**U.S. Department
of Transportation**

**Federal Aviation
Administration**

FAA-S-ACS-10A

Remote Pilot – Small Unmanned Aircraft Systems (Certification and Recurrent Knowledge Testing)

Airman Certification Standards

June 2018

**Flight Standards Service
Washington, DC 20591**

Acknowledgments

Availability

Foreword

The Federal Aviation Administration (FAA) has published the Remote Pilot – small Unmanned Aircraft Systems (sUAS) Airman Certification Standard (ACS) document to communicate the aeronautical knowledge standards for certification and recurrent knowledge testing for a Remote Pilot Certificate with an sUAS rating.

The FAA views the ACS as the foundation to an integrated and systematic approach to airman certification. The ACS is part of the safety management system (SMS) framework that the FAA uses to mitigate risks associated with airman certification training and testing. Specifically, the ACS, associated guidance, and test question components of the airman certification system are constructed around the four functional components of an SMS:

- Safety Policy that defines and describes aeronautical knowledge and risk management as integrated components of the airman certification system;
- Safety Risk Management processes through which internal stakeholders identify and evaluate regulatory changes, safety recommendations, or other factors that require modification of airman testing and training materials;
- Safety Assurance processes to ensure the prompt and appropriate incorporation of changes arising from new regulations and safety recommendations; and
- Safety Promotion in the form of ongoing engagement with both external stakeholders and FAA policy divisions.

The FAA has developed the ACS with the goal to drive a systematic approach to all components of the airman certification system which includes the knowledge test question development, course development, and guidance material. The FAA acknowledges and appreciates the many hours that aviation experts, both internal and external to the FAA, have contributed toward this goal. This level of collaboration, a hallmark of a robust safety culture, strengthens and enhances aviation safety at every level of the airman certification system.

John S. Duncan
Executive Director, Flight Standards Service

Revision History

Document #	Description	Revision Date
FAA-S-ACS-10	Remote Pilot – Small Unmanned Aircraft Systems Airman Certification Standards	July 2016
FAA-S-ACS-10A	Remote Pilot – Small Unmanned Aircraft Systems (Certification and Recurrent Knowledge Testing) Airman Certification Standards	June 2018

Major Enhancements to Version FAA-S-ACS-10A

- Revised Introduction and appendices to include information on recurrent testing and to account for FAA reorganization.

- Added asterisk (*) to Task title applicable to recurrent testing.

- Updated Task References, as necessary.

- Updated the following Appendices:

  — [Appendix 1: Certification and Recurrent Knowledge Tests, Eligibility, and Testing Centers](#)
  — [Appendix 3: Airman Knowledge Test Report for Certification and Recurrent Testing](#)

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Introduction

Airman Certification Standards Concept

The goal of the airman certification process is to ensure the applicant possesses knowledge consistent with the privileges of the Remote Pilot Certificate with a small Unmanned Aircraft Systems (sUAS) rating, as well as the ability to manage the risks of flight in order to act as a remote pilot-in-command (PIC).

In fulfilling its responsibilities for the airman certification process, the Federal Aviation Administration (FAA) Flight Standards Service (AFS) plans, develops, and maintains materials related to airman certification testing. These materials include several components. The FAA knowledge test measures mastery of the aeronautical knowledge areas listed in Title 14 of the Code of Federal Regulations (14 CFR) part 107. Other materials, such as airman knowledge testing supplements in the FAA-CT-8080 series and an FAA online training course, provide guidance to applicants on aeronautical knowledge and risk management.

The FAA recognizes that safe operations in today's complex National Airspace System (NAS) require a more systematic integration of aeronautical knowledge and risk management. The FAA further recognizes the need to more clearly calibrate knowledge and risk management to the level of the Remote Pilot Certificate with an sUAS rating.

The ACS integrates the elements of knowledge and risk management in 14 CFR part 107 for a Remote Pilot Certificate with an sUAS rating. It thus forms the comprehensive standard for what an applicant must know and consider to successfully completing each Task tested on the knowledge test.

In keeping with this integrated and systematic approach, the knowledge Task elements of each Task identify what the applicant must know and understand for sUAS operations conducted under part 107. The applicant demonstrates this understanding by passing the knowledge test.

Using the ACS

This Remote Pilot ACS includes Areas of Operation and Tasks for the issuance of a Remote Pilot Certificate with an sUAS rating and the recurrent knowledge testing requirements in accordance with 14 CFR part 107, section 107.65. Tasks that apply to recurrent testing are marked with an asterisk (*), all Tasks apply to certification testing.

