

May 6, 2019

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Laura L. Booth
Federal Aviation Administration
600 Maryland Avenue, SW
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RE: Comments on Draft Advisory Circular 65-30B, "Overview of the Aviation Maintenance Profession"

Dear Ms. Booth:

The undersigned associations respectfully submit these comments to draft Advisory Circular (AC) 65-30B, "Overview of the Aviation Maintenance Profession."

As representatives of persons involved in the design, production, operations and maintenance of civil aviation products and articles, each organization supporting these comments depends on a vibrant pool of talented aviation maintenance professionals to ensure safety worldwide. This group therefore takes strong interest in assisting the FAA's illustration of the "maintenance profession" in order to support full understanding of its importance and attractiveness not only for those considering employment, but also for the men and women already working in the industry who must choose to excel and grow their aviation careers.

Since the process of rewriting this AC has been ongoing for nearly five years – and that more than 17 years has passed since the November 2001 release of AC 65-30A – these comments were produced after careful review of the previous agency and industry drafts. As a result, the enclosed "draft industry submission" was created by combining the best aspects of each prior effort with intelligence gained from years working with industry members and policy makers on workforce development issues.

As you review the enclosed, please consider the following general points. Each explains the editing and re-ordering of the AC to provide a comprehensive overview of the *aviation maintenance profession*, rather than a walk-through of the eligibility for and privileges of certification under part 65 subparts D and E:

(1) *Begin with skills.*

As rightly stated by the FAA's most-recent draft of the AC: "The basic requirement of nearly all aviation maintenance professionals is to be highly skilled in mechanics." The knowledge gained through training and experience by professional technicians is the industry's most precious resource. Additionally, the fundamental skills that make a great technician, repairman or mechanic are not unique to aviation – the draft explains that aviation professionals utilize carpentry, fabrication, electrical, HVAC, plumbing and other industrial specialties that make them high-value commodities in *any* industry.

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To better highlight this dependence on practical, transferrable skill, the industry submission reorganizes Section 7 ("Background") to specifically acknowledge these areas in the context of their value to civil aviation. To whatever extent the AC can attract the attention of non-aviation specialists from technical fields, the better for aviation employers, including the agency itself. For too long, professionals have developed capability in aircraft maintenance only to take those skills to other industries; it's time to open opportunities that reverse the flow.

(2) Show the breadth of the "profession."

The purpose of the AC must go beyond providing "information to prospective Airframe and Powerplant (A&P) mechanics"; it must focus broadly on all "professionals interested in a career in aviation maintenance." While an "A&P-first" focus is understandable, this guidance must competently educate anyone interested in aviation, whether they have never seen an aircraft part or are an incumbent technician looking to grow. The purpose of the AC is to illustrate a dynamic industry in which skilled men and women can thrive.

To describe this range of opportunities, the industry submission has moved – and redesigned – a full overview of "Employment Opportunities and Conditions" to Section 8. Before providing information regarding the specific kinds of work available, this revision shows the reader where and with what entities that work can be performed.

(3) Demonstrate career opportunities.

A true "overview of the aviation maintenance profession" does not begin and end with an A&P mechanic certificate. It is important to establish a holistic approach to aviation maintenance employment that creates a continuum traveled by skilled men and women moving among and between various employment opportunities.

To establish this continuum, and to put it in proper context, the previously-independent sections detailing employment categories have been combined and streamlined into the now-unified Section 9 ("Career Pathways"). The five "pathways" establish opportunities for all aviation maintenance personnel: noncertificated professionals, certificated repairmen, certificated mechanics, mechanics holding inspection authorization (IA) and transitioning military personnel. As described in the industry submission:

"There is no single point of entry or career trajectory for aviation maintenance professionals. Depending on knowledge, education, experience, skill and curiosity, individuals with an interest in the kinds of hands-on, intellectually-challenging and technically-skilled work performed in all manner of aviation maintenance facilities may begin or continue a career through any one of the 'pathways' described in this AC."

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(4) Trust other resources.

The agency's draft of the AC refers both to appropriate parts of 14 CFR and "related reading material" including relevant FAA guidance documents and resources for the public. For readers seeking specific instruction regarding employment or certification, this "related reading" can be quite comprehensive. It is therefore less incumbent on this AC to review in detail the certification requirements and aids from part 65 subparts D and E. Indeed, those requirements are a small piece of the larger "aviation maintenance profession" the AC seeks to overview.

