AMCHAM
INDIA

U.S.-India Defence Partnership: Co-Production & Co-Development

September 2023

PARTICIPATING COMPANIES

BAE SYSTEMS

BOEING

Honeywell

L3HARRIS
FAST. FORWARD.

LOCKHEED MARTIN

MOOG

RTX
COLLINS AEROSPACE | PRATT & WHITNEY | RAYTHEON

smiths

Trimble.

FOREWORD

Ms. Ranjana Khanna

Director General CEO
AMCHAM India

The U.S.-India defence relationship has evolved from buyer-seller interactions to a collaborative partnership through defence exports, co-development and co-production. This enhances defence capabilities and bolsters strategic alignment, with both nations poised to shape the future of defence cooperation, contributing to regional stability and security.

The defence industries of both nations collaborate to create advanced weaponry and equipment, benefiting defence capabilities, economic growth, and job creation through co-development and co-production by sharing best practices, advanced research, and cutting-edge technologies, fostering a culture of innovation in both nations' defence establishments.

Co-production initiatives involve joint manufacturing of defence equipment in India, combining U.S. technology with Indian manufacturing capabilities. This approach boosts defence industrial cooperation and reduces reliance on any single sources. This also aligns with the 'Make in India' initiative, fostering domestic manufacturing, job creation, skill development, and economic growth in the defence sector.

U.S. companies in India focus on setting up engineering centers to build reliable systems with protection from current and emerging threats. The need of the hour is also to collaborate in areas such as artificial learning, machine learning, etc. The U.S. and India share common interests in countering terrorism, ensuring maritime security, and maintaining a free and open Indo-Pacific region. Collaborative defence efforts contribute to the pursuit of these shared objectives.

AMCHAM expresses its endorsement and appreciation for the dedication of U.S. defence firms to collaborate with the Indian government for working on the gamut of the partnership. Together, we aim to create a conducive ecosystem and, as responsible corporate entities, actively participate in India's inclusive growth agenda.

EXECUTIVE SUMMARY

The U.S.-India defence partnership encompasses acquisitions, co-production and co-development for global markets, joint ventures, training and innovation, enhancing India's defence exports. India's defence acquisitions include a diverse range of equipment from the U.S.:

- **M777 155mm Ultra-Lightweight Howitzer (ULH)**
- **P-8I Maritime Patrol Aircraft**
- **C-130J Hercules Heavy Transport Aircraft**
- **C-17 Globemaster Heavy Transport Aircraft**
- **Chinook Heavy Lift Helicopter**
- **Apache Attack Multi Role Combat Helicopter**
- **MH-60R Multi-Mission Helicopter**
- **General Atomics MQ-9B Unmanned Aerial Vehicle**

Supporting the Government of India's mission to enhance defence exports, U.S. industry in India, and their Indian partners have contributed to the U.S. becoming the number 1 defence exports destination. India's defence exports were $1.6 billion (approx. Rs 16,000 crore) in the financial year 2022-23 which represents over a 10x increase in the last 5 years. Defence exports to the U.S. accounted for over 50% of total exports, strengthening the partnership and exceeded $2.8 billion during the last 5 years. The government has set a target of achieving $5 billion in defence exports by 2024-25.

Aerospace and defence exports by co-development, co-production and skill development by U.S. companies leveraging technical expertise, creating high-quality, cost-effective defence systems, reducing reliance on single suppliers and improving interoperability. Joint ventures spur technology transfer and innovation across various domains, supporting local defence industries, such as:

- **Lockheed Martin with Tata Advanced Systems**
- **Boeing with HAL for the production of the AH-64E Apache and CH-47F Chinook helicopters in India**
- **BAE Systems with HAL on the production of Hawk Advanced Jet Trainer Aircraft**
- **GE 414 engine joint production with HAL**

U.S. companies have fostered strong partnerships with many in-country industrial entities, defence PSU's, over 1,000+ MSMEs, academia, start-ups and incubators. Economic growth, job creation, and innovation are natural by-products of this partnership. Innovation, skilling, and research and development enrich defence capabilities, augmenting this collaboration's impact.

- Lockheed Martin, with the Department of Science & Technology and Tata Trusts, partners on the India Innovation and Growth Program (IIGP)
- Raytheon group's technical collaboration with Indian Institute of Science (IISC)

Capitalizing on strengths, the U.S. and India defence capabilities, spur innovation, and shape global security. This collaboration symbolizes shared commitment to progress and security, heralding a secure and prosperous future.

The U.S. defence industry in India has played a key role in job creation through direct investments and by collaborating with their network of suppliers and joint venture partners and have created over 28,000 direct jobs and a gainful employment for an additional 20,000 people, while bringing in improvement in quality of life for over 2.6 million people through initiatives in STEM education, skilling, nutrition, health, livelihood, sanitation, and sustainability through partnerships with science and technology institutes and other foundations.

The U.S. and India share common interests in countering terrorism, ensuring maritime security, and maintaining a free and open Indo-Pacific region. Collaborative defence efforts contribute to the pursuit of these shared objectives.

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BAE Systems in India

BAE SYSTEMS

Company's Operations in India: 74 years

I. Capacity Building

a. Through Investments

- Air Force Technical College in 1949
- Indian Navy's Leander Class ships - frigate INS Nilgiri
- Sea Harrier

b. Research & Development

- Air defence guns
- Howitzers
- Flight control on the DRDO-developed Light Combat Aircraft

c. Joint Ventures

- BAeHAL, a JV with Hindustan Aeronautics Limited (HAL)

d. Co-Production

- Hindustan Aeronautics Limited (HAL)
- Mahindra Defence Systems Limited
- PTC Industries

e. Projects Undertaken

- Hawk Advanced Jet Trainer Aircraft
- M777 Ultra Lightweight Howitzer production
- Avionics components for LCA MK1 platform
- Ultra Lightweight Howitzer titanium castings

II. Collaborations

MSMEs

- Over 50+ MSME Partners

III. Opportunity Areas

Military Systems

- Collaborative opportunities in next generation uncrewed systems and associated technologies. Design, build and supply a Full Mission Simulator to train pilots of the Indian Armed Forces. Potential co-operation with HAL in the sustainment of Hawk Mk132 in India. Manufacture titanium castings for the Indian 155mm M777 Ultra-Lightweight Howitzers in India.

IV. Value Creation

- Kineco Kaman Composites India Limited

V. Number of Employees

- Direct employees - 40

VI. Opportunities and Potential for Future including Exports from India

- MOU with NewSpace Research and Technologies
- MOU with Flight Simulation Training Company (FSTC)

*Memorandum of Understanding (MOU)

VII. Community Engagement Activities

- Partnership with global non-profit organization, Room to Read, for a Girls Education Programme

History

- BAE Systems is a founding partner of defence manufacturing in India dating back to 1949 with the establishment of the Air Force Technical College which was the first such institution in Asia to train aeronautical engineers for military aviation.
- Other examples of their commitment to 'Make in India' include the development of the Indian Navy Ship (INS) Nilgiri; the design and build of the first ever mine protected vehicle by the private sector in India; and the partnership with Hindustan Aeronautics Limited to establish a world-class manufacturing facility for the Hawk advanced jet trainer.

BAE Systems is focused on developing local partnerships and co-creation opportunities in support of building a self-reliant India. Significant examples include:

- **Hindustan Aeronautics Limited (HAL)** – delivery of 124 Hawk aircraft of which 99 were built by HAL. Together, they are now focused on ensuring the availability and readiness of Hawk, and identifying improvements to address obsolescence challenges.
- **Mahindra Defence Systems Limited** – established an in-country Assembly, Integration & Testing facility. The facility is a fundamental part of the M777 howitzer production line and enables the Indian Army to access maintenance, spares and support for the M777 locally. They have delivered on their commitment of 145 guns to the Indian Army, with their focus now on the sustainment phase and further collaboration with Indian teammates to ensure spare parts can be ready and available.
- **PTC Industries** – together with PTC, they are producing 155m Ultra Lightweight Howitzer titanium castings in India.

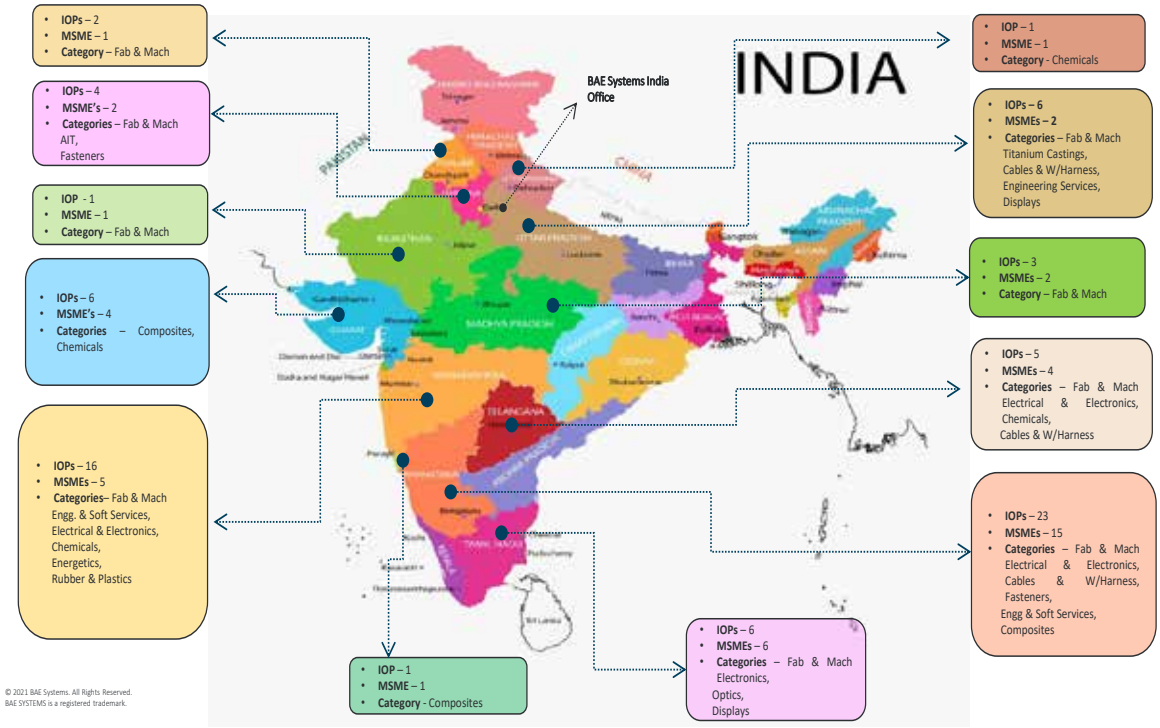
India Footprint

BAE Systems currently employ 40 people at their Delhi office in Aerocity, with further colleagues based at customer sites and locations including three based in Guwahati, two based in Bengaluru, and one in Bidar (as of 1 July 2023). Their India workforce works in close collaboration with colleagues and specialists across their global enterprise on India prospects and opportunities across land, air, sea, cyber, space and electric products.

Future Innovations

This year, BAE Systems shared some exciting new Memorandums of Understanding (MOUs) with NewSpace Research and Technologies, and Flight Simulation Training Company (FSTC). With NewSpace, they are exploring collaborative opportunities in next generation uncrewed systems and associated technologies and their partnership with FSTC will see them design, build and supply a Full Mission Simulator to train pilots of the Indian Armed Forces.

Category Wise Distribution of Indian Offset Partners (IOPs)



BAE Systems Global Capabilities

Air

- World-leading capabilities in military and commercial aircraft technology
- Training to the armed forces to train the right people to the right standard, at the right time
- Design and integration of new technology and systems upgrades to existing aircraft
- Advanced computer simulation to create realistic and immersive synthetic environments

Electronic Warfare

- Design, build and support of integrated electronic warfare and electronic systems
- Design and manufacture of systems and technology to enable the execution of precision strike missions
- Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) systems
- Electric and hybrid power and propulsion solutions to advance vehicle mobility, efficiency and capability

Maritime

- Design, manufacture and support of submarines and complex warships
- Design, manufacture and support of naval gun systems, torpedoes, radars, and naval command and combat systems
- Design and delivery of training systems and services for maritime platforms and equipment

Land

- Design, manufacture, upgrade and support of tracked and amphibious combat vehicles
- Manufacture, maintenance, repair and upgrade of naval gun systems, artillery, advanced weapons, missile launchers and precision munitions
- Sustainment activities and services, including naval ship repair, modernization and overhaul

Cyber and Space

- Cyber, intelligence and security capabilities to detect, deter and dissuade threats to national security
- Engineering, integration and sustainment services for critical weapon systems, Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) and cyber security
- Air and space force solutions to modernise, maintain, test, and cyber-harden aircraft, radars, strategic missile systems mission applications and information systems

Community Engagement

BAE Systems has a partnership with global non-profit organization, Room to Read, for a Girls Education Programme to support education of 300 girls. The partnership is currently in its fourth tranche and they are exploring other ways in which they can support India through community outreach.

BOEING

Company's Operations in India: 80+ years

I. Capacity Building

a. Through Investments

Boeing is focused on delivering value to Indian customers with advanced technologies and committed to creating sustainable value in the Indian aerospace sector — developing local suppliers, shaping academic and research collaborations with Indian institutions, and facilitating road maps for airspace management. Boeing's business strategy is aligned with the country's vision to 'Make in India' and 'Skill India,' through investments in manufacturing, co-production, co-development, skill development, and innovation. Additionally, Boeing is investing $200 million in a new 43-acre state-of-the-art wholly-owned engineering and technology campus in Bengaluru. This will be Boeing's largest facility of its kind outside the U.S.

b. Research & Development

The Boeing India Engineering & Technology Center (BIETC) in India is leveraging a talented pool of 4,500+ engineers and innovators across Bengaluru and Chennai to drive growth and innovation in aerospace.

Additionally, Boeing invests in India's aerospace talent through Boeing University Innovation Leadership Development (BUILD), Innovation Challenge and Aeromodelling, empowering students and fostering innovation.

c. Joint Ventures

- Tata Boeing Aerospace Limited (TBAL)

II. Supplier Partner Footprint (illustrative & non-exhaustive)

- Dynamatic Technologies
- Rossell Techsys
- SASMOS HET Technologies
- Hindustan Aeronautics Limited (HAL)
- Bharat Electronics Limited (BEL)
- Jaivel Aerospace

III. Opportunity Areas

a. Military Systems

- India operates a range of Boeing platforms, including 11 C-17s, 22 AH-64 Apaches (with six more on order), 15 CH-47 Chinooks, 12 P-8Is, 3 VVIP aircraft (737 airframe) and two Head of State aircraft (777 airframe), making India one of the largest defence markets for Boeing. Boeing remains committed to supporting India's defence modernization and self-reliance efforts through future capability advancements, developing India's indigenous aerospace and defence capabilities including co-development and co-production efforts.

b. Maintenance, Repair and Overhaul (MRO)

- Boeing offers Performance Based Logistics (PBL) solutions for P-8I, Apache and Chinook platforms including digital support with Mission Accelerator (MA). Boeing India Repair Development & Sustainment (BIRDS) hub promotes a competitive MRO ecosystem, driving high industry benchmarks and enhancing capabilities in India.

c. Research Facilities

- Boeing India Engineering & Technology Center (BIETC) with 4,500+ engineers and technologists drives aerospace innovation, R&D and advanced technology solutions. Their $200 million investment in Bengaluru is the largest such facility outside the U.S.

d. Rotary Mission Systems

- Boeing continues to explore participating in the co-development of indigenous rotary systems.

IV. Number of Employees

- Direct employees – 5,000
- Gainful employment through partners – 13,000
- Lives positively impacted – 500,000

V. Skill Development

University Partnerships

- Boeing invests in talent development with initiatives like the Accelerated Apprenticeship Program, skilling partnerships and the Boeing University Innovation Leadership Development (BUILD) program to support India's aerospace ecosystem.

VI. Annual Sourcing

- $1 billion+ from 300+ suppliers

VII. Defence Acquisition Procedure (DAP) 2020 Provisions Impacting Decisions

- DAP 2020 requires 50% Indigenous Content (IC) in certain categories, but industry faces challenges due to complexities and material availability.

VIII. Opportunities and Potential for Future including Exports from India

- Boeing is a proud proponent of the 'Make in India' initiative and this is at the core of their long-term business strategy in India. They continue to explore opportunities to partner and participate in co-development and co-production initiatives.

IX. Community Engagement Activities

- Boeing actively supports community initiatives worldwide and positively impacts over 500,000 lives in India through various programs including education, healthcare and disaster relief.

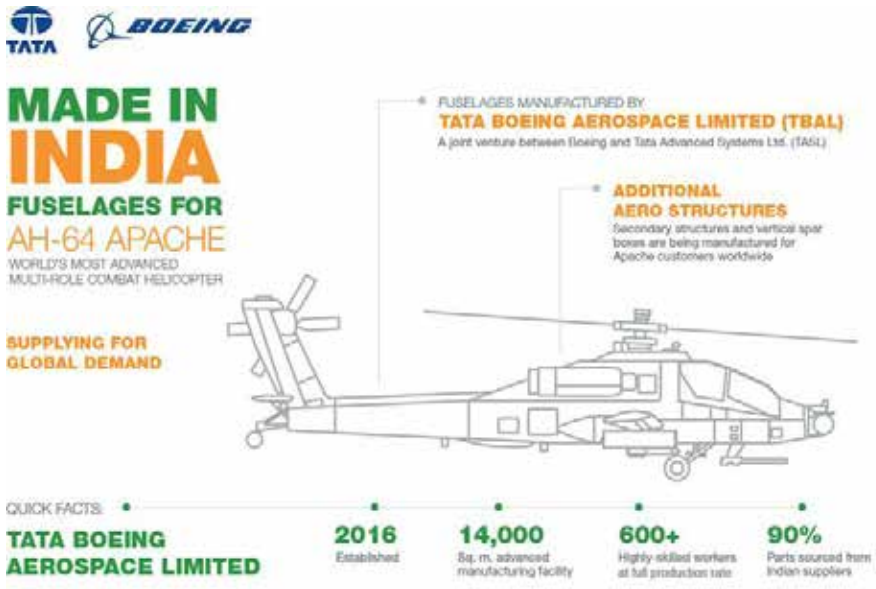
Research & Development

Over the years, Boeing has strategically invested in developing talent for the aerospace sector in India through various programs, including Boeing University Innovation Leadership Development (BUILD) Program, the Boeing HorizonX India Innovation Challenge and the Aeromodelling competition. All of these have helped empower student community and contributed to building a skilled frontline workforce for India. BUILD program is deeply entrenched in supporting the student community and early stage start-ups/budding entrepreneurs in the country. The aeromodelling competition provides a nationwide platform for students who have a keen interest in aerospace engineering and related fields. The competition allows them to demonstrate their skills and creativity in designing, building, and flying fixed-wing aircraft models of different types and sizes. Apart from the flagship programs, Boeing also works with over 20 universities to support innovation and R&D, conduct events and grant scholarships to students in India.

BUILD was launched in 2019, and by 2022, it had attracted a record number of participants, including more than 1,600 students and start-ups from across the country, who shared over 800 ideas.

Joint Ventures

Tata Boeing Aerospace Limited (TBAL), Boeing's Joint Venture (JV) with Tata was established in June 2016 as a state-of-the-art manufacturing facility at Hyderabad. It is spread over 14,000 square meters and manufactures aero-structures for Boeing's AH-64 Apache helicopter, including fuselages, secondary structures and vertical spar boxes for customers worldwide. TBAL has manufactured and delivered more than 200 Apache fuselage units till date. The JV has the capacity to produce up to 8 fuselages every month. The JV recently delivered the first Indian Army configuration Apache fuselage on 19th Jan 2023 & has shipped over 1,500+ secondary structures and vertical spar box for the same platform. On the commercial side, TBAL has shipped more than 90 uplock boxes for 777/777X program till date. A new production line to manufacture complex vertical fin structures for the 737 family of airplanes has been added and the first 737 vertical fin structure has been recently delivered. TBAL employs over 600 highly skilled workers.



Supplier Partner's Footprint

Boeing's sourcing from India stands at $1 billion annually through its large and growing network of 300+ supplier partners – that are an integral part of their global supply base. These Indian companies are manufacturing and exporting systems and components for some of Boeing's most advanced products from India to the world. Over 25% of their suppliers from India are MSMEs.

