

THE MILITARY AVIONICS CAREER PLAYBOOK

Your Guide to General & Business Aviation Jobs

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Representing 900+ avionics shops worldwide since 1957

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Section 1: The Industry Nobody Told You About

General & Business Aviation: The Hidden Opportunity

When you think about aviation careers after the military, you probably think about the airlines. Delta. United. Southwest. Everyone does. That's the problem.

There's an entire sector of aviation that most military technicians never hear about, yet it's actively trying to hire them. It's called General Aviation (GA) and Business Aviation (BA), and it represents the vast majority of aircraft in the United States.

Here's a number that might surprise you: There are approximately 220,000 general aviation aircraft in the U.S. compared to roughly 5,800 commercial airline aircraft. That's almost 40 times more aircraft that need maintenance, repairs, and avionics work.

What Is General & Business Aviation?

General Aviation encompasses everything from single-engine Cessnas to corporate jets. Business Aviation specifically refers to aircraft used for business purposes, from a turboprop carrying executives to a Gulfstream G650.

The shops that maintain these aircraft are called Part 145 Repair Stations, certified by the FAA to perform maintenance, inspections, and repairs. There are thousands of these shops across the country, ranging from small operations with five technicians to large facilities with hundreds.

Why This Matters to You

The GA/BA industry has a severe technician shortage. Shop owners across the country report that finding qualified technicians is their number one challenge. Meanwhile, thousands of highly trained military avionics technicians separate each year, unaware that an entire industry wants to hire them.

The disconnect is real: Shops can't find technicians. Military techs can't find jobs that use their skills. Both sides lose. This Playbook exists to fix that.

The Culture Difference

If you've spent years in military aviation, you'll notice some differences in the civilian GA/BA world:

- **Smaller teams:** Many shops have 5-20 technicians. You'll know everyone.

- **Varied aircraft:** Instead of one platform, you might work on multiple aircraft types.
- **Customer interaction:** You may deal directly with aircraft owners.
- **Less bureaucracy:** Decisions happen faster. Less paperwork.
- **Geographic stability:** No deployments. No PCS orders. You pick where you live.

Connectivity: The Growth Area

If you want to know where the industry is heading, look at connectivity. Aircraft owners and operators now expect the same internet access at 45,000 feet that they have on the ground. This has created an entire category of avionics work that barely existed a decade ago.

Cabin connectivity systems from providers like Gogo, Starlink Aviation, Viasat, and SmartSky are being installed across the fleet, from King Airs to Gulfstreams. These systems involve satellite antennas, radomes, routers, wireless access points, cabin management integration, and the wiring and power systems to support them.

Medium and large MROs are constantly installing and upgrading connectivity solutions. A shop that installs Starlink on a Citation needs technicians who understand RF systems, antenna placement, network configuration, and integration with existing cabin management systems. This is avionics work, and demand is growing.

For military technicians, this is an opportunity. Your experience with datalinks, communication systems, and integrated electronics provides a foundation. If you worked with SATCOM systems (MILSTAR, AEHF, UFO, or tactical terminals), Link 16, SADL, or other military data networks, you understand RF principles, antenna theory, and system integration. The civilian products are different, but the troubleshooting methodology is identical. Connectivity is one more reason the industry needs trained technicians and one more area where your military background applies directly.

GA/BA vs. Commercial Airlines vs. Defense Contractors

When you separate from the military, you have three main paths for using your avionics skills: General/Business Aviation, commercial airlines, or defense contractors. Each has distinct advantages. Here's an honest comparison:

Factor	GA/BA (Part 145)	Commercial Airlines	Defense Contractors
Entry Barrier	Lower - CAET + experience	Higher - often requires A&P	Moderate - clearance helps
Work Variety	High - many aircraft types	Low - fleet standardization	Low to moderate
Schedule	Mostly day shift, M-F	Shift work, nights, weekends	Varies by contract
Location Flexibility	High - shops everywhere	Limited - hub cities	Limited - base locations
Advancement Speed	Fast - merit-based	Slow - seniority-based	Moderate - structured
Management Path	Accessible - small teams	Competitive - union rules	Available - corporate ladder
Ownership Potential	Yes - open your own shop	No	No
Starting Pay	\$46K-\$55K	\$50K-\$65K	\$55K-\$75K
Top Pay	\$90K-\$156K + ownership	\$90K-\$120K	\$85K-\$130K

The Career Advancement Advantage

Here's something most military technicians don't realize: GA/BA offers a faster path to leadership and ownership than any other aviation career.

In commercial airlines: Advancement is largely seniority-based. You might be the best technician on the floor, but you'll wait your turn behind people who were hired before you. Union contracts often dictate promotion timelines. Becoming a supervisor or manager can take 15-20 years, and even then, positions are limited and competitive.

In defense contracting: There are management paths, but you're climbing a corporate ladder at companies with thousands of employees. Your fate is also tied to contract wins and losses. When a contract ends, your job might end with it.

In GA/BA: Advancement is merit-based. If you're good, you get noticed fast in a shop with 15 people. Lead tech positions open up. Shop manager roles become available. The path from technician to director of maintenance to ownership is not just possible, it's common.

Consider this progression that happens regularly in GA/BA:

1. Start as an install or bench technician (Years 1-3)
2. Become a lead technician or shift supervisor (Years 3-5)
3. Move into shop manager or director of maintenance (Years 5-10)
4. Become general manager or partner (Years 8-15)
5. Open your own Part 145 repair station (Years 10-20)

The Ownership Path

This is the factor that makes GA/BA unique: you can own your own shop.

