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LEAD STORY

Defence Minister Invites Global Community to Co-Develop & Co-Produce Advanced Systems in India

Present global security scenario demands innovative approaches & stronger partnerships — Rajnath Singh at Defence Ministers' Conclave



SHARED SECURITY CONCERNS FIGURED DURING THE DELIBERATIONS, WITH THE MINISTERS UNANIMOUSLY AGREEING TO AVOID ARMED CONFLICT AND PLEDGING TO FIGHT TOGETHER AGAINST VARIOUS CHALLENGES

SP'S SPECIAL CORRESPONDENT

efence Minister Rajnath Singh has exhorted the global community to join India in the codevelopment and co-production of advanced systems, emphasising that the present global security scenario demands innovative approaches & stronger partnerships. He was addressing the Defence Ministers' Conclave 'Building Resilience through International Defence and Global Engagement (BRIDGE),' organised as part of the 15th Aero India in Bengaluru, Karnataka. The event witnessed the participation of over 162 delegates from 81 countries, including 15 Defence Ministers, 11 Deputy Defence Ministers, 15 Permanent Secretaries, and 17 Service Chiefs.

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Rajnath Singh added that disruptive technologies such as Al, quantum technologies, hypersonic and directed energy are transforming the character of warfare, creating new vulnerabilities. He stressed that these changes would have a deep impact on future warfare, forcing reassessment of the capabilities required to meet the challenges.

Defence Minister pointed out that international order and peace cannot be ensured from a position of weakness, and the Government of India, under Prime Minister Narendra Modi, is leaving no stone unturned to transform defence capabilities. "We have put in place a conducive policy regime which encourages investment and production of an entire range of modern state-ofthe-art land, maritime & air systems. India's emergence as a global hub for R&D and innovation in defence is a testament to our capabilities and aspirations," he said.

Rajnath Singh said India possesses a vibrant defence start-up ecosystem which has the third largest number of unicorns in the world. He highlighted the unparalleled opportunities for collaboration offered by the thriving Indian aerospace and defence sectors, supported by a significant R&D base and an entrepreneurial spirit. "Our skill base enables us to produce at highly competitive costs. India is committed to share state-of-the-art defence equipment, hardware, services, and technology with our friends and partners," he told the Defence Ministers and other foreign delegates.

Rajnath Singh asserted that India has embraced the vision of 'Security and Growth for All in the Region (SAGAR)' for the Indian Ocean Region (IOR), focussing on key areas such as maritime security, economic development and blue economy. He added that India's collaborative efforts in combating non-traditional threats such as piracy, terrorism, illegal & unregulated fishing, and climate-related challenges underline the commitment for global cooperative action beyond IOR. "Our commitment extends beyond IOR and serves as a blueprint for fostering global partnerships built on equality, trust, mutual respect, and adherence to international law," he said.

Rajnath Singh highlighted that India's position as a preferred partner for defence exports is reinforced by its adherence to quality, reliability, and commitment to the specific needs of partners. "Our defence industry is well-equipped to meet diverse requirements from cutting-edge technology to cost-effective solutions. We take pride in offering customised support that strengthens the capabilities of our partner nations, enabling them to address their security challenges effectively," he said.

Defence Minister termed the BRIDGE initiative as the commitment to transforming dialogue into actionable outcomes, fostering partnerships that are resilient, adaptable, and forward-looking. Challenges ranging from terrorism and cyber-crime to humanitarian crises and climate-induced disasters transcend borders, and they demand a united response.

During the meeting, the Defence Ministers lauded the efforts of Department of Defence Production, Ministry of Defence for organising Aero India and providing an opportunity to world-class manufacturers for showcasing latest innovations and technologies under one roof. They appreciated the concept of BRIDGE which promises to work for peace and prosperity for all. They expressed their willingness to work with India for their defence and other requirements, reaffirming their commitment to further deepen the ties with New Delhi.

The delegates conveyed their desire for Transfer of Technology and co-development & co-production of latest equipment and products, terming India as a partner in resilient supply chain. They acknowledged India's role in peacekeeping and its efforts towards upgrading the capabilities of many countries in various fields, including defence, health and education.

