

Developments in Airman Testing: Transition from PTS to ACS

ATEC

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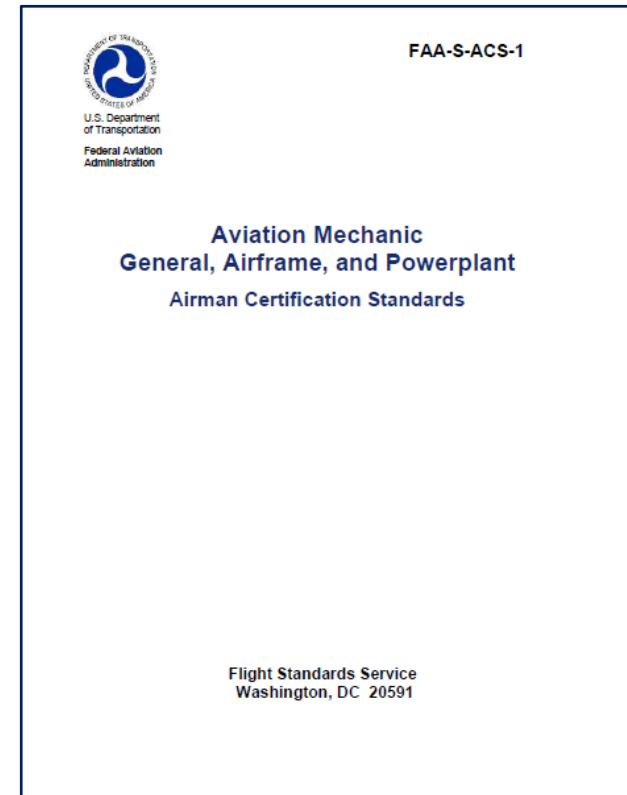


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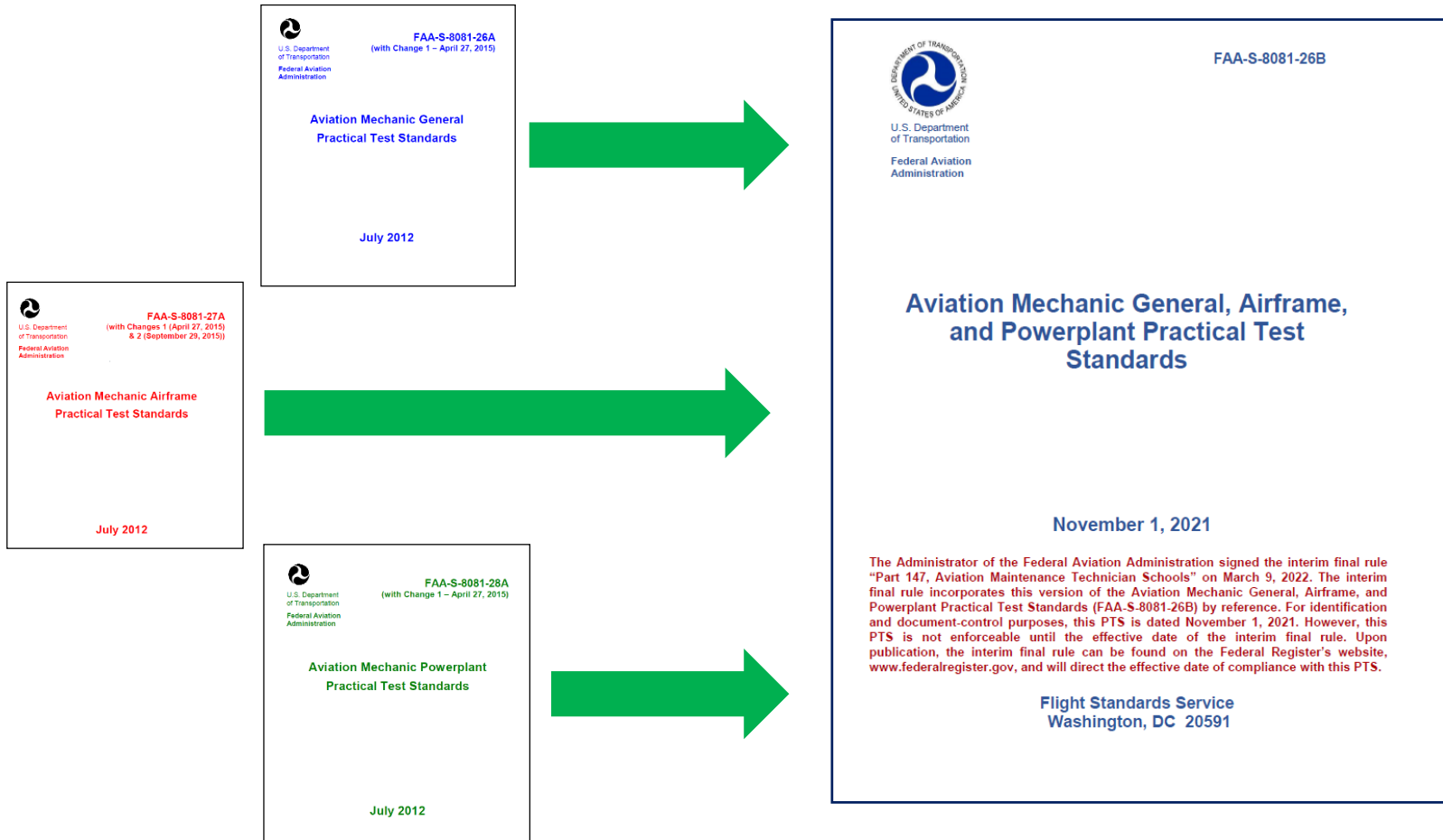
Key Aspects of the ACS