Capabilities of a few select suppliers highlighted below

- **Dynamatic Technologies** has been manufacturing the ramp and complex Aft Pylon for Chinook heavy-lift helicopters, and P8 cabinets. They have recently won the contract to supply for the F-15EX Eagle II program. This is a first where aerostructures for the latest and most advanced F-15EX Eagle II will be made in India.
- **Rossell Techsys** manufactures wire harness and electrical panel for the AH-64 Apache, and the harness for several Boeing Defence, Space & Security (BDS) platforms including V-22 Osprey, CH-47 Chinook, F-15 and F/A-18 Super Hornet. Rossell Techsys entered into an agreement with Boeing to manufacture and supply wire harnesses for the T-7A Red Hawk platform. Rossell will be manufacturing Electrical Wiring and Interconnect System (EWIS) parts and the deliveries will continue through FY 2032, covering a total of 84 unique parts. All parts will be manufactured at Rossell's Center of Excellence (COE) set-up exclusively for Boeing.
- **SASMOS HET Technologies** manufactures electrical panel assemblies for the F/A-18 Super Hornet and F-15 Strike Eagle
- **Hindustan Aeronautics Limited (HAL)** manufactures F/A-18 gun bay doors
- **Bharat Electronics Limited (BEL)** manufactures IFF (Identify Friend/Foe) and speech secrecy system for the P-8I
- **Jaivel Aerospace** will manufacture and supply aircraft protection system products for the Boeing T-7A Red Hawk aircraft. Working with the Boeing teams in India and the U.S., Jaivel Aerospace has developed entirely new capabilities for this product range, for the first time in India. These products will be manufactured at the company's manufacturing facility at Sanand Industrial Estate in Ahmedabad.

Opportunity Areas

a. Military Systems

Boeing India is best positioned to support upcoming co-development and co-production opportunities through the indigenous ecosystem they have developed in India for manufacturing (JV with Tata) and critical design capabilities. Boeing seeks to work with HAL on the Indian Multi Role Helicopter (IMRH) program resulting in a great opportunity for co-development. On manufacturing, Boeing can help the indigenous aircraft programs especially the LCA Mark-II. They believe a co-production opportunity exists whereby their Indian JV, Tata Boeing Aerospace Limited, could be the perfect partner to collaborate on large scale structures like the fuselage, bringing to LCA Mark II, the latest manufacturing techniques thereby help accelerate the production rate of the fighters per year, which has been deemed a critical need.

b. Maintenance, Repair and Overhaul (MRO)

- Boeing's offer for long term Performance Based Logistics solutions for the Boeing platforms currently in service with the armed forces, namely P-8I, Apache and Chinook, promises to provide the armed forces the same level of availability they are currently providing on the C-17 fleet through their G3 Program. Likewise, they are also offering training as a service on simulators on these platforms, just as they do today for the C-17 platform.
- Notably, Boeing's offerings of the Performance Based Logistics solutions (also referred to as Aircraft Support Agreements) include their digital offering, that goes by the name of Mission Accelerator (MA). MA helps enhance availability of platforms significantly by providing predictability into maintenance. It also helps operations and training of aircrew.
- Boeing India Repair Development & Sustainment (BIRDS) hub is an in-country network and alliance of suppliers led by Boeing in India that envisions a competitive MRO ecosystem for engineering, maintenance, skilling, repair and sustainment services of defence and commercial aircraft.
- This network aims to drive high industry benchmarks in India for maintenance and repair, platform availability, customer satisfaction and quicker turnaround time.
- The initiative is designed to grow capabilities in India in the areas of heavy maintenance, component repairs, training and skilling of Indian Airforce (IAF) and Indian Navy (IN) maintainers.

c. Research Facilities

- The Boeing India Engineering & Technology Center (BIETC) in India is leveraging a talented pool of 4,500 engineers and innovators across Bengaluru and Chennai to drive growth and innovation in aerospace. Boeing has had an engineering presence in the country since 2009 and BIETC was formally established in 2016. The center currently houses Boeing's engineering, test, research and technology, information technology and digital analytics teams.

- These technologists undertake high-quality, advanced aerospace work and offer engineering expertise to Boeing's defence, space, and commercial businesses, spanning engineering design of structures and systems, manufacturing support, developing systems to test their aircraft and providing digital solutions to their airline customers.
- Cutting-edge R&D in traditional and emerging areas is performed at the center, including next-generation airplane health management, environment-friendly coatings, advanced networks and secure-communications where teams leverage new-age technologies such as Artificial Intelligence, Machine Learning, Internet-of-Things, Cloud, Model-Based Engineering, and Additive Manufacturing to enhance quality, safety and productivity.
- Boeing is investing $200 million in a new 43-acre state-of-the-art wholly-owned engineering and technology campus in Bengaluru. This will be Boeing's largest facility of its kind outside the U.S.
- BIETC engages with Boeing teams globally as well as partners within India to create ingenious technology, high quality engineering and digital solutions. Broad domains of the product value stream are referenced below:
    - Research & Technology with primary focus on cost design, value engineering, Aeromechanics & Materials, Airplane Health Management
    - Engineering & Digital Aviation Products' areas of expertise include aircraft design, development & airport modelling & solutions for airline operations
    - Test & Evaluation includes Structural test design and Flight test design
    - Information Technology supports the global Boeing company through Data Analytics, Digital Transformation, Emerging Technology Solution

d. Rotary Mission Systems

- Boeing continues to explore participating in the co-development of indigenous rotary systems.

Skill Development

University Partnerships

- Boeing's growing installed platform base with commercial and defence customers in India and their expanding supplier base make it imperative for Boeing to invest in, develop and nurture talent. Boeing's skill development activities in India touch every stakeholder in the aviation and aerospace ecosystem.
- The Accelerated Apprenticeship Program launched in collaboration with Air India Engineering Services Limited (AIESL) and the Ministry of Civil Aviation (MOCA), Government of India, aims to increase the employability of aircraft maintenance engineers. A state-of-the-art center was inaugurated in June 2018 in Mumbai. It combines a smart-class setting and advanced training aids with a customized curriculum created by Boeing experts.

- Through its skilling and up-skilling initiatives, Boeing is developing Indian MSMEs and training hundreds of pilots, aircraft maintenance engineers, technicians, and frontline factory workers across India with partners like Air India, Tata, MSMEs like Rossell Techsys, SASMOS, Jaivel and also other industrial partners like Indo MIM, Lakshmi Machine Works, Airworks and Wipro.
- These programs have skilled more than 3,700 frontline aerospace manufacturing workers and aircraft maintenance engineers.
- Boeing's investment in supplier development, training, tooling and quality management has enabled Indian suppliers to engage in high-value, high-tech manufacturing of complex aerospace components and subsystems for India and for the world.
- Since 1997, Boeing has worked with India's premier software development companies — including HCL, Infosys, Wipro and Tata Consultancy Services (TCS) — on several projects related to systems re-engineering and development, web enabling, e-business applications and long-term maintenance. Beyond direct work placement, Boeing collaborates with Indian industrial suppliers on lean manufacturing techniques, on program management and supplier management best practices, and in specialized trainings as part of its aim to bring the best of Boeing to India.
- The Boeing University Innovation Leadership Development (BUILD) program is designed for graduates and early stage startup entrepreneurs in the country. BUILD aims to encourage young entrepreneurial minds to develop ideas that can be converted into viable business offerings, aligned with Boeing's vision of contributing to India's robust startup culture.

Annual Sourcing: $1 billion+ from 300+ suppliers

Defence Acquisition Procedure (DAP) 2020 Provisions Impacting Decisions

The DAP 2020 has stipulated Indigenous Content (IC) of >= 50% for Buy & Make (Indian) and Buy Global, Manufacture in India procurement categories. Owing to the complexities of many of the advanced defence systems and non-availability of aerospace grade raw material in India, the IC of 50% is difficult to be achieved by the industry opportunities and potential for future including exports from India.

Boeing continues to evaluate the technology transfers/co-development/co-production opportunities in India. Boeing intends to support the Indian Multi-role Helicopter (IMRH) program and is also exploring co-development/co-production opportunities in the autonomous domain.

Community Engagement Activities

Each year, Boeing and their employees actively contribute to building better communities worldwide. They view this as both an opportunity and a responsibility to create a positive change. Community engagement is ingrained in Boeing's identity and aspirations. They support various initiatives, including STEM education, assistance for military members and veterans, environmental stewardship, racial equity and social justice, and providing aid to communities in need, such as disaster recovery and humanitarian relief. By investing their time, talent and resources where the employees live and work, they ensure the sustainability, dynamism and global impact of the company for future generations. As part of the Boeing global engagement community initiatives they have made a positive impact on over 500,000 lives in India, supporting programs in education, sanitation and healthcare.

- Boeing is committed to improving the quality of life in the communities in which it operates. Through various initiatives in skilling, education, and health they have positively impacted more than 5 lakh lives in India over the years.
- Boeing launched a $10 million emergency assistance package in April 2021 to support India's COVID-19 response. As part of its COVID-19 relief efforts, Boeing worked with central and state governments in India, and with international relief organizations to set up COVID-19 care hospitals, provide medical equipment and facilities, support and organized vaccination camps.
- **Clean India:** In partnership with Sulabh International, Boeing has built 1,800 toilets in rural homes to support 'Swacch Bharat.'
- **Teach India:** To nurture future generations, Boeing has built 100+ libraries for 1,25,000+ children with the Room to Read initiative and supported 2,000+ students in partnership with Shishu Mandir.
- **Skill India:** Over 200+ workers have been skilled in collaboration with Learning Links and Nettur Technical Training Foundation (NTTF), while another 2,500+ youth have been trained with Unnati. Boeing's partnership with Sahyog Care has resulted in 560 Central Reserve Police Force (CRPF) soldiers and their families being skilled.
- Support of cancer patients, along with CanSupport, an NGO dedicated to serving neglected, underprivileged cancer patients and encouraging them to lead a better life.

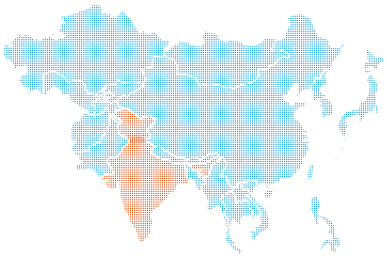
KEY IMPACT AREAS

- Health
- Sanitation
- Workforce Development
- Education & Nutrition
- Veterans Welfare

PARTNERS & IMPACT

1,800 Rural home toilets built — Sulabh International	**155** Libraries built for ~20,000 children — Room to Read initiative	**3,700+** CRPF jawaans & families skilled — Sahyog Care	**1,400+** Armed forces personnel reskilled — LLF & NTTF	**400** Workers skilled in aerospace — LLF & NTTF
3,500 Students supported — Shishu Mandir & Sulabh School	**12,200** Youth trained — Unnati	**2,500** Tiny Tots in Kindergarten — Building Blocks	**40,000** People benefited via Can support — CANSupport	**170+** STEM scholarships — Various

BOEING



BUILDING THE FUTURE TOGETHER

Boeing in India

Boeing has been a trusted partner of India's aerospace sector for more than 80 years, both as the mainstay of India's growing commercial aviation sector and in the modernization and mission readiness of the country's defence forces.

Boeing is focused on delivering value to Indian customers with advanced technologies and committed to creating sustainable value in the Indian aerospace sector — developing local suppliers, shaping academic and research collaborations with Indian institutions, and facilitating road maps for airspace management. Boeing's business strategy is aligned with the country's vision to "Make in India" and "Skill India," through investments in manufacturing, co-production, co-development, skill development, and innovation.

Today, Boeing's sourcing from India stands at $1 billion a year from a network of more than 300 suppliers. Boeing currently employs over 5,000 people in India, and more than 13,000 people work with its supply chain partners. The Boeing India Engineering & Technology Center (BIETC) in Bengaluru and Chennai undertakes complex advanced aerospace work and supports Boeing's global engineering growth. Boeing's wholly owned engineering and technology campus, one of the largest Boeing investment outside the U.S., is coming up in Bengaluru. Tata Boeing Aerospace Limited, a joint venture with Tata Group, produces AH-64 Apache helicopter fuselages and 737 aircraft vertical fin structures for customers around the globe. Boeing, along with GMR Aero Technic, will establish a new Boeing Converted Freighter (BCF) line in Hyderabad. Boeing's upcoming Global Support Center will be delivering customized operational efficiency and safety improvement projects for airline customers, regulatory bodies, and other stakeholders. Along with this, Boeing's India Logistics Center will provide an efficient and cost effective service solutions for regional customers, helping them maintain higher fleet utilization and mission readiness rates.

Boeing India employees serve communities and citizenship programs to inspire change and have made an impact on more than 500,000 lives. In April 2021, Boeing launched a $10 million emergency assistance package to support India's COVID-19 response. As part of its COVID relief efforts, Boeing has continued to work with central and state governments in India, and with international relief organizations to set up COVID-19 care hospitals, provide medical equipment and facilities support, and organizing vaccination camps.

OUR COMMITMENT AND PARTNERSHIP

80+
years of partnering with India's aerospace sector

300+
suppliers providing advanced components for Boeing aircraft

65
defense aircraft, and growing, in service with India's armed forces

5,000+
employees in India and growing

158
Boeing airplanes flying with Indian airlines

1
joint venture serving customers around the world

INVESTMENTS

Boeing investments in India have helped grow the aerospace sector, creating jobs and driving innovation.

$1B+
in annual sourcing from India

20+
R&D and university partnerships

$200M+
invested in Bengaluru campus, the largest Boeing investment outside the U.S.

COMMUNITY ENGAGEMENT

Boeing is proud to support important causes such as skilling, education and sanitation in India.

500,000+
lives positively impacted

150,000
people benefited via skilling initiatives

5,000+
students positively benefited through education

Contact: Madhavi Jha, madhavi.jha@boeing.com | Siddhant Chauhan, siddhant.chauhan@boeing.com @Boeing_In

BOEING IN INDIA

Boeing Commercial Airplanes

Boeing and India have had a long-standing relationship in commercial aviation. Boeing customers include Air India, Air India Express, Akasa Air, SpiceJet, Vistara and cargo operator Blue Dart, and Quikjet.

The Next-Generation 737, 737 MAX, 757, 777 and 787 Dreamliner are some of the Boeing aircraft offering a superior flying experience to Indian passengers.

Air India will purchase 190 737 MAX, 20 787 Dreamliner and 10 777X airplanes, with options for 50 additional 737 MAXs and 20 787-9. Akasa Air has placed an order of 72 737 MAX airplanes to build its fleet. SpiceJet has an order of several airplanes, which includes 155 new 737 MAX 8, 9 and 10 airplanes, as well as purchase rights for 50 additional airplanes. Vistara has an order of six 787-9 Dreamliners with purchase rights for four more. Blue Dart, India's largest express cargo operator, uses the 757 Freighter. SpiceXpress, SpiceJet's cargo division, operates the 737-BCFs, first one to operate in South Asia

The Indian Ministry of Defence operates four 737-200s and three 737 Boeing Business Jets. Two specially modified Air India777-300ER are used as Head of State aircrafts.

Boeing Defense, Space & Security

India has 11 C-17 Globemaster IIIs, 12 P-8Is, 15 CH-47 Chinooks and 22 AH-64E Apaches.

In 2020, Boeing signed an agreement with the Government of India for the acquisition of six AH-64E Apache helicopters for the Indian Army.

The Indian Navy and Indian Air Force (IAF) have distinct operational needs for fighters. Boeing has responded to the Indian Navy's request for information for 57 aircraft offering the F/A-18 Super Hornet Block III. The Block III Super Hornet will provide the Indian Navy the best capability in the form of an advanced, multi-role, carrier-compatible fighter with unrivaled growth potential, superior economics and commitment to the "By India-For India" sustainment plan.

While awaiting further definition on the IAF's requirement, Boeing has shared the F-15EX as a potential solution from Boeing's fighter portfolio. The F-15EX is the latest in a family of combat-proven, all-weather day/night aircraft.

Boeing Global Services

Global Services provides sustainment solutions to a number of commercial and defense platforms. Boeing digital solutions for the entire sustainment process (i.e., mission planning, MRO management, supply chain logistics) help customers increase operational efficiency, enhance situational awareness and reduce costs across phases of flights. Boeing Defence India delivers advanced capability and readiness to India's military customers while developing a competitive supplier base in country, integrated with Boeing's global supply chain.

Boeing India Engineering & Technology Center

BIETC in Bengaluru and Chennai is growing rapidly, and is a talent pool that is undertaking complex aerospace work to support diverse areas across the local and international ecosystem. They also perform engineering activities in the areas of mechanical, electrical and electronic engineering for current and future aircraft.

Industry Partnerships

When Boeing looks at quality, capability and cost advantages across the world, India is an obvious partner. Today, Boeing sourcing stands at $1 billion annually from India.

Over 300 Indian suppliers are manufacturing critical systems and components for some of Boeing's most advanced products, such as the F/A-18 Super Hornet, F-15, CH-47 Chinook, P-8, AH-64 Apache, 777, 787 Dreamliner and 737.

Boeing's joint venture, Tata Boeing Aerospace Limited, is a global manufacturer of Apache fuselages and 737 vertical fin structures. Boeing-funded curricula and initiatives launched with Indian partners, such as Tata, Rossell Techsys, TAML, Jaivel, and Lakshmi Machine Works, are training workers in aerospace skills. The Accelerated Apprenticeship Program launched in collaboration with AI Engineering Services Limited and the Ministry of Civil Aviation, aims to increase the employability of aircraft maintenance engineers. Boeing and Airport Authority of India have developed a comprehensive 10-year Communication, Navigation and Surveillance/Air Traffic Management modernization roadmap for India, undertaken with a grant from the U.S. Trade and Development Agency.

IN-COUNTRY FLEETS

Commercial

- 22 777s and 27 787s with Air India
- 26 737NGs with Air India Express
- 19 737 MAXs with Akasa Air
- 1 777 with IndiGo
- 18 737 MAXs and 29 737NGs with SpiceJet
- 4 787s and 2 737NGs with Vistara
- 6 757s and 2 737BCFs with Blue Dart
- 2 737BCFs with Quikjet

Defense

- 12 P-8Is with Indian Navy
- 11 C-17 Globemaster IIIs
- 15 CH-47 Chinooks with the Indian Air Force
- 22 AH-64 Apaches with the Indian Air Force
- 2 777-300ER Head of State aircraft
- 3 737 Boeing Business Jets with Indian Air Force for VVIP flight

Services

- Boeing defense aircraft have mission readiness rates of more than 85%
- C-17 Globemaster III Integrated Sustainment Program services and support package for Indian Air Force
- C-17 fleet has logged more than 31,000 flight-hours
- C-17 Simulator Training Center for Indian Air Force completed over 6,400 hours of training for aircrew
- P-8I has surpassed 40,000 flight-hours
- Boeing-built maintenance repair and overhaul facility for Air India in Nagpur

Fleet numbers as of March 2023

A HISTORY OF PARTNERSHIP

1941
Indian government lends a Douglas (now Boeing) aircraft to Tata Airlines for the Karachi-to-Baghdad route

1960
Air India receives delivery of 707-437s

1970
Indian Airlines inducts the 737 Classic

1971
Air India takes delivery of its first 747-200B

1993
Jet Airways begins operations with 737-300s

2005
SpiceJet begins operations with two 737-800s

2012
Air India receives its first 787 Dreamliner

2014
Delivery of 10 C-17 Globemaster IIIs to Indian Air Force completed

2015
Indian Navy takes delivery of eight P-8I aircraft

2016
Tata Boeing Aerospace Limited (TBAL) joint venture established

2017
Boeing Defence India established

2018
SpiceJet takes deliveries of its first 737 MAXs
TBAL delivers its first AH-64 Apache fuselage

2019
Indian Air Force receives its first CH-47 Chinooks and AH-64 Apaches, as well as its 11th C-17 Globemaster III

2020
India receives its first 787-9, delivered to Vistara
Delivery of 15 Chinooks and 22 Apaches to Indian Air Force completed
Two specially modified 777-300ER delivered to India for use as Head of State aircraft

2021
$10 million emergency assistance package to support India's COVID-19 response
TBAL delivers its 100th AH-64 Apache fuselage
Akasa Air orders 72 737 MAX

2022
Delivery of 12 P-8Is to Indian Navy completed
Akasa Air receives its first 737 MAX

2023
TBAL delivers first fuselage for Indian Army AH-64 Apache
TBAL ships first vertical fin structure for Boeing 737


THE FUTURE IS WHAT WE MAKE IT.
Honeywell

Company's Operations in India: 90+ years

I. Capacity Building

a. Through Investments

- 3 manufacturing facilities and 20 offices

b. Research & Development

- 4 Engineering & Technology Development Centers (Bengaluru, Madurai, Hyderabad and Gurugram)

c. Projects Undertaken

- Honeywell is actively engaged in various programs with key Indian Air Force, Indian Navy, Indian Coast Guard, DPSUs, DRDO, and other prominent in-country industrial entities towards development & maintenance of Aircraft, Helicopter, Land Systems, Naval platforms, UAVs, via multiple in-country partnerships. Honeywell equipment is present on all indigenous and U.S. airborne platforms. This includes best in class products ranging from Engines, Mechanical Systems, Avionics for Dornier 228, Tejas, Dhruv, LCH, Jaguar, Hawk, HTT-40 to Navigation Equipment for Missiles & Launchers, Naval Systems, Radars.
- Further, Honeywell, through the respective U.S. OEMs is involved in sustainment for all key U.S. Aircrafts and Helicopters.