Chief of Defence Staff General Anil Chauhan, Chief of the Naval Staff Admiral Dinesh K. Tripathi, Chief of the Army Staff General Upendra Dwivedi, Chief of the Air Staff Air Chief Marshal A.P. Singh, Defence Secretary Rajesh Kumar Singh and Secretary, Department of Defence R&D and Chairman DRDO Dr Samir V. Kamat were also among the dignitaries present on the occasion. The conclave provided a platform to discuss key aspects such as defence capacity building through investment, joint ventures & co-production, collaboration in R&D, training & technological advancements in AI & space, Maritime security cooperation and strategic partnerships.

iDEX Pavilion at Aero India 2025: Showcasing India's Defence Innovation and Startup Ecosystem

ndia's aerospace and defence sectors are witnessing a significant surge in startup activity, driven by government initiatives promoting self-reliance and innovation. Over the past five years, more than 1,000 defence startups have emerged, contributing to advancements in areas such as unmanned systems, artificial intelligence, and space technology. This growth not only enhances national security but also positions India as a global leader in defence innovation. Initiatives like Innovations for Defence Excellence (iDEX) play a pivotal role in accelerating this development by providing a platform for startups to collaborate, innovate, and bring cutting-edge solutions to the forefront.

At Aero India 2025, the iDEX Pavilion stands as a testament to India's rapidly growing startup ecosystem in the defence, aerospace, and space sectors. Inaugurated by Defence Minister Rajnath Singh on February 10, 2025, the pavilion underscores the nation's commitment to fostering innovation and achieving selfreliance in defence technology.

Promotion of Indian start-ups is a focus area at Aero India 2025 and a wide spectrum of state-of-the-art technologies/products developed by them are being showcased at the exclusive iDEX pavilion.

The iDEX Pavilion features a diverse array of indigenously developed products and technologies from leading innovators from over 30 startups. Exhibits span advanced domains such as aerospace, DefSpace, aero structures, anti-drone systems, autonomous systems, communication, cybersecurity, surveillance and tracking, and unmanned vehicles. A dedicated section highlights the achievements of winners from the Acing Development of Innovative Technologies with iDEX (ADITI) scheme, showcasing groundbreaking work in critical and niche technologies.

"iDEX has been very important in our journey, providing us with invaluable support in understanding defence requirements, funding, and gaining access to essential resources. Beyond just financial backing, iDEX's ecosystem has connected us with key mentors who have guided us in aligning our technology with real-world defence applications. This support has been crucial in accelerating the development of our innovative micro propulsion system for CubeSats, which leverages a unique technology. iDEX has enabled us in positioning ourselves to contribute meaningfully to national security and the future of space technology," added Isha Raje, Senior Lead, Business Development from Manastu Space Technologies that has recently tested their green propulsion systems in space.

The presence of these startups at Aero India 2025 underscores the government's support in building a robust aerospace and defence ecosystem. The pavilion emphasises the growing interdependence of technologies like space tech, unmanned technology, artificial intelligence, and defence systems, illustrating their collective utility in strengthening India's defence industry.



"iDEx has given us the opportunity to exhibit what BluJ Aero is building to the world. We are very grateful for the opportunity to showcase to the armed forces the cargo and ambulance VTOL aircraft we have built. We hope there will be good use cases that will come up for what we have been able to conceptualise, design and manufacture in India," said Vaishali Neotia, Head, Strategy and Business, BluJ Aero that's displaying their prototype right at the centre of iDEx pavilion at Aero India 2025.

Launched in 2018, iDEX aims to create an ecosystem that fosters innovation and technology development in defence and aerospace by engaging industries, including MSMEs, startups, individual innovators, R&D institutes, and academia. It provides grants, funding, and other necessary support to carry out R&D with potential for future adoption by Indian defence and aerospace sectors.

The initiative has successfully onboarded over 600 startups and MSMEs, marking a significant milestone in fostering innovation. Furthermore, 40 prototypes developed under iDEX have received official clearance for procurement, with 31 procurement contracts worth ₹1,560 crore already signed.

The iDEX Pavilion at Aero India 2025 not only showcases cutting-edge technologies but also symbolises the government's commitment to security and innovation. By promoting indigenous solutions and encouraging collaboration among various stakeholders, iDEX is accelerating the growth of India's startup ecosystem and propelling the nation towards self-reliance in defence capabilities.

The pavilion at the 15th Aero India indeed stands true to its adage, "iDEX: where startups shape the next era of aerospace and defence."



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AERO INDIA 2025

Aircraft on Display at Aero India 2025

























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A New Book on Strategic Shift of Military Policies

The Chief of the Air Staff Air Chief Marshal A.P. Singh received a book authored by Manish Kumar Jha at Air Force HQ in New Delhi. The book titled "Indian Way: Strategic Shift of Military and Foreign Policies", attempts to comprehensively analyse and explore the key shifts, drivers, and impacts of these changes in India's foreign and military policies.

😼 MANISH KUMAR JHA

ERO INDIA 2025

ince 2014, India's foreign and military policies have undergone a significant transformation, characterised by a more assertive stance, increased strategic engagements, and a focus on enhancing national security and economic interests. Under Prime Minister Narendra Modi's leadership, India has shifted from a traditionally non-aligned posture to a multi-aligned strategy, balancing relations with major global powers while pursuing an independent foreign policy.

