FAA-G-ACS-1

Companion Guide
to the
Aviation Mechanic
General, Airframe, and Powerplant
Airman Certification Standards

Proposed Revision

Foreword

The Aviation Mechanic ACS (FAA-S-ACS-1) defines the aeronautical knowledge, risk management, and skill performance expectations used to evaluate applicants for the Mechanic Certificate under 14 CFR part 65, subpart D. The ACS is incorporated by reference into 14 CFR part 147 to support AMTS curriculum and assessment alignment. This companion guide (FAA-G-ACS-1) provides non-regulatory guidance to ensure consistent interpretation and use of the ACS across testing and training settings.

Revision History

Document #	Description	Development Date
FAA-G-ACS-1	Companion Guide for Aviation Mechanic General, Airframe, and Powerplant Airman Certification Standards	May 2022
FAA-G-ACS-1A	Companion Guide for Aviation Mechanic General, Airframe, and Powerplant Airman Certification Standards	TBD

Table of Contents

Abbreviations and Acronyms

This list includes only the abbreviations and acronyms used in this guide and is provided to support clarity and ease of reference.

14 CFR	Title 14 of the Code of Federal Regulations
AC	Advisory Circular
ACAS	Airborne Collision Avoidance System
ACS	Airman Certification Standards
AD	Airworthiness Directive
ADA	Americans with Disabilities Ac
ADS-B	Automatic Dependent Surveillance – Broadcast
AFS	Flight Standards Service
AKT	Airman Knowledge Test
AKTR	Airman Knowledge Test Report
ALS	Airworthiness Limitations Section
AMA	Aviation Maintenance – Airframe
AMG	Aviation Maintenance – General
AMP	Aviation Maintenance – Powerplant
AMT	Aviation Maintenance Technician
AMTS	Aviation Maintenance Technician School
ASI	Aviation Maintenance Inspector
ATA	Air Transport Association
ATC	Air Traffic Control
BITE	Built-In Test Equipment
CBTA	Competency-Based Training and Assessment
CDCCL	Critical Design Configuration Control Limitations
CDI	Capacitor Discharge Ignition
CFR	Code of Federal Regulations
CSD	Constant Speed Drive
CVR	Cockpit Voice Recorder
DME	Designated Maintenance Examiner / Distance Measuring Equipment
DOT	Department of Transportation
ECAM	Electronic Centralized Aircraft Monitor
EGPWS	Enhanced Ground Proximity Warning System
EICAS	Engine Indicating and Crew Alerting System
ELT	Emergency Locator Transmitter
FAA	Federal Aviation Administration
FADEC	Full Authority Digital Engine Control
FDR	Flight Data Recorder
FMS	Flight Management System
FOD	Foreign Object Damage/Debris
FSDO	Flight Standards District Office

FSIMS	Flight Standards Information Management System
FTN	FAA Tracking Number
GCU	Generator Control Unit
GPWS	Ground Proximity Warning System
IACRA	Integrated Airman Certification and Rating Application
ICA	Instructions for Continued Airworthiness
ICAO	International Civil Aviation Organization
ID	Identification
IDG	Integrated Drive Generator
JSAMTCC	Joint Services Aviation Maintenance Technician Certification
MMEL	Master Minimum Equipment List
MROs	Maintenance, Repair, and Overhaul organizations
MTEL	Minimum Tools and Equipment List
MTG	Mechanic Test Generator
NDT	Nondestructive Testing
O&P	Oral and Practical
ODA	Organization Designation Authorization
OJT	On-the-job Trainer
PMA	Parts Manufacturer Approval
PPE	Personal Protective Equipment
PTS	Practical Test Standards
RA	Resolution Advisory
RVSM	Reduced Vertical Separation Minimum
SDS	Safety Data Sheets
SFAR	Special Federal Aviation Regulation
STC	Supplemental Type Certificate
TCAS	Traffic Collision Avoidance System
TCAS/ACAS	Traffic Collision Avoidance System/Airborne Collision Avoidance System
TCDS	Type Certificate Data Sheets
TSO	Technical Standard Order
U.S.C.	United States Code
ULB	Underwater Locator Beacon

Glossary

How This Guide Uses Terminology

This glossary supports consistent use of terminology across AMTS instruction, applicant preparation, and FAA certification testing. Several terms used throughout this guide have specific meanings in the context of 14 CFR parts 65 and 147 and the Aviation Mechanic Airman Certification Standards (ACS). The notes below explain how these terms are used in this guide to promote clarity and alignment.

Written Test / Knowledge Test

The FAA notes that 14 CFR parts 65 and 147 use the term *written test*. In the context of airman certification, the FAA has historically used the terms *written test* and *knowledge test* interchangeably, and this guide continues that practice.

Testing and Assessment

In this guide, the term *testing* refers to the FAA's certification tests—the written, oral, and practical tests required under 14 CFR part 65. These tests determine whether an applicant meets the performance standards as defined in the ACS. The term *assessment* refers to evaluation activities used in instructional settings, such as AMTS programs or employer training environments. Assessments support learning and readiness for FAA testing, but they are not part of the certification process and are not governed by FAA testing policy. This distinction helps ensure that the ACS is used appropriately as a certification standard rather than as a curriculum or instructional checklist.

Appropriate Data

The term "*appropriate data*" is used throughout this guide to describe the information, instructions, and technical references a certificated mechanic would reasonably use to perform, inspect, or troubleshoot maintenance in accordance with 14 CFR §43.13(a). This term replaces the original ACS phrase "*the required reference materials*" and avoids the unintended narrowing that occurred when "*manufacturer data*" was used in early modernization drafts. It also avoids the regulatory meaning of "*acceptable data*," which is a classification under §43.13(a) and not a performance requirement for applicants. The term "*appropriate data*" preserves the intent of the original ACS, avoids regulatory misinterpretation, and encompasses all legitimate data sources used in real-world maintenance practice.

Mechanic / Aviation Maintenance Technician (AMT)

In this guide, the term *mechanic* is used to align with the terminology in 14 CFR part 65. The term *Aviation Maintenance Technician (AMT)* is used when referring to AMT schools (AMTS) or the broader aviation maintenance profession.

Legal and Administrative Notes

The material in this guide is nonregulatory and could contain terms such as *should, may, will, and must,* to align with federal definitions:

Should indicates actions that are recommended but not required.

May indicates permission or authority to perform an action.

Will and **Must** convey directive (mandatory) information.

This guidance is not legally binding and will not be relied upon by the FAA as a separate basis for enforcement action or administrative penalty. Conformity with this guidance is voluntary, and nonconformity does not affect rights or obligations under existing statutes or regulations.

These conventions ensure that terminology remains consistent with FAA regulations while still supporting clear communication across instructional, testing, and operational environments. Full

definitions of additional terms appear in the glossary that follows.

Glossary

ACS Element
A specific knowledge, risk management, or skill requirement within an ACS subject that defines what an applicant must understand or demonstrate for assessment. **See also:** *Knowledge Element, Risk Management Element, Skill Element, Subject Area*

Appropriate Data
Information, instructions, and technical references that are current, applicable to the task, and suitable for use in performing, inspecting, or troubleshooting maintenance. Appropriate data may include manufacturer maintenance manuals, service instructions, overhaul publications, Airworthiness Directives, and FAA-acceptable data such as AC 43.13-1B when no manufacturer data exists, and the method is appropriate to the task in accordance with 14 CFR §43.13(a). NOTE: Training materials, including the FAA 8083-series handbooks, are not acceptable data for performing or evaluating maintenance tasks.

Assessment
Evaluation activities used in instructional settings to support learning, measure progress, and prepare students for FAA testing. Assessments are not part of the certification process and are not governed by FAA testing policy. ***See also:*** *Testing, Knowledge Test, Oral Test, Practical Test, Competency, Performance Outcome*

Assessment Criteria
Observable behaviors or performance indicators are used to determine whether an applicant has met the required standard. **See also:** *Performance Standard*

CBTA (Competency-Based Training and Assessment) (ICAO-influenced)
An approach emphasizing demonstrated performance, risk management, and real-world task competence. **See also:** *Competency, Risk Management*

Competency
A combination of knowledge, skills, and attitudes enabling safe and effective performance. **See also:** *Competency Element, Competency Domain*

Competency Domain
A category of related competencies representing a major area of mechanic performance. **See also:** *Competency, Competency Unit*

Competency Element
A specific component of a broader competency identifying a discrete behavior or action. **See also:** *Behavioral Indicator*

Hazard
A condition, event, or circumstance with potential to cause harm or system degradation. **See also:** *Risk, Risk Element*

Instructor
A person who delivers or supports training in any maintenance environment, including classroom instruction, laboratory or shop activities, simulation, or on-the-job training. The term includes on-the-job (OJT) trainers, coaches, and other personnel who guide or assess learner performance.

Knowledge Element
A requirement that identifies the information, concepts, or principles an applicant must understand to support safe and effective maintenance performance.

Learning Objective
A measurable statement describing what the learner must know or do.

Maintenance Action
FAA-defined term (14 CFR 1.1): “Inspection, overhaul, repair, preservation, and the replacement of parts…” **See also:** *Skill Task*

Mitigation
An action or strategy used to reduce the likelihood or severity of a risk. **See also:** *Risk Management*

Performance Error
An action or omission that deviates from expected performance and may introduce risk. **See also:** *Error Management*

Performance Standard
The level of accuracy, completeness, and safety required for an applicant to demonstrate competence. **See also:** *Assessment Criteria*

Risk
The potential impact or consequence of a hazard expressed in terms of severity and likelihood. **See also:** *Hazard, Risk Element*

Risk Management Element
A requirement that identifies a hazard, human factor, or maintenance-induced error the applicant must be able to recognize and mitigate during a task. **See also:** *Risk, Subject Area*

Risk Management
The process of identifying hazards, assessing risks, and applying mitigations. **See also:** *Mitigation, Hazard*

Skill Task
A hands-on or performance-based requirement demonstrated during testing. **See also:** *ACS Task*

Subject Area
A major content category grouping related competencies, knowledge learning objectives, associated risk elements, and skill tasks. **See also:** *System Family, ACS Task*

Skill Element
A hands-on or performance-based requirement that specifies the observable actions an applicant must demonstrate during assessment.

Technical Data
Manufacturer-approved or regulatory-approved documents used to perform maintenance safely. **See also:** *Maintenance Action*

Testing
The FAA’s certification tests (written, oral, and practical) required under 14 CFR part 65. Testing

determines whether an applicant meets the performance expectations defined in the ACS. **See also***: Assessment, Written Test, Oral Test, Practical Test, ACS, Competency*

Training Provider

Any organization or individual delivering aviation maintenance instruction.

Introduction

This Introduction provides an overview of the Airman Certification Standards (ACS), explains what the Aviation Mechanic ACS is—and is not—and describes the purpose of this companion guide. It also outlines how the guide supports applicants, educators, examiners, and industry, and summarizes the FAA's responsibilities in the certification process.

Airman Certification Standards Overview

The goal of the airman certification process is to ensure the applicant possesses the knowledge, risk management abilities, and basic skills necessary to exercise the privileges of the certificate or rating being sought. The ACS provides a comprehensive standard describing what an applicant must know, consider, and do for the safe conduct and successful completion of the written, oral, and practical tests.

What the Aviation Mechanic ACS Is (and Is Not)

The Aviation Mechanic Airman Certification Standards (ACS) is the FAA's certification standard for mechanic applicants. It defines the knowledge, risk management considerations, and skill performance expectations an applicant must demonstrate to meet the requirements of 14 CFR part 65, subpart D. The ACS integrates these elements into a single, performance-based structure aligned with real-world maintenance tasks and provides the standards used to evaluate applicants during the written, oral, and practical tests.