II. Collaborations

Academia

- Indian Institutes of Technology (IITs)
- Indian Institute of Science (IISc)

III. Value Creation

- Via research & development, employment generation, academy partnerships on next generation technologies, transfer of critical technologies (ToT), start-up collaboration, driving sustainability.

IV. Number of Employees

- Direct employees - 13,000+

V. Skill Development

a. Training

- Honeywell engages with government and industry for safety training and knowledge sharing.

b. University Partnerships

- Honeywell actively collaborates with top institutes (IISc, IITs) and engineering colleges for skill development and nurturing engineering talent in aerospace.

VI. Impact on Exports

- $1 billion+

Summary

Honeywell's pan India presence has successfully:

a. Generated over $1 billion domestic sales and exports
b. 3 manufacturing facilities and 20 office facilities
c. 4 Technology Development Centers (Bengaluru, Madurai, Hyderabad and Gurugram)
d. Generated 13,000+ employment with 5,500+ engineering professionals across multiple business functions
e. Transferred critical Engine Technologies (ToT) to support indigenization for nearly 4 decades
f. Set up partnerships with TATA for co-production of Inertial Systems
g. Collaborated with startups, academia and nurtured incubators for breakthrough innovations
h. Partnered with premier institutes (IITs, IISc) on cutting edge next-generation technologies
i. Engaged with various skill development programs and research-oriented projects on advanced technologies, automation, software, AI/ML/NLP/Deep Learning
j. Pursuing multiple strategic programs with key DPSUs, DRDO, all wings of Armed Forces across fixed wing, helicopter, land systems and marine platforms
k. Nurturing CSR programs and initiatives that have made a sustainable and measurable impact across 2 million lives

Investment in Aerospace and Defence Business

Honeywell has extensively invested multibillion dollars in setting up and continuously upgrading its 4 global R&D centres in India of Capability Maturity Model Integration (CMMI) Level 5 maturity status and employs 13,000+ engineers working across cutting edge projects in aerospace, defence and industrial domains. These centres operate multiple state of the art laboratories for mission critical aerospace technologies - ranging from high end Cockpit Simulation Labs to Electronic Hardware Labs, Mechanical Test Lab, AI Lab and Additive Manufacturing Labs to keep pace with the global technology trends and execute cutting edge product development.

Products Manufacturing in India

All of Honeywell's global businesses have a strong legacy in India, built over the last eight decades. Honeywell's India commitment is evident in 3 state-of-the-art manufacturing facilities and 4 global R&D centers of excellence for technology development and innovation. More than $1 billion in domestic sales and export across all Honeywell business areas. They employ close to 13,000+ people across multiple locations, including Bengaluru, Chennai, Delhi, Gurugram, Hyderabad, Madurai, Pune and Vadodara.

Technological Collaboration

Honeywell has driven technological collaboration and greater localization through partnerships for the last 4 decades. These efforts go a long way back to 1983, when they set up the license manufacturing of the Honeywell TPE-331 turboprop engines at HAL for the Dornier228 aircraft of Armed Forces. In addition, Honeywell also provides critical avionics & navigation technologies to meet the needs of all indigenously developed aircraft & helicopter platforms. Further, they were the first Original Equipment Manufacturer (OEM) to establish co-production partnership for Inertial Navigation Systems with the TATA Power SED (presently TASL) and demonstrate their commitment to supporting the Armed Forces.

Defence Manufacturing

Honeywell has more than 4 decades of working relation and technology partnerships with Defence PSUs (like HAL) and Defence Labs (DRDO) and continues to believe in bringing key defence technologies to India and help them grow. They also continue to work very closely with all their suppliers and vendors from India and help them grow in their processes and quality to meet global standards. Their engagement and partnerships with defence manufacturing companies, private entities, customers, suppliers and also setting up of 4 R&D centres in India for global product development for aerospace and defence business, has helped in directly and indirectly generating employment for many thousands year on year.

Nurturing Local MSMEs

Honeywell has been consistently growing its supplier base and sourcing from India. They have been helping companies to mature its processes and scale up to meet the global aerospace standard and help them grow. They are very aggressively growing their footprint of global supply chain from India and continue to nurture the local ecosystem.

Current Pursuits of Strategic Interest

Multiple programs with key DPSUs, DRDO, IAF and private industry across fixed wing and helicopter, land, and marine platforms.

Skill Development

Honeywell has been actively engaged with various skill development programs and research-oriented projects across premier institutes (IISc and IITs) and multiple engineering colleges to mentor, nurture and engage the institutions in building an in-country strong engineering talent pool for critical domains like aerospace. In addition, their teams have been closely interacting with various government and industry fora on knowledge sharing and trainings for safety critical product development, aviation safety and certification.

HONEYWELL OVERVIEW

NASDAQ: **HON** | **~750** sites | **~99,000*** employees | **Charlotte, NC** headquarters | **Fortune 500** | 2022 Revenue: **~$35 B**

AEROSPACE

Our products are used on virtually every commercial and defense aircraft platform worldwide and include aircraft propulsion, cockpit systems, satellite communications, and auxiliary power systems.

HONEYWELL BUILDING TECHNOLOGIES

Commercial building owners and operators use our hardware, software and analytics to help create safe, efficient and productive facilities. Our solutions and services are used in more than 10 million buildings worldwide.

PERFORMANCE MATERIALS & TECHNOLOGIES

We provide performance chemicals and materials, process technologies, and automation controls. By supporting the global transition towards renewable energy and low-carbon economy, we're accelerating a more sustainable future to help change the world.

SAFETY & PRODUCTIVITY SOLUTIONS

We develop and deploy an innovative range of solutions, software, and services that help keep people healthy, workers and workplaces safer and more productive, and supply chains and assets more efficient, accurate, and reliable.

HONEYWELL CONNECTED ENTERPRISE

Across our segments, we empower those who make, move and operate the world's critical resources to grow responsibly. HCE develops software that securely unites OT and IT data to make better decisions and improve operational performance. Our flagship suite of applications, Honeywell Forge unites real-time data across assets, people and processes to drive intelligent operations growth, productivity and risk mitigation.

HONEYWELL NEXT FRONTIER

TOP **10** TECHNOLOGY BETS

Energy Storage
Green Fuels
Plastic Circularity
Blue / Green Hydrogen
Refrigerants / Membranes
Carbon Capture and Storage
Carbon Emission
Plastic Recycling

5G
Wifi6
GPS / GNSS Denied Nav

Drug Delivery
Remote Patient Monitoring
Respiratory

Nano Materials
Graphene
Pharma Packaging
Anti-Viral Materials
Battery Electrolyte

Zero Trust Security
Blockchain

Hybrid / Multi Cloud
Smart Edge Devices

Quantum
Custom Chipset

Lab-on—chip
Waveguide
Chip scale Spectrometer
Gyroscopes
LIDAR
Radar

Digital Twin
AR / VR
Wearables

Urban Logistics / Taxi
Robotics
ASRS / MFC
Intelligent Automation
Edge AI
Machine Vision
Speech Recognition
Autonomous Controls

HONEYWELL INDIA

9
Decade legacy

$1B
Domestic sales and exports

13000
Employees

3000+
Products, solutions, applications engineered in India

5500
Engineers

4
Technology development centers
- Bengaluru
- Madurai
- Hyderabad
- Gurugram

3
Manufacturing centers
- Gurugram
- Dehradun
- Pune

20
Facilities in major cities

Pune
Bengaluru
Gurugram
Chennai
Vadodara
Dehradun
Mumbai
Kolkata
Madurai
Hyderabad
Jamshedpur

COMMITTED TO INDIA

Honeywell is a committed partner to India and the country's Make in India policy. Here are some facts about our Swadeshi company you might find surprising.

- More than 13,000 employees
- More than 5,500 engineers tackling some of the world's toughest challenges in energy efficiency, safety, and productivity
- Legacy spanning more than nine decades in India
- Our technologies are used in almost every refinery improving yield and fuel quality
- 3 manufacturing facilities; 4 technology development centers
- Building safety, energy efficiency, and productivity across major airports, smart cities, infrastructure projects, etc.
- Strategic partnership with Hindustan Aeronautics Limited (HAL) for more than 40 years
- Landmark technology transfer agreement with Tata Power for TALIN Inertial Navigation System
- More than 3,000 technology products, solutions, and applications
- Atmanirbhar Bharat – N95 face mask production in Pune during COVID-19 to support India, Honeywell partnership with Navin Fluorine for manufacture Honeywell's proprietary Solstice range of Hydrofluoroolefins (HFO) in India, Impact by Honeywell brand to cater to the needs of mass mid segment
- Strong Partner to the Government of India's Smart and Safe Cities Mission
- Supporting India vision on lowering carbon emissions through sustainable technologies and solutions
- Supporting STEM education and technology incubation in deep science
- Skilling the youth to build a future-ready workforce
- Helping India moving towards Industry 4.0, Digitalization

Honeywell

AEROSPACE

Honeywell Aerospace products and services are found on virtually every commercial, defense, and space aircraft in the world. With an unmatched heritage of innovation that spans more than a century, our aim is to solve the greatest challenges CEOs, pilots, operators, passengers, finance, maintenance, and cabin crews face – and transform the way we all fly. Making India's transportation smarter in the air and on the ground. Supporting the country's defense and space and civil aviation, for more than 40 years, including technology transfers of TPE331 turboprop engine on the HTT-40 trainer and the Dornier aircrafts.

BUSINESS PORTFOLIO

- Electronic Solutions
- Engines and Power Systems
- Mechanical Systems and Components
- Services and Connectivity
- Unmanned Aerial Systems / Urban Air Mobility

HEADQUARTERS

Phoenix, Arizona

2022 SALES

$11.8 Billion

Web: https://aerospace.honeywell.com/

TECHNOLOGIES

- Air and Thermal Management
- Aircraft Connectivity Systems and Integrated Services
- Autonomous Flight, Detect-and-Avoid Systems
- Federal Solutions Management and Operation
- Hybrid-Electric Systems
- Integrated Avionics Offerings and Flight Management Systems
- Life Support Systems and Air Travel Hygiene
- Flight Efficiency and Maintenance Optimization
- Manned/Unmanned and Satellite Applications/Space
- Mechanical Components
- Navigation, Safety, and Surveillance Solutions
- Propulsion and Power Systems
- Runway and Flight Safety Technology
- Wheels and Braking Systems

MORE SUSTAINABLE TRAVEL, SAFER AND MORE EFFICIENT FLYING AND A FOCUS ON CUTTING-EDGE INNOVATION

BUILDING TECHNOLOGIES

BUSINESS PORTFOLIO

- Connected Building Solutions
- Sustainable Buildings
- Commercial Security
- Fire Safety
- Building Management Systems
- Electrical Products

HEADQUARTERS

Atlanta, Georgia

2022 SALES

$6 Billion

Web: https://buildings.honeywell.com/us/en/home

TECHNOLOGIES

- Healthy buildings, energy performance and carbon management
- Open platforms for third-party integration
- Enterprise performance management SaaS
- Fire and smoke detection, alarm and notification
- Seamless occupant experience, wayfinding, asset location
- Services, maintenance and remote operations
- Smart cities
- Command & Control Solution
- Connected Offering IBMS
- Access control and video surveillance systems and Intrusion detection.
- Building management systems, Field Devices, Environmental Controls, Integrated Lighting Control, Indoor Air Quality Solutions
- Plugs, Switches, sockets, cable management & circuit protection

TRANSFORM THE WAY BUILDINGS OPERATE TO BE SAFER, MORE PRODUCTIVE AND MORE ENERGY CONSCIOUS

PERFORMANCE MATERIALS AND TECHNOLOGIES

As a global technology leader, the mission of Honeywell PMT is creating future-forward solutions that change the way the world works. The inventors, chemists, and engineers of PMT are continually pushing technological frontiers to shape the future chemicals, materials and energy. Honeywell UOP technologies enable Indian refiners to efficiently produce gasoline, diesel, petrochemicals, and renewable fuels. We are leaders in process automation and instrumentation solutions. We bring high-performance products, including refrigerants with lower global warming potential and barrier films for the pharmaceutical industry

BUSINESS PORTFOLIO

- Honeywell Advanced Materials
- Honeywell Process Solutions
- Honeywell UOP
- Honeywell Smart Energy

HEADQUARTERS

Houston, Texas

2022 SALES

$10.7 Billion

Web: https://pmt.honeywell.com/us/en

TECHNOLOGIES

- Advanced Fibers and Composites
- Chemicals and Electronic Materials
- Specialty Films and Additives
- Low-Global-Warming Potential Refrigerants, Foam Blowing Agents, Aerosols, and Solvents
- Process Technologies, Equipment, Catalysts, and Services for Fuels and Petrochemicals
- Industrial Automation and Controls and Services
- Safety Systems and Instrumentation
- Software Solutions and Industrial Cybersecurity
- Connected Utility Solutions and Services, and Metering Solutions
- Sustainable Aviation Fuel and Other Renewable Fuels
- Renewable Energy Storage and Distribution
- Plastic Waste Circularity

SAFETY, SUSTAINABILITY AND DIGITALIZATION POWERING THE FUTURE OF CHEMICALS, MATERIALS AND ENERGY

SAFETY AND PRODUCTIVITY SOLUTIONS

Honeywell SPS helps create faster, more seamless, agile and efficient supply chains, better protect human health, improve worker safety and help meet sustainability goals by leveraging connectivity, advanced data analytics, software, robotics, sensors, advanced materials and integrated human and automated systems.

BUSINESS PORTFOLIO

- Honeywell Intelligrated
- Productivity Solutions & Services
- Personal Protective Equipment
- Sensing and Safety Technologies

HEADQUARTERS

Charlotte, North Carolina

2022 SALES

$6.9 Billion

Web: https://sps.honeywell.com/us/en

TECHNOLOGIES

- Automation material handling solutions, including design and emulation, warehouse and labor management software, and services
- Worker productivity devices including voice, mobile computing, scanning, printing, and software
- Personal protective equipment for industrial and healthcare applications
- Gas detection technology for workplace safety
- Advanced sensors, switches, and controls for healthcare, transportation, industrial, and supply chain

HELPING ORGANIZATIONS BECOME MORE CONNECTED TO MAKE OUR WORLD SMARTER, SAFER AND MORE SUSTAINABLE

HONEYWELL CONNECTED ENTERPRISE

Honeywell

Honeywell Forge empowers those who make, move and operate the world's critical resources to grow responsibly. Customers across our segments use Honeywell Forge solutions to accelerate their digitalization, sustainability, and OT cybersecurity initiatives. Honeywell Forge is intelligent operations software that connects assets, people, and processes, enabling operational performance, sustainability, and quality improvement.

HONEYWELL FORGE

Honeywell Forge software unites real time data across assets, people and processes to drive intelligent operations. It empowers decision making to surface inefficiencies, mitigate risk and reduce cost. Built to solve some of the world's toughest challenges, Honeywell Forge solutions serve aerospace, life sciences, buildings, industrials and warehouses.

HEADQUARTERS

Atlanta, Georgia

Web: https://www.honeywellforge.ai/

HONEYWELL FORGE SUITES

- **Portfolio:** Better plan and prioritize investments with near real-time site-to-site comparisons and analytics
- **Site:** Digitize manual processes and enable remote operations while better managing inventory
- **Asset:** Improve productivity and negotiate more transparent and cost-effective maintenance contracts
- **Energy:** Reduce spend and carbon emissions by automating energy management and KPIs
- **Worker:** Enhance safety and compliance, digitize manual processes and better equip workers for complex tasks

SOFTWARE THAT EMPOWERS THOSE WHO MAKE, MOVE AND OPERATE THE WORLD'S CRITICAL RESOURCES TO GROW RESPONSIBLY

INNOVATION OUR DNA

The large majority of Honeywell offerings incorporate at least one of our three core R&D innovation foundations:
Controls and Autonomy, Digital Transformation and Sustainability

CONTROLS AND AUTONOMY

Higher productivity and efficiency, improved safety and speed for more profitable business

DIGITAL TRANSFORMATION

Connecting assets, people and processes to power business digital transformation

SUSTAINABILITY

Broad offerings that span circularity, energy, environment, health, safety, security and resiliency/accountability

OUR INNOVATION & DECADES OF INDUSTRY EXPERTISE KEEPS THE WORLD WORKING

HONEYWELL TECHNOLOGY SOLUTIONS (HTS) OVERVIEW

- **Global engineering and technology arm of Honeywell**
- **Drive company growth in emerging markets through local-for-local innovations**
- **~5,000 employees located in India, Mexico and the Czech Republic**

1994
Established in Bengaluru

4
Offices
Bengaluru
Madurai
Hyderabad
Gurugram

4,700+
Engineers & technologists

32%
Masters or PhD

2017
Honeywell's first In-house startup launched

HONEYWELL HOMETOWN SOLUTIONS INDIA FOUNDATION

- In **2013**, Indian government implemented new CSR law that requires certain Honeywell India entities to provide **2%** of average net profit over preceding three years to qualified CSR activities. .
- Honeywell has partnered with credible non-profit organizations with a clear focus on relevance, rigor, results.

~2M
Cumulative impact across programs

>5K
Hours invested by Honeywell volunteers since 2016

~2K
Media impressions since 2015

>50
Average annual GR stakeholder engagement

Advanced tech skills & placements for underprivileged youth

Transformative STEM education for disadvantaged girls

Supporting deep-science/deep tech startups

Covid care relief and enhancing rural health infra

Holistic & Sustainable Community Development

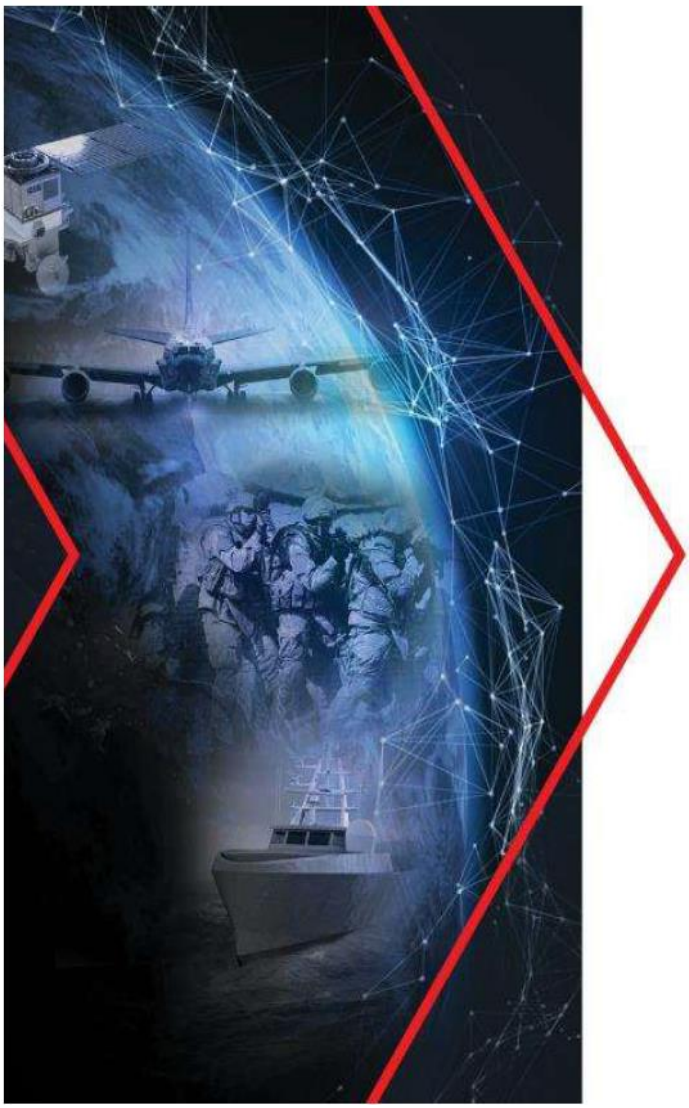
CoE for clean and affordable energy

Watershed Program for water and soil conservation

#Plant the Future Camapign

L3HARRIS

FAST. FORWARD.



L3HARRIS
FAST. FORWARD.

To inspire excellence

To rewarding career opportunities

To industry-leading value

To the power of the enterprise

To flawless execution

To exceed expectations

To mission solutions

To one company with common goals

To speed and precision

To innovation and affordability

Company's Operations in India: **25 years**

I. Capacity Building

a. Through Investments

- Initial investment was low. Capacity building through re-investing cash flow from India business (both domestic and export market)

b. Research & Development

- Yes

c. Co-Development

- Yes. Not in public domain yet.

d. Projects Undertaken

- Integrated Platform Management System (IPMS) for Naval ships
- Indigenization of data recorders for HAL aircrafts etc.

e. Co-Production

- Yes. Not in public domain yet.

f. Provisioning of Defence Aerospace Equipment

- Yes

- Annual Turnover: **Approx. $70 million**

II. Collaborations

a. MSMEs

- Part of supply chain

b. Innovators

- Yes. Part of development center.

c. Academia

- Yes. Development projects with Indian universities.