Military modernisation represents a comprehensive process aimed at transforming a nation's defence capabilities in response to evolving geopolitical, technological, and security landscapes. As Air Force Chief A.P. Singh reflects and puts forth the need for the systematic upgrade of military equipment, and the adoption of advanced technologies. The author further writes about the elements of the operational readiness of armed forces, and the restructuring of military institutions to align with modern warfare tactics. In India's case, military modernisation is being shaped by a combination of internal needs-such as enhancing border security and countering terrorism-and external pressures, including regional rivalries, especially with China and Pakistan, and the larger strategic competition in the Indo-Pacific region.

India's military modernisation involves three core dimensions: hardware upgrades, technological integration, and strategic reforms. The hardware upgrade focuses on enhancing India's air, naval, and land assets with new and advanced weaponry, while technological integration prioritises artificial intelligence (AI), cyber warfare capabilities, space-based systems, and network-centric warfare. The strategic reforms include institutional changes like the establishment of the Chief of Defence Staff (CDS) office to ensure better tri-service coordination and the creation of integrated theatre commands, which are aimed at fostering joint operations across the Army, Navy, and Air Force.

This modernisation effort also emphasises the principle of self-reliance in defence production, as evidenced by India's push for indigenous defence manufacturing under the 'Make in India' initiative, alongside strategic defence imports. India's defence planning is

MANISH KUMAR JHA AMIT DAS

(TOP) MANISH KUMAR JHA PRESENTING HIS BOOK TO AIR CHIEF MARSHAL A.P. SINGH AT AIR FORCE HQ IN NEW DELHI; (ABOVE) COVER OF THE BOOK - INDIAN WAY: STRATEGIC SHIFT OF MILITARY AND FOREIGN POLICIES.

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shaped by its dual focus on countering immediate threats along its northern borders and ensuring the security of the Indian Ocean Region (IOR) in the context of broader geopolitical competition, particularly with China in the Indo-Pacific.

However, the low R&D base and import dependency are our major shortcomings. The government is undertaking a series of steps to boost the national R&D base by involving the private sector and start-ups. This is what the Air Force Chief also elaborated on the need for the private sector to broaden the scale and scope of innovation and manufacturing.

India's sole R&D defence entity has, so far, been leading on many critical areas in land, air and naval domains in pursuit of self-reliance and successful indigenous development and production of strategic systems and platforms such as Agni and Prithvi series of missiles, LCA Tejas, multi-barrel rocket launcher Pinaka, MBT air defence system, Akash, a wide range of radars and electronic warfare sys-

to focus on Critical and Emerging Technologies (CETs).

The pace of technological change has greatly reduced the timelines for the development of new systems and deployment in the tactical battle arena. This necessitates faster cycles and shorter acquisition processes from the identification of newer innovations and their deployment in the field.

Note from Editor-in-Chief

Manish Kumar Jha is a Consulting & Contributing Editor for SP's Aviation, SP's Land Forces and SP's Naval Forces and a security expert. He writes on national security, military technology, strategic affairs & policies.

Our heartiest congratulation to Manish Jha on the release of his new book and best wishes for its success!



tems, etc. have given quantum jump to India's military might, generating effective deter-

matic outreach that despite the challenges,

India has achieved export of defence items

worth ₹16,000 crore in 2022-23 and this fig-

ure is likely to rise to ₹25,000 crore in 2024-25.

Most of the items were ultimately designed and

developed by the domestic industries with the support of key institutions like DRDO and ISRO

shift towards defence indigenisation, which

requires the creation of a sustainable ecosys-

tem that integrates and energises policymak-

ers, Services, R&D, academia, the defence

industry both public and private, and foreign

all domains have introduced an element

of urgency to observe and adopt a new

approach to the capability development

paradigm to ensure favourable outcomes in

any future conflict. Disrupters such areas as

unmanned/autonomous vehicles/drones,

smart nano drones and employment of

swarms, space/satellite, and underwater tech

etc will shape the tactical battle area. The

technology advantage will perhaps be the

building a robust defence ecosystem is to

create a massive pool of smart, next-gen and

innovative tier 2/3 defence entities consist-

ing of Micro, Small, and Medium Enterprises

cludes dependency in the mil-tech (military

technology) domain on any single external

source; hence partnerships based on current

and future strategic alignments help mitigate

risks. The success stories need to be bolstered

financial and human capital to develop capa-

bilities and unlock immense potential. The

industry needs to focus on R&D, while the

government creates the linkages between the

military and industry to create an ecosystem

that nurtures innovation. As the nature of

warfare evolves, collaborative research needs

Industry leaders need to focus on innovation, R&D infrastructure, and substantial

further by exploiting cutting-edge mil-tech.