The ACS is not a curriculum, lesson plan, textbook, or regulatory interpretation. It does not interpret or expand the requirements of 14 CFR part 65 or part 147, nor does it prescribe how schools must teach, how instructors must sequence content, or how applicants must perform tasks during training. Instead, it specifies the standards FAA Designated Maintenance Examiners (DMEs) must use during certification testing and provides a common framework for FAA test-item writers, , and instructors to align FAA tests, assessments, and instruction with the performance expectations of part 65.

The ACS supports consistent, transparent evaluation by ensuring that all tests—written, oral, and practical—measure the same integrated performance outcomes. It helps applicants understand what will be evaluated, helps DMEs administer tests within the intended scope, and helps instructors align curriculum with the expectations used during certification.

Why We Created This Guide

The FAA developed this guide to help the aviation community understand and use the Mechanic ACS effectively. While the ACS (FAA-S-ACS-1) contains the regulatory standards for mechanic certification, this guide (FAA-G-ACS-1) offers additional explanations, examples, and clarifying material that support consistent application of those standards. It is designed to assist applicants preparing for the written, oral, and practical tests, as well as the DMEs, test-item writers, and aviation maintenance instructors who rely on the ACS when conducting or supporting certification testing and ACS-aligned training and assessment.

How This Guide Supports the Aviation Community

This guide is designed to support everyone who relies on the Aviation Mechanic ACS (FAA-S-ACS-1). While the ACS defines the regulatory standards for mechanic certification, this companion guide (FAA-G-ACS-1) provides the non-regulatory context that helps the aviation community understand, interpret, and apply those standards consistently.

It supports:

Applicants, by explaining how the ACS organizes knowledge, risk management, and skill performance expectations used during the written, oral, and practical tests.

DMEs, by offering clarifying material that promotes consistent evaluation practices aligned with ACS intent.

Test-item writers, by providing the context needed to develop test questions and skill tasks that accurately reflect ACS knowledge, risk management, and skill performance expectations.

Aviation maintenance instructors, by helping them align curriculum, instruction, and assessment with ACS content and expectations.

Industry and maintenance organizations, by offering insight into the competencies associated with the Mechanic Certificate.

Together, these users make up the community that prepares, certifies, and employs certificated mechanics. This guide supports that work by promoting a shared understanding of the ACS and helping each group apply its standards consistently within their role.

FAA Responsibilities in the Certification Process

In fulfilling its responsibilities for the airman certification process, the FAA plans, develops, and maintains materials related to airman certification training and testing. FAA guidance materials, such as the FAA-H-8083 series handbooks, provide applicants with information on aeronautical knowledge, risk management—including the ability to identify hazards and mitigate risks—and the associated skills needed to prepare for testing. The FAA draws upon the expertise of organizations and individuals across the aviation and training community when maintaining and revising the ACS and its supporting guidance materials.

Chapter 1 – Understanding the ACS

This chapter explains how the Aviation Mechanic Airman Certification Standards (ACS) is organized and how its structure supports consistent training, testing, and performance expectations. It introduces the major components of the ACS—Sections, Subjects, Competencies, and the Knowledge, Risk Management, and Skill elements—and describes how these components work together to define certification-level performance. A clear understanding of the ACS structure helps applicants, instructors, DMEs, test-item writers, and industry interpret the standard consistently and align instructional activities, assessment materials, and certification testing with the performance expectations defined in FAA-S-ACS-1.

1.1 ACS Structure

The Aviation Mechanic ACS is organized into a consistent, performance-based structure that links each certification requirement to the knowledge, risk management identification, and skill performance expected of applicants.

This structure ensures that written test items, oral questions, and practical skill tasks can be directly traced to the performance expectations defined in the ACS. The ACS Coding System provides this traceability by linking each element to test items and skill tasks, supporting consistency across training, testing, and evaluation. Together, these components form a unified framework that aligns instructional activities and certification testing with the performance outcomes defined in FAA-S-ACS-1.

1.1.1 ACS Sections and Subjects

The ACS is organized into three Sections—General, Airframe, and Powerplant. Each Section contains Subjects, which define major content areas (e.g., Basic Electricity, Hydraulics) and establish the scope of the performance expectations for that area.

Each Subject begins with a subject-level competency that defines the intended performance outcome. This competency describes what the applicant must be able to do in a real-world maintenance context.

Beneath the competency, the ACS lists the Knowledge, Risk Management, and Skill elements that support the performance. These elements describe the understanding, judgment, and observable behaviors an applicant must demonstrate to meet the competency. Together, they form a performance-based standard used during the written, oral, and practical tests.

1.1.2 Competencies and Performance Outcomes

Each ACS Subject begins with a subject-level competency that defines the intended performance outcome for that area of maintenance. A competency describes what the applicant must be able to *do*—not just what they must know—when performing certification skill tasks.

Competencies serve two purposes:

- They anchor the performance expectation. Each competency establishes the outcome that the Knowledge, Risk Management, and Skill elements collectively support.
- They integrate knowledge, risk management, and skill. A competency reflects the FAA's performance-based approach, in which a mechanic demonstrates technical understanding, sound decision-making, and correct execution.

The competency is the reference point for both instruction and evaluation. It ensures that assessments measure an applicant's ability to apply knowledge, manage risk, and perform tasks to the standard defined in FAA-S-ACS-1.

1.1.3. ACS Element Types

Each ACS Subject contains three aligned element types – Knowledge, Risk Management, and Skill.

These elements support the subject-level competency and define the scope of testing.

Knowledge Elements

Knowledge elements describe the cognitive understanding required to support the subject-level competency. They guide development of written test questions, oral test questions, and inform practical questions during the practical test.

Risk Management Elements

Risk Management elements identify the hazards, unsafe behaviors, and judgment considerations relevant to the Subject. They guide scenario design and support evaluation of the applicant's ability to recognize and mitigate risks.

Skill Elements

Skill elements describe the observable behaviors the applicant must demonstrate during the practical test. They define the physical actions that show the applicant can perform the task to the required performance criteria and performance standards (Refer to Appendix B in the FAA-S-ACS-1A).

1.1.4 How the Elements Work Together

The ACS is an integrated performance standard. The subject-level competency defines the intended performance outcome, and the Knowledge, Risk Management, and Skill elements beneath it describe what the applicant must know, consider, and demonstrate to meet that outcome.

Testing should integrate these elements rather than treat them as separate checklists. A practical skill task, for example, should require the applicant to demonstrate the skill by applying the relevant knowledge, recognizing associated hazards, and completing the task using the performance standards.

This integrated model reflects real-world maintenance performance and ensures that applicants demonstrate competence not memorization.

Instructors should integrate these elements when designing training to allow students to practice these expected competencies.

1.1.5 Why the Structure Matters

The ACS structure supports consistent interpretation and use across all stakeholders.

For Designated Mechanic Examiners (DMEs)

The structure clarifies what must be observed during performance and supports consistent evaluation across applicants.

For Test Item Writers

The structure ensures that test items align with the intended performance outcome and prevents over-scoping or under-scoping.

For Instructors and AMTS Curriculum Developers

The structure supports curriculum mapping and helps integrate risk management into labs, scenarios, and performance tasks.

For Applicants

The structure clarifies what performance is expected on the written, oral, and practical tests. It helps applicants prepare using the same framework used by DMEs and schools and reduces ambiguity by showing how Knowledge, Risk Management, and Skill elements support the competency.

1.2 How to Read an ACS Subject

This section provides a practical, stakeholder-focused method for interpreting an ACS Subject. It is intended for test item writers, Instructors or AMTS curriculum developers, designated mechanic examiners (DMEs), and applicants who need to understand how the ACS organizes performance expectations.

1. Begin with the subject-level competency: Identify what the applicant must be able to do. Use this as the anchor for any test item, scenario, task, or lesson derived from that Subject.
2. Review the Knowledge elements: Determine the cognitive understanding required to support the competency. These elements guide written and oral exam questions.
3. Review the Risk Management elements: Identify the hazards, unsafe behaviors, and judgment considerations that should appear in scenarios and performance evaluations.
4. Review the Skill elements: Identify the observable behaviors and applicable performance criteria the applicant must demonstrate during the practical test. These elements define the actions that show the applicant can perform the task to the required standard.
5. Consider the elements together: Confirm that any assessment or instructional activity reflects the competency and integrates the relevant Knowledge, Risk Management, and Skill elements. The ACS is an integrated performance standard, not a set of separate checklists.
6. Use Notes appropriately: Notes clarify scope, conditions, or limitations within a Subject. They support interpretation but do not expand the competency beyond what the elements describe.

1.3. ACS Element Coding

ACS element codes provide a standardized method for identifying the location and type of each Knowledge, Risk Management, and Skill element within the Aviation Mechanic ACS. The following sections describe the purpose, structure, and use of these codes.

1.3.1 Purpose of the Code

Each ACS element includes a standardized code that identifies its location within the Aviation Mechanic ACS. The code system:

- identifies the Section (General, Airframe, or Powerplant)
- identifies the Subject within that Section
- distinguish Knowledge, Risk Management, or Skill elements
- provides a stable reference for test development, evaluation, and remediation

These codes allow applicants, instructors, DMEs, and AMTS programs to locate, reference, and interpret ACS elements with clarity and precision.

1.3.2 Code Components

Each ACS code contains the following parts:

1. **AM** — Identifies the document as the Aviation Mechanic ACS.
2. **Section** — Indicates General (GEN), Airframe (ARF), or Powerplant (PPT).
3. **Subject** — Identifies the specific Subject within the Section by Roman numberals.
    - General = I
    - Airframe = II
    - Powerplant = III

4. **Element Type** — Indicates whether the element is:
    - **K** = Knowledge
    - **R** = Risk Management
    - **S** = Skill
5. Item Number – Sequential item number

This structure creates a consistent, hierarchical reference system across all Sections and Subjects.

1.3.4 Code Format

The complete code format is expressed as follows:

AM.<Section>.<Subject>.<Element Type>.<Item>

Where:

- **<Section>** = I, II, and III
- **<Subject>** = subject code (General or ATA-aligned)
- **<Element Type>** = K, R, or S
- **<Item>** = sequential element number

The following example illustrates how these components appear in an actual ACS code:

AM.I.G.K.2

This code indicates:

- **AM** — Aviation Mechanic ACS
- **I** — General Section
- **G** — Subject
- **K** — Knowledge element
- **02** — The second Knowledge element in that subject

1.3.5 How to Use the Code

ACS element codes provide a consistent way to locate and reference specific Knowledge, Risk Management, and Skill elements within the Aviation Mechanic ACS. Once users understand the purpose and structure of the code (Section 1.3.1), the code can be applied across testing, training, and remediation activities.

ACS codes are used by:

- Applicants to identify the exact elements requiring study or remediation.
- Instructors and curriculum developers to align lesson plans, instructional materials, and assessments with ACS expectations.
- DMEs to ensure oral and practical tests are conducted per the ACS and FAA policy.
- Test item writers to map knowledge test questions and practical test tasks to the correct ACS elements.

ACS codes also support:

- Airman Knowledge Test Report (AKTR) remediation, by showing applicants and instructors which specific element(s) were marked as incorrect on the knowledge test

- curriculum mapping, by giving AMTS programs a consistent structure for organizing instructional content
- performance evaluation, by ensuring oral questions and practical test tasks correspond to the correct ACS elements

By linking each activity—training, testing, evaluation, and remediation—to a single, clearly defined ACS element, the coding system ensures consistency and clarity across all phases of mechanic certification.

