cherished the similarities in values and friendship between the two nations, and hoped for divine intervention to make his visit a reality.

General Brito's insights into the Brazil-India defense collaboration highlighted the potential for strategic partnerships, increased technological capacities, and the shared aspirations of two nations aiming to secure their national sovereignty through mutual cooperation and friendship.

<https://www.financialexpress.com/business/defence-strengthening-bilateral-defence-ties-exploring-technological-autonomy-and-collaboration-between-brazil-and-india-3133901/>

EU Nations to Train 30,000 Ukraine Troops in 2023: Kyiv

European Union member states plan to train as many as 30,000 members of Ukraine's armed forces this year, including from territorial defence units, Kyiv said on Tuesday.

"In 2023, the EU Military Assistance Mission for Ukraine plans to train 30,000 Ukrainian armed forces personnel, including soldiers of the territorial defence forces," the defence ministry in Kyiv said.

The statement follows a pledge from EU officials in February this year that it would train 30,000 Ukrainian troops, building on an initial target of 15,000 personnel.

The announcement came as Brussels asked EU member states to back a 50-billion-euro (\$55 billion) package to support Ukraine over the next four years.

<https://economictimes.indiatimes.com/news/defence/eu-nations-to-train-30000-ukraine-troops-in-2023-kyiv/articleshow/101141112.cms?from=mdr>

China Inks Deal with Pakistan to Set up Nuclear Power Plant in Punjab Province

China on June 20 inked an agreement worth a whopping \$4.8 billion with cash-strapped Pakistan to set up a 1,200-megawatt nuclear power plant as a sign of increasing strategic cooperation between the two all-weather allies.

Prime Minister Shehbaz Sharif witnessed the signing of the deal under which Beijing would build a 1,200-megawatt Chashma-V nuclear plant at Chashma in the Mianwali district of Punjab.

In his address, Prime Minister Sharif termed the nuclear power plant agreement signing as a token of increasing economic cooperation between Pakistan and China and vowed to complete the project without any delay.

"We will kick start it without any further delay," he said, as he lambasted the previous government under Imran Khan for delaying the key power project.

He said under a difficult economic situation, Pakistan was getting an investment of \$4.8 billion from China in this project, which "sends the message that Pakistan is a place where Chinese companies and investors continue to show their trust and faith".

Mr. Sharif said the Chinese companies gave special concessions which would save billions of rupees in this project.

He expressed confidence that Pakistan would come out of the current economic difficulties with the help of China and other friendly countries.

Mr. Sharif said Pakistan was also engaged with the International Monetary Fund to finalise the 9th Review and met all conditions required by the Washington-based global lender.

"We are deeply obliged to President Xi Jinping, and the Chinese leadership for their generous help to Pakistan," he said, as he also lauded Saudi Arabia, United Arab Emirates and Qatar for extending help to his cash-strapped government.

Pakistan's Chashma power plants are considered a key in the production of cheap nuclear power. The installed capacity of the existing four power plants is 1,330 megawatts, according to the Pakistan Atomic Energy Commission.

Two other nuclear power plants are also operational in Pakistan. Karachi Nuclear Power Plants (KANUPP 2 & 3 have a capacity of 2,290 megawatts).

Pakistan, which is under tremendous financial debt, is not getting multilateral loans or even bilateral assistance without the support of the IMF.

Only China has stood fast to help Pakistan while Saudi Arabia and the UAE have also been selectively supportive.

The IMF signed a deal in 2019 to provide \$6 billion to Pakistan on fulfilment of certain conditions. The plan was derailed several times and the full reimbursement is still pending due to insistence by the donor that Pakistan should complete all formalities.

Pakistan's economy has been in a free fall mode for the last many years, bringing unbridled pressure on the poor masses in the form of unchecked inflation and making it almost impossible for a vast number of people to make ends meet.

<https://www.thehindu.com/news/international/china-inks-deal-with-cash-strapped-pakistan-to-set-up-nuclear-power-plant-in-punjab-province/article66989188.ece>

Science & Technology News



Press Information Bureau
Government of India

Ministry of Science & Technology

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Omicron-specific mRNA-based Booster Vaccine Developed using the Indigenous Platform Technology

The Department of Biotechnology (DBT) has announced that the Omicron-specific mRNA-based Booster vaccine developed using the indigenous platform technology by Gennova Biopharmaceuticals Ltd. and supported under the Mission COVID Suraksha, implemented by Biotechnology Industry Research Assistance Council (BIRAC), has got a nod from the office of the Drug Control General of India (DCGI) for Emergency Use Authorization (EUA).

DBT has facilitated establishing Gennova's mRNA-based next-generation vaccine manufacturing for developing the platform technology from proof of concept till Phase I clinical trial of the prototype mRNA-based vaccine developed against the Wuhan strain. The project was further supported under the Mission COVID Suraksha. The Indian COVID-19 Vaccine Development

Mission' by DBT's dedicated Mission Implementation Unit at Biotechnology Industry Research Assistance Council (BIRAC), for further clinical development and Scale up of the prototype vaccine, which received EUA on 29th June 2022. The platform technology developed was used to develop an Omicron-specific booster vaccine for COVID-19.

