# What's New and Upcoming in Airman Testing

(revised February 2017)

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Date of Next Airman Knowledge Test Roll: February 13, 2017

#### **ACS Implementation**

- The FAA implemented the Airman Certification Standards (ACS) for Private Pilot Airplane (PAR) and Instrument Rating Airplane (IRA) on June 15, 2016. The Practical Test Standards (PTS) documents for PAR and IRA were cancelled as of this date.
- The FAA implemented the Airman Certification Standards (ACS) for the Remote Pilot Certificate on August 29, 2016.
- We plan to publish the initial version of the ACS for the Commercial Pilot Airplane (CAX) certificate, along with the first revision to the ACS for the Private Pilot Airplane (PAR) and Instrument Rating Airplane (IRA) on June 15, 2017.
- Please review the <u>ACS material</u> published on this page, and subscribe for updates and information about deployment of additional ACS documents.
- You may also wish to take the "Understanding the Airman Certification Standards" course (ALC-449) on <u>www.faasafety.gov</u>. This course offers WINGS credit.

#### **Knowledge Test Development and Management**

- The FAA does not publish actual knowledge test questions, nor can we respond to queries about specific questions that may or may not be on the test.
- We make every effort to maintain the integrity and security of actual knowledge test questions through regular review and revision of the test question item bank.
  - Starting with the *airplane knowledge test banks* for the *private pilot, commercial pilot and airline transport pilot certificates and the instrument rating,* we have intensified this review and revision process.
    - All knowledge test questions for these banks are now developed, reviewed, and revised by a cross-functional exam review board before they can be used on an active knowledge test.
    - The formal review ("boarding") process includes ensuring that active questions are aligned with knowledge, skill, or risk management elements defined in the appropriate Airman Certification Standards (ACS) document.
    - All active knowledge test questions for the Private Pilot Airplane (PAR) and Instrument-Airplane Rating (IRA) knowledge tests have been aligned with the corresponding ACS.
    - All active knowledge test questions for the Commercial Pilot Airplane (CAX) knowledge test will be aligned with the corresponding ACS by its June 15, 2017 implementation date.
  - As this level of review continues and moves to additional knowledge test banks, it is increasingly unlikely that applicants will see an exact match between sample questions and actual test questions.
- The FAA provides sample knowledge tests and the information on this page to help applicants, instructors, evaluators, and training providers understand the scope and type of knowledge that will be tested to qualify for the target certificate or rating. The goal is for applicants to devote their efforts to mastering the fundamental aeronautical knowledge necessary for safe operations in the National Airspace System (NAS) rather than to memorizing specific questions and answers.
- The questions that you may have seen and studied in commercially-available materials have been developed by test preparation providers for similar reasons that is, to enable applicants to study concepts and practice calculations specified in the 14 CFR part 61 "aeronautical knowledge" requirements for each airman certificate or rating. These are not, and should not be represented to be, "real" questions.
- Finally, please bear in mind that while certain topics are deleted from the knowledge test, they may still be relevant to small areas of the country. Though it is not appropriate to include such items on a general, national-level knowledge test, the exclusion of these topics does not diminish the importance of mastering subjects specific to your normal operating area.

#### **Knowledge Test Supplements (CT-8080 series)**

- The FAA has undertaken a comprehensive review of testing supplements in the CT-8080 series. This review will ultimately result in various changes, to include addition, deletion, and revision of figures in the test supplements.
- Please be aware, however, that most resources have been directed to the ongoing intensive review and revision of knowledge test questions. For this reason, CT-8080 supplements may continue to include "obsolete" figures (e.g., NDB- or ADF-related figures) that are no longer associated with active test questions.

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#### Handbooks (H-series)

With the assistance of aviation community members of the ARAC (Aviation Rulemaking Advisory Committee) Airman Certification Standards Working Group, the FAA is reviewing and revising a number of its H-series handbooks.

To review the planned publication and revisions dates for these and other documents produced by the FAA's Airman Testing Standards Branch (AFS-630), please click <u>here</u>.