- Clear baseline of required knowledge for the knowledge (computer) test and correlated with the oral test
- More specific coding of missed knowledge test questions and validates basic knowledge of Subjects during oral portion ← **This is new!**
- Subject/Element level skill performance data
- Communicates basic requirements for Risk Management. ← **This is new!**
- Overall objective evaluation of a candidate's basic knowledge and skill



3 are now 1 . . . the * NEW * PTS

Effective Date of NEW PTS = Effective Date of Interim Final Rule



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The * NEW * PTS

Foreword

Note

FAA-S-8081-26B, Aviation Mechanic General Airframe, and Powerplant Practical Test Standards (PTS) supersedes:

- FAA-S-8081-26A, Aviation Mechanic General Practical Test Standards, dated April 2015
- FAA-S-8081-27A, Aviation Mechanic Airframe Practical Test Standards, dated April 2015 and
- FAA-S-8081-28A, Aviation Mechanic Powerplant Practical Test Standards, dated April 2015.

The aforementioned documents have been consolidated into this document.

This Aviation Mechanic General, Airframe, and Powerplant Practical Test Standards book has been published by the Federal Aviation Administration (FAA) to establish the standards for the Aviation Mechanic General, Airframe and Powerplant Oral and Practical Tests. The passing of each oral and practical test is a required step toward obtaining the Aviation Mechanic certificate with Airframe and/or Powerplant ratings. FAA inspectors and Designated Mechanic Examiners (DMEs) shall conduct oral and practical tests in compliance with these standards. Applicants should find these standards helpful in test preparation.

FOREWORD: Details on how the three PTS documents are **consolidated**

REQUIREMENTS & PROCEDURES: Details on **how to use** the PTS

AMT Test Requirements and Procedure Information

Introduction

The Federal Aviation Administration (FAA) aircraft mechanic's oral and practical test(s) are outcome-based examinations. Before being issued a mechanic's certificate, with an airframe and/or powerplant rating, all applicants must demonstrate the minimum level of knowledge and skills for the certificate or rating sought. Skill tests measure the applicant's ability to logically think and objectively apply their knowledge, while demonstrating the physical skills that enable them to carry out aircraft maintenance in a professional and safe manner.

Definitions within:

Knowledge—(oral) elements are indicated by use of the words "Exhibits knowledge in...."

Skill—(practical) elements are indicated by the use of the words "Demonstrates the skill to perform...."

Requirements

All applicants for an FAA Aviation Mechanic Certificate must qualify by meeting the prescribed requirements as stated in 14 CFR part 65, section 65.77. They must additionally pass a written knowledge test, and the oral and practical tests for the certificate and/or rating sought, in accordance with 14 CFR part 65.

When using this PTS, the examiner must evaluate the applicant's knowledge and skill in sufficient depth to determine that the objective for each subject area element selected is met.

An applicant is not permitted to know before testing begins which selections in each subject area are to be included in his/her test. Therefore, an applicant should be well prepared in all oral and skill areas included in the practical test standards.

