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Airman Certification Standards (ACS)

Frequently Asked Questions for Applicants, Instructors, and Evaluators

How do I use the ACS to conduct a practical test?

How do I test applicants who did some or all of their flight training under the PTS?

How do I interpret the ACS codes?

When will I see ACS codes on the applicant's Airman Knowledge Test Report?

If I can't see ACS codes on the Airman Knowledge Test Report (AKTR), how do I conduct appropriate retesting?

Does the ACS continue to require "scenario-based testing?

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Do you have a question not addressed here? Do you have suggestions for improving the ACS? If so, please contact the <u>ACS Focus Team (9-AVS-ACS-Focus-Team@faa.gov</u>).

For updates to this information, please subscribe to the FAA website's <u>Airman Testing page</u> by clicking on the "<u>subscribe</u>" link in the upper right hand corner.

What is the ACS?

The ACS is an enhanced version of the Practical Test Standards (PTS). It adds task-specific knowledge and risk management elements to each PTS Area of Operation and Task. The result is a comprehensive presentation that integrates the standards for what an applicant needs to know, consider, and do in order to pass both the knowledge test and the practical test for a certificate or rating. [back]

Why is the FAA making this change?

The ACS started in 2011 as an effort to fix the airman knowledge tests. Too many knowledge test questions were outdated or irrelevant to the knowledge and skill needed to operate in today's NAS.

Working with aviation training industry experts, we concluded that we could not effectively fix the knowledge test without taking a systematic approach to the airman certification system. The ACS:

- Offers a comprehensive and integrated presentation of the standards for what an applicant needs to *know, consider,* and *do* to pass both the knowledge and practical tests for a certificate or rating.
- Connects specific, appropriate knowledge and risk management elements to specific skills. This linkage enhances the relevance of the testing/training process for adult learners by clearly answering the "why do I need to know that?!" question.
- Enhances safety by using the risk management section in each ACS Area of Operation to translate special emphasis items and abstract terms like "aeronautical decision-making" into specific behaviors relevant to each task.
- Eliminates "bloat" by consolidating duplicative or overlapping tasks in the existing Practical Test Standards (PTS).
- Enables the FAA to create and maintain a clear link between the regulations, knowledge/risk management/skill performance standards, guidance, and test materials. [back]

What is the problem the FAA is trying to solve?

The knowledge test is an important component of the airman certification process. It is intended to measure an applicant's understanding of the rules, regulations, and knowledge areas required to earn an FAA airman certificate.

Unfortunately, many viewed the knowledge test as deeply flawed because it included too many questions that were considered to be overly broad, overly complex, trivial, outdated, and sometimes irrelevant. Consequently, the knowledge test was often regarded as a rote memorization exercise that had no real value for aviation safety education and training, and little (if any) connection to real world operations in today's National Airspace System (NAS).

The root cause of these problems was the lack of a "knowledge test standard" (KTS) corresponding to the Practical Test Standards, which the FAA developed years ago as a means to define acceptable performance of the "flight proficiency" (skills) that 14 CFR part 61 specifies for each certificate and rating. Rather than develop a separate KTS, the industry group recommended that the FAA address this deficiency by integrating required "aeronautical knowledge" and risk management elements into the existing PTS Areas of Operation/Tasks. This integrated document is called the Airman Certification Standards, or ACS. [back]

What's wrong with the Practical Test Standards (PTS)?

The PTS primarily provides metrics to define acceptable performance of the "flight proficiency" skills listed in 14 CFR part 61 for a given certificate or rating. Most people believe that the PTS generally serves its intended purpose but, like all such documents, it has become bloated over the years with an everexpanding list of "special emphasis" items, repetitive or overlapping Areas of Operation/tasks, and poorly-defined additional requirements (e.g., evaluation of the applicant's risk management and aeronautical decision-making skills). [back]

Why not just create a Knowledge Test Standard, or KTS?

In September 2011, the FAA convened a group of industry experts to recommend ways to fix the knowledge test. This group – the Airman Testing Standards and Training Aviation Rulemaking Committee (ATST ARC) – quickly determined that there is no way to fix the knowledge test in a meaningful and sustainable way without having a knowledge test standard akin to the Practical Test Standards (PTS). The ARC considered proposing a "Knowledge Test Standards" (KTS) document that would be the knowledge test companion to the skill-focused PTS. The ARC discarded this approach as unworkable, fearing that creation of separate KTS documents could result in divergence between the KTS and the PTS, burden stakeholders with an additional set of documents, and require a greater expenditure of FAA resources to develop, deploy, and maintain a full range of KTS documents. [back]

Why not just fix the knowledge test and leave the rest alone?