1.4. Relationship To Other FAA Materials

The ACS does not exist in isolation. It works in coordination with other FAA regulations and guidance materials that define certification requirements, instructional expectations, and testing policy. Understanding how these materials relate to one another helps ensure the ACS is used appropriately and consistently.

14 CFR Part 65

Part 65 establishes the regulatory requirements for mechanic certification, including eligibility, privileges, and the requirement to pass the knowledge, oral, and practical tests. The ACS defines the *performance expectations* used to evaluate whether an applicant meets those regulatory requirements.

FAA-S-ACS-1 (Aviation Mechanic ACS)

FAA-S-ACS-1 is the official certification standard. It defines the competencies and the Knowledge, Risk Management, and Skill elements used to evaluate applicants during the knowledge, oral, and practical tests.

FAA-G-ACS-1 (ACS Guidance)

FAA-G-ACS-1 provides explains the structure of the ACS and provides practical guidance for interpreting and applying it, including test development, scenario design, and evaluation principles. It supports exam writers, DMEs, and training providers in applying the ACS consistently.

FAA Handbooks and Technical References

Handbooks (e.g., the AMT Handbooks) and other FAA technical references provide the instructional content that supports the Knowledge, Risk Management, and Skill elements in the ACS. These materials explain *what* applicants must learn; the ACS defines *how* that knowledge, risk management, and skill will be evaluated. For a list of references, refer to Appendix A.

14 CFR Part 147.17 (AMTS Training Requirements)

Part 147.17 requires each certificated Aviation Maintenance Technician School (AMTS) to establish, maintain, and use a curriculum that continually aligns with the Mechanic Airman Certification Standards (ACS), provide training of a quality that meets § 147.25, and ensure students have the knowledge and skills necessary to be prepared to test for a mechanic certificate under Part 65.

Together, these materials form a coherent system:

- Part 65 defines the regulatory requirement to test.
- FAA-S-ACS-1 defines the performance standard.
- FAA-G-ACS-1 explains how to interpret and use the ACS structure.
- Handbooks provide instructional content.
- Part 147 defines AMTS training requirements.

1.5. Common Misinterpretations to Avoid

This section highlights common misunderstandings about the ACS structure and its intended use in testing and training environments. It provides corrective guidance to support accurate, consistent interpretation by test item writers, DMEs, AMTS programs, and applicants, and helps prevent applying the ACS in ways it was not designed to support.

The tables below outline these common misinterpretations, their correct interpretations, and practical ways to avoid them.

Misinterpreting the ACS Structure

Misinterpretation	Correct Interpretation	How to Avoid It
Treating Knowledge, Risk, and Skill as Interchangeable: Assuming K, R, and S elements are simply "lists of things to cover" rather than distinct assessment dimensions.	Each element serves a distinct purpose. • **Knowledge** = cognitive understanding • **Risk** = judgment and decision-making • **Skill** = observable performance	Always ask: *Is this about understanding, judgment, or doing?* Place it accordingly. See Chapter 1.1 —ACS Structure.
Reading Knowledge Elements as Checklists: Treating each Knowledge element as a discrete test question or a mandatory lecture topic.	Knowledge elements define **scope**, not **item count**. They support scenario-based assessment, not item-by-item recall.	Write items that integrate multiple Knowledge elements into a single scenario or question. See Chapter 1.1 —ACS Structure and Chapter 2.2.2 – Scenario-Bases Assessment Guidance.
Assuming Skills Must be Taught or Tested in Isolation: Believing each Skill element requires a standalone task.	Skills are **observable behaviors** that can be demonstrated within a larger task or scenario.	Map multiple Skill elements to a single realistic maintenance scenario. See Chapter 1.1 —ACS Structure and Chapter 2.2.2 – Scenario-Bases Assessment Guidance.

Misinterpreting Subject-Level Competencies

Misinterpretation	Correct Interpretation	How to Avoid It
Treating Subject-Level Competencies as Summaries Rather than Performance Expectations: Seeing subject-level competencies as "topic headers" instead of the performance standard.	Subject-level competencies define the **expected outcome** of training and assessment.	Use subject-level competencies to anchor lesson objectives, test items, and scenario design. See Chapter 2.
Over-scoping Competencies into System-Level Troubleshooting: Assuming every subject-level competency requires diagnostic reasoning or system integration.	Subject-level competencies define *what the applicant must be able to do*, not everything they could do.	Stay within the scope defined by the Knowledge and Skill elements beneath the subject-level competency. See Chapter 2.2 How Instructors Use the ACS; Chapter 2.4 How Test Item Writers Use the ACS for competency alignment in assessment and test development.

Misinterpreting Risk Elements

Misinterpretation	Correct Interpretation	How to Avoid It
Treating Risk Elements as "Extra Knowledge": Using risk elements as additional facts to memorize.	Risk elements describe **hazards and behaviors** that must be recognized and mitigated during performance.	Integrate risk into scenarios, oral questioning, and performance evaluation. See Chapter 2.2.2 Scenario-Based Assessment Guidance for integrating risk into scenarios.
Confusing Cognitive vs. Procedural Errors: Using "improper" and "incorrect" interchangeably.	• **Incorrect** = cognitive error • **Improper** = procedural or physical error	Use the correct adjective consistently to maintain clarity and audit defensibility. See Chapter 2.2.2 Scenario-Based Assessment Guidance for integrating risk into scenarios.

Misinterpreting Assessment Expectations

Misinterpretation	Correct Interpretation	How to Avoid It
Over-Testing Minutiae: Writing items that focus on obscure details which are not central to the competency.	Assessment should focus on **core concepts, hazards, and performance behaviors**.	Ask: *Does this item measure something meaningful to safe maintenance?* See Chapter 2.4 How Test Items Writers Use the ACS for ACS-aligned assessment practices.
Assuming Every Knowledge Element Requires a Test Item: Trying to create a 1:1 mapping between Knowledge elements and questions.	A single well-designed scenario can address multiple Knowledge and Risk elements.	Design integrated items that reflect real-world knowledge application and tasks. See 2.4 How Test Items Writers Use the ACS for ACS-aligned assessment practices.
Treating Skill Elements as singular tasks: Expecting applicants to perform tasks without context.	Skills describe **what** must be demonstrated, not **how** they must be performed, other than per the standard performance expectations. See Appendix A of the ACS.	Evaluate outcomes and behaviors; Many skill elements can be combined into real-world maintenance task scenarios. See Chapter 2.2.2 Scenario-Based Assessment Guidance for integrating risk into scenarios and 2.4 How Test Items Writers Use the ACS for ACS-aligned assessment practices.

Misinterpreting the Role of the ACS in Training

Misinterpretation	Correct Interpretation	How to Avoid It
Using the ACS as a Curriculum: Assuming the ACS is a teaching document.	The ACS is an **certification standard**, not a syllabus.	Schools should map ACS elements to their curriculum, not replace their curriculum with the ACS. See Section V — Using the ACS for Curriculum Development.
Treating ACS Knowledge as Lecture Topics: Assuming each Knowledge element must be taught as a standalone lesson.	Knowledge elements define **what applicants must understand**, not **how instructors must teach it**.	Integrate Knowledge and Risk elements into lessons, labs, and scenarios. See Chapter 2.2.3 — Using the ACS for Curriculum Development.

Misinterpreting the ACS as a Regulatory Document

Misinterpretation	Correct Interpretation	How to Avoid It
Treating ACS language as Regulatory Interpretation: Using ACS phrasing to interpret or reinterpret regulations.	The ACS aligns with regulations but does not replace or interpret them.	Use ACS to guide assessment; use regulations to determine compliance. See Introduction — What the Aviation Mechanic ACS Is (and Is Not).
Assuming the ACS Defines Maintenance Privileges: Believing ACS competencies define what certificated mechanics are authorized to do.	Privileges are defined by regulation, not by the ACS.	Keep ACS content in its lane: certification, not privileges. See Introduction — What the Aviation Mechanic ACS Is (and Is Not).

Chapter 2 – Using the ACS

Chapter 2 describes how different stakeholders apply the ACS in testing and training environments. While Chapter 1 explains the structure and intent of the ACS, this chapter focuses on practical use: how applicants prepare, how instructors design and assess learning, how DMEs evaluate performance, how test item writers develop valid test questions and practical skill tasks, and how industry aligns training and workforce expectations.

The ACS provides a common performance framework across these roles. Its competencies, elements, and the coding system support consistent interpretation, curriculum alignment, scenario development, and evaluation practices. By understanding how each stakeholder uses the ACS, the aviation maintenance community can apply the standard more effectively and maintain alignment across training, assessment, and certification.

2.1 How Applicants Use the ACS

Applicants use the ACS to understand what the FAA evaluates during the written, oral, and practical tests by organizing existing expectations into a clear performance framework. Applicants do not need to memorize the ACS. Instead, they use it to understand what competent performance looks like and how the FAA evaluates it.

2.1.1 Understanding Subject-Level Competencies

Each ACS Subject begins with a subject-level competency—a short statement describing what the FAA expects an applicant to be able to do in a real maintenance situation using the knowledge, risk management, and skills from that subject.

Applicants are not tested on the wording of the competency. They are evaluated on their ability to perform the task the competency describes.

2.1.2 Knowledge, Risk Management, and Skill Elements

Each competency is supported by three types of elements:

- **Knowledge (K)** — what the applicant must know and explain. Evaluated on the written test and during oral questioning.
- **Risk Management (R)** — what the applicant must consider to work safely. Evaluated through scenario-based questions and judgment-related prompts.
- **Skill (S)** — what the applicant must physically do. Evaluated during the practical test.

These elements work together: Knowledge supports Skill, and Risk Management supports safe decision-making.

2.1.3 Performance Standards and Safety

Performance Standards and Safety requirements apply to all subject-level competencies and skill elements in this Airman Certification Standard (ACS). These expectations reflect the requirements of 14 CFR § 43.13(a) and (b), the principles of safe maintenance practice, and the professional standards expected of certificated aviation maintenance technicians during testing. Evaluators and applicants must adhere to these standards throughout all Oral and Practical (O&P) test activities. Refer to Appendix A: Performance Standards and Safey in FAA-S-ACS-1A for a full description.

2.1.4 Competency Domains (Plain Language)

The Competency Domains describe the professional behaviors and work practices used by competent Aviation Mechanic. They provide context for understanding how the ACS performance standards are applied during testing and training. The Competency Domains support consistent interpretation of the ACS elements and do not function as independent test items.

Each Competency Domain includes observable behaviors (OBs) that illustrate how the Domain may be demonstrated in maintenance contexts. Applicants do not need to name the Domains. They simply demonstrate them through their actions.

Examples include:

- using approved data and following procedures
- identifying hazards and managing risk
- communicating clearly
- maintaining an organized workspace
- preventing errors and correcting them when they occur

. Refer to Appendix B: Competency Domains for Aviation Mechanics in FAA-S-ACS-1A for a full list.

2.1.5 How This Applies During the Oral and Practical Tests

During the O&P, examiners evaluate whether the applicant:

- performs the required Skills per the performance criteria and standards
- answers Knowledge questions accurately
- demonstrates safe Risk decisions

Below are examples of how applicants demonstrate mastery of competencies:

- checking calibration dates
- using the manual to confirm tolerances
- identifying hazards before beginning work
- communicating steps and findings
- stopping when something appears unsafe or incorrect
- completing the task without introducing new errors

These are the same behaviors expected in real-world maintenance work.