Opening a Part 145 repair station is not simple, but it's achievable. Many successful shop owners started exactly where you might start: as a technician. They learned the business, built relationships with customers and vendors, saved capital, and eventually opened their own facility.

A small avionics shop can be started with a handful of employees, basic test equipment, and a lease at a local airport. You don't need a massive facility. Some owners start by specializing in a niche, like a specific aircraft type or equipment brand, then expand.

The economics can be compelling. Shop owners earn well above technician wages. A successful small shop owner can earn \$150,000-\$300,000 or more annually. A medium shop owner with 20+ employees can do significantly better. This path simply doesn't exist in commercial aviation or defense contracting.

Even if ownership isn't your goal, knowing it's possible changes the equation. You're not just trading hours for wages with a ceiling. You're building skills and relationships that could become a business.

Flight Opportunities

Here's something you won't find at an airline or defense contractor: many GA/BA technicians become pilots, and some shops actively encourage it.

After major avionics work, aircraft need to be flight tested before returning to the customer. Someone has to verify that the new autopilot tracks correctly, the nav system

captures the glideslope, and the comm radios work at altitude. At many shops, technicians with pilot certificates participate in these test flights alongside a pilot-in-command. You get to see your work perform in the environment it was designed for.

Beyond flight testing, being a pilot makes you a better avionics technician. When a customer describes a squawk, you understand what they experienced in the cockpit. You can replicate the conditions that caused the problem. You speak the same language. This is why many shop owners and senior technicians hold pilot certificates, and why some shops offer flight training as a benefit.

Look back at the benefits table in Section 2: 25-42% of shops offer flight training assistance. That's not common in most industries. If flying interests you, GA/BA puts you closer to it than any other career path. Some technicians eventually become pilot-mechanics, maintaining and flying aircraft for private owners or flight departments. Others simply enjoy the occasional test flight as a perk of the job.

The trade-off is real: defense contractors often pay more initially, and airlines offer union protections and flight benefits. But if you want career control, advancement potential, and the possibility of building something of your own, GA/BA is the path.

The Different Types of Technician Roles

Part 145 avionics shops typically have three main technician roles. Understanding these will help you identify where your military experience fits best.

Bench Technician

Bench techs work at a workstation inside the shop, not on the aircraft. When a radio, transponder, autopilot, or other avionics unit fails, it gets removed from the aircraft and sent to the bench. Your job is to figure out what's wrong and fix it.

A typical day might include: receiving a Collins VHF radio with an intermittent transmit issue, connecting it to a test set, isolating the fault to a specific circuit board, replacing a failed capacitor or IC, verifying the repair on the test bench, documenting everything, and creating the FAA 8130-3 airworthiness tag that allows the unit to go back into service.

Bench work requires strong electronics fundamentals, the ability to read schematics and troubleshoot to component level, soldering skills (including surface mount), and

familiarity with test equipment like oscilloscopes, spectrum analyzers, and manufacturer-specific test sets. If you did I-Level (intermediate) maintenance in the Navy or component repair in other branches, bench work will feel familiar.

Install Technician

Install techs work directly on the aircraft. When a customer wants to upgrade their panel with a new GPS navigator, add ADS-B capability, install a complete glass cockpit, or add Starlink connectivity, the install tech makes it happen.

A typical project might span several days or weeks: reviewing the engineering drawings and STCs (Supplemental Type Certificates), removing old equipment, running new wiring, fabricating wire harnesses, mounting antennas and displays, connecting everything according to the installation manual, performing functional tests, and working with inspectors to sign off the work.

Install work requires the ability to read wiring diagrams and installation drawings, wire termination and harness fabrication skills, mechanical aptitude for mounting equipment in tight spaces, attention to detail on documentation, and the patience to troubleshoot integration issues when multiple systems need to talk to each other. Connectivity installations add requirements for RF cable routing, antenna placement, and network configuration. If you did O-Level (organizational) maintenance or worked on aircraft modifications, install work is a natural fit.

Instrument Technician

Instrument techs specialize in flight instruments and related systems. This includes pitot-static instruments (altimeters, airspeed indicators, vertical speed indicators), gyroscopic instruments (attitude indicators, heading indicators, turn coordinators), and the pitot-static system itself.

Work involves bench repair and calibration of instruments, leak-checking pitot-static systems, performing transponder and altimeter certifications required by regulations, and troubleshooting instrument system discrepancies. Many shops combine instrument and avionics work, so you might do both.

A Day in the Life at a Part 145 Shop

What's it actually like working at a civilian avionics shop? Here's what to expect:

Hours: Most shops run standard business hours, typically 7:00-4:00 or 8:00-5:00, Monday through Friday. Some larger facilities have second shifts. Overtime happens, especially when an aircraft is AOG (Aircraft On Ground) and a customer is losing money every hour their plane can't fly. But you're not pulling 12-hour shifts as the norm, and you're going home to your own bed every night.

Variety: Unlike the military where you might work on one aircraft type for years, a GA/BA shop sees everything. Monday you might troubleshoot a Garmin GTN 750 in a Cessna 182. Tuesday it's a Collins Pro Line 21 system in a King Air. Wednesday a customer brings in a Gulfstream for a Starlink installation. Thursday you're bench-testing a transponder. You'll constantly learn new equipment.

Pace: There's a rhythm of scheduled work (planned installations, routine maintenance) interrupted by urgent jobs. When a corporate flight department calls because their G550 has a comm failure and executives need to be in London tomorrow, that becomes priority one. The ability to shift gears quickly is valued.