The current geopolitical environment pre-

For India, the most critical aspect in

most critical battle-winning factor.

(MSME) including Startups.

New technologies in warfare across

The book attempts to outline the policy

What is important is the policy shift and pasturing towards India's military and diplo-

rence and providing crucial leverage.

with key industrial partners in India.

OEMs and global technology leaders.

INTERVIEW BOEING



Investing in Innovation

SALIL GUPTE

SP's ShowNews (SP's): How does Boeing's investment in the new 43-acre Bengaluru campus enhance its in-country presence and capabilities?

Salil Gupte (Gupte): The Boeing India Engineering & Technology Center (BIETC) campus in Bengaluru represents Boeing's largest investment outside the United States. The center employs over 6,500 engineers and innovators across Bengaluru and Chennai, driving advancements in aerospace and supporting growth in the sector. These technologists are engaged in advanced, high-quality aerospace work, contributing expertise to Boeing's defence, space, and commercial divisions, including engineering design, manufacturing support, systems testing, and digital solutions for airline customers.

BIETC is at the forefront of cuttingedge research and development in traditional and emerging fields. Its focus areas include next-generation airplane health management, environmentally friendly coatings, advanced networks, and secure communications. The teams leverage modern technologies like Artificial Intel-

Salil Gupte, President, Boeing India and South Asia talks to **SP's ShowNews** about Boeing's unwavering commitment to tackling the industry's greatest challenges



THE BOEING INDIA ENGINEERING & TECHNOLOGY CENTER (BIETC) CAMPUS IN BENGALURU REPRESENTS BOEING'S LARGEST INVESTMENT OUTSIDE THE UNITED STATES

ligence, Machine Learning, the Internet of Things, Cloud computing, Model-Based Engineering, and Additive Manufacturing to enhance quality, safety, and productivity.

With a significant portion of Boeing's global talent pool based in India, BIETC offers a distinct advantage, particularly in digital solutions. BIETC develops solutions tailored to Indian customers while also creating Indian intellectual property. This also positions BIETC as a key resource to meet Boeing Defence India's (BDI) future engineering needs, supporting general operations, service engineering, and development-focused initiatives, including co-development and indigenous programmes.

SP's: As Boeing's largest engineering center outside the US, how does BIETC's R&D work contribute to shaping the future of Indian and global aerospace and defence?

Gupte: As Boeing's largest engineering center outside the US, BIETC goes beyond providing engineering support—it drives aerospace innovation and talent development, shaping the future of aerospace and defence in India, for India, and the world.

- Forefront of cutting-edge research and development: BIETC teams are at the forefront of pioneering work, driving advancements in next-generation airplane management, secure communication networks, and the development of innovative technologies, including the integration of AI/ML, IoT, and Cloud Computing solutions. The center's R&D efforts focus on addressing critical industry needs, such as eco-friendly coatings for sustainability and advanced aircraft health management systems for enhanced operational efficiency. These innovations reflect Boeing's unwavering commitment to tackling the industry's greatest challenges and paving the way for a transformative future in aerospace.
- **Driving innovation in India, for India, and the world:** The 43-acre BIETC campus in Bengaluru is a cornerstone for partnering with India on next-generation products and services for the global aerospace and defence industry.
- Fostering talent growth through industry-academia partnerships and incubator programmes: Boeing is committed to shaping the future of aero-space in India through partnerships and pioneering incubator programmes that propel talent development and innovation. With enduring collaborations with IISc to form Aerospace Network Research Consortium (ANRC) producing 75+ research papers, STEM education initiatives with RVCA college in Bengaluru, and IIT incubation centers fostering research-driven breakthroughs,

Boeing is empowering the next-generation of engineering and aviation talent from India.

• **Through transformative initiatives** such as the Boeing University Innovation Leadership Development (BUILD) programme, which fosters the growth of India's startup ecosystem, and the Boeing National Aeromodelling Competition, Boeing is cultivating a world-class ecosystem to advance global aerospace excellence with strong roots in India.

SP's: How do programmes like the Boeing University Innovation Leadership Development (BUILD) initiative and partnerships with institutions such as IISc and IITs reinforce BIETC's commitment to fostering innovation and talent?