## All Knowledge Test Banks

Questions in the following topic areas have been deleted:

| Changes since October 2016:  | Previously reported:   |
|--|--|
| • There have been no substantial changes<br>to pilot certificate/rating test banks since<br>October 2016, but the FAA continues to<br>review and revise test questions.  | <ul> <li>References to the Airport/Facility<br/>Directory (A/FD) have been changed to<br/>this publication's new name, "Chart<br/>Supplement."</li> </ul>  |
| <ul> <li>The FAA expects to develop test<br/>questions on the new BasicMed<br/>regulation, which takes effect in May<br/>2017. Third-class medical questions will<br/>remain, since BasicMed is an addition to<br/>the medical certification structure, not a<br/>replacement of the third-class medical.</li> <li>Wherever it is appropriate to do so, the<br/>FAA is replacing rote questions with test<br/>questions framed in the context of a<br/>specific Area of Operation/Task.</li> </ul>   | <ul> <li>Tricolor VASI</li> <li>Flight Plans*</li> <li>Student Pilot/Medical Certificate** *New questions based on ICAO Flight Plan will be<br/>developed prior to January 2017. **New questions based on the Student Pilot Certificate rule that took effect on 1 April 2016 are<br/>being developed and added to the knowledge tests. </li> <li>Remote Airport Advisory (RAA)</li> <li>Local Airport Advisory (LAA)</li> <li>Blowing sand</li> </ul> |
| <ul> <li>The FAA is currently aligning the<br/>knowledge test questions for the<br/>Commercial Pilot Airplane (CAX)<br/>certificate to the Commercial Pilot<br/>Airplane ACS, and will communicate<br/>major changes to this test bank in future<br/>versions of this document.</li> </ul>   | <ul> <li>WAC charts</li> <li>U.S. format flight plans (ICAO flight plan questions to be developed for future test releases)</li> <li>Special Flight Rules Area</li> <li>Mach Meter</li> </ul>  |
| <ul> <li>In collaboration with the Aviation<br/>Rulemaking Advisory Committee's<br/>Airman Certification System Working<br/>Group (ARAC ACS WG), the FAA is now<br/>developing ACS documents for the<br/>Aircraft Maintenance certificates. Once<br/>these documents are completed<br/>(estimated 12-18 month timeframe), the<br/>FAA will use the ACS to revise and align<br/>questions for these knowledge tests.</li> <li>While certain topics have been deleted<br/>from the knowledge test, they may still<br/>be relevant to small areas of the</li> </ul> | <ul> <li>Rote memorization questions such as: <ul> <li>Validity period for unscheduled products such as SIGMETS</li> </ul> </li> <li>Operationally irrelevant questions, e.g.: <ul> <li>Meaning of brackets near station model on a wx depiction chart</li> </ul> </li> <li>ADF/NDB <ul> <li>RMI</li> <li>Slaved Gyro</li> <li>Radar Summary Charts</li> <li>EFAS (En Route Flight Advisory Service)</li> <li>Medevac</li> </ul> </li> </ul>           |

| Changes since October 2016:   | Previously reported:  |
|---|---|
| country. Though it is not appropriate to<br>include such items on a general,<br>national-level knowledge test, the<br>exclusion of these topics does not<br>diminish the importance of mastering<br>subjects specific to your normal<br>operating area, both for the practical<br>test and for normal operations. | <ul> <li>TWEB (Transcribed Weather Broadcast)</li> <li>Obsolete fuel grades (80, 100 and 115)</li> <li>Timed approaches from holding</li> <li>Flight Service Stations "on the field"</li> <li>VHD/DF Steer</li> <li>Microwave Landing System (MLS)</li> <li>Inertial Navigation System (INS)</li> <li>TWEB</li> <li>On-Airport FSS</li> <li>Composite Moisture Stability Chart<br/>(replaced with Lifted Index chart)</li> <li>LORAN</li> </ul> |

