**Appendix 2: Knowledge Test Procedures and Tips**

Before starting the actual test, the 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. (e.g., 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 prewritten 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, e.g., formulas, conversions, regulations, signals, weather data, holding pattern diagrams, frequencies, weight and balance formulas, and air traffic control 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 |

**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 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 61 for a period of 1 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) or International Field Office/International Field Unit (IFO/IFU) 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 (e.g., the Franklin Speaking Wordmaster®) to facilitate the testing process.

***Note:*** *The device should consist of an electronic thesaurus that audibly pronounces typedin 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 proctor's assistance in reading specific words or terms from the test questions and/or supplement book. To prevent compromising the testing process, the proctor must be an individual with no aviation background or expertise. The proctor may provide reading assistance only (i.e., no explanation of words or terms). When an applicant requests this option, the FSDO or IFO/IFU inspector must contact the Airman Testing Branch for assistance in selecting the test site and assisting the proctor. Before approving any option, the FSDO or IFO/IFU inspector must advise the applicant of the regulatory certification requirement to be able to read, write, speak, and understand the English language.

**Appendix 3: Airman Knowledge Test Report**

Immediately upon completion of the knowledge test, the applicant receives a printed Airman Knowledge Test Report (AKTR) documenting the score with the testing center's raised, embossed seal. The applicant must retain the original AKTR. The instructor must provide instruction in each area of deficiency and provide a logbook endorsement certifying that the applicant has demonstrated satisfactory knowledge in each area. When taking the practical test, the applicant must present the original AKTR to the evaluator, who is required to assess the noted areas of deficiency during the ground portion of the practical test.

An AKTR expires 24 calendar months after the month the applicant completes the knowledge test. If the AKTR expires before completion of the practical test, the applicant must retake the knowledge test.

To obtain a duplicate AKTR due to loss or destruction of the original, the applicant can send a signed request accompanied by a check or money order for $12.00 (U.S. funds), payable to the FAA to 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.](Airmen%20Certification%20Branch%20webpage.)  <https://www.faa.gov/licenses_certificates/airmen_certification/test_results_replacement/>

**FAA Knowledge Test Question Coding**

Each Task in the ACS includes an ACS code. This ACS code will ultimately be displayed on the AKTR to indicate what Task element was proven deficient on the knowledge test. Instructors can then provide remedial training in the deficient areas, and evaluators can re-test this element during the practical test.

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

**PA.XI.A.K1:**

**PA**  = Applicable ACS (Private Pilot ‒ Airplane)

**XI** = Area of Operation (Night Operations)

**A** = Task (Night Preparation)

**K1** = Task element Knowledge 1 (Physiological aspects of vision related to night flying.)

Knowledge test questions are linked to the ACS codes, which will soon 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. Remedial instruction and re-testing will be specific, targeted, and based on specified learning criteria. Similarly, a Notice of Disapproval for the practical test will use the ACS codes to identify the deficient Task elements.

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 (e.g., “PLT058”) code will continue to be displayed on the AKTR. The LSC 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 LSC codes and ACS codes.

Because all active knowledge test questions for the Private Pilot Airplane Knowledge Test (PAR) have been aligned with the corresponding ACS, evaluators can continue to use LSC codes in conjunction with the ACS for the time being. The evaluator should look up the LSC code(s) on the applicant’s AKTR in the Learning Statement Reference Guide. After noting the subject area(s), the evaluator can use the corresponding Area(s) of Operation/Task(s) in the ACS to narrow the scope of material for retesting, and to evaluate the applicant’s understanding of that material in the context of the appropriate ACS Area(s) of Operation and Task(s).

**The Applicant Name Considerations for the Airman Knowledge Test Report (AKTR) and the Practical Test Application Form**

The applicant uses his or her full legal name on the Airman Certificate and/or Rating Application, FAA Form 87101, using up to 50 characters (including spaces). The applicant may exclude some middle names as necessary to meet the 50-character limit. The AKTR may not reflect the applicant’s full legal name and may differ slightly from the name presented for the practical test.

If the 8710-1 shows a middle name, the AKTR may show that middle name, the correct middle initial, or no entry. The application will process correctly using the Integrated Airman Certificate and Rating Application (IACRA) system, and the Airmen Certification Branch will accept it. If an incorrect middle initial, spelling variant or different middle name is on the AKTR, or if the AKTR has a first name variation of any kind, the evaluator must attach an explanation and a scan or copy of the applicant’s photo identification and attach it to the IACRA or paper application. If the last name on the AKTR has a different spelling or suffix, an IACRA application is not possible. The applicant must use a paper application, and the evaluator must include an explanation and copy of the applicant’s photo identification to avoid a correction notice

**Appendix 4: The Practical Test – Eligibility and Prerequisites**

The prerequisite requirements and general eligibility for a practical test and the specific requirements for the original issuance of a Private Pilot Certificate in the airplane category can be found in 14 CFR part 61, sections 61.39(a)(1) through (7) and 61.103.

**Appendix 5: Practical Test Roles, Responsibilities, and Outcomes**

**Applicant Responsibilities**

The applicant is responsible for mastering the established standards for knowledge, skill, and risk management elements in all Tasks appropriate to the certificate and rating sought. The applicant should use this ACS, its references, and the Practical Test Checklist in this Appendix in preparation to take the practical test.

**Instructor Responsibilities**

The instructor is responsible for training the applicant to meet the established standards for knowledge, skill, and risk management elements in all Tasks appropriate to the certificate and rating sought. The instructor should use this ACS and its references as part of preparing the applicant to take the practical test and, if necessary, in retraining the applicant to proficiency in all subject(s) missed on the knowledge test.

**Evaluator Responsibilities**

An evaluator is:

* Aviation Safety Inspector (ASI);
* Pilot examiner (other than administrative pilot examiners);
* Training center evaluator (TCE);
* Chief instructor, assistant chief instructor or check instructor of pilot school holding examining authority; or
* Instrument Flight Instructor (CFII) conducting an instrument proficiency check (IPC).

The evaluator who conducts the practical test is responsible for determining that the applicant meets the established standards of aeronautical knowledge, skills (flight proficiency), and risk management for the Tasks in the appropriate ACS. This responsibility also includes verifying the experience requirements specified for a certificate or rating.

Prior to beginning the practical test, the evaluator must also determine that the applicant meets FAA Aviation English Language Proficiency Standard by verifying that he or she can understand ATC instructions and communicate in English at a level that is understandable to ATC and other pilots. The evaluator should use the procedures outlined in the AC 60-28, English Language Skill Standards required by 14 CFR parts 61, 63, and 65 (current version) when evaluating the applicant’s ability to meet the standard.