Working with aviation training industry experts, the FAA concluded that we could not effectively fix the knowledge test without taking a systematic approach to the airman certification system:

- We needed to develop clear standards for the aeronautical knowledge elements listed in the regulations, and to make sure that knowledge reflects things airmen really need to know for safe operation in the NAS.
- We needed to build specific, observable behaviors for risk management and aeronautical decision-making into the standard.
- We needed to consolidate overlapping Tasks in the PTS, and do something to connect the many "special emphasis" items listed in the PTS introduction to actual Areas of Operation and Tasks.
- We needed to connect the standards for knowledge, risk management, and skill to FAA handbooks, to knowledge test questions, and to the practical test, which is the "final exam" for someone seeking an airman certificate or rating. [back]

Why have a separate section on risk management?

The Practical Test Standards (PTS) already require evaluation of the applicant's risk management abilities, but the existing document does not offer the kind of concrete "how do I do that?" guidance that users need and deserve. The rationale for including a risk management section in the ACS is to enhance safety by translating abstract terms into specific safety behaviors relevant to each task. The ACS is also intended to communicate and demonstrate that risk management is a continuous process that includes identification, assessment, and mitigation of task-specific hazards that create risk. The risk management element identifies the circumstantial issues that aviators must consider in association with a particular task. [back] Why is the FAA adding knowledge and risk management elements to the practical test?

These are not new requirements. The PTS has long required the evaluation of knowledge and risk management elements in both the ground and flight portions of the practical test. The ACS provides a better tool because it clearly defines these elements and organizes them in the context of phases of flight. [back]

Why do some of the private pilot airplane ACS Areas of Operation/Tasks look different?

The majority of the private pilot airplane ACS Areas of Operation and Tasks are not very different from how they appear in the PTS. Some have been renamed, reorganized, or combined with others. Here's a summary of these changes:

- PTS Sections 1 (Single-Engine) and 2 (Multi-Engine) Airplane have been combined into a single ACS document. Tasks are identified with ASEL, ASES, AMEL, AMES so applicants know which tasks apply to the desired rating. A task without these identifiers applies to all applicants.
- PTS Special Emphasis Items have been removed and incorporated into the relevant Task(s).
- PTS Task Certificates and Documents is now called Pilot Qualification.
- PTS Task Aeromedical Factors is now called Human Factors
- PTS Task Water and Seaplane Characteristics and Task Seaplane Bases, Maritime Rules and Aids to Marine Navigation have been combined into a single task.
- PTS Task Preflight Inspection is now called Preflight Assessment.
- PTS Task Runway Incursion Avoidance task has been removed, with relevant task elements incorporated into the Taxiing, Traffic Patterns, Takeoff, and Landing tasks.
- PTS Task Airport/Seaplane Base, Runway, and Taxiway Signs, Markings and Lighting task has been removed, with relevant task elements incorporated into the Taxiing task.
- PTS Tasks for Normal/Crosswind takeoffs and landings have been renamed "Normal" (Crosswind is dropped from the task name). Crosswind skills are still tested in the same way, as a component of the normal procedure.
- PTS Area of Operation Performance Maneuvers now includes two tasks –Steep Turns and Ground Reference Maneuvers (i.e. Ground Reference Maneuvers is no longer a stand-alone Area of Operation).
- PTS Tasks Rectangular Course, S-Turns, Turns-Around a Point are combined into a single Task called "Ground Reference Maneuvers." The testing requirements have not changed; evaluators still select at least one of these tasks for the applicant to demonstrate during the practical test.
- PTS Tasks Slow Flight and Stalls tolerance specifications (PA.VII.A.) have been modified to discourage performing the maneuver with the stall horn activated. This change is consistent with the FAA's new guidance for these maneuvers, which is incorporated into the forthcoming revision of the FAA's Airplane Flying Handbook.
- PTS Tasks Anchoring, Docking and Mooring, and Ramping/Beaching have been combined into a single task called "Seaplane Post-Landing Procedures."

The June 2017 revision of the ACS for the Private Pilot Airplane certificate incorporates stakeholdersuggested corrections and improvements, to include streamlined and consolidated task elements in some places, standardized phrasing and sequencing of task elements, and modification to some task elements in the Slow Flight and Stalls Area of Operation. The FAA published the revised document on the Airman Testing web page in May 2017. [back]

Why did the FAA modify the slow flight task?