## Private Pilot Airplane (PAR) Knowledge Test

| Changes since October 2016: | Previously reported:  |
|-----------------------------|---|
| • n/a                       | The following types of questions have been deleted:   |
|                             | <ul> <li>Questions involving scalability (i.e., those<br/>questions requiring the use of non-<br/>standard scales for measurement or<br/>calculation).</li> </ul> |
|                             | <ul> <li>Aircraft performance and weather<br/>questions that involve multiple<br/>interpolations across multiple charts.</li> </ul>                               |

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#### Instrument Rating Airplane (IRA) Knowledge Test

Questions in the following topic areas have been deleted:

| Changes since October 2016: | Previously reported:  |
|-----------------------------|---|
|                             | Tri-Color VASI  |
|                             | <ul> <li>Airport Surveillance Radar (ASR)<br/>approaches</li> </ul>                                 |
|                             | Composite Flight Plans  |
|                             | <ul> <li>Designation of instruments as "primary"<br/>or "secondary" for aircraft control</li> </ul> |
|                             | Inner Marker  |
|                             | Middle Marker   |
|                             | Specific number of degrees on glidepath   |
|                             | • Time and distance questions involving multiple interpolation.                                     |
|                             | The following types of questions have been deleted:   |
|                             | BARO VNAV (IRA ONLY)  |
|                             | Back Course Approaches (IRA ONLY)   |
|                             | LDA & SDF (IRA ONLY)  |
|                             | Questions involving scalability (i.e., those  |

| Changes since October 2016: | Previously reported:  |
|-----------------------------|---|
|                             | questions requiring the use of non-<br>standard scales for measurement or<br>calculation).                |
|                             | • Aircraft performance and weather questions that involve multiple interpolations across multiple charts. |

# Airline Transport Pilot Multiengine (ATM) and Aircraft Dispatcher (ADX)

Questions in the following topic areas have been deleted:

| Changes since October 2016: | Previously reported:   |
|-----------------------------|--|
| • n/a                       | Dutch roll   |
|                             | • Questions on tail plane icing have been deleted.                           |
|                             | <ul> <li>Questions include only the following<br/>aircraft types:</li> </ul> |
|                             | o BE 1900D   |
|                             | <ul> <li>Boeing 737</li> </ul>   |
|                             | <ul> <li>Canadair Regional Jet</li> </ul>                                    |
|                             | o Bombardier Q400  |
|                             | o DC-9   |

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#### Sample Knowledge Tests for Private Pilot Airplane (PAR) Airman and Instrument Rating Airplane (IRA) Knowledge Tests

The FAA sample questions for the Private Pilot Airplane (PAR) and the Instrument Rating Airplane Airman Knowledge Tests now show two types of codes associated with each question:

- Learning Statement Code(s) (LSCs) associated with the question topic area. The LSC codes currently appear on the Airman Knowledge Test Report for missed test questions.
- "Airman Certification Standards" (ACS) code for the question topic area. The FAA expects the ACS codes to replace the LSC codes on the PAR and IRA Airman Knowledge Tests once a new test management services contract is in place.

The FAA is assigning ACS codes to Private Pilot Airplane and Instrument Rating Airplane sample knowledge test questions in order to illustrate how these codes will be applied to actual test questions after the ACS is implemented for that test bank. The FAA's ACS Exam Review Board (AEB) seeks to code each question in accordance with the following guidelines:

- 1. The ACS code should align with the most appropriate Area of Operation, Task, and Task Element, to include phase of flight. For example:
  - a. The ACS code assigned to a question framed as "while flying" would not be in the Areas of Operation pertaining to Preflight Preparation or Preflight Procedures.
  - b. The ACS code assigned to an Instrument Rating Airplane question framed as "while making an approach" will align with the appropriate IAP Task.
  - c. A question that has words such as "determine," "calculate," or "identify" in the stem is most likely to be coded with an "S" (Skill) ACS code.
- The ACS code is assigned according to how the question stem is constructed, not the answer or distractors. For example, a question that has words such as "determine," "calculate," or "identify" in the stem is most likely to be coded with an "S" (Skill) ACS code.