The evaluator must develop a Plan of Action (POA), written in English, to conduct the practical test, and it must include all of the required Areas of Operation and Tasks. The POA must include a scenario that evaluates as many of the required Areas of Operation and Tasks as possible. As the scenario unfolds during the test, the evaluator will introduce problems and emergencies that the applicant must manage. The evaluator has the discretion to modify the POA in order to accommodate unexpected situations as they arise. For example, the evaluator may elect to suspend and later resume a scenario in order to assess certain Tasks.

In the integrated ACS framework, the Areas of Operation contain Tasks that include “knowledge” elements (such as K1), “risk management” elements (such as R1), and “skill” elements (such as S1). Knowledge and risk management elements are primarily evaluated during the knowledge testing phase of the airman certification process. The evaluator must assess the applicant on all skill elements for each Task included in each Area of Operation of the ACS, unless otherwise noted. The evaluator administering the practical test has the discretion to combine Tasks/elements as appropriate to testing scenarios.

The required minimum elements to include in the POA, unless otherwise noted, from each applicable Task are as follows:

* at least one knowledge element;
* at least one risk management element;
* all skill elements; and
* any Task elements in which the applicant was shown to be deficient on the knowledge test.

***Note:*** *Task elements added to the POA on the basis of being listed on the AKTR may satisfy the other minimum Task element requirements. The missed items on the AKTR are not required to be added in addition to the minimum Task element requirements.*

There is no expectation for testing every knowledge and risk management element in a Task, but the evaluator has discretion to sample as needed to ensure the applicant’s mastery of that Task.

Unless otherwise noted in the Task, the evaluator must test each item in the skills section by asking the applicant to perform each one. As safety of flight conditions permit, the evaluator should use questions during flight to test knowledge and risk management elements not evident in the demonstrated skills. To the greatest extent practicable, evaluators should test the applicant’s ability to apply and correlate information, and use rote questions only when they are appropriate for the material being tested. If the Task includes an element with subelements, the evaluator may choose the primary element and select at least one sub-element to satisfy the requirement that at least one knowledge element be selected. For example, if the evaluator chooses PA.I.H.K1, he or she must select a sub-element like PA.I.H.K1e to satisfy the requirement to select one knowledge element.

**Possible Outcomes of the Test**

There are three possible outcomes of the practical test: (1) Temporary Airman Certificate (satisfactory), (2) Notice of Disapproval (unsatisfactory), or (3) Letter of Discontinuance.

If the evaluator determines that a Task is incomplete, or the outcome is uncertain, the evaluator must require the applicant to repeat that Task, or portions of that Task. This provision does not mean that instruction, practice, or the repetition of an unsatisfactory Task is permitted during the practical test.

If the evaluator determines the applicant’s skill and abilities are in doubt, the outcome is unsatisfactory and the evaluator must issue a Notice of Disapproval.

***Satisfactory Performance***

Satisfactory performance requires that the applicant:

* demonstrate the Tasks specified in the Areas of Operation for the certificate or rating sought within the established standards;
* demonstrate mastery of the aircraft by performing each Task successfully;
* demonstrate proficiency and competency in accordance with the approved standards;
* demonstrate sound judgment and exercise aeronautical decision-making/risk management; and
* demonstrate competence in crew resource management in aircraft certificated for more than one required pilot crewmember, or single-pilot competence in an airplane that is certificated for single-pilot operations.

Satisfactory performance will result in the issuance of a temporary certificate.

***Unsatisfactory Performance***

Typical areas of unsatisfactory performance and grounds for disqualification include:

* Any action or lack of action by the applicant that requires corrective intervention by the evaluator to maintain safe flight.
* Failure to use proper and effective visual scanning techniques to clear the area before and while performing maneuvers.
* Consistently exceeding tolerances stated in the skill elements of the Task.
* Failure to take prompt corrective action when tolerances are exceeded.
* Failure to exercise risk management.

If, in the judgment of the evaluator, the applicant does not meet the standards for any Task, the applicant fails the Task and associated Area of Operation. The test is unsatisfactory, and the evaluator issues a Notice of Disapproval. The evaluator lists the Area(s) of Operation in which the applicant did not meet the standard, any Area(s) of Operation not tested, and the number of practical test failures. The evaluator should also list the Tasks failed or Tasks not tested within any unsatisfactory or partially completed Area(s) of Operation. If the applicant’s

inability to meet English language requirements contributed to the failure of a Task, the evaluator must note “English Proficiency” on the Notice of Disapproval.

The evaluator or the applicant may end the test if the applicant fails a Task. The evaluator may continue the test only with the consent of the applicant. The applicant is entitled to credit only for those Areas of Operation and the associated Tasks performed satisfactorily.

***Discontinuance***

When it is necessary to discontinue a practical test for reasons other than unsatisfactory performance (e.g., equipment failure, weather, illness), the evaluator must return all test paperwork to the applicant. The evaluator must prepare, sign, and issue a Letter of Discontinuance that lists those Areas of Operation the applicant successfully completed and the time period remaining to complete the test. The evaluator should advise the applicant to present the Letter of Discontinuance to the evaluator when the practical test resumes in order to receive credit for the items successfully completed. The Letter of Discontinuance becomes part of the applicant's certification file.

***Testing after Discontinuance or Unsatisfactory Performance***

To avoid having to retake the entire practical test, an applicant has 60 days from the date of a first failure or Letter of Discontinuance to pass the practical test. The evaluator’s POA must include any unsatisfactory or untested Area(s) of Operation and Task(s) as indicated on the current Notice of Disapproval or Letter of Discontinuance. While an applicant may receive credit for any Task(s) successfully completed within a failed or partially tested Area of Operation, the evaluator has discretion to reevaluate any Task(s).

**Practical Test ChecklistApplicant)**

**Appointment with Evaluator**

Evaluator’s Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Location: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date/Time: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Acceptable Aircraft**

 Aircraft Documents:

 Airworthiness Certificate

 Registration Certificate

 Operating Limitations

 Aircraft Maintenance Records:

 Logbook Record of Airworthiness Inspections and AD Compliance

 Pilot’s Operating Handbook, FAA-Approved Aircraft Flight Manual

**Personal Equipment**

 View-Limiting Device

 Current Aeronautical Charts (Printed or Electronic)

 Computer and Plotter

 Flight Plan Form and Flight Logs (printed or electronic)

 Chart Supplements, Airport Diagrams, and appropriate publications

 Current AIM

**Personal Records**

 Identification—Photo/Signature ID

 Pilot Certificate

 Current Medical Certificate or BasicMed qualification

 Completed FAA Form 8710-1, Airman Certificate and/or Rating Application with Instructor’s Signature or completed IACRA form

 Original Airman Knowledge Test Report

 Pilot Logbook with appropriate Instructor Endorsements

 FAA Form 8060-5, Notice of Disapproval (if applicable)

 Letter of Discontinuance (if applicable)

 Approved School Graduation Certificate (if applicable)

 Evaluator’s Fee (if applicable)

**Additional Rating Task Table**

For an applicant who holds at least a Private Pilot Certificate and seeks an additional airplane category and/or class rating at the private pilot level, the evaluator must evaluate that applicant in the Areas of Operation and Tasks listed in the Additional Rating Task Table. Please note, however, that the evaluator has the discretion to evaluate the applicant’s competence in the remaining Areas of Operation and Tasks.