2.1.6 What Applicants Should Focus On

Applicants do not need to study the Domains directly. Instead, they should focus on:

- understanding the Knowledge elements
- practicing the Skill elements
- thinking about Risk
- adhering to performance rules
- using safe work practices and demonstrate a positive safety attitude
- applying professional behaviors

Doing these things naturally demonstrates the Competency Domains and prepares applicants for both the Oral and Practical (O&P) tests and real-world maintenance tasks.

2.1.7 Final Note for Applicants

The ACS is not designed to trick you. It simply describes what safe, competent mechanics do every day. Doing the following demonstrates that you perform at the level expected by the ACS:

- use the manual
- use the right tool
- work safely
- think before acting
- communicate clearly
- take pride in your work

2.2 How Instructors Use the ACS

2.2.1 Using the ACS for Curriculum Development

The Mechanic ACS is a certification standard that defines the knowledge, risk management, and skill elements evaluated during the written, oral, and practical tests. Although the ACS is not a curriculum, it provides a clear performance-based framework that supports curriculum design, sequencing, and assessment. Instructors can use the ACS — including the Competency Domains for Mechanics and subject-level competencies — to build coherent, modern aviation maintenance programs aligned with certification expectations and real-world practice.

2.2.1.1 Using the Competency Domains for Mechanics to Anchor Curriculum Design

The Competency Domains describe core professional behaviors expected of certified mechanics. They apply across all ACS subjects and represent the habits that support safe, effective maintenance practice.

Instructors can use the Competency Domains to:

- define program-level learning outcomes that reflect the broader capabilities expected of certificated mechanics,
- align instruction across courses so behaviors such as documentation accuracy, risk management, and resource interpretation are reinforced consistently,
- support instructor calibration through a shared language for evaluating student performance, and
- ensure that cross-disciplinary competencies are intentionally taught rather than assumed

The Competency Domains do not replace technical instruction; they provide the lens through which technical tasks are performed and evaluated. Integrating them early helps students learn how to think and act as aviation maintenance professionals, not just how to complete tasks.

2.2.1.2 Using Subject-Level Competencies to Guide Course Outcomes

Each ACS subject begins with a subject-level competency statement that summarizes the intended performance for that subject area. These statements help instructors:

- translate ACS expectations into course-level learning outcomes,
- ensure instruction addresses the full scope of the subject,
- identify prerequisite knowledge and skills, and
- design assessments that measure integrated performance rather than isolated facts.

Subject-level competencies provide a natural bridge between the ACS and curriculum planning. They help instructors maintain the “big picture” view of each subject and ensure that lessons, labs, and assessments support the intended performance.

2.2.1.3 Understanding the ACS Scaffolding Structure

The ACS is intentionally scaffolded to support progressive learning. Instructors can use this structure to design curriculum that builds logically from foundational knowledge to applied skills.

Knowledge Elements

Define the foundational concepts, principles, and regulatory requirements students must understand. They support:

- classroom instruction,
- reading assignments,
- written assessments, including the written exam, and
- prerequisite learning for hands-on tasks.

Risk Management Elements

Describe the hazards, considerations, and decision-making behaviors associated with each subject. They help instructors:

- integrate safety and judgment into technical instruction,
- reinforce risk-based thinking across the curriculum, and
- prepare students for the oral and practical tests.

Skill Elements

Define the observable behaviors evaluated during the practical test. They support:

- lab activities,
- hands-on assessments,
- scenario-based learning, and
- competency-based evaluation.

Together, these elements create a scaffold that moves from understanding to application to performance, allowing instructors to design curriculum that mirrors how competence develops in real maintenance practice.

2.2.1.4 Using the ACS to Support Curriculum Sequencing

Although the ACS is organized for certification testing, its structure reflects a pedagogical logic that can support instructional sequencing. Instructors retain full flexibility to sequence content in ways that best support learning, but the ACS can help schools:

- identify logical clusters of related content,
- ensure foundational knowledge is taught before advanced tasks,
- integrate risk management throughout instruction, and
- design capstone or integrative projects that reflect ACS skill expectations.

The ACS scaffolding supports coherent sequencing without dictating a specific order.

2.2.1.5 Designing Assessments Aligned with ACS Expectations

Instructors can use ACS elements to design assessments that reflect certification expectations, including:

- written exams aligned with knowledge elements,
- oral questioning aligned with knowledge and risk management elements,
- performance tasks aligned with skill elements,
- rubrics based on observable behaviors, and
- scenario-based assessments that integrate multiple subject-level competencies.

ACS-aligned assessments help students understand what will be expected during certification and support consistent evaluation across instructors.

2.2.1.6 Supporting Instructor Calibration and Consistency

The ACS — including Competency Domains, subject-level competencies, and scaffolded elements — provides a shared reference for instructors. Schools can use it to:

- calibrate expectations across faculty,
- reduce variation in grading and feedback,
- support new instructor onboarding, and
- ensure consistent messaging to students.

This promotes fairness, coherence, and instructional quality across the program.

2.2.1.7 Summary

The ACS is not a curriculum, but it is a powerful tool for curriculum development. By using, Competency Domains to define program-level behaviors, subject-level competencies to guide course outcomes, and scaffolded ACS elements to structure instruction and assessment,

instructors can design modern, coherent, competency-based aviation maintenance programs that prepare students for certification and real-world practice.

2.2.2 Scenario-Based Assessment Guidance

Scenario-based assessment helps students integrate Knowledge, Risk Management, and Skill performance in ways that reflect real maintenance practice. While the ACS practical test evaluates discrete skill elements, instructional scenarios allow students to demonstrate how they apply applicable data, manage risk, communicate findings, and perform tasks in realistic contexts. Scenarios reinforce subject-level competencies, strengthen the Competency Domains, and prepare students for the competency-based nature of the ACS testing environment.

2.2.2.1 Purpose of Scenario-Based Assessment

Scenario-based assessments allow students to:

- apply foundational knowledge to realistic maintenance tasks,
- demonstrate judgment and risk-based decision-making,
- use acceptable data to plan and perform work,
- integrate multiple subject-level competencies in a single task, and
- practice the communication and documentation behaviors expected of certificated mechanics.

Scenarios bridge the gap between classroom instruction and the performance expectations of the working environment. They help students understand not only *what* to do, but *how* to think and act as

aviation maintenance professionals.

2.2.2.2 Using Subject-Level Competencies to Shape Scenarios

Subject-level competencies describe the intended performance for each ACS subject. They are the most appropriate organizing structure for scenario-based assessment because they:

- represent integrated performance,
- span multiple tasks within a subject area,
- reflect on how maintenance work is actually performed, and
- provide a natural foundation for multi-step, realistic scenarios.

Examples of integrated subject-level competency scenarios include:

- combining hand-tool usage with an engine removal or installation task,
- integrating electrical troubleshooting with airframe system inspection,
- pairing structural repair with corrosion identification and documentation.

Subject-level competencies ensure that scenarios measure meaningful performance rather than isolated tasks.

2.2.2.3 Designing ACS-Aligned Scenarios

Effective instructional scenarios:

- reflect real maintenance environments,
- require students to reference and apply accepted data,
- integrate multiple subject-level competencies,
- reinforce Competency Domain behaviors such as documentation accuracy, resource interpretation, and risk management,
- include opportunities for oral questioning aligned with ACS Knowledge and Risk Management elements, and
- require observable performance aligned with ACS skill expectations.

Instructional scenarios should be sized appropriately for classroom and lab use. They should not mimic the structure of Mechanic Test Generator (MTG) practical test projects. Instead of isolating single skill elements, instructional scenarios should integrate multiple competencies and reflect real-world maintenance practice, including tasks such as using appropriate data, documenting work performed, and managing risk.

2.2.2.4 Reinforcing Competency Domains Through Scenarios

Competency Domains represent core professional behaviors. Scenarios provide a natural way to reinforce these behaviors, including:

- interpreting and applying appropriate data,
- identifying hazards and managing risk,
- communicating findings,
- documenting work accurately, and
- maintaining situational awareness.

Embedding these behaviors into scenarios helps students internalize the expected habits of certificated mechanics and supports consistent evaluation across instructors.

2.2.2.5 Structuring Scenario-Based Assessments

A scenario-based assessment typically includes the following components, presented in a logical sequence that supports integrated performance evaluation:

1. **Task Description** — a realistic maintenance situation that requires students to perform work, identify discrepancies, or make decisions using appropriate data. *Example: "Inspect the landing gear assembly for discrepancies, document findings, and determine required corrective actions using appropriate data."*
2. **Required References** — the manuals, diagrams, and regulatory materials students must identify and use to complete the task correctly.
3. **Performance Expectations** — the observable actions and outcomes aligned with ACS Skill elements and the relevant subject-level competencies.
4. **Embedded Oral Questioning** — targeted questions aligned with ACS Knowledge and Risk Management elements to assess cognitive understanding, judgment, and decision-making.
5. **Observable Behaviors** — the specific actions evaluated using ACS-aligned rubrics, including documentation accuracy, data interpretation, communication, and risk management.

2.2.3 Using the ACS to Develop Evaluation Criteria

The ACS provides a clear foundation for developing evaluation criteria that support consistent, performance-based assessment in AMT training programs. Evaluation criteria describe the observable behaviors that indicate a student has performed a task to an acceptable standard. Instructors can use ACS elements to create evaluation criteria that reflect certification expectations and real-world maintenance practice.

2.2.3.1 How the ACS Supports Evaluation Criteria

Each ACS element contributes directly to evaluation criteria:

- Knowledge elements identify the concepts and principles students must understand.
- Risk management elements highlight hazards, considerations, and decision-making behaviors.
- Skill elements define the observable actions required to perform a task.
- Subject-level competencies describe the integrated performance expected within each subject area.
- Competency Domains reinforce core professional behaviors such as documentation, resource interpretation, and communication.

Together, these elements help instructors determine what competent performance looks like for a given task or scenario.

2.2.3.2 Creating Evaluation Criteria from ACS Elements

Instructors can translate ACS elements into evaluation criteria by asking:

- What should the student be able to do?
- What behaviors demonstrate competence?
- What does the ACS expect the student to know, manage, or perform?

- What does the appropriate data require?

Evaluation criteria should be:

- aligned with ACS expectations,
- based on appropriate data,
- observable, and
- focused on outcomes, not personal technique.

These criteria help ensure that assessments measure meaningful performance rather than isolated steps or instructor-preferred methods.

2.2.3.3 Optional Use of Rubrics

Schools may choose to organize evaluation criteria into simple rubrics to support consistency across instructors. Rubrics are not required, but they can help programs:

- present evaluation criteria clearly,
- reduce variation in grading, and
- support new instructors transitioning from industry to teaching.

Rubrics should evaluate what the student achieves, not how they achieve it, unless the appropriate data prescribes a specific method.

2.2.3.4 Integrating Evaluation Criteria into Scenario-Based Assessment

Scenario-based assessments help students integrate the full range of ACS expectations, including

- Knowledge
- Risk Management
- Skill performance
- Subject-level competencies
- Competency Domain behaviors

By designing realistic, data-driven scenarios and aligning evaluation criteria with ACS elements, instructors can prepare students for the performance-based nature of the ACS and support their transition into real-world maintenance environments.