The FAA made additional modifications to the Slow Flight and Stalls Area of Operation in the June 2017 versions of the ACS for the Private Pilot Airplane and Commercial Pilot Airplane certificates. Also, please read <u>SAFO 17009: Airman Certification Standards: Slow Flight and Stalls.</u> You should also review <u>Chapter</u> 4, <u>Maintaining Aircraft Control: Upset and Recovery Prevention</u> in the new version of the <u>FAA Airplane</u> Flying Handbook (FAA-H-8083-3B). [back]

Isn't the real problem related to deficient stick-and-rudder skills?

Aviators love to debate, and we can argue endlessly about what really causes accidents. Perhaps we can agree, though, that most accidents have multiple causes. According to the AOPA Air Safety Institute, the three leading general aviation (GA) fatal accident factors are maneuvering flight, continued VFR into IMC, and loss of control on takeoff. These factors all imply some degree of deficiency in the pilot's knowledge, skill, and risk management abilities. Even the world's best stick-and-rudder pilot is at risk for loss of control if he or she has an inadvertent flight into IMC because of deficiencies in weather knowledge or risk management ability. Safety is not served by emphasizing just one of these three abilities. On the contrary, each supports the others. [back]

Why does the FAA have three different exams for most FAA airman certifications?

The certification testing process is intended to evaluate mastery of the information an applicant must know, consider, and do to be a pilot or a mechanic. There are three components in this process:

- The knowledge test best examines an applicant's knowledge of the certificate or rating he or she will apply for and the pertinent subject areas that directly relate to the privileges and limitations of that certificate or rating.
- The ground portion of the practical test enables the evaluator to assess subject areas missed on the knowledge test and further assess the practical application of the subject areas through scenario based questioning.
- The flight (skill) portion of the practical test requires the applicant to demonstrate ability to perform the tasks and maneuvers (if appropriate) to the established standards.

Together, these components of the certification testing process enable the applicant to demonstrate the ability to know, consider, and do tasks necessary for safe operation in the National Airspace System. [back]

What are the letters and numbers beside each ACS task element?

The ACS assigns a unique code to each knowledge, risk management, and skill task element. These codes provide the means to correlate the tasks in the ACS with guidance and testing, and to keep them aligned going forward. As soon as the technical capability comes online, the ACS codes will supersede the current system of "PLT" Learning Statement Codes (LSC).

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

PA.I.D.K4:

PA = Applicable ACS (Private Pilot - Airplane)
I = Area of Operation (Preflight Preparation)
D = Task (Cross-Country Flight Planning)
K4 = Task element (Elements of a VFR Flight Plan)

[knowledge (K), risk management (R), skill (S)] [back]

Why not just keep the "PLT" Learning Statement Codes (LSC)?

Each ACS code is unique to a knowledge, risk management or skill element in the standard. Because LSC (PLT) codes are derived from references, any topic may have a number of different codes. This characteristic does not allow the FAA to use PLT codes as the mechanism to align standards with guidance and test questions. Also, it makes it more difficult for applicants, instructors, and evaluators to use the LSC system for effective, efficient, retraining and retesting. [back]

How do I use ACS codes?

In the initial ACS implementation phase, applicants, instructors, and evaluators will continue to see PLT codes on the airman knowledge test report. In consultation with the industry ACS Working Group, however, the FAA believes that it is appropriate to proceed with release of the ACSs for the private pilot certificate and the instrument rating (both in the airplane category). These ACSs have been extensively reviewed and prototype-tested. In addition, the FAA has used the ACS coding system to review, revise, and code all active Private Pilot Airplane (PAR), Instrument Airplane Rating (IRA), and Commercial Pilot Airplane (CAX) questions to the respective ACS. Anyone who uses the ACS as a guide to training and test preparation for the PAR or IRA knowledge tests will be well prepared.

Because LSC (PLT) codes are linked to a variety of references, whereas each ACS code is unique to a specific ACS Task element, there is no one-to-one correlation between LSC (PLT) and ACS codes and it is not possible to create a meaningful or accurate cross-reference. However, stakeholders can still use the ACS for more efficient retraining and retesting. All active knowledge test questions for the Private Pilot Airplane certificate and the Instrument Airplane rating have been aligned with the applicable ACS. The PLT codes on the airman knowledge test report will enable more efficient retraining, because stakeholders can use them to identify the deficient subject area, perform a word search of that subject area in the ACS, and retrain and retest the deficient subject tin the context of specific ACS Tasks. Instructors and evaluators can thus zero in on a smaller number of ACS Tasks rather than going through multiple references in an attempt to find the specific subject in which the applicant's knowledge is deficient .

When we have the ability to print ACS codes instead of "PLT" Learning Statement Codes, these codes will make it very easy for applicants, instructors, and evaluators to identify the specific elements to be retrained or retested. [back]

Why aren't the ACS codes available right now?

