

## CIVIL AVIATION

### **Q. What is Civil Aviation?**

Aviation refers to all activities involving the operation of aircrafts. Aviation courses in India deal with Flying Operation (jobs performed by Pilots), Aircrew (such as Air Hostesses), Aircraft, Air Traffic Management, Technical aspects of Flight, Aviation Safety, Regulatory Policies and economics of airport. Civil Aviation courses (as opposed to the Indian Air Force, that is, the air wing of the Indian armed forces) are necessary for those wishing to work in government or regulatory bodies of aviation or those planning to work as aviation consultants. All aviation courses in India are supposed to comply with the rules laid down by the Director General of Civil Aviation (DGCA). Careers in the aviation industry are much sought after as they are very well paid. Not too many people go in for careers in aviation as the courses are very expensive. However with education loans and high pay packages once one finishes the course and gets a job that is a lesser problem nowadays.

### **Q. What is the nature of work in aviation industry and what should be the personality of a student to join aviation industry?**

The nature of work is different for different types of workers in the aviation industry. Whereas being a pilot or an air hostess is most advertised, there are other equally lucrative options in the aviation industry. The aviation courses focus on some aspects of the work like airline customer support, flight attending rules, the nuances of the air transport industry, cargo marketing and management, transportation of perishable cargo, ticket reservation, regulation of traffic, customer relationship, cargo reservations, attendance of flight, flight and ground instruction, cockpit resource management, federal regulation and the federal laws on aviation, aerodynamics and the basic concepts of flying, advanced navigation procedures, multi engine flight instruction, crew synchronization, aviation safety, aviation administration and meteorology. The nature of the work, entails in several posts like those of pilot, air hospitality attendants like air hostesses and flight stewards, cabin crew, travelling all over the world. Air hostesses and flight stewards need to have a hospitable and pleasant personality. One of the common problems faced by air hospitality attendants is that the passengers misbehave with them. Air hospitality attendants need to have a strong personality to deal with such problems in a strong manner and rebuke the passengers without becoming excessively rude. As for the technical staff and for almost all jobs

in the aviation sector, one must be able to work at different times of the day. One may have to work night shifts and sometimes may have to spend more than 24 hours without sleeping. Pilots, cabin crew and air traffic controllers also need to have a high level of concentration and focus as there is a lot of minute observation and immediate response required in such technical posts and these are also positions of great responsibility as the lives of the passengers depends on the proper functioning of the air plane which is ensured by the minute and thorough work of those involved in such work.

**Q. What jobs are available in the Aviation Industry?**

The following jobs are available in the aviation industry (the list is indicative only):

- Aero Engineer Jobs
- Aerodynamics Jobs
- Air Traffic Control Jobs
- Aircraft Interiors Jobs
- Aircraft Mechanics Jobs
- Airline Customer Service Jobs
- Airline Management Jobs
- Airline Office Jobs
- Airport Baggage Jobs
- Airport Jobs
- Airworthiness Engineer Jobs
- Apprentice Jobs
- Aviation Design Jobs
- Aviation Materials Jobs
- Aviation Planning Jobs
- Aviation Welding Jobs
- Avionics Electronics Jobs
- Cabin Crew Jobs
- Communication Jobs
- Composites Jobs
- Executive Positions
- Jobs
- Fabricator Jobs
- Finance Jobs
- Fitters Jobs
- Flight Simulator Jobs
- Freight Jobs
- Graduate Jobs
- Helicopter Pilot jobs
- Hotel Jobs
- Human Resources Jobs
- Instructors Jobs
- IT Jobs
- Landing Gear Jobs
- Logistics Jobs
- Machinist Jobs
- Maintenance Base Jobs
- Maintenance Line Jobs
- Management Jobs
- Manufacturing Jobs
- Marketing Jobs
- Operations Jobs
- Other Jobs
- Painters Jobs
- Paint sprayers Jobs
- Pilots Jobs
- PR Jobs
- Quality and Safety Jobs
- Research Jobs
- Rotary Jobs
- Sales and Purchasing Jobs
- Security Jobs
- Sheet Metal Worker jobs
- Software Systems Jobs
- Space Jobs
- Technical Author Jobs
- Technician Jobs
- Testing Jobs
- Tooling Jobs
- Training Jobs
- Trimmers Jobs

Electrician Jobs

Office Support Jobs

VVIP Jobs

### **Q. What Educational qualifications/trainings are required to enter the aviation industry?**

Some of the qualifications/trainings required to join civil aviation are:

- Flight Attendant Courses
- Commercial Pilot training
- Aircraft Maintenance
- Flight Crew Management and other in-flight Services
- Air Hostess Courses
- Ticketing and Travel in Aviation
- Aviation Safety
- Air Traffic Control and Management
- Operations and Research
- Cargo Management
- Avionics etc

Civil Aviation courses offer technical, theoretical and practical knowledge about air craft components and their maintenance. Training is given to students with real time controllable devices that are used in aircrafts to utilize their knowledge in a more practical way.