III. Number of Employees

- Direct employees – 150
- Gainful employment through partners – in thousands

IV. Skill Development

a. Training

- Regular training courses for Indian Navy and Indian Army personnel to upskill them.

b. University Partnerships

- Yes

V. Annual Sourcing

- Close to $100 million

VI. Impact on Exports

- About $20 million in systems exports from India

VII. Defence Acquisition Procedure (DAP) 2020 Provisions Impacting Decisions

- Fully owned subsidiary should be allowed to participate both in Indigenously Designed, Developed and Manufactured (IDDM) and Make programs.

VIII. Opportunities and Potential for Future including Exports from India

- L3Harris, in partnership with Airport Authority of India (AAI), is responsible for delivering and operating the Futuristic Telecommunications Infrastructure (FTI) for all Indian airports. FTI will act as a communications gateway for air traffic operations throughout Indian airspace. Working together, L3Harris and AAI will migrate numerous telecommunications services onto the network to fulfill their core mission of ensuring safety and fostering economic growth in the region.

L3HARRIS.COM

SUPPORTING INDIA WITH ADVANCED TECHNOLOGIES

A Global Technology Leader

L3Harris is involved with a full range of projects in India, supporting the nation's civil and military goals. From defense and paramilitary to public safety, aviation and space, L3Harris is providing the technologies for a modern, self-reliant India.

INDIA FACTS

> In India since 1999

> Operations in New Delhi and Bengaluru

L3Harris in India provides the indigenized MAPPS Integrated Platform Management Systems for the Indian Navy and other navies in the region including the Republic of Korea, Taiwan, Malaysia and the UAE, as well as engineering services to MAPPS maritime and nuclear power plant programs worldwide.

India is one of the world's fastest growing aviation markets, handling hundreds of millions of passengers a year. L3Harris, in Partnership with Airport Authority of India (AAI), has been entrusted to deliver and operate the Futuristic Telecommunications Infrastructure (FTI) for all Indian airports. FTI of India will serve as a communications gateway for air traffic operations across all Indian airspace. Together with the AAI, L3Harris will migrate hundreds of telecommunications services onto the network to help accomplish their core mission: providing safety and promoting economic growth within the region.

L3Harris provides manned airborne electro-optical/infra-red (EO/IR) systems for the Indian Armed Forces and internal security organisations. L3Harris also has the largest count of Indian submarines fitted with our EO/IR/electronic support measures (ESM) systems, changing the operational capability of the Indian Navy.

L3Harris radios are used by Indian Armed Forces, Special Forces, Paramilitary and Law enforcement agencies as their standard means of communications. L3Harris in India has a full set of capabilities to support the region with sales, production, repairs and demonstration/training facilities.

The Traveling Wave Tube Amplifiers (TWTA) designed by L3Harris is supporting the growth of Indian Space Research Organization (ISRO). The heightened cooperation between India and the U.S. in space provides growing opportunities for L3Harris to cooperate with local agencies for space-based optical radars, small satellite solutions and space payloads.

SOLUTIONS FOR INDIA

> Air Traffic Management
> Defense
> Maritime
> Pilot Training
> Space
> Weather and Environmental Sensing

L3HARRIS™
FAST. FORWARD.

ADVANCED SOLUTIONS FOR INDIA

AIR

Defense Aviation:

- Strategic and Tactical ISR
- Carriage and Release
- Airborne EO/IR Surveillance Systems
- Electronic Warfare
- Flight Simulators and Training
- Cockpit Displays and Avionics
- Unmanned Systems
- Avionics Maintenance, Repair and Overhaul (MRO) Services

Commercial Aviation:

- Pilot Training and Full Fight Simulators
- Flight Data Analysis
- Telecommunications Infrastructure and Services and System-wide Information Management

SPACE

- Space Infrastructure: Radars and Unfurlable Antennas
- Space-borne Sensing/Weather Monitoring
- Space Grade Electron Devices

LAND

- Tactical Communications Systems
- Combat Propulsion Systems
- Ground EW/Counter IED
- Multi-mission Robotics
- Situational Awareness Management
- SATCOM
- Customer Geospatial Software Solutions
- Nationwide Mapping (LiDAR)
- Battlefield Management
- Night Vision and Weapon Sights
- Public Safety & Professional Communication

MARITIME

- Integrated Platform Management Systems
- Sonars and Underwater Sensors
- E/O Systems and Submarine Masts
- Unmanned Systems
- Advanced Hardened Maritime Power Solutions
- Integrated C5ISR
- Underwater Communications

LOCATIONS IN INDIA

- Le Meridian Commercial Tower
  Windsor Place
  Janpath, New Delhi
- Bagmane Tech Park,
  CV Raman Nagar, Bengaluru

L3HARRIS™
FAST. FORWARD.

L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across space, air, land, sea and cyber domains. L3Harris has approximately $18 billion in annual revenue and 47,000 employees, with customers in more than 100 countries. L3Harris.com.

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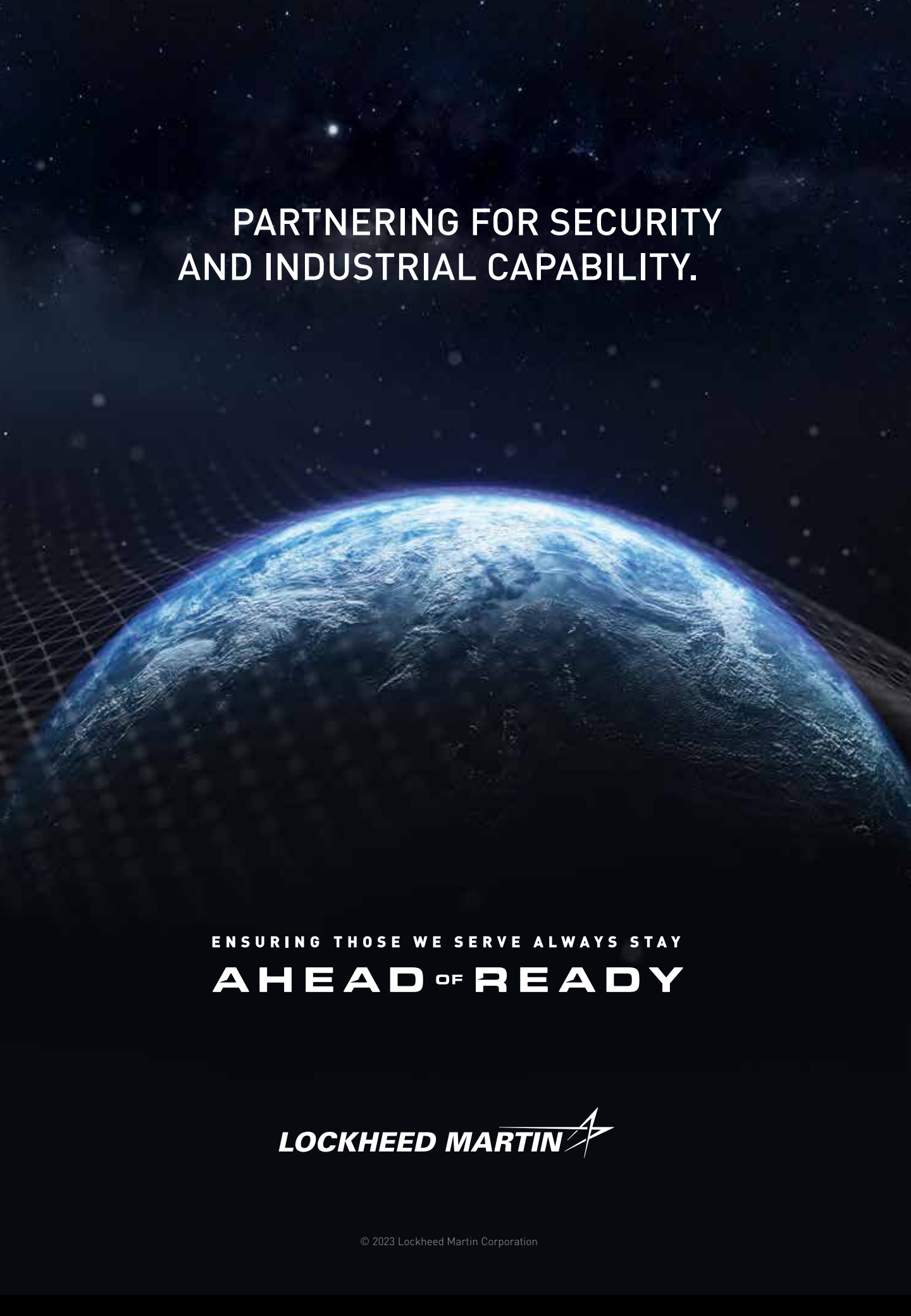


Company's Operations in India: 30+ years of partnership; 70+ years of association

I. Capacity Building

a. Through Investments

- Lockheed Martin has been part of India's aerospace and defence industry for over three decades. They have two manufacturing Joint Ventures (JVs) with Tata, contributing to India's self-reliance vision and the 'Make in India' initiative. These ventures have generated significant investments, revenues and exports, while also creating over 1,500 jobs in aerospace engineering and manufacturing.

b. Joint Ventures

- Tata Lockheed Martin Aerostructures Limited (TLMAL), Telangana
- Tata Sikorsky Aerospace Limited (TSAL), Telangana

c. Projects Undertaken

- Manufactures C-130 components, parts, equipment and tooling.
- Sole supplier of C-130J empennages and components to Lockheed Martin and is an integral part of Lockheed Martin's global supply chain.
- Manufacturing facility for helicopter structures and precision machining.
- Sole producer of S-92 helicopter cabin components.

d. Co-Development

- Indigenous Specialist Military Vehicle

II. Supplier Partner Footprint

- Lockheed Martin's JVs have created an entirely new ecosystem for aerospace and defence including close to 500 SME/MSMEs that feed into them.
- Integrated more than 70 Indian suppliers into their global supply chain.

III. Collaborations

a. MSMEs

- Close to 500 SME/MSME Partners

b. Start-ups

- India Innovation Growth Program (IIGP)

IV. Opportunity Areas

- F-21
- C-130J
- MH-60R
- MRO

V. Value Creation

- Contributed approximately $100 million in manufacturing equipment, tooling, intellectual property and non-recurring engineering.
- Produced over $200 million in private Indian industry revenues.
- Generated over $650 million worth of exports.

VI. Number of Employees

- Direct employees – 16
- Gainful employment through partners – 1,300
- The JVs employ 1,200+ personnel related to Lockheed Martin programs in India

VII. Skill Development

- More than 1,500 personnel have been trained in skills like aerospace engineering, manufacturing and management.

a. Training

- With the ever increasing global demand of C-130J synthetic military flight training, Lockheed Martin in partnership with Mahindra Defence Systems, meets the military flight training for the Indian Air Force at the C-130J Super Hercules simulator training center at Hindon Air Station in India. This state-of-the-art training center provides qualitative and quantitative training to C-130J pilots, combat system operators and loadmasters. Through high fidelity realistic and holistic learning environments, crew members are able to hone critical tactical and operational skills to conduct a variety of missions including humanitarian aid, natural disaster support, airlift, search and rescue and special operations.
- Diversity & Inclusion Program: This program commenced at the TLMAL facility in Hyderabad in 2018 and aims to encourage women to consider and join the aerospace manufacturing workforce. This program reaches out to villages in under-developed regions and offers board and lodging in a safe environment for potential female apprentices to learn skills during their apprenticeship. Apprentices can then pursue employment at the Lockheed Martin JVs, and explore career opportunities that help to support their families.

b. Research & Development

- Developed expertise in program management, training and manufacturing.
- Provided on-site technical assistance with subject matter experts.
- Achieved highest international quality management system certifications.
- Developed vendors, resulting in indirect employment for over 1,000 people across India.

c. University Partnerships

- India Innovation and Growth Program (IIGP) helps in building an innovation pipeline and best practices in India, offering training and mentoring support to university students and entrepreneurs. It enables transition of university R&D projects to start-ups through a dedicated university challenge track and addresses the lack of market opportunities for emerging start-ups.
- The Super Hercules, C-130J Roll-On/Roll-Off University Design Challenge - through this initiative, Lockheed Martin provided research grants for teams from five Indian universities to work with local industry partners and mentors from India's Defence Research and Development Organization (DRDO) to develop design specifications for proposed modules that could be used on a Lockheed Martin C-130J Super Hercules cargo aircraft.
- Mentored Delhi Technology University (DTU) team in design and development of an unmanned aerial vehicle. The team from DTU won several international awards as a result of this project in skills development.

VIII. Defence Acquisition Procedure (DAP) 2020 Provisions Impacting Decisions

- Key policies like Defence Procurement, Defence Production and increased FDI have supported military modernization and integrated India's aerospace and defence industry globally. A strong indigenous defence industry is vital for India's security and strategic objectives. Government's focus on improving taxation to stimulate investment is encouraging. The defence offset policy, a part of Defence Procurement, can accelerate 'Make in India' for aerospace & defence, with recent changes providing more flexibility.

Investments

For over three decades, Lockheed Martin has been a committed member of the Indian aerospace and defence industry. Lockheed Martin has a strong history of partnership with India and committed to supporting India's vision of achieving greater self-reliance. For more than a decade, Lockheed Martin has set up two state-of-the-art manufacturing JVs with Tata in India. These JVs were created to establish a manufacturing presence in India, support the fulfillment of offset obligations, and support the 'Make in India' initiative. The investments have contributed to approximately $100 million in manufacturing equipment, tooling, intellectual property and non-recurring engineering; have produced over $200 million in private Indian industry revenues and generated over $650 million worth of exports; and resulted in the training and employment of over 1,500 individuals in aerospace engineering, manufacturing and management jobs. These JVs have facilitated Indian industry's participation in Lockheed Martin's global supply chain by actively contributing to C-130 aircraft and S-92 helicopters delivered to the global market.

Joint Ventures

Lockheed Martin has established two very successful Joint Ventures in India:

Tata Lockheed Martin Aerostructures Limited (TLMAL)

- Established in 2010 between Tata Advanced Systems Limited (TASL) and Lockheed Martin Aeronautics.
- 20,000+ square meter facility with approximately 650 Indian employees.
- Manufactures C-130 components, parts, equipment and tooling.
- To date, TLMAL has manufactured 200 C-130J empennages with >96% indigenization as part of Lockheed Martin global supply chain.
- Expanded to include Fighter Wing Assembly for the F-21/F-16, one of the most technologically complex aerostructures - a fuel-carrying 9G, 12,000 hour, interchangeable/ replaceable fighter wing with >70% detail parts indigenously produced.
- Received 'Factory of the Future Award' at The Economic Times Promising Plants Awards 2022.
- Recognized for 'Excellence in Exports'; 'CSR' and 'Best Joint Venture of the Year' at Aerospace and Defence Awards 2021 by SAP Media.
- Received 'Highest Exports Award' by Export Promotion Council of EOUs and SEZs 2020-21 and 2019-20. Recognized for 'Excellence in Innovation, Design, Technology or R&D' at Aerospace and Defence Awards 2020 by SAP Media.

Tata Sikorsky Aerostructures Limited (TSAL)

- Manufacturing facility for helicopter structures and precision machining.
- Sole producer of S-92 helicopter cabin components.
- Fully integrated into the global supply chain.

- Lockheed Martin Sikorsky's non-recurring engineering, equipment and tooling, and in-kind contribution of detail part manufacturing equipment.
- As of now, TSAL has delivered 157 S-92 cabins to date.

Co-Development

Indigenous Specialist Military Vehicles

- Lockheed Martin and Ashok Leyland jointly developed a next generation military vehicle for both Indian customers and the global market. The design and technical support was provided by Lockheed Martin engineering team for developing the vehicle customized to the requirements of Indian Army. The vehicle has been field evaluated in various environmental conditions by the Indian customers and has been selected by some of the military users in India.
- The engineering support by Lockheed Martin and cooperative working relationship with Ashok Leyland was instrumental for the success of development and production of the indigenous vehicle. The new vehicle developed by Indian industry with engineering support and guidance of U.S. industry may become one of the best examples of the 'Make in India' concept.

Details, Locations and Investment in Each Project

Lockheed Martin India Private Limited, New Delhi

- Established since 2008 – employs 15 local staff
- Investment in new office location made in 2016 – $0.5 million
- Long term lease agreement commitment of $4.4 million (2016-2025)

Tata Lockheed Martin Aerostructures Ltd (TLMAL), Hyderabad

- Established since 2010
- Investment made: Established private sector greenfield facilities in Hyderabad. TLMAL capital investments for initial set-up over $30 million ($9.4 million Lockheed Martin)
- Lockheed Martin Aeronautics investment including non-recurring engineering, equipment, tooling major tooling re-designs, jigs and fixture fabrication ($15.3 million equipment and $15 million NRE)
- Annual Exports: $26.27 million
- Employment Generated:
    - Defence Manufacturing: Direct 300+, Indirect 200+
    - Defence Services: Direct 100+, Indirect 50+

Tata Sikorsky Aerospace Ltd (TSAL), Hyderabad

- Established since 2011
- Investment made: Lockheed Martin Sikorsky's non-recurring engineering, equipment and tooling, and in-kind contribution of detail part manufacturing equipment. ($25 million Equipment and $22 million NRE).
- Annual Exports: $30.923 million
- Employment Generated:
  - Defence Manufacturing: Direct 400+, Indirect 100+
  - Defence Services: Direct 250+

Supplier Partner Footprint

- Lockheed Martin's JVs created an entirely new ecosystem for aerospace and defence including SME/MSMEs.
- Integrated more than 70 Indian suppliers into their global supply chain.

TLMAL

- Around 500 Indian suppliers including over 140 MSMEs integrated for all products and services supporting operations.

TSAL

- 400+ Indian suppliers on-boarded over the years and are catering to one or multiple platforms.

Collaborations

India Innovation and Growth Program (IIGP)

- Since 2007, Lockheed Martin has been co-sponsoring the India Innovation and Growth Program (IIGP) in partnership with the Department of Science and Technology (DST), Ministry of Science and Technology, Government of India and Tata Trusts as a part of its larger commitment to enhance the growth and development of India's innovation and start-up ecosystem. Supporting the Government of India's missions of 'Start-up India' and 'Make in India,' IIGP enhances the Indian innovation ecosystem by enabling innovators and entrepreneurs through the stages of ideation and innovation, to develop technology-based solutions for tomorrow.

IIGP is the only public-private partnership of its kind in India that spawns indigenous innovation by training budding innovators in world-class strategies, promoting and providing incubation and acceleration support, and assisting in business development. The program is designed to accelerate the launch of early-stage Indian technologies into the global marketplace. Till date, IIGP has generated over 400 business agreements and $1 billion revenue for Indian start-ups and entrepreneurs.

The first 10 years of the program focused on building an innovation pipeline and best practices in India by offering training and mentoring support to entrepreneurs. Based on the learnings of implementing the program for over a decade, the IIGP Version 2.0 was launched in 2017 to address specific gaps like:

- Ability to transition university R&D to start-ups through a dedicated university challenge track
- Lack of risk capital for high technology based start-ups that have a longer gestation period
- Lack of market opportunities for emerging start-ups

The IIGP has two separate tracks. A University Challenge, aimed at students, is complemented by an Open Innovation Challenge, aimed at innovators and entrepreneurs across the country. IIGP holds parallel challenges each year, supporting innovations through the phases of ideation and innovation.

IIGP 2.0 is implemented by several supporting partners: Federation of Indian Chambers of Commerce and Industry, Indo-U.S. Science and Technology Forum, Center for Innovation Incubation and Entrepreneurship at IIM, Ahmedabad and IIT, Bombay.

Opportunity Areas

F-21

With just 31 Squadrons, the Indian Air Force (IAF) is woefully short of the 41 Squadrons that it needs to maintain. This deficiency gets exacerbated when one considers that the IAF could be fighting a two-front war. Lockheed Martin has offered F-21 as the Multi Role Fighter Aircraft (MRFA) and proposed to set up a production line in India to cater to India's needs as well as export these aircraft in the future. Lockheed Martin has produced fighter aircraft overseas previously in Belgium, Holland, Japan, Turkey and South Korea. It has produced over 4,600 F-16 aircraft, on which platform the F-21 is based. The selection of the F-21 MRFA by India would imply Indian industry's dovetailing into the largest fighter supply chain in the world with more than 3,200 F16s flying world-wide in more than 24 countries. The F-21 carries much of the DNA of the F-35 and like some F-16 suppliers, would have the opportunity in due course of time, to join the F-35 supply chain and support this 5th generation fighter aircraft too.