The limitations of today's knowledge test management system do not permit the FAA to print ACS codes in lieu of the Learning Statement, or PLT, codes. The agency is contracting for a test management services system that will include this capability. In the initial ACS implementation phase, however, applicants, instructors, and evaluators will continue to see PLT codes on the airman knowledge test report. [back]

Will ACS codes direct me to the right reference?

Yes. Every task within the ACS includes FAA references for additional information on the objective and task elements. However, the ACS codes point to specific element in the standard, rather than to a handbook chapter or section. Because they are anchored in the standard – not in handbooks and other reference documents, like today's "PLT" Learning Statement Codes – ACS codes will guide training and testing from the beginning.

Once they can be printed on the Airman Knowledge Test Report, they will provide specific, standardsbased feedback to applicants, instructors, and evaluators on areas of missed knowledge. For example, when an applicant finishes the knowledge test today, he or she gets a computer test report that shows Learning Statement (PLT) Codes on the bottom of the form. The LSCs are intended to show the areas of knowledge the applicant missed on the test. To decipher the codes, the applicant, the instructor, and eventually the evaluator must go to a separate publication and look up the codes. The codes are numerous, and some are overlapping. Because there has not been a standardized way of linking them to a test question, the assignment of "PLT" codes is unavoidably subjective.

In the ACS world, the computer test report will list the unique ACS code for each element missed on the knowledge test. [back]

Why didn't the FAA use a formal rulemaking process for the ACS?

Like the Practical Test Standards (PTS), the ACS simply defines the metrics – the standards – for meeting the regulatory requirements that 14 CFR part 61 enumerates for aeronautical knowledge and flight proficiency. The ACS does not change any of the regulatory requirements. [back]

Why does the ACS use the term "airman?"

The regulations use the term "airman" to encompass the full range of aviation functions that require an FAA certificate or rating. Not all airman certificates and ratings are for pilots or aviators; some apply to aircraft maintenance technicians, dispatchers, and other specialties. This term is used in the regulations to include all aviation functions that require an FAA certificate or rating. [back]

Why does the ACS use the term "evaluator?

One of the goals of this project is greater consistency. Instead of trying to list every category of person authorized to conduct a practical test or an evaluation for a certificate or rating (e.g., examiner, designee, designated pilot examiner, aviation safety inspector), the ACS uses the term "evaluator" to cover the entire range. [back]

Does the ACS have any connection with FAA/Industry Training Standards (FITS)?

No. There is no connection between the ACS and the FAA/Industry Training Standards (FITS) program that was used in the mid-2000s to encourage greater use of scenario-based training. The ACS represents

a "clean sheet" approach by the FAA and its industry partners to improve all components of the airman certification system. [back]

When does the ACS take effect?

We replaced the Practical Test Standards (PTS) for the Private Pilot Airplane (PAR) certificate and the Instrument-Airplane rating (IRA) in June 2016. New versions of the ACS for PAR and IRA took effect in June 2017, along with the first version of the ACS for the Commercial Pilot Airplane (CAX) certificate. The CAX ACS replaces the corresponding PTS.

The ACS for the Remote Pilot Certificate took effect on August 29, 2016.

The ACS will eventually replace the PTS for all categories and classes. The next phase is to finish the ATP, and Instructor ACS (all in the airplane category), and the Aircraft Mechanic ACS in 2018. Also in 2018, we expect to begin work on the ACS for helicopters and for powered-lift. We will confer with our industry partners to prioritize additional development work. [back]

When do the knowledge tests change to the ACS?

The FAA has used the ACS coding system to review, revise, and code all active Private Pilot Airplane (PAR), Instrument Airplane Rating (IRA), and Commercial Pilot Airplane (CAX) questions to the respective ACS. Use of the ACS as a guide to training and test preparation for the PAR, IRA, or CAX knowledge tests will enable applicants and instructors to focus more precisely on topics to be mastered for the knowledge test and understand them in the context of the associated skill task.

As of now, the only knowledge tests that have been aligned with the ACS are those for the private pilot airplane certificate, the instrument-airplane rating, and the commercial pilot airplane.

As the ACS for other certificates and ratings are developed, the FAA will use the ACS and its coding system to review, revise, and code test questions for those certificates and ratings.

For information on changes made at the October test cycle roll, please see "<u>What's New and Upcoming</u> <u>in Airman Testing</u>" <u>https://www.faa.gov/training_testing/testing/media/whats_new_general.pdf.</u> We also recommend that you subscribe to the FAA website's Airman Testing page by clicking on the page's "<u>subscribe</u>" link.

https://public.govdelivery.com/accounts/USAFAA/subscriber/new?topic_id=USAFAA_472. [back]

When will the FAA update the online sample tests for the knowledge test?