Each Task in the ACS is coded according to a scheme that includes four elements. For example:

> **UA.I.B.K10:**
>
> **UA** = Applicable ACS (Unmanned Aircraft Systems)
> **I** = Area of Operation (Regulations)
> **B** = Task (Operating Rules)
> **K10** = Task element Knowledge 10 (Visual line of sight (VLOS) aircraft operations)

Knowledge test questions are linked to the ACS codes, which will ultimately replace the system of Learning Statement Codes (LSC). After this transition occurs, the Airman Knowledge Test Report (AKTR) will list an ACS code that correlates to a specific Task element for a given Area of Operation and Task. Each LSC provides the applicant with information that will assist in future test taking.

The current knowledge test management system does not have the capability to print ACS codes. Until a new test management system is in place, the LSC, such as Pilot Learning Statement (PLT) codes will continue to be displayed on the AKTR. The PLT codes are linked to references leading to broad subject areas. By contrast, each ACS code is tied to a unique Task element in the ACS itself. Because of this fundamental difference, there is no one-to-one correlation between PLT codes and ACS codes. For a list of the Pilot Learning Statement codes, please use the following link: Learning Statement Reference Guide.

For those applicants who do not pass the knowledge test for certification or recurrent testing, remedial instruction and an endorsement from an instructor is not required for retesting. See Appendix 1: Certification and Recurrent Knowledge Tests, Eligibility, and Testing Centers for details on passing the Unmanned Aircraft General – Small

(UAG) certification airman knowledge test and the Unmanned Aircraft General – Small Recurrent (UGR) airman knowledge test.

The FAA encourages applicants to use this ACS as a reference while preparing for the certification and recurrent airman knowledge tests. The FAA will revise this ACS as circumstances require.

I.   Regulations

Task	A. General (*)
References	14 CFR part 107, subpart A; AC 107-2
Objective	To determine that the applicant is knowledgeable in the general regulatory requirements of 14 CFR part 107.
Knowledge	The applicant demonstrates understanding of:
UA.I.A.K1	Applicability of 14 CFR part 107 to small unmanned aircraft operations.
UA.I.A.K2	Definitions used in 14 CFR part 107.
UA.I.A.K3	The ramifications of falsification, reproduction, or alteration of a certificate, rating, authorization, record, or report.
UA.I.A.K4	Accident Reporting.
UA.I.A.K5	Inspection, testing, and demonstration of compliance.
Risk Management	[Reserved]
Skills	[Not applicable]

I.   Regulations

Task	**B. Operating Rules (*)**
References	14 CFR parts 47, 48 and 107, subpart B; AC 107-2
Objective	To determine that the applicant is knowledgeable of the operating rules of 14 CFR part 107, the registration rules of 14 CFR parts 47 and 48, and other associated operating requirements.
Knowledge	The applicant demonstrates understanding of:
UA.I.B.K1	Registration requirements for sUAS.
UA.I.B.K2	Requirement for the sUAS to be in a condition for safe operation.
UA.I.B.K3	Medical condition(s) that would interfere with safe operation of an sUAS.
UA.I.B.K4	Responsibility and authority of the remote PIC.
UA.I.B.K4a	a. Allowing a person other than the remote PIC to manipulate the flight controls.
UA.I.B.K5	Regulatory deviation and reporting requirements for in-flight emergencies.
UA.I.B.K6	Hazardous operations.
UA.I.B.K6a	a. Careless or reckless
UA.I.B.K6b	b. Dropping an object
UA.I.B.K7	Operating from a moving aircraft or moving land- or water-borne vehicle.
UA.I.B.K8	Alcohol or drugs and the provisions on prohibition of use.
UA.I.B.K9	Daylight operation.
UA.I.B.K10	Visual line of sight (VLOS) aircraft operations.
UA.I.B.K11	Requirements when a visual observer is used.
UA.I.B.K12	Prohibition of operating multiple sUAS.
UA.I.B.K13	Prohibition of carrying hazardous material.
UA.I.B.K14	Staying safely away from other aircraft and right-of-way rules.
UA.I.B.K14a	a. See and avoid other aircraft and other potential hazard considerations of the remote PIC
UA.I.B.K15	Operations over human beings.
UA.I.B.K16	Prior authorization required for operation in certain airspace.
UA.I.B.K17	Operating in the vicinity of airports.
UA.I.B.K18	Operating in prohibited or restricted areas.
UA.I.B.K19	Flight restrictions in the proximity of certain areas designated by notice to airmen (NOTAM).
UA.I.B.K20	Preflight familiarization, inspection, and actions for aircraft operations.
UA.I.B.K21	Operating limitations for sUAS.
UA.I.B.K21a	a. Maximum groundspeed
UA.I.B.K21b	b. Altitude limitations
UA.I.B.K21c	c. Minimum visibility
UA.I.B.K21d	d. Cloud clearance requirements
UA.I.B.K22	Requirements for a Remote Pilot Certificate with an sUAS rating.
Risk Management	[Reserved]
Skills	[Not applicable]