2.3 How Examiners Use the ACS

Designated Mechanic Examiners (DMEs) use the ACS to administer the oral and practical (O&P) tests in a manner that is valid, reliable, and aligned with national certification standards. Although DMEs do not select, write, or design test items, they must understand how the ACS organizes performance expectations and how exam writers align test content to the ACS. This section describes how DMEs use the ACS to conduct consistent, competency-based evaluations.

2.3.1 Purpose of ACS-Aligned O&P Test Administration

The ACS provides a competency-based framework for evaluating applicants during the O&P tests. DMEs administer the tests generated by the Mechanic Test Generator (MTG) and must apply the ACS to:

- interpret the intent of assigned tasks,

- evaluate performance against ACS expectations, and
- ensure fairness and consistency across applicants and testing environments.

Understanding the ACS helps DMEs administer the test as designed, without expanding or narrowing the intended scope.

2.3.2 Understanding the Competency Behind Each Task

Each ACS Subject begins with a subject-level competency that defines what the applicant must be able to do. Although DMEs do not create tasks, understanding the competency helps them:

- interpret the intent of the task they are administering,
- recognize what performance criteria the task is designed to measure, and
- avoid adding requirements not supported by the ACS.

The competency clarifies the performance outcome the task is intended to assess and helps DMEs avoid unintentionally shifting the task or adding steps not required by the ACS.

2.3.3 Using Knowledge and Risk Elements During Oral Questioning

DMEs administer oral questions developed by exam writers. Knowledge and Risk Management elements help DMEs:

- recognize what each oral question is intended to measure,
- administer the question within its intended ACS scope, and
- avoid adding or omitting content that would change the question's purpose.

2.3.4 Using Skill Elements During Practical Evaluation

Skill elements describe the observable tasks and performance criteria the applicant must demonstrate during the practical test. DMEs evaluate the applicant's performance against the Performance Standards and Safety requirements as outlined in FAA-G-ACS-1 Appendix A.

2.3.5 Integrating Knowledge, Risk, and Skill During Test Administration

Although DMEs do not create integrated tasks, they administer tasks designed to reflect integrated performance. Understanding how Knowledge, Risk Management, and Skill elements support the subject-level competency helps DMEs:

- evaluate the applicant holistically,
- recognize when an applicant is demonstrating required judgment or cognitive understanding, and
- avoid treating the elements as isolated checklists.

This supports consistent, performance-based evaluation aligned with the intent of the ACS.

2.3.6 Avoiding Personal Bias in Test Administration

DMEs support fairness and consistency by administering the O&P tests exactly as generated by the MTG and within the scope defined by the Mechanic ACS, FAA-G-ACS-1, and appropriate data. Personal bias can unintentionally influence test administration when examiners introduce expectations, preferences, or practices not supported by the assigned project.

To maintain consistency and uphold the integrity of the testing process, DMEs should avoid:

- adding requirements not included in the MTG-generated test or the ACS,
- modifying, supplementing, or re-phrasing oral questions or practical projects,

- interpreting a task as requiring system-level troubleshooting when the competency does not,
- introducing personal preferences or local practices – including requiring a specific sequence of steps when the appropriate data does not prescribe one, and
- over-testing or under-testing based on habit, familiarity, or assumptions.

DMEs administer the assessment as designed, without expanding or narrowing the intended performance expectations.

2.3.7 Maintaining Consistency Across Examiners and Testing Environments

Consistency across examiners is essential to ensure that every applicant is evaluated fairly per the ACS. While testing environments and examiner backgrounds may vary, the MTG, the ACS, and appropriate data provide a common framework that supports uniform administration.

DMEs maintain consistency by:

- using the MTG-generated oral questions and practical projects exactly as provided,
- applying the ACS Knowledge, Risk Management, and Skill elements as the basis for evaluation,
- ensuring applicants rely on appropriate data rather than examiner preference or local practice,
- maintaining a neutral testing environment that avoids coaching, leading, or teaching during evaluation, and
- applying the same expectations, safety considerations, and performance criteria and standards to all applicants.

Grounding evaluations in the MTG, the ACS, and appropriate data ensures that applicants are assessed on their demonstrated competence rather than on variations in examiner technique, facility resources, or local norms.

2.4 How Test Item Writers Use the ACS

Test item writers use the ACS to develop written test items, oral questions, practical questions, and skill tasks used in the Mechanic certification tests. The ACS provides the performance-based framework that ensures every question and task aligns with the subject-level competency and skill performance criteria and reflects the required knowledge, judgment, and skill expectations. ACS-aligned test development supports consistency, prevents over- or under-scoping, and ensures that applicants are evaluated on the intended performance outcomes.

2.4.1 Purpose of ACS-Aligned Test Development

The purpose of ACS-aligned test development is to ensure that all written items, oral questions, practical questions, and skill tasks measure the performance outcomes defined by the ACS. The ACS anchors each test item to the subject-level competency and its supporting Knowledge, Risk Management, and Skill elements. Using the ACS during test development helps maintain consistent scope, supports validity and reliability, and ensures that test items reflect real-world maintenance performance rather than isolated facts or personal technique.

2.4.2 Aligning Test Items with ACS Competencies

Each ACS Subject begins with a subject-level competency that defines what the applicant must be able to do. Test items should reflect this performance expectation. The competency:

- anchors the scope of the item,
- ensures that question measures the intended outcome, and

- prevents the introduction of requirements not supported by the ACS.

When developing a test item, exam writers should confirm that the question supports the competency and remains withing the performance expectations defined by the ACS.

2.4.3 Using Knowledge and Risk Management Elements in Written, Oral, and Practical Questions

Knowledge and Risk Management elements describe the understanding and judgment considerations that support the competency. These elements guide the development of written oral, and practical exam questions.

- Knowledge elements identify the understanding required to perform the expected competency.
- Risk elements identify hazards, unsafe behaviors, and judgment considerations that should be incorporated into scenarios and oral questioning.

Test items should reflect the intent of these elements without expanding their scope or introducing unrelated content.

2.4.4 Integrating Performance Context

The ACS is a performance-based standard. Even in written questions, the context should reflect real-world maintenance situations. Scenario-based questions help assess whether applicants can apply knowledge and judgment in a practical context.

Effective scenarios are:

- realistic,
- relevant to the subject,
- aligned with the competency and elements, and
- limited to conditions supported by the ACS.

Scenarios should not introduce requirements that exceed the ACS or imply system-level troubleshooting when the competency does not require it.

For skill tasks, performance context is essential. Test item writers design tasks that require applicants to use appropriate data, apply judgment, and demonstrate the observable behaviors defined in the ACS Skill elements. Performance criteria must reflect the intended outcome of the subject-level competency and should describe what competent performance looks like without prescribing personal technique or steps not required by the appropriate data.

2.4.5 Avoiding Common Test Writing Errors

Several misinterpretations can lead to invalid or misaligned test items. Exam writers should avoid:

- introducing conditions or limitations not supported by the ACS
- testing memorization rather than application
- treating Knowledge, Risk Management, and Skill elements as separate checklists rather than integrated components
- embedding troubleshooting or diagnostic requirements in a skill task when the subject-level competency does not require troubleshooting
- writing practical questions that introduce conditions, system-level behaviors, or failure modes not supported by the ACS elements

- creating performance criteria that prescribe personal technique, specific sequences, or local practices not required by the appropriate data
- overspecifying performance criteria so they become step-by-step checklists rather than outcome-based expectations
- adding performance expectations that exceed the scope of the Skill element or the subject-level competency.

Exam writers should use the ACS to confirm that each item reflects the intended performance outcome and stays within the defined scope.

2.4.6 Using ACS Codes for Traceability

ACS codes provide a consistent way to link test items to the correct Subject and element. Using these codes supports traceability, identification of gaps or redundancies, and alignment of test items with ACS expectations. Codes should be applied accurately and consistently. They should reflect the element that best represents the intent of the test item.

2.5 How Industry Uses the ACS

Industry stakeholders—including air carriers, repair stations, MROs, manufacturers, and general aviation employers—use the ACS as a reference point for understanding the baseline competencies expected of newly certificated mechanics. Although the ACS is not a regulatory requirement for employers, it provides a nationally consistent description of the knowledge, risk management behaviors, and skill performance that applicants must demonstrate to earn certification. This section describes how industry uses the ACS to support workforce readiness, onboarding, and training alignment.

2.5.1 Understanding Entry-Level Competence

The ACS helps industry understand the level of performance a newly certificated mechanic should be able to demonstrate on day one. Employers use the ACS to:

- interpret what “certification-level competence” means in practical terms,
- understand the foundational knowledge and skills applicants have demonstrated, and
- calibrate expectations for entry-level performance during hiring and onboarding.

The ACS does not describe job-specific proficiency; instead, it defines the baseline competence upon which employers build.

2.5.2 Aligning Onboarding and Initial Training

Industry training programs often use the ACS as a reference when designing onboarding and initial qualification pathways. The ACS helps employers:

- identify areas where new hires may need additional training or familiarization,
- align internal training modules with the competencies demonstrated during certification,
- reinforce safety behaviors and risk-based decision-making, and
- ensure that training builds on, rather than repeats, certification-level content.

Using the ACS as a starting point supports efficient, targeted onboarding.

2.5.3 Supporting Competency-Based Workforce Development

Many employers are transitioning to competency-based training and qualification systems. The ACS

supports this shift by providing:

- a nationally recognized competency framework,
- clear performance expectations for foundational tasks, and
- a structure that aligns with modern training and assessment practices.

Industry can map internal competencies to ACS subject-level competencies and elements, ensuring continuity between certification and organizational training systems.

2.5.4 Reinforcing Safety and Professional Behaviors

The Competency Domains for Mechanics describe the core professional behaviors expected of certificated mechanics. Industry uses these domains to:

- reinforce safety culture and risk-based thinking,
- support human-factors-aligned training,
- promote consistent documentation and communication practices, and
- strengthen professional behaviors across the workforce.

The Domains help employers articulate the behaviors that distinguish competent performance in real-world maintenance environments.

2.5.5 Informing Hiring, Assessment, and Advancement

While employers do not test applicants using the ACS, they often use ACS concepts to:

- develop interview questions that assess foundational knowledge and judgment,
- evaluate applicants' ability to use appropriate data and follow procedures,
- identify strengths and gaps in entry-level candidates, and
- structure advancement pathways that build on certification-level competence.

The ACS provides a common language for discussing performance expectations with new hires.

2.5.6 Supporting Collaboration Between Schools and Employers

The ACS helps industry and AMTS programs communicate more effectively about workforce needs. Employers use the ACS to:

- articulate expectations for entry-level performance,
- provide feedback to schools on emerging technologies and skill requirements,
- participate in advisory boards with a shared performance framework, and
- support alignment between training programs and real-world maintenance practice.

This shared framework strengthens the connection between education and industry.

2.5.7 Summary

Industry uses the ACS as a performance reference that describes the baseline competence expected of newly certificated mechanics. By aligning onboarding, training, and workforce development practices with the ACS, employers support a consistent national standard for entry-level performance and help new mechanics transition successfully into real-world maintenance environments.

2.6 How the ACS Supports Training and Testing

The ACS provides a common competency framework that supports both training and testing across the

aviation maintenance community. Although the ACS is a certification standard—not a curriculum, lesson plan, or regulatory interpretation—it establishes clear expectations for the knowledge, risk management behaviors, and skill performance required for Mechanic certification. By aligning training and testing to the same performance outcomes, the ACS helps ensure that applicants, instructors, examiners, and industry share a consistent understanding of what competent performance looks like.