Gupte: Programmes like BUILD, our annual flagship aerospace innovation, leadership, and talent development programme, help our vision of fostering innovation and empowering talent. By collaborating with premier institutions such as IISc and IITs, we create opportunities for students and startups to engage with real-world aerospace challenges. BUILD equips participants with mentorship to go beyond the first stage to growth stage, platform to secure funding through exponential exposure and incubation support, ensuring their ideas are commercially viable. This initiative reflects Boeing's belief in nurturing the next generation of innovators who will drive the startup ecosystem and advance aerospace and defence sectors forward. At BIETC, these partnerships are essential to building a sustainable ecosystem that bridges academia, industry, and entrepreneurship.

SP's: How does BIETC's investment in upskilling and reskilling its workforce ensure the delivery of cutting-edge solutions for Boeing's global and local customers?

Gupte: Our commitment to workforce development is integral to our success in delivering advanced solutions. With a team of over 6500+ engineers and technologists (of our total 7000 employees in India), we prioritise upskilling through programmes such as the "Learning Together Program", which provides tuition assistance for employees. This initiative helps employees continue acquiring professional certifications and degrees while on the job. We also offer a "Technical Fellowship Program" for our technical workforce and the "Return to Flight" programme to enable equitable job opportunities for people who have taken long career breaks for various reasons. Additionally, our focus on STEM education, particularly for women and girls, helps expand the talent pipeline, and promotes diversity in aerospace engineering. ●

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Merlinhawk and L3Harris Open WESCAM MX-Series Facility

n a significant move to bolster India's indigenous defence capabilities, Merlinhawk Aerospace has partnered with L3Harris Technologies and established a WESCAM MX-Series electro-optical and infrared (EO/IR) systems service centre in Bengaluru. The MoU for this facility was signed at DefExpo 2022, and the centre is now fully operational.

Karthik Ramineni, Vice President of Operations at Merlinhawk Aerospace, confirmed during Aero India that the facility's operational status, stating that it will focus on the repair and training of turret systems. Engineers at Merlinhawk are receiving specialised training from L3Harris WESCAM to ensure high-quality service standards.

This collaboration aims to localise service capabilities under a WESCAM Authorised Service Centre (WASC) through the

transfer of knowledge, specialised tooling, and technical publications. Such centres are rare globally due to stringent regulations and the critical nature of specific components. The establishment of this facility in India marks a significant step toward strengthening Indian companies in the defence sector.

"We have been around for four decades. We are a 100 per cent Indian company. We have delivered components for defence and our engineers have been trained. Indian licenses are in place for our turrets now. The initial programmes will support the Indian Air Force and going further, we will be advancing to MQ-9B," said Ram R. Ramineni, Managing Director of Merlinhawk Aerospace.

The new service centre is situated at Merlinhawk's existing facility in Bengaluru and is poised to cater to customers across the region, enhancing the operational readiness of India's defence forces. This development underscores the growing emphasis on self-reliance in India's defence sector and the critical role of international collaborations in achieving this objective.



KARTHIK RAMINENI, VICE PRESIDENT OF OPERATIONS, MERLINHAWK AEROSPACE

Rafael and Centum Electronics Sign Teaming Agreement

afael Advanced Defense Systems Ltd (Rafael) and Centum Electronics announce the signing of a Teaming Agreement (TA) to collaborate on advancing the fields of Spectrum Dominance, Spectrum Situational Awareness, and AI-based Intelligence Suite/Decision Support Systems for the Indian Armed Forces. This partnership expands the ongoing collaboration between the two companies in the electronic warfare (EW) domain and contributes to India's "Atmanirbhar Bharat" initiative. which focuses on indigenous manufacturing and the transfer of critical technologies.

Yoav Tourgeman, CEO of Rafael, emphasised the strategic importance of the collaboration and said, "We are honored



RAFAEL CEO YOAV TOURGEMAN (RIGHT)AND CENTUM CMD APPARAO MALLAVARAPU (LEFT) AFTER SIGNING OF THE AGREEMENT AT AERO INDIA 2025

to expand our partnership with Centum Electronics. This agreement reflects our continued commitment to supporting India's defense ecosystem with stateof-the-art technology while fostering local capabilities in alignment with the Atmanirbhar Bharat vision, in close cooperation with our partners at Centum."

Apparao Mallavarapu, Chairman and Managing Director of Centum Electronics, highlighted the significance of the partnership saying, "Signing this Teaming Agreement with Rafael marks a significant milestone in our journey to enhance India's defence capabilities. Our collaboration not only strengthens our position in the domain but also reinforces our commitment to delivering innovative solutions that support India's Atmanirbhar Bharat initiative. We look forward to leveraging our collective expertise to develop advanced technologies that enhance the operational effectiveness of the Indian Armed Forces."

GE Aerospace Signs Contract with Indian Air Force for T700 Engine Sustainment Solution

E Aerospace signed a five-year Performance Based Logistics (PBL) contract with the Indian Air Force (IAF) to provide a comprehensive sustainment solution for the T700-GE-701D engines powering the IAF's fleet of AH-64E-I Apache helicopters.