### **Which are the jobs in the Government sector in Civil Aviation Industry?**

Some of the jobs in Government sector of civil aviation are:

- Assistant Gliding Instructor
- Assistant Pilot Instructor
- Pilot Instructor In-charge
- Chief Flying Instructor
- Helicopter Pilot

- Science Lecturer
- Mechanical Lecturer
- Chief Lecturer
- Principal Lecturer
- Aircraft Maintenance Engineers
- Airport Service Staff
- Chefs
- Cargo pilot
- Flight engineer
- Flight operations support personnel

**Q. What is DGCA (Directorate General of Civil Aviation)?**

Directorate General of Civil Aviation is an attached office of the Ministry of Civil Aviation. The Directorate General of Civil Aviation is the regulatory body in the field of Civil Aviation primarily dealing with safety issues. It is responsible for regulation of air transport services to/from/within India and for enforcement of civil air regulations, air safety and airworthiness standards. It is also responsible to co-ordinate all regulatory functions with International Civil Aviation Organization (ICAO). The headquarters are located in New Delhi with regional offices in the various parts of India. There are 14 (fourteen) Regional Airworthiness Offices located at Delhi, Mumbai, Chennai, Kolkata, Bangalore, Hyderabad, Trivandrum, Bhopal, Lucknow, Patna, Bhubaneswar, Kanpur, Guwahati and Patiala. Apart from the Regional Airworthiness Offices, there are 5 (five) Regional Air Safety offices located at Delhi, Mumbai, Chennai, Kolkata and Hyderabad, the Regional Research and Development Office located at Bangalore and the Gliding Centre at Pune.

**Q. What are the duties, functions and responsibilities of DGCA?**

The duties, functions and responsibilities of DGCA are:

1. Registration of civil aircraft;

2. Formulation of standards of airworthiness for civil aircraft registered in India and grant of certificates of airworthiness to such aircraft;
3. Licensing of pilots, aircraft maintenance engineers and flight engineers, and conducting examinations and checks for that purpose;
4. Licensing of air traffic controllers;
5. Certification of aerodromes and CNS/ATM facilities;
6. Maintaining a check on the proficiency of flight crew, and also of other operational personnel such as flight dispatchers and cabin crew;
7. Granting of Air Operator's Certificates to Indian carriers and regulation of air transport services operating to/from/within/over India by Indian and foreign operators, including clearance of scheduled and non-scheduled flights of such operators;
8. Conducting investigation into accidents/incidents and taking accident prevention measures including formulation of implementation of Safety Aviation Management Programmes;
9. Carrying out amendments to the Aircraft Act, the Aircraft Rules and the Civil Aviation Requirements for complying with the amendments to ICAO Annexes, and initiating proposals for amendment to any other Act or for passing a new Act in order to give effect to an international Convention or amendment to an existing Convention;
10. Coordination of ICAO matters with all agencies and sending replies to State Letters, and taking all necessary action arising out of the Universal Safety Oversight Audit Programme (USOAP) of ICAO;
11. Supervision of the institutes/clubs/schools engaged in flying training including simulator training, AME training or any other training related with aviation, with a view to ensuring a high quality of training;
12. Granting approval to aircraft maintenance, repair and manufacturing organizations and their continued oversight;
13. To act as a nodal agency for implementing Annex 9 provisions in India and for 2 coordinating matters relating to facilitation at Indian airports including holding meetings of the National Facilitation Committee;
14. Rendering advice to the Government on matters relating to air transport including bilateral air services agreements, on ICAO matters and generally on all technical matters relating to civil

aviation, and to act as an overall regulatory and developmental body for civil aviation in the country;

15. Coordination at national level for flexi-use of air space by civil and military air traffic agencies and interaction with ICAO for provision of more air routes for civil use through Indian air space;

16. Keeping a check on aircraft noise and engine emissions in accordance with ICAO Annex 16 and collaborating with the environmental authorities in this matter, if required;

17. Promoting indigenous design and manufacture of aircraft and aircraft components by acting as a catalytic agent;

18. Approving training programmes of operators for carriage of dangerous goods, issuing authorizations for carriage of dangerous goods, etc.

