

# ATEC Annual Conference 2023



Federal Aviation  
Administration

## Breakout Session 2: FAA Policy Update (Part 147)



Date: March 28, 2023

# Agenda

- **Background/Status on Part 147 Rulemaking**
- **Part 147 Regulation and Policy Review**
- **§65.80 Testing**
- **Additional Information**
- **Resources**
- **Questions/Feedback**



# Background/Status on Part 147 Rulemaking

- **Part 147 Interim Final Rule (IFR), Docket: FAA-2021-0237**
  - Basis for rulemaking: Section 135 of the Aircraft Certification, Safety, and Accountability Act (ACSA Act)
  - The Act is part of Public Law 116-260 - The Consolidated Appropriations Act of 2021.
  - The FAA adopted the statutory language of the Act and implements the language directly into the regulations.
- **New Part 147 regulations Effective Date - September 21, 2022**
  - The former part 147 regulations were repealed and replaced by the new part 147 regulations.
- **FAA currently working part 147 rulemaking to make the “interim final rule” a “final rule”.**
  - The final rule preamble responds to comments made during the IFR comment period.



## § 147.3 Certificate required.

*No person may operate an aviation maintenance technician school without, or in violation of, an aviation maintenance technician school **certificate and the operations specifications** issued under this part.*

- Air Agency Certificate – includes the following information:
  - Certificate holders name
  - FAA Certificate number
  - Address of the AMTS primary location
  - Ratings issued to the AMTS (OpSpec A003)
  - Additional business names of the AMTS (not listed on AMTS OpSpecs)
- Operations Specifications (OpSpecs) are authorizing documents issued to an AMTS by which an AMTS must comply, pursuant to § 147.3.
- WebOpss (Web-Based Operations Safety System) – The web-based automation used to process and issue OpSpecs electronically.
- Designate at least one person as authorized to sign and receive OpSpecs and who will be identified in OpSpec A007. Only individuals listed on A007 are authorized to receive/sign OpSpecs.



# Part 147 OpSpecs

Part 147 Operations Specifications		
OpSpec Paragraph and Title	Required/ Optional	Description
A001 Issuance and Applicability	Required	Lists the name and address of the certificate holder, as shown on the air agency certificate.
A002 Definitions and Abbreviations	Required	Lists definitions or abbreviations applicable to part 147 OpSpecs
A003 Ratings	Required	Lists the ratings issued to the AMTS
A004 Summary of Special Authorizations and Limitations	Required	Lists any “Optional” OpSpecs held by the AMTS
A005 Exemptions	Optional	Lists Exemptions granted to the AMTS
A007 Designated Persons	Required	Lists persons the AMTS allows to accept and sign OpSpecs.

- Recommend that AMTS conduct an annual review of their OpSpecs to ensure they are kept current.



# Part 147 OpSpecs - Continued

Part 147 Operations Specifications		
OpSpec Paragraph and Title	Required/ Optional	Description
A008 Additional Training Locations	Optional	Lists training locations of the AMTS that are in addition to the primary location.
A013 Instructors	Required	Contains the description required by § 147.5(b)(3)
A015 Facilities, Equipment, and Materials	Required	Contains the description required by § 147.5(b)(1)
A025 Electronic Signatures, Electronic Recordkeeping, and Electronic Manuals/Documents	Optional	Authorizes the use of electronic signatures, recordkeeping, and manuals/documents (relative to part 147 requirements)
A027 Quality Control System	Required	Identifies how the AMTS meets § 147.23
B001 Curriculum	Required	Contains the description required by § 147.5(b)(2)

- Recommend that AMTS conduct an annual review of their OpSpecs to ensure they are kept current.