2.6.1 Providing a Common Competency Language

The ACS gives all stakeholders a shared vocabulary for describing performance. This common language helps:

- applicants understand what they must be able to demonstrate,
- instructors design training that supports certification-level performance,
- examiners evaluate applicants consistently,
- test item writers develop valid and reliable test items, and
- employers interpret the baseline competence of newly certificated mechanics.

A shared competency language reduces ambiguity and supports national consistency.

2.6.2 Aligning Training with Certification Expectations

The ACS helps training providers align instruction with the performance expectations evaluated during certification. While schools retain full flexibility in curriculum design, the ACS supports alignment by:

- identifying the knowledge, risk management behaviors, and skills that underpin each subject,
- clarifying the intended performance outcomes through subject-level competencies,
- supporting scenario-based instruction that mirrors real-world maintenance practice, and
- helping instructors design assessments that reflect certification-level expectations.

This alignment strengthens the connection between training and certification without dictating how schools must teach.

2.6.3 Supporting Valid and Reliable Testing

The ACS provides the structure used to develop written test items, oral questions, practical questions, and skill tasks. It supports valid and reliable testing by:

- anchoring each test item to a subject-level competency,
- defining the knowledge and judgment considerations that support performance,
- identifying the observable behaviors required during skill tasks, and
- providing the basis for performance criteria used in practical evaluation.

This ensures that certification tests measure the intended performance outcomes and remain consistent across examiners and testing environments.

2.6.4 Reinforcing Risk-Based Decision-Making

Risk Management elements help integrate safety and judgment into both training and testing. The ACS supports risk-based decision-making by:

- identifying hazards and unsafe behaviors associated with each subject,
- reinforcing risk-based thinking during instruction,
- guiding oral questioning during the O&P tests, and

- helping applicants demonstrate sound judgment during skill tasks.

This alignment strengthens safety culture across training and certification and supports the safety behaviors expected in industry.

2.6.5 Supporting Competency-Based Approaches

The ACS aligns naturally with competency-based training and assessment practices. It supports competency-based approaches by:

- defining performance outcomes through subject-level competencies,
- integrating knowledge, risk, and skill expectations,
- supporting scenario-based instruction and assessment, and
- providing a structure that reflects how competence develops in real maintenance practice.

This helps schools and industry adopt modern, performance-based training models.

2.6.6 Strengthening the Transition from Training to Employment

Because the ACS describes certification-level performance in clear, observable terms, it helps bridge the transition from training to employment. The ACS supports this transition by:

- clarifying what newly certificated mechanics should be able to do,
- helping employers understand entry-level competence,
- supporting alignment between AMTS programs and industry needs, and
- reinforcing the professional behaviors expected in real-world maintenance environments.

This shared understanding helps new mechanics enter the workforce with confidence and clarity.

2.6.7 Summary

The ACS supports training and testing by providing a common, competency-based framework that aligns instruction, assessment, and certification. By defining the knowledge, risk management behaviors, and skill performance required for mechanic certification, the ACS helps ensure that applicants are prepared for both the certification process and real-world maintenance practice. This alignment strengthens national consistency, supports competency-based approaches, and reinforces the safety and professionalism expected across the aviation maintenance community.

2.7 Part 65 Experience Pathways and Preparation for Certification

Part 65 provides an alternative pathway to mechanic certification for individuals who gain the required practical experience outside of an FAA-approved Aviation Maintenance Technician School (AMTS).

Under 14 CFR § 65.77(b)(1) and (2), applicants must present documentary evidence of either:

- at least 18 months of practical experience appropriate to the rating sought, or
- at least 30 months of practical experience concurrently performing duties appropriate to both ratings.

Although the FAA does not approve or regulate “apprenticeships” under Part 65, many employers, repair stations, and military organizations provide structured on-the-job training programs that help applicants accumulate this experience. The ACS supports these pathways by defining the certification standards applicants must meet during the written, oral, and practical tests.

2.7.1 How Part 65 Applicants Use the ACS

Individuals preparing for certification through Part 65 experience pathways can use the ACS to:

- understand the knowledge, risk management, and skill elements they will be evaluated on during testing,
- identify gaps between on-the-job experience and the ACS performance expectations,
- guide self-study and preparation for the written, oral, and practical tests, and
- align their experience with the competencies expected of newly certificated mechanics.

The ACS does not prescribe how experience must be obtained; it describes the standard applicants must meet at the time of certification.

2.7.2 How Employers and Supervisors Support Part 65 Applicants

Employers, repair stations, and military units that provide on-the-job training can use the ACS to:

- align task assignments and skill areas evaluated during certification,
- reinforce professional behaviors described in the Competency Domains for Mechanics,
- provide structured documentation of experience supporting eligibility under, § 65.77(b), and
- calibrate expectations for entry-level competence as applicants approach testing.

These programs are not evaluated or approved by the FAA; using the ACS simply helps ensure that the experience gained is relevant and certification aligned.

2.7.3 Clarifying the Role of the ACS in Part 65 Pathways

The ACS does not replace or modify the experience requirements of 14 CFR § 65.77. Instead, it provides the certification standard that all applicants—regardless of whether they trained through an

AMTS, military service, or civilian employment—must meet to earn certification. Part 65 applicants benefit from using the ACS to prepare for the written, oral, and practical tests, while employers benefit from using it to structure meaningful, certification-relevant experience.

Chapter 3: Mechanic Testing Process

This chapter describes the eligibility requirements, testing sequence, and regulatory framework that govern the FAA Aviation Mechanic certification process. It explains how applicants qualify for the Mechanic Certificate with Airframe and/or Powerplant ratings and outlines the written, oral, and practical tests required under 14 CFR part 65. The chapter also clarifies how the ACS and the Performance Standards support consistent evaluation of certification-level performance.

3.1 Overview

The FAA Administrator issues Aviation Mechanic certificates under 49 U.S.C. 44703 when an applicant is found qualified to perform the duties of the certificate. The eligibility and testing requirements for these ratings are contained in 14 CFR part 65, subpart D.

To qualify, an applicant must meet the experience requirements of § 65.77 and then pass the required written, oral, and practical tests for each rating sought. The written test, required by § 65.75, evaluates the applicant's knowledge of the subject areas identified in the Aviation Mechanic ACS. After passing the written test, the applicant must complete the oral and practical tests required by § 65.79, during which the FAA evaluates the applicant's ability to apply knowledge, manage risks, and perform the skills associated with each subject area.

These tests ensure that applicants demonstrate the level of competency required for certification. Each applicant must meet the minimum satisfactory competency level designated in the applicable ACS section, regardless of prior education or experience. While the Competency Domains described in Chapter 2 are not testable, they provide important context for understanding the behaviors and decision-making that support safe maintenance performance.

Evaluators must adhere to the applicable regulations and FAA guidance when conducting mechanic certification tests, including:

- 14 CFR part 65
- FAA Order 8000.95 Designee Management Policy
- FAA Order 8900.2, General Aviation Airman Designee Handbook
- FAA Order 8900.1, Flight Standards Information Management System (FSIMS)
- FAA-S-ACS-1, Aviation Mechanic General, Airframe, and Powerplant Airman Certification Standards

3.2 Mechanic Certificate Eligibility Requirements

To be eligible for a Mechanic Certificate with an Airframe rating, a Powerplant rating, or both, an applicant must meet the requirements of 14 CFR part 65, subpart D. Specifically, an applicant must:

- Be at least 18 years of age, as required by § 65.71.
- Demonstrate the ability to read, write, speak, and understand the English language, unless eligible for the "valid only outside the United States" limitation under § 65.71(b)
- Meet the experience requirements of § 65.77 by presenting either:
  - an authenticated document from a certificated Aviation Maintenance Technician School (AMTS) under 14 CFR part 147, § 147.21, or
  - documentary evidence, satisfactory to the Administrator, of the required practical experience
- Pass the written test appropriate to each rating sought, in accordance with § 65.75.

- Pass the oral and practical tests appropriate to each rating sought, in accordance with § 65.79.
- Complete all required tests within 24 months, as required by § 65.71(a)(3)
- Comply with all applicable sections of 14 CFR part 65, subpart D.

Applicants who cannot meet a specific regulatory requirement may petition for exemption under 14 CFR part 11. FAA field offices do not issue exemptions, and a grant of exemption is not guaranteed.

3.3 Testing Requirements and Sequence

Applicants must complete the written, oral, and practical tests required for each rating sought – Airframe, Powerplant, or both – in accordance with 14 CFR part 65, subpart D. The sequence and requirements for each test are described below.

3.3.1 Aviation English Language Standard

Applicants must demonstrate the ability to read, write, speak, and understand the English language in accordance with 14 CFR § 65.71 and the FAA Aviation English Language Proficiency Standard. English proficiency must be evident throughout the application and testing process. Normal restatement of questions, as would be provided to a native English speaker, is permitted and does not constitute grounds for disqualification.

Additional information on English language proficiency requirements is available in Advisory Circular 60-28, *FAA English Language Standard for an FAA Certificate Issued Under 14 CFR Parts 61, 63, 65, and 107*, as revised.

3.3.2 Written Test (14 CFR § 65.75)

- Applicants must pass the written test appropriate to each rating sought.
- The written test evaluates the subject areas identified in the Aviation Mechanic ACS.
- Applicants must pass the written test **before** applying for the oral and practical tests, except as permitted under § 65.80 for AMTS students.

3.3.3 Oral and Practical Tests (14 CFR § 65.79)

- After passing the written test, applicants must complete the oral and practical tests appropriate to each rating sought.
- The oral and practical tests evaluate the applicant's ability to apply knowledge, manage risks, and perform the required skills for each ACS subject area.
- Evaluators must follow applicable FAA guidance when conducting these tests.

3.3.4 24-Month Completion Requirement (14 CFR § 65.71(a)(3))

Applicants must pass all required tests—written, oral, and practical—within a 24-month period.

3.3.5 Passing Grade (14 CFR § 65.17)

The minimum passing grade for each test is 70 percent.

3.3.6 Retests

Applicants may retest after failing a written, oral, or practical test. A retest does not require a 30-day waiting period if the applicant presents a signed statement from an airman holding the certificate and rating(s) sought, certifying that additional instruction covering the failed subjects has been provided and the applicant is ready for retesting.

After 30 days, a signed statement of additional training is not required.

For retesting procedures specific to the oral and practical tests, including what must be repeated and how failures are documented, see Section 3.3.8.10 of this Chapter.

Waiting Period

Retesting must comply with 14 CFR § 65.19:

- Applicants may retest after 30 days, or
- Before 30 days if they present a signed statement from an airman holding the certificate and rating sought, certifying that additional instruction was provided and the applicant is ready for retesting.

3.4 Register for an FAA Mechanic Written Test

Registering for an FAA Mechanic Written Test is completed through PSI, the FAA's contracted testing vendor. Applicants must obtain an FAA Tracking Number (FTN), create a PSI account, and schedule the appropriate written test.

PSI refers to all FAA written tests as *Airman Knowledge Tests*, but this guide uses the regulatory term "written test" consistent with 14 CFR § 65.75.

Step 1. Obtain an FAA Tracking Number (FTN)

All applicants must have an FTN before registering for any FAA Airman Knowledge Test. The FTN is created through the Integrated Airman Certification and Rating Application (IACRA) system. Applicants follow the instructions on the IACRA website (https://iacra.faa.gov/IACRA/Default.aspx). to create an account and obtain their FTN.

A video tutorial on the FAA's YouTube channel provides step-by-step guidance for creating an IACRA account and obtaining an FTN. The FTN-specific instructions begin at the 14-minute mark in the video. https://www.youtube.com/watch?v=ETLsH8BruBM&feature=youtu.be.