Team Size: Many GA/BA shops have 5-20 technicians total. You'll know everyone. There's less hierarchy than the military. The shop owner or manager might be working alongside you. Your input matters, and good ideas get implemented without going through fifteen levels of approval.

Customer Interaction: You may deal directly with aircraft owners and pilots. When the owner of a Cirrus SR22 asks why their autopilot is hunting, you might be the one explaining the issue and the fix. Customer service skills matter more than in military maintenance.

Autonomy: You'll have more freedom in how you approach problems. There's still documentation and procedures, but less of the rigid step-by-step oversight. Shops trust their technicians to figure things out. This is both liberating and a responsibility.

Types of Aviation Companies: Where You Might Work

The GA/BA industry includes several types of employers. Understanding the differences helps you target your job search.

Part 145 Repair Stations (MRO)

MRO stands for Maintenance, Repair, and Overhaul. These are independent shops certified by the FAA to perform avionics work. They don't manufacture the equipment; they fix and install it. This is where most avionics technicians work.

MROs vary dramatically in size, scope, and the types of aircraft they service. Understanding these differences helps you find the right fit.

Small Shops (2-10 Technicians)

Small shops are often family-owned or single-owner operations serving a local or regional customer base. They're typically located at general aviation airports, FBOs (Fixed Base Operators), or small municipal airports.

Aircraft types: Primarily piston singles and twins (Cessna 172, 182, 206, Piper Cherokee, Bonanza, Baron) and light turboprops (King Air 90/200, Pilatus PC-12, TBM). Some small shops specialize in experimental/homebuilt aircraft or specific legacy fleets.

Scope of work: Panel upgrades, GPS/ADS-B installations, autopilot installs, transponder and altimeter certifications, troubleshooting squawks, antenna replacements. Work tends toward installations and line maintenance rather than deep component repair, since complex bench work often gets sent to larger facilities or OEMs.

What it's like: You wear multiple hats. One day you're installing a Garmin G500 TXi, the next you're troubleshooting a 30-year-old King autopilot. The owner probably works alongside you. Decisions happen fast. You might deal directly with customers, answer phones, and help order parts. Benefits may be limited, but the environment is personal and you see the direct impact of your work. If you want to learn quickly and don't mind variety, small shops are excellent training grounds.

Medium Shops (15-75 Technicians)

Medium-sized MROs like Banyan Air Service (Fort Lauderdale), West Star Aviation (multiple locations), or Signature TECHNICAir serve a broader customer base and handle more complex aircraft. They often have multiple service lines: avionics, airframe, paint, interior.

Aircraft types: Light to midsize jets (Citation 500 series, Learjet, Hawker, Falcon 50/900), turboprops (King Air 350, Pilatus), and some larger cabin jets. Medium shops often develop specializations, such as being a Garmin dealer, Collins service center, or having STCs for specific aircraft/equipment combinations.

Scope of work: Complete panel modernizations, glass cockpit upgrades (G1000 to G1000 NXi, Pro Line 21 to Pro Line Fusion), FANS/CPDLC installations for international ops, cabin connectivity systems (Gogo AVANCE, Starlink Aviation, SmartSky), WiFi and cabin entertainment systems, and full interior/exterior refurbishment projects that include avionics as part of a larger overhaul. Bench repair capabilities are stronger, with technicians specializing in specific equipment lines.

What it's like: More structure than a small shop, but still personal. You'll likely specialize somewhat, maybe focusing on install work or bench repair rather than doing everything. There's a parts department, a dedicated sales team, and probably a shop manager between you and the owner. Benefits are typically better: health insurance, 401(k), paid training. Projects are longer and more complex. A Citation getting a full panel upgrade might be in your bay for weeks. You'll work with a team on big jobs.

Large Shops (100+ Technicians)

Large MROs like Duncan Aviation (Lincoln, NE and Battle Creek, MI), Elliott Aviation, StandardAero, and Constant Aviation are full-service facilities handling the most complex aircraft and projects. These are often destination shops where aircraft fly in from across the country or internationally for major work.

Aircraft types: Midsize to large cabin jets (Gulfstream G450/G550/G650, Bombardier Challenger/Global, Falcon 7X/8X, Citation Longitude/Latitude), legacy jets requiring extensive modifications, and head-of-state/VIP aircraft with special requirements. Some large MROs also maintain fleets for fractional ownership companies or large corporate flight departments.

Scope of work: Complete aircraft refurbishment projects costing millions of dollars, involving avionics, airframe, engines, paint, and interior done simultaneously. Major avionics suite upgrades (analog to glass, Pro Line 4 to Pro Line 21/Fusion), ADS-B Out compliance on complex aircraft, RVSM certification, HUD installations, full EFB integration, cabin connectivity solutions (Gogo, Starlink, Viasat, Collins Aerospace Ka-band), cabin management systems, custom engineering solutions. Extensive bench capabilities including component overhaul, circuit board repair, and specialized test equipment.

What it's like: This is corporate aviation maintenance. Multiple shifts, structured processes, documented procedures. You'll specialize: install tech, bench tech, specific aircraft types, specific equipment manufacturers. Training programs are formal. Career paths are defined: technician to lead tech to supervisor to manager. Benefits are comprehensive. The work is complex and challenging. A Gulfstream coming in for a 10-year inspection with a complete panel upgrade is a multi-month, multi-million dollar project with a team of specialists. There's more bureaucracy than a small shop, but also more resources, training opportunities, and advancement potential.