Under this contract, GE Aerospace will be responsible for the Maintenance, Repair, and Overhaul (MRO) of the T700 engines as well as flight line parts to ensure engine availability to the IAF. The PBL solution is designed to streamline engine sustainment operations, improve turnaround times, and enhance the availability and operational readiness of the Apache fleet.

"We are honored to continue our partnership with the Indian Air Force through this PBL contract, which underscores our commitment to deliver reliable and innovative sustainment solutions for critical defense platforms," said Youngje Kim, Vice President and General Manager, Asia Pacific, Defense & Systems for GE Aerospace. "This agreement demonstrates GE Aerospace's focus on supporting the Indian Air Force's operational needs and mission readiness by ensuring the T700 engines are maintained at the highest level of performance."

The T700/CT7 family of turboshaft and turboprop engines powers 15 types of military and civilian helicopters and fixed-wing aircraft with more than 130 customers in over 50 countries. More than 25,000 T700/CT7 engines have been delivered and approximately 130 million total flight hours accumulated. The T700/CT7 design has proven itself in the harshest environments, logging millions of flight hours in hot-harsh combat zones like Iraq and Afghanistan.

Two Bell 505 Helicopters for Chipsan Aviation

t Aero India 2025, Bell Textron Inc., a Textron Inc. company, announced the sale of two Bell 505 helicopters to Chipsan Aviation, a leading Indian Non-Scheduled Air Operator based in New Delhi.

Established in 2009, Chipsan Aviation provides commercial air transportation of passengers using helicopters and business jet aircraft. The company also provides aircraft and heliport manage-

ment as well as aviation consultancy services. "The Indian general aviation market is poised for significant growth as operators and customers recognise the tremendous value that rotarywing aircraft, particularly



Bell helicopters, can bring to their business and personal objectives," said David Sale, Managing Director, Asia Pacific, Bell. "We are honored that Chipsan has selected the proven Bell 505 next-generation short light single helicopter for their corporate, tourism, emergency medical services and utility missions, and we look forward to supporting the return to service of both these aircraft."

Upon delivery, the two Bell 505s will join Chipsan's existing fleet of six helicopters and will be utilised for corporate charters, helicopter tourism, emergency medical services and utility work.

MoU between Altair Infrasec and MWfly, Italy for Collaboration in the Design and Development of Aviation Engines

LTAIR Infrasec, Pune and MWfly, Italy have partnered to establish 'AMW Aero Engines Pvt Ltd', a Joint Venture focused on advancing aeroengine technology in India. The JV will be structured in alignment with the DAP provisions with an appropriate governance framework for ensuring optimal collaboration between the two companies.

This collaboration aims to complete the development of the engine for Varun Mk1 UAV, ensuring seamless transfer of knowledge and technical expertise between the two companies. By leveraging MWfly's advanced engine technology and Altair's UAV expertise, the JV will accelerate indigenous production and operational deployment of next-generation propulsion systems.

AMW Aero Engines, will also focus on the design, development and certification of aeroengines tailored to MoD (India) requirements, Altair's UAV programmes, and other global UAV platforms. The initiative, through a combination of innovation, expertise, and localised

production aims to foster local R&D in design, development, manufacture and production of aeroengines in India, in line with the country's vision for self-reliance in aerospace manufacturing. This will enhance India's strategic autonomy in aerospace, strengthen its role in the global UAV engine market and position India as a key player in advanced UAV propulsion technologies.

Altair Infrasec, Pune, India, is a developer in the field of aerospace design and manufacture. The company has designed and is developing the Varun Mk1 - Multi Utility Long Endurance Drone (NSUAS Class) for use in Maritime Domain for C4ISR Duties, under the iDEX Prime Sprint Challenge Programme. The prototype has progressed to the hover stage. The company aims to set up an ecosystem for the design, manufacture and production of similar products by indigenizing majority of the components in Varun Mk1 and future systems.



VARUN MK1, A MULTI-UTILITY LONG ENDURANCE NAVAL SHIPBORNE UNMANNED AERIAL SYSTEM (NSUAS) DEVELOPED FOR THE INDIAN NAVY

MWfly, Italy is a leading manufacturer of efficient and modern aviation engines with some of the best power / weight ratios. The company has a range of engines which can be deployed on various airframes.