To support the interrelation of all resources, the industry submission adds to the rules referenced in Section 5 as well as the provided guidance and cited websites in Section 6. It also includes a comprehensive appendix containing descriptions and links to scholarship programs, industry associations and media outlets. To prevent the published AC from quickly becoming outdated, all online links have been made generic, e.g., directing to <https://www.faa.gov/forms/> rather than to a specific upload. Though the reader would be required to perform an additional search, he or she will not confront either a broken link or a canceled document. Finally, this submission removed the original Appendix A and instead references the publicly-available list of Military Occupation Specialty Codes in Volume 5, Chapter 5 of the Flight Standards Information Management System. Active duty and veteran personnel taking the step of reviewing this list will be utilizing the exact same reference, which the agency need not maintain in multiple guidance documents, as the inspectors responsible for validating experience.

Thank you for your concern in this matter. We look forward to working with the agency to produce a useful and accurate portrayal of the "aviation maintenance profession."

Sincerely,

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Enclosure: Draft Industry Submission Advisory Circular 65-30B, Overview of the Aviation Maintenance Profession (16 Pages)



**U.S. Department of
Transportation**
Federal Aviation
Administration

Advisory Circular

Subject: Overview of the Aviation Maintenance Profession **Date:** DRAFT **AC No:** 65-30B
Initiated by: AFS-300 **Change:**

- 1 **PURPOSE OF THIS ADVISORY CIRCULAR (AC).** This AC provides information for anyone interested in creating or advancing in aviation careers. It provides an overview of the aviation maintenance industry as well as the skills and knowledge necessary for success across a range of employment opportunities. It also offers general instruction on the variety of employment opportunities, certificates and ratings as well as information on career pathways for individuals with civilian or military experience
- 2 **AUDIENCE.** This AC applies to anyone interested in the aviation maintenance profession. It is a tool for individuals contemplating a career working on civil aircraft and related articles as well as those who help others consider employment and career opportunities, such as military commands and transition specialists, career counselors, teachers, school administrators, community leaders, human resource specialists and others. It also provides information to persons already working in civil aviation maintenance that want to learn more about employment and career opportunities.
- 3 **WHERE YOU CAN FIND THIS AC.** You can find this AC on the FAA’s website at http://www.faa.gov/regulations_policies/advisory_circulars.
- 4 **WHAT THIS AC CANCELS.** AC 65-30A, Overview of The Aviation Maintenance Profession, dated November 9, 2001, is canceled.
- 5 **RELATED TITLE 14 OF THE CODE OF FEDERAL REGULATIONS (14 CFR) PARTS.** U.S. regulations govern work performed on civil aviation products and articles. Persons interested in the civil aviation maintenance profession must understand how the rules impact individuals, companies and the work performed on civil aircraft and articles. These and other government requirements are available through the Electronic Code of Federal Regulations (e-CFR) website at <https://www.ecfr.gov/>. Regulations of particular importance to persons interested or working in the field of civil aviation maintenance include the following—
 - 5.1 **Part [43](#), Maintenance, Preventive Maintenance, Rebuilding, and Alteration.**
 - 5.2 **Part [65](#), Certification: Airmen Other Than Flight Crewmembers.**
 - 5.3 **Part [91](#), General Operating and Flight Rules.**

- 5.4 **Part [121](#), Operating Requirements: Domestic, Flag and Supplemental Operations.**
 - 5.5 **Part [135](#), Operating Requirements: Commuter and On Demand Operations and Rules Governing Persons On Board Such Aircraft.**
 - 5.6 **Part [145](#), Repair Stations.**
 - 5.7 **Part [147](#), Aviation Maintenance Technician Schools.**
 - 5.8 **Part [187](#), Fees.**
- 6 RELATED READING MATERIAL.** Agency produced guidance documents, handbooks, webpages and other resources provide specific instructions for personnel acting on the general information provided in this AC.
- 6.1 FAA Documents (current editions).** FAA orders can be found at https://www.faa.gov/regulations_policies/orders_notices/, FAA ACs can be found at https://www.faa.gov/regulations_policies/advisory_circulars/, and FAA Airman Knowledge Test Guides can be found at https://www.faa.gov/training_testing/testing/test_guides/.
 - 6.1.1 [AC 60-11, Test Aids and Materials that may be used by Airman Knowledge Testing Applicants.](#)
 - 6.1.2 [AC 60-29, Renumbering of Airman Training and Testing Publications.](#)
 - 6.1.3 [AC 65-2, Airframe and Powerplant Mechanics Certification Guide.](#)
 - 6.1.4 [AC 65-15, Airframe and Powerplant Mechanics Airframe Handbook.](#)
 - 6.1.5 [AC 65-23, Certification of a Repairman \(Experimental Aircraft Builders\).](#)
 - 6.1.6 [AC 65-24, Certification of a Repairman \(General\).](#)
 - 6.1.7 [AC 65-31, Training, Qualification, and Certification of Nondestructive Inspection Personnel.](#)
 - 6.1.8 [AC 65-32, Certification of Repairmen \(Light-Sport Aircraft\).](#)
 - 6.1.9 [AC 65-33, Development of Training/Qualification Programs for Composite Maintenance Technicians.](#)
 - 6.1.10 [FAA-G-8082-11, Inspection Authorization Knowledge Test Guide.](#)
 - 6.1.11 [FAA-G-8082-19, Inspection Authorization Information Guide.](#)
 - 6.1.12 [FAA-H-8083-30, Aviation Maintenance Technician Handbook – General.](#)