The FAA continues to refine its approach to assignment of ACS codes. If you have questions about why the FAA chose to assign a particular code or if you believe another code is more appropriate, please contact <u>AFS-630</u> or email the <u>ACS Focus Team (9-AVS-ACS-Focus-Team@faa.gov</u>).

- For basic information on the ACS, please <u>click here</u>.
- To learn about the ACS codes, please <u>click here</u>.
- For a detailed presentation on the ACS, please <u>click here</u>.
- To review FAQs on the ACS, please <u>click here</u>.

#### **Airman Certification Standards**

Since September 2011, the FAA has worked closely with a diverse group of aviation community stakeholders convened to help the agency improve the testing/training standards, guidance and test development/test management components of the airman certification process.

The industry participants in this effort have developed the Airman Certification Standards (ACS) framework as a way to improve airman training and testing, specifically by providing an integrated, holistic system that clearly aligns airman testing with certification standards and guidance.

Built on the existing Practical Test Standards (PTS), which explicitly define the performance metrics and tolerances for each flight proficiency element listed in 14 CFR, the ACS enhances the PTS by defining the specific elements, aeronautical knowledge, and risk management needed to support each Area of Operation/Task. In simple terms, the ACS describes what an applicant must *know*, *do*, and *consider* to pass the knowledge and practical tests for a given airman certificate or rating. It is thus the single-source set of standards for both the knowledge test and the practical test for a certificate or rating.

By presenting the elements of knowledge, skill, and risk management in the integrated ACS format, the ACS approach better serves the applicant, the instructor, and the evaluator. In addition, the ACS approach enables the FAA to create and maintain a clear link among the regulations, knowledge/skill performance standards, guidance, and test materials.

The FAA replaced the PTS for the Private Pilot Airplane certificate and the Instrument-Airplane rating with the corresponding ACS on June 15, 2016. The agency intends to replace the PTS for the Commercial Pilot Airplane certificate with the corresponding ACS in June 2017.

For detailed background information on the process use to develop the ACS, please see the ARAC Airman Testing Standards and Training Working Group's report at http://www.faa.gov/regulations\_policies/rulemaking/committees/documents/media/Airmen. Testing.Standards.Recommendation.Report.9.30.2013.PDF

For detailed information on the ACS, please click here.

## Airman Certification Standards (ACS) Codes

One of the overarching goals of the ACS effort is to create an integrated, coherent airman certification system in which standards, guidance, and testing can be aligned and maintained in alignment. Such symmetry is key to fully realizing the benefits the ACS system promises to both the FAA and its many stakeholders. It is also key to conformance with accepted industry standards for certification programs, which require that items to be trained and tested be directly linked to the job/task analysis – in this case, the ACS.

To help achieve this goal, the aviation community experts who developed the ACS developed a coding system intended for use in both Airman Knowledge Tests and Practical Test tasks. These codes provide the means to correlate the tasks in the ACS with guidance and testing, and to keep them aligned going forward.

The ACS coding system has four elements that are anchored in the ACS (not in reference documents, like the current LSCs.)

#### PA.XI.A.K:

- **PA** = (private pilot airplane) identifies the applicable ACS.
- **XI** = Area of Operation (Night Operation)
- A = Task (Night Preparation);
- K1 = Task Element [knowledge (K), skill (S), risk management (R)]

For the practical test, the IACRA tables will be revised on June 15, 2016 to align with the ACS for Private Pilot Airplane certificate (PAR) and Instrument Airplane rating (IRA). Evaluators should use the IACRA "remarks" section to record deficient ACS Task Elements on the Notice of Disapproval.

The current knowledge test management system does not have the capability to print ACS codes on the Airman Knowledge Test Report (AKTR). Until a new test management system is in place, the current Learning Statement Codes (e.g., "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 LSC (PLT) codes and ACS codes.

Because all active knowledge test questions for the private pilot airplane (PAR) and the instrument-airplane rating (IRA) knowledge tests have been aligned with the corresponding ACS, evaluators can use PLT codes in conjunction with the ACS to for more targeted retesting of missed knowledge. The evaluator should look up the PLT 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 AOO/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). [back]