

# ANNUAL REPORT

## 2014 - 2015



HINDUSTAN AERONAUTICS LIMITED

# HINDUSTAN TURBO TRAINER (HTT-40)

## ROLES

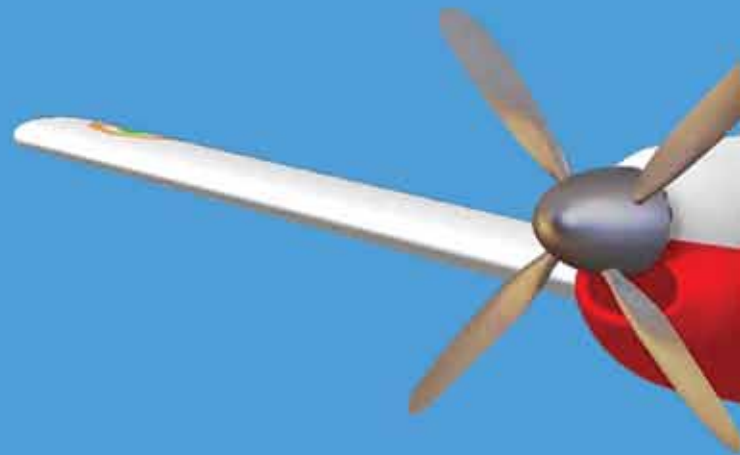
- Basic flying training
- Aerobatics
- Instrument Flying
- Navigation
- Night Flying
- Close formation

## FEATURES

- Air conditioned cockpit
- Tandem seating
- Zero-Zero ejection seats
- Multifunction Displays

## IMPORTANT MILESTONES / MAJOR ACHIEVEMENTS

- Detail design completed.
- Build of PT 1 initiated
  - ◆ Procurement action for all LRUs completed.
  - ◆ Completion of Phase-2 Wind Tunnel tests of HTT-40.
  - ◆ Front & Rear fuselage, Canopy & wind screen assembly completed.
  - ◆ Rudder Jig commissioned and part loaded.
  - ◆ Base structures for all structural jigs completed.
  - ◆ Wing assembly under progress.
  - ◆ Ejection Seat pullout tests completed.





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# VISION

To become a significant global player in the aerospace industry

# MISSION

To achieve self reliance in design, development, manufacture, upgrade and maintenance of aerospace equipment, diversifying into related areas and managing the business in a climate of growing professional competence to achieve world-class performance standards for global competitiveness and growth in exports





## BOARD OF DIRECTORS



**Shri T. Suvarna Raju**

Chairman & Managing Director (CMD)

Shri T. Suvarna Raju is an alumnus of India's prestigious National Defence College with an M.Phil in Defence Strategic studies. A Mechanical Engineer by graduation and an MBA (Marketing). Shri Raju also holds a PG Diploma in Intellectual Property Rights (IPR) from National Law School of India University.

Shri Raju joined HAL as a Management Trainee in June 1980 and grew up the ladder with varied experiences of manufacturing, overhaul and upgrade of several fleets including Jaguar and Mirage. He saw through the production of Hawk Mk-132 for the Indian Air Force and Indian Navy well ahead of schedule, right from establishing its manufacturing facilities. Having worked through Aircraft and Overhaul Divisions in various capacities, he rose on the portals of HAL as GM, Aircraft Division and then to the post of Director (Design & Development). Shri Raju was assigned the additional charge of Chairman w.e.f 1<sup>st</sup> February, 2015, and appointed as Chairman from 5<sup>th</sup> March, 2015. The post was re-designated as Chairman & Managing Director w.e.f. 1<sup>st</sup> April, 2015 as a part of restructuring of its Board.

Shri Raju is a firm believer that best of technology can never be bought, it can only be developed. To transform the company into a technology power house, he has taken various path breaking measures to make R&D set up in the company more competitive. He has put in an R&D Policy in place for the same and has brought in all R&D centres of HAL under a Committee of Institutional Network (COIN) to synergise learning across the organisation. In order to create an IPR wealth for the company, he has been instrumental in registering more than one thousand patents in the last two years. He has also provided impetus to programmes like LCA, LUH, LCH, IJT and HTT-40 apart from upgrades of Mirage and Jaguar DARIN-III. He is also keenly steering futuristic programmes such as UAVs, FGFA, MTA and Civil Aircraft Development. He has not only pioneered the concept of Performance Based Logistics, but has also been advocating its implementation for the military assets.