If the applicant holds two or more category or class ratings at least at the private level, and the ratings table indicates differing required Tasks, the “least restrictive” entry applies. For example, if “All” and “None” are indicated for one Area of Operation, the “None” entry applies. If “B” and “B, C” are indicated, the “B” entry applies.

**Addition of an Airplane Single-Engine Land Rating to an existing Private Pilot Certificate**

Required Tasks are indicated by either the Task letter(s) that apply(s) or an indication that all or none of the Tasks must be tested based on the notes in each Area of Operation.

**Private Pilot Rating(s) Held**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Areas of Operation** | **ASES** | **AMEL** | **AMES** | **RH** | **RG** | **Glider** | **Balloon** | **Airship** |
| **i** | **F"G** | **F"G** | **F"G** | **F"G** | **F"G** | **F"G** | **F"G** | **F"G** |
| **ii** | **D** | **D** | **D** | **A"C"D"F** | **A"D"F** | **A"B"C"D"F** | **A"B"C"D"F** | **A"B"C"D"F** |
| **iii** | **None** | **None** | **None** | **B** | **None** | **B** | **B** | **B** |
| **iv** | **A,B,C, D,E,F** | **A,B,C, D,E,F** | **A,B,C, D,E,F** | **A"B"C"D"E"F"M"N"** | **A"B"C"D"E"F"M"N"** | **A"B"C"D"E"F"M"N"** | **A"B"C"D"E"F"M"N"** | **A"B"C"D**  **E"F"M"N"** |
| **v** | **None** | **None** | **None** | **A"B** | **A** | **A"B** | **A"B** | **A"B** |
| **vi** | **None** | **None** | **None** | **None** | **None** | **A"B"C"D** | **A"B"C"D** | **None** |
| **vii** | **None** | **None** | **None** | **A"B"C"D** | **A"B"C"D** | **A"B"C"D** | **A"B"C"D** | **A"B"C"D** |
| **viii** | **None** | **None** | **None** | **A,B,C, D,E,F** | **A,B,C, D,E,F** | **A,B,C, D,E,F** | **A,B,C, D,E,F** | **A,B,C,D,**  **E,F** |
| **ix** | **A"B"C** | **A"B"C** | **A"B"C"D** | **A"B"C"D** | **A"B"C"D** | **A"B"C"D** | **A"B"C"D** | **A"B"C"D** |
| **x** | **None** | **None** | **None** | **None** | **None** | **None** | **None** | **None** |
| **xi** | **None** | **None** | **None** | **None** | **None** | **A** | **A** | **A** |
| **xii** | **A** | **None** | **A** | **A** | **A** | **A** | **A** | **A** |

**Addition of an Airplane Single-Engine Sea Rating to an existing Private Pilot Certificate**

Required Tasks are indicated by either the Task letter(s) that apply(s) or an indication that all or none of the Tasks must be tested based on the notes in each Area of Operation.

**Private Pilot Rating(s) Held**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Areas of Operation** | **ASEL** | **AMEL** | **AMES** | **RH** | **RG** | **Glider** | **Balloon** | **Airship** |
| **I** | **F,G,I** | **F,G** | **F,G,I** | **F,G,I** | **F,G,I** | **F,G,I** | **F,G,I** | **F,G,I** |
| **II** | **A,E** | **A,E** | **A,E** | **All** | **A,B,E,F** | **All** | **All** | **All** |
| **III** | **B** | **B** | **None** | **B** | **B** | **B** | **B** | **B** |
| **IV** | **A,B,G,H,I, J,K,L** | **A,B,G,H,I, J,K,L** | **A,B,G,H,I, J,K,L** | **A,B,G,H,I, J,K,L,M,N** | **A,B,G,H,I, J,K,L,M,N** | **A,B,G,H,I, J,K,L,M,N** | **A,B,G,H,I, J,K,L,M,N** | **A,B,G,H,I, J,K,L,M,N** |
| **V** | **None** | **None** | **None** | **All** | **A** | **All** | **All** | **All** |
| **VI** | **None** | **None** | **None** | **None** | **None** | **All** | **All** | **None** |
| **VII** | **None** | **None** | **None** | **A,B,C,D** | **A,B,C,D** | **A,B,C,D** | **A,B,C,D** | **A,B,C,D** |
| **VIII** | **None** | **None** | **None** | **A,B,C, D,E,F** | **A,B,C, D,E,F** | **A,B,C, D,E,F** | **A,B,C, D,E,F** | **A,B,C, D,E,F** |
| **IX** | **A,B,C** | **A,B,C** | **A,B,C** | **A,B,C,D** | **A,B,C,D** | **A,B,C,D** | **A,B,C,D** | **A,B,C,D** |
| **X** | **None** | **None** | **None** | **None** | **None** | **None** | **None** | **None** |
| **XI** | **None** | **None** | **None** | **None** | **None** | **All** | **All** | **All** |
| **XII** | **B** | **None** | **B** | **B** | **B** | **B** | **B** | **B** |

**Addition of an Airplane Multiengine Land Rating to an existing Private Pilot Certificate**

**Required Tasks are indicated by either the Task letter(s) that apply(s) or an indication that all or none of the Tasks must be tested based on the notes in each Area of Operation. Private Pilot Rating(s) Held**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Areas of Operation** | **ASEL** | **AMEL** | **AMES** | **RH** | **RG** | **Glider** | **Balloon** | **Airship** |
| **I** | **F,G** | **F,G** | **F,G** | **F,G** | **F,G** | **F,G** | **F,G** | **F,G** |
| **II** | **A,B,C,**  **D,E,F** | **A,B,C,**  **D,E,F** | **D** | **A,B,C,**  **D,E,F** | **A,B,C,**  **D,E,F** | **A,B,C,**  **D,E,F** | **A,B,C,**  **D,E,F** | **A,B,C,**  **D,E,F** |
| **III** | **None** | **None** | **None** | **B** | **None** | **B** | **B** | **B** |
| **IV** | **A,B,E,F** | **A,B,E,F** | **A,B,E,F** | **A,B,E,**  **F,N** | **A,B,E,**  **F,N** | **A,B,E,**  **F,N** | **A,B,E,**  **F,N** | **A,B,E,**  **F,N** |
| **V** | **A** | **A** | **None** | **A,B** | **A** | **A,B** | **A,B** | **A,B** |
| **VI** | **None** | **None** | **None** | **None** | **None** | **A,D,C,D** | **A,B,C,D** | **None** |
| **VII** | **A,B,C,D** | **A,B,C,D** | **None** | **A,B,C,D** | **A,B,C,D** | **A,B,C,D** | **A,B,C,D** | **A,B,C,D** |
| **VIII** | **None** | **None** | **None** | **A,B,C, D,E,F** | **A,B,C, D,E,F** | **A,B,C, D,E,F** | **A,B,C, D,E,F** | **A,B,C, D,E,F** |
| **IX** | **A,B,C,**  **D,E,F,G** | **A,B,C,**  **D,E,F,G** | **None** | **A,B,C,**  **D,E,F,G** | **A,B,C,**  **D,E,F,G** | **A,B,C,**  **D,E,F,G** | **A,B,C,**  **D,E,F,G** | **A,B,C,**  **D,E,F,G** |
| **X** | **A,B,C,D** | **A,B,C,D** | **None** | **A,B,C,D** | **A,B,C,D** | **A,B,C,D** | **A,B,C,D** | **A,B,C,D** |
| **XI** | **None** | **None** | **None** | **None** | **None** | **A** | **A** | **A** |
| **XII** | **None** | **A** | **A** | **A** | **A** | **A** | **A** | **A** |