## § 147.5(b) Descriptions

(b)(1) A description of the *facilities, equipment, and materials* to be used at *each location*. (OpSpec A015)

(b)(2) A description of *the manner in which the school's curriculum will ensure* the student has the knowledge and skills necessary for attaining a mechanic certificate and associated ratings under part 65 subpart D. (OpSpec B001)

- Curriculum basis (e.g. hours, credit hours, CBT, etc.)
- Curriculum delivery methods (e.g. traditional classroom delivery, distance learning, virtual practical application, etc.)
- Curriculum focus (e.g. emphasizing certain curriculum content over others, such as having an air carrier career focus)

(b)(3) A description of *the manner in which the school will ensure it provides* the necessary qualified instructors to meet the requirements of § 147.19. (OpSpec A013)



## § 147.11 Ratings.

*The following ratings may be issued under this part:*

- (a) Airframe.*
- (b) Powerplant.*
- (c) Airframe and powerplant.*

- OpSpec A003 lists the ratings issued to the AMTS.
- The ratings held by the school relate to the graduation certificate that can be issued by the AMTS.





# § 147.11 Ratings.

If the AMTS holds this rating ...	And curriculum document design is in this format...						Then the AMTS may issue completion documentation referencing the following curriculum...			
	Airframe (A)	Powerplant (P)	General (G)	Airframe + General (A+G)	Powerplant + General (P+G)	Combined (A+P+G)	Airframe (A)	Powerplant (P)	A & P (single certificate)	General (early testing)
<b>Airframe &amp; Powerplant</b>	X	X	X						X	X <sup>[1]</sup>
						X				
<b>Airframe</b>				X			X			
	X		X							
<b>Powerplant</b>					X			X		
		X	X							

<sup>[1]</sup> A general curriculum completion document should only be issued if the AMTS has a standalone general curriculum, or can clearly document/verify completion of the general curriculum content.



## § 147.13 Facilities, equipment, and material requirements.

*(a) Each certificated aviation maintenance technician school must provide and maintain the facilities, equipment, and materials that are **appropriate to the rating** or ratings held by the school and the **number of students taught**.*

*(b) For certificated aviation maintenance technician schools that provide training at more than one location in accordance with § 147.15, the facilities, equipment, and materials used at each location must be **appropriate to the curriculum or portion of the curriculum**, and the number of students being taught, at that location.*

- Equipment - AMTS equipment includes shop equipment, tools (including hand tools), and instructional aids, such as aircraft, aircraft components, and mock-ups used for learning.
- Materials – things like Sheet metal, rivets, fluids, but also documents such as maintenance manuals, AD's, SB's, or other materials used to deliver the required training.
- Difference between (a) and (b)?



# Equipment and Materials

Must be **APPROPRIATE TO:**

- The AMTS rating(s)
  - The number of students taught
  - The curriculum or portion of curriculum taught
- “appropriate” means that the facilities, equipment, and materials provide a safe and suitable learning environment that results in the ability to meet the training requirements of § 147.17
  - Example: If the curriculum includes a skill requirement that an applicant must perform on a specific piece of equipment, the school must have that piece of equipment.  
(*e.g.*, where a school’s curriculum requires a student to be able to perform a skill requirement to service a battery, the school must have an aircraft battery in a condition that will allow a student to demonstrate the servicing requirements of that battery).



# 147.15 Training provided at another location.

*A certificated aviation maintenance technician school may provide training at any **fixed location other than its primary location**, provided the additional training location **meets the requirements of this part** and is **listed in the certificate holder's operations specifications**.*

- Training locations other than the primary location (primary location is listed on the certificate)
- Must be “fixed” locations
- Must be listed in AMTS OpSpec A008
- primary location and/or additional location can be located within the US or outside of the US
- FAA surveillance: Additional locations are the responsibility of the Flight Standards office responsible for the part 147 certificate.
- Requesting additional training locations – Make a written request to the responsible Flight Standards Office. The office will conduct the inspections necessary to determine “*meets the requirements of this part*” prior to issuing the A008 OpSpec.