I. Regulations

Task	C. Remote Pilot Certification with an sUAS rating (*)
References	14 CFR part 107, subpart C; AC 107-2
Objective	To determine that the applicant is knowledgeable in the requirements associated with remote pilot certification with an sUAS rating.
Knowledge	The applicant demonstrates understanding of:
UA.I.C.K1	Offenses involving alcohol or drugs.
UA.I.C.K2	The consequences of refusing to submit to a drug or alcohol test or to furnish test results.
UA.I.C.K3	The eligibility requirements for a Remote Pilot Certificate with an sUAS rating.
UA.I.C.K4	Aeronautical knowledge recency.
Risk Management	[Reserved]
Skills	[Not applicable]

I. Regulations

Task	D. Waivers (*)
References	14 CFR part 107, subpart D; AC 107-2
Objective	To determine that the applicant is knowledgeable of the FAA waiver policy and requirements.
Knowledge	The applicant demonstrates understanding of:
UA.I.D.K1	Waiver policy and requirements.
Risk Management	[Reserved]
Skills	[Not applicable]

II. Airspace Classification and Operating Requirements

Task	A. Airspace Classification (*)
References	14 CFR part 71; AC 107-2; FAA-H-8083-25; AIM
Objective	To determine that the applicant is knowledgeable in airspace classification.
Knowledge	The applicant demonstrates understanding of:
UA.II.A.K1	General airspace
UA.II.A.K1a	a. Class B controlled airspace
UA.II.A.K1b	b. Class C controlled airspace
UA.II.A.K1c	c. Class D controlled airspace
UA.II.A.K1d	d. Class E controlled airspace
UA.II.A.K1e	e. Class G uncontrolled airspace
UA.II.A.K2	Special-use airspace, such as prohibited, restricted, warning areas, military operation areas, alert areas, and controlled firing areas.
UA.II.A.K3	Other airspace areas, such as Airport Advisory Services, Military Training Routes (MTRs), Temporary Flight Restrictions (TFRs), Parachute Jump Operations, Terminal Radar Service Areas (TRSAs), National Security Areas (NSA) and Visual Flight Rules (VFR) routes.
UA.II.A.K4	Air Traffic Control (ATC) and the NAS.
Risk Management	[Reserved]
Skills	[Not applicable]

II. Airspace Classification and Operating Requirements

Task	*B. Airspace Operational Requirements (*)*
References	14 CFR part 71; AC 107-2; AIM; SAFO 10015
Objective	To determine that the applicant is knowledgeable of airspace operational requirements.
Knowledge	The applicant demonstrates understanding of:
UA.II.B.K1	Basic weather minimums.
UA.II.B.K2	ATC authorizations and related operating limitations.
UA.II.B.K3	Operations near airports.
UA.II.B.K4	Potential flight hazards.
UA.II.B.K4a	a. Common aircraft accident causal factors
UA.II.B.K4b	b. Avoid flight beneath unmanned balloons
UA.II.B.K4c	c. Emergency airborne inspection of other aircraft
UA.II.B.K4d	d. Precipitation static
UA.II.B.K4e	e. Light amplification by stimulated emission of radiation (laser) operations and reporting illumination of aircraft
UA.II.B.K4f	f. Avoiding flight in the vicinity of thermal plumes, such as smoke stacks and cooling towers
UA.II.B.K4g	g. Flying in the wire environment
UA.II.B.K5	The NOTAM system including how to obtain an established NOTAM through Flight Service.
Risk Management	[Reserved]
Skills	[Not applicable]

III. Weather

Task	A. Sources of Weather
References	AC 107-2; FAA-H-8083-25; AIM
Objective	To determine that the applicant is knowledgeable in sources of weather information.
Knowledge	The applicant demonstrates understanding of:
UA.III.A.K1	Internet weather briefing and sources of weather available for flight planning purposes.
UA.III.A.K2	Aviation routine weather reports (METAR).
UA.III.A.K3	Terminal aerodrome forecasts (TAF).
UA.III.A.K4	Weather charts.
UA.III.A.K5	Automated surface observing systems (ASOS) and automated weather observing systems (AWOS).
Risk Management	[Reserved]
Skills	[Not applicable]

III. Weather

Task	*B. Effects of Weather on Performance*
References	AC 00-6; AC 107-2; AIM; FAA-H-8083-25
Objective	To determine that the applicant is knowledgeable of the effects of weather on performance.
Knowledge	The applicant demonstrates understanding of:
UA.III.B.K1	Weather factors and their effects on performance:
UA.III.B.K1a	a. Density altitude
UA.III.B.K1b	b. Wind and currents
UA.III.B.K1c	c. Atmospheric stability, pressure, and temperature
UA.III.B.K1d	d. Air masses and fronts
UA.III.B.K1e	e. Thunderstorms and microbursts
UA.III.B.K1f	f. Tornadoes
UA.III.B.K1g	g. Icing
UA.III.B.K1h	h. Hail
UA.III.B.K1i	i. Fog
UA.III.B.K1j	j. Ceiling and visibility
UA.III.B.K1k	k. Lightning
Risk Management	[Reserved]
Skills	[Not applicable]