\* Tasks C and D are not required for applicants who are instrument-rated and who have previously demonstrated instrument proficiency in a multiengine airplane or for applicants who do not hold an instrument rating.

**Addition of an Airplane Multiengine Sea Rating to an existing Private Pilot Certificate**

Required Tasks are indicated by either the Task letter(s) that apply(s) or an indication that all or none of the Tasks must be tested based on the notes in each Area of Operation.

**Private Pilot Rating(s) Held**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Areas of Operation** | **ASEL** | **AMEL** | **AMES** | **RH** | **RG** | **Glider** | **Balloon** | **Airship** |
| **I** | **F,G,I** | **F,G,I** | **F,G,I** | **F,G,I** | **F,G,I** | **F,G,I** | **F,G,I** | **F,G,I** |
| **II** | **E** | **A,B,C,**  **E,F** | **A,B,C,**  **E,F** | **A,B,C,**  **E,F** | **A,B,C,**  **E,F** | **A,B,C,**  **E,F** | **A,B,C,**  **E,F** | **A,B,C,**  **E,F** |
| **III** | **None** | **None** | **None** | **B** | **None** | **B** | **B** | **B** |
| **IV** | **A,B,G,H**  **I,J,K,L** | **A,B,G,H**  **I,J,K,L** | **A,B,G,H**  **I,J,K,L** | **A,B,G,H**  **I,J,K,L,N** | **A,B,G,H**  **I,J,K,L,N** | **A,B,G,H**  **I,J,K,L,N** | **A,B,G,H**  **I,J,K,L,N** | **A,B,G,H**  **I,J,K,L,N** |
| **V** | **None** | **A** | **A** | **A,B** | **A** | **A,B** | **A,B** | **A,B** |
| **VI** | **None** | **None** | **None** | **None** | **None** | **A,D,C,D** | **A,B,C,D** | **None** |
| **VII** | **None** | **A,B,C,D** | **A,B,C,D** | **A,B,C,D** | **A,B,C,D** | **A,B,C,D** | **A,B,C,D** | **A,B,C,D** |
| **VIII** | **None** | **None** | **None** | **A,B,C, D,E,F** | **A,B,C, D,E,F** | **A,B,C, D,E,F** | **A,B,C, D,E,F** | **A,B,C, D,E,F** |
| **IX** | **A,C,D,**  **E,F,G** | **A,C,D,**  **E,F,G** | **A,C,D,**  **E,F,G** | **A,C,D,**  **E,F,G** | **A,C,D,**  **E,F,G** | **A,C,D,**  **E,F,G** | **A,C,D,**  **E,F,G** | **A,C,D,**  **E,F,G** |
| **X** | **None** | **A,B,C,D** | **A,B,C,D** | **A,B,C,D** | **A,B,C,D** | **A,B,C,D** | **A,B,C,D** | **A,B,C,D** |
| **XI** | **None** | **None** | **None** | **None** | **None** | **A** | **A** | **A** |
| **XII** | **B** | **B** | **None** | **B** | **B** | **B** | **B** | **B** |

\* Tasks C and D are not required for applicants who are instrument-rated and who have previously demonstrated instrument proficiency in a multiengine airplane or for applicants who do not hold an instrument rating.

**Removal of the “Airplane Multiengine VFR Only” Limitation**

The removal of the “Airplane Multiengine VFR Only” limitation, at the private pilot certificate level, requires an applicant to satisfactorily perform the following Area of Operation and Tasks from the Private Pilot ‒ Airplane ACS in a multiengine airplane that has a manufacturer’s published VMC speed

|  |
| --- |
| **X. Multiengine Operations** |
| Task C: Engine Failure During Flight (by Reference to Instruments) (AMEL, AMES) |
| Task D: Instrument Approach and Landing with an Inoperative Engine (Simulated) (by Reference to Instruments) (AMEL, AMES) |

**Removal of the “Limited to Center Thrust” Limitation**

The “Limited to Center Thrust” limitation for the AMEL rating is issued to applicants who complete the practical test for the AMEL rating in an aircraft that does not have a manufacturer’s published VMC. When conducting a practical test for the purpose of removing the “Limited to Center Thrust” limitation from the AMEL rating, the applicant must be tested on the multiengine Tasks identified in the table below in a multiengine airplane that has a manufacturer’s published VMC speed. This speed would be found on the type certificate data sheet (TCDS) or in the AFM. If the limitation will be removed under parts 121, 135, or 142, it must be done in accordance with an approved curriculum or training program. An applicant who holds an airplane instrument rating and has not demonstrated instrument proficiency in a multiengine airplane with a published VMC shall complete the additional Tasks listed under Removal of the “Airplane Multiengine VFR Only” Limitation section.

|  |
| --- |
| **IX. Emergency Operations** |
| Task E: Engine Failure During Takeoff Before VMC (Simulated) (AMEL and AMES) |
| Task F: Engine Failure After Liftoff (Simulated) (AMEL, AMES) |
| Task G: Approach and Landing with an Inoperative Engine (Simulated) (AMEL, AMES) |
| **X. Multiengine Operations** |
| Task A: Maneuvering with One Engine Inoperative (AMEL, AMES) |
| Task B: VMC Demonstration (AMEL and AMES) |

**Appendix 6: Safety of Flight**

**General**

Safety of flight must be the prime consideration at all times. The evaluator, applicant, and crew must be constantly alert for other traffic. If performing aspects of a given maneuver, such as emergency procedures, would jeopardize safety, the evaluator will ask the applicant to simulate that portion of the maneuver. The evaluator will assess the applicant’s use of visual scanning and collision avoidance procedures throughout the entire test.