GEMCOVAC®-OM is an Omicron-specific mRNA-based Booster vaccine developed using the indigenous platform technology by Gennova in collaboration with DBT. Like the prototype vaccine, GEMCOVAC®-OM is a thermostable vaccine, which does not require ultra-cold chain infrastructure used for other approved mRNA-based vaccines, making it easy for deployment pan India. It is delivered intra-dermally using a needle-free injection device system. When administered intradermally in participants as a booster, it generated significantly higher immune responses. The clinical outcome demonstrates the need for variant-specific vaccines for desired immune response.

Dr. Jitendra Singh, Union Minister (IC), Ministry of Science and Technology, commended the efforts of team DBT and said, that "I take great pride in DBT fulfilling its mission yet again – enabling technology-driven entrepreneurship through creating this indigenous mRNA-platform technology. We have always supported technology-driven innovation towards the creation of a 'future-ready' technology platform in line with the Prime Minister's vision of Aatmanirbharta. Minister also said, "Infrastructure to deploy vaccine in India, including LMICs, at 2-8°C exist today & this innovation is tailored for the existing established supply-chain Infrastructure. The vaccine does not need ultra-low temperature conditions for transport and storage."

Dr Rajesh S Gokhale, Secretary, DBT, and Chairperson, BIRAC said that Strategic infusion of funds is essential to drive and create an ecosystem for technological innovation, and DBT did just that when it provided support for the development of the nation's first mRNA-based platform technology. This is a disease-agnostic platform and can be used to make other vaccines in a relatively short developmental timeline. "Clinical Trial Networks, with Consortia of Hospitals was supported by NBM-DBT and the same sites were used for the mRNA vaccine "clinical trials, he said."

Speaking on the development, CEO of Gennova Biopharmaceuticals Ltd, Dr. Sanjay Singh, said, "When we started the development of this platform technology and took the proposal to DBT, the Government believed in our capability to develop an mRNA technology platform, and we did it. GEMCOVAC®-OM's getting EUA from the office of the DCG(I) is a testimony of our efforts to initiate, nurture and enable this 'pandemic ready' technology. India has now developed not one but two mRNA vaccines against COVID-19 using this rapid-disease-agnostic platform technology. I am proud that my team has worked tirelessly over the last two years to develop the nation's first mRNA vaccine. This is a team effort & without the guidance of the Subject Expert Committee of CDSCO and the Vaccine Expert Committee of BIRAC monitoring the project, it would not have been possible."

About DBT

The Department of Biotechnology (DBT), under the Ministry of Science & Technology, promotes and accelerates the development of biotechnology in India, including the growth and application of biotechnology in the areas of agriculture, healthcare, animal sciences, environment, and industry.

About BIRAC:

Biotechnology Industry Research Assistance Council (BIRAC) is a not-for-profit Section 8, Schedule B, Public Sector Enterprise, set up by the Department of Biotechnology (DBT), Government of India, as an Interface Agency to strengthen and empower the emerging Biotech enterprises to undertake strategic research and innovation, addressing nationally relevant product development needs.

About Gennova

Gennova Biopharmaceuticals Ltd., headquartered in Pune, India, is a biotechnology company dedicated to the research and development, production, and commercialization of biotherapeutics (biologics and vaccines) to address life-threatening diseases across various indications. To find out more, visit <https://gennova.bio>

<https://pib.gov.in/PressReleasePage.aspx?PRID=1933586>

THE ECONOMIC TIMES

Wed, 21 Jun 2023

Expanding Bilateral Space Sector Cooperation High on the Agenda for Modi and Biden

Expanding bilateral space sector cooperation, including human space flights by India, will figure high on the agenda when Prime Minister Narendra Modi meets US President Joe Biden in Washington, DC on Thursday, said people with knowledge of the matter.

The two sides are exploring collaboration on astronaut training, crew rescue and other activities in human space flight during the PM's trip, they said. Under the US-India initiative on critical and emerging technologies (iCET) launched by the national security advisors of the two countries, the White House had earlier this year mentioned strengthening human space flight cooperation; identifying innovative approaches to collaborate in the commercial space, including through a joint working group; and identifying new talent and encouraging exchanges by expanding the professional engineer and scientist exchange programme.

NISAR launch likely in January

The space collaboration between the two countries will also help India's Gaganyaan human space flight mission, said the people cited earlier. Recently, India and the US set up a human space flight working group under iCET.

India and the US have been collaborating on certain aspects of the space sector. The NASA Isro Synthetic Aperture Radar (NISAR), the low earth orbit observatory being jointly developed by NASA and Isro is expected to be launched in January 2024. The observatory desires to monitor the earth's changing ecosystems, ice mass, ocean levels and natural hazards.

Earlier this year, India and the US held key meetings in Washington, DC to expand civil space cooperation. In a White House statement on January 31, the countries announced they would arrange for training of an Indian astronaut at NASA's Johnson Space Center. India had also sent several Indian Air Force pilots to the Star City cosmonaut training centre in Russia for training for India's Gaganyaan human space flight programme.

<https://economictimes.indiatimes.com/news/india/expanding-bilateral-space-sector-cooperation-high-on-the-agenda-for-modi-and-biden/articleshow/101146996.cms>