C-130J

The C-130J Super Hercules continues to be a vital asset for the Indian Air Force (IAF), demonstrating multi-mission capability with high serviceability and availability in service. The IAF uses its fleet of 12 Super Hercules to support a variety of missions, from special operations and cargo delivery to providing vital humanitarian aid. The IAF extensively used its fleet of Super Hercules for humanitarian efforts in the wake of the COVID-19 pandemic and Afghanistan crisis for transportation of relief materials, equipment and evacuation of personnel. Most recently, in a daring night operation, the IAF landed its C-130J Hercules on an unprepared runway on a dark night to rescue 121 personnel from a small airstrip in violence-hit Sudan. IAF's C-130J also holds the world record for landing at Daulat Beg Oldie, the highest landing strip in the world, in 2013.

Lockheed Martin has responded to the Request for Information (RFI) for Medium Transport Aircraft (MTA) issued by the IAF since the C-130J meets the requirements specified. The IAF has been flying the C-130Js for the last 12 years and gained immense experience both operational and technical which is irreplaceable.

MH-60R

The selection of the MH-60R by the Indian Navy has brought a substantial and important increase in maritime security in the region. The aircraft will equip the Indian Navy with immediate multi-mission capability and effectiveness. The MH-60R brings unrivalled Anti-Submarine Warfare (ASW) benefits which include nearly 1.5 times on-mission endurance time, larger search areas and greater threat detection capabilities. MH-60R's unmatched multi-mission capabilities include Special Operations/Search & Rescue (SAR), Utility/Vertical Replenishment (VERTREP), and Command and Control (C2). The aircraft's fully integrated mission system builds complete situational awareness and actionable knowledge, enabling target engagement both close-in and over-the-horizon. The MH-60R brings a mature sustainment program with overall investment being minimal from the Indian Navy. They will also benefit from the ongoing support provided for more than 300 MH-60Rs in operation around the world today. With a low transition, low technical and low operational risk, the MH-60R brings immediate operational readiness, proven experience and greater capabilities with ease.

Maintenance, Repair and Overhaul (MRO)

With the C-130J being part of the Indian Air Force (IAF) inventory and falling due for their major servicing, Lockheed Martin is actively considering setting up MRO facilities for C-130Js in India. This facility once established would be able to service not only the IAF C-130s but also those in the region. In due course of time this facility could be expanded to include all the Lockheed Martin platforms held in the Indian inventory.

Value Creation

Indian Exports

- C-130 (Net Order Purchase Value of $164 million)
- S92 (Net Order Purchase Value of $133 million)
- 100% exports for India manufacturing of aerospace structures, assemblies, components and parts.
- Light Specialist Vehicles have huge export potential as many of the global customers have demonstrated interest in such solutions. Ashok Leyland has been exploring various options of offering these vehicles to the customers in various countries especially in Middle East, Africa and South East Asia, etc.

Technical Expertise

- Aerostructures manufacturing capability for C-130 Empennage and Center Wing Box parts and components; and S92 helicopter cabins, detail parts and components.
- Design, development, and manufacturing of a complex “out of autoclave” composite bulk fuel tank, first of its kind in India.

Supply Chain

- Lockheed Martin’s Joint Ventures created an entirely new ecosystem for Aerospace & Defence including SME/MSMEs and have:
    - Enabled participation in aerospace & defence sector global supply chain.
    - Provided engineering and quality resources to assists in development of sub-tier systems and processes, global certifications and standards and global supply chain qualification.
    - TLMAL utilized engineering services from Tata group companies such as Tata Consultancy Services (TCS), Tata Technologies Limited, TATA-HAL, Tata Bluescope, Tata Automation Limited (TAL), Tata Consulting Engineers etc. Gained engineering for drawing digitization to create operation sheets, tool design and fabrication by Tata Automation Limited (TAL) and other MSMEs in India of over 400 medium and complex tools, jigs and fixtures.
    - TSAL JV developed and nurtured several suppliers in areas of tool design and fabrication, engineering, part machining, special process, logistics and detail part manufacturing.
    - TSAL with Sikorsky technical assistance has developed over 40 suppliers across all elements of aerospace detail part manufacturing. These suppliers are members of a global supply chain directly serving other products/OEMs (including CH-47, AH-64 and GE).

Employees and Skill Development

Lockheed Martin Joint Ventures have

- Created 1,200+ direct jobs since 2011
- Over 200 contract employees supporting the facility and infrastructure needs directly employed from the local population.
- Hired more than 50 young ladies under the diversity and inclusion program at the two JVs. They went through 14 months of training before joining the workforce.
- 80% of these women are employed in technical and engineering functions while 20% are in support functions.
- Developed program management, training and manufacturing technical expertise.
- Provided OEM on-site technical assistance; 15 subject matter experts at TLMAL and 10 at TSAL from engineering, manufacturing, production, supplier quality and tooling.
- Enhanced skills and expertise in special processes like cold working, dimpling detail part manufacturing skills, composites manufacturing, metal to metal bonding, and expertise including Numerical Control (NC) programming and special process.
- Achievement of the highest levels of international quality management systems certifications including AS9100C, ISO 9001 Quality, ISO 14001 Environmental Management, ISO 18001 Occupational Safety and Health, and 50001 Energy.
- Development of small and medium scale vendors resulted in indirect employment of over 1,000 people across different Indian geographies.

Defence Acquisition Procedure (DAP) 2020 Provisions Impacting Decisions

The policies related to Defence Procurement Policy, Defence Production Policy, increase in Foreign Direct Investment (FDI) in defence sector, offset guidelines etc. have been key to help the aerospace and defence industry to support military modernization and integrate Indian industry with the global supply chain. An indigenous defence industry is vital for India given its security environment and strategic objectives. Industry is deeply encouraged by the Government of India's stated focus on improving the taxation framework to stimulate investment and economic growth in India. The Government of India's defence offset policy, which has been a part of the Defence Procurement Policy, has the potential to accelerate 'Make in India' for aerospace & defence. Recently announced changes by the Ministry of Defence (MOD) related to flexibility in offset execution are encouraging.

LOCKHEED MARTIN

CONTRIBUTIONS TO SKILLING AND EDUCATION IN INDIA

Lockheed Martin has been investing in the future of India through various educational programs that aim to develop the country's workforce.



C-130J Roll-On/Roll-Off University Design Challenge

UNIQUE INSIGHT, UNMATCHED ENTHUSIASM

Through this initiative, the company **provided research grants for teams from Indian universities to work with local industry partners and mentors from India's Defence Research and Development Organization** to develop design specifications for proposed modules that could be used on a Lockheed Martin C-130J Super Hercules cargo aircraft.


Business Standard

Indian university students participate in C-130J Super Hercules roll-on/roll-off competition

iDR

Lockheed Martin Announces Winners in C-130J Roll-On/Roll-Off University Design Challenge

Diversity & Inclusion Program

REFLECT OUR VALUES OF DOING WHAT'S RIGHT

The program started at the joint venture (JV) facility in Hyderabad in 2018. It aims to **encourage women to consider and join the aerospace manufacturing workforce**. This program reaches out to villages in under-developed regions and offers board and lodging, and a safe environment for potential female apprentices to learn critical skills during their apprenticeship. Apprentices may then pursue employment at the Lockheed Martin JVs, and explore career opportunities that help to support their families.

Special feature on CNBC TV-18: Lockheed Martin's Diversity & Inclusion Program on CNBC TV 18 'The Changemakers, CSR program, highlighting impactful initiatives taken by companies/NGOs/Philanthropists in India.

‘Girls in Aviation Day’ (GIAD) initiative

HELPING THEIR ASPIRATIONS TAKE OFF…

Since 2016, Lockheed Martin has partnered with Women in Aviation International (India chapter) to **advance STEM education and expand the horizons of female students in middle and high school** to inspire future generations of scientists, technologists and innovators in India.


लड़कियों को दी एविएशन में कॅरियर की जानकारी

Riglam School

SPREADING STEMvolution

In 2022, Lockheed Martin partnered with Riglam School located in Leh, Ladakh to **upgrade the school infrastructure and promote STEM education** among the school going children of the district.

Spread a Smile India

SPREADING SMILES, ILLUMINATING LIVES

Started in 2005, **Spread a Smile India** works towards the overall improvement of one of the most vulnerable sections of the society, the destitute children that live on the streets and beg at traffic lights. Lockheed Martin's support is aimed at **introducing STEM education to these street kids**.

Paraplegic Rehabilitation Center

Besides these educational programs, Lockheed Martin **is invested in and committed to the well-being of our military community**. In line with this, Lockheed Martin has associated with the **Paraplegic Rehabilitation Center** (PRC) center for the 100% disabled ex-servicemen of the Indian Armed Forces. Lockheed Martin's contribution goes towards the rehabilitation of paraplegic/quadriplegic veteran residents.

MOOG

Complete Actuation Systems

Requirements Definition | System Design | Integration | Qualification | Production | Support

Company's Operations in India: 30+ years

I. Capacity Building

a. Through Investments

- Design & development of aircraft flight control actuators, sensors, aerospace grade electronics, test equipment systems including test software. Development & verification of flight-worthy software. Established best-in-class test facilities to qualify & certify products for aerospace applications.
- Research & development in the areas of composite materials, additive manufacturing technologies, etc.
- Moog India Technology Centre (MITC) is partnering with various suppliers in the region to develop & establish competent aerospace grade supply base to stay ahead in the market.

b. Projects Undertaken

- Working with Hindustan Aeronautics Limited (HAL) on new and upgradation of the glass cockpit for Dornier 228 aircraft.
- Working with National Aerospace Laboratories (NAL) on development of complete Avionics system for SARAS MKII.

II. Collaborations

MSMEs

- Moog India is working closely with over 50 Indian MSMEs and other establishments since 2008, to have local development & service of hydro-mechanical, electro-mechanical & electronic systems including state-of-the-art avionics.

III. Value Creation

- In 2016, Moog India took the initiative to establish an Indian chapter of the International Aerospace Quality Group (IAQG) under the Asia-Pacific Aerospace Quality Group (APAQG), called as InAQG. The aim of InAQG is to enable the Indian Aerospace and Defence industries to align with and contribute to Global Aerospace Quality Standards and the membership has now grown to over 120 companies, which includes both Indian and global OEMs.

IV. Number of Employees

- Direct employees – 250+
- Gainful employment through partners – 200+

V. Skill Development

a. Training

- Moog India partners with local educational institutes and universities for skill development, offering internship programs to young engineers. The company organizes industry visits for students to learn about aerospace technologies and gain industry insights.

b. University Partnerships

- Moog India experts visit universities and industry associations as mentors, jury members, and guest speakers, connecting academic subjects to industry applications. The company also participates in events such as Society of Automotive Engineers (SAE's) India Aerothon and Aerocon, encouraging budding engineers to showcase their talent and learn from expert mentors.

VI. Opportunities and Potential for Future including Exports from India

- Moog's technologically superior flight control actuation system on India's Light Combat Aircraft (LCA) performs reliably. The company has supplied ground equipment and simulators for HAL and other defence programs. They have also collaborated with domestic aerospace companies for testing services. Moog India has helped establish global Maintenance, Repair and Overhaul (MRO) capability centres and can support similar initiatives in India.

VII. Community Engagement Activities

- On the social front, Moog India has been deploying its corporate social responsibility (CSR) funds in various areas such as education, medical infrastructure, elderly care, women support and support to the special needs of differently abled individuals, thereby elevating the life standards of destitute and underprivileged citizens.

Moog is a designer, manufacturer, and integrator of precision motion control products and solutions. Their high-performance systems control military and commercial aircraft, satellites, and space vehicles, launch vehicles, missiles and marine systems. They are world leaders in flight control systems and critical control products for the aircraft industry. They provide premier motion and flow control solutions for the space and defence industries. Moog has over 13,000 employees globally with sales over $3 billion.

Moog's engineers have developed the capability to design and manufacture the most advanced motion control products for aerospace, defence, industrial, and medical applications – where precise control of velocity, force, acceleration, and fluid flow are critical. Their motion control portfolio has expanded to include all forms of actuation technology, sophisticated control electronics, and system software. They are positioned today on virtually every aircraft in the marketplace.






Moog is the leading integrator of precision motion control systems, and their products reflect the culture that their people embrace – a culture where the opportunity to solve a challenging control problem is always welcomed.

Innovation is how they grow as a company. They are investing in future technologies that they believe will have a great impact in industries from space, defence, aircraft, industrial, medical, and more. They are leveraging new technologies with their amazing employees to come up with groundbreaking ideas.

Moog India Technology Center

Moog India was established in 1990. With the impetus from the Moog Aircraft Group, Moog India Technology Center (MITC) was pioneered in 2008 in Bengaluru, India with a focus on research & design on aerospace. It has witnessed strong growth since then in the areas of design, development, and integration of precision motion control systems for commercial & military aircrafts, business jets and avionics hardware and software. Their facility is equipped with state-of-the-art, best-in-class infrastructure to bolster their services and delivery capabilities.

Moog India Technology Center is spread across 4 acres in Electronics City, Bengaluru. The facility houses more than 250 professionals with leading-edge engineering expertise. With significant capital investment, company is surging ahead to create further opportunities for professionals in the field of aerospace and defence.

Being one of the major design centers for Moog Aircraft Group, the company is focusing on investing it's talent pool on research and development of aerospace and defence technologies. Be it development of sensors, actuators, composite materials or flight worthy electronic components, the India Technology Center is partnering with various suppliers in the region to be ahead in the market.

Moog India has Federal Aviation Administration (FAA) conformity inspection delegation for aircraft Line Replaceable Unit (LRU) qualification programs of major Aircraft OEMs. This is a significant cost savings in terms of resources and time.

Supplier/Partners Footprint & Collaboration with MSMEs

Moog believes in connected and sustainable ecosystem for the industry as well as for the society and has established a robust supplier base and continues to develop new partners in India and surrounding regions. Moog works closely with these suppliers and has brought them up in speed and quality over a period of time. Notably, these suppliers are part of the supply bases in the local region and are serving wider industry needs.

Moog has partnered with nearly 40 aerospace suppliers in the region for Machining, Special Process, Calibration, Test Equipment, Cable Harness, Printed Circuit Boards (PCB), and other commodities. The company is associated with nearly 50 MSME suppliers as on date. Moog India

is continuously exploring options to develop suppliers for other commodities of the aircraft. This has created more than 200 indirect employments from Moog. With an intention to further bolster the growth of aerospace and defence segments in the region, Moog continuously works with suppliers and partners to improve their skill which in turn helps society.

In collaboration with their aerospace suppliers, Moog is developing complex actuation components for aerospace & defence applications. These components are used on various aircraft platforms.

Value Creation

Moog is part of various industry bodies, such as, InAQG, SAE, AMCHAM, etc. Through these associations, Moog is closely connected with industry and academia for knowledge dissemination and wider values creation. Moog has been part of the various standards bodies; creating standards for the global aerospace industry.

In 2016, Moog India took the initiative to establish an Indian chapter of the International Aerospace Quality Group (IAQG) under the Asia-Pacific Aerospace Quality Group (APAQG), called as InAQG. The aim of InAQG is to enable the Indian Aerospace and Defence industries to align with and contribute to Global Aerospace Quality Standards and the membership has now grown to over 120 companies, which includes both Indian and global OEMs.

A significant number of Moog experts have been associated with the national level events as organizers, speakers, Juries, and mentors. Moog has been sponsoring multiple events every year to support the ecosystem of the aerospace and defence industry. Moog has been associated with various universities in designing curriculum for technical courses. They have developed and built various types of science equipment and donated to technical institutes in the local region to assist students in practical learning of science and technology.

On a social front, Moog has been deploying its CSR funds in various areas such as, education, medical infrastructure, support to the special needs for physically and mentally challenged citizens, elevating life standards of the destitute and underprivileged citizens, etc.

Skill Development/Industry Academia

Moog India has actively partnered with many local institutes/universities and support in skill development of young engineers by giving opportunity to learn on the job through their short-term and long-term internship programs for graduate and post-graduate students. The company supports industry visits that helps students to understand the aerospace industry, Moog's contribution and they get to see an actual working setup, labs and overall facility tour.

Moog India's subject matter experts visit various institutes/universities and deliver guest lectures to share industry experience and expectations to connect academic subjects to industry application. Moog India employees participate as jury/guest in special events (such as Aerothon, Aerocon, etc.) that encourage budding engineers to showcase their technical talent and learn from expert mentors.

Co-Development

- Moog has collaborations with several Indian partners to provide solutions for Indian aerospace & defence market needs. Genesys Aerosystems, a Moog company, is working on many of the Indian defence programs furthering the relationship between India and U.S. on aerospace and defence technology. Moog is working closely with Indian MSMEs, HAL, NAL, and other establishments since 2018, to have local development & service of state-of-the-art Avionics.
- Working with HAL on new and upgrade of the glass cockpit for Dornier 228 aircraft
- Working with NAL on development of complete Avionics System for SARAS MKII
- Moog is proud to have associated with the prestigious LCA program since its very early days.
- Moog Actuation System on LCA has performed with great reliability. Moog has supplied multiple ground equipment and simulators for various programs of HAL and other defence bodies.
- Moog has worked with some of the domestic aerospace companies for testing services. Apart from this, Moog India has established capabilities for MROs globally and can support similar initiatives in India.

With their decades lasting relationship with Indian military programs and expanding engagements in the Asian regions, Moog sees tremendous opportunities to engage in newer areas. Moog is also open to explore engagements in the local region either directly or through any suitable partners.

RTX

COLLINS AEROSPACE | PRATT & WHITNEY | RAYTHEON


Collins Aerospace
An RTX Business
www.collinsaerospace.com

Company's Operations in India: **26 years**

I. Capacity Building

a. Through Investments
Total capex investment of $200 million across engineering and manufacturing since inception

b. Greenfield/Partnership Projects Undertaken
Investments in a greenfield factory at the Aerospace Special Economic Zone and an Engineering Testing Centre in Bengaluru

- Annual Turnover: **$470 million**
- Employment generated: **6,300+**

II. Supplier Partner Footprint

- PMI Engineering Exports Private Limited
- Titan Engineering & Automation
- Aerostructures Manufacturing India
- Sansera Engineering Limited
- Hical Technologies Private Limited
- JJG Aero Private Limited
- Wipro Enterprises Private Limited
- Aequs Private Limited
- SFO Technologies Private Limited
- Avalon Technology and Services

III. Collaborations

a. MSMEs
- Link Innovation

b. Start-ups
- Intech Additive
- Objectify Technologies

c. Incubators
- AI & Robotics Technology Park (ARTPARK)
- Indian Institute of Science (IISc)
- T-Hub

d. Innovators
- Institute of Inspiring Innovation
- Indian Institute of Science

e. Academia

- Indian Institute of Science (IISc)
- IIIT-Hyderabad
- BITS Pilani
- JNCASR

IV. Opportunity Areas

a. Research Facilities

- AR/VR, Robotics, AI/ML, Embedded Wireless, UAV

b. Aeronautics

- Designs & Engineering of Nacelle Systems

c. Value Creation

- Indian Commercial Aviation & Defence Market

V. Number of Employees

- Direct employees - 5,500+
- Gainful employment through partners - 800+
- Lives positively impacted - 85,000+

VI. Skill Development

a. Training

- Every year over 200 programs are conducted with over 3,400 employees completing the training. Spending >550 hours with an investment of more than 65 lakh

b. Research & Development

- JNCASR, IISc, NAL, CMTI, DRDO, IIT-Chennai, IIIT-Hyderabad

c. University Partnerships

- Manipal University, BITS Pilani, IISc, IIIT, Amrutha University, RV College, VIT, NITs, VTU, IITs

VII. Annual Sourcing

- $89 million

VIII. Impact on Exports

- Projected exports for 2023 at $470 million

IX. Defence Acquisition Procedure (DAP) 2020 Provisions Impacting Decisions

- Collins is incorporated as a legal entity under the Companies Act of India. With reference to the JV, they currently are a 100% RTX entity.

Enterprise Engineering Hyderabad Site

The role of Global Engineering and Technology Center GETC-I is to provide product and technology support to Collins Aerospace Business Units while delivering flawless, seamless execution in a best-cost environment. Apart from providing cost-efficient operations to reduce NRE, GETC-I also develops world-class capabilities in strategic areas aligned with the Strategic Business Units (SBU). All the SBUs being co-located under one roof provides a unique opportunity for GETC-I to cross-leverage talent and share best practices across SBUs. The sites in India provide engineering, system design, and product development services that enable shorter time to market, lower program and project life-cycle costs, and innovative solutions. Over the years, GETC-I has grown significantly in terms of both capability and capacity to assume full product ownership with increased accountability in some of the areas.