For military technicians, all three sizes offer opportunities. Small shops value versatility and initiative. Medium shops offer a balance of variety and specialization. Large shops provide the structure and career progression that may feel more familiar coming from the military. Your choice depends on what environment suits you best.

OEM Service Centers

OEM stands for Original Equipment Manufacturer. These are the companies that design and build avionics equipment: Garmin, Collins Aerospace, Honeywell, L3Harris, and others. They also operate their own service centers to repair equipment, often handling warranty work and complex repairs that independent shops can't do.

Working for an OEM means deep specialization in their product line. A Garmin service center technician becomes an expert on Garmin equipment. OEMs often have better benefits and more structured career paths, but the work may be more repetitive.

OEMs are hiring military technicians just like everyone else in the industry. Don't assume you need civilian Part 145 experience first. Your military background in electronics troubleshooting and systems maintenance is exactly what they're looking for. Apply directly.

Pros: Strong benefits, training on latest equipment, career advancement paths, stable employers. Cons: Less variety, may require relocating to specific locations, more corporate environment.

Aircraft Manufacturers

Companies like Textron Aviation (Cessna, Beechcraft), Gulfstream, Bombardier, Cirrus, and others build aircraft. They have completion centers where avionics get installed in new aircraft, plus service centers that maintain aircraft after delivery.

Working for an aircraft manufacturer means focusing on their specific aircraft types. Gulfstream technicians work on Gulfstreams. The work can be either new installations (completion center) or service/repair work.

Pros: Work on high-end aircraft, good benefits from large companies, manufacturer training. Cons: Usually requires relocating to factory locations (Wichita, Savannah, etc.), less variety.

Distributors and Dealers

These companies sell avionics equipment and often have installation shops. They're authorized dealers for specific brands, selling and installing new equipment. If Garmin has an authorized dealer network, those dealers sell Garmin products and install them.

The work focuses heavily on new installations rather than repairs, since warranty items go back to the OEM.

Flight Departments

Large corporations, fractional ownership companies (like NetJets), and charter operators have their own maintenance departments. Instead of working on many customers' aircraft, you'd maintain a specific fleet.

Pros: Consistent aircraft types, often excellent benefits from large corporations, regular hours. Cons: Less variety, fewer positions available.

Your military experience likely maps to one or more of these areas. The technical skills transfer directly; it's mainly the terminology, regulations, and specific equipment that differ.

Section 2: What You're Worth

Real Salary Data from 900+ Avionics Shops

Forget Indeed estimates and Glassdoor guesses. The data in this section comes directly from the Aircraft Electronics Association's 2025 Rate & Labor Survey, an annual industry benchmark based on responses from hundreds of AEA member shops.

This is the data shop owners use when setting their own pay rates. Now you have it too.

Hourly Wages by Region

Avionics technician wages vary by region and role. Here's what shops are actually paying in 2025:

WEST U.S.

Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming

Position	Starting Avg	Top Avg	Low	High
Bench Technician	\$25.31/hr	\$43.50/hr	\$20.00/hr	\$75.00/hr
Install Technician	\$26.19/hr	\$41.71/hr	\$17.50/hr	\$75.00/hr
Instrument Tech	\$26.18/hr	\$44.67/hr	\$20.00/hr	\$60.00/hr

CENTRAL U.S.

Arkansas, Illinois, Indiana, Iowa, Kansas, Louisiana, Michigan, Minnesota, Missouri, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Wisconsin

Position	Starting Avg	Top Avg	Low	High
Bench Technician	\$23.33/hr	\$38.50/hr	\$15.00/hr	\$47.00/hr
Install Technician	\$23.44/hr	\$38.02/hr	\$15.00/hr	\$50.00/hr
Instrument Tech	\$25.75/hr	\$38.86/hr	\$20.00/hr	\$47.00/hr

EAST U.S.

Alabama, Connecticut, Delaware, Florida, Georgia, Kentucky, Maine, Maryland, Massachusetts, Mississippi, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, Washington D.C., West Virginia

Position	Starting Avg	Top Avg	Low	High
Bench Technician	\$22.40/hr	\$41.73/hr	\$15.00/hr	\$50.00/hr
Install Technician	\$24.13/hr	\$43.96/hr	\$15.00/hr	\$60.00/hr
Instrument Tech	\$22.50/hr	\$41.40/hr	\$15.00/hr	\$48.00/hr

What This Means in Annual Salary

Converting hourly rates to annual salary (based on 2,080 hours/year):

Region	Starting Range	Experienced Range	Top Performers
West U.S.	\$46,600 - \$54,500	\$83,000 - \$93,000	\$125,000 - \$156,000
Central U.S.	\$48,500 - \$53,600	\$79,000 - \$81,000	\$98,000 - \$104,000
East U.S.	\$46,600 - \$50,200	\$86,000 - \$91,400	\$100,000 - \$125,000

Shop Manager Salaries

Career progression is real. Here's what shop managers earn (percentage of managers at each salary level):

Salary Range	West U.S.	Central U.S.	East U.S.
\$125,000+	8%	3%	24%
\$116,000 - \$125,000	20%	11%	17%
\$106,000 - \$115,000	16%	18%	4%
\$96,000 - \$105,000	8%	32%	17%
\$86,000 - \$95,000	8%	22%	17%

Benefits: What Shops Offer

Most GA/BA shops offer competitive benefits. Here's what percentage of shops provide each benefit:

Benefit	West U.S.	Central U.S.	East U.S.
Individual Health Insurance	72%	89%	67%
Family Health Insurance	44%	79%	58%
Dental	56%	57%	58%
Retirement/401(k)	68%	79%	75%
Life Insurance	32%	46%	50%

Flight Training	32%	25%	42%
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The Pay Trend: It's Going Up

The industry is responding to the technician shortage with real money:

- 96% of shops gave salary increases in 2025
- Average salary increase: 5-6%
- 43-52% of shops offer incentive pay (bonuses/profit sharing)
- Average incentive pay: \$2,000 - \$3,300 per year

Bottom line: This is a seller's market for qualified technicians. Shops need you more than you need them.