Altair Infrasec has also signed a MoU with Abionica Solutions, Spain for collaboration in the design and development of Flight Control Systems. The companies have agreed to set up a Joint Venture (JV), structured in alignment with the DAP provisions with an appropriate governance framework for ensuring optimal collaboration between the two companies. The key objectives of the Joint Venture are to design and develop platform-centric flight control architecture, creation and management of Intellectual Property (IP), customised manufacturing solutions, and establishing a one of its kind Indian Autopilot & Flight Control engineering capability for commercialisation of cutting-edge Flight Control Systems for Indian UAV manufacturers.

Cyient DLM Secures Production Contract with Boeing

yderabad, February 11, 2025: Cyient DLM, an integrated partner for design-led manufacturing, has signed a production contract with Boeing Global Services (BGS) for precision-machined parts and assemblies, marking a key milestone in their partnership.

This precision machining project award to Cyient DLM by BGS, highlights Cyient DLM's growing capabilities in delivering high-precision components to the aerospace sector.

Anthony Montalbano, CEO, Cyient DLM, said, "This contract with Boeing is a significant achievement for Cyient DLM, showcasing our advanced manufacturing capabilities and unwavering commit-



ment to excellence. We are honoured to collaborate with Boeing, a global leader in aerospace, and we look forward to strengthening this relationship by consistently delivering products that meet the highest industry standards."

Cyient DLM's achievement underscores its position as a trusted partner in the Aerospace and Defense sector. The company is among the first AS9100C aerospace-certified electronic manufacturing facilities and the first in India to obtain the National Aerospace and Defense Contractors Accreditation Program (NADCAP) certification for Circuit Card Assembly (CCA).

Dynamatic Technologies and Deutsche Aircraft Collaborate

ynamatic Technologies Limited has partnered with Deutsche Aircraft at Aero India 2025. Dynamatic is hosting the Deutsche Aircraft team, marking a significant step in the aviation sector and supporting the 'Make in India' initiative.

As India evolves into a major hub for regional aviation, Deutsche Aircraft is advancing its D328eco*, a 40-seat turboprop aircraft designed to enhance connectivity, sustainability, and economic efficiency. The D328eco features a fuel-efficient engine and state-of-the-art avionics, aligning perfectly with India's UDAN scheme, which promotes connectivity to Tier 2 and Tier 3 cities. In addition, the aircraft's versatile design allows it to serve various roles, including passenger transport, cargo, and specialised mission operations. Through collaboration with Dynamatic Technologies, Deutsche Aircraft is strengthening its supply chain resilience while reinforcing its commitment to the Indian aviation sector. The D328eco is poised to revolutionise regional air travel worldwide, offering a spacious interior and exceptional performance capabilities, along with outstanding design and operational adaptability.

Last year, the two companies entered a strategic partnership to manufacture the rear fuselage of the D328eco. This collaboration aims to establish a robust ecosystem in India, creating valuable employment opportunities for the local industry. Progress in rear fuselage production indicates that the project is on track, capitalising on a successful design and production ecosystem in India. The Dynamatic team and Deutsche Aircraft recently reached a key milestone in their partnership with the successful completion of the critical process review and tooling critical design review. This collaboration is essential to the overall success of the D328eco aircraft programme. Both companies are committed to ensuring the success of their partnership and the future of the D328eco. As they work together, they strive to provide a product that meets the needs of regional air travel while adhering to sustainability goals.



AERO INDIA 2025 East Meets West as Su-57 and F-35 Share the Skies



Aero India 2025:

AT AERO INDIA 2025, AVIATION ENTHUSIASTS WERE TREATED TO A RARE AND EXHILARATING SPECTACLE AS THE RUSSIAN SUKHOI SU-57 AND THE AMERICAN F-35 LIGHTNING II, SHARING THE SAME AIRSPACE. THIS UNPRECEDENTED OCCURRENCE NOT ONLY CAPTIVATED AUDIENCES BUT ALSO UNDERSCORED INDIA'S PIVOTAL ROLE IN FOSTERING INTERNATIONAL DEFENCE AND AEROSPACE COLLABORATION. THE SIMULTANEOUS PRESENCE OF THESE ADVANCED FIFTH-GENERATION FIGHTER JETS SYMBOLISES INDIA'S STRONG BILATERAL RELATIONS WITH BOTH RUSSIA AND THE UNITED STATES, HIGHLIGHTING ITS UNIQUE POSITION AS A BRIDGE BETWEEN EASTERN AND WESTERN DEFENCE TECHNOLOGIES. THE SIGHT OF THESE CUTTING-EDGE STEALTH AIRCRAFT SOARING IN THE BENGALURU SKIES WAS UNDOUBTEDLY A HIGHLIGHT OF THE SHOW, REFLECTING INDIA'S GROWING INFLUENCE IN THE GLOBAL AEROSPACE ARENA

Atmanirbhar Bharat in Defence

Defence is on the Fast Track with ₹1.27 Lakh Crore in Production and ₹21,083 Crore in Exports



Source: MoD

SP'S CORRESPONDENT

ndia's defence sector has undergone a remarkable transformation since 2014, evolving from a largely import- dependent military force to one increasingly focused on self-reliance and indigenous production. Through the 'Make in India' initiative and policy reforms, the government has actively promoted domestic production and reduced reliance on foreign procurement. This shift has been a key component of India's broader vision of achieving Atmanirbharta (self-reliance) in defence, positioning the nation as an emerging hub for the production of advanced military technologies and equipment.

