



A-Z CAREERS IN AVIATION

Aeronautical/ Astronautical Engineer: He or she develops, designs and tests aircraft, missiles, satellites and other systems.

Air Cargo / Baggage Handler: He or she loads and unloads cargo and baggage, drives baggage tractors, and operates conveyors, forklifts, and other air freight handling equipment.

Aircraft Assembler: He or she assembles, fits and installs pre-fabricated parts to manufacture fixed wing or rotary wing aircraft or aircraft sub-assemblies. Aircraft assembly inspectors inspect aircraft assemblies for adherence to engineering specifications. They are employed by aircraft and aircraft sub-assembly manufacturers. This may also include the manufacturing of all components on the aircraft.

Aircraft Composite Structures: With the advancement of technology in modern aircraft materials such as graphite and Kevlar fibers, this trade has become a very interesting and challenging trade. The Technician in this trade is responsible for the maintenance, repair and manufacture of plastic, fiberglass and honeycomb structure components such as flight controls (flaps, spoilers, elevators) nose radomes and various other honeycomb construction components.

Aircraft Electrician: The satisfactory performance of any modern aircraft depends to a very great degree on the continuing reliability of all electrical and systems. The Aircraft Electrician must be able to diagnose faults on the electrical systems, to carry out periodic inspections, maintain, repair and overhaul all electrical components. The Aircraft Electrician is furthermore responsible for the repair and installation of all electrical components, as well as the wiring of the aircraft, to ensure proper power supply to all systems. Workshop Technicians in this trade overhauls, repairs and tests electronic equipment such as generators, AC and DC powers controls, temperature control and air conditioning units and various other electrical / electronic components. Maintenance Technicians are responsible for the maintenance, removal and replacement of components, testing and troubleshooting of systems such as air conditioning, galleys, power generation and distribution, aircraft lighting, wiring etc.

Aircraft Instrument Mechanic/ Avionics Tech: The Aircraft Instrument Mechanic/ Avionics Tech is actually an electronic instrument mechanic. A person with a steady hand is required for repairs, as they work with delicate and sensitive equipment. Measuring and testing equipment are used for the tracing of circuits and the measuring of circuit values. The Aircraft Instrument Mechanic is trained to repair, test and install navigational and flying instruments, such as the automatic pilot and electronic compasses. The formal training course includes principles of electricity, magnetic and electromagnetic principles, the theory of aircraft instruments and electronics.

Workshop Technicians in this trade must have a fine eye – hand coordination and are trained to overhaul and calibrate mechanical, analogue, digital and electronic instruments. Data Computers and various electronic units are also tested and repaired. Maintenance Technicians are responsible for the maintenance, removal and replacement of components, testing and troubleshooting of various instrument systems such as pilot static, sensors, quantity and flow indication, engine indication, etc.

Aircraft Mechanic: Workshop Technicians in this trade is responsible for the overhaul and repair of various aircraft components such as fuel control units, pneumatic and hydraulic components, landing gear, wheels, brakes, pumps etc. Maintenance Technicians tasks includes the repair, removal and replacement of components, testing and troubleshooting of systems such as engine, air conditioning, landing gear, flight controls, etc.

Aircraft Painter: Technicians in this trade is responsible for the protective and decorative finishing of the aircraft, its engines and components. Highly sophisticated spray-painting equipment as well as high technology paints and resins are used. Although spray-painting covers the largest facet of trade, sign writing and silk screening printing forms an equally part of his trade. Training includes: - Mixing of colors - Multi spray systems - Aircraft paint application - Stencils, transfers, pounces, etc.

Aircraft Structures: The Aircraft Structures Worker is mainly responsible for the maintenance, repair, overhaul, manufacturing and modification of the aircraft structure and its components. This involves crimping and forming of metal sections, testing and manufacturing of solid and flexible tubing, shot peening and treatment of corrosion. Equipment such as guillotines, bending machines, crimping machines, drilling machines etc. is some of the equipment used in this trade. Training includes riveting, bending, manufacturing and repairing. The formal training course includes basic fitting and workshop practice; sheet metal works, including the development, flex and repair of stressed skin; design and manufacture of components and modifications as laid down from time to time.

Aircraft Trimmer: The comfort of passengers is as important as their safety and for this reason the aircraft interior must be of the highest standard. This trade is responsible for the manufacturing, maintenance and repair of interior components such as fabric covered panels, carpets, curtains and seat covers. Survival equipment such as slide rafts and life vests used on aircraft are regularly serviced and repaired if necessary. Training includes the following: - Leather work practices - Aircraft insulation blanket practices - Sewing machine practices - Maintenance of survival equipment

Aircraft Welder: This Technician is responsible for the repairing of aircraft components. The following welding processes and advanced technologies are applied: oxy-acetylene welding, arc welding, shielded metal-arc welding, gas metal arc welding, gas tungsten-arc welding, heat treatment of ferrous, non-ferrous and special aircraft alloys, plasma and metal spraying processes.