- 6.1.13 [FAA-H-8038-31, Aviation Maintenance Technician Handbook – Airframe, Volume 1.](#)
- 6.1.14 [FAA-H-8038-31, Aviation Maintenance Technician Handbook – Airframe, Volume 2.](#)
- 6.1.15 [FAA-H-8038-32, Aviation Maintenance Technician Handbook – Powerplant, Volume 1.](#)
- 6.1.16 [FAA-H-8038-32, Aviation Maintenance Technician Handbook – Powerplant, Volume 2.](#)
- 6.1.17 [FAA Order 8080.6, Conduct of Airmen Knowledge Tests.](#)
- 6.1.18 [FAA Order 8900.1, Volume 5, Chapter 14, FAA English Language Standard for Certification Under 14 CFR Parts 61, 63, 65 and 107.](#)
- 6.1.19 [FAA Order 8900.2, General Aviation Airman Designee Handbook.](#)

6.2 FAA Web Pages.

- 6.2.1 A directory of names for FAA-certificated part 147 schools and locations by state is at <http://av-info.faa.gov/MaintenanceSchool.asp>.
- 6.2.2 Comprehensive information on obtaining and holding a Mechanic Certificate from the FAA is at <http://www.faa.gov/mechanics/become>.
- 6.2.3 Information regarding certification of airlines, repair stations, manufacturers, and Fixed-Base Operators (FBO) is at <https://www.faa.gov>. Information you find at this website may provide employer information.
- 6.2.4 To find the most up-to-date information on a Flight Standards District Office (FSDO) or International Field Office (IFO) in your area, go to the applicable directory at http://www.faa.gov/about/office_org/.
- 6.2.5 To find FAA resources related to Aviation and Space Education, go to the AVSED web page at <https://www.faa.gov/education/>.

6.3 Financial Aid and Employment Resources. The U.S. Department of Education website has information on loans and grants at <https://www.ed.gov/>. Information on organizations providing education and career assistance to prospective and current aviation maintenance professionals can be found in Appendix A.

7 BACKGROUND.

7.1 Civil Aviation. Civil aviation is highly regulated; the FAA controls all aspects of design, production, operation and maintenance of civil aviation products (aircraft, aircraft engines and propellers) and the articles installed on those products. Rules

governing maintenance, preventive maintenance, rebuilding and alterations of civil aviation products and articles prescribe the minimum standards for ensuring continued airworthiness as well as identifying which persons may perform, supervise and approve work for return to service.

7.2 Aviation Maintenance Professionals. Aviation maintenance personnel work in highly-technical specialty occupations involving the continued operational safety of products and articles, keeping U.S.-registered aircraft operating safely and efficiently. All positions require knowledge gained through training or experience in the performance of maintenance, preventive maintenance or alteration authorized by the certificate under which the work is performed. An individual does not have to hold an FAA certificate to perform maintenance, but the main categories of personnel in the industry – points of entry that interrelate to provide for technical career pathways – can be described according to the relationship between the work performed and the persons, i.e., individuals or companies, certificated to perform it—

7.2.1 Non-certificated technicians performing work for or under the supervision of a certificate-holding person (e.g., an individual certificated mechanic or a certificate holding entity such as a repair station or air carrier).

7.2.2 Repairmen endorsed by their part [121](#), [135](#) or [145](#) certificate-holding employer for certification under part [65](#), subpart [E](#). Repairmen are authorized to supervise or perform maintenance, preventive maintenance or alteration specific to the job for which they have been endorsed performed for the employing part 121, 135 or 145 certificate holder.

7.2.3 Mechanics individually certificated under [14](#) CFR part [65](#), subpart [D](#). An individual that holds a certificate authorizing the performance of maintenance, preventive maintenance or alterations on civil aircraft within associated ratings (i.e., airframe and/or powerplant), privileges and limitations. Certificated mechanics meeting additional eligibility requirements may earn enhanced “inspection authorization” privileges.