As of today, the company has a team of about 700 engineers engaged in R&D. The team continues to engage in the design of more intelligent aircraft with reduced carbon footprint, increased safety & reliability, and reduced aircraft on ground (AoG) through prognostic health management, maintenance, repair and overhaul (MRO) using the latest technologies such as AI/ML, AR/VR solutions to reduce the operational cost both in-ground and air segments. Over 515 patents & 62 trade secrets have been issued to the GETC-India team, covering inventions from all Collins SBUs and disciplines.

Employee Demographics

701 employees

Direct – 659
Indirect – 42

Actions to Support Diversity, Equity and Inclusion (DE&I) Goals

- Focused program around various themes of Diversity, Equity and Inclusion (DE&I) with external speakers, leadership messaging for both locations at Hyderabad and Bengaluru to engage employees around diversity topics.
- 2 cohorts of flight training program focused with specific topics customized for gender diversity.
- Talent acquisition initiatives on increasing gender diversity hires which stands at 35% in 2022.
- Re-empower programs to bring in talent post a career break, Mech Aura program targeted at early career diversity talent in mechanical engineering.

Focus Areas for 2023

- Generational Diversity Workshops for sensitization.
- People with Disability (PWD) – Enabling PWD focused hiring and planning employee sensitization workshops/sessions around the same.

Interior Engineering Hyderabad Site

Site Address

Collins Aerospace | Sarvottam Building |Hi-Tech City | Hyderabad, India

Key Customers

Seating Interiors: Winston Salem, Miami

Customers: Emirates, Singapore Airlines, Lufthansa, British Airways, Airbus, Boeing, Lufthansa Technik, Embraer, Gulfstream, Oman Air, Bombardier, Hawker Bechcraft, Dassault Aviation, etc.

Background Information

Interiors Hyderabad is an engineering design center and an extension of Collins Interiors Seating portfolio. A strong team of 350+ employees pioneered with great engineering capabilities and visionary leadership, it provides support to various seating products in all aspects of engineering.

Key Products

First Class Seating (FCS), Business Class, Economy Class, Center of Excellence (COE), Manufacturing and After Market Support

Mission Statement

To be an extended Engineering Excellence and Innovation Center to provide the best support and services to Collins Interiors with increased capabilities in the areas of engineering, manufacturing and certification.

Providing engineering, manufacturing and certification solutions to the seating portfolios which include all commercial seating products, monuments, galleys and furniture within aircraft interiors. Specialized in-product design and development, Innovation, Computer-Aided Design & Manufacturing, industrial design, certification and analysis. Also supports other engineering disciplines and value streams such as rapid response and product support as well.

Employee Demographics

355+ employees (as of Nov 22)

Actions to Support Diversity, Equity and Inclusion (DE&I) Goals

- Encourage girl children to engineering
- Hire more diverse candidates in 2023
- Empowering leadership team and women employees to participate in events and programs promoting growth

Northgate Site

Site Address

Collins Aerospace | Northgate | Bengaluru, India

Background Information

The role of Global Engineering and Technology Center GETC-I is to provide product and technology support to Collins Aerospace Business Units while delivering flawless, seamless execution in a best-cost environment.

Key Products Supported

Advanced Structures: Nacelles, Hydraulics, Pneumatic & Electric Actuators, Landing Gear, Wheels & Breaks, Metallic Doors, Latches, Propellers

CAS: In-Flight Connectivity, Airport Operations, Flight Planning & Scheduling, Flight Operations, Prognostics and Health Management

Interiors: Evacuation Slides, Life-rafts, Aircraft Lighting, Lavatory, Oxygen Systems, Galleys, Beverage makers, Potable Water Systems, Waste-Water Systems, Ice Protection System, Seating systems, Passenger Service Unit (PSU) and Cargo systems

Avionics: Flight Management Systems, Displays, Flight Sensors, Flight Controls Fire Protection Systems, Inflight Entertainment Systems, Hoist & Winch, Windshield Wiper Systems, Communication, Navigation, Surveillance

Power & Controls: EPS (Electric Power Systems), EACS (Environment and Airframe Control Systems), ECS (Engine Control Systems)

Mission Systems: Fuel Systems, Proximity Sensing System, Health Utility Management systems, Simulation Services & Solutions

Employee Demographics

2,758 employees

Direct – 2,241
Indirect – 517

Collins India Operations Center

Site Address

Collins India Operations Center | KIADB Aerospace Park | Devanahalli | Bengaluru, India

Key Customers

- **Boeing - 45%**
- **Airbus - 38%**
- **Bombardier/Others - 17%**

Background Information

At the Bengaluru campus in India, Collins Aerospace is shaping the future of aerospace and defence. They are expanding their footprint across the region, with homegrown talents and capabilities.

They started their journey in India, with operations for Evacuation Slides in 1997 and continued to expand their capabilities, specializing in Interiors (Lighting, Evacuation slides, Seating Systems & Water Solutions), Advanced Structures (Cargo & Actuation Systems), Avionics, and Mission Systems, to serve customers across Commercial and Military portfolios. Today they have 13 value streams spread across 3 manufacturing facilities catering to 3 Strategic Business Units (SBU).

Product & Capabilities

At the heart of their operations are a unique blend of best-in-class people, product, and process capabilities with a passion for excellence to create a world class global manufacturing facility.

All India operations sites are AS9100D certified, DGCA approved, EASA Part 21 G for Lighting (ATR) with NADCAP certified special processes. The site has achieved the India Manufacturing Excellence Award and ACE BRONZE certification.

With the unique advantage of engineering close to operations (~15 miles), combined with home grown capabilities and a strong regional supply chain to launch NPI programs, at accelerated pace with design, manufacturing, MRB authorities, the team is currently working on 45 NPI/ transition projects with earned hours of 282 K hours over the next five years from 2023-2028.

They are further expanding their capabilities to support drop ship for customers to add value to Collins network. Currently, they are working for EASA certification for MRO.

Today, they are a Center of Excellence (COE) for design, development & manufacturing of Evacuation Slides, Lighting & Passenger Service Units (PSU), Cargo, Silicone heaters and Wipers. Collins also has test and build facilities with end-to-end project management capabilities across all value streams.

Vision

Collin's vision is to be a "best value site" through consolidation of existing sites at the new state-of-the-art smart campus at KIADB Aerospace Park, expand portfolios, expand capabilities to become strategic Center of Excellence (COE) to enable India to become a world-class ecosystem

for Collins to drive profitable design & manufacturing of products. They have opportunity to further expand footprint into Maintenance, Repair and Overhaul (MRO) & defence beyond the existing.

Employee Demographics

Over 1,570 employees

Direct – 1,161
Indirect – 408

Key Recent Wins/Opportunities

- Evacuation Slide Building 1 at Site 4, KIADB Aerospace Park
  - Completed building on time and on budget despite of COVID challenges.
  - Executed B787 new products introduction and completed B737 Dupont transition.
  - Ensured smooth transition of employees from current to new site at KIADB Aerospace Park.
- Secured approval on incremental investment to consolidate sites to one campus (Site 4, KIADB Aerospace Park) & space for future transitions.
- Scored 88% in EHS Assurance Review, > 58 million hours without loss time incident.
- Implemented Zero Defect Plan (ZDP) program: Customer PPM at 74, 0 defects for last 3 years for Airbus drop shipment for evacuation systems.
- Achieved 0 major Non-Conformance across 10 quality systems and compliance audits.
- Roadmap to be a Center of Excellence in evacuation, lighting and cargo.

Actions to Support Diversity, Equity and Inclusion (DE&I) Goals

- Focused program around the various themes of diversity, equity and inclusion (DE&I) with external speakers, leadership messaging for both locations Hyderabad and Bengaluru to engage employees around diversity topics.
- 2 cohorts of flight training program focused with specific topics customized for gender diversity.
- Talent acquisition initiatives on increasing gender diversity hires which stands at 35% in 2022.
- Re-empower programs to bring in talent post a career break, Mech Aura program targeted at early career diversity talent in mechanical engineering.

Focus Areas for 2023

- Generational Diversity Workshops for sensitization.
- People with Disability (PWD) – Enabling PWD focused hiring and planning employee sensitization workshops/sessions around the same.

Corporate Social Responsibility (CSR) Initiatives

Vision:

- Make a difference in the communities that Collins live and operate in.
- Structured approach aligned with RTX's pillars with focus on rural development, sustainability & tracking of projects on weekly basis.

Inspiring Youth:

- STEM education – executed 11 projects, i.e., Girls who Code, Introduce A Girl To Engineering, scholarship support, Collins facility tours
- Setup STEM laboratories in 18 schools, 100 computers provided to 7 schools, touched ~5,000 children

Strengthening Communities:

- Rural Development – executed 2 projects, i.e., school and computer labs construction
- Skill Development – executed 4 projects, i.e., people with disability, financially disadvantaged community members and LGBT livelihood support
- Environment Sustainability – executed 2 projects, i.e., lake rejuvenation and solar electrification

Impact:

- 2022-2023: 3,945 hours from employee volunteers to touch > 85,000 lives across the state
- 2021-2022: 1,179 hours from employee volunteers to touch 2.5 million lives for COVID-19 relief efforts

Recognitions for CSR:

- **State of Karnataka -** Government of Karnataka acknowledged and recognized Collins twice in 2021 & 2022 for generous contributions towards relief efforts in tackling the COVID-19 pandemic.
- **Rotary Club, Bengaluru** recognized Collins with Teach Award in 2018 and Corporate Citizen Award in 2021 for making a difference in the lives of the stakeholders and the less privileged section of the community.

Company Brief

Raytheon Technologies is the world's largest Aerospace and Defence organization. Collins Aerospace, a Raytheon Technologies business, is one of the world's largest suppliers of aerospace and defence products and is headquartered in North Carolina, United States.

With over 5000 employees in India, Collins Aerospace is deeply committed to India's growth story and remains vested in the Indian market for the long term. We are on course for planned investments of over $200 Million in engineering and manufacturing capabilities, and hiring an additional 2000 highly skilled employees in the Indian Aerospace and Defense sector over the next 5 years.

We started our journey in India, with MRO Operations for Evacuation Slides in 1997. We continued to expand our capabilities with two manufacturing facilities specializing in Interiors (Lighting, Evacuation slides, Seating Systems & Water Solutions), Advanced Structures (Cargo & Actuation Systems), Avionics, and Mission Systems, that serve customers across Commercial and Military portfolios.

Our local presence in India includes facilities in Bengaluru (Engineering and Manufacturing) and Hyderabad (Engineering) to support our key global products and solutions. We are also committed to further developing the Aerospace ecosystem in India through our supply chain, which includes local companies.

The role of GETC-I is to provide product and technology support to Collins Aerospace Business Units while delivering flawless, seamless execution in a best-cost environment. Apart from providing cost-efficient operations to reduce NRE, GETC-I also develops world-class capabilities in strategic areas aligned with the SBUs. The sites in India provide engineering, system design, and product development services that enable shorter time to market, lower program and project life-cycle costs, and innovative solutions. Over the years, GETC-I has grown significantly in terms of both capability and capacity to assume full product ownership with increased accountability in some of the areas.

Collins continues to engage in the design of more intelligent aircraft with reduced carbon footprint, increased safety & reliability, and reduced aircraft on ground (AoG) through prognostic health management, maintenance, repair, and overhaul (MRO) using the latest technologies such as AI/ML, AR/VR solutions to reduce the operational cost both in-ground and air segments. Today we have over 3600 engineers working on groundbreaking technologies. Over 515 patents & 62 trade secrets have been issued to the GETC-India team, covering inventions from all Collins SBUs and disciplines.

At the heart of our Operations are a unique blend of best-in-class people, product, and process capabilities with a passion for excellence to create a World Class global Manufacturing facility.
We are a CoE for the Design, Development & Manufacturing of Evacuation Slides, Wipers & PDOS. We also have test and build facilities with End-to-End Project management capabilities for lighting and Cargo products.

All the India Operations sites are AS9100D certified, DGCA approved, with NADCAP certified special processes. The site has achieved India Manufacturing Excellence Award and ACE BRONZE certification.
Our vision is to be a "best value site" through the consolidation of existing sites at our new state-of-the-art Smart campus, expanding our portfolios, and setting up strategic COEs to enable India to become a world-class ecosystem for Collins and drive profitable design & manufacturing of products. Today, more than 1300 employees here are advancing our "more than 2 decades of commitment, expertise & Innovation" to lead us into the future.


Pratt & Whitney
An RTX Business
www.prattwhitney.com

Company's Operations in India: 70+ years

I. Capacity Building

a. Through Investments

- As Indian aerospace's propulsion partner for over seven decades, Pratt & Whitney is fully aligned with India's aerospace vision, investing significantly in the market. Their India Customer Training Center (ICTC) in Hyderabad, trains students from 39 airlines and 20 countries. Their India Capability Center (ICC) in Bengaluru enhances their global supply chain operations. The newly inaugurated India Engineering Center (IEC), projected to have 500+ employees, focuses on aviation advancement and sustainable propulsion solutions. They collaborate with local universities and emerging technology companies to strengthen India's capabilities. With over 300 direct employees in India, they are committed to delivering high-value services and investing in local industry.

b. Projects Undertaken

- Propulsion partner for NAL-SARAS MKI, powered by PT6A

II. Supplier Partner Footprint

- Indo-MIM
- KUN Aerospace
- Titan Engineering & Automation
- Lakshmi Machine Works
- PMI Engineering Exports Private Limited
- Magellan Aerospace
- Cyient
- Quest

III. Collaborations

a. MSMEs

- Pratt & Whitney's India Customer Training Center (ICTC) in Hyderabad, established in 2015, offers specialized training for MSMEs in aerospace manufacturing. It collaborates with the Government of Telangana and the Telangana Academy of Skills and Knowledge (TASK) on engineering student programs.

b. Start-ups

- Pratt & Whitney, in collaboration with Awiros, launched Percept, an AI-based Aircraft Engine Analysis Tool. It streamlines engine inspections, reducing time by nearly 90%, enabling faster and cost-efficient turnaround of leased engine assets. Awiros won the RTX Innovation Challenge with this idea, set to launch commercially later this year.

c. Academia

- Pratt & Whitney believes in India's potential in aerospace propulsion. Their Center of Excellence (COE) at IISc, Bengaluru, has been conducting R&D for over a decade. It focuses on advanced materials, combustion, mechanical design, and gas turbine technologies. They actively seek collaborations with leading Indian universities like IIT, Bombay and the University of Hyderabad.

IV. Opportunity Areas

a. Military Systems

- Pratt & Whitney's military engines are trusted by 34 Armed Forces worldwide, powering various aircraft types. In India, their engines drive the Boeing C-17 Globemaster IIIs and PC-7 trainers for the Indian Air Force, with PW127Gs planned for the incoming Airbus C295 aircraft. Their expertise in advanced propulsion systems is unmatched, supporting military aviation's mission readiness.

b. Maintenance, Repair and Overhaul (MRO)

- In commercial aviation, they are continuously evaluating their Geared Turbo Fan (GTF) MRO network to support the growing fleet and meet customer demand worldwide, including in India.

c. Aeronautics

- Pratt & Whitney's GTF technology has saved nearly 200 million gallons of fuel and avoided 2 million metric tons of CO_2 emissions for Indian airlines. The next generation GTF Advantage will provide additional thrust, fuel savings, and durability. It is being tested to unprecedented levels and they expect the GTF Advantage engine to be attractive to the Indian market. Pratt & Whitney is committed to sustainable growth in India and was recognized with the Sustainable Technology Award by the Ministry of Civil Aviation, Government of India. They have also worked with the ministry, academia, and industry on encouraging use of Sustainable Aviation Fuels (SAF) in India. They are developing hybrid-electric propulsion technology for regional aircraft, aiming for a 30% fuel efficiency improvement.

V. Number of Employees

- Direct employees - 300+
- Gainful employment through partners - 1,000+

VI. Annual Sourcing

- $500 million in engineering services sourcing in past two decades
- $55 million in parts and machining in last decade
- Anticipate reaching $150 million annually by 2030

VII. Community Engagement Activities

- Pratt & Whitney continues to power sustainable growth in India, saving 200 million gallons of fuel and 2 million metric tons of CO_2 emissions. Their community outreach includes STEM labs in partnership with United Way Bengaluru and supporting Indian nonprofits for E-STEM education programs and providing STEM scholarships to deserving engineering students from underprivileged backgrounds. They have collaborated with Engineers Without Borders since 2011, opening 119 e-Learning Centers and working on projects like “Grey Water Filtration” to provide clean water to underprivileged students. They are also working with Indian non-profits Bhumi and Haritadhara Research Development and Education Foundation (HRDEF) through their global E-STEM Award grants. In 2022-23 their community outreach efforts have positively impacted more than 6,000 lives in India.

A Seven-Decade Legacy of Powering Indian Aviation

Pratt & Whitney is a world leader in the design, manufacture and service of aircraft and helicopter engines, and auxiliary power units. They have a proud history of supporting India's aviation growth for more than seven decades, from Indian Air Force's iconic Wasp powered DC-3 'Parshuram,' to Air India's first fleet of Boeing 707 in the 1960s powered by their JT3D engines. In mid 2000s, they ushered in the new age for India's private aviation with their V2500 engines on IndiGo's 100 A320ceo family aircraft, and these engines continue to power Indian airlines. Pratt & Whitney is a business unit of RTX. With an Indian workforce of more than 5,000 people, RTX is one of the country's largest exporters in aerospace and defence.

Products and Customers

Today, IndiGo operates more than 140 Airbus A320neo family aircraft with Pratt & Whitney GTF™ engines, which deliver industry-leading sustainability benefits and world-class operating costs, thanks to their unique geared fan architecture. Indian airlines were first to adopt the GTF engine in 2016. GTF-powered aircraft provide lower fuel consumption and CO_2 emissions by 16-20% per trip, and up to 25% per seat. Globally, GTF engines have helped airlines fly more passengers, farther, on less fuel, saving a billion gallons (nearly four billion liters) of fuel and ten million metric tons of CO_2. The next generation GTF Advantage will provide additional thrust, fuel savings, and durability. It is being tested to unprecedented levels and they expect the GTF Advantage engine will be attractive to the India market.

With over 600 aircraft powered by more than 1,500 turboprops, turboshaft, turbofan engines and Auxiliary Power Units (APU), they have one of the largest footprints of any engine maker in the country.

When it comes to military aviation, Pratt & Whitney's sizeable fleet and growing suite of engine sustainment solutions support the Indian Air Force's mission readiness. Their F117 engines powers Indian Air Force's (IAF) 11 Boeing C-17 Globemaster IIIs, while the IAF's 75 PC-7 trainers are powered by the iconic PT6A engine. Twin PW127Gs will power IAF's incoming 56 Airbus C295 transport aircraft.

Investing in India's Aerospace Growth

Pratt & Whitney is aligned with India's aerospace vision and their investments represent their commitment to this key growth market. Their India Customer Training Center (ICTC) in Hyderabad, one of three such centers outside the U.S., provides engine maintenance & performance training to customers from India and the world. At ICTC they have trained more than 2,700 students across 39 airlines and 20 countries.

In 2021, Pratt & Whitney invested in India Capability Center (ICC) in Bengaluru. The ICC is a world-class global supply chain operations and support center, focusing on supply chain operations, procurement and digital analytics and employs 200+ analysts and data scientists to augment their global supply chain. The ICC continues to grow in scale and scope.

The India Engineering Center (IEC), which was inaugurated in January 2023, will continue to tap into India's robust talent pipeline, as Pratt & Whitney looks to leverage the engineering skills

India's workforce offers – skills that are invaluable for the future of aviation as they continue to advance fielded products like the GTF and develop next generation sustainable propulsion solutions.

Beyond the $40 million+ in financial investment in both the IEC and co-located ICC, they are collaborating with local universities and investing in emerging technology companies to further enhance India's homegrown capabilities.

Their R&D center at IISc, Bengaluru is part of a decade long partnership with the institution and conducts research in advanced materials and combustion. The team at center also identifies and monitors new collaborations and projects with leading universities in India, including IIT, Bombay and University of Hyderabad.

Pratt & Whitney's over 300 direct employees across the country are committed to building capabilities and delivering high value services to our customers. They intend to harness more of the talent inherent to India, growing the business while investing in local industry – as part of broader RTX vision for India.

Major Presence in India

Pratt & Whitney's corporate headquarters are located at Aerocity, New Delhi

India Engineering Center, Bengaluru (2023)*

The projected 500+ engineers at India Engineering Center (IEC) will carry out work across aero and mechanical and control systems for various products in Pratt & Whitney's commercial engines portfolio including development, field support & sustainment.

India Capability Center, Bengaluru (2021)*

A world-class India Capabilities Center (ICC), with over 200 supply chain experts, that powers Pratt & Whitney Canada's global supply chain operations.