Airline Station Manager: The station manager is in charge of all ground and flight operations for his/her airline. These responsibilities could include aircraft handling, passenger services, air cargo operations, ticket sales, making public announcements, checking baggage, or operating computer terminals depending upon the size of the airline or airport.

Airport Planner: It is this person's job to plan and design airport facilities. It is also his or her role to create a master plan for the airport, noting the increasing demands of passengers and the airline services.

Airport Manager: Airports need to be efficiently run by trained staff. Depending on its size, managing an airport can be a most demanding job, involving many disciplines. The duties of an Airport Manager involve the management and coordination of the complete Airport including, amongst others: Safety, Fire and Rescue, Maintenance and Engineering, Customer Relations, Airside and Landside Management.

Air Traffic Controller: An air traffic controller's job includes tower control, which handles all aircraft movements, take-offs and landings, while approach control monitors approaching and departing traffic, en route control and information and advisory services.

Astronaut: Pushing the edges of space he or she works in the most hostile environment known to mankind. They train for years and often have a background in another aspect of aviation. He or She may work in the private sector or for NASA.

Aviation Law: This is a highly specialized aspect of the law, and is very much internationally orientated. Very few people in are qualified in this field.

Aviation Medicine: This is a highly specialized field of medicine. FAA AMEs often can be general practitioners or can have offices just specializing in aviation medicine. These doctors often have a passion for flying themselves.

Aviation Safety Specialist: Safety is crucial to aviation, and this subject is part of all aviation training, with emphasis on preventive measures, standardization and strict discipline. Aviation safety specialists report incidents and accidents and ensure that their causes are made widely known to all that could benefit by the knowledge. Designs, construction and practices are reviewed constantly, and new findings and techniques are incorporated.

Cabin Crew / Flight Attendant: He or she checks passengers' names and destinations, enforces safety rules, oversees passengers' comfort, and directs evacuation procedures in the case of an emergency. Safety is their number 1 priority while flying.

Aircraft Pilot: The operates the flight controls, watches the instruments and weather, handles radio communications, and keeps logs. The pilot is responsible for flight planning, weather review, pre-flight inspections, briefings, the crew, and passengers to ensure a safe flight.

Flight Dispatcher: The flight dispatcher works the with the pilot planning flight requirements (fuel consumption, altitudes, traffic flow, weather, winds aloft) authorizes take-offs or cancels flights, and advises pilots in the air on weather or route changes. They use computers, calculators, weather charts, and loading reports, sometimes also doing the job of a meteorologist or schedule coordinator.

Flight Instructor: This pilot teaches student pilots how to fly. They demonstrate and explain, on the ground and in the air, basic principles of flight, aerial navigation, weather factors, and federal aviation regulations.

Flight Simulator Instructor: This person trains pilots and checks their skills, using a flight simulator.

Helicopter Pilot: These pilots can make flights to otherwise inaccessible areas. Loadmaster: He or she supervises proper tie-down procedures of cargo and calculates weight distribution of the load.

Meteorologist: He or she analyzes weather data and makes weather reports to the pilot and dispatcher. He or she may also work with the flight dispatcher preparing flight plans.

Ticket Agent: The ticket agent sells tickets, weighs and tags baggage, and answers questions on schedules and fares.

FAA Inspector: Works for the government to ensure the safe operations of all aspects of flight. He or She may be assigned to a specific area or a specific airline to oversee operations. Every state has their own operations office.

NTSB Investigator: The NTSB Investigator works closely with the FAA, operators and with manufacturers to find out why and how accidents happen. Often times they are called out at all times of the day to investigate and look at accident scenes in all conditions and areas. Getting to accident scenes can be as challenging as trying to find out what caused the accident.

International Permitting Planner: He or She works with the government offices to obtain the required permits to move aircraft or cargo around. Often times this can be working with multiple agencies or countries.

Drone Pilot: They operate small or large unmanned aerial vehicles. They can be operated in both the national airspace system (within restrictions) or used by the military for their operations.

Military Pilot: Operates aircraft for the Army, Navy, Air Force, Marines or Coast Guard. These can be transport aircraft to fighter aircraft to helicopters. Each branch of the military has their own respective requirements for joining and for minimum scores needed to gain a flight slot. Often times there are time commitments or service requirements.

Firefighter: They work at the airport specializing in assisting with firefighting needs both with the aircraft and airport. He or She are specially trained to deal with various chemicals that may not be found other places. The training can also include being a paramedic to assist passengers in need.

Air Evac/ Air Medic: He or She is responsible for the safe transport of passengers or organs to hospitals. They can be fixed-wing or helicopter pilots. Often times they are flying at all times of the day and night, sometimes with little notice.