IV. Loading and Performance

Task	A. Loading and Performance
References	AC 107-2; FAA-H-8083-25
Objective	To determine that the applicant is knowledgeable in the loading and performance of an sUAS.
Knowledge	The applicant demonstrates understanding of:
UA.IV.A.K1	General loading and performance:
UA.IV.A.K1a	a. Effects of loading changes
UA.IV.A.K1b	b. Balance, stability, and center of gravity
UA.IV.A.K2	Importance and use of performance data to calculate the effect on the aircraft's performance of an sUAS.
Risk Management	[Reserved]
Skills	[Not applicable]

V.   Operations

Task	A. *Radio Communications Procedures*
References	AC 107-2; AIM; FAA-H-8083-25
Objective	To determine that the applicant is knowledgeable in radio communication procedures.
Knowledge	The applicant demonstrates understanding of:
UA.V.A.K1	Airport operations with and without an operating control tower.
UA.V.A.K2	The description and use of a Common Traffic Advisory Frequency (CTAF) to monitor manned aircraft communications.
UA.V.A.K3	Recommended traffic advisory procedures used by manned aircraft pilots, such as self-announcing of position and intentions.
UA.V.A.K4	Aeronautical advisory communications station (UNICOM) and associated communication procedures used by manned aircraft pilots.
UA.V.A.K5	Automatic Terminal Information Service (ATIS).
UA.V.A.K6	Aircraft call signs and registration numbers.
UA.V.A.K7	The phonetic alphabet.
UA.V.A.K8	Phraseology: altitudes, directions, speed, and time.
Risk Management	[Reserved]
Skills	[Not applicable]

V. Operations

Task	**B. Airport Operations (*)**
References	AC 107-2, AC 150/5200-32; FAA-H-8083-25; AIM
Objective	To determine that the applicant is knowledgeable in airport operations.
Knowledge	The applicant demonstrates understanding of:
UA.V.B.K1	Types of airports, such as towered, uncontrolled towered, heliport, and seaplane bases.
UA.V.B.K2	ATC towers, such as ensuring the remote pilot can monitor and interpret ATC communications to improve situational awareness.
UA.V.B.K3	Runway markings and signage.
UA.V.B.K4	Traffic patterns used by manned aircraft pilots.
UA.V.B.K5	Security Identification Display Areas (SIDA).
UA.V.B.K6	Sources for airport data:
UA.V.B.K6a	a. Aeronautical charts
UA.V.B.K6b	b. Chart Supplements
UA.V.B.K7	Avoiding bird and wildlife hazards and reporting collisions between aircraft and wildlife.
Risk Management	[Reserved]
Skills	[Not applicable]

V. Operations

Task	C. Emergency Procedures (*)
References	AC 107-2; FAA-H-8083-25; SAFO 15010, SAFO 10017, SAFO 09013
Objective	To determine that the applicant is knowledgeable in sUAS emergency procedures.
Knowledge	The applicant demonstrates understanding of:
UA.V.C.K1	Emergency planning and communication.
UA.V.C.K2	Characteristics and potential hazards of lithium batteries:
UA.V.C.K2a	a. Safe transportation, such as proper inspection and handling
UA.V.C.K2b	b. Safe charging
UA.V.C.K2c	c. Safe usage
UA.V.C.K2d	d. Risks of fires involving lithium batteries
UA.V.C.K3	Loss of aircraft control link and fly-aways.
UA.V.C.K4	Loss of Global Positioning System (GPS) signal during flight and potential consequences.
UA.V.C.K5	Frequency spectrums and associated limitations.
Risk Management	[Reserved]
Skills	[Not applicable]

V. Operations

Task	D. Aeronautical Decision-Making (*)
References	AC 107-2; FAA-H-8083-2; FAA-H-8083-25
Objective	To determine that the applicant is knowledgeable in aeronautical decision-making.
Knowledge	The applicant demonstrates understanding of:
UA.V.D.K1	Aeronautical Decision-Making (ADM):
UA.V.D.K1a	a. Effective team communication
UA.V.D.K1b	b. Task management
UA.V.D.K2	Crew Resource Management (CRM).
UA.V.D.K3	Situational awareness.
UA.V.D.K4	Hazardous attitudes.
UA.V.D.K5	Hazard identification and risk assessment.
Risk Management	[Reserved]
Skills	[Not applicable]