(*Total Investment of IEC & ICC $40 million)

India Customer Training Center, Hyderabad (2015, Investment NA)

A state-of-the-art India Customer Training Center (ICTC) in Hyderabad, provides specialized trainings on Pratt & Whitney engines to customers from over 39 airlines and 20 countries.

Research & Development Center, IISc Bengaluru (2012, Investment NA)

Pratt & Whitney's Research & Development Center at the Indian Institute of Science (IISc), Bengaluru engages in advanced research in the areas of materials, combustion and mechanical design.

Designated Engine Maintenance

Taj Air designated maintenance facility, Mumbai

Field Representatives Present in

1. Delhi
2. Mumbai
3. Hyderabad
4. Bengaluru

Co-Development/Support to Indigenous Defence Programs

NAL-SARAS MKI powered by PT6A

Pratt & Whitney has been an integral propulsion partner for the NAL-SARAS MKI with PT6A turboprop engine. Pratt & Whitney Canada and National Aeronautical Laboratory (NAL) have been working together for more than a decade on the development of NAL's multirole light transport aircraft, SARAS.

Netra AEW&CS based on Embraer E145J powered by APS1000 APUs

Pratt & Whitney's Auxiliary Power Units (APU) also power India's Netra Airborne Early Warning and Control System (AEW&CS), that has been indigenously modified from the Embraer E145J. The APS1000 APUs provide Netra's ground power and bleed air, and power its critical mission equipment.

Investing in Innovation and Supply Chain

Pratt & Whitney has been working with Indian suppliers for over a decade in machining and assembly including leading aerospace suppliers such as Indo-MIM, KUN Aerospace, Titan Engineering & Automation, Lakshmi Machine Works, PMI Engineering Exports and Magellan Aerospace. They have sourced nearly $55 million in the past 10 years from India. They have also sourced over $500 million in Engineering Services into India over the past 2 decades – from suppliers like Cyient, Quest, Accenture, and Wipro. They expect to expand their sourcing in India – and anticipate reaching nearly $150 million annually by 2030.

Collaborations

MSME & Skilling Partnerships

The India Customer Training Center (ICTC) in Hyderabad was established in 2015 and represents one of their first major investments in-country. It is only the third such Pratt & Whitney training facility in the world, along with the China Customer Training Center and the Customer Training Center in East Hartford, Connecticut. The India CTC also organizes specialized training targeted towards MSMEs looking to grow their business in the aerospace manufacturing sector. They also work with state support from the Government of Telangana and have a MOU with Telangana Academy of Skills and Knowledge (TASK) and have collaborated on multiple programmes for engineering students.

Start-ups and Innovations

Pratt & Whitney announced the launch of Percept – an advanced AI-based Aircraft Engine Analysis Tool in collaboration with Indian start-up Awiros. Percept is a computer vision product that operates on top of the Awiros Video Intelligence Operating System (OS). Its cloud-based interface allows users to capture images and videos of aircraft engines on their mobile devices and receive real-time responses on parts availability. This helps enable faster and cost-efficient turnaround of leased engine assets. Instead of an inspector having to examine an engine and check part-by-part, Percept automates this inspection, and reduces time taken by nearly 90%.

Awiros was selected as the winner of the RTX Innovation Challenge. The Innovation Challenge was launched in September 2019 with over 60 Indian and global startups in Computer Vision, AI, and Machine learning (ML) domains. The teams proposed solutions to optimize and automate aircraft engine inspections with reduced human interventions. Awiros' idea was evaluated through 2020-21 and is expected to be launched commercially later this year.

Academia

Pratt & Whitney strongly believes in India's potential to contribute significantly towards next-gen aerospace propulsion technologies. They have had a Research & Development (R&D) presence in-country for more than a decade – through their Center of Excellence (COE) at the Indian Institute of Science (IISc), Bengaluru.

The center is engaged in state-of-the-art research in the areas of advanced materials, combustion and mechanical design. The center also expanded its capabilities to include research in advanced gas turbine technologies. The team at center also identifies and monitors new collaborations and projects with leading universities in India, including IIT, Bombay and University of Hyderabad.

Investing in Sustainable Aviation and Communities

Pratt & Whitney is excited about powering sustainable growth in India today and well into the future, and was recognized with the Sustainable Technology Award by the Ministry of Civil Aviation, Government of India.

Sustainability is a global imperative. This is a fact that is recognized by the Indian government and local industry who are working together to make connectivity affordable and sustainable.

Since 2016, the GTF has saved operators 1 billion gallons of fuel and 10 million metric tons of CO_2 globally. Since India was an early adopter in this technology, it accounts for about 20% of these savings. Pratt & Whitney has saved nearly 200 million gallons of fuel for airlines like IndiGo & GoFirst. At current ATF (Air Turbine Fuel) prices – that is more than $1 billion saved since entry into service. They have also avoided 2 million metric tons of CO_2 emissions.

Sustainable solutions are already being developed for regional aircraft – like the recently announced hybrid-electric propulsion technology and flight demonstrator program. The program targets a 30% improvement in fuel efficiency compared to today's most advanced turboprops.

They are working with De Havilland Aircraft of Canada Limited to integrate this hybrid-electric technology into a Dash 8-100 flight demonstrator. Technologies like these may well be introduced into regional airline services by late 2030s – and given India's thrust on Ude Desh ka Aam Naagrik (UDAN) and regional connectivity – there is an opportunity for India to take the lead in the future.

Pratt & Whitney's community outreach programs focus on inspiring the next generation, empowering employees to positively impact their communities and emphasizing innovation and technology. In 2022-23 P&W's community outreach efforts have positively impacted more than 6,000 lives in India.

Pratt & Whitney has partnered with United Way Bengaluru to open two STEM labs locally. The labs are expected to support and inspire learning in science and mathematics for up to 1,000 students across two different local schools. In 2023, they also provided STEM based scholarships for more than 40 underprivileged engineering students.

In addition, two Indian nonprofits were recipients of Pratt & Whitney E-STEM Awards in 2022. The E-STEM Awards support nonprofits with innovative E-STEM education programs that build the skills and capacity for students ages 11-18 to use science, technology, engineering, and mathematics to address environmental challenges. In 2022, the two awardees from India were:

- Bhumi, an NGO based in Chennai, Tamil Nadu won an E-STEM award of $15,000
- Haritadhara Research Development and Education Foundation (HRDEF) from Uttarakhand won a grant of $5,000

Pratt & Whitney has also been working with Engineers Without Borders in India since 2011. Till date, they have supported the opening of 119 e-Learning Centers. These centers provide students in underprivileged areas with access to computers and STEM-based educational programming.

They are also working with EWB on projects like "Grey Water Filtration," which was completed in late 2022. This project supported the Kasturba Gandhi Balika Vidyalaya (KGBV) which is a residential girls' school where 230+ girls live. The financial support ensured these young girls had access to clean water.

Opportunity Areas

Pratt & Whitney has more than 7,000 military engines in service with 34 armed forces around the world, powering tactical, strategic, mobility and rotary aircraft. As makers of the world's first operational fifth-generation engine (F119) for the U.S. Air Force (USAF) F-22 and the world's most advanced fighter engine (F135) for the F-35, their history and expertise with advanced propulsion systems is unmatched in the world.

When it comes to military aviation, Pratt & Whitney's sizeable fleet and growing suite of engine sustainment solutions support the Indian Air Force's mission readiness. Their F117 engines power Indian Air Force's (IAF) 11 Boeing C-17 Globemaster IIIs, while the IAF's 75 PC-7 trainers are powered by the iconic PT6A engine. Twin PW127Gs will power IAF's incoming 56 Airbus C295 transport aircraft.

C-390 for the Indian Air Force

The IAE V2500-E5 engine provides 31,000 pounds of reliable thrust with efficient, clean power for the C-390 Millennium multi-mission transport aircraft, developed by Embraer. The C-390 has the capability to perform a variety of missions, including cargo and troop transport, aerial refuelling and disaster relief. C-390 can be rapidly deployed to respond to emergency situations and humanitarian relief missions triggered by floods, forest fires, earthquakes, or COVID-like situations.

The C-390 powered by the robust and reliable V2500 series engine has already demonstrated its capability of successful take-offs and landings on unpaved runway, which, is imperative to the IAF's requirement given the diverse terrains IAF operates from. In addition, the C-390 can operate from an altitude of 14,000 ft which is one of the critical requirements of the IAF while operating from the high-altitude regions in the North.

Maintenance, Repair and Overhaul (MRO)

In commercial aviation, Pratt & Whitney is expanding it's MRO capacity and constantly evaluating the size and shape of the GTF MRO network to ensure that it can support the growing fleet and customer demand – in India and the rest of the world.

GO BEYOND

PRATT & WHITNEY INDIA FAST FACTS | 2023

Pratt & Whitney has powered aircraft in India for more than seventy years, starting with the Wasp-powered Douglas DC-3 in 1946. Then in 1960s, Air India took delivery of its first JT3D-powered Boeing 707. Today, we power over 700 of the nation's aircraft in passenger transport, security and defence, emergency medical services and more. We're committed to the growth of aviation in India, by investing in engineering, R&D, supply chain, training and giving back to the communities in which we operate.

FLEET SUMMARY

1,500+
ENGINES & APUs

700+
AIRCRAFT

135
OPERATORS

TOP FEATURED AIRCRAFT

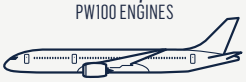
COMMERCIAL AND REGIONAL AVIATION

AIRBUS A320NEO FAMILY
PRATT & WHITNEY GTF™ ENGINES
APS3200 AUXILIARY POWER UNIT

AIRBUS A320CEO FAMILY
V2500 ENGINES
APS3200 AUXILIARY POWER UNIT

DE HAVILLAND DASH 8-400
PW150 ENGINES

ATR 72/42
PW100 ENGINES



BOEING 787
APS5000 AUXILIARY POWER UNIT

HELICOPTERS, BUSINESS AND GENERAL AVIATION

BEECHCRAFT SUPER KING AIR
PT6A ENGINES

BELL 412/SP/HP/EP/EPI
PT6T TWIN-PAC® ENGINES

LEONARDO AW109
PW200 ENGINES

PILATUS PC -12
PT6A ENGINE

CESSNA CARAVAN FAMILY
PT6A ENGINE

SECURITY AND DEFENCE AVIATION

BOEING C-17 GLOBEMASTER III
F117 ENGINES

PILATUS PC-7 MARK II
PT6A ENGINE

BOEING 737-200
JT8D ENGINES

AIRBUS C-295
PW127G ENGINES

FEATURED ENGINE: PRATT & WHITNEY GTF™ IN INDIA

200M+
GALLONS OF FUEL SAVED

2M+
METRIC TONNES OF CO_2 AVOIDED

$1B+
IN FUEL SAVINGS TO AIRLINES*

DATA AS OF FEB 2023

*Calculated as per ATF prices as on Feb 1, 2023

prattwhitney.com

GO BEYOND

PRATT & WHITNEY INDIA FAST FACTS | 2023

P&W GLOBAL SUSTAINABILITY VISION

MINIMIZE OUR ENVIRONMENTAL FOOTPRINT

REDUCE LIFECYCLE IMPACTS OF OUR PRODUCTS & SERVICES

ENRICH LIVES OF OUR EMPLOYEES AND OUR GLOBAL COMMUNITY

TAILOR-MADE SERVICES

MAINTENANCE PROGRAMS
ENGINEWISE™ MAINTENANCE
ENGINEWISE™ MATERIALS
FLEET MANAGEMENT™ PROGRAM (FMP™)
FLEET SERVICE PLAN (FSP)
EAGLE SERVICE™ PLAN (ESP™)

DIGITAL ENGINE SERVICES
ENGINEWISE™ INTELLIGENCE
FAST™ SOLUTION
EFAST™ SOLUTION
OIL ANALYSIS TECHNOLOGY
ENGINE HEALTH MONITORING

OTHER SERVICES
SMART MAINTENANCE SOLUTIONS
SALES, RENTALS & EXCHANGES
PARTS SALES & MAINTENANCE
CERTIFIED PRE-OWNED (CPO)
CUSTOMER TRAINING

MAJOR PRESENCE IN INDIA

CORPORATE HEADQUARTERS
Pratt & Whitney's corporate headquarters are located at Aerocity, New Delhi.

INDIA CUSTOMER TRAINING CENTER
A state-of-the-art India Customer Training Center (ICTC) in Hyderabad, that provides specialized trainings on our engines to customers from over 20 nationalities.

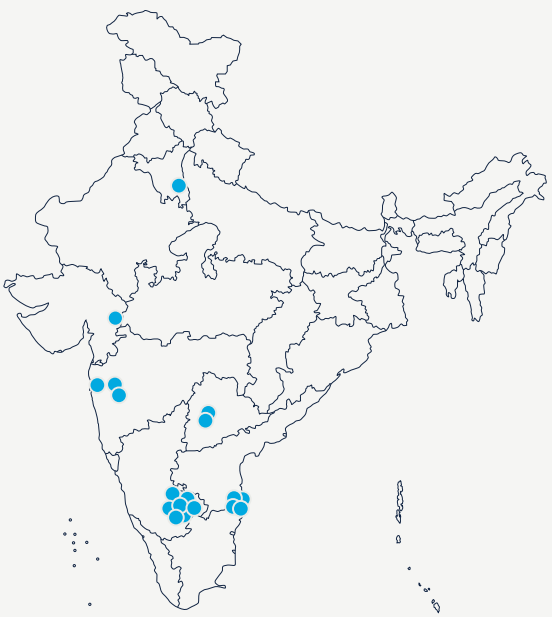
INDIA ENGINEERING CENTER
The projected 500+ engineers at IEC will carry out work across aero and mechanical and control systems for various products in Pratt & Whitney's commercial engines portfolio including development, field support & sustainment.

INDIA CAPABILTY CENTER
A world-class India Capabilities Center (ICC) that powers Pratt & Whitney Canada's global supply chain operations.

INDIA R&D CENTER
Our Research & Development Center at the Indian Institute of Science (IISc), Bengaluru that engages in advanced research in the areas of materials, combustion, and mechanical design.

70+
YEARS IN INDIA

18
LOCATIONS



ENGINE MAINTENANCE
Taj Air designated maintenance facility, Mumbai

FIELD REPRESENTATIVES
Delhi
Mumbai
Hyderabad
Bangalore

DATA AS OF FEB 2023


Raytheon
An RTX Business
www.rtx.com

Company's Operations in India: 28 years

I. Capacity Building

- Undertaken many defence projects
- Raytheon has executed 17 acquisition projects to include 12 via Foreign Military Sales (FMS) and 5 via Direct Commercial Sales (DCS) route

II. Supplier Partner Footprint

- VEM Technologies Private Limited
- Tata Advanced Systems Limited
- ASTRA Microwave Private Limited
- SAMTEL Private Limited

III. Opportunity Areas

- Military systems: Yes
- AI, Cyber & Space: Yes
- Aeronautics: Yes
- Rotary Mission Systems: Yes
- Missiles systems: Yes

IV. Number of Employees

- Direct employees - 3

V. Annual Sourcing

- Approx. $10 million

VI. Defence Acquisition Procedure (DAP) 2020 Provisions Impacting Decisions

Indian entities of the U.S. OEMs have substantial annual turnovers and are employing several thousand Indians.

Definition of "Indian vendor": The definition of Indian company as stated at Para 20 of Part-I of the DAP 2020 is at variance with the definition of the Indian company in the other policies of Government of India. There is need for alignment with the consolidated FDI policy circular of 2020 which defines an 'Indian Company' as a company incorporated in India under the Companies Act, as applicable (para 2.1.27 of the FDI Policy circular issued in October 15, 2020).

There has been no change (vis-à-vis DPP 2016) in the definition of "Indian vendor" for categories including Buy (Indian), Buy & Make (Indian), Buy (Global-Manufacture in India) and Buy (Global). However, for the remaining categories i.e. Buy Indian (IDDM), Make I, Make II, Development cum Production Partner (DcPP) through Design and Development (D&D) and strategic partnership, the DAP 2020 now requires an Indian vendor to comply with two additional conditions:

Ownership of the Indian entity by resident Indian Citizen(s): A company is classified as 'owned' by the Indian residents where the capital exceeding 50% is 'owned' (directly or beneficially) by Indian company/citizen(s).

Control of the Indian entity by resident Indian Citizen(s) as defined in Companies Act 2013: In the notification 4 (2020 series) issued by the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry, Government of India, Foreign Direct Investment (FDI) limit in defence manufacturing under automatic route has been raised from 49% to 74%.

The notification for hike in FDI threshold and changes in the definition of Indian vendor, makes it is clear that for procurement programs under the categories of Buy (IDDM), Make I, Make II, DcPP through D&D and strategic partnership, the FDI is restricted to 49%, but for the other categories i.e. Buy (Indian), Buy & Make (Indian), Buy (Global-Manufacture in India) and Buy (Global), the hiked FDI threshold of 74% shall apply.

Implications: The wholly/partly owned subsidiaries of U.S. companies, registered in India, do not qualify for programs under Buy Indian (IDDM), Make I, Make II, Development cum Production Partner (DcPP) through D&D and strategic partnership categories, since the FDI is above 49%.

Raytheon
An RTX Business

Raytheon Company Brief

Raytheon brings together the best minds, systems, and capabilities to create next-generation solutions that are smarter, faster and better than previously thought possible. At Raytheon, the foundation of everything is rooted in their values and a higher calling – to help the nation and allies defend freedoms and deter aggression. They bring the strength of more than 100 years of experience and renowned engineering expertise to meet the needs of today's mission and stay ahead of tomorrow's threat. The team solves tough, meaningful problems that create a safer, more secure world.

Raytheon has 55,000 employees, including 28,000 engineers in 58 countries with an annual revenue of $25 billion.

Raytheon in India

Raytheon has more than two and a half decades of partnerships in India and is postured to expand in-country co-development, co-production, and global supply chain sourcing, to help grow India as an international supplier. Raytheon is working to provide a variety of defensive capabilities to the Indian Armed Forces to include Integrated Air and Missile Defence, Naval undersea technologies, precision munitions, air platform sensors and modernization payloads, Intelligence, Surveillance and Reconnaissance (ISR) and Wide Area Surveillance solutions. Raytheon's solutions are well respected and aligned with the customer needs.

Capabilities

Air

Raytheon provides the United States and international partners with the combat power and technology needed to complete the direct attack, standoff and strike missions necessary to dominate the air and own the skies.

Land

From shoulder-fired weapons to extended-range precision munitions, their systems deliver a decisive edge on the battlefields of today and tomorrow.

Sea

Raytheon provides advanced maritime sensors and precision weapon solutions to the U.S. Navy and international partners.

Space

Raytheon provides end-to-end space solutions – from ground control systems to on-orbit sensors – to keep customers informed and ahead of the threat.

Cyber

Raytheon delivers cybersecurity and intelligence solutions for government agencies, businesses, and organizations. They protect the most critical information, systems and operations with breakthrough technology and world-class talent.

Integrated Air & Missile Defence

Raytheon has developed, and continues to advance, a portfolio of sensors, command and control systems, and effectors designed to detect and defeat complex threats across the battlespace – from “mud to space.”

Strategic Missile Defence

Raytheon provides the U.S. Missile Defense Agency and allies around the world with advanced technologies as part of a layered defence.

Advanced Technology

Raytheon collaborates with research and development agencies in the U.S. Department of Defense and with top research institutions to solve their most difficult challenges by rapidly developing and deploying solutions that overmatch adversaries.

smiths

PIONEERS OF PROGRESS

IMPROVING OUR WORLD THROUGH SMARTER ENGINEERING

At Smiths we have never stood still because our purpose drives us forward. It honours our legacy of innovation and inspires us to make the world better. As Pioneers of Progress, we're answering the changing needs of our customers and society through smarter engineering, just like we've always done.