### **Which are the Public Sector companies in Civil Aviation Sector in India?**

Some of the Public Sector Companies(PSU) working in civil aviation sector are:

- Airport Economic Regulatory Authority
- Indira Gandhi Rashtriya Uran Akademi
- Pawan Hans Helicopters Limited
- Airports Authority of India
- National Aviation Company of India Limited and its following subsidiaries
  - o IAL Airport Services Limited
  - o Vayudoot Limited
  - o Airlines Allied Services Limited
  - o Air India
  - o Air India Engineering Services Limited
  - o Air India Air Transport Services Limited
  - o Air India Charters Limited
  - o Hotel Corporation of India Limited

## **Q. Who is a Pilot? What are the duties of a Pilot?**

A Pilot or an **aviator** is a person who flies an aircraft. The first recorded use of the term (*aviateur* in French) was in 1887, as a variation of 'aviation', from the Latin *avis* (meaning *bird*), coined in 1863 by G. de la Landelle in *Aviation Ou Navigation Aérienne* (*Aviation or Air Navigation*). The term **aviatrix** (*aviatrice* in French), now archaic, was formerly used for a female aviator. The term aviator is often applied simply to pilots, but can be extended to include aviation navigators, bombardiers, Weapon Systems Officers, Electronic Warfare Officers.

Pilots fly aircrafts on long and short flights. One hour before take-off pilots check pre-flight plans. These include the route to be taken and height maintained and also includes meteorological information. Pilots have to do complex calculations of take-off and landing and they have to work out the fuel needed for distance to be travelled and height and weight to be maintained. They check equipments and instrument and do briefing to the flight crew. On-flight-pilots have to interpret the data on instrument and control. The most difficult part for a pilot job is Landing and Take-off. Pilots maintain contact with air traffic controls and cabin crew throughout the flight. They also speak at intervals to passengers, giving them information over the public address system on speed and height, details of ground areas they are flying over. Duties are shared usually with one co-pilot, After Landing the aircraft is taxied to its final position and engines are shut down by pilots, later they prepare a flight report, noting any problems or instrument difficulties. Pilot is a profession of discipline, patience, responsibility, punctuality, commitment and dedication. The job requires a lot of hard work, stamina, alertness of mind, adaptability to follow difficult time schedules, ability to think in crisis, good team spirit etc. Apart from possessing these qualities, the persons willing to take up this as profession, should be calm, pleasant, compassionate, understanding and technically sound.

## **Q. How can I become a Pilot in India?**

To become a Pilot first you have to obtain a Student's Pilot License (SPL). Visit website of Directorate General of Civil Aviation (DGCA) and find a flying club approved by them near your place. **Student's Pilot License:** It is the first stage. You have to appear in an objective test that tests basic mathematics knowledge of the aircraft, engines and aerodynamics. Minimum passing marks is 75 out of a maximum of 100. The SPL examination is held all over India by the

flying clubs. 23 flying clubs in India issue SPL. It can be obtained at the age of sixteen years only. The cost of these courses is nearly INR 100,000.

**Private Pilot License:** It is the second stage. It consists of practical and theory examinations. The practical part consists of 40 hours of flying with instructor and 20 hours of solo flying. The theory paper tests the student's knowledge about aircraft engines, air navigation, aviation meteorology and seamanship. The theory paper is conducted by DGCA. The training period is nearly two years depending upon the availability of instructors. The cost is nearly INR 2, 00,000-5, 00,000. It does not allow one to fly commercially and is taken by people having passion for flying.

**Commercial Pilot License:** This is the third stage. The practical part requires a minimum of 250 flying hours, which includes 60 hours of PPL. 200 solo flying hours are needed to complete CPL. The theory part consists of subjects like Air Regulations, Aviation Meteorology, Air Navigation, Technical Planning and Communications in Radio and Wireless Transmission. An additional requirement here is in terms of fitness test. It is conducted by a team of doctors approved by Central Medical Establishment (CME) of the Air Force Unit and the DGCA. The medical clearance has to be taken before the lapse of three years after the flying experience. The average training period is nearly one year. The cost is nearly INR 8, 00,000 to 15, 00,000. It allows one to fly for airlines, private planes and even cargo planes. After getting CPL, you can work as a trainee co-pilot for 6-8 months with any airlines and thereafter co-pilot. Promotion depends as flying experience and vacancies. Co-pilots must have the required numbers of flying hours and license. A pilot undergoes a never ending process of training. Proficiency tests have to be cleared almost thrice a year or more depending on the license category and age of the pilot. The highest among the category of licenses is the Air Transport Pilot License (ATPL) which allows the pilot to fly any type of aircraft. License has to be constantly renewed through passing medical and other tests every six months.

### **Q. How can I become a Helicopter Pilot?**

**Training of Helicopter Pilots:** Helicopter pilots need to have Commercial Helicopter Pilots License (CHPL). This license can be acquired by two stages. The Private Helicopter License (PHPL) is granted after 40 hours of flying training (15 hours should be solo) and on clearing the



written exams of aviation subjects. 60 hours of flying training has to be completed and a written exam has to clear. Helicopter Pilots find employment with the commercial organizations, Public Sector organization and other security/protective agencies.