The PTS prescribes the subject areas on which the applicant may be tested on.

Under each subject, objectives define the general performance expectations of the elements within the subject areas, i.e. exhibit knowledge during the oral portion of the test, or demonstrate skill during the practical portion of the test.

For each element for which the applicant must demonstrate skill, a performance level is prescribed.

Performance Levels

The following is a detailed description of the meaning of each level.

Level 1

- Know basic facts and principles.
- Be able to find information, and follow directions and written instructions.
- Locate methods, procedures, instructions, and reference material.
- Interpretation of information not required.
- No skill demonstration is required.

Level 2

- Know, understand, and apply facts, principles, theories, and concepts.
- Be able to find and interpret maintenance data and information, and perform basic operations using the appropriate data, tools, and equipment.
- A high level of skill is not required.



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PTS vs. ACS

Mechanic Knowledge Testing (§ 65.75)

PTS (Current) . . .

60 Questions: General Test

100 Questions: Airframe Test

100 Questions: Powerplant Test

3 answer choices per question

(1 correct answer, 2 distractors)

ACS . . .

60 Questions: General Test

100 Questions: Airframe Test

100 Questions: Powerplant Test

3 answer choices per question

(1 correct answer, 2 distractors)

Each subject area contains 5 to 10% of the test questions

70% passing score, per § 65.17 is applied to all three AMT exams



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PTS vs. ACS: Mechanic Oral Testing (§ 65.79)

PTS (Current) . . .

Applicants are asked a minimum of 172 questions:

- procedures require the DME to ask 4 per subject area, but may ask up to 7; and
- up to 301 questions may be asked, if 7 questions are asked in each subject area.

The applicant must pass whatever was asked, to the 70% standard, by subject area, not relative to the entire test.

When the applicant fails a subject area, the test is stopped and marked as a fail.

Retest: Test all subjects again.

Applicants must answer 3 of 4 correct, or 5 of 7 correct, per subject area.

ACS . . .

Applicants will be asked a minimum of 12 oral questions if 100% was achieved on all knowledge tests.

If every question missed on the knowledge test was a different ACS Code (but, the applicant still passes and continues to oral testing), there could be a maximum of 90 oral questions asked:

- **General:** 22 questions
- **Airframe:** 34 questions
- **Powerplant:** 34 questions

The test will have a question on each ACS Code missed on the knowledge test, **plus** 4 additional oral questions (per section (randomly selected by the test generator application.))

Retest: Will retest each failed subject again

The 70% standard is applied to the entire test.



PTS vs. ACS: Mechanic Practical Testing (§ 65.79)

PTS (Current) . . .

There are 5 possible practical tests, from a grading perspective.

There are a maximum of 22 projects:

- **General:** 6 projects
- **Airframe Structures**, Section II: 3 projects
- **Airframe Systems**, Section III: 4 projects
- **Powerplant Theory and Maintenance**, Section IV: 3 projects
- **Powerplant Systems and Components**, Section V: 6 projects

For each test listed above, if the applicant fails any 1 project, the applicant fails the test, and the test stops.

Retest: Need to pass the failed subject area (same project failed previously), plus the maximum additional, randomly-selected subject areas, within that test area.

Pass/fail standard by project (i.e., if any project is failed, the applicant fails the test)

ACS . . .

There are 3 tests total, with a maximum of 30 projects Tested:

- **General:** 9 projects out of 12 subject areas (stop after 3 failed)
- **Airframe:** 11 projects out of 15 subject areas (stop after 4 failed)
- **Powerplant:** 10 projects out of 14 subject areas (stop after 4 failed)

For each test listed above, the applicant tests up to the point the test is failed.

Retest: Applicant is retested on the failed project, plus an additional project in the same subject area, along with any subject areas not tested on the previous test (i.e., failed and untested projects carry forward to the retest).

This will mitigate failed areas by adding a project in the same subject area to the retest.