**Stall and Spin Awareness**

During flight training and testing, the applicant and the instructor or evaluator must always recognize and avoid operations that could lead to an inadvertent stall or spin and inadvertent loss of control.

**Use of Checklists**

Throughout the practical test, the applicant is evaluated on the use of an appropriate checklist. Assessing proper checklist use depends upon the specific Task. In all cases, the evaluator should determine whether the applicant appropriately divides attention and uses proper visual scanning. In some situations, reading the actual checklist may be impractical or unsafe. In such cases, the evaluator should assess the applicant's performance of published or recommended immediate action "memory" items along with his or her review of the appropriate checklist once conditions permit. In a single-pilot airplane, the applicant should demonstrate the crew resource management (CRM) principles described as single-pilot resource management (SRM). Proper use is dependent on the specific Task being evaluated. The situation may be such that the use of the checklist while accomplishing elements of an Objective would be either unsafe or impractical in a single-pilot operation. In this case, a review of the checklist after the elements have been accomplished is appropriate.

**Use of Distractions**

Numerous studies indicate that many accidents have occurred when the pilot has been distracted during critical phases of flight. The evaluator should incorporate realistic distractions during the flight portion of the practical test to evaluate the pilot’s situational awareness and ability to utilize proper control technique while dividing attention both inside and outside the cockpit.

**Positive Exchange of Flight Controls**

There must always be a clear understanding of who has control of the aircraft. Prior to flight, the pilots involved should conduct a briefing that includes reviewing the procedures for exchanging flight controls. The FAA recommends a positive three-step process for exchanging flight controls between pilots:

• When one pilot seeks to have the other pilot take control of the aircraft, he or she will say, "You have the flight controls."

• The second pilot acknowledges immediately by saying, "I have the flight controls."

• The first pilot again says, "You have the flight controls," and visually confirms the exchange.

Pilots should follow this procedure during any exchange of flight controls, including any occurrence during the practical test. The FAA also recommends that both pilots use a visual check to verify that the exchange has occurred. There must never be any doubt as to who is flying the aircraft.

**Aeronautical Decision-Making, Risk Management, Crew Resource Management and Single-Pilot Resource Management**

Throughout the practical test, the evaluator must assess the applicant’s ability to use sound aeronautical decisionmaking procedures in order to identify hazards and mitigate risk. The evaluator must accomplish this requirement by reference to the risk management elements of the given Task(s), and by developing scenarios that incorporate and combine Tasks appropriate to assessing the applicant’s risk management in making safe aeronautical

decisions. For example, the evaluator may develop a scenario that incorporates weather decisions and performance planning.

In assessing the applicant’s performance, the evaluator should take note of the applicant’s use of CRM and, if appropriate, SRM. CRM/SRM is the set of competencies that includes situational awareness, communication skills, teamwork, task allocation, and decision-making within a comprehensive framework of standard operating procedures (SOP). SRM specifically refers to the management of all resources onboard the aircraft as well as outside resources available to the single pilot.

Deficiencies in CRM/SRM almost always contribute to the unsatisfactory performance of a Task. While evaluation of CRM/SRM may appear to be somewhat subjective, the evaluator should use the risk management elements of the given Task(s) to determine whether the applicant’s performance of the Task(s) demonstrates both understanding and application of the associated risk management elements.

**Multiengine Considerations**

On multiengine practical tests, where the failure of the most critical engine after liftoff is required, the evaluator must consider local atmospheric conditions, terrain, and type of aircraft used. The evaluator must not simulate failure of an engine until attaining at least VSSE/VXSE/VYSE and an altitude not lower than 400 feet AGL. The applicant must supply an airplane that does not prohibit the demonstration of feathering the propeller in flight. Practical tests conducted in a flight simulation training device (FSTD) can only be accomplished as part of an approved curriculum or training program. Any limitations or powerplant failure will be noted in that program. For safety reasons, when the practical test is conducted in an airplane, the applicant must perform Tasks that require feathering or shutdown only under conditions and at a position and altitude where it is possible to make a safe landing on an established airport if there is difficulty in unfeathering the propeller or restarting the engine. The evaluator must select an entry altitude that will allow the single-engine demonstration Tasks to be completed no lower than 3,000 feet AGL or the manufacturer’s recommended altitude (whichever is higher). If it is not possible to unfeather the propeller or restart the engine while airborne, the applicant and the evaluator should treat the situation as an emergency. At altitudes lower than 3,000 feet AGL, engine failure should be simulated by reducing throttle to idle and then establishing zero thrust.

Engine failure (simulated) during takeoff should be accomplished prior to reaching 50 percent of the calculated VMC.

**Single-Engine Considerations**

For safety reasons, the evaluator will not request a simulated powerplant failure in a single-engine airplane unless it is possible to safely complete a landing.

**High-Performance Airplane Considerations**

In some high-performance airplanes, the power setting may have to be reduced below the ACS guidelines power setting to prevent excessively high pitch attitudes greater than 30° nose up.

**Appendix 7: Aircraft, Equipment, and Operational Requirements & Limitations**

**Aircraft Requirements & Limitations**

14 CFR part 61, section 61.45 prescribes the required aircraft and equipment for a practical test. The regulation states the minimum aircraft registration and airworthiness requirements as well as the minimum equipment requirements, to include the minimum required controls.

Multiengine practical tests require normal engine shutdowns and restarts in the air, to include propeller feathering and unfeathering. The Airplane Flight Manual (AFM) must not prohibit these procedures, but low power settings for cooling periods prior to the actual shutdown in accordance with the AFM are acceptable and encouraged. For a type rating in an airplane not certificated with inflight unfeathering capability, a simulated powerplant failure is acceptable.

If the multiengine airplane used for the practical test does not publish a VMC, then the “Limited to Centerline Thrust” limitation will be added to the certificate issued from this check, unless the applicant has previously demonstrated competence in a multiengine airplane with a published VMC.

If the aircraft presented for the practical test has inoperative instruments or equipment, it must be addressed in accordance with 14 CFR part 91, section 91.213. If the aircraft can be operated in accordance with 14 CFR part 91, section 91.213, then it must be determined if the inoperative instruments or equipment are required to complete the practical test.

**Equipment Requirements & Limitations**

The equipment examination should be administered before the flight portion of the practical test, but it must be closely coordinated and related to the flight portion.

The aircraft must meet the requirements as outlined in 14 CFR part 61, section 61.45.

To assist in management of the aircraft during the practical test, the applicant is expected to demonstrate automation management skills by utilizing installed, available, or airborne equipment such as autopilot, avionics and systems displays, and/or a flight management system (FMS). The evaluator is expected to test the applicant’s knowledge of the systems that are available or installed and operative during both the ground and flight portions of the practical test.