V. Operations

Task	E. Physiology
References	AC 107-2; FAA-H-8083-2; FAA-H-8083-25
Objective	To determine that the applicant is knowledgeable in the physiological factors affecting remote pilot performance.
Knowledge	The applicant demonstrates understanding of:
UA.V.E.K1	Physiological considerations and their effects on safety, such as dehydration and heatstroke.
UA.V.E.K2	Drug and alcohol use.
UA.V.E.K3	Prescription and over-the-counter medication.
UA.V.E.K4	Hyperventilation.
UA.V.E.K5	Stress and fatigue.
UA.V.E.K6	Factors affecting vision.
UA.V.E.K7	Fitness for flight.
Risk Management	[Reserved]
Skills	[Not applicable]

V. Operations

Task	F. Maintenance and Inspection Procedures (*)
References	AC 107-2
Objective	To determine that the applicant is knowledgeable in sUAS maintenance and inspection procedures.
Knowledge	The applicant demonstrates understanding of:
UA.V.F.K1	Basic maintenance.
UA.V.F.K2	Preflight inspection.
UA.V.F.K3	Techniques to mitigate mechanical failures of all elements used in sUAS operations, such as the battery and/or any device(s) used to operate the sUAS.
UA.V.F.K4	Appropriate record keeping.
UA.V.F.K5	Persons that may perform maintenance on an sUAS.
Risk Management	[Reserved]
Skills	[Not applicable]

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Appendix 1: Certification and Recurrent Knowledge Tests, Eligibility, and Testing Centers

Certification Knowledge Test Description

The certification knowledge test is an important part of the airman certification process. Applicants who do not meet the requirements in 14 CFR part 107, section 107.61(d)(2) must pass the knowledge test before applying for a Remote Pilot Certificate with an sUAS rating.

The certification knowledge test consists of objective, multiple-choice questions. There is a single correct response for each test question. Each test question is independent of other questions. A correct response to one question does not depend upon, or influence, the correct response to another. The knowledge test applicant has up to two hours to complete the test.

UAS Topics	Percentage of Items on Test
I. Regulations	15 – 25%
II. Airspace & Requirements	15 – 25%
III. Weather	11 – 16%
IV. Loading and Performance	7 – 11%
V. Operations	35 – 45%
Total Number of Questions	**60**

Recurrent Knowledge Test Description

The recurrent knowledge test is an important part of ensuring that airmen who hold a remote pilot certificate with sUAS rating can operate safety in the National Airspace System (NAS). Recurrent testing is required for Airmen who do not hold a pilot certificate that was issued under 14 CFR part 61. The recurrent test is also required for airmen who do hold a pilot certificate that was issued under 14 CFR part 61, but do not have a current Flight Review as per 14 CFR part 61, section, 61.56.

The recurrent knowledge test consists of objective, multiple-choice questions. There is a single correct response for each test question. Each test question is independent of other questions. A correct response to one question does not depend upon, or influence, the correct response to another. A person who is taking the test has up to 1 hour and 30 minutes to complete the test.

UAS Topics for Recurrent Testing

Area of Operation	Task	Percentage of Items on Test
I	A. General	30 – 40%
	B. Operating Rules	
	C. Remote Pilot Certification with an sUAS rating	
	D. Waivers	
II	A. Airspace Classification	30 – 40%
	B. Airspace Operational Requirements	
V	B. Airport Operations	20 – 30%
	C. Emergency Procedures	
	D. Aeronautical Decision-Making	
	F. Maintenance and Inspection Procedures	

English Language Proficiency

In accordance with the requirements of 14 CFR part 107, section 107.61(b) and the FAA English Language Standard for an FAA Certificate Issued Under 14 CFR parts 61, 63, 65, and 107 (AC 60-28, as amended), throughout the application and testing process, the applicant must demonstrate the ability to read, write, speak, and understand the English language. However, the FAA may make an exception if the person is unable to meet one of these requirements due to medical reasons, such as a hearing impairment.

Knowledge Test Requirements

To verify your eligibility to take the certification knowledge test, you must meet the following in accordance with the requirements of 14 CFR part 107, section 107.67.

- An applicant to take the certification knowledge test must be at least 14 years of age.
- Proper identification must be provided which contains the applicant's—
  - Photograph;
  - Signature;
  - Date of birth; and
  - If the permanent mailing address is a post office box number, then the applicant must provide a current residential address.

To verify your eligibility to take the recurrent knowledge test, you must meet the requirements listed below, and the requirements of 14 CFR part 107, section 107.67.

- A person who is to take the recurrent knowledge test must be at least 16 years of age.
- A person who is to take the recurrent knowledge test must present their remote pilot certificate with an sUAS rating to the airman knowledge testing center's registration employee, or the airman knowledge testing center's test proctor.
- Proper identification must be provided which contains the applicant's—
  - Photograph;
  - Signature;
  - Date of birth; and
  - If the permanent mailing address is a post office box number, then the applicant must provide a current residential address.

A list of acceptable documents used to provide proper identification can be found in Advisory Circular (AC) 61-65, Certification: Pilots and Flight and Ground Instructors (as amended).