Shri Raju is a recipient of Dr. Biren Roy Trust Award of the Aeronautical Society of India for his unstinted efforts in planning and establishment of new technologies at HAL. He is currently Chairman of the Aerospace and Aviation Sector Skill Council, First Member Secretary of the Design and Development Management Board (DDMB) established by MoD and also Chairman of the Bengaluru Chapter of the Aeronautical Society of India .



**Air Marshal S.B.P. Sinha,**  
**AVSM, VM**

Deputy Chief of Air Staff

Air Marshal S.B.P. Sinha, DCAS, IAF was appointed as Part-Time Official Director of HAL with effect from 2<sup>nd</sup> July, 2014. He is an alumnus of the National Defence Academy and a Graduate of the Defence Services Staff College (DSSC), Wellington. He was commissioned in the fighter stream on 15<sup>th</sup> June, 1980.

Air Marshal Sinha has held various important Command, Instructional and Staff appointments, including as Instructor at the Flying Instructors' School, Flight Commander of a Mirage 2000 squadron, Chief Flying Instructor of Basic Flying Training School, Commandant of Electronic Warfare Range, Air Officer Commanding of a premier Su-30 MKI base and Team Leader of the WASCS Project Team in Israel.

He has also held important Staff Appointments at the Air Headquarters, including as Deputy Director of Operations (Electronic Warfare), Principal Director of Plans, CISR and Acquisitions and Assistant Chief of Air Staff (Plans) at Air HQs. He is the recipient of the Ati Vishista Seva Medal and the Vayu Sena Medal.



**Shri Kamlesh K. Pant**  
Joint Secretary (Aerospace), MoD

Shri Kamlesh K. Pant, Joint Secretary (Aerospace), Ministry of Defence was appointed as a Part-Time Official Director of HAL with effect from 30<sup>th</sup> October, 2014.

Shri Pant is a Mechanical Engineer from IIT, Kanpur and joined the Indian Administrative Service in the year 1993. Before taking over as Joint Secretary (Aerospace), he had served as Director (State Taxes) in the Ministry of Finance, Government of India.

Besides serving in District Administration he had served in the Government of Himachal Pradesh in various capacities, such as Secretary in Finance Department, Director (Institutional Finance), Director (Treasury, Accounts & Lotteries), Managing Director – Himachal Pradesh Financial Corporation, Managing Director – State Industrial Development Corporation and Managing Director – Uttarkhand Transport Corporation.



**Air Marshal (Retd.)  
Priya Rajan Sharma,  
PVSM, AVSM**  
Independent Director

Air Marshal (Retd.) P.R. Sharma, PVSM, AVSM, Ex-Air Officer-in-Charge Personnel was commissioned in the Flying branch of the Indian Air Force in 1975 and has served in the IAF for 39 years, before his superannuation in February 2014. He was appointed as Part-Time Non-Official Director on the Board of HAL with effect from 5<sup>th</sup> May, 2014.

While posted at ASTE – Bengaluru, Air HQs, Su-30 Project Team at Moscow and at Headquarters Strategic Force Command, Air Marshal Sharma interacted closely with organisations like DRDO, HAL & BEL. While at ASTE, Bengaluru between 1984 to 1987, he made noteworthy contributions in Armament flight trials of indigenous RP bombs, 3 kg and 11.5 kg Practice Bombs, Modified Vikram (MiG-21 BIS) aircraft by HAL, Nasik Division, Indigenous integration of Russian R-60 missiles on various versions of MiG 21 aircraft, Flight Evaluation of indigenous avionics on MiG-21, MiG-23, MiG-29, Hawk, Alpha Jet advance jet trainer aircraft and Dornier aircraft.

Air Marshal (Retd.) P.R. Sharma was awarded Param Vishishta Seva Medal, Ati Vishishta Seva Medal for his distinguished service.



**Shri P. S. Krishnan**  
Independent Director

Shri P. S. Krishnan, a distinguished Scientist and former Director of Aeronautical Development Establishment (ADE), was appointed as Part-Time Non-Official Director on the Board of the Company with effect from 5<sup>th</sup> May, 2014. He graduated as a mechanical engineer from IIT, Madras and holds a Master Degree also from IIT, Madras.