**Q. Where can I start my flying training to become a Pilot?**

Some of the flying training Schools/Institutes/Clubs approved by DGCA are as follows (visit DGCA website for validity/expiry of approval):

1. Rajiv Gandhi Academy for Aviation Technology (A Govt. of Kerala UT), T.C. 36/1200 (1&2) Vallakkadavu P.O., Enchakkal, Thiruvananthapuram, Kerala
2. The Bombay Flying Club Juhu Aerodrome, Juhu, Mumbai-400 049, Maharashtra
3. Andhra Pradesh Aviation Academy, Hyderabad Old Airport, Hyderabad-500 011, Andhra Pradesh
4. Indira Gandhi Rashtriya Uran Akademi, Fursatganj (Airfield), Distt- Raebareli (UP)- 229302
5. The Gujarat Flying Club, Civil Aerodrome , Harni Road, Vadodara - 390 022 (Gujarat)
6. Government Aviation Training Institute, Old Terminal Building, Biju Patnaik Airport, Bhubaneswar, Orissa
7. Bihar Flying Institute, Patna Airport, Patna - 800 014, Bihar
8. The Madhya Pradesh Flying Club Ltd., Devi Ahilyabai Holkar Airport, Civil Aerodrome, Bijasan Road, Indore-452005 (MP)
9. The Madhya Pradesh Flying Club Ltd., Civil Aerodrome, Bhopal (MP)
10. Haryana Institute of Civil Aviation, Civil Aerodrome, Karnal (Haryana)
11. Haryana Institute of Civil Aviation, Civil Aerodrome, Hissar-125 001 (Haryana)
12. Haryana Institute of Civil Aviation, Civil Aerodrome, Pinjore (Haryana)
13. Nagpur Flying Club Pvt. Ltd., Dr. Babasaheb Ambedkar International Airport, Sonegaon Aerodrome, Nagpur, Maharashtra
14. Amritsar Aviation Club, Amritsar International Airport, P.O. Rajasansi, Amritsar- 143101, Punjab
15. Patiala Aviation Club, Civil Aerodrome, Sangrur Road, Patiala, Punjab

16. The Madras Flying Club Ltd., Gate No.6 Old Airport, Meenambakkam, Chennai-600027, Tamil Nadu
17. Banasthali Vidyapith Gliding & Flying Club, Banasthali University, P.O. Banashali Vidyapith, Dist. Tonk, Rajashtan – 304022
18. Garg Aviation Ltd. HANGAR NO.3, Civil Aerodrome, Cantt., Kanpur-208004, Uttar Pradesh
19. Chimes Aviation, Dhana Airstrip, Sagar, Madhya Pradesh
20. Orient Flight School, 40, G.S.T. Road, St. Thomas Mount, Chennai-600016, Tamil Nadu
21. Ahmedabad Aviation & Aeronautics Ltd., AAA Hangar, Old Terminal Airport, Ahmedabad-380003,
22. Gujarat Amber Aviation Pvt. Ltd. Civil Aerodrome, Pant Nagar, Uttarakhand
23. Yash Air, Datana Air Strip, Dewas Road, Ujjain(MP)
24. Sha-Shib Flying Academy Guna Airport, Guna (MP) 473001
25. Sai Flytech Aviation Pvt. Ltd., Chakarbhata Airport, Bilaspur, Chattisgarh-492101
26. Flytech Aviation Academy, Nadirgul Airfield, Hyderabad, Andhra Pradesh
27. Ambitions Flying club Pvt. Ltd., MS-10, NH-91, Dhanipur Airport, Post Panethi, Aligarh, UP- 202 001
28. Pioneer Flying Academy Pvt. Ltd., Aligarh, Uttar Pradesh
29. Saraswati Aviation Academy, Amhat Airfield, NH-56, Sultanpur – 288001
30. HAL Rotary Wing Academy, Prototype Hangar, HAL Gate No-30, Vimanpura, Bangalore-560017, Karnataka
31. Pilot Training College, Govt. Airstrip, P.O.-Sinkheda, Khargone - 451 001 (MP)
32. Academy of Carver Aviation Pvt. Ltd., Plot P-50, MIDC Airport, MIDC, Baramati-413133 Pune, Maharashtra
33. Alchemist Aviation Pvt. Ltd., Sonari Aerodrome, Jamshedpur, Jharkhand
34. National Flying Training Institute Pvt. Ltd. Gondia, Maharashtra
35. Wings Aviation Pvt. Ltd., 1-11-256/B, Plot No.108, Adjacent Airport Road, Begumpet, Hyderabad (AP)
36. SVKM's NMIMS UNIVERSITY ACADEMY OF AVIATION, Campus-Babulde, Banks of Tapi River, Mumbai-Agra Road, Shirpur, Dist.-Dhule-425 405 Maharashtra