The Private Pilot Airplane (PAR), Instrument Rating Airplane (IRA), and Commercial Pilot Airplane (CAX) sample tests on the <u>AFS-630 web page</u> already include questions that have been reviewed and coded to the Private Pilot Airplane ACS, Instrument Rating Airplane, and Commercial Pilot Airplane ACS documents, which are also posted on that page.

[back]

When is the FAA going to expand the ACS to other certificates and ratings?

Through the Aviation Rulemaking Advisory Committee (ARAC), the FAA originally asked industry to develop Airman Certification Standards (ACS) for the Private Pilot, Commercial Pilot, Authorized Instructor, and Airline Transport Pilot certificates and the Instrument Rating, all in the airplane category.

In December 2015, the FAA added the Aircraft Mechanic Certificate with Airframe and/or Powerplant ratings to the ACS Working Group's tasks. In the fall of 2017, the FAA further expanded the scope and timelines for this work.

The ACS will eventually replace the PTS for all categories and classes. The next phase is to finish the ATP, and Instructor ACS (all in the airplane category), and the Aircraft Mechanic ACS in 2018. Also in 2018, we expect to begin work on the ACS for helicopters and for powered-lift. We will confer with our industry partners to prioritize additional development work. [back]

When can we expect to see ACS codes printed on the Airman Knowledge Test Report?

The limitations of today's knowledge test management system do not permit the FAA to print ACS codes in lieu of the Learning Statement, or PLT, codes. The agency is contracting for a test management services system that will include this capability. [back]

What is the ACS revision schedule?

The ACS for Private Pilot-Airplane certificate and Instrument-Airplane rating replaced the corresponding PTSs in June 2016. The FAA replaced the PTS for the Commercial Pilot Airplane Certificate (CAX) with the corresponding ACS in June 2017. We published this document, along with updated versions of the ACS for PAR and IRA, on the FAA's Airman Testing web page. Unless other circumstances require earlier amendments, we expect to update the existing ACS documents in June 2018. [back]

How is the ACS better?

The ACS improves the PTS in several ways. The ACS:

- Offers a comprehensive and integrated presentation of the standards for what an applicant needs to **know**, **consider**, and **do** to pass both the knowledge and practical tests for a certificate or rating.
- Connects specific, appropriate knowledge and risk management elements to specific skills. This linkage enhances the relevance of the testing/training process for adult learners by clearly answering the "why do I need to know that?!" question.
- Enhances safety by using the risk management section in each ACS Area of Operation to translate abstract terms like "aeronautical decision-making" into specific behaviors relevant to each task.
- Eliminates "bloat" by consolidating duplicative or overlapping tasks in the existing PTS.
- Enables the FAA to create and maintain a clear link between the regulations, knowledge/risk management/skill performance standards, guidance, and test materials. [back]

How does the ACS improve the knowledge test?

The FAA used the ACS to review/revise existing Private Pilot Airplane, Instrument Rating Airplane, and the Commercial Pilot Airplane knowledge test questions to ensure that they are aligned with the standard the ACS defines for knowledge, skill, and risk management elements. Questions that do not match an ACS-defined task element have been eliminated from all active form tests and from the corresponding knowledge test question banks. The FAA will use the ACS to make similar improvements to other knowledge tests and for developing new knowledge test questions. In addition to the work the FAA has done on the knowledge test, industry members of the ACS Working Group have used the ACS to review FAA handbooks such as the Pilot's Handbook of Aeronautical Knowledge, the Risk Management Handbook, and the Airplane Flying Handbook and made recommendations to better align this guidance material with the ACS-defined knowledge, risk management, and skill task elements. [back]

How does the ACS change the practical test?

The ACS does not change the length or the overall conduct of the practical test. It does give evaluators a better tool for use in developing a plan of action for both the oral and the flight portions of the test. When it becomes possible to print ACS codes on the Airman Knowledge Test Report, the ACS will make it much easier for DPEs to retest missed knowledge test subjects.

The long-term expectation is that ACS-enabled improvements to the knowledge test will increase the DPE's confidence in both the meaning of the applicant's knowledge test score and the quality of the instructor's preparation. These improvements promise to make the practical test more efficient than it is today. [back]

How does the ACS link standards to guidance and test questions?

The ACS assigns a unique code to each knowledge, risk management, and skill task element. 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 (i.e., in the standard itself, not in reference documents like the current LSCs).