For the most current Airman Knowledge Testing General Requirements, refer to the FAA Airman Knowledge Testing Applicant Identification, Information Verification, & Authorization Requirements Matrix.

Achieving a score of 70% or better is required to be considered as satisfactory for passing the certification or recurrent knowledge test for a Remote Pilot Certificate with an sUAS rating.

Retaking the UAS certification or recurrent knowledge test after a failure:

- 14 CFR part 107, section 107.71 specifies that an applicant who fails either knowledge test may not retake that knowledge test for 14 calendar days from the date of the previous failure.
- An applicant retesting **after failure** is required to submit the applicable AKTR indicating failure to the airman knowledge testing center prior to retesting.
- No instructor endorsement or other form of written authorization is required to retest after failure.
- An airman who is retesting after failure of the recurrent knowledge test, must present their Remote Pilot Certificate with an sUAS rating.
- The original failed AKTR must be retained by the proctor and attached to the applicable daily log.

Note: *If the airman knowledge testing center is approved for electronic filing, the proctor must: initial the AKTR within the embossed seal; file the AKTR in accordance with their Airman Knowledge Testing Center (AKTC) Organization Designation Authorization (ODA) Holder's Procedures Manual; and destroy the AKTR.* **The proctor must verify the original failed AKTR has been successfully captured and stored prior to destruction.**

If the applicant no longer possesses the AKTR, he or she may request a replacement AKTR issued by the Airmen Certification Branch. (Refer to Appendix 3: Airman Knowledge Test Report for Certification and Recurrent Testing.)

Airman Knowledge Testing Centers

The FAA authorizes hundreds of airman knowledge testing center locations that offer a full range of airman knowledge tests. For information on authorized airman knowledge testing centers and to register for the knowledge test, contact one of the providers listed on the Airman Knowledge Testing Center List.

Knowledge Test Registration

When you contact an airman knowledge testing center to register for a test, please be prepared to select a test date, choose a testing center, and make financial arrangements for test payment when you call. You may register for test(s) several weeks in advance, and you may cancel in accordance with the testing center's cancellation policy.

Appendix 2: Knowledge Test Procedures and Tips

Before starting the actual test, the airman knowledge testing center will provide an opportunity to practice navigating through the test. This practice or tutorial session may include sample questions to familiarize the applicant with the look and feel of the software, such as selecting an answer, marking a question for later review, monitoring time remaining for the test, and other features of the testing software.

Acceptable Materials

The applicant may use the following aids, reference materials, and test materials, as long as the material does not include actual test questions or answers.

Acceptable Materials	Unacceptable Materials	Notes
Supplement book provided by proctor	Written materials that are handwritten, printed, or electronic	Testing centers may provide calculators and/or deny the use of personal calculators.
All models of aviation-oriented calculators or small electronic calculators that perform only arithmetic functions	Electronic calculators incorporating permanent or continuous type memory circuits without erasure capability.	Unit Member (proctor) may prohibit the use of your calculator if he or she is unable to determine the calculator's erasure capability
Calculators with simple programmable memories, which allow addition to, subtraction from, or retrieval of one number from the memory; or simple functions, such as square root and percentages	Magnetic Cards, magnetic tapes, modules, computer chips, or any other device upon which pre-written programs or information related to the test can be stored and retrieved	Printouts of data must be surrendered at the completion of the test if the calculator incorporates this design feature.
Scales, straightedges, protractors, plotters, navigation computers, blank log sheets, holding pattern entry aids, and electronic or mechanical calculators that are directly related to the test	Dictionaries	Before, and upon completion of the test, while in the presence of the Unit Member, actuate the ON/OFF switch or RESET button, and perform any other function that ensures erasure of any data stored in memory circuits
Manufacturer's permanently inscribed instructions on the front and back of such aids, such as formulas, conversions, regulations, signals, weather data, holding pattern diagrams, frequencies, weight and balance formulas, and ATC procedures	Any booklet or manual containing instructions related to use of test aids	Unit Member makes the final determination regarding aids, reference materials, and test materials

Test Tips

When taking a knowledge test, please keep the following points in mind:

- Carefully read the instructions provided with the test.
- Answer each question in accordance with the latest regulations and guidance publications.
- Read each question carefully before looking at the answer options. You should clearly understand the problem before trying to solve it.
- After formulating a response, determine which answer option corresponds with your answer. The answer you choose should completely solve the problem.

- Remember that only one answer is complete and correct. The other possible answers are either incomplete or erroneous.
- If a certain question is difficult for you, mark it for review and return to it after you have answered the less difficult questions. This procedure will enable you to use the available time to maximum advantage.
- When solving a calculation problem, be sure to read all the associated notes.
- For questions involving use of a graph, you may request a printed copy that you can mark in computing your answer. This copy and all other notes and paperwork must be given to the airman knowledge testing center upon completion of the test.