## § 147.17(a) Training requirements

*(a) Each certificated aviation maintenance technician school must:*

- (1) Establish, maintain, and utilize a **curriculum** that is designed to continually **align** with the **mechanic airman certification standards** referenced in paragraph (b) of this section, as appropriate for the ratings held;*
- (2) Provide training of a quality that meets the requirements of **§ 147.25**; and*
- (3) Ensure students **have the knowledge and skills necessary to be prepared to test** for a mechanic certificate and associated ratings under subpart D of part 65 of this chapter.*

- The “curriculum” refers to the document(s) a school must develop that must align with the Mechanic ACS, depending on the ratings issued to school.
- The phrase “mechanic airman certification standards” in § 147.17(a)(1) refers to the standards that have been incorporated by reference in § 147.17(b).



# Aligning the Curriculum with the ACS.

- An AMTS will be in compliance with § 147.17(a)(1) if the school designs its curriculum to include:
  - The high-level subjects that are listed in the Mechanic ACS; and
  - Broader course content items, concepts, and practical projects under each high-level subject **which may encompass several of the** more detailed knowledge, risk management, and skill elements listed in the ACS.
    - For example, one broad course content item in the curriculum may encompass several knowledge elements listed in the ACS, while still aligning with the ACS. Similarly, a school could develop a curriculum that includes more content than the ACS and still be in alignment with the ACS.
- The curriculum does not require FAA approval, but it must meet the requirements of §147.17(a)(1), and the FAA may request a copy, at any time, to verify compliance.



## § 147.17(a)(2) and (3) Training requirements.

*(a) Each certificated aviation maintenance technician school must:*

*(2) Provide training of a quality that meets the requirements of § 147.25; and*

*(3) Ensure students have the **knowledge and skills necessary to be prepared to test for a mechanic certificate** and associated ratings under subpart D of part 65 of this chapter.*

- § 147.25 Minimum passage rate – very specific metric
- § 147.17(a)(3) – very broad
  - FAA is working to develop various reports to display the results of the FAA tests, in ways the §147.25 metric cannot.
  - This requirement is just as important as pass rate



## § 147.17(b) Training requirements.

*(b) **FAA-S-ACS-1**, Aviation Mechanic General, Airframe, and Powerplant Airman Certification Standards, **November 1, 2021**, is incorporated by reference into this section with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. This material is available for inspection at the Federal Aviation Administration (FAA) and the National Archives and Records Administration (NARA). Contact FAA, Airman Testing Standards Branch/Regulatory Support Division, 405-954-4151, [AFS630Comments@faa.gov](mailto:AFS630Comments@faa.gov). For information on the availability of this material at NARA, email: [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html). The material may be obtained from FAA, 800 Independence Avenue SW, Washington, DC 20591, 866-835-5322, [www.faa.gov/training\\_testing](http://www.faa.gov/training_testing).*

- AMTS must revise their curriculum whenever there are future revisions of the Mechanic ACS.
- Revision to the Mechanic ACS will require § 147.17(b) to be updated to reference the revised ACS (i.e., something other than *November 1, 2021*)
- The Mechanic ACS is available to the public online on the ACS webpage at: [https://www.faa.gov/training\\_testing/testing/acs](https://www.faa.gov/training_testing/testing/acs).





## § 147.19 Instructor requirements.

*Each certificated aviation maintenance technician school must:*

- (a) Provide qualified instructors to teach in a manner that ensures **positive educational outcomes** are achieved;*
- (b) Ensure instructors either—*
  - (1) Hold a mechanic certificate with one or more appropriate ratings; or*
  - (2) If they do not hold a mechanic certificate, are otherwise **specifically qualified** to teach their assigned content; and*
- (c) Ensure the student-to-instructor ratio does not exceed 25:1 for any shop class.*



# § 147.19 Instructor requirements.

- The FAA interprets “*positive educational outcomes*” to refer to the training requirements in § 147.17.