If the practical test is conducted in an aircraft, the applicant is required by 14 CFR part 61, section 61.45(d)(2) to provide an appropriate view limiting device acceptable to the evaluator. The applicant and the evaluator should establish a procedure as to when and how this device should be donned and removed, and brief this procedure before the flight. The device must be used during all testing that requires flight “solely by reference to instruments.” This device must prevent the applicant from having visual reference outside the aircraft, but it must not restrict the evaluator’s ability to see and avoid other traffic.

**Operational Requirements, Limitations, & Task Information**

**V. Performance and Ground Reference Maneuvers**

*Task B. Ground Reference Maneuvers*

As noted in the skill elements, the evaluator must choose at least one maneuver for the applicant to demonstrate:

• Rectangular course

• S-Turns

• Turns around a point

**VII. Slow Flight and Stalls**

*Task A. Maneuvering During Slow Flight*

Evaluation criteria for this Task should recognize that environmental factors (e.g., turbulence) may result in a momentary activation of stall warning indicators such as the stall horn. If the applicant recognizes the stall warning indication and promptly makes an appropriate correction, a momentary activation does not constitute

unsatisfactory performance on this Task. As with other Tasks, unsatisfactory performance would arise from an applicant’s continual deviation from the standard, lack of correction, and/or lack of recognition.

*Task B. Power-Off Stalls*

Evaluation criteria for a recovery from an approach to stall should not mandate a predetermined value for altitude loss and should not mandate maintaining altitude during recovery. Proper evaluation criteria should consider the multitude of external and internal variables that affect the recovery altitude.

*Task C. Power-On Stalls*

In some high-performance airplanes, the power setting may have to be reduced below the ACS guidelines power setting to prevent excessively high pitch attitudes greater than 30° nose up. Evaluation criteria for a recovery from an approach to stall should not mandate a predetermined value for altitude loss and should not mandate maintaining altitude during recovery. Proper evaluation criteria should consider the multitude of external and internal variables that affect the recovery altitude.

**IX. Emergency Operations**

*Task E. Engine Failure During Takeoff Before VMC (Simulated) (AMEL, AMES)*

Engine failure (simulated) during takeoff should be accomplished prior to reaching 50 percent of the calculated VMC.

**X. Multiengine Operations**

*Task B. VMC Demonstration (AMEL, AMES)*

Airplanes with normally aspirated engines will lose power as altitude increases because of the reduced density of the air entering the induction system of the engine. This loss of power will result in a VMC lower than the stall speed at higher altitudes. Therefore, recovery should be made at the first indication of loss of directional control, stall warning, or buffet. Do not perform this maneuver by increasing the pitch attitude to a high angle with both engines operating and then reducing power on the critical engine. This technique is hazardous and may result in loss of airplane control.

Task C. Engine Failure During Flight (by Reference to Instruments) (AMEL, AMES)

This Task is not required if an instrument-rated applicant has previously demonstrated instrument proficiency in a multiengine airplane, or if the applicant does not hold an Instrument Airplane Rating. If an applicant holds both a single- and multiengine rating on a pilot certificate, but has not demonstrated instrument proficiency in a multiengine aircraft, that airman’s certificate must bear a limitation indicating that multiengine flight is permitted in visual flight rules (VFR) conditions only.

*Task D. Instrument Approach and Landing with an Inoperative Engine (Simulated) (by Reference to Instruments) (AMEL, AMES)*

This Task is not required if an instrument-rated applicant has previously demonstrated instrument proficiency in a multiengine airplane, or if the applicant does not hold an Instrument Airplane Rating. If an applicant holds both a single- and multiengine rating on a pilot certificate, but has not demonstrated instrument proficiency in a multiengine aircraft, that airman’s certificate must bear a limitation indicating that multiengine flight is permitted in visual flight rules (VFR) conditions only.

**Appendix 8: Use of Flight Simulation Training Devices (FSTD) and Aviation Training Devices (ATD): Airplane Single-Engine, Multiengine Land and Sea**

**Use of Flight Simulator Training Devices**

14 CFR part 61, section 61.4, Qualification and approval of flight simulators and flight training devices, states in paragraph (a) that each full flight simulator (FFS) and flight training device (FTD) used for training, and for which an airman is to receive credit to satisfy any training, testing, or checking requirement under this chapter, must be qualified and approved by the Administrator for—

*(1) the training, testing, and checking for which it is used;*

*(2) each particular maneuver, procedure, or crewmember function performed; and*

*(3) the representation of the specific category and class of aircraft, type of aircraft, particular variation within the type of aircraft, or set of aircraft for certain flight training devices.*

14 CFR part 60 prescribes the rules governing the initial and continuing qualification and use of all Flight Simulator Training Devices (FSTD) used for meeting training, evaluation, or flight experience requirements for flight crewmember certification or qualification.

**An FSTD is defined in 14 CFR part 60 as an FFS or FTD:**

**Full Flight Simulator (FFS)—**a replica of a specific type, make, model, or series aircraft. It includes the equipment and computer programs necessary to represent aircraft operations in ground and flight conditions, a visual system providing an out-of-the-flight deck view, a system that provides cues at least equivalent to those of a three-degree-of-freedom motion system, and has the full range of capabilities of the systems installed in the device as described in part 60 of this chapter and the qualification performance standard (QPS) for a specific FFS qualification level. (part 1)

**Flight Training Device (FTD)—**a replica of aircraft instruments, equipment, panels, and controls in an open flight deck area or an enclosed aircraft flight deck replica. It includes the equipment and computer programs necessary to represent aircraft (or set of aircraft) operations in ground and flight conditions having the full range of capabilities of the systems installed in the device as described in part 60 of this chapter and the QPS for a specific FTD qualification level (part 1).

The FAA National Simulator Program (NSP) qualifies Level A-D FFSs and Level 4 ‒ 71 FTDs. In addition, each operational rule part identifies additional requirements for the approval and use of FSTDs in a training program2. Use of an FSTD for the completion of the private pilot airplane practical test is permitted only when accomplished in accordance with an FAA approved curriculum or training program.

**Use of Aviation Training Devices**

14 CFR part 61, section 61.4(c) states the Administrator may approve a device other than an FFS or FTD for specific purposes. Under this authority, the FAA’s General Aviation and Commercial Division provides approvals for aviation training devices (ATD).

The FSTD qualification standards in effect prior to part 60 defined a Level 7 FTD for airplanes (see Advisory Circular 12045A, Airplane Flight Training Device Qualification, 1992). This device required high fidelity, airplane specific aerodynamic and flight control models similar to a Level D FFS, but did not require a motion cueing system or visual display system. In accordance with the “grandfather rights” of 14 CFR part 60, section 60.17, these previously qualified devices will retain their qualification basis as long as they continue to meet the standards under which they were originally qualified. There is only one airplane Level 7 FTD with grandfather rights that remains in the U.S. As a result of changes to part 60 that were published in the Federal Register in March 2016, the airplane Level 7 FTD was reinstated with updated evaluation standards. The new Level 7 FTD will require a visual display system for qualification. The minimum qualified Tasks for the Level 7 FTD are described in Table B1B of Appendix B of part 60.