Shri Krishnan has contributed substantially during his illustrious career spanning 37 years with Aeronautical Development Establishment (ADE), a premier Systems Establishment of DRDO, in various positions, particularly for development of Flight Control System for unmanned Air Vehicles and Light Combat Aircraft (LCA).

He also served DRDL, Hyderabad between 1972-76 and worked on the development of the Gimbaled Inertial Navigation System, which was tested successfully in Avro Aircraft.

Shri Krishnan has published several technical papers and had been conferred with several awards viz., Performance Excellence Award 2010 for development of Nishant UAV and Award for path breaking research for development of Fly By Wire FCS for Tejas in 2002, in recognition of his contributions.

## BOARD OF DIRECTORS



**Prof. Pradipta Banerji**  
Independent Director

Prof. Pradipta Banerji, a Civil Engineer from IIT, Delhi, MS & Ph. D in Structural Engineering from University of California, Berkeley, USA, joined the HAL Board as a Part-Time Non-Official Director with effect from 5<sup>th</sup> May, 2014.

Prof. Banerji started his career at the University of California as a teacher/Research Assistant in Civil Engineering from 1981 to 1987, and thereafter joined IIT, Bombay as Assistant Professor and spent more than 15 years as Faculty Member. Presently, he is Director at the Indian Institute of Technology, Roorkee.

Prof. Banerji was a visiting Research Professor at the University of Manitoba, Winnipeg, Canada and the Institute of Statics and Dynamics for Aerospace Structures at the University of Stuttgart, Germany. He was Advisor, Global Alliances, Intellectual Venture India Ltd, before taking over as Director, Indian Institute of Technology, Roorkee in October 2011. His areas of specialisation are Earthquake Engineering and Structural Health Monitoring.



**Shri Gopabandhu Pattanaik**  
Independent Director

Shri Gopabandhu Pattanaik a 1978 batch IAS officer of the UP cadre, retired as Principal Secretary to the Government of Uttar Pradesh on 31<sup>st</sup> March, 2013. He is a science graduate with specialisation in Physics and also holds a Master Degree in Science (specialisation in Economics) from the University of Wales. He was appointed as Part-Time Non-Official Director on the Board of HAL with effect from 5<sup>th</sup> May, 2014.

He has served for over 8 years as Secretary/Principal Secretary to Governor/Chancellor of State Universities. He is well conversant with the University System, and has been a member of several Search Committees for the appointment of Vice Chancellors.

Shri Pattanaik has wide experience in infrastructure and social sector. He has worked as Secretary, Home, Medical Education, Programme Implementation and Principal Secretary Agriculture, Energy during his illustrious career.

Shri Pattanaik was the Chairman of UP Power Corporation Ltd. During his tenure wide-scale reform initiatives were undertaken. He had successfully steered Garhwal Development Corporation, UP Cement Corporation and UP Power Corporation.

He has also served in the Ministry of Welfare and Ministry of Culture, Government of India.



**Dr. Arun Kumar Jain**  
Independent Director

Dr. Arun Kumar Jain an eminent Professor of IIM Lucknow, was appointed as Part-Time Non-Official Director on the Board of the Company with effect from 5<sup>th</sup> May, 2014.

Dr. Jain is an Engineering graduate from the MA National Institute of Technology, Bhopal and holds a Ph.D in Strategic Management and Business Policy from IIM, Ahmedabad. His areas of specialisation include Business & Public Policy, Strategy, International Business, Corporate Governance, Leadership, Technology & Innovation.

Dr. Jain has held several important positions as full time/ Honorary Chair professor in Indian as well as International Management Institutions. He was also a member of the high powered Primary Market Advisory Committee of SEBI.

Dr. Jain has contributed over 100 case studies and research papers on issues relating to corporate success, failures, globalisation and internationalisation, corporate governance and ethics, national and international economies, financial and banking innovations and delivered key note addresses and lectures in various international platforms.





**Air Vice Marshal (Retd.)  
D.K. Pande, AVSM, VSM**  
Independent Director

Air Vice Marshal (Retd.) D.K. Pande, a graduate in Electrical Engineering and holds an M. Tech in Satellite Communication from IIT, Kharagpur, in addition to PG from Defence Service Staff College, Wellington. He was appointed as Part-Time Non-Official Director on the Board of the Company with effect from 5<sup>th</sup> May, 2014.