*Are instructors teaching in a manner that:*

- 1. Provides training of a quality that meets the requirements of § 147.25; and***
- 2. Ensures students have the knowledge and skills necessary to be prepared to test for a mechanic certificate and associated ratings under subpart D of part 65 of this chapter.***

- The FAA interprets “specifically qualified” to mean an instructor is demonstrably qualified by reason other than an FAA mechanic certificate (e.g., education or relevant experience) to teach a certain portion of the school’s curriculum.



## § 147.21 Certificate of completion.

Each certificated **aviation maintenance technician school** must provide an **authenticated document** to each **graduating student**, indicating the student's **date of graduation** and **curriculum completed**.

- The authenticated document should include the following information:
  - An authentication, completed by the school;
  - The graduating student's name;
  - The date of graduation;
  - The title of the curriculum that was completed by the student (either Airframe, Powerplant, or A&P);
  - FAA Air Agency Certificate number.



## § 147.23 Quality control system.

- (a) Each certificated aviation maintenance technician school must—
- (1) Be **accredited** within the meaning of **20 U.S.C. 1001(a)(5)**; **or**
  - (2) Establish and maintain a **quality control system** that meets the requirements specified in paragraph (b) of this section, and is **approved by the Administrator**.
- (b) The quality control system specified in paragraph (a)(2) of this section must provide **procedures** for recordkeeping, assessment, issuing credit, issuing of final course grades, attendance, ensuring sufficient number of instructors, granting of graduation documentation, and corrective action for addressing deficiencies.

- **Accreditation**

- To be accredited within the meaning of 20 U.S.C. § 1001(a)(5) requires a school to be accredited by a Department of Education nationally recognized accrediting agency or association.
- Pre-accreditation does not meet the requirements of § 147.23(a), since the regulation specifically requires “accreditation.”



# Develop a QC System for FAA Approval

- **FAA Approved QC System.** The QC System for FAA approval must include procedures for the following:
  - Recordkeeping,
  - Assessment,
  - Issuing credit,
  - Issuing of final course grades,
  - Attendance,
  - Ensuring sufficient number of instructors,
  - Granting of graduation documentation, and
  - Corrective action for addressing deficiencies.
- **FAA Approval.** The QC System must be submitted to the FAA for approval. The approved document(s) will be listed in AMTS OpSpecs.
- **QC System Revision.** Revisions to the QC System must be submitted to the FAA and receive FAA-approval prior to being implemented by the AMTS.