Step 2. Create an Account with PSI

After obtaining an FTN, applicants must create an account with PSI, which administers all FAA written tests at approved testing centers. Through the PSI website (https://faa.psiexams.com/faa/login), applicants can:

- locate authorized testing centers
- register for a test
- schedule a date and time
- pay the associated fee

Step 3. Select Test and Testing Center

Once logged into PSI, applicants select the written test they are authorized to take and choose an available testing center. After selecting a location, applicants choose an appointment time and complete payment to finalize the registration.

Applicant Name Considerations for AKTR and Mechanic Application

The name printed on the Airman Knowledge Test Report (AKTR) is taken directly from the applicant's IACRA profile. PSI cannot modify names or correct spelling errors. If a correction is needed, the applicant must update their IACRA profile before scheduling the test.

If the AKTR contains minor name variations (e.g., middle initial or spelling variant), the evaluator may attach an explanation to the IACRA or paper application. If the last name differs, the applicant must

complete a paper application with an attached explanation.

3.5 Written Test Procedures and Requirements

3.5.1 Written Test Description

The written test is a required component of the mechanic certification process and is developed in accordance with 14 CFR § 65.75 and the Aviation Mechanic General, Airframe, and Powerplant Airman Certification Standards (ACS). Applicants must pass the written tests before taking the oral and practical tests, except when testing under the provision of § 65.80 for AMTS students.

The written test consists of objective, multiple-choice questions. Each question has a single correct response, and each question is independent of the others. The written tests measure the minimum level of aeronautical knowledge required under part 65 and sample the subject areas identified in the ACS. While comprehensive, the tests cannot cover every knowledge element a mechanic must understand.

3.5.2 Written Test Structure

There are three Aviation Mechanic written tests: General, Airframe, and Powerplant.

Test Code	***Test Name***	***Questions***	***Time Limit***	***Passing Score***
AMG	Aviation Mechanic - General	60	2.0 hours	70%
AMA	Aviation Mechanic - Airframe	100	2.0 hours	70%
AMP	Aviation Mechanic - Powerplant	100	2.0 hours	70%

3.5.3 Authorization to Take a Written Test

Applicants must present acceptable authorization to a PSI testing center before taking a written test. Acceptable authorization includes:

- An authenticated document from an AMTS, containing the information required by 14 CFR § 147.21, indicating completion of the applicable curriculum.
- FAA Form 8610-2 *Airman Certificate and/or Rating Application*, signed by an FAA inspector, attesting to practical experience.
- A Joint Services Aviation Maintenance Technician Certification Council (JSAMTCC) Military Certificate of Eligibility, indicating completion of the corresponding curriculum.
- A previously issued Airman Knowledge Test Report (AKTR) showing failed test results (for retests).

Applicants should retain their original documents; the testing center will make copies for its records.

3.5.4 Early General Written Test Authorization for AMTS Students (14 CFR § 65.75(c))

AMTS students may take the General written test early in accordance with 14 CFR § 65.75(c) if they present an authenticated document verifying satisfactory completion of the General portion of the curriculum and the completion date.

If the AMTS does not issue this document, the student is not eligible to take the General written test early.

3.5.5 Test Integrity and Misconduct During Written Testing

Cheating or other unauthorized conduct on the Airman Knowledge Test is prohibited under 14 CFR § 65.18. To protect test integrity, FAA-authorized computer testing centers follow established security procedures. A test must be terminated any time a proctor suspects that a cheating incident has occurred. The FAA investigates alleged incidents of cheating.

In accordance with 14 CFR § 65.18, an individual who commits a prohibited act during testing is not eligible for any airman certificate or rating for one year from the date of that act. The commission of a prohibited act is also grounds for suspending or revoking any airman certificate or rating held by that individual.

3.5.6 Written Test Blueprints

The ACS identifies the subject areas evaluated on each written test. The FAA also publishes the percentage of questions assigned to each knowledge area, so applicants know what to expect on their written tests.

Aviation Mechanic – General

The Aviation Mechanic General written test consists of 60 questions, with the following estimated percentage of questions from each subject area.

NOTE: The estimated percentage of questions is currently being revised by PSI, and this document will be updated once the final numbers have been approved.

AMG Knowledge Areas	Estimated Percentage of Questions
Mathematics	TBD
Physics for Aviation	TBD
Hand Tools and Measuring Devices	TBD
Aircraft Materials, Hardware, and Processes	TBD
Fluid Lines and Fittings	TBD
Electrical Principles and Practices	TBD
Aircraft Instrumentation	TBD
Aircraft Drawings	TBD
Weight and Balance	TBD
Safety, Ground Operations, and Servicing	TBD
Cleaning and Corrosion Control	TBD
Human Factors	TBD
Regulations, Maintenance Forms, Records, and Publications	TBD
Inspection and Troubleshooting Concepts and Techniques	TBD

Aviation Mechanic – Airframe

The Aviation Mechanic Airframe written test consists of 100 questions, with the following estimated percentage of questions from each subject area.

NOTE: The estimated percentage of questions is currently being revised by PSI, and this document will be updated once the final numbers have been approved.

AMA Knowledge Areas	Percentage of Test Questions by Knowledge Area
Metallic Structures	TBD
Non-Metallic Structures	TBD
Aircraft Painting and Finishing	TBD
Windows	TBD
Flight Controls	TBD
Landing Gear Systems	TBD
Hydraulic Systems	TBD
Pneumatic Systems	TBD
Aircraft Fuel Systems	TBD
Water and Waste Systems	TBD
Aircraft Electrical Systems	TBD
Flight Instruments, Displays, and Alerting Systems	TBD
Communications	TBD
Navigation	TBD
Air Conditioning	TBD
Ice and Rain Control Systems	TBD
Airframe Fire Protection Systems	TBD
Oxygen	TBD
Rotorcraft Systems	TBD

Aviation Mechanic – Powerplant

The Aviation Mechanic Powerplant written test consists of 100 questions, with the following estimated percentage of questions from each subject area.

NOTE: The estimated percentage of questions is currently being revised by PSI, and this document will be updated once the final numbers have been approved.

AMP Knowledge Areas	Percentage of Test Questions by Knowledge Area
Reciprocating Engines	TBD
Turbine Engines	TBD
Propellers	TBD
Engine Lubrication Systems	TBD
Ignition and Starting Systems	TBD
Engine Electrical Systems	TBD
Engine Instruments	TBD
Engine Fire Protection Systems	TBD

3.5.7 Taking the Mechanic Written Test (Test Day Requirements)

3.5.7.1 Identification and Authorization Requirements

On test day, applicants must present acceptable identification that includes a recent photograph, date of birth, signature, and residential address (if different from the mailing address). This information may be presented across multiple documents. Acceptable forms of identification include:

- Driver's license
- Government-issued identification card
- Passport
- Permanent resident (green) card
- Military identification card

Applicants must also present their authorization to test, as described in Section 3.5.3 in this Chapter.

3.5.7.2 Acceptable and Unacceptable Materials

Except as authorized under 14 CFR § 65.18, applicants may not use any unauthorized material or aid during the test. The following lists identify the materials that applicants may and may not use during the Airman Knowledge Test. These requirements support test integrity and apply to all testing centers.

Acceptable Materials

- FAA-approved supplement book provided by the proctor.
- Aviation-oriented or basic electronic calculators that perform only arithmetic functions.
- Calculators with simple programmable memory (add, subtract, or retrieve a single stored number; simple functions such as square root or percentage).
- Scales, straightedges, protractors, plotters, navigation computers, blank log sheets, and holding-pattern entry aids.
- Manufacturer-inscribed information permanently printed on the device (e.g., formulas, conversions, regulations, signals, weather data, holding-pattern diagrams, frequencies, weight-and-balance formulas, ATC procedures).

Unacceptable Materials

- Any handwritten, printed, or electronic written materials.
- Electronic calculators with permanent or continuous memory circuits that cannot be erased.
- Magnetic cards, magnetic tapes, modules, computer chips, or any device capable of storing and retrieving pre-written programs or information related to the test.
- Dictionaries.
- Any booklet or manual containing instructions for using test aids.

Notes and Conditions

- Testing centers may provide calculators and may deny the use of personal calculators.
- The proctor may prohibit use of a calculator if its memory erasure capability cannot be verified.
- Any printouts generated by a calculator must be surrendered at the end of the test.
- Before and after the test, applicants must clear calculator memory (ON/OFF, RESET, or

equivalent) in the presence of the proctor.

- The proctor makes the final determination regarding all aids, reference materials, and test materials.

3.5.7.3 Pre-Test Tutorial

Before the test begins, the testing center provides a brief tutorial to help applicants become familiar with the testing software. This tutorial may include sample questions and demonstrations of key features such as selecting an answer, marking a question for later review, and monitoring remaining time. Applicants may also access sample tests through their PSI account (https://faa.psiexams.com/faa/login) to become familiar with the testing interface prior to test day.

3.5.7.4 Written Test Tips for Applicants

The following may help applicants manage time and maintain accuracy during the written test.

- Read all instructions provided with the test before beginning.
- Read each question carefully before reviewing the answer options.
- Formulate your answer first, then select the option that fully matches your solution.
- Remember that only one answer is complete and correct; other options may be incomplete or incorrect.
- Mark difficult questions for review and return to them after answering the easier items.
- For calculation problems, review all associated notes and details.
- For questions involving graphs, request a printed copy if needed; return all materials to the testing center when finished.

3.6 Airman Knowledge Test Report (AKTR)

The Airman Knowledge Test Report (AKTR) is the document issued upon completion of the written test. It records the applicant's test score and lists the ACS codes for any subject areas in which questions were answered incorrectly. For an explanation of ACS codes and how they are structured, see Chapter 1.

Applicants must retain the original AKTR and present it to the evaluator during the O&P pre-test interview. See Section 3.8.2 for additional information on scheduling the O&P pre-test interview. The evaluator uses the AKTR to verify eligibility and to identify the subject areas that will be addressed during the oral test.

An AKTR expires 24 calendar months after the month in which the written test was completed, in accordance with 14 CFR § 65.71(a)(3) and (b). If the AKTR expires before the applicant completes the oral and practical tests, the applicant must retake and pass the written test and present a valid AKTR before starting or continuing the oral and practical tests.

Applicants can reprint AKTRs for tests taken on or after January 13, 2020 free of charge through the PSI website: https://faa.psiexams.com/faa/login.

For additional questions, applicants may contact the Airmen Certification Branch at (866) 878-2498.

3.7 Passing the Written Test

Applicants who pass the written test will receive an Airman Knowledge Test Report (AKTR) that lists the ACS codes for any subject areas in which questions were answered incorrectly. These coded areas indicate the applicant's remaining knowledge gaps. Applicants should review the coded areas and be prepared to demonstrate acceptable knowledge in each area during the oral test. See Section 3.6 for

additional information on how these coded areas are addressed during the oral test.

3.8 Oral and Practical (O&P) Test Procedures and Requirements

3.8.1 Overview of the Oral and Practical Tests

The Oral and Practical (O&P) tests evaluate an applicant's ability to apply knowledge, manage risks, and perform the skills required for the Mechanic Certificate with Airframe and/or Powerplant ratings. This section explains how the O&P tests are conducted, what applicants must bring, and how evaluators use the ACS and written test results to structure the test. It also outlines applicant and evaluator responsibilities, required materials, and safety expectations throughout the testing process.