AVM D.K. Pande retired as Assistant Chief of Air Staff (Maintenance Plans) in October 2013. He had served in various commands of the IAF and possessed more than 36 years of experience in the maintenance of various types of aircraft in general and Russian equipment / platforms in particular.

Air Vice Marshal (Retd.) D.K. Pande was awarded the Vishishta Seva Medal in 2004 and Ati Vishishta Seva Medal in 2013. Besides, he has received commendations from Chief of the Air Staff in 1992 and 1995.



**Shri V. M. Chamola**  
Director (HR)

Shri V. M. Chamola holds a Masters Degree in Economics from Garhwal University, LLB from APS University & MBA(HRM) from IGNOU.

Shri Chamola served NTPC and NJPC in various capacities before joining HAL in 1996 as Deputy General Manager (Personnel & Administration) at Engine Division, Bengaluru Complex. He was promoted as Additional General Manager (Personnel & Administration) and later joined Corporate Office.

He has also served as Chief General Manager, BEML. He possesses rich experience in HRD and has contributed towards streamlining the HR systems with a view to provide a healthy environment. He took over as Director (Human Resources) of the Company on 27<sup>th</sup> July, 2011. He was conferred the "Chanakya Award" for Business Excellence in HR on 12<sup>th</sup> February, 2012 by the Public Relations Council of India (PRCI) during its Annual Conclave at Mumbai in February 2012. He also held the additional charge of the post of Managing Director (Accessories Complex), HAL in respect of Hyderabad and Korwa Divisions, from 1<sup>st</sup> August, 2013 to 31<sup>st</sup> March, 2015.



**CA Dr. A. K. Mishra**  
Director (Finance) & CFO

CA Dr. A.K. Mishra, a Law graduate and a Fellow Member of the Institute of Chartered Accountants of India holds a Ph.D., in Finance. He is an alumnus of National Law School of India University, Bengaluru.

During his long career spanning over 31 years, Dr. Mishra has served in Governments of Bihar, UP and PSUs viz., Indian Telephone Industries Ltd. (ITI) before joining HAL in November 1994 as Deputy General Manager (Finance) at Transport Aircraft Division, Kanpur. He later took over as General Manager (Finance) at HAL Accessories Complex, Lucknow.

In June 2007, Dr. Mishra took over as Executive Director (Finance) in HAL Accessories Complex, Lucknow and later joined Corporate Office in 2008.

He has held important positions in Divisions & at Corporate Office and has provided proactive leadership in developing and utilizing Corporate resources to drive and deliver financial and business growth.

Dr. A. K. Mishra was appointed as Director (Finance) with effect from 28<sup>th</sup> October, 2011.



## BOARD OF DIRECTORS



**Shri S. Subrahmanyam**  
Director (Operations)

Shri S. Subrahmanyam, an Engineering Graduate in Mechanical Engineering and Post Graduate in Aircraft Production from IIT, Madras, joined HAL as Management Trainee, XV Batch in August 1980.

He rose to the position of the Chief of Projects, Helicopter Division and was the Chief of Projects at Corporate Office. He was Managing Director (MiG Complex) from 1<sup>st</sup> December, 2012 to 31<sup>st</sup> March, 2015. He had also held the additional charge of the post of Managing Director (Accessories Complex), HAL in respect of Lucknow Division and TAD Kanpur, from 1<sup>st</sup> August, 2013 to 31<sup>st</sup> March, 2015.

Subsequently, in view of restructuring of HAL Board, Shri Subrahmanyam was re-located to Corporate Office and re-designated as Director (Operations) w.e.f 1<sup>st</sup> April, 2015. Shri Subrahmanyam has also been assigned with the Additional Charge of the Post of Director (Engineering & R&D) w.e.f 16<sup>th</sup> April, 2015.

With his rich experience of over 34 years, he has contributed immensely to the success of many important projects such as ROH for Cheetah/Chetak, manufacturing of Cheetal Helicopters, Project Planning and Productionisation of Advanced Light Helicopter, setting up of the Centre for Excellence for landing gear manufacture & Overhaul, setting up of a manufacturing facility for mega projects of Su-30MKI Aircraft, development of supply chain and outsourcing of major structural work packages of flight control system.