37. Birmi Flying Academy Pvt. Ltd., Hangar No.2, Civil Aerodrome, Sangrur Road, Patiala-147001
38. Chetak Aviation Academy, Mile Stone-10, NH-91, Aligarh Airstrip (Dhanipur), Post-Panethi, Aligarh, UP-202001
39. Rainbow Flying Academy Pvt. Ltd., Near ATC Tower, Hangar No.1, Surat Airport, Surat, Gujarat
40. Southern Pilot Training Academy (A unit of Kohinoor Educational Services) Site B, Salem Airport, Kamalapuram, Salem, Tamilnadu-636309

**Q. Who is an Airhostess? How can I become an Airhostess?**

One of the important aspects of travel by Air concerned with making the journey of the passengers trouble free, comfortable and safe. It is in this respect that the job of airhostesses becomes necessary. All commercial Air Lines whether international or national appoint airhostesses. To become an airhostess one needs good presentable personality as well as pleasing manners and the art of conversation with passengers. Airhostess is a pretty exciting career choice for young girls as the perks are many. Along with good pay, the perks include free travel, meet different people and stay at best hotels of the town. The basic job of airhostess is to make the air travel of passengers comfortable and make them aware of the in-flight rules and regulations. The job of an airhostess although alluring, is also very demanding as it requires a huge amount of calmness and patience. Encountering different kind of people can have its own affects. A person needs to condition herself to maintain the smiling and happy face even when they personally don't feel like it, but the advantages outweigh the pain.

**Eligibility:**

- Qualification- A simple 10+ 2 passing certificate or a Graduation degree (preferably Hotel Management or Tourism)
- Age- below 25 years, different airlines may have slightly higher age limits. The preferred age limit is from 18-21 years
- A valid passport (for international flights)
- Height -should be more than 157.5 centimeters
- Marital status- unmarried

- Eyesight- normal eyesight of 6/6 uncorrected visions in each eye

**Basic requirement:**

- Able to interact comfortably with strangers maintaining calm under duress
- Excellent health and ability to speak clearly
- Pleasant personality and attractive appearance
- Good degree of common sense along with lots of physical stamina to work in adverse conditions

**Selection procedure:**

- Initial screening test followed by a written examination
- Round 2- Group discussion and personal interviews
- Selections and training period- Recruited as trainees, with training period of 2-3 months

**Salary:** The salary is paid according to experience. A fresher command a salary in the range of INR 16,000 to 30,000 while a Head flight attendant may earn up to INR 70,000 in the domestic aviation sector. Foreign airlines are better paymaster. Reputed international airliners pay an average of nearly 1.5 Lac Rupees with senior Airhostesses getting above 3 Lac Rupees apart from lucrative perks and packages.

**Top recruiters:** Domestic aviation sector have names like Jet Airways and Kingfisher Airlines in private sector and Indian Airlines as the public carrier. Singapore Airlines, British Airways, Virgin Atlantic, Qatar Airways, Fly Emirates are the top recruiters in the international airlines category.

**Training:** There are different kinds of Air Hostess training modules available. One can go for a short-term Air Hostess training course lasting not more than 3-6 months or courses lasting a year or more. The training modules include overall personality development and few technical skills. The personality development will help in fulfilling the basic requirements of being an Air-hostess.

**Q. Where can I get a job of Airhostess in India?**

You can apply for job of airhostess in any one of the following Airlines in India:

- Air India
- Air India Domestic/Alliance Air
- GoAir
- Indigo Airlines
- Jagson Airlines
- Jet Airways
- Kingfisher Airlines
- Paramount Airways
- Pawan Hans
- SpiceJet

**Q. Who is an Air Traffic Controller (ATC)? How can I become an ATC?**

Air traffic Controllers are well-trained professionals who are responsible for the management of safe, orderly and expeditious air traffic on the ground as well as in the air. As traffic policemen handle the flow of traffic on our city roads, ATCs design the sequencing of air traffic in the air space and along pre-determined routes of arrival and departure to and from airports around the world. They are also responsible for providing advice and information useful for the safe and efficient conduct of any flight, and for alerting appropriate organizations with regard to aircraft in need of assistance, search and rescue. Every pilot depends heavily on the Air Traffic Controller (ATC), as the limited field of view from the cockpit restricts the pilot's ability to view any other air traffic around the aircraft during the course of the flight as well as on the ground. He/ She is, therefore, dependent on the Air Traffic Controller for directing him in his flight and on the ground for all maneuvers right till the end of his journey. The ATC tells the pilot when to start, where to taxi, when to take off, what speed to fly and what height to maintain to ensure adequate separation between aero planes. The controller is in constant communication with pilots and his job is of paramount importance in preventing collisions and ensuring an organized flow of air traffic. He also tells him when to descend, how fast to descend, what the weather at destination is, he clears him to land and tells him how to taxi his aero plane to the parking slot, so that his passengers can disembark safely at journey's end.