Cheating or Other Unauthorized Conduct

To avoid test compromise, computer testing centers must follow strict security procedures established by the FAA and described in FAA Order 8080.6 (as amended), Conduct of Airman Knowledge Tests. The FAA has directed testing centers to terminate a test at any time a test unit member suspects that a cheating incident has occurred.

The FAA will investigate and, if the agency determines that cheating or unauthorized conduct has occurred, any airman certificate or rating you hold may be revoked. You will also be prohibited from applying for or taking any test for a certificate or rating under 14 CFR part 107, section 107.69 for a period of one year.

Testing Procedures for Applicants Requesting Special Accommodations

An applicant with learning or reading disability may request approval from the Airman Testing Branch through the local Flight Standards District Office (FSDO) to take airman knowledge test using one of the three options listed below, in preferential order:

Option 1: Use current testing facilities and procedures whenever possible.

Option 2: Use a self-contained, electronic device which pronounces and displays typed-in words, such as the Franklin Speaking Wordmaster®) to facilitate the testing process.

Note: *The device should consist of an electronic thesaurus that audibly pronounces typed-in words and presents them on a display screen. The device should also have a built-in headphone jack in order to avoid disturbing others during testing.*

Option 3: Request the unit member's (proctor's) assistance in reading specific words or terms from the test questions and/or supplement book. To prevent compromising the testing process, the unit member must be an individual with no aviation background or expertise. The unit member may provide reading assistance only (i.e., no explanation of words or terms). When an applicant requests this option, the applicant must contact the Airman Testing Branch for assistance in selecting the test site and assisting the unit member.

Appendix 3: Airman Knowledge Test Report for Certification and Recurrent Testing

Applying for a Remote Pilot Certificate with an sUAS Rating and Complying with Knowledge Recency Requirements

Immediately upon completion of the certification or recurrent knowledge test, the applicant receives a printed Airman Knowledge Test Report (AKTR) documenting the score with the airman knowledge testing center's raised, embossed seal. The applicant must retain the original AKTR. Remote pilots with an sUAS rating must retain their passing certification or recurrent AKTR as proof of knowledge recency and must make it available to the Administrator upon request.

When applying for a Remote Pilot Airman Certificate with an sUAS rating, the AKTR with passing results is valid for 24 calendar months. To exercise the privileges of the Remote Pilot Certificate with an sUAS rating, the applicant must comply with 14 CFR part 107, section 107.65.

To show compliance with the requirement for aeronautical knowledge recency, as per 14 CFR part 107, section 107.65(b), the airman is to retain the AKTR with a passing grade. The Remote Pilot must also comply with the provisions of 14 CFR part 107, section 107.7(a)(2).

To obtain a duplicate AKTR due to loss or destruction of the original, the applicant must mail a signed request accompanied by a check or money order made payable to the FAA in the amount of $12.00 the following address:

> Federal Aviation Administration
> Airmen Certification Branch
> P.O. Box 25082
> Oklahoma City, OK 73125

To obtain a copy of the application form or a list of the information required, please see the Airmen Certification Branch webpage.

FAA Knowledge Test Question Coding

Each Task in the ACS includes an ACS code. This ACS code will soon be displayed on the airman test report to indicate what Task element was proven deficient on the Knowledge Exam.

The ACS coding consists of four elements. For example, this code is interpreted as follows:

> **UA.I.B.K10:**
>
> **UA** = Applicable ACS (Unmanned Aircraft Systems)
> **I** = Area of Operation (Regulations)
> **B** = Task (Operating Rules)
> **K10** = Task element Knowledge 1 (Visual line of sight (VLOS) aircraft operations)

Knowledge test questions are mapped to the ACS codes, which will soon replace the system of "Learning Statement Codes." After this transition occurs, the AKTR will list an ACS code that correlates to a specific element for a given Area of Operation and Task.

To obtain a copy of the LSC that will be found on the AKTR, please refer to www.faa.gov.

How to Obtain the Remote Pilot Certificate

To obtain a Remote Pilot Certificate with an sUAS rating, choose one of the processes described below (from 14 CFR part 107).

- Part 61 pilot certificate holders with a current flight review may follow any process.
- If you are not certificated or have not completed a flight review in the preceding 24 calendar months, choose from the two left-hand columns.

Visit the References chapter in AC 107-2, Small Unmanned Aircraft Systems (sUAS) (as amended) to review more information about each process.