3.8.2 Scheduling and Pre-Test Requirements

Applicants must pass a written test, an oral test, and a practical test in accordance with 14 CFR § 65.53. The O&P tests are typically administered by a Designated Mechanic Examiner (DME); although an FAA inspector may conduct the tests in certain circumstances.

Applicants must contact a DME to schedule the O&P tests. A list of DMEs is available on the FAA website (https://designee.faa.gov/designeeLocator) or from a local Flight Standards Office.

Applicants requiring special accommodations must follow the request process outlined in Section 3.8.14 in this Chapter. Evaluators may only administer accommodations that have been approved in advance.

Before testing, the evaluator conducts a pre-test interview to confirm logistics, review documentation, and identify any deficient knowledge areas noted on the Airman Knowledge Test Report (AKTR). A DME may charge a reasonable fee for their services, which should be discussed and agreed upon in advance.

3.8.3 Required Documentation

Applicants must bring the following to the pre-test interview and the O&P test:

- Two identically prepared FAA Forms 8610-2, *Airman Certificate and/or Rating Application*, with original signatures
- Written test results showing a passing grade (unless testing early under § 65.80)
- A current government-issued photo ID with signature

Additional eligibility documentation depends on the basis for testing:

Eligibility Basis	Required Documentation
Graduation from a 14 CFR part 147 AMTS	Authenticated document showing graduation date and curriculum completed
Civil or Military experience under § 65.77	FAA Form 8610-2 signed in Block V by an FAA inspector
JSAMTCC experience	Military Certificate of Eligibility
Early testing under § 65.80	FAA Form 8610-2 signed by an AMTS official and FAA inspector.

Failure to bring the required documents may delay or terminate the test.

Note: Evaluators conduct oral or practical tests with only one applicant at a time.

3.8.4 Incorrect Responses on the Written Test

During the oral test, the evaluator will address the subject areas in which questions were answered incorrectly on the written test. These areas are identified by the ACS codes listed on the Airman Knowledge Test Report (AKTR). Applicants should be prepared to demonstrate acceptable knowledge in each of the coded areas.

3.8.5 Applicant Responsibilities

Applicants must demonstrate knowledge, risk management, and skill to the minimum standards defined in the ACS, as incorporated by reference into 14 CFR § 65.79. Applicants should be prepared in all subject areas because they will not know in advance which elements will be selected for testing.

Oral Test

- Covers ACS knowledge elements and the subject areas in which questions were answered incorrectly on the written test (as identified by ACS codes on the AKTR)
- No reference materials may be used
- Applicants who scored 100% on the written test will be asked a minimum number of oral questions

Practical Test

- Includes hands-on projects and related practical questions
- Applicants may use reference materials provided by the evaluator
- Applicants must demonstrate the ability to meet return-to-service standards or explain why a standard cannot be met

The practical test evaluates the applicant's ability to apply knowledge logically, use tools correctly, follow procedures, and perform maintenance safely.

3.8.6 Evaluator Responsibilities

Evaluators review the applicant's AKTR and generate the test using the Mechanic Test Generator (MTG). The MTG provides the oral questions, practical projects with associated questions, and performance standards aligned with the ACS.

Evaluators must

- Keep the oral and practical portions separate
- Personally observe all practical projects
- Assess the applicant's knowledge, risk management, and skill throughout the test
- Ensure all ACS standards are met

Evaluators may review key terms with applicants, such as *inspect*, *check*, *troubleshoot*, *service*, *repair*, and *overhaul*.

Additional evaluator guidance is provided in FAA Order 8900.1 and FAA Order 8900.2.

3.5.7 Required Material for the Practical Test

Evaluators provide all tools, equipment, and reference materials needed for the test, including:

- 14 CFR
- Airworthiness Directives
- Advisory Circulars
- Manufacturer manuals and service information

All reference materials must be unmarked and in good condition. Applicants may only use personal tools and equipment at the evaluator's discretion. Non-programmable calculators are permitted.

3.8.8 Safety

Safety is the primary consideration throughout the O&P tests. Both the evaluator and applicant must remain alert to hazards and maintain safety practices during all maintenance and troubleshooting activities.

Evaluators will not require applicants to perform any action that would create an unsafe condition. If a task cannot be performed safely in the test environment, the evaluator will assess the applicant's knowledge and decision-making through discussion or simulation.

Applicants must follow all safety recommendations and precautions while performing assigned projects including:

Project approach and preparation

- Use proper information, tools, and equipment
- Prepare the work area and equipment
- Wear required personal protective equipment (PPE), such as safety glasses and hearing protection

Handling of parts and tools

- Clean, prepare, and protect components
- Use tools correctly and safely
- Maintain cleanliness and organization

Use of technical data

- Apply appropriate data (as defined in the Glossary), including current manufacturer maintenance manuals, service instructions, overhaul publications, Airworthiness Directives, and FAA-acceptable data such as AC 43.13-1B when no manufacturer data exists and the method is appropriate to the task.
- Follow manufacturer instructions and procedures when they are available and applicable.
- Do not use training materials—including the FAA 8083-series handbooks—as maintenance data. These materials support learning but are not acceptable data for performing or evaluating maintenance tasks.

Application of rules and risk management

- Identify hazards
- Apply appropriate risk controls
- Use sound judgment when performing or evaluating maintenance actions

Professional safety attitude

- Demonstrate respect for safety practices

- Follow manufacturer recommendations and acceptable industry standards

Any disregard for safety is not tolerated and will result in test failure.

3.8.9 Failing the Oral and Practical Tests

When an applicant has failed the oral test or the practical test, the applicant must be retested if the applicant wishes to receive an airman certificate.

3.8.10 Retesting

Applicants may retest after failing any portion of the written, oral, or practical tests. The retesting requirements that apply to all tests—including the 30-day waiting period and the option for additional instruction in lieu of waiting—are described in 14 CFR § 65.19 and summarized in Chapter [TBD]. This section describes the retesting process specific to the oral and practical tests.

Required Documentation for Retesting

Applicants must provide the evaluator with:

- All previous FAA Forms 8610-2 that annotate failure or “not tested” portions of a test
- All passed Airman Knowledge Test Reports (AKTRs)

The evaluator will review the annotated forms and return them to the applicant.

Oral Retest Requirements

- The applicant must retest the entire Section that was failed (General, Airframe, or Powerplant).
- Oral retests are not limited to the missed questions or ACS elements.

Practical Retest Require

- The applicant must repeat only the failed projects.
- The evaluator will also assign **one additional project** in the same subject area.
- Any subject areas **not tested** on the previous test must be completed during the retest.

Evaluator Documentation

The evaluator will document the failure in IACRA or on paper FAA Form 8610-2, as appropriate. Applicants must present the documented failure to the evaluator conducting the retest.

Waiting Period

Retesting must comply with 14 CFR § 65.19:

- Applicants may retest after 30 days, or
- Before 30 days if they present a signed statement from an airman holding the certificate and rating sought, certifying that additional instruction was provided and the applicant is ready for retesting.

3.8.11 Not Tested

In the event the test cannot be completed, the evaluator will annotate the portion(s) of the test that were not tested. The applicant must subsequently be tested in the areas annotated as “not tested” if the applicant wishes to receive an airman certificate.

3.8.12 Certification

Applicants who have successfully passed all required tests in the prescribed period and meet all other eligibility requirements are eligible to be issued a Temporary Airman Certificate.

The evaluator will:

Verify eligibility under 14 CFR part 65

Review all documentation

Complete the certification package in IACRA or on paper FAA Form 8610-2

Once eligibility is confirmed, the evaluator issues a Temporary Airman Certificate, which authorizes the applicant to exercise the privileges of the Mechanic Certificate while the Airmen Certification Branch completes its review. The temporary certificate must be signed by both the evaluator and the applicant and is valid for 120 days.

The permanent certificate will be mailed to the address on file with the FAA. Applicants should ensure their personal information is accurate and that any name variations have been addressed.

If the temporary certificate expires before the permanent certificate is received, the airman should contact their local Flight Standards District Office (FSDO) (or International Field Office if outside the United States) for assistance. If the permanent certificate has not arrived within 120 days, the airman may contact the Airmen Certification Branch for status updates using the following resources:

Toll free: 1-866-878-2498

Certification information line: 405-954-3261

Website: http://registry.faa.gov

Email: 9-AMC-AFS760-Airmen@faa.gov

3.8.13 Early Oral and Practical Testing Authorization for AMTS Students (14 CFR § 65.80)

Students enrolled in an Aviation Maintenance Technician School (AMTS) may take the oral and practical tests before the written tests in accordance with § 65.80, if the AMTS demonstrates to the FAA that the applicant has made satisfactory progress and is prepared to be tested. This provision applies only to AMTS students and only when specifically authorized by the FAA.

3.8.14 Requests for Special Accommodations

Applicants who require special accommodations for the Airman Knowledge Test or the Oral and Practical (O&P) must request them during the PSI registration and scheduling process. The request must identify the specific accommodation needed and include medical documentation supporting the condition that requires the accommodation. Documentation should include the diagnosing provider's name and contact information, as well as the applicant's preferred method of test administration. Accommodations are provided in accordance with the Americans with Disabilities Act (ADA).

For the O&P, applicants must inform the Designated Mechanic Examiner (DME) of any approved accommodations during the initial pre-test meeting. The DME may only administer accommodations approved in advance; DMEs cannot grant or modify any accommodations on test day. The DME will review the approved accommodations with the applicant and ensure they can be implemented while maintaining test integrity and compliance with FAA policy.

Appendix A – References

The Mechanic ACS is based on the following 14 DFR parts, FAA publications, FAA guidance, and learning aid documents.

References	Titles
14 CFR	Title 14 of the Code of Federal Regulations
14 CFR part 43	Maintenance, Preventive Maintenance, Rebuilding, and Alteration
14 CFR part 45	Identification and Registration Marking
14 CFR part 65	Certification: Airmen Other Than Flight Crewmembers
14 CFR part 91	General Operating and Flight Rules
14 CFR part 147	Aviation Maintenance Technician Schools
AC 20-35	Tiedown Sense
AC 25.1455-1	Waste Water/Potable Water Drain System Certification Testing
AC 25-11	Electronic Flight Displays
AC 43-9	Maintenance Records
AC 43.13-1	Acceptable Methods, Techniques and Practices - Aircraft Inspection & Repair
AC 43.13-2	Acceptable Methods, Techniques and Practices - Aircraft Alterations
AC 43-215	Standardized Procedures for Performing Aircraft Magnetic Compass Calibration
AC 45-2	Identification and Registration Marking
AC 60-11	Test Aids and Materials that May be Used by Airman Knowledge Testing Applicants
AC 60-28	FAA English Language Standard for an FAA Certificate Issued Under 14 CFR Parts 61, 63, 65, and 107
AC 120-39	Hazards of Waste Water Ice Accumulation Separating from Aircraft in Flight
AC 150/5210-20	Ground Vehicle Operations to include Taxiing or Towing an Aircraft on Airports
FAA-H-8083-1	Aircraft Weight and Balance Handbook
FAA-H-8083-2	Risk Management Handbook
FAA-H-8083-25	Pilot’s Handbook of Aeronautical Knowledge
FAA-H-8083-30	Aviation Maintenance Technician Handbook–General
FAA-H-8083-31	Aviation Maintenance Technician Handbook–Airframe (Volumes 1 and 2)
FAA-H-8083-32	Aviation Maintenance Technician–Powerplant (Volumes 1 and 2)
POH/AFM	Pilot’s Operating Handbook/FAA-Approved Airplane Flight Manual