Section 3: Your Military Experience Translated

MOS/AFSC/Rating to Civilian Role Mapping

Your military specialty code tells civilian employers almost nothing. They don't know what a 2A5X3 or 15N does. But they understand 'avionics bench repair' and 'system integration testing.' This section translates your experience into language that resonates.

Air Force AFSCs

AFSC	Military Title	Civilian Translation
2A5X3	Integrated Avionics Systems (Heavy)	Heavy Aircraft Avionics Technician (C-5, C-17, KC-135 experience)
2A9X3	Bomber/Special EW & Radar Surveillance	Electronic Warfare & Radar Systems Technician
2A9X4	Heavy Aircraft Integrated Avionics	C4ISR/Mission Systems Avionics Technician
2A3X4	Fighter Aircraft Integrated Avionics	Fighter Avionics Technician (F-15, F-16 experience)
2A3X5	Advanced Fighter Aircraft Integrated Avionics	5th Gen Avionics Technician (F-22, F-35 experience)

Army MOSs

MOS	Military Title	Civilian Translation
15N	Avionic Mechanic	Avionics Technician - Communications, Navigation, Flight Controls
15Y	AH-64 Armament/Electrical/Avionics Repairer	Attack Helicopter Avionics/Weapons Systems Technician
15F	Aircraft Electrician	Aircraft Electrical Systems Technician
15E	UAS Repairer	Unmanned Aircraft Systems Avionics/Electrical Technician
15L	Armament/Electrical/Avionics Repair Supervisor	Aviation Electronics Supervisor / Lead Technician

Marine Corps MOSs

MOS	Military Title	Civilian Translation
6314	UAS Avionics/Maintenance Technician	Unmanned Aircraft Systems Avionics Technician
6316	Aircraft Comm/Nav Systems Tech, KC-130	Avionics Technician - Communications/Navigation (Heavy Transport)
6317	Aircraft Comm/Nav/Radar Systems Tech, F/A-18	Fighter Avionics Technician - Comm/Nav/Radar Systems
6323	Aircraft Avionics Technician, CH-53	Heavy Helicopter Avionics Technician
6324	Aircraft Avionics Technician, U/AH-1	Attack Helicopter Avionics/Weapons Systems Technician
6326	Aircraft Avionics Technician, V-22	Tiltrotor Avionics Technician
6338	Aircraft Avionics Technician, F-35	5th Gen Fighter Avionics Technician
6332/6337	Aircraft Electrical Systems Technician	Aircraft Electrical Systems Technician

Navy Ratings

Rating	Military Title	Civilian Translation
AT	Aviation Electronics Technician	Avionics Technician - Communications, Navigation, Radar
AT (I-Level)	Aviation Electronics Technician (Intermediate)	Avionics Bench Technician - Component-Level Repair
AT (O-Level)	Aviation Electronics Technician (Organizational)	Line Avionics Technician - Aircraft-Level Troubleshooting
AE	Aviation Electrician's Mate	Aircraft Electrical Systems Technician
AV	Avionics Technician (E-9)	Senior Avionics Technician / Technical Lead

Coast Guard Rating

Rating	Military Title	Civilian Translation
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AET	Avionics Electrical Technician	Avionics/Electrical Systems Technician - Fixed & Rotary Wing
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Skills That Transfer Directly

You've been trained in military-specific equipment, but the underlying skills are universal. Here's how to communicate them:

Military Skill	Civilian Equivalent
Technical Order / TO interpretation	Service manual / IPC / CMM interpretation
TCTO compliance	Service Bulletin / AD compliance
AFTO 781 documentation	FAA 8130-3 paperwork / maintenance records
BIT/BITE testing	Built-in test equipment / self-diagnostics
LRU R&R	Line Replaceable Unit removal and installation
SRU repair	Shop Replaceable Unit / component-level repair
Wire bundle fabrication	Harness fabrication / wire termination
Datalink systems (Link 16, SADL, etc.)	Cabin connectivity / SATCOM systems (Gogo, Starlink, Viasat)
COMSEC/cryptographic equipment	Network security / secure communications (less common in GA)
FOD prevention	FOD prevention (same term, same importance)
QA inspection	Quality assurance / inspector authorization (IA)
Security clearance	Security clearance (valued for defense contractor work)

Resume Translation Tips

When writing your civilian resume:

1. **Spell out acronyms the first time:** "Performed troubleshooting using Built-In Test Equipment (BITE)" not just "Used BITE."
2. **Translate platforms to civilian equivalents:** "Maintained Collins and Honeywell avionics systems" is clearer than platform-specific military designations.
3. **Quantify your experience:** "4 years avionics maintenance, 2,000+ flight hours supported, 500+ discrepancies resolved."

4. **Lead with civilian-recognized certifications:** CAET and A&P (if you have it) should be prominent.

Section 4: The A&P Question Answered

The Biggest Misconception in Military Aviation Transition

If you're a military avionics technician researching civilian careers, you've probably encountered this advice: "You need your A&P certificate to work on civilian aircraft."

This is wrong.