AC 107-2 sUAS		Part 61 Pilot Certificate Holders with a Current Flight Review	
Online Application After Knowledge Test [1]	**Paper Application [2] After Knowledge Test [1]**	**Online Application After Online Course**	**Paper Application [2] After Online Course**
Submit an online application using Integrated Airman Certification and/or Rating Application (IACRA.) Receive email notification to print and sign a temporary certificate through IACRA. Receive a permanent certificate by mail.	Complete FAA Form 8710-13 and mail it with the original copy of your Knowledge Test Report to: *DOT/FAA* *Airmen Certification Branch* *PO Box 25082* *Oklahoma City, OK 73125* Do not receive a temporary certificate Receive a permanent certificate by mail.	Submit an online application using IACRA. Meet with an FAA-authorized individual [3] to validate your: • IACRA application ID number • FAA Tracking Number (FTN) • Identification • Online course completion certificate • Pilot certificate • Flight review documentation Receive a temporary certificate in person (or if meeting with a Certified Flight Instructor (CFI), receive email notification to print and sign a temporary certificate through IACRA) [4]. Receive a permanent certificate by mail.	Complete FAA Form 8710-13. Meet with an FAA-authorized individual [3] to validate your: • FAA Form 8710-13 • Identification • Online course completion certificate • Pilot certificate • Flight review documentation Receive a temporary certificate in person (except when meeting with a CFI)[4] Receive a permanent certificate by mail.

Notes:

- *[1] If you successfully complete the FAA UAG Knowledge Test, you are not required to meet with an FAA-authorized individual because your identity is established at an AKTC.*

- *[2] Paper applications delay issuance of a permanent certificate because the application must be verified and processed by the FAA-authorized individual, FSDO, and Airman Registry.*

- *[3] An FAA-authorized individual may be a CFI, Airman Certification Representative (ACR) for a pilot school, a person designated by a FSDO, or Remote Pilot Examiner (RPE).*

- *[4] CFIs can assist in the processing of applications and can facilitate issuance of a temporary certificate through IACRA, but cannot directly issue a temporary certificate when IACRA is not used.*

Appendix 4: References

This ACS is based on the following 14 CFR parts, FAA guidance documents, manufacturer's publications, and other documents.

Reference	Title
14 CFR part 47	Aircraft Registration
14 CFR part 48	Registration and Marking Requirements for Small Unmanned Aircraft Systems
14 CFR part 71	Designation of Class A, B, C, D and E Airspace Areas; Air Traffic Service Rotes; and Reporting Points
14 CFR part 107	Operation and Certification of Small Unmanned Aircraft Systems
AC 00-6	Aviation Weather
AC 150/5200-32	Reporting Wildlife Aircraft Strikes
AC 107-2	Small Unmanned Aircraft Systems (sUAS)
AIM	Aeronautical Information Manual
FAA-H-8083-2	Risk Management Handbook
FAA-H-8083-25	Pilot's Handbook of Aeronautical Knowledge
SAFO 09013	Fighting Fires Caused By Lithium Type Batteries in Portable Electronic Devices
SAFO 10015	Flying in the wire environment
SAFO 10017	Risks in Transporting Lithium Batteries in Cargo by Aircraft
SAFO 15010	Carriage of Spare Lithium Batteries in Carry-on and Checked Baggage

Note: *Users should reference the current edition of the reference documents listed above. Safety Alerts for Operators (SAFOs) and the current edition of all FAA publications can be found at www.faa.gov.*

Appendix 5: Abbreviations and Acronyms

The following abbreviations and acronyms are used in this ACS.

Abb/Acronym	Definition
14 CFR	Title 14 of the Code of Federal Regulations
AC	Advisory Circular
ACR	Airman Certification Representative
ACS	Airman Certification Standards
ADM	Aeronautical Decision-Making
AFS	Flight Standards Service
AELP	Aviation English Language Proficiency
AIM	Aeronautical Information Manual
AKTC	Airman Knowledge Testing Center
AKTR	Airman Knowledge Test Report
ASOS	Automated Surface Observation System
ATC	Air Traffic Control
ATIS	Automatic Terminal Information Service
AWOS	Automated Weather Observation System
CFI	Certified Flight Instructor
CRM	Crew Resource Management
CTAF	Common Traffic Advisory Frequency
DOT	Department of Transportation
FAA	Federal Aviation Administration
FSDO	Flight Standards District Office
FTN	FAA Tracking Number
GPS	Global Positioning System
IACRA	Integrated Airman Certification and Rating Applicant
LSC	Learning Statement Code
METAR	Aviation Routine Weather Reports (Meteorological Aerodrome Report)
MTR	Military Training Routes
NAS	National Airspace System
NOTAM	Notices to Airmen
NSA	National Security Areas
ODA	Organization Designation Authorization
PIC	Pilot-in-Command
PLT	Pilot Learning Statement Code
RPE	Remote Pilot Examiner
SAFO	Safety Alert for Operators
SIDA	Security Identifications Display Area
sUAS	Small Unmanned Aircraft Systems
SMS	Safety Management System

Abb/Acronym	Definition
TAF	Terminal Area Forecast
TFR	Temporary Flight Restrictions
TRSA	Terminal Radar Service Areas
UNICOM	Aeronautical Advisory Communications Stations
VFR	Visual Flight Rules
VLOS	Visual Line of Sight