



Aircraft Maintenance Technician Careers

Licenses, ratings & pathways —  **USA Edition**

A friendly, practical guide to becoming an FAA-certificated Airframe & Powerplant (A&P) mechanic — maintenance careers, training, the ratings, and how to get started.

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Introduction

Welcome. This guide explains how to build a career as an **aircraft maintenance technician** in the United States — holding the FAA **Airframe & Powerplant (A&P)** certificate. It covers what the job involves, the working environment, how to train, the ratings under the **Federal Aviation Administration (FAA)**, and how to take your first steps. It was created by a certificated mechanic with 18 years of international experience — to give you an honest, simple roadmap.

In the U.S., civil aviation safety is regulated by the **Federal Aviation Administration (FAA)**. Mechanic certification falls under **14 CFR Part 65**, and the rules for performing and approving maintenance are found in **14 CFR Part 43**. The FAA sets the standards, issues certificates, and ensures aircraft are maintained to keep the flying public safe.

To understand the role of an aircraft mechanic, you must first understand the safety culture built over many years by maintainers worldwide. Jerry Lederer, founder of the U.S. Flight Safety Foundation and known as the "Father of Aviation Safety," penned a Mechanic's Creed that applies to aviation maintainers everywhere. America's A&P mechanics, like their counterparts around the world, are a vital link in the aviation safety chain.


The Mechanic's Creed

***UPON MY HONOR** I swear that I shall hold in sacred trust the rights and privileges conferred upon me as a qualified aircraft maintenance engineer/technician. Knowing full well that the safety and lives of others are dependent upon my skill and judgment, I shall never knowingly subject others to risks which I would not be willing to assume for myself, or for those dear to me.*

***IN DISCHARGING** this trust, I pledge myself never to undertake work or approve work which I feel to be beyond the limits of my knowledge; nor shall I allow any non-qualified superior to persuade me to approve aircraft or equipment as airworthy against my better judgment; nor shall I permit my judgment to be influenced by money or other personal gain; nor shall I pass as airworthy aircraft or equipment about which I am in doubt, either as a result of direct inspection or uncertainty regarding the ability of others who have worked on it to accomplish their work satisfactorily.*

— Jerry Lederer, founder of the U.S. Flight Safety Foundation

For those willing to commit to upholding these ideals, there is a long-term and deeply satisfying career as an aircraft mechanic. Keeping America's fleet of private and commercial aircraft flying safely is the job of the certificated A&P mechanic — and there is real satisfaction in seeing your work result in well-maintained, safe, and efficient aircraft.

 **Globally respected.** The FAA A&P certificate is one of the most recognized maintenance credentials in the world — respected or accepted in many countries as proof of technical competence, opening doors far beyond the United States.

Maintenance Careers



What is an A&P mechanic?

Every aircraft — from a small piston aeroplane to a large jet or helicopter — relies on skilled people to inspect it and keep it safe for flight. An **Airframe & Powerplant (A&P) mechanic** is certificated by the FAA to perform and **approve for return to service** the maintenance, preventive maintenance, and alterations within the scope of their ratings. This is one of the most trusted responsibilities in all of aviation.

The U.S. certifies mechanics because it is a signatory to the *Convention on International Civil Aviation* — **Annex 1** (personnel licensing) and **Annex 6** (the maintenance release) — which align personnel standards internationally.

On-aircraft vs. shop work

Maintenance is either performed **on the aircraft**, such as rectifying defects before departure, or **in a shop**, such as engine overhaul or avionics bench testing. Both carry the same responsibility — the technician testing a navigation unit in a shop is just as vital to safety as the one releasing the aircraft on the ramp.

Mechanical vs. avionics specialists

Broadly, aircraft and their mechanical systems are maintained by A&P mechanics, while avionics systems (navigation, communications, flight management, weather radar) are often handled by avionics technicians and repairmen. Modern aircraft range from classic wood-and-fabric structures to advanced composites and microprocessor-controlled jets — so a career can follow many specializations.

The Working Environment



Mechanics depend on clear communication with flight crews to locate and repair faults. For example, a pilot may report a malfunctioning fuel gauge before takeoff; the mechanic then diagnoses the electrical system, finds the faulty wiring, and replaces it. Safety always comes first, but the work is done efficiently so the aircraft can return to service.

The environment ranges from the **Line** (open-air ramp, dispatching serviceable aircraft) to the **Base** (hangar, performing minor and major work) to the **shop** (component overhaul). Inspections are scheduled by flight hours, calendar time, or operating cycles. Larger aircraft carry onboard monitoring systems that track key functions and reliability data.

- **A safe, professional workplace.** Aviation maintenance environments are subject to security and, where applicable, DOT/FAA drug-and-alcohol programs. Many mechanics see this as a benefit — it creates a disciplined, safe, and respectful place to work.


Training & Qualifications

There are three accepted routes to A&P eligibility. A strong foundation in mathematics, physics, electronics, and mechanical drawing is valuable, and good communication skills matter because of the records you must read and write.

Pathway	What it looks like
Part 147 school	Graduate from an FAA-approved Aviation Maintenance Technician School (AMTS) under 14 CFR Part 147 . The school provides the required training hours and records (typically 18–24 months).
Work experience	Document 30 months of practical experience on both airframe and powerplant (or 18 months for a single rating), then get FSDO sign-off.
Military	Use qualifying military maintenance experience; your local FSDO evaluates your records for equivalency.