## § 147.25 Minimum passage rate.

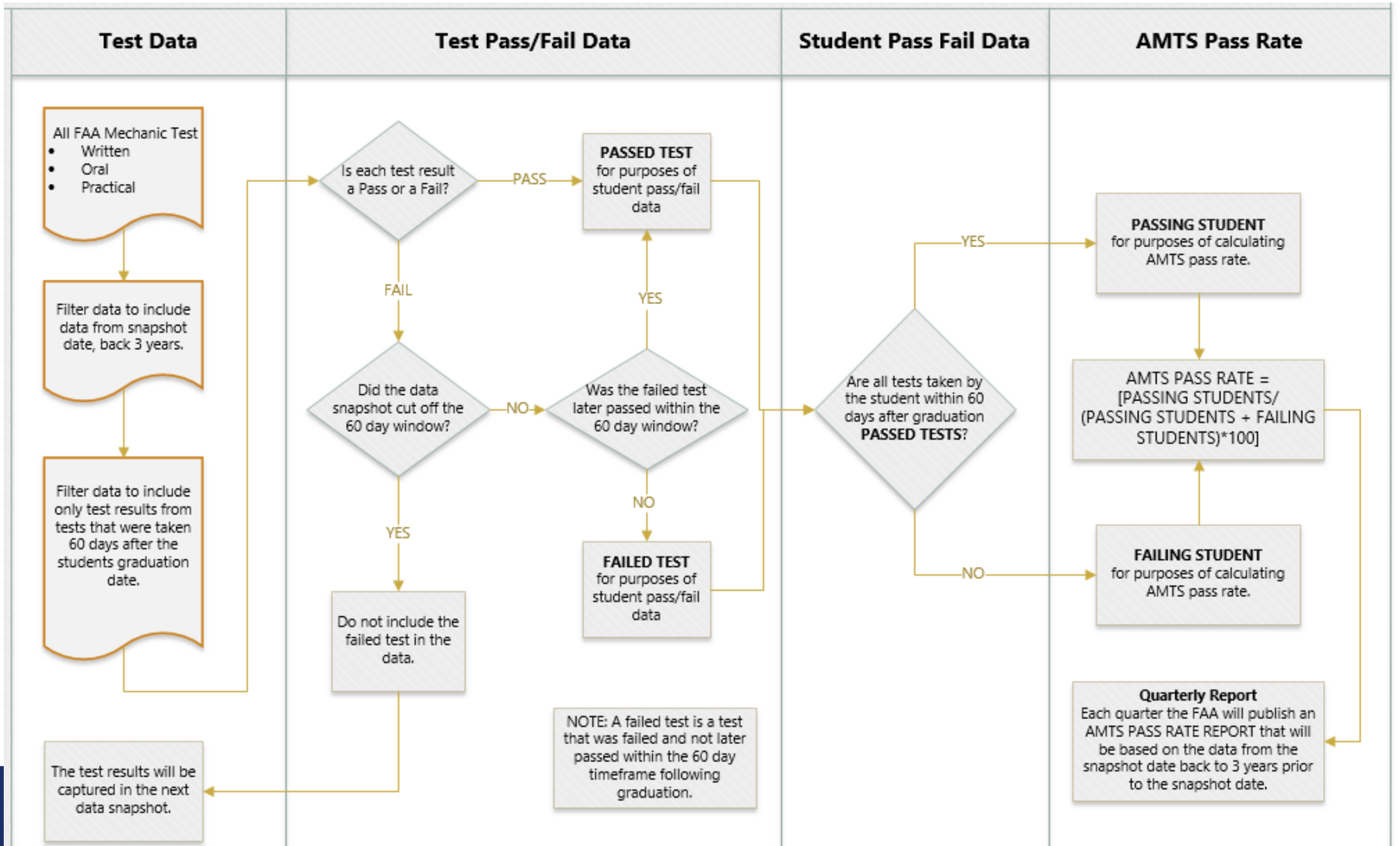
(a) Each certificated aviation maintenance technician school must maintain the pass rate specified in paragraph (b) of this section for the **most recent 3-year period**.

(b) For students who take an FAA mechanic test under part 65 of this chapter within **60 days after graduation**, at least 70 percent of students must pass **one** of the following tests **or any combination thereof**:

- (1) Written test;
- (2) Oral test; or
- (3) Practical test.

(c) For students who take a combination of tests within the 60-day window specified in paragraph (b) of this section, an aviation maintenance technician school must count a failure on any one test as a student failure for purposes of determining the pass rate, **unless that failed test is subsequently passed within the 60-day window**.





## § 147.27 FAA inspection.

A certificated aviation maintenance technician school must allow the Administrator such **access as the Administrator determines necessary** to inspect the **one or more locations of the school** for purposes of determining the school's **compliance with the requirements of this part**.





## § 147.29 Display of certificate.

A certificated aviation maintenance technician school must display its aviation maintenance technician school certificate at a place in **each location of the school**, including the primary location and any additional fixed locations, that is **visible by and normally accessible to** the public.



## § 147.31 Early testing.

*When a student satisfactorily completes the general portion of a certificated aviation maintenance technician school's curriculum, the school may issue an authenticated document that demonstrates the student's preparedness to take the mechanic **general written test** in accordance with **§ 65.75(c)** of this chapter.*

*§ 65.75(c) An applicant for a mechanic certificate or rating may take the mechanic general written test prior to meeting the applicable experience requirements of [§ 65.77](#), provided the applicant presents an **authenticated document** from a **certificated aviation maintenance technician school** that demonstrates satisfactory completion of the **general portion of the school's curriculum** and specifies the **completion date**.*

- The authenticated document should include the following information:
  - Evidence of the authentication completed by the school;
  - The student's name;
  - Indication the certificate is for completion of only the “general” course content of the school's curriculum;
  - The date the general portion of the curriculum was completed; and
  - FAA Air Agency Certificate number.