PA.I.D.K4:
PA = Applicable ACS (Private Pilot - Airplane)
I = Area of Operation (Preflight Preparation)
D = Task (Cross-Country Flight Planning)
K4 = Task element (Elements of a VFR Flight Plan)

[knowledge (K), risk management (R), skill (S)] The FAA used the ACS to review/revise existing Private Pilot Airplane, Instrument Rating Airplane, and the Commercial Pilot Airplane knowledge test questions to ensure that they are aligned with the standard the ACS defines for knowledge, skill, and risk management elements. Questions that do not match an ACS-defined task element have been eliminated from all active form tests and from the corresponding knowledge test question banks. The FAA will use the ACS to make similar improvements to other knowledge tests, and for developing new knowledge test questions.

In addition to the work the FAA has done on the knowledge test, industry members of the ACS Working Group have used the ACS to review FAA handbooks such as the Pilot's Handbook of Aeronautical Knowledge, the Risk Management Handbook, and the Airplane Flying Handbook and made recommendations to better align this guidance material with the ACS-defined knowledge, risk management, and skill task elements. [back]

How does the FAA keep the testing of risk management items from being subjective?

Because the level of risk that is acceptable to one pilot may not be the same for another, some have expressed concern that testing of risk management elements will be too subjective.

It is true that risk management is unique to each and every individual, but the ACS defines the circumstances, conditions, or risks applicable to each Task, not to the specific operator. Applicants will thus be tested on their awareness and mitigation of the risks associated with the Task at hand, which includes the applicant's consideration of these elements in the context of the maneuver itself plus the pilot's experience and ability, the aircraft used, and the operating environment.

The PTS already requires evaluation of these items, but it offers little more than a statement of the requirement and, in the case of "Special Emphasis" items, a list of subjects the DPE must evaluate. The ACS provides better guidance to applicants, instructors, and evaluators because it provides specific risk management and ADM procedures and behaviors associated with each Task, and it incorporates Special Emphasis items in the risk management section of the appropriate Area of Operation/Task.

This presentation helps instructors make stick and rudder skills more meaningful by teaching them in the context of what the applicant must know and consider while demonstrating flight skills. On the practical test, it allows the evaluator to see and assess an applicant's judgment and decision making in the context of actual flight operations. The ACS thus discourages use of abstract and potentially subjective methods of testing these important skills. [back]

Why is the ACS so much bigger than the PTS?

The ACS is the single source document listing the standards for both the knowledge test and the practical test. The PTS displays each task on a 4x6 page. The ACS displays each task on an 8.5x11 page. The larger page size is necessary to account for the current PTS (skill) information, as well as the new (knowledge and risk management) information associated with each task. [back]

How can the FAA say the test won't be longer when the ACS is so much bigger?

The ACS is not just for the practical test. Rather, it is a single-source document that defines the requirements for passing both the knowledge test and the practical test for an airman certificate or rating, and it places those requirements in the context of the appropriate phases(s) of flight. The ACS does not add any new or additional burden of knowledge or skill to applicants. Rather, it combines information which has historically been published in four separate documents (PTS, Knowledge Test Guide, Learning Statement Reference Guide, and Knowledge Exam Testing Matrix).

Having a single source Airman Certification Standards document is more efficient for applicants, instructors, evaluators, as well as the FAA offices tasked with managing these documents. It also eliminates redundancies and reduces the possibility of conflicting information. [back]

How does the ACS affect the conduct of the Flight Review and the Instrument Proficiency Check?

For flight reviews conducted at the private pilot airplane certificate level or for instrument-airplane proficiency checks, instructors will use the applicable ACS for the appropriate tasks and maneuvers. The IRA ACS includes a table in Appendix 5 that identifies the tasks that must be completed for an IPC. [back]

How was the ACS developed?

Since 2011, the agency has recruited several diverse and highly-qualified groups of aviation industry experts to help. The FAA wanted people with current, real-world experience in all areas of the aviation training community. Industry participants include representatives from:

- Advocacy groups (AOPA has chaired the last two groups)
- Instructor groups (NAFI, SAFE)
- Academia
- Test prep providers
- Manufacturers
- Parts 61, 65, 121, 141, 142 and 147 training providers
- Knowledgeable individuals

The credit for developing the ACS from concept to reality goes to these organizations and individuals. They have very generously volunteered their time and resources to work with the FAA on this project, and the agency could not have accomplished this kind of work without their help and expertise.

The ACS also benefits from the active participation of a diverse FAA team. FAA participants include subject matter experts from the Air Transportation Division (AFS-200), the Aircraft Maintenance Division (AFS-300), the Flight Technologies and Procedures Division (AFS-400), the Regulatory Support Division (AFS-600), and the General Aviation and Commercial Division (AFS-800). [back]

Where did the knowledge elements come from?

The Knowledge task elements within the ACS reflect the subjects previously defined by the FAA Test Guides (FAA-G-8082 documents), Learning Statement Reference Guide, and covered in the Knowledge Test. [back]

Where did the risk management elements come from?

The Risk Management task elements come from the Risk Management, Aeronautical Decision-Making, and Special Emphasis items in the PTS Introduction. Incorporating them into a task allows evaluators to see an applicant's judgment and decision making in the context of actual flight operations. [back]

Where did the skill elements come from?

The Skill task elements come from the Practical Test Standards. The ACS incorporates some editorial clean-up and consolidation of redundant tasks (such as combining Runway Incursion Avoidance with Taxiing). With one exception (Maneuvering During Slow Flight), the ACS does not change the expectation or values for acceptable performance of PTS skills tasks and maneuvers in the PTS. The skill demonstration and acceptable tolerances in the ACS are otherwise the same as they've always been. [back]

What is the industry's role in the test question development and review process?

The ACS Working Group's role is limited to providing general advice on best practices for framing test questions.

To revise existing test questions and develop new questions in accordance with the ACS, the FAA has established an ACS Exam Review Board (AEB) consisting of FAA employees from the General Aviation and Commercial Division (AFS-800), the Air Transportation Division (AFS-200), the Aircraft Maintenance Division (AFS-300), the Flight Technologies and Procedures Division (AFS-400), the Regulatory Support Division (AFS-600), and the Flight Standards Service director's office (AFS-3A). In keeping with industry best practices, both the operations and airworthiness AEB teams include a stakeholder who brings a combination of aviation education and test development expertise to this process. These non-FAA participants have signed a Non-Disclosure Agreement. [back]

How much did it cost to develop and implement the ACS?

The lion's share of the work on the ACS -- developing the ACS, refining documents in accordance with public comments, reviewing FAA handbooks, developing and running the prototypes, etc. -- has been accomplished by the industry participants in the original Aviation Rulemaking Committee (ARC) and the two Aviation Rulemaking Advisory Committee (ARAC) working groups at no cost to the government.

Pursuant to the requirements of the Federal Advisory Committee Act, ARAC is the umbrella group the FAA uses to obtain advice, recommendations, and other assistance from stakeholder groups. Those who participate in ARAC working groups do so entirely at their own expense. Member organizations generally provide meeting space for face-to-face meetings. In the case of the ACS Working Group, there are four face-to-face meetings each year; the rest of the work is done via subgroup telcons, which are organized by the ACS Working Group chair and subgroup leads.

The FAA employees who participate in the ACS do so as part of their normal duties and assignments. Leveraging industry expertise to accomplish the ACS development work, review handbooks, etc. not only improves the product by ensuring that these documents are fully up-to-date, but it also frees FAA resources to focus on test question review and development.

The use of industry working groups is not unique to the ACS, nor is it limited to the FAA. There is no way the federal government (not just the FAA) could ever employ enough people to perform every function. Nor is there any way the FAA could keep its employees as current as those who work in industry. That's why the FAA uses not just ARAC working groups, but also Designated Pilot Examiners (DPEs), Aviation Medical Examiners (AMEs), Designated Airworthiness Representatives (DARs), Organizational Designation Authorization (ODAs), and other types of designees. [back]

How does the FAA know the ACS will work?

The ACS benefits from extensive industry involvement in developing the ACS, using several rounds of public comment (via the Federal Register) to refine the early drafts, and nearly 18 months of prototype activity in high-volume training areas like Orlando and, for the Instrument Rating, the nation's "IFR capital" in Seattle. Prototype participants included all types of students and several flight training environments. The goal was to determine that the ACS could be successfully used for teaching, training, and testing in environments ranging from academic flight schools, fixed-base operator flight training, stand-alone flight schools, and independent flight instructors in rental or customer aircraft.

Though sample sizes for the prototypes were small, the heterogeneous population of pilot and instructor participants allows for generalization outside of the typical academic flight student.

Members of the ACS Working Group with academic research credentials and experience played a significant role in the design and conduct of the prototype activities, which benefited from the support and oversight of FAA Aviation Safety Inspectors (ASIs) in both locations. These industry experts also designed, administered, and analyzed surveys given anonymously to participating applicants, instructors, and evaluators. None of the participants or representatives reported the need to modify their curricula to use the ACS. There were no reports of increased training time, unsatisfactory lessons, or overall training cost. DPE surveys indicated that the ACS did enable a more efficient practical test and, as one participating DPE stated:

"Perhaps the single most important improvement is in the targeted preparation. Through the ACS, instructors were able to discern exactly what they should be training with knowledge and risk management as well as with skill. As an instructor and DPE, I saw a marked increase in the quality of student training and confidence in the instructor's preparation." [back]

The ACS is intended to be a living document, subject to continuous review and improvement. If you have a suggestion for the ACS, please send it to the ACS Focus Team: <u>9-AVS-ACS-Focus-Team@faa.gov</u>.

Who was involved in the prototype?

Phase I of the prototype was conducted with an Embry Riddle Aeronautical University (ERAU) summer camp. It lasted for the summer, and involved seven applicants, four instructors, and four evaluators.

Phase II involved field testing the Private Pilot Airplane ACS over a six-month period in the Orlando FSDO's area of responsibility. Twelve flight training providers participated, with eight DPEs based throughout the Orlando Area. A total of 54 airmen completed certification.

Phase III, which is prototype-testing the Instrument Airplane Rating ACS over a nine-month period, ended in May 2016. This part of the prototype involved participants in both Orlando and Seattle. Five flight training providers actively participated with a total of 39 applicants.

In the case of the Private Pilot Airplane ACS prototype, all applicants had to be "new" student pilots. It did not include anyone with prior flight experience. [back]

Where did the ACS prototype take place?

With support from the FAA FSDOs, the ACS Working Group conducted nearly 18 months of ACS prototype activity in Orlando, a high-volume training area, and Seattle, the self-proclaimed "IFR capital" of the country. [back]

How many people were involved?

Phase I (conducted with an Embry Riddle Aeronautical University (ERAU)) involved seven applicants, four instructors, and four evaluators.

Phase II (six months of field testing the Private Pilot Airplane ACS in the Orlando FSDO's area of responsibility) included twelve flight training providers and eight DPEs based throughout the Orlando Area. A total of 54 airmen completed certification.

Phase III (nine months of field-testing the Instrument Airplane Rating ACS in Orlando and Seattle) involved five flight training providers and a total of 39 applicants in the pipeline. [back]

What was the outcome of the prototype?

Members of the ACS Working Group with academic research credentials and experience played a significant role in the design and conduct of the prototype activities, which benefited from the support and oversight of FAA Aviation Safety Inspectors (ASIs) in both locations. These industry experts also designed, administered, and analyzed surveys given anonymously to participating applicants, instructors, and evaluators.

Though sample sizes for the prototypes were small, the heterogeneous population of pilot and instructor participants allows for generalization outside of the typical academic flight student.

None of the participants or representatives reported the need to modify their curricula to use the ACS. There were no reports of increased training time, unsatisfactory lessons, or overall training cost. DPE surveys indicated that the ACS did enable a more efficient practical test and, as one participating DPE stated:

"Perhaps the single most important improvement is in the targeted preparation. Through the ACS, instructors were able to discern exactly what they should be training with knowledge and risk management as well as with skill. As an instructor and DPE, I saw a marked increase in the quality of student training and confidence in the instructor's preparation." [back]

How can I learn more about the ACS?

FAA and industry members of the ACS team have developed a number of resources to support ACS implementation. The FAA website's <u>Airman Testing</u> page (<u>www.faa.gov/training_testing/testing/</u>) is the "go-to" place for ACS information. In addition to these ACS FAQs, it includes:

- ACS for the Private Pilot Airplane certificate, the Instrument Airplane rating, and the Commercial Pilot Airplane certificate
- ACS informational brochure
- PowerPoint presentation on the ACS
- Sample knowledge tests with ACS codes
- What's New in Airman Testing (info on knowledge test changes)

An "Understanding the ACS" course (ALC-449) that offers WINGS credit is available in the course catalog on <u>www.FAASafety.gov</u>.

The April 20, 2016 AirplaneGeeks podcast includes an interview on the ACS with one of the FAA's ACS team leaders: <u>http://AirplaneGeeks.com/397.</u>

The FAA has published an 8900 Notice that includes the charter for an ACS Focus Team. The ACS Focus Team is charged with quickly responding to questions or issues that arise now or after implementation. The ACS Focus Team email address is: <u>9-AVS-ACS-Focus-Team@faa.gov</u>. [back]

Who created the ACS?

Since 2011, the agency has recruited several diverse and highly-qualified groups of aviation industry experts to help. The FAA wanted people with current, real-world experience in all areas of the aviation training community. Industry participants include representatives from:

- Advocacy groups (AOPA has chaired the last two groups)
- Instructor groups (NAFI, SAFE)
- Academia
- Test prep providers
- Manufacturers
- Parts 61, 65, 121, 141, 142, and 147 training providers
- Knowledgeable individuals

The credit for developing the ACS from concept to reality goes to these organizations and individuals. They have very generously volunteered their time