



ANNUAL REPORT

2015 - 16



HINDUSTAN AERONAUTICS LIMITED

LIGHT UTILITY HELICOPTER (LUH)

ROLES

- Reconnaissance and Surveillance
- Troop Transport
- Rescue and Relief Operations
- Casualty evacuation
- Close air support for ground troops
- External cargo

FEATURES

- 3 Ton class dual Pilot Helicopter
- Predominantly Composite Airframe with crashworthy feature
- Hinge-less Rotor system to ensure high agility and maneuverability
- Spacious cabin ensuring enough room for troop transport upto 6 troops / 2 stretchers
- Modern Avionics Suite with fully integrated Smart Multi-Functional Displays(SMFD)
- Safran's Ardiden-1U engine with Full Authority Digital Electronic Controller (FADEC)
- Dual redundant systems to ensure higher level of safety
- Range of 350 km and Service ceiling of 6.5 km



IMPORTANT MILESTONES / MAJOR ACHIEVEMENTS

- Successful maiden technical flight of First prototype (PT-1) on 6th September, 2016
- PT-1 is currently undergoing developmental flight tests
- 2nd and 3rd Prototypes are under build
- Operation clearance of basic version planned by December 2017



CONTENTS

PARTICULARS	PAGE NO.
Board of Directors	2
Financial Highlights	8
Chairman's Statement	10
Notice of 53 rd Annual General Meeting	19
Directors' Report	26
Management Discussion & Analysis Report	50
Corporate Governance Report	59
Standalone Accounting Policies	107
Standalone Balance Sheet	112
Standalone Statement of Profit and Loss	113
Notes to Accounts on Standalone Financial Statements	114
Standalone Statement of Cash Flow	166
Independent Auditor's Report on Standalone Financial Statements	168
Comments of the C & AG on Standalone Financial Statements	177
Consolidated Accounting Policies	179
Consolidated Balance Sheet	184
Consolidated Statement of Profit and Loss	185
Notes to Accounts on Consolidated Financial Statements	186
Consolidated Statement of Cash Flow	246
Independent Auditor's Report on Consolidated Financial Statements	248
Comments of the C & AG on Consolidated Financial Statements	256



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 July 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 1st February, 2015, and appointed as Chairman from 5th March, 2015. The post was re-designated as Chairman & Managing Director w.e.f. 1st April, 2015.

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. 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 .



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, Bangalore Complex. He was promoted as Additional General Manger (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 27th July, 2011. He was conferred the "Chanakya Award" for Business Excellence in HR on 12th 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 1st August, 2013 to 31st March, 2015.



Shri V. M. Chamola

Director (HR)



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, 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 1st December, 2012 to 31st 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 1st August, 2013 to 31st 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 1st April, 2015. With his rich experience of over 36 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.

Shri D K Venkatesh, is a Mechanical Engineer from National Institute of Technology, Surat, Associate of the Institute of Costs & Works accountants of India, Post Graduate diploma in Marketing Management and a Post Graduate in Computer Applications.

Shri Venkatesh joined HAL as a Management Trainee on August, 1980 and appointed as Director (Engineering and R & D) of the Company with effect from 27th November, 2015.

He has more than 36 years of experience in Manufacture, Assembly, Repair, Overhaul, Prototype development in the areas of Production, Operations, Quality Management, Projects, Design, Customer Support of Aircraft, Helicopters and Gas Turbine Engines. He is a member of the Aeronautical Society of India and active member of the Society for Failure Analysis.



Shri D K Venkatesh
Director (Engg. and R & D)



Shri C V Ramana Rao
Director (Finance) & CFO

Shri C. V. Ramana Rao, is a Arts Graduate in History, Economic and Political Science. After Graduation he took up the course of Chartered Accountancy and passed in 1985. Subsequently he has also passed Group-I & II of Final Company Secretary Exam.

Shri C. V. Ramana Rao has more than 35 years of experience in Financial Management, Accounting and Internal Control. He started his career in Foundry & Forge Division and moved to Corporate Office and thereafter reported to BAe HAL a Joint Venture Company of HAL as CFO. Subsequently on Promotion was assigned to Corporate Office In-charge of Finance and Accounts.

He has specialization in Accounting and Audit and has been instrumental in update of Manuals of System Audit, Costing, Accounts, and Performance Budget etc. and developed a uniform master chart of Accounts.

Before assuming charge as Director (Finance), he was General Manager (Finance)- Accounts & Audit.



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



Shri Kamlesh K. Pant
Joint Secretary (Aerospace), MoD
Govt. Nominee Director.



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 5th 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.

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 5th 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.



Prof. Pradipta Banerji
Independent Director



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 31st 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 5th 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.

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 5th 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.



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



Ms. Dipali Khanna
Independent Director

Ms. Dipali Khanna has done Master's Degree in Arts with specialization in History from Delhi University. She holds Master's Degree in Science (specialization in National Security) from National Defence College and has also done Certificate Course in Cost & Management Accountancy from the Institute of Cost & Works Accountants, New Delhi. She was appointed as Part-Time Non-official Director on the Board of the Company with effect from 8th January, 2016

Ms. Dipali Khanna started her career with the Indian Railway Accounts Service in the year 1976 and has contributed substantially during her career spanning over 39 years with various Government Departments. Formulation of long-term plans that addressed key development goals and objectives of various Ministries of the Government of India was a critical component of her responsibilities. Ms. Khanna has played a key role in establishment

of National Disaster Management Authority (NDMA) and was also responsible for overseeing the restructuring of the then defunct National Film Development Corporation Ltd. (NFDC) by the Government of India, resulting in the Company achieving profitability within one year of restructuring after more than a decade of recurring losses.

Ms. Khanna has also served actively on the Boards of other Public Sector Undertakings (PSUs) under Ministry of Defence, Ministry of Power and Ministry of Information & Broadcasting. She is presently an Independent Director on the Boards of India Power Corporation Ltd. and Niteesh Estates Ltd.

Ms. Khanna is the Member of Kelkar Committee, Ministry of Defence for Public-Private Partnership in Defence.



BOARD OF DIRECTORS

(As on 30th July, 2016)

Shri T. Suvarna Raju

Chairman & Managing Director (CMD)

Shri V. M. Chamola

Director (Human Resources)

Shri S. Subrahmanyam

Director (Operations)

Shri D. K. Venkatesh

Director (Engineering and R&D)

Shri C. V Ramana Rao

Director (Finance) & CFO

Shri Kamlesh K. Pant

Joint Secretary (Aerospace)

Ministry of Defence

Govt. Nominee Director

Shri P.S. Krishnan

Independent Director

Prof. Pradipta Banerji

Independent Director

Shri Gopabandhu Pattanaik

Independent Director

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

Independent Director

Smt Dipali Khanna

Independent Director

MEMBERS OF THE MANAGEMENT COMMITTEE

Shri T. Suvarna Raju

Chairman & Managing Director (CMD)

Shri V. M. Chamola

Director (Human Resources)

Shri S. Subrahmanyam

Director (Operations)

Shri D. K. Venkatesh

Director (Engineering and R&D)

Shri C. V Ramana Rao

Director (Finance) & CFO

Shri V. Sadagopan

CEO (Helicopter Complex)

Shri Kaveri Renganathan

CEO (Bangalore Complex)

Shri Daljeet Singh

CEO (MiG Complex)

Shri Rajiv Kumar

CEO (Accessories Complex)

COMPANY SECRETARY

Shri G. V. Sessa Reddy