7.3 Aviation Maintenance Skills. Aviation maintenance professionals are highly-skilled. Aircraft are jet, piston, hybrid-electric or electric powered; systems can be hydraulic, pneumatic, electric, or manual and specialized equipment is used to perform tasks. Aircraft have fire protection equipment, ice and rain control, position warning alerts, and flight controls as well as highly-technical systems providing cabin and passenger conveniences, connectivity and other non-aviation specific functions. Depending on the specific work performed at any given time, aviation maintenance professionals must utilize a variety of skills attractive in non-aviation industries, which include but are certainly not limited to carpentry, fabrication, construction, electrical, heating, ventilation, air conditioning, plumbing and structural engineering.

8 EMPLOYMENT OPPORTUNITIES AND CONDITIONS

8.1 The Profession. Civil aviation maintenance provides a multitude of career opportunities for individuals that understand, appreciate and enjoy technically-intense occupations. Work on a civil aircraft, aircraft engine, propeller, appliance or an individual component requires—

8.1.1 Personal integrity. The work is safety-sensitive and each person must perform every task properly regardless of supervision or extenuating human factors.

8.1.2 Attention to detail. Work must be performed in accordance with proper instructions, without skipping steps or leaving articles behind. Extensive and intensive paperwork must be completed to ensure aviation safety rule compliance.

8.1.3 Technical skills and knowledge. The profession requires individuals to have the knowledge and skills to perform work properly within the aviation safety rules.

8.1.4 Regulatory compliance. Knowledge of aviation safety rules governing maintenance and alteration tasks is essential to career advancement.

8.1.5 Physical abilities and exertion. Maintenance work is physical and will require varying degrees of bodily exertion to accomplish properly.

8.2 Airlines. Scheduled air carriers must have work performed around the world providing a vast array of employment and career opportunities. Nonscheduled and charter operators, whether carrying cargo or passengers, can have aviation maintenance professionals fly with aircraft to perform needed maintenance in domestic and foreign environments. Work on completed aircraft is also performed at line stations throughout the world. Air carriers also require personnel to perform substantive work during heavy maintenance intervals as well as in engine and component shops. Career opportunities and advancement include maintenance and quality control, quality assurance, aircraft fleet management, operations and planning, oversight, auditing and recordkeeping as well as executive, management and supervisory positions at maintenance bases, stations and shops. Most air carriers provide comprehensive explanations of employment and career opportunities online.

8.3 Business Aviation. Corporations and business owners who own or lease aircraft provide aviation maintenance professionals opportunity to work in a wide ranging, rapidly changing technical environment. Many corporate and business aircraft are state-of-the-art machines containing comfortable, modern working offices or operating highly sophisticated medical, firefighting or search and rescue equipment. Employment and career opportunities can be explored on company or flight department websites and range from routine and regular maintenance to specialized avionics work on hardware, software and technical interfaces.

- 8.4 Fixed-base Operators.** Companies located on or operated from an airport provide services such as fueling, aircraft care (hangar and tie-down space), parking, rental, sales, maintenance and flight instruction. Employment and career opportunities depend upon the extent of services being offered and may range from independent mechanic duties to director of maintenance for a flight school.
- 8.5 Manufacturers.** Companies that produce civil aviation products and articles can have associated maintenance facilities and offer worldwide troubleshooting and rectification services. Employment opportunities are available for individuals interested in a broad range of precision production activities ranging from apprenticeships to management positions. in departments like training, auditing, production, aftermarket services and sales. Most well-known aircraft, engine and propeller manufacturers provide comprehensive explanations of employment and career opportunities on their websites.
- 8.6 Repair Stations.** These businesses perform a wide range of activities, from work on small general aviation aircraft with reciprocating engines to large transport category aircraft to specialized engine or component maintenance. These companies seek individuals with and without FAA-issued certificates; the ability to perform the work properly and understand the importance of following federal and customer requirements are essential to a successful career. Job opportunities range from working on completed aircraft for air carriers to development and application of special technical skills in composite, sheet metal, welding, non-destructive testing and more.
- 8.7 Schools.** Educational institutions provide courses of study, degree and certificate programs in technical subjects that enhance or benefit from aviation experience. Accredited educational institutions must ensure employees are qualified to teach technical subject matter. Aviation Maintenance Technical Schools (AMTS) have FAA approval to educate and train individuals seeking mechanic certification (see paragraph 9.4). AMTS instructors are generally FAA-certificated mechanics but there are opportunities for individuals with specialized skills. Knowledge of the aviation system as a whole, and the interrelationship between certificate holder duties and privileges and regulatory requirements, are important for instructors, administrators and other educators.
- 8.8 Specialty Fields.**
- 8.8.1 Avionics.** The technology that enables automated aircraft flight functions, in-flight entertainment, global positioning system usage and other electronic and integrated systems requires special skills, knowledge and understanding.
- 8.8.2 Balloons and Airships (Blimps, Zeppelins and Dirigibles).** From hot air balloons used for pleasure or sightseeing to the aircraft observing sporting events, all require maintenance just like other civil aviation aircraft.