While there are internationally agreed standards and procedures to be followed to accommodate the aircraft movements in a safe and orderly manner, on the ground and sometimes within split seconds, ATCs have to visualize quickly and solve in real time problems involving calculating differential speeds and rates of climb and descent of aircraft and issuing of clearances to provide safe separation between aircraft at any given time.. A large number of details have to be remembered and factored into every decision. A simple oversight or miscalculation or a single moment of inattention - can lead to a catastrophe. In heavy traffic situations the responsibility shouldered is awesome, as the margin for error is zero. Few jobs involve the unremitting effort, focus and concentration required of a controller.

As there are air traffic services round the clock, the work of ATCs is divided into shifts manned by established and stable teams. Although the Air Traffic Controller is essentially alone when he takes decisions, he is part of a large team which coordinates with other sectors and other control centres. While mapping the future course of various aircraft which may converge or diverge over

the navigational aid, ATCs have to talk and understand aircraft transmissions and issue appropriate instructions, and coordinate instructions with other adjacent Air Traffic Services (ATS) units. All instructions to aircraft are recorded continuously on tape and any instructional error is traceable by replay, a tremendous constraint on the individual. You therefore need to have a good clear diction, which can be easily understood by pilots of all nationalities, and Air traffic units across the world. As English is the expected language for radio communications in most parts of the world, proficiency in the English language and its pronunciation is a great advantage. In addition, you require to have good eyesight, hearing and a good, logical and mathematical mind. You must also have a strong sense of responsibility, the ability to stay alert, work under constant pressure, and - of paramount importance, the ability to stay cool and calm, and inspire confidence when speaking to air crews even though you may not feel at all calm or confident at the time.

Air Traffic Controllers need to have the right qualification and training. As all the jobs for ATCs are with the Airports Authority of India, selection is made on the basis of the ATC entrance exam , a medical examination and an aptitude test. You can apply for the entrance test after a degree in engineering, Electronics/ Telecommunication/ Radio Engg/ Electrical/ or a Master's Degree in Electronics. Preference is sometimes given to CPL holders/candidates with basic knowledge of computers, keeping in view the technological changes that are taking place in the field of Air Traffic Management. The written examination comprises of 4 papers in Elective Paper from Concerned Engineering Branch, General English, General Knowledge, and a Numerical/Logic based test. Candidates also have to pass a Voice test, and go through the medical fitness test and a personal interview.

Those selected are sent to the Civil Aviation Training College, Allahabad, for a yearlong training in subjects like Air Traffic Services, Aerodromes and Ground Aids, Air Legislation, Meteorology and so on. Once recruited, all the costs for training are borne by the Airports Authority of India. While the Airports Authority of India (AAI) is the main employer of civilian ATCs, in India, there are some jobs with companies such as Hindustan Aeronautics Limited, and some small private airports. The Indian Air Force also recruits Air Traffic Control Officers who responsible for providing control and advisory services to Pilots of Military and Civil Aircrafts.

**Q. What are the basic educational qualifications (degrees) needed to apply for the civil ATC entrance exam?**

Engineering Degree (BE/B.Tech) in Electronics / Tele Communication / Radio Engg. / Electrical with specialization in Electronics with 1<sup>st</sup> class (60%) OR M.Sc Degree or its equivalent with Wireless Communication, Electronics, Radio Physics or Radio Engg. as a special Subject OR Equivalent with 1<sup>st</sup> Class.

**Q. What is the age limit required to apply for the civil ATC entrance exams?**

Lower age limit is 21 years, while the upper age limit is 27 years

**Q. What are the selection criteria of ATC?**

The selection is made on the basis of a

- Written test
  - 50% questions on subjects relating to educational qualifications prescribed
  - 50% on General Knowledge, General Intelligence, General Aptitude, English etc.
- Voice test
- Personal Interview
- Medical fitness examination

Standard reservation policy applies for SC/ST/OBC/Ex-Servicemen. No reservation for Physically Handicapped candidates.

**Q. What are the negative and positive aspects of this profession?**

Negative: High stress, Shift duties, Extra work load, Non availability of leaves, Lack of Social life due strange shift pattern and no standard festivals' leaves, very high professional risk

Positive: Challenging environment, split second decision making, independent decisions, Work is not to be carried home.