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Where can I find the ACS (FAA-S-ACS-1)?

https://www.faa.gov/training_testing/testing/acs/media/amt_acs.pdf

Where can I find the Companion Guide (FAA-G-ACS-1)?

https://www.faa.gov/training_testing/testing/acs/



FAA-S-ACS-1

U.S. Department
of Transportation
Federal Aviation
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**Aviation Mechanic
General, Airframe, and Powerplant
Airman Certification Standards**

November 1, 2021

The Administrator of the Federal Aviation Administration signed the interim final rule "Part 147, Aviation Maintenance Technician Schools" on March 9, 2022. The interim final rule incorporates this version of the Aviation Mechanic General, Airframe, and Powerplant Airman Certification Standards (FAA-S-ACS-1) by reference. For identification and document-control purposes, this ACS is dated November 1, 2021. However, this ACS is not enforceable until the effective date of the interim final rule. Upon publication, the interim final rule can be found on the Federal Register's website, www.federalregister.gov, and will direct the effective date of compliance with this ACS.

**Flight Standards Service
Washington, DC 20591**

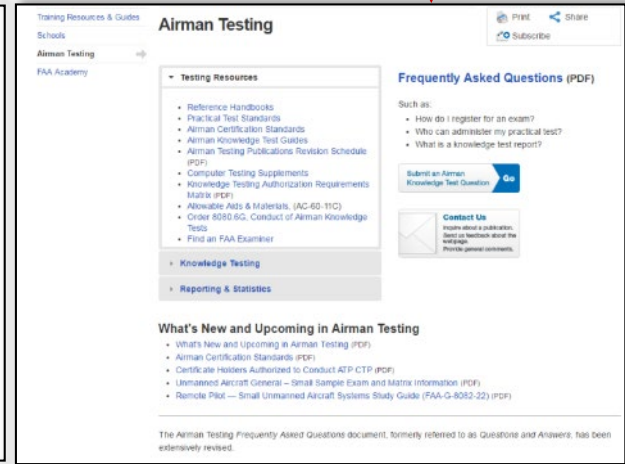
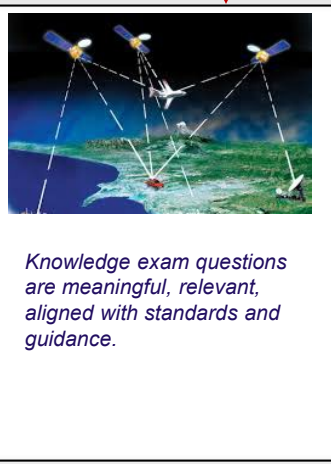
I. General	
Subject B. Aircraft Drawings	
References	AC 21-29; AC 43.13-1; FAA-H-8083-30
Objective	The following knowledge, risk management, and skill elements are required for aircraft drawings.
Knowledge	The applicant demonstrates understanding of:
AM.I.B.K1	Drawings, blueprints, sketches, charts, graphs, and system schematics, including commonly used lines, symbols, and terminology.
AM.I.B.K2	Repair or alteration of an aircraft system or component(s) using drawings, blueprints, or system schematics to determine whether it conforms to its type design.
AM.I.B.K3	Inspection of an aircraft system or component(s) using drawings, blueprints, or system schematics.
AM.I.B.K4	Terms used in conjunction with aircraft drawings, blueprints, or system schematics.
Risk Management	The applicant demonstrates the ability to identify, assess, and mitigate risks associated with:
AM.I.B.R1	Interpretation of plus or minus tolerances as depicted on aircraft drawings.
AM.I.B.R2	Specifications for design of alterations and repairs.
AM.I.B.R3	Applicability of the drawing or schematic to the particular aircraft by model and serial number.
AM.I.B.R4	Identification of the current version and applicability of drawing being used.
Skills	The applicant demonstrates the ability to:
AM.I.B.S1	Draw a sketch of a repair or alteration.
AM.I.B.S2	Identify the meaning of lines and symbols used in an aircraft drawing.
AM.I.B.S3	Interpret dimensions used in an aircraft drawing.
AM.I.B.S4	Identify changes on an aircraft drawing.
AM.I.B.S5	Determine material requirements from an aircraft drawing.
AM.I.B.S6	Interpret graphs and charts.



Airman Certification System



Changes: Regulations, Policies, Procedures, Feedback



•ACS codes

enable continuous

alignment

Standards

Guidance

Testing

Change Management

Combined certification standards for knowledge, risk management, and skill

Rules, H-series handbooks, Advisory Circulars, other FAA information sources

Knowledge exam, oral and practical tests for issuance of certificate or rating

Awareness, Desire, Knowledge, Ability, Reinforcement via disciplined change management plan with associated communications strategy

Alignment as appropriate with other Certificates / Ratings



Questions?



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