- 8.8.3 Composite Maintenance.** Common composite materials used in aviation include fiberglass and carbon fiber; maintenance is complex and requires special and specific knowledge and skills.
- 8.8.4 Government.** In addition to supporting government owned and operated aircraft fleets, aviation maintenance professionals can work for federal executive branch agencies like the FAA, National Transportation Safety Board (NTSB), and the Federal Emergency Management Agency (FEMA) supporting regulatory oversight or other technical activities.
- 8.8.5 New Technologies and Services.** Cutting across all aviation business areas, rapidly expanding technologies like remote communications and inspection, hybrid-electric and other advanced propulsion, cyber and system software development and others will create opportunities for technically-skilled professionals with knowledge of the industry.
- 8.8.6 Nondestructive Inspection (NDI).** A method of inspection that entails specialized equipment and knowledge. Common types of NDI methods include radiographic, magnetic particle, ultrasonic, liquid penetrant, eddy current, and thermography/infrared.
- 8.8.7 Rotorcraft.** Rotorcraft are used by governments in fire-fighting, search and rescue, drug eradication, and to support law enforcement and medical emergency activities and by private operators for sightseeing, construction, logging and other work requiring external load heavy lift operations.
- 8.8.8 Ultra-light and Sports Vehicles.** While many ultra-light and sports pilots fabricate, operate and can maintain their own aircraft, some request the help of mechanics holding FAA certificates.
- 8.8.9 Unmanned Aircraft Systems (UAS).** Commonly referred to as “drones,” rapidly developing UAS technology as well as quickly evolving business and regulatory markets will produce great opportunity for professionals capable of maintaining civil aircraft and components.
- 8.9 Individual Business Opportunities.** It is possible to own and operate an independent business offering services to general aviation and business aircraft owners and operators, fixed-base operators as well as air carriers. Aviation maintenance professionals can develop independent careers through continuous technical education and knowledge growth along with community engagement and networking.
- 8.10 Working Conditions.** Aviation maintenance professionals work in hangars, on flight lines, or in repair stations on or near large airports, and it is common for specialized service and component maintenance facilities to exist in any industrial or commercial setting. Personnel use hand and power tools and test equipment in addition to advanced computer systems, additive manufacturing processes and other innovative

technologies. Work is performed in varying weather, using various levels of physical activity while facing differing professional stress and pressure depending on location and type of work performed.

8.11 Statistics and Outlook. The long-term employment picture for aviation maintenance is bright. There are both traditional areas and up-and-coming enterprises – including modern aircraft as well as new platforms like UAS – that will continue to demand aviation professionals and create a variety of jobs and careers. Current government data on civil aviation maintenance employment is tracked through the [Bureau of Labor Statistics](#), and the Department of Labor’s [“My Next Move” website](#).

9 CAREER PATHWAYS.

9.1 Building a Career. There is no single point of entry or career trajectory for aviation maintenance professionals. Depending on knowledge, education, experience, skill and curiosity, individuals with an interest in the kinds of hands-on, intellectually-challenging and technically-skilled work performed in all manner of aviation maintenance facilities may begin or continue a career through any one of the “pathways” described in this AC.

9.2 Career Pathway: Noncertificated Professionals. Individuals not holding an FAA-issued certificate can perform a wide range of work in an aviation environment. They may do so while gaining experience necessary to qualify for endorsement for a repairman’s certificate or to test for a mechanic’s certificate – in some cases as a “mechanic’s helper” under the training program of a part 121, 135 or 145 certificate holder. Noncertificated technicians commonly perform maintenance requiring specialized skill in avionics, composite maintenance and nondestructive inspection. However, specialized skills are not limited to these areas and may include any maintenance activity.

9.3 Career Pathway: Certificated Repairmen. The repairman is a maintenance technician certificated for specific tasks by the FAA based on the endorsement of an air agency or air carrier certificate holding employer. A repair station, commercial operator, or air carrier recommends an individual to be a repairman, which allows technicians holding highly-specialized skills (see paragraph 7.3) but not meeting the mechanic general eligibility requirements to quickly enter a certificated role within the employer’s quality system.