**Q. What are the various ranks that an ATC officer can climb through?**

- Junior Executive
- Assistant Manager
- Manager
- Senior Manager



- Assistant General Manager
- Deputy General Manager
- Joint General Manager
- General Manager
- Executive Director (ATM)
- Member (ATM) in AAI Board

**Q. How can I join the aviation industry in the area of technical/engineering domain?**

The aviation industry can be broadly classified into 2 major technical domains:

1. Aeronautical & Avionics engineering
2. Aircraft Maintenance Engineering

**Aeronautical Engineering:** The modern air vehicles undergo stern atmospheric, pressured, temperature & structural loads conditions on its various components. The technologies that come into play are aerodynamics, avionics, material science and propulsion which collectively are called Aerospace engineering. Aerospace engineering deals with the variegated branches in aeronautical & astronomical engineering. Out of which aeronautical engineering seem to have tremendous scope both in India as well as abroad. These institutes provide the best of faculty, Equipments, Labs and make sure that the students get a professional niche among their global peers.

Some good Aerospace/Aeronautical Engineering college/school in India are:

1. IIT (Indian Institute of Technology), Mumbai
2. Indian Institute of Aeronautical Engineering, Dehradun
3. Indian Institute of Technology, Chennai, TamilNadu
4. Institute of Aviation Technology, Haryana
5. Institute of Information Technology & Management's Aeronautical Engineering Pune, (Maharashtra)
6. Indian Institute of Aeronautics, Delhi
7. Punjab Engineering College, Chandigarh

8. School of Aviation Science and Technology, Delhi Flying Club, New Delhi,
9. Hindustan Institute of Aeronautics, Bhopal, Madhya Pradesh
10. VSM Aerospace, Chelekere, Bangalore, Karnataka

Eligibility: To be an aeronautical engineer one must have a graduate degree( (BE/BTECH) or at least a Diploma in aeronautics which most of the polytechnics offer .the criteria is 10+2 with a minimum of 60%. For better scrutinizing, universities have started conducting an Entrance exam. The IITs have their Joint Engineering Exam (JEE) and other institute conducts their autonomous entrance exams, with the state and national level exams for the government & regional engineering colleges

**Aircraft Maintenance Engineers:** With the boom of myriad airplanes coming to India, the need for Aircraft maintenance engineers (AME's) is going to amplify like anything. The Aircraft Maintenance Engineers play a stellar role in Aviation sector as they are the ones who ensure that the aircraft is in a perfect condition before take – off.

An Aircraft Maintenance Engineer needs to be completely focused on safety as the casual attitude can pose a danger to the lives of people on board. The Aircraft Maintenance Engineer has to certify the aircraft fit for release. The job ensures the availability of safe aircraft at the best possible cost. The Engineering and Maintenance department of an airline performs scheduled and unscheduled tasks, leading to restoration of the expected airworthiness. Aircraft Maintenance Engineer job includes diagnostic and mechanical duties covering maintenance, repair, trouble shooting and overhaul, in addition to performing inspection and modification on an aircraft. An Aircraft Maintenance Engineer, at times, has to work under stringent conditions, tough deadlines and harsh weather in difficult locations. To overcome all this, one should be logical, focused and have perseverance.

Eligibility for Aircraft Maintenance Engineering: To be designated as an aircraft maintenance engineer, one has to approve license from the Director General of Civil Aviation (DGCA), government of India Currently there are 37, DGCA approved training institutes in the country which stipulate students and prepare them for the DGCA License Exam. The Aircraft Maintenance License are issued to the candidates who have successfully cleared the exam. The

minimum eligibility to get a place in the leading AME training schools is 10+2 or its equivalent degree with 50% marks in Physics, Chemistry, and Maths in the aggregate.

Some of the approved AME Training Schools in India are:

1. Aeronautical Training Institute Lucknow(UP)
2. Alpine Institute of Aeronautics, Dehra Dun,Uttarakhand
3. Azad Institute of Aeronautics & Engineering Kanpur Road, Post Chandraval, Near CRPF Camp, Lucknow
4. Budha Institute of Engineering and Aeronautics Nagloi, New Delhi – 110041
5. Center for Civil Aviation Training, Dwarka, New Delhi
6. College of Aeronautical Engineering and Technology, Meerut
7. Falcon Institute of Aircraft Maintenance Engineering Lucknow,UP
8. Hindustan Academy of Aircraft Maintenance Engineers ,Kanpur, Lucknow (U.P.)
9. Indian Institute of Aeronautical science Rothak Road ,Multan Nagar, New Delhi

**Q. What are the jobs available after completing Aircraft Maintenance Engineer course?**

Some of the jobs available after completing AME course are:

**Flight and Ground Instructors:** The Flight Instructors give training to the Pilots on some systems and are mainly with engineering background. On the other hand, the Ground Instructors are from operations background. Flight Instructors are usually senior Pilots who are employed within the airline. They usually perform line duties as they are not released due to shortage of pilots.

**Flight Dispatchers:** Flight Dispatchers' are those people who give a briefing to the Pilots before a flight on the weather, flight path and optimising the flight.