DEFENCE PRODUCTION

In FY 2023-24, India's domestic defence production reached ₹1.27 lakh crore, marking a record high, with an impressive increase of approximately 174 per cent from ₹46,429 crore in 2014-15. With this performance, India is on track to achieve a target of ₹1.75 lakh crore in defence production in the current fiscal year. Also, India aims to reach ₹ three lakh crore in defence production by 2029, further establishing itself as a global defence manufacturing hub.

DEFENCE EXPORTS

There has been a surge in India's defence exports from ₹1,941 crore in FY 2014-15 to ₹21,083 crore in FY 2023-24, reflecting a remarkable increase in export value.

Embraer Positions C-390 Millennium as 'Ideal Fit for India's Defence Needs'

t Aero India 2025, Embraer conducted a media briefing to highlight the readiness of its C-390 Millennium for the Indian market. The company emphasised the aircraft's versatility and suitability for India's diverse terrains and mission requirements. The C-390 Millennium is designed for various operations, including troop and cargo transport, medical evacuation, search and rescue, and aerial refuelling. It boasts a payload capacity of up to 26 metric tons and can accommodate a range of military equipment, such as armoured vehicles and helicopters.

Embraer underscored its commitment to strengthening India's aerospace ecosystem by not only offering advanced mission capabilities but also contributing to workforce development. The company has a longstanding relationship with India and aims to establish longterm partnerships, positioning India as a strategic hub for aerospace activities. In line with this vision, Embraer announced plans to inaugurate a new subsidiary in New Delhi in the second quarter of 2025.

Bosco da Costa Junior, President and CEO of Embraer Defense & Security, stated, "We are keen to establish long-term partnerships in India, contributing to the development of the country's aerospace ecosystem."

The C-390 Millennium is fully operational and tailored to meet India's specific mission requirements,

Defence exports saw a strong year-on-year growth as a 32.5 per cent growth in defence exports was recorded over the previous fiscal year 2022-23, rising from ₹15,920 crore.

Defence exports have grown 21 times, from ₹4,312 crore in the 2004-14 decade to ₹88,319 crore in the 2014-24 decade, highlighting India's expanding role in the global defence sector. The target for 2029 is to increase defence exports to ₹50,000 crore, underscoring India's ambition to become a reliable global defence partner.

Driven by government policy reforms, ease of doing business initiatives, and a push for self-reliance, India now exports to over 100 nations. The top three destinations for India's

defence exports in 2023-24 were the USA, France, and Armenia. India's export portfolio includes advanced equipment such as bulletproof jackets, Dornier (Do-228) aircraft, Chetak helicopters, fast interceptor boats, and lightweight torpedoes. A significant milestone was the inclusion of 'Made in Bihar' boots in the Russian Army's equipment, highlighting India's high manufacturing standards in the global defence market.

CONCLUSION

India's defence sector has made unprecedented strides over the past decade, driven by a strong policy



30SCO DA COSTA JUNIOR, PRESIDENT AND CEC EMBRAER DEFENSE & SECURITY

offering a modern solution for the nation's defence and humanitarian needs. At present, the C-390 has 10 aircraft in service, 7 with the Brazilian Air Force, 2 with Portugal and 1 with Hungary. The aircraft has over 16500 flight hours through January 2025.

push towards self-reliance and domestic manufacturing. The significant rise in defence production and exports underscores the country's growing capability as a global defence manufacturing hub. With a record



VARIOUS EQUIPMENT LIKE THE DORNIER DO-228 AIRCRAFT HAVE BEEN EXPORTED

₹1.27 lakh crore in defence production and exports reaching ₹21,083 crore in FY 2023-24, India has demonstrated its commitment to reducing dependency on imports while strengthening its presence in the global market.

As the nation aims for ₹ three lakh crore in defence production and ₹50,000 crore in exports by 2029, these achievements highlight India's emergence as a reliable defence partner worldwide. By leveraging innovation, strategic partnerships, and indigenous capabilities, India is well-positioned to play a pivotal role in the future of global defence manufacturing and security. ● PUBLISHER AND EDITOR-IN-CHIEF Jayant Baranwal

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