9.3.1 General Requirements. The rules for obtaining and using a Repairman Certificate are contained in part 65 subpart E. Applicants are recommended by their employer and must be at least 18 years of age and specially qualified to perform maintenance on aircraft or components (§ 65.101); such “special qualification” could come through a broad range of technical skills and experiences, even those not specifically gained in aviation.

9.3.2 Application. FAA Form 8610-2 is used to apply for a Repairman Certificate and can be found – along with application forms for additional repairman certificates available for experimental and light-sport aircraft – at <https://www.faa.gov/forms/>. For further information on becoming a repairman, refer to AC 65-24 and for becoming a repairman for light sport aircraft, refer to AC 65-32; both can be found at http://www.faa.gov/regulations_policies/advisory_circulars/.

9.4 Career Pathway: Certificated Mechanics. The mechanic is a maintenance technician certificated by the FAA based on his or her personal knowledge gained through training and experience, which is demonstrated via successful completion of written, oral and practical tests and maintained through continual use.

9.4.1 General Requirements. The rules for obtaining and using a Mechanic Certificate are contained in part 65 subpart D. Applicants must be at least 18 years of age and have successfully completed knowledge (§ 65.75) and skills (§ 65.79) testing after demonstrating the necessary experience or training completion (§ 65.77).

9.4.2 Application. Applicants need to complete two copies of FAA Form 8610-2, which can be found at <https://www.faa.gov/forms/>, and receive authorization to test for a FAA Mechanic Certificate in one of two ways—

- Earn a graduation or completion certificate from an FAA-certificated aviation maintenance technician school or a certificate of eligibility confirming military experience from the Joint Services Aviation Maintenance Technician Certification Council (JSAMTCC).
- Pass an interview and present verifiable evidence of practical experience as described in § 65.77 to an Airworthiness aviation safety inspector (ASI) from a FSDO or IFO. Documentation establishing civilian experience may include pay receipts for tasks accomplished or records/logs signed by a certificated supervisor and detailing the (1) number of hours spent performing the work, (2) exact task experience/type of work, and (3) the registration number of the aircraft.

9.4.3 Testing. Each rating has three tests: written, oral, and practical. The FAA-approved knowledge test centers administer the FAA written knowledge tests. Designated Mechanic Examiners (DME) administer the FAA oral and practical skills tests. Various fees apply; contact the testing provider for cost information. A list of DMEs is available at a local FSDO or at <http://av-info.faa.gov/DesigneeSearch.asp>. You can obtain sample test questions and additional information on testing requirements, methods, and protocol at https://www.faa.gov/training_testing/testing/test_questions/.

- 9.5 Career Pathway: Inspection Authorization (IA).** The IA permits an A&P mechanic to perform a greater variety of maintenance and alterations than any other single maintenance authorization. As described in § 65.91, an applicant must have held his or her certificate for a certain amount of time, been actively engaged in aircraft maintenance and have access to the necessary equipment, facilities and data. The application for an IA is made using FAA Form 8610-1, which can be found at <https://www.faa.gov/forms/>. The IA Knowledge Test is comprehensive, covering many subject areas. An applicant who fails the prescribed test may not apply for retesting until at least 90 days after the date he or she has failed the test. For further information on the Inspection Authorization Knowledge Test, obtaining an IA, and the requirements of an IA, refer to FAA-G-8082-19 and FAA-G-8082-11 at http://www.faa.gov/training_testing/testing/test_guides/.
- 9.6 Career Pathway: Military Transition.** Military veterans are great candidates for aviation maintenance professional employment based on experience and training in the general technical skills – even those not specific to aviation – and the personal attributes required for success in civil aviation. Certain military occupational specialties (MOS) may receive credit for practical experience towards a mechanic or repairman certificate. Military personnel seeking employment in civil aviation can enter the industry along any pathway appropriate to their skill and experience.
- 9.6.1 Application.** Veteran applicants should utilize the necessary forms for the job, certificate or rating sought, documenting experience as necessary on Joint Service Form CG-G-EAE-2 or the equivalent Coast Guard Form and may present Department of Defense Form 214, Certificate of Release or Discharge from Active Duty.
- 9.6.2 Validation of Military Aviation Maintenance Experience.** Applicants seeking credit for military experience towards repairman or mechanic certificates can complete the JSAMTCC certificate of eligibility requirements or present their local FSDO or IFO with verifiable evidence, e.g., a commander’s letter, of their military service consistent with the requirements for civilian applicants outlined above and specified in other guidance. A list of MOS considered by the FAA as potentially acceptable for meeting practical experience requirements can be found in the Flight Standards Information Management System (FSIMS; <http://fsims.faa.gov/>), Volume 5, Chapter 5.
- 10 CONCLUSION.** The safety of the global aviation system, the security of U.S. airspace and the unrestricted flow of global commerce will always depend on the knowledge, skill and commitment of aviation maintenance professionals. It is incumbent on aviation stakeholders, educational professionals, career assistance personnel and community leaders to ensure the opportunities available in the industry are widely understood and broadly embraced. Finding and retaining people into the “aviation maintenance profession” is essential to ensuring the continuation of the international aviation system.