Or more precisely: it's incomplete advice that causes thousands of qualified military technicians to either pursue unnecessary schooling or avoid the industry entirely.

Here's the Truth

Part 145 Repair Stations do not require technicians to hold an A&P certificate.

Under FAA regulations, Part 145 repair stations can employ technicians who work under the station's certificate. The repair station itself is certified and takes responsibility for the work performed.

What matters to a Part 145 shop is whether you can do the work competently. Your military training demonstrates that. The A&P certificate is not a prerequisite for employment.

Can You Get Your A&P Through Experience?

Yes. In fact, many GA/BA technicians earn their A&P after they start working at a Part 145, not before. Here's how:

1. Work at a Part 145 repair station
2. Accumulate 30 months of practical experience in airframe and/or powerplant maintenance
3. Document your experience on FAA Form 8610-2
4. Take and pass the FAA written, oral, and practical exams

Translation: You can get hired, start working, get paid, and earn your A&P on the job. You don't have to spend 18-24 months and \$15,000-\$40,000 at an A&P school before you can enter the industry.

When Does A&P Matter?

The A&P certificate does open some doors:

- **Return to Service Authority:** A&P holders can sign off maintenance and return aircraft to service.
- **Supervisory Roles:** Some shops require supervisors and inspectors to hold the A&P.
- **Some Employers:** A minority of shops prefer or require A&P for all technicians.
- **Career Advancement:** It's a credential that demonstrates commitment and broad knowledge.

Our recommendation: Get hired first. Earn your A&P while working. Many shops will support you in this pursuit, some even offering study time or exam fee reimbursement.

What About Military A&P Conversion Programs?

Some military bases offer A&P conversion programs that help you earn the certificate before separation. If this option is available at your base and fits your timeline, take it. Having an A&P in hand gives you more options and potentially higher starting pay.

But don't let the absence of such a program delay your transition. The A&P is valuable but not required for most Part 145 positions. If you can get it, get it. If not, you can still start working and earn it later.

Section 5: The CAET Certification

What Is CAET?

The Certified Aircraft Electronics Technician (CAET) certification is an industry-recognized credential specifically designed for avionics professionals. Unlike the A&P certificate (which focuses on airframe and powerplant mechanics), CAET validates expertise in aircraft electronics systems across all aviation sectors: general aviation, business aviation, commercial, and military contractor work.

Why CAET Matters

CAET was developed to address a gap in the industry. Existing credentials either focus on mechanical systems (A&P) or are outdated and overly academic (NCATT AET). CAET is built around what technicians actually do in modern shops:

- **Workforce-Relevant Content:** CAET covers practical skills: troubleshooting modern integrated avionics, understanding digital data buses, working with software-driven systems, and installing connectivity solutions. It's designed by industry professionals who know what new technicians need.
- **Bridge the Gap:** For military technicians, CAET covers the differences between military and civilian avionics operations, including FAA regulations, Part 145 procedures, and civilian documentation requirements.
- **Modern Systems:** The curriculum includes current technology like cabin connectivity systems, glass cockpits, and FANS/CPDLC, not just legacy equipment.
- **Industry Recognition:** CAET is positioned as the replacement for outdated certifications, with growing adoption among employers looking for qualified technicians.

What CAET Covers

The CAET certification curriculum includes:

- Basic electricity and electronics fundamentals
- Aircraft electrical systems and power distribution
- Avionics systems: communication, navigation, and surveillance
- Digital systems, data buses, and software-driven avionics
- Cabin connectivity and inflight entertainment systems
- Troubleshooting methodology

- FAA regulations applicable to Part 145 operations
- Documentation and quality assurance requirements
- Safety practices and FOD prevention

CAET Program Details

Duration: Approximately 6 months to complete all modules at a reasonable pace.

Format: Online, self-paced. You can complete CAET while still on active duty, during terminal leave, or after separation.

Military Funding: CAET is eligible for COOL (Credentialing Opportunities On-Line) funding. Check with your Education Center for current funding availability for your branch and specialty.

Prerequisites: None. CAET is designed for technicians at various experience levels.

CAET vs. Other Certifications

Certification	Focus	Best For
CAET	Modern avionics systems, Part 145 operations, practical workforce skills, connectivity systems	Industry-standard credential for working avionics technicians across all aviation sectors
A&P	Airframe and powerplant mechanics	General aircraft maintenance, return-to-service authority
NCATT AET	Basic electrical theory, academic focus, outdated curriculum	Legacy credential; being replaced by CAET in industry

A note on the NCATT AET: The Aircraft Electronics Technician certification was developed years ago and focuses heavily on electrical theory rather than practical avionics systems and skills. The industry has evolved significantly since then. Modern avionics work involves integrated flight decks, digital data buses, software-driven systems, and connectivity solutions that the AET curriculum doesn't adequately address. CAET was developed specifically to fill this gap with workforce-relevant content that reflects what technicians actually do in Part 145 shops today.

Military Funding for CAET

Active duty service members may be able to use COOL (Credentialing Opportunities On-Line) funding to cover CAET certification costs. Check with your Education Center for eligibility and current funding availability for your branch and specialty.

Section 6: Your Next Steps

The Path Forward

You've read about the industry, seen the salary data, understood how your experience translates, and learned the truth about A&P. Now what?