14 CFR part 121, section 121.407; part 135, section 135.335; part 141, section 141.41; and part 142, section 142.59.

Advisory Circular (AC) 61-136A, FAA Approval of Aviation Training Devices and Their Use for Training and Experience, provides information and guidance for the required function, performance, and effective use of ATDs for pilot training and aeronautical experience (including instrument currency). FAA issues a letter of authorization (LOA) to an ATD manufacturer approving an ATD as a basic aviation training device (BATD) or an advanced aviation training device (AATD). LOAs are valid for a five-year period with a specific expiration date and include the amount of credit a pilot may take for training and experience requirements.

**Aviation Training Device (ATD)—a** training device, other than an FFS or FTD, that has been evaluated, qualified, and approved by the Administrator. In general, this includes a replica of aircraft instruments, equipment, panels, and controls in an open flight deck area or an enclosed aircraft cockpit. It includes the hardware and software necessary to represent a category and class of aircraft (or set of aircraft) operations in ground and flight conditions having the appropriate range of capabilities and systems installed in the device as described within AC 61-136 for the specific basic or advanced qualification level.

**Basic Aviation Training Device (BATD)—**provides an adequate training platform for both procedural and operational performance Tasks specific to instrument experience and the ground and flight training requirements for the Private Pilot Certificate and Instrument Rating per 14 CFR parts 61 and 141.

**Advanced Aviation Training Device (AATD)—**provides an adequate training platform for both procedural and operational performance Tasks specific to the ground and flight training requirements for the Private Pilot Certificate, Instrument Rating Certificate, Commercial Pilot Certificate, Airline Transport Pilot Certificate, and Flight Instructor Certificate per 14 CFR parts 61 and 141. It also provides an adequate platform for Tasks required for instrument experience and the instrument proficiency check.

**Note:** ATDs cannot be used for practical tests, aircraft type specific training, or for an aircraft type rating; therefore use of an ATD for the private pilot airplane practical test is not permitted.

**Credit for Time in an FSTD**

14 CFR part 61, section 61.109 specifies the minimum aeronautical experience requirements for a person applying for a Private Pilot Certificate. Paragraphs (a) and (b) specify the time requirements for a Private Pilot Certificate in a single-engine airplane and a multiengine airplane, respectively3. These paragraphs include specific experience requirements that must be completed in an airplane. Paragraph (k) of this section specifies the amount of credit a pilot can take for time in an FFS or FTD. For those that received training in programs outside of 14 CFR part 142, section 61.109(k)(1)4 applies. For those pilots that received training through a 14 CFR part 142 program, section 61.109(k)(2) applies.

**Credit for Time in an ATD**

14 CFR part 61, section 61.109 specifies the minimum aeronautical experience requirements for a person applying for a private pilot certificate Paragraphs (a) and (b) specify the time requirements for a private pilot certificate in a single-engine airplane and a multiengine airplane, respectively5. These paragraphs include specific experience requirements that must be completed in an airplane. Paragraph (k) of this section specifies the amount of credit a pilot can take towards the private pilot certificate aeronautical experience requirements.

In order to credit pilot time, an ATD must be FAA-approved and the time must be provided by an authorized instructor. AC 61-136A, states the LOA for each approved ATD will indicate the credit allowances for pilot training and experience, as provided under 14 CFR parts 61 and 141. Time with an instructor in a BATD and an AATD may be credited towards the aeronautical experience requirements for the private pilot certificate as specified in the LOA for the device used. It is recommended that applicants who intend to take credit for time in a BATD or an AATD towards the aeronautical experience requirements for the private pilot certificate obtain a copy of the LOA

3 The minimum aeronautical experience requirements may be further reduced as permitted in 14 CFR part 61, section 61.109(k)(3).

4 As part of program approval, 14 CFR part 141 training providers must also adhere to the requirements for permitted time in an FFS or FTD per Appendix B to 14 CFR part 141.

5 The minimum aeronautical experience requirements may be further reduced as permitted in 14 CFR part 61, section 61.109(k)(3).

for each device used so they have a record for how much credit may be taken. For additional information on the logging of ATD time, reference AC 61-136A.

**Use of an FSTD on a Practical Test**

14 CFR part 61, section 61.45 specifies the required aircraft and equipment that must be provided for a practical test unless permitted to use an FFS or FTD for the flight portion. 14 CFR part, section 61.64 provides the criteria for using an FSTD for a practical test. Specifically, paragraph (a) states –

*If an applicant for a certificate or rating uses a flight simulator or flight training device for training or any portion of the practical test, the flight simulator and flight training device—*

*(1) Must represent the category, class, and type (if a type rating is applicable) for the rating sought; and*

*(2) Must be qualified and approved by the Administrator and used in accordance with an approved course of training under 14 CFR part 141 or part 142 of this chapter; or under 14 CFR part 121 or part 135 of this chapter, provided the applicant is a pilot employee of that air carrier operator.*

Therefore, practical tests or portions thereof, when accomplished in an FSTD, may only be conducted by FAA aviation safety inspectors (ASI), aircrew program designees (APD) authorized to conduct such tests in FSTDs in 14 CFR parts 121 or 135, qualified personnel and designees authorized to conduct such tests in FSTDs for 14 CFR part 141 pilot school graduates, or appropriately authorized 14 CFR part 142 Training Center Evaluators (TCE).

In addition, 14 CFR part, 61 section 61.64(b) states if an airplane is not used during the practical test for a type rating for a turbojet airplane (except for preflight inspection), an applicant must accomplish the entire practical test in a Level C or higher FFS and the applicant must meet the specific experience criteria listed. If the experience criteria cannot be met, the applicant can either—

*(f)(1) […] complete the following Tasks on the practical test in an aircraft appropriate to category, class, and type for the rating sought: Preflight inspection, normal takeoff, normal instrument landing system approach, missed approach, and normal landing; or*

*(f)(2) The applicant's pilot certificate will be issued with a limitation that states: “The [name of the additional type rating] is subject to pilot-in-command limitations,” and the applicant is restricted from serving as pilot-in-command in an aircraft of that type.*

When flight Tasks are accomplished in an airplane, certain Task elements may be accomplished through “simulated” actions in the interest of safety and practicality. However, when accomplished in an FFS or FTD, these same actions would not be “simulated.” For example, when in an airplane, a simulated engine fire may be addressed by retarding the throttle to idle, simulating the shutdown of the engine, simulating the discharge of the fire suppression agent, if applicable, and simulating the disconnection of associated electrical, hydraulic, and pneumatics systems. However, when the same emergency condition is addressed in an FSTD, all Task elements must be accomplished as would be expected under actual circumstances.