To earn the A&P certificate you must:

- Be at least **18 years of age**.
- Be able to **read, write, speak and understand English** (an FAA requirement — oral and practical tests are in English).
- Meet eligibility via school, experience, or military, and obtain authorization from your local **FSDO** (Flight Standards District Office).
- Pass the **three written (knowledge) tests**: General, Airframe, and Powerplant (70% to pass).
- Pass the **oral and practical tests** with a Designated Mechanic Examiner (DME).

 **Tip for experienced international mechanics:** The work-experience route is often the fastest. With 30+ months of documented civil aviation maintenance experience, you can go directly toward the tests without attending a full Part 147 school.

Choosing a training school — questions to ask

- Is it an **FAA-approved Part 147** school, and what is its pass rate?
- Where are classes located, and what are the entry requirements and fees?
- Do they assist with FSDO authorization and exam preparation?
- What are the instructors' qualifications, and what is their graduate employment record?

Certificate Responsibilities


What an A&P certificate allows you to do

As the holder of an A&P certificate, you may:

- **Perform** maintenance, preventive maintenance, and alterations within your ratings.
- **Approve aircraft for return to service** after that work, under 14 CFR Part 43.
- **Supervise** others doing work you are yourself qualified and permitted to perform.

The certificate holder's responsibilities

Just as a pilot is responsible for a safe flight, the mechanic is fully responsible for the maintenance they perform or supervise. You must work to **approved data and maintenance manuals**, use the **right tools and approved parts**, and approve for return to service only when the aircraft is airworthy and still meets its type design.

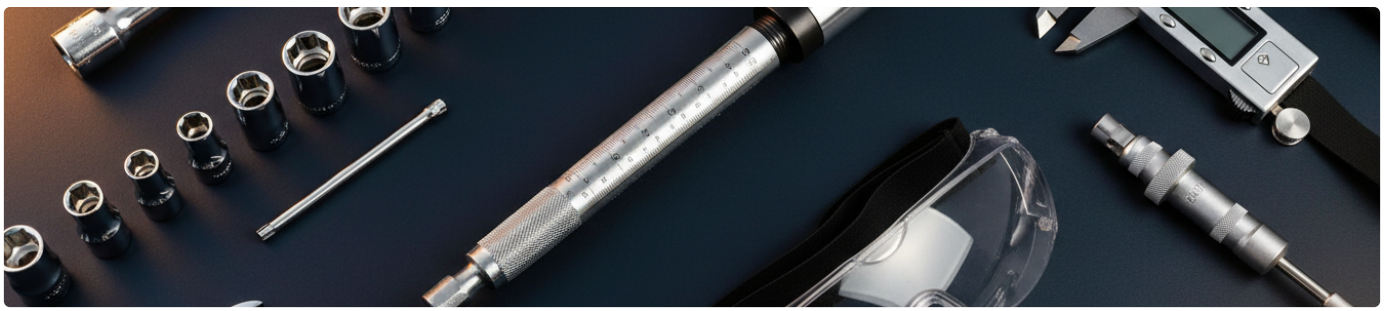
 **Your certificate does not expire** — it is valid for life, provided you exercise its privileges responsibly. To perform annual inspections, however, you must additionally hold an **Inspection Authorization (IA)**, which requires experience, a fixed base, an FAA exam, and annual renewal.

Employment Opportunities

Skilled aircraft maintenance professionals are in steady demand in the U.S. A significant share of openings comes from an **aging workforce** as experienced mechanics retire, while aviation technology keeps advancing — increasing demand for those current in **avionics, composites, and modern aircraft systems**.

Employers include the major airlines, regional carriers, helicopter operators, business aviation, and **FAA-certificated repair stations (Part 145 / MRO)**. Smaller operators offer broad, hands-on experience early in your career; the major airlines typically offer higher pay and travel benefits. **Experience is the key** that gives applicants the best chance to secure and advance in a role.

FAA Mechanic Ratings



The FAA mechanic certificate is issued with one or both of two ratings that define the scope of work you may approve:

Rating	Scope
Airframe (A)	The aircraft structure, systems, and components — fuselage, flight controls, hydraulics, landing gear, environmental and related systems.
Powerplant (P)	Aircraft engines (piston and turbine), propellers, and engine-related systems and accessories.
A&P (combined)	Both ratings together — the industry standard, giving you the broadest authorization and the strongest employability.

● **Always aim for both.** Holding the combined A&P certificate is the industry standard. Earning only one rating significantly limits the jobs open to you.

Key FAA regulations to know

- **14 CFR Part 65** — Certification of Airmen (governs the A&P certificate).
- **14 CFR Part 43** — Maintenance, Preventive Maintenance, Rebuilding, and Alteration.
- **14 CFR Part 91** — General Operating & Flight Rules (airworthiness standards).
- **14 CFR Part 145** — Repair Stations (if you work at an FAA-certificated MRO).

Choosing Your Workplace

Where you work is your choice — and it shapes the experience you'll gain. Ask:

- Does the organization give you the **quality and range of experience** you need?
- Do they offer an **apprenticeship or trainee program**, and will they allow time for study?
- What are your **prospects after training**, and what do they expect from you?
- What is their **reputation** in the industry?

Time spent researching the experience required is well worth it. Know what you need, and talk to prospective employers to confirm they can meet your goals.

✓ **You're ready to start.** Choose your eligibility path, build documented experience, pass your FAA written, oral, and practical tests, and protect your reputation by upholding the Mechanic's Creed in everything you sign off. A rewarding, globally respected career awaits.

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Created by an FAA A&P | Canadian AME M1/M2 | 18 years of international experience
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This guide is for general information only. Always verify current requirements directly with the FAA (faa.gov) and 14 CFR Parts 65, 43 & 147, and your local FSDO.