## § 65.80 Certificated aviation maintenance technician students

Whenever an aviation maintenance technician school certificated under part 147 of this chapter **shows to the Administrator** that any of its **students has made satisfactory progress** at the school and is **prepared to take the oral and practical tests** prescribed by § 65.79, that student may take those tests during the **final subjects of the student's training** in the curriculum required under part 147, before the student meets the applicable experience requirements of § 65.77 and before the student passes each section of the written test prescribed by § 65.75.

- § 65.77 requires an applicant to meet experience requirements, either:
  - Graduate from an AMTS, or
  - Have 18 months (single rating) or 30 months (both ratings) of practical experience
- § 65.75(c) requires the applicant to pass the written test before applying for the oral and practical tests
- § 65.80 excepts an AMTS student from both of the above requirements, thus allowing them to take the oral and practical tests “early”
- The applicant is eligible for a mechanic certificate only after meeting § 65.77, § 65.75, and any other applicable requirements.



# Additional Information

## Safety Procedures

- The aviation maintenance environment contains hazards and risk.
- Not required by part 147 regulation:
  - prevent serious injury or death to students and AMTS personnel,
  - ensure the safety of its training operations, and
  - conform to local, state, and Federal regulations for workplace safety.
- Procedures should be included for:
  - any training equipment, to include tools or other devices with the capability to **operate, actuate, or store energy, or that otherwise has the potential to expose a person to injury**
  - chemicals such as cleaners, lubricants, and flammable liquids used during training
- Evaluate for hazards and safety risks – Mitigate risk to an acceptable level, using policy, procedures, and other mitigations



# Additional Information

- **Part 65 Effective dates** – When will the ACS be the standard for testing?
  - IFR was published on May 24, 2022, effective date was September 21, 2022
    - Applied to all of the new requirements in the rule, except the requirements pertaining to knowledge requirements (§ 65.75) and skills requirements (§ 65.79).
  - The effective date for these two provisions is **August 1, 2023**.
    - On this date, the Mechanic ACS will be the standard used for mechanic testing.
- **FAA form 8310-6, Aviation Maintenance Technician School Certificate and Ratings Application**
  - Revised to reflect the changes in part 147 based on the IFR.
- **FAA form 8610-2, AMTS Certificate and Ratings Application**
  - Revised to include the Pilot Bill of Rights, remove repairman specific content, revise the FAA blocks
  - New FAA Form 8610-3, Airman Certificate and/or Rating Application – Mechanic and Parachute Rigger
- **IACRA/CARES**



# Resources

- Part 147 interim final rule and preamble  
<https://www.regulations.gov/docket/FAA-2021-0237>
- Title 14 CFR  
<https://www.ecfr.gov/current/title-14>
- FAA Guidance (Order 8900.1, other orders, notices, advisory circulars)  
<https://drs.faa.gov/browse>
- Mechanic Test Standards (PTS, ACS)  
[www.faa.gov/training\\_testing/testing](http://www.faa.gov/training_testing/testing)
- FAA Forms  
[www.faa.gov/forms](http://www.faa.gov/forms)



# Questions/Feedback



- The policy office for part 147 rulemaking, policy, and guidance is:
  - Office of Safety Standards, Aircraft Maintenance Division (AFS-300). Acting Division Manager: Rebecca Hoover
    - Airman and Special Projects Group (AFS-320). Manager: John “Jay” Hiles
      - Airmen Section. Section Manager: Kevin Morgan
- Division Email: [9-AWA-AFS-300-Maintenance@faa.gov](mailto:9-AWA-AFS-300-Maintenance@faa.gov)