Similarly, safety of flight precautions taken in the airplane for the accomplishment of a specific maneuver or procedure (such as limiting altitude in an approach to stall or setting maximum airspeed for an engine failure expected to result in a rejected takeoff) need not be taken when an FSTD is used. It is important to understand that, whether accomplished in an airplane or FSTD, all Tasks and elements for each maneuver or procedure must have the same performance standards applied equally for determination of overall satisfactory performance.

|  |  |
| --- | --- |
| Reference | Title |
| 14 CFR part 39 | Airworthiness Directives |
| 14 CFR part 43 | Maintenance, Preventive Maintenance, Rebuilding and Alteration |
| 14 CFR part 61 | Certification: Pilots, Flight Instructors, and Ground Instructors |
| 14 CFR part 68 | Requirements for Operating Certain Small Aircraft Without a Medical Certificate |
| 14 CFR part 71 | Designation of Class A, B, C, D and E Airspace Areas; Air Traffic Service Routes; and Reporting Points |
| 14 CFR part 91 | General Operating and Flight Rules |
| 14 CFR part 93 | Special Air Traffic Rules |
| AC 00-6 | Aviation Weather |
| AC 00-45 | Aviation Weather Services |
| AC 60-28 | English Language Skill Standards Required by 14 CFR parts 61, 63, 65, and 107 AC |
| AC 61-67 | English Language Skill Standards Required by 14 CFR parts 61, 63, 65, and 107 AC |
| AC 91-73 | Parts 91 and 135 Single Pilot, Flight School Procedures During Taxi Operations |
| AC 68-1 | Alternative Pilot Physical Examination and Education Requirements |
| AC 91.21-1 | Use of Portable Electronic Devices Aboard Aircraft |
| AIM | Aeronautical Information Manual |
| FAA-H-8083-1 | Aircraft Weight and Balance Handbook |
| FAA-H-8083-2 | Risk Management Handbook |
| FAA-H-8083-3 | Airplane Flying Handbook |
| FAA-H-8083-6 | Advanced Avionics Handbook |
| FAA-H-8083-15 | Instrument Flying Handbook |
| FAA-H-8083-23 | Seaplane, Skiplane, and Float/Ski Equipped Helicopter Operations Handbook |
| FAA-H-8083-25 | Pilot’s Handbook of Aeronautical Knowledge |
| FAA-P-8740-66 | Flying Light Twins Safely Pamphlet |
| POH/AFM | Pilot’s Operating Handbook/FAA-Approved Airplane Flight Manual |
| Other | Chart Supplements |
|  | Navigation Charts |
|  | Navigation Equipment Manual |
|  | USCG Navigation Rules, International-Inland |
|  | NOTAMs |

***Note:*** *Users should reference the current edition of the reference documents listed above. The current edition of all FAA publications can be found at* [*www.faa.gov.*](www.faa.gov.)

**Appendix 10: Abbreviations and Acronyms**

The following abbreviations and acronyms are used in the ACS.

|  |  |
| --- | --- |
| Abb./Acronym | Definition |
| 14 CFR | Title 14 of the Code of Federal Regulations |
| AATD | Advanced Aviation Training Device |
| AC | Advisory Circular |
| ACS | Airman Certification Standards |
| AD | Airworthiness Directive |
| ADM | Aeronautical Decision-Making |
| AELS | Aviation English Language Standard |
| AFM | Airplane Flight Manual |
| AFS | Flight Standards Service |
| AGL | Above Ground Level |
| AIM | Aeronautical Information Manual |
| AKTR | Airman Knowledge Test Report |
| AMEL | Airplane Multiengine Land |
| AMES | Airplane Multiengine Sea |
| APD | Aircrew Program Designee |
| ASEL | Airplane Single-Engine Land |
| ASES | Airplane Single-Engine Sea |
| ASI | Aviation Safety Inspector |
| ATC | Air Traffic Control |
| ATD | Aviation Training Device |
| BATD | Basic Aviation Training Device |
| CFIT | Controlled Flight Into Terrain |
| CFR | Code of Federal Regulations |
| CG | Center of Gravity |
| CRM | Crew Resource Management |
| DA | Decision Altitude |
| DH | Decision Height |
| DPE | Designated Pilot Examiner |
| ELT | Emergency Locator Transmitter |
| ETA | Estimated Time of Arrival |
| FAA | Federal Aviation Administration |
| FFS | Full Flight Simulator |
| FMS | Flight Management System |
| FSDO | Flight Standards District Office |
| FSTD | Flight Simulation Training Device |
| FTD | Flight Training Device |
| ICAO | International Civil Aviation Organization |
| IFO | International Field Office |
| IFP | Instrument Flight Procedures |
| IFU | International Field Unit |

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| Abb./Acronym | Definition |
| IPC | Instrument Proficiency Check |
| LAHSO | Land and Hold Short Operations |
| LOA | Letter of Authorization |
| LSC | Learning Statement Codes |
| MDA | Minimum Descent Altitude |
| MEL | Minimum Equipment List |
| NAS | National Airspace System |
| NOTAMs | Notices to Airmen |
| NSP | National Simulator Program |
| NTSB | National Transportation Safety Board |
| PA | Private Airplane |
| PAR | Private Pilot Airplane |
| PAT | Private Pilot Airplane/Recreational Pilot – Transition |
| PCP | Private Pilot Canadian Conversion |
| PIC | Pilot-in-Command |
| POA | Plan of Action |
| POH | Pilot’s Operating Handbook |
| PTS | Practical Test Standards |
| QPS | Qualification Performance Standard |
| SATR | Special Air Traffic Rules |
| SFRA | Special Flight Rules Area |
| SMS | Safety Management System |
| SOP | Standard Operating Procedures |
| SRM | Single-Pilot Resource Management |
| SUA | Special Use Airspace |
| TCE | Training Center Evaluator |
| TFR | Temporary Flight Restrictions |
| UTC | Coordinated Universal Time |
| VA | Maneuvering speed |
| VFR | Visual Flight Rules |
| VMC | Visual Meteorological Conditions |
| VMC | Minimum Control Speed with the Critical Engine Inoperative |
| VS | Stall Speed |
| VX | Best Angle of Climb Speed |
| VY | Best Rate of Climb Speed |
| VSSE | Safe, intentional one-engine-inoperative speed. Originally known as safe single-engine speed |
| VXSE | Best angle of climb speed with one engine inoperative |
| VYSE | Best rate of climb speed with one engine inoperative |
| VSO | Stalling Speed or the Minimum Steady Flight Speed in the Landing Configuration |