**Factor Facilitators:** The Factor Facilitators give training to the cockpit and cabin crew on resource management. They also undertake joint sessions of cabin crew, engineers and cockpit crew on working together.

**Aviation Psychologists:** The Aviation Psychologists assess the attitudes of the Pilots through psychometric tests. They also guide the young cabin crew to overcome the problems faced by them at their job.

**Aviation Doctors:** The Aviation Doctors conduct a rigorous medical check-up of the Pilots and other employees as per the norms of Aviation Medicine and the Central Medicine Establishment, both run by the Air Force. The airlines have to look their slots months' in advance due to high rush of employees from different airlines.

### **What is Airport Operations Management? What are the duties of an Airport Operation Manager?**

In a rapidly changing environment, airports have to adapt to economic downturns, technological changes, market changes, airline commercial deregulation, and the worldwide trend to convert airports from government organizations to more business-like entities. These pressures have or have had or are having significant effects on the way airports do business, not only from a financial perspective but also from an operational standpoint. In these challenging times, and with emerging competition from other airports and other modes of transportation, it is of the utmost importance that airports recruit and provide employees and managers with the best available knowledge and skills. Duties include coordination between air-traffic control and maintenance personnel; dispatching; using airfield landing and navigational aids; implementing airfield safety procedures; monitoring and maintaining flight records; and applying knowledge of weather information.

Jobs as an Airport Operations Manager are as follows:

- Implement airfield safety procedures to ensure a safe operating environment for personnel and aircraft operation.
- Relay departure, arrival, delay, aircraft and airfield status, and other pertinent information to upline controlling agencies.
- Coordinate with agencies such as air traffic control, civil engineers, and command posts to ensure support of airfield management activities.

- Procure, produce, and provide information on the safe operation of aircraft, such as flight planning publications, operations publications, charts and maps, and weather information.
- Monitor the arrival, parking, refueling, loading, and departure of all aircraft.
- Maintain air-to-ground and point-to-point radio contact with aircraft commanders.
- Train operations staff.
- Plan and coordinate airfield construction.
- Coordinate communications between air traffic control and maintenance personnel.
- Perform and supervise airfield management activities, including mobile airfield management functions.
- Maintain flight and events logs, air crew flying records, and flight operations records of incoming and outgoing flights.
- Receive, transmit, and control message traffic.
- Provide aircrews with information and services needed for airfield management and flight planning.
- Coordinate with agencies to meet aircrew requirements for billeting, messing, refueling, ground transportation, and transient aircraft maintenance.
- Receive and post weather information and flight plan data, such as air routes and arrival and departure times.
- Coordinate changes to flight itineraries with appropriate Air Traffic Control (ATC) agencies.
- Conduct departure and arrival briefings.
- Anticipate aircraft equipment needs for air evacuation and cargo flights.
- Post visual display boards and status boards.
- Check military flight plans with civilian agencies.
- Use airfield landing and navigational aids and digital data terminal communications equipment to perform duties.
- Collaborate with others to plan flight schedules and air crew assignments.

**Q. What are Baggage Jobs and what qualities are required to become a baggage handler in airport?**

Baggage jobs are menial jobs in an airport and baggage jobs can be quite stressful and it is important that the baggage handler is able to quickly and correctly sort baggage to minimize delays and to ensure that everybody gets their correct luggage. Baggage handler jobs are certainly not suited to everyone but to find out whether these baggage jobs are for you!

### **Baggage Handler Working Conditions:**

- A baggage handler needs to be physically strong because they will be expected to lift heavy loads for extended periods of time. Apart from strength, agility is also fairly important because baggage handler jobs involve working in the cramped conditions of an aero plane cargo hold.
- Baggage handler jobs often require shift work because an airport will be active 24/7. Working nights, holidays, weekends and overtime is commonplace in baggage jobs. Depending on the airport, some baggage handler jobs have working hours of 12 hours at a time in a condensed week.
- To be a baggage handler, the individual needs to be able to cope with working at height because the cargo ramp and the aero plane itself could be 20+ft off the ground. All baggage handler jobs require a uniform, hi-visibility clothing and hard hats.
- Those with baggage handler jobs are expected to work outside in all conditions ranging from the cold and windy weather of January to the heat of July and August and the baggage handler needs to be able to deal with this. During the summer months, an aero plane's cargo hold can get very hot.
- The baggage handler needs to be able to work calmly but quickly under pressure as large volumes and baggage and freight can come at once which needs sorting and routing to the correct place (either baggage collection or to an aeroplane). All baggage jobs form part of a team and the ability to work and communicate well with people in the other baggage handler jobs is essential.

- Everybody that applies to baggage handler jobs will be subject to a medical examination as well as stringent background security checks due to the nature of baggage jobs and the proximity of the baggage handler to the aero plane moments before takeoff.