Your Transition Timeline

Here's a concrete checklist based on how far out you are from separation:

12+ Months Out

- Research the GA/BA industry (you're doing this now)
- Identify geographic preferences (see hot spots below)
- Start CAET certification (6 months to complete, can do while on active duty)
- Check COOL funding eligibility for CAET through your Education Center
- Begin networking: join AEA, attend virtual events, connect on LinkedIn
- If pursuing A&P: look into base A&P conversion programs if available

6-12 Months Out

- Complete CAET certification
- Update resume using translation guide in Section 3
- Research specific shops in target locations using aea.net member search
- Look into SkillBridge opportunities (some AEA member shops participate)
- Start reaching out to shops: introduce yourself, ask about openings
- Begin building your personal tool kit (see tools section below)

3-6 Months Out

- Apply to specific positions at target shops
- Prepare for walking interviews (see interview section below)
- Plan relocation logistics if moving to a new area
- Line up job offers before terminal leave if possible
- Coordinate benefits transition (healthcare gap between TRICARE and employer coverage)

Less Than 3 Months Out

- Finalize job offer and start date
- Complete any remaining CAET modules
- Ensure tool kit is ready
- Execute move if relocating

Geographic Hot Spots

GA/BA shops exist nationwide, but some regions have higher concentrations of jobs and shops. If you have flexibility on where to live, consider these areas:

Florida: The highest concentration of GA/BA activity in the country. Fort Lauderdale, Miami, Orlando, Naples, Tampa, and Boca Raton all have significant shop presence. Year-round flying weather means consistent work. Many shops focus on Part 135 charter and corporate aircraft.

Texas: Dallas/Fort Worth, Houston, San Antonio, and Austin all have strong GA/BA markets. Lower cost of living than coastal areas. Mix of corporate flight departments and independent MROs.

Kansas (Wichita): The historical heart of general aviation manufacturing. Textron Aviation (Cessna, Beechcraft), Spirit AeroSystems, and numerous suppliers and MROs. If you want to work on new aircraft production or be near OEMs, this is the place.

Arizona: Scottsdale and Phoenix have significant business aviation activity. Dry climate is easy on aircraft and attracts winter flying. Growing market with good cost of living.

Georgia (Savannah): Home to Gulfstream Aerospace. If large-cabin business jets interest you, Savannah is a major hub. Gulfstream completion center and service facilities employ hundreds of technicians.

California: Van Nuys, Santa Monica, San Diego, and the Bay Area have active GA/BA markets. Higher cost of living but also higher wages. Significant entertainment industry and tech company flight departments.

Colorado: Centennial Airport near Denver is one of the busiest GA airports in the country. Growing tech sector means corporate aviation demand.

Northeast Corridor: Teterboro (NJ), White Plains (NY), and surrounding areas serve New York City's business aviation needs. High wages but high cost of living.

Use the AEA member search at aea.net to find shops in your preferred areas. You can search by location and see shop details before reaching out.

Tools: What You'll Need

In the military, tools are provided. In civilian shops, technicians often own their personal tool kits. Some shops provide specialty tools and test equipment, but basic hand tools are typically your responsibility.

Here's a starter kit for an avionics technician:

Essential (Budget: \$500-800)

- Wire strippers: Klein Katapult or Ideal Stripmaster (quality matters here)
- Crimpers: Daniels AFM8 with positioners K42, K41, K13-1 (the industry standard)
- Heat gun: Master Appliance or Milwaukee (for heat shrink)
- Precision screwdriver set: for backshells, connector hardware, panel screws
- Diagonal cutters (dykes): Klein or Knipex
- Multimeter: Fluke 87V or equivalent (don't cheap out here)
- Needle-nose pliers: multiple sizes
- Wire insertion/extraction tools: for common connector types

Nice to Have (Add Over Time)

- Soldering station: Weller or Hakko for bench work
- Torque screwdrivers: for panel work
- Headlamp: for working in dark avionics bays
- Inspection mirror and pick set
- Cable tie gun: for professional harness work

Note: If you pursue a Registered Apprenticeship program, there may be funding available to help with tool purchases. Ask your employer about apprenticeship programs through the Department of Labor.

The Interview Process

GA/BA shop interviews are different from military promotion boards or corporate HR screenings. Expect a practical, hands-on evaluation:

The Walking Interview: Most shops will walk you through the facility, showing you aircraft in progress, the bench area, and the install bays. They're evaluating whether you ask good questions and show genuine interest. Ask about the aircraft types they work on, their busiest seasons, and what projects are coming up.

Hands-On Assessment: Many shops will ask you to demonstrate basic skills. This might include: reading a wiring diagram, identifying wire gauges, demonstrating proper crimping technique, building a simple wire harness, or identifying connector types. Don't stress if you don't know civilian-specific equipment—they want to see fundamentals.

Technical Questions: Expect questions about troubleshooting methodology, how you'd approach a specific problem, and your experience with various systems. Translate your military experience into civilian terms. Instead of 'I worked on the APG-68 radar,' say 'I troubleshot integrated radar systems at the LRU and component level.'

What to Bring: Your resume translated to civilian terms, any certifications (CAET, A&P if applicable), and a good attitude. Some candidates bring their personal tools to demonstrate they're serious.

Questions to Ask: What aircraft do you primarily work on? What does the training program look like for new hires? Is there opportunity to learn both bench and install work? Do you support A&P pursuit or other certifications?

Reserves and Guard Compatibility

If you plan to stay in the Reserves or National Guard, GA/BA shops are generally more flexible than airlines. Airlines operate on rigid schedules with crew rotations that make military leave complicated. GA/BA shops, especially smaller ones, can typically accommodate drill weekends and annual training with advance notice.

Be upfront about your military obligations during the interview. Most shop owners respect military service and will work with your schedule. Some are veterans themselves.