- 11 AC FEEDBACK FORM.** For your convenience, the AC Feedback Form is the last page of this AC. Note any deficiencies found, clarifications needed, or suggested improvements regarding the contents of this AC on the Feedback Form.

Rick Domingo

Executive Director, Flight Standards Service

APPENDIX A. PROFESSIONAL RESOURCES

This Appendix contains information on financial aid and additional resources for those considering or advancing employment and careers in civil aviation maintenance industry.

- (1) A sample of trade associations that represent aviation-oriented educational institutions which offer information on skills, education, employment and career opportunities include:
 - [Aviation Technician Education Council](#) (ATEC)
 - [University Aviation Association](#) (UAA)
- (2) A sample of trade associations and labor unions that represent individual aviation maintenance technicians that may offer information on skills, education, employment and career opportunities include:
 - [Aircraft Mechanics Fraternal Association](#) (AMFA)
 - [Association for Women in Aviation Maintenance](#) (AWAM)
 - [International Association of Machinists and Aerospace Workers](#) (IAM or IAMAW)
 - [Professional Aviation Maintenance Association](#) (PAMA)
 - [Teamsters Airline Division](#)
 - [Transportation Workers Union](#) (TWU)
- (3) Aviation trade associations offer financial aid and support to individuals interested in pursuing or advancing aviation maintenance employment or careers. Examples include:
 - [Aircraft Electronics Association \(AEA\) Educational Foundation Scholarship Program](#) has awarded more than \$1 million to students seeking careers in the aircraft electronics and aviation maintenance industry. Numerous scholarships are available ranging from \$1,000 to more than \$35,000.
 - [Helicopter Foundation International \(HFI\)](#) offers an array of scholarships to answer the need for both qualified helicopter pilots and maintenance technicians, and to provide further training for safety managers and other professionals in the safety field.
 - [National Air Transportation Foundation \(NATF\)](#), the research and educational arm of the National Air Transportation Association (NATA), offers several categories of scholarships.
 - [National Business Aircraft Association Charities](#) scholarship program offers a wide range of options for current and aspiring business aviation professionals; both students and working professionals.
 - [The Northrop Rice Foundation \(NRF\)](#) administers awards and scholarships sponsored and funded by the NRF, ATEC, and other aviation-related firms, associations, and organizations. These awards and scholarships distribute cash or aviation equipment, student tuition assistance, and instructor professional-develop workshop participation opportunities.

- [The Regional Air Cargo Carriers Association \(RACCA\) Aviation Scholarship](#) is established for the purpose of promoting and assisting aviation as a career choice and to make students aware of the opportunities in the Air Cargo Industry.
 - [Regional Airline Association \(RAA\) Scholarship](#) provides financial support for the education of individuals who are studying for a career in the airline industry.
 - [Women in Aviation International](#) provides a substantial list of scholarships in a vast array of civil aviation employment and career opportunities for its members.
- (4) Large and small air carriers offer employment and career educational support. Companies that offer air transport for compensation and hire may be found by performing a general internet search. Another way to obtain the names of airlines, air carriers and other certificate holders is through trade associations such as—
- [Airlines for America](#) (A4A)
 - [Airlines for Europe](#) (A4E)
 - [Helicopter Association International](#) (HAI)
 - [International Air Transportation Association](#) (IATA)
 - [National Air Carrier Association](#) (NACA)
 - [National Air Transportation Association](#) (NATA)
 - [Regional Air Cargo Carriers Association](#) (RACCA)
 - [Regional Airline Association](#) (RAA)
- (5) Large and small manufacturers offer employment and career educational support, individual design and production certificate holders may be found by performing a general internet search on the industry or for a specific company name.
- You may obtain the names of type certificate holders on the FAA’s website ([http://rgl.faa.gov/Regulatory and Guidance Library/rgMakeModel.nsf/MainFrame?OpenFrameSet](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgMakeModel.nsf/MainFrame?OpenFrameSet)) by types of products, such as aircraft, engine or propeller.
 - You may also find a list of parts manufacturer approval (PMA) holders on the FAA’s website ([http://rgl.faa.gov/Regulatory and Guidance Library/rgpma.nsf/MainFrame?OpenFrameSet](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgpma.nsf/MainFrame?OpenFrameSet)).
 - You may obtain names of aviation manufacturers through trade associations such as—
 - [Aerospace Industries Association](#) (AIA)
 - [General Aviation Manufacturers Association](#) (GAMA)
 - [Helicopter Association International](#) (HAI)
 - [Light Aircraft Manufacturers Association](#) (LAMA)
 - [Modification and Replacement Parts Association](#) (MARPA)

- (6) Companies certificated as repair stations under part [145](#) offer employment and career educational support.