To find our more on our purpose visit:
https://www.smiths.com/brandcentre

Company's Operations in India: **27 years**

I. Capacity Building

Co-Development

- Recently signed an MOU with Bharat Electronics Limited (BEL) for High Energy Scanners
- Employment created – 350 (in 2022)
- Employment generated – 320 (in 2022)

II. Locations of Projects

- Major offices in Gurugram, Pune and Bengaluru
- STS Aerospace plant, John Crane plant, Digital Lab in Bengaluru and a customer experience and training centre in Gurugram. Additionally there is a service centre for John Crane in Pune.
- Presence across 50 remote sites pan India (including ports, metros & airports)

III. Opportunity Areas

- Military systems
- Chemical detectors
- Research facilities (Experience Centre in Gurugram and Digital Lab in Bengaluru)
- Service Delivery

IV. Value Creation

- Hose assemblies (Swaging & Crimping)
- Bending
- Pressure Testing bench
- Oxygen Cleaning
- After sales & service
- Ensuring safety and security of passengers across all major airports in India, urban environments, ports and borders

V. Number of Employees

- Direct employees – 1,100+
- Lives positively impacted – benefited and enhanced about 1,500+ lives including in North East India via CSR initiatives

VI. Skill Development

a. Training

- Global training and customer experience facility for Smiths Detection
- Smiths focus on training and development via internal & external interventions like Paathshaala (employees sharing their skills), iRise (for first time managers), and Accelerate (leadership development), amongst many others

b. University Partnerships

- Partnerships with 13 universities across India to source early career talent
- Partnered with MIT, Pune for skill building

VII. Defence Acquisition Procedure (DAP) 2020 Provisions Impacting Decisions

- Make in India due to lesser number of quantities and supply chain challenges

VIII. Opportunities and Potential for Future including Exports from India

- Under discussions with the Government of India

Smiths Group plc

Smiths Group plc, with its rich legacy of over **171 years,** has been creating new opportunities, supporting customers and communities, and improving lives and livelihoods in India for almost three decades now. With its focus on smarter local engineering and manufacturing, Smiths Group has been a key ally to the country's **'Make in India'** initiatives. Over the years, Smiths India has been strengthening its commitment by growing investment, fostering innovation, enhancing skill development, and augmenting it's best-in-class manufacturing infrastructure via its businesses that cater to general industry, energy, safety, security, aerospace and defence industries.

Being a responsible corporate, Smiths India is supporting education of children, including locations in remote corners of North-eastern India. The Group has also supported STEM learning via mobile science labs and has built computer labs in Delhi, Mumbai, Pune, and Bengaluru cities.

During the pandemic, the Smiths Group's CSR supported the communities in India by donating ration kits, and PPE kits along with awareness drives about preventing the pandemic. Smiths India also setup a 250-litre oxygen plant to support patients during pandemic's secondwave. They have also aligned their processes and operations to the Group's commitment to Net Zero Greenhouse Gas Emissions by 2040.

From 2020 onwards, the organization has generated about 250+ new jobs in India, focused on diversity hiring with a working mandate that necessitates 30% of all open positions within the organization to be filled in by women candidates. In 2020, they also launched a Career Returner Programme focusing on female restarters and have on-boarded 15 female restarters. Some marquee engineering innovations driven from India for various divisions of Smiths Group are:

FLEXTEK

A specialized engineered products division with a factory at Bengaluru is strategically placed to support the Indian Armed Forces and Hindustan Aeronautics Limited (HAL) Make in India products, support obsolescence issues and provide local manufacturing for foreign Original Equipment Manufacturer (OEM) operating from India. The division is a key partner in India's Aerospace programs with its precision products portfolio.

Smiths Detection

Supports Ministry of Civil Aviation (MOCA), Ministry of Defence (MOD), Ministry of Home Affairs (MHA), Department of Logistics, and private airports to effectively screen goods, baggage, cargo and other items. This division is also a world leader in Chemical and Biological technology and is engaging with Indian Ministry of Defence (MOD)/Defence Research and Development Organization (DRDO) to build local capabilities though Make-2 initiative of the Defence Acquisition Procedure-2020. The early identification of SARS Cov-2 (Covid-19) is also done through its equipment BioFlash which is now available in India.

Smiths Interconnect

Works closely with Indian Space Research Organisation (ISRO), Vikram Sarabhai Space Centre, Hindustan Aeronautics Limited (HAL), Bharat Electronics Limited (BEL), Bharat Heavy Electricals Limited (BHEL) and leading private customers to provide specialized engineered products for their projects. The division has recently launched its rail portfolio in India to support the country's next-gen Train Manufacturing Programs. A Make-in-India coupler has also been launched in 2022 to serve the market.

John Crane

John Crane, a 100+ years old division, has been in India since 1995. This division has a large manufacturing unit at Bengaluru and supports both Indian as well as global customers from the oil & gas sectors with its sealing technology product line. John Crane is also supporting India's Energy Transition initiatives through its cutting-edge technologies.

Smiths Group is also strengthening its position by harboring Global Hubs from India that are now supporting its global aspirations and operations. Its growing footprint in India, expanding employee base, accelerated business growth coupled with Engineering hub, Business Shared Services hub, and Digital Technology Development Center, have plotted India as a lucrative region for the Group.

smiths

A leading technology group driven by innovation

WHO WE ARE

Smiths is a world leader in the practical application of advanced technologies, creating transformative products and services that make a safer, more efficient and better-connected world.

Smiths Group in India has a 25+ year history. With around 1,000 employees across the country, the group operates from offices in Gurugram (close to Delhi), Mumbai, Pune and Bangalore. In Pune and Bangalore there are Engineering hubs and Business Shared Services hubs for the global Smiths Group, and in Bangalore one of Smiths Group's divisions – Smiths Detection – has also established its digital technology development centre.

OUR MARKETS

- SECURITY & DEFENCE
- ENERGY
- GENERAL INDUSTRY
- SPACE & AEROSPACE

OUR BUSINESSES

John Crane
Established in 1995
Mission-critical solutions for global energy and process industries.

Smiths Detection
Established in 2002
Detection and screening technologies for the identification of safety and security threats.

FLEX-TEK
Established in 2008
Innovative components to heat and move fluids and gases.

Smiths Interconnect
Established in 2019
Solutions for high-speed, secure connectivity in demanding applications.

Trimble®

Company's Operations in India: 24 Years

I. Capacity Building

a. Through Investments
- Rs 306.10 Cr. (multiple entities)

b. Research & Development
- Rs 211 Cr. (R&D Centre in Chennai)

c. Joint Ventures
- Global JVs with Caterpillar & Nikon with portion of R&D activity being carried on in India

- Annual Turnover – Rs 530 Cr.
- Employment generated – 2,000

II. Supplier Partner Footprint

- Flextronics
- Violin
- BS Technetronic

III. Collaborations

a. MSMEs
- Yes

b. Academia
- Technology Labs at IIT, Chennai and IIT, Powai. Trimble Geospatial technology deployed at multiple IITs, other engineering colleges and State Technical Education establishments throughout the country.

IV. Opportunity Areas

a. Military Systems
- Trimble has in the last two financial years supplied to the Ministry of Defence (MOD), Defence PSUs and Defence Research Organisations directly, through its dealers and multiple System Integrators, Private Sector Defence manufacturers including but not limited to Tata, Kalyani and others for Global Navigation Satellite System (GNSS) receivers & solutions worth over $20 million. Similar opportunity remain viable in the next few years as well.

b. AI, Cyber & Space
- Potential for supplying solutions to various Department of Space entities for monitoring and for applications pertaining to GNSS/NAVIC.

c. Maintenance, Repair and Overhaul (MRO)
- Trimble India is providing after sales & services as per contractual terms for defence contract and in future they look forward to strengthening and enhance their facility.

d. Research Facilities

- Trimble Information Technologies is their R&D support centre in India which supports Trimble Global Engineering operations.

V. Value Creation

- Trimble provides high end technologies and support services. Trimble is also supporting various 'Make in India' defence programs with NAVIC GNSS boards and receivers.

VI. Number of Employees

- Direct employees – 1,200
- Gainful employment through partners – 800
- Lives positively impacted – 8,000

VII. Skill Development

Training

- Yes

Research & Development

- Yes

University Partnerships

- Trimble has partnerships with various IITs. Trimble solutions are actively deployed on supporting the National Centre for Geodesy (NCG) at IIT, Kanpur and its satellite centres. Additional partnerships are in the process of being signed.

VIII. Annual Sourcing

- Rs 129 Cr. (Approx. $15.5 million)

IX. Impact on Exports

- Approx. $0.5 million per year of GNSS receivers and accessories

X. Defence Acquisition Procedure (DAP) 2020 Provisions Impacting Decisions

- Not directly at the moment however, going forward MAKE II provisions are likely to have an impact.

XI. Opportunities and Potential for Future including Exports from India

- Current exports out of India expected to increase. In addition, Trimble is actively exploring opportunities and feasibility to manufacture various GNSS solutions in India for India and the world.

About Trimble

Trimble is a global technology company that takes on the world's biggest challenges so customers can unlock a better, faster, safer and greener future.

THE INDUSTRIES WE SERVE

Innovation across industries

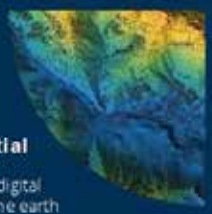
We exist to **empower** our customers so they can **improve how we live, eat and move** for a better quality of life and a better future.

Construction

Building tomorrow's infrastructure

Transportation

Delivering the goods of commerce



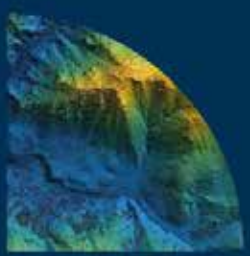
Geospatial

Building a digital model of the earth

Agriculture

Enabling a safe and reliable food supply

THE INDUSTRIES WE SERVE



Construction

- >$1 trillion of capital funding managed with our technology
- >$500 billion of construction project value managed through our ERP
- Majority of ENR 400 as customers

Geospatial

- 15 billion acres of habitable (physical) land on earth that gets digitized
- Hundreds of thousands of instruments in the field

Transportation

- >90% of top 200 trucking companies in North America
- >30% of capacity in North America moves through our solutions
- Managing millions of vehicles and assets

Agriculture

- >180 million acres of farm
- >400,000 displays in the field
- >145,000 users of our correction services

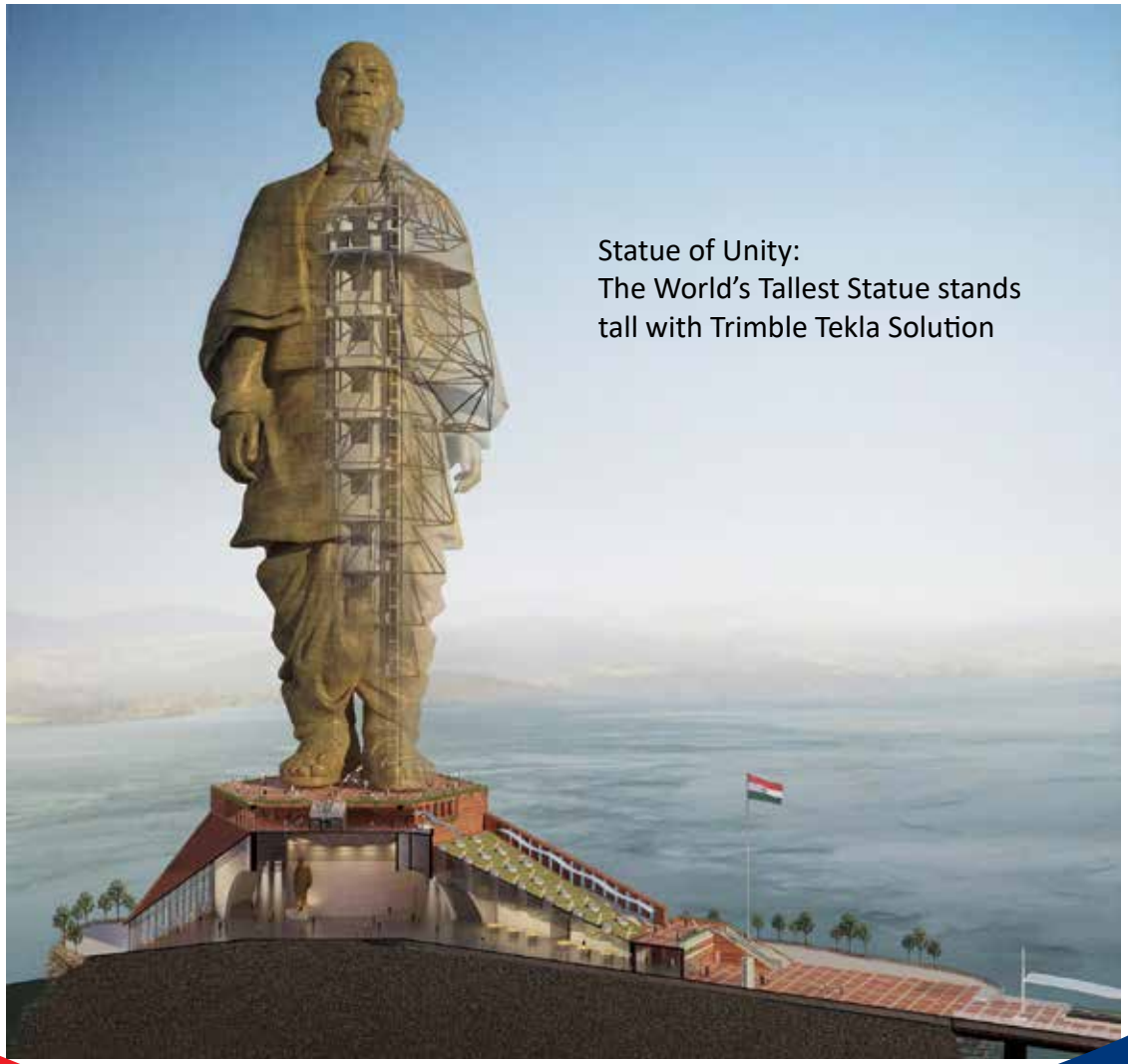
11

Trimble India Region Defence Success Summary

Transforming the way the way Indian Defence Segment works

- US$ 20 Million Revenue in the Region from the Defence Segment in 2021-22
- More than 2500 Cutting Edge Trimble GNSS Receivers deployed with Indian Artillery
- Trimble Optical Instruments deployed on contemporary Indian Navy Survey Ships
- Bharat Electronics Limited (BEL) proccured $1 million+ worth of Trimble GNSS in 2021
- Trimble solutions being deployed at various DRDO labs for R&D
- Trimble cutting edge BX992 GNSS Boards deployed on Pvt. sector Defence UAVs
- Autonomous Defence Vehicles with Trimble GNSS Technology undergoing development & trials
- Trimble BD9250s L1, L5, Sband NAVIC capable GNSS Board made for India embedded in various "Made in India" developmental projects



Statue of Unity:
The World's Tallest Statue stands tall with Trimble Tekla Solution

Supporting Skill Development In India

Trimble is deeply engaged in building a talent pool to contribute to the growth of its customers and nation building.

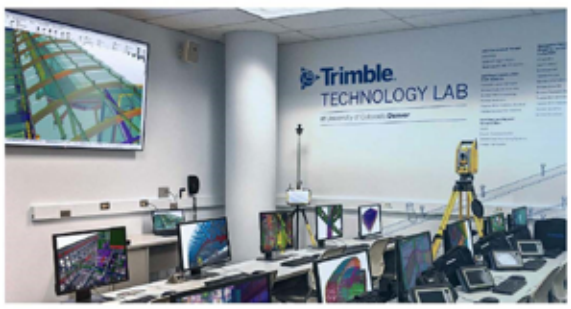
Trimble's Authorised training Centres, also referred to as ATCs, provide best in class training to working professionals and students and helps them acquire skills in 3D modelling that in turn helps drive digital transformation in companies where they are employed. Trimble has 29 ATCs up in various cities across India that have trained over 2,000 students and professionals since the start of this program in 2019.

Trimble has a robust learning program available at prominent Universities as well. Similar to the ATCs, these Universities teach students about Trimble Tekla, its flagship software for structural engineering and design. Some of the universities where Trimble has been actively involved in building a talent pool include IIT, Madras; IIT, Bombay; IIT, Ropar; NIT, Jamshedpur; College of Military Engineering, Pune and MIT-ADV, Pune.

Trimble also runs an educational program named Trimble Technology Lab (TTL), wherein a dedicated lab is set up at a University, and Trimble contributes by way of software and hardware to the digital transformation lab. Students train in this lab on the latest technology and periodically Trimble also assists students in research work. Currently, Trimble has two technology labs at IIT Madras and IIT Ropar. In a recently conducted workshop at IIT Madras, Trimble trained and certified 122 students as industry-ready.

Trimble Geospatial Solutions (GNSS Receivers, Total Stations, Scanners, Auto Levels & Software are deployed in various universities and many State Departments of Technical Training across India and are used to impart training to graduate, post graduate students and diploma students on the latest technology. Some of the prominent instates having Trimble solutions include IIT Kanpur, IIT Ropar, Anna University and MNIT. Hundreds of students across the country have been trained on Trimble solutions to make them industry ready.

Trimble is also proud to be associated with India's National Centre of Geodesy (NCG), IIT Kanpur which is the Nodal Centre with six satellite centres across the country for imparting knowledge on Physical Geodesy & its Applications and propagating knowledge in the region.



GLOSSARY

A&D	Aerospace and Defence
AAI	Airport Authority of India
AI	Artificial Learning
AIESL	Air India Engineering Services Limited
APU	Auxiliary Power Unit
AR	Augmented Reality
ARTPARK	Artificial Intelligence and Robotics Technology Park
BITS	Birla Institute of Technology & Science
CMMI	Capability Maturity Model Integration
CMTI	Central Manufacturing Technology Institute
COE	Centre of Excellence
CRPF	Central Reserve Police Force
CSR	Corporate Social Responsibility
D&D	Design and Development
DAP	Defence Acquisition Procedure
DCS	Direct Commercial Sales
DDP	Department of Defence Production
DE&I	Diversity, Equity and Inclusion
DGCA	Directorate General of Civil Aviation
DNA	Deoxyribonucleic acid
DPIIT	Department for Promotion of Industry and Internal Trade
DPP	Defence Procurement Procedure
DPSU	Defence Public Sector Undertaking
DRDO	Defence Research and Development Organisation
DST	Department of Science and Technology
DTTI	Defence Technology and Trade Initiative
EASA	European Union Aviation Safety Agency
EWIS	Electrical Wiring and Interconnect System
FAA	Federal Aviation Administration
FDI	Foreign Direct Investment
FMS	Foreign Military Sales
FTI	Futuristic Telecommunications Infrastructure
G2G	Government to-government Agreements
GNSS	Global Navigation Satellite Systems
GTF	Geared Turbo Fan
HAL	Hindustan Aeronautics Limited
HLS	Homeland Security
IAF	Indian Air Force
IC	Indigenous Content
ICG	Indian Coast Guard
IDDM	Indian/Indigenously Designed Developed and Manufactured
IFF	Identity Friend Foe
IGA	Inter-governmental agreements
IIGP	India Innovation Growth Program
IIIT	International Institute of Information Technology
IIM	Indian Institute of Management
IISc	Indian Institute of Science
IIT	Indian Institute of Technology
IL	Industrial Licensing
IMPS	Integrated Platform Management System
IMRH	Indian Multi Role Helicopter
IN	Indian Navy
INS	Indian Navy Ship
IOP	Indian Offset Partner
ISR	Intelligence, Surveillance and Reconnaissance
JNCASR	Jawaharlal Nehru Centre For Advanced Scientific Research
JV	Joint Ventures
KIADB	Karnataka Industrial Areas Development Board
LCA	Light Combat Aircraft
MA	Mission Accelerator
MHA	Ministry of Home Affairs
MII	Make in India
ML	Machine Learning
MOCA	Ministry of Civil Aviation
MOD	Ministry of Defence
MOU	Memorandum of Understanding
MRFA	Multi-Role Fighter Aircraft
MRO	Maintenance, Repair and Overhaul
MSME	Micro, Small and Medium Enterprises
MTA	Medium Transport Aircraft
NAL	National Aerospace Laboratories
NIT	National Institute of Technology
NLP	Natural Language Processing
OEM	Original Equipment Manufacturer
PBL	Performance Based Logistics
PWD	People with Disability
R&D	Research and Development
RFI	Request for Information
SAE	Society of Automotive Engineers
SAF	Sustainable Aviation Fuel
SBU	Strategic Business Units
SME	Small and Medium Enterprises
STEM	Science, Technology, Engineering, and Mathematics
TASK	Telangana Academy for Skill and Knowledge
TASL	Tata Advanced Systems Limited
TBAL	Tata Boeing Aerospace Limited
TCS	Tata Consultancy Services
T-Hub	Technology Hub
TLMAL	Tata Lockheed Martin Aerostructures Limited
TOT	Transfer of Technology
TSAL	Tata Sikorsky Aerospace Limited
UAV	Unmanned Aerial Vehicle
USAF	U.S. Air Force
VIT	Vellore Institute of Technology
VR	Virtual Reality
VTU	Visvesvaraya Technological University

The American Chamber of Commerce in India (AMCHAM) is the apex chamber of U.S. industry in India. Established in 1992, AMCHAM has over 400 members spread all over the country. The incumbent U.S. Ambassador to India is the Honorary President of AMCHAM. The chamber enjoys a very close relationship with U.S. Embassy officials and receives tremendous support in fulfilling its objectives. The chamber's mission is to assist member companies to succeed in India through advocacy, information, networking and business support services. AMCHAM is headquartered in New Delhi and has regional chapters in Bengaluru, Chennai, Hyderabad, Kolkata and Mumbai.

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