Training on Civilian Equipment

You don't need to know Garmin, Collins, or Honeywell products before you start. Shops expect a learning curve and provide on-the-job training. What matters is your foundation in electronics, troubleshooting methodology, and attention to detail.

Additional training is available from multiple sources:

- Manufacturer training: Garmin, Collins Aerospace, Honeywell all offer technician courses
- AEA training: The Aircraft Electronics Association provides courses on specific systems and regulations
- On-the-job: Most learning happens working alongside experienced technicians

Your military SATCOM and datalink experience (Link 16, SADL, MILSTAR, AEHF) provides excellent foundation for civilian connectivity work. The protocols differ, but RF fundamentals, antenna systems, and integration troubleshooting transfer directly.

If You Only Did Flight Line Work

If your military experience was primarily O-Level (flight line) maintenance—LRU swaps, system checks, aircraft-level troubleshooting—you're still valuable. Install technician roles focus on exactly these skills: working on the aircraft, running wires, mounting equipment, and verifying system function.

Bench-level component repair is a separate skill set that's becoming more specialized. While you can certainly learn it, the industry trend is toward LRU replacement rather than component-level repair. Many shops focus primarily on installation work. Don't feel limited because you lack bench experience.

GA/BA as a Stepping Stone

If airlines are your eventual goal, GA/BA experience is valuable. Airlines increasingly recognize that GA/BA technicians have broad troubleshooting skills across multiple aircraft types and systems. Time spent at a Part 145 counts toward experience requirements.

Many technicians start in GA/BA, earn their A&P while working, and later move to airlines if desired. Others discover they prefer GA/BA and stay for the career. Either path works.

How to Find Shops

The AEA member search at aea.net lets you search for shops by location. You can see shop details including specializations and contact information. Start by identifying shops in your target geographic areas, then reach out directly.

When contacting shops:

1. Email or call during business hours (most shops run 7-4 or 8-5 local time)
2. Introduce yourself: veteran separating, your specialty, your timeline
3. Ask if they have openings or expect to in the next few months
4. Offer to send your resume and visit if they're interested

Don't be discouraged by shops that don't have immediate openings. The industry moves fast, and a shop that's fully staffed today might need someone in three months. Building relationships early matters.

Questions?

Contact the AEA Workforce Development team:

Aircraft Electronics Association

3570 NE Ralph Powell Road

Lee's Summit, MO 64064

Phone: 816-347-8400

Email: info@aea.net

Web: aea.net

Your military training prepared you for this. The industry needs you. The path is clear. Take the first step.

Appendix: MOS/AFSC/Rating Quick Reference

Air Force Avionics AFSCs

AFSC	Title	Primary Skills
2A5X3	Integrated Avionics Systems (Heavy)	Flight controls, navigation, communication, radar on heavy aircraft
2A9X3	Bomber/Special EW & Radar	Electronic warfare, radar surveillance, countermeasures
2A9X4	Heavy Aircraft Integrated Avionics	C4ISR mission systems on special mission aircraft
2A3X4	Fighter Aircraft Integrated Avionics	Integrated avionics on 4th gen fighters
2A3X5	Advanced Fighter Aircraft Integrated Avionics	F-22, F-35, UAS avionics and electrical systems

Army Aviation Electronics MOSs

MOS	Title	Primary Skills
15N	Avionic Mechanic	COMSEC, communication, navigation, IFF, flight controls
15Y	AH-64 Armament/Electrical/Avionics Repairer	Apache weapons systems, fire control, avionics, cryptographic equipment
15F	Aircraft Electrician	Power generation, distribution, lighting, aircraft electrical systems
15E	UAS Repairer	Unmanned aircraft electrical, avionics, RF, weapons systems
15L	Armament/Electrical/Avionics Repair Supervisor	Supervises 15F, 15N, 15Y personnel; plans maintenance operations

Marine Corps Aviation Electronics MOSs

MOS	Title	Primary Skills
6314	UAS Avionics/Maintenance Technician	Unmanned aircraft systems avionics installation, repair, maintenance
6316	Aircraft Comm/Nav Systems Tech, KC-130	Communications, navigation systems on heavy transport aircraft
6317	Aircraft Comm/Nav/Radar Systems Tech, F/A-18	Fighter aircraft communications, navigation, radar systems
6323	Aircraft Avionics Technician, CH-53	Heavy helicopter avionics, communications, navigation, electrical
6324	Aircraft Avionics Technician, U/AH-1	Attack helicopter avionics, weapons systems, electrical
6326	Aircraft Avionics Technician, V-22	Tiltrotor aircraft avionics, communications, navigation, electrical
6338	Aircraft Avionics Technician, F-35	5th gen fighter avionics, integrated systems
6332/6337	Aircraft Electrical Systems Technician	Power generation, distribution, aircraft electrical systems

Navy Aviation Electronics Ratings

Rating	Title	Primary Skills
AT	Aviation Electronics Technician	Communications, radar, navigation, ASW sensors, electronic warfare
AT (I-Level)	Aviation Electronics Tech (Intermediate)	Component-level repair, automatic test equipment, calibration
AT (O-Level)	Aviation Electronics Tech (Organizational)	Flight line troubleshooting, LRU replacement, system checks
AE	Aviation Electrician's Mate	Power generation, distribution, electrical systems
AV	Avionics Technician (E-9)	Combined AT/AE expertise at master chief level

Coast Guard Aviation Electronics Rating

Rating	Title	Primary Skills
AET	Avionics Electrical Technician	Communications, navigation, collision avoidance, flight controls, power generation/distribution, all airframe electrical systems

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