You can obtain a list of repair stations from the FAA’s website (<http://avinfo.faa.gov/repairstation.asp>) or perform a general internet search for individual companies.

- You may obtain names of companies that perform civil aviation maintenance services through trade associations such as—
 - [Aeronautical Repair Station Association](#) (ARSA)
 - [Aircraft Electronics Association](#) (AEA)
 - [Aviation Instrument Association](#) (AIA)
 - [National Air Transportation Association](#) (NATA)
- (7) Trade associations and other non-profit or trade unions and experts that represent national and international general and business aviation, individual aircraft owners and operators, distributors and other segments of specific aviation activity are also a source of information for persons interested in aviation maintenance employment and careers. Examples include:
- [AeroSpace and Defense Industries Association of Europe](#) (ASD)
 - [Air Charter Association of North America](#) (ACANA)
 - [Air Charter Safety Foundation](#) (ACSF)
 - [Aircraft Fleet Recycling Association](#) (AFRA)
 - [Aircraft Owners and Pilots Association](#) (AOPA)
 - [Airlines International Representation in Europe](#) (AIR-E)
 - [Airship Association](#) (AA)
 - [American Helicopter Services & Aerial Firefighting Association](#) (AHSFA)
 - [American Institute of Aeronautics and Astronautics](#) (AIAA)
 - [Association of Air Medical Services](#) (AAMS)
 - [Association of Balloon and Airship Constructors](#) (ABAC)
 - [Association for Unmanned Vehicle Systems International](#) (AUVSI)
 - [Aviation Insurance Association](#) (AIA)
 - [Aviation Suppliers Association](#) (ASA)
 - [Balloon Federation of America](#) (BFA)
 - [European Business Aircraft Association](#) (EBAA)
 - [Experimental Aircraft Association](#) (EAA)

- [Flight School Association of North America](#)
 - [HotAirBalloon.org](#)
 - [I Fly America](#) (IFA)
 - [Independent Fixed Based Operators Association](#) (IFBOA)
 - [International Society of Transport Aircraft Trading](#) (ISTAT)
 - [Light Aircraft Manufacturers Association](#) (LAMA)
 - [National Aeronautics Association](#) (NAA)
 - [National Aircraft Finance Association](#) (NAFA)
 - [National Business Aircraft Association](#) (NBAA)
 - [National Agricultural Aviation Association](#) (NAAA)
 - [Naval Airship Association](#) (NAA)
 - [Satellite Industry Association](#) (SIA)
 - [Society of Automotive Engineers International Aerospace](#) (SAE International)
 - [Space Foundation](#) (SF)
 - [Space Transportation Association](#) (STA)
 - [The Lighter-Than-Air Society](#)
 - [United States Ultralight Association](#) (USUA)
 - [Unmanned Aerial Vehicle Systems Association](#) (UAVSA)
 - [Unmanned Autonomous Vehicle System Association](#) (UAVSA)
- (8) The trade press is another source of information on compliance, employment, careers, expectations, and statistics on the aviation maintenance industry. Many of the trade associations listed above have publications that enhance knowledge and understanding, however, other sources of trade press are also valuable. Examples include—
- [Aero News Network](#)
 - [Air & Space Magazine](#)
 - [Aircraft Commerce](#)
 - [Aircraft Maintenance Technology \(AMT\) Magazine](#)
 - [Aircraft Owner](#)
 - [Airline Weekly](#)
 - [Aviation International News](#)
 - [Aviation Maintenance Magazine](#)
 - [Aviation Week and Space Technology](#)

- [Avionics International](#)
- [AvWeb](#)
- [Director of Maintenance \(DOM\) Magazine](#)
- [Flying Magazine](#)
- [Flight Global](#)
- [General Aviation News](#)
- [KitPlanes](#)
- [MRO Network](#)
- [Power Sport Flying Magazine](#)
- [UAS Magazine](#)
- [Unmanned Systems Technology Magazine](#)
- [Vertical](#)