

Aircraft and Avionics Equipment Mechanics and Technicians

SOC: 49-2091 • Career Profile Report

■ Key Facts

<div>\$79,140</div> <div>Median Salary</div>	<div>160,800</div> <div>Employment</div>	<div>+5.0%</div> <div>Growth Rate</div>
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■ Requirements & Salary Range

Education: Postsecondary

■ Automation Risk Assessment

Low Risk - 25.0% probability of being automated in the next 10-20 years.
This job is relatively safe from automation due to its creative, social, or complex problem-solving requirements.

■ Work-Life Balance

4.5/10 - Fair work-life balance

■ Personality Fit (RIASEC)

Higher scores indicate better personality fit for this career type.

Realistic	8.8/10	Investigative	7.4/10
Artistic	4.4/10	Social	5.6/10
Enterprising	4.6/10	Conventional	6.4/10

■ Top Skills Required

Detail oriented, Dexterity, Mechanical skills, Observational skills, Physical strength, Problem-solving skills

✓ Strengths

- High Demand
- Flexible Work
- Continuous Learning

■ Challenges

- Burnout Risk
- Rapid Technological Change

■ What They Do

Aircraft and Avionics Equipment Mechanics and Technicians are highly skilled aviation professionals who inspect, maintain, and repair **aircraft structures, engines, and onboard electronic systems**. Their work ensures airplanes and helicopters operate safely, reliably, and in full compliance with strict aviation regulations. This role is critical to flight safety and the smooth operation of the aviation industry.

This career is well suited for individuals who enjoy technical problem-solving, hands-on mechanical work, and working in safety-critical environments.

What Do Aircraft and Avionics Mechanics and Technicians Do?

These professionals are responsible for keeping aircraft airworthy and compliant with regulations.

Common responsibilities include:

- Inspecting aircraft components for wear, damage, or defects
- Performing routine maintenance and scheduled inspections
- Diagnosing mechanical, electrical, or electronic system problems
- Repairing or replacing aircraft parts and assemblies
- Testing avionics systems such as navigation, communication, and flight controls
- Documenting maintenance actions in detailed logbooks
- Ensuring all work meets aviation safety and regulatory standards

Aircraft vs. Avionics Specializations

While many professionals cross-train, specializations often include:

- **Aircraft Mechanics:** Focus on airframes, engines, hydraulics, and structural systems.
- **Avionics Technicians:** Specialize in electronic systems such as radar, navigation, and flight instrumentation.
- **Line Maintenance Technicians:** Perform quick-turn inspections and repairs between flights.
- **Heavy Maintenance Technicians:** Conduct in-depth overhauls and major inspections.

Skills and Abilities Needed

Aircraft and avionics technicians combine mechanical precision with technical knowledge.

Core Professional Skills

Personal Qualities That Matter

Education and Certification Pathway

Entering this field requires specialized training and certification:

- **FAA-Approved Aviation Maintenance Program (common):** Certificate or associate degree
- **On-the-Job Training:** Gaining experience under certified mechanics
- **FAA Certification:** Required to perform and sign off on aircraft maintenance
- **Avionics-Specific Training (optional):** Advanced electronics and systems education
- **Continuing Education:** Required to stay current with evolving aircraft technology

Where Do Aircraft and Avionics Mechanics and Technicians Work?

They are employed across the aviation and aerospace industry:

- Commercial Airlines
- General Aviation and Private Aircraft Operators

- Aircraft Manufacturing Companies
- Maintenance, Repair, and Overhaul (MRO) Facilities
- Military and Government Aviation Organizations

Work environments may include hangars, airfields, or outdoor flight lines and often involve shift work.

How Much Do Aircraft and Avionics Mechanics and Technicians Earn?

Earnings vary by certification level, experience, and employer:

- Entry-Level Technicians: Typically earn strong technical trade wages
- Certified and Experienced Mechanics: Often earn higher compensation
- Specialized Avionics or Inspection Roles: May earn premium pay

Compensation often includes overtime, shift differentials, and travel opportunities.

Is This Career Difficult?

This career is technically demanding and responsibility-heavy. Mechanics and technicians must follow exact procedures, work under time pressure, and maintain absolute precision—because small errors can have serious safety consequences. The challenge lies in combining speed, accuracy, and compliance in a highly regulated environment.

Who Should Consider This Career?

This career may be a strong fit if you:

- Are fascinated by aircraft and aviation systems
- Enjoy hands-on mechanical and technical work
- Are detail-oriented and safety-focused
- Can work flexible schedules and shifts
- Want a high-responsibility career with global demand

How to Prepare Early

- Take math, physics, electronics, and mechanical courses
- Learn to read technical diagrams and manuals
- Develop strong tool-handling and troubleshooting skills
- Explore aviation maintenance or avionics training programs
- Seek internships or apprenticeships in aviation maintenance

Aircraft and avionics equipment mechanics and technicians keep aviation safe and reliable—ensuring every aircraft that leaves the ground is meticulously inspected, expertly maintained, and ready to fly with precision and confidence.

*Generated by StartRight • Data from U.S. Bureau of Labor Statistics & O*NET*

Source: <https://www.bls.gov/ooh/installation-maintenance-and-repair/aircraft-and-avionics-equipment-mechanics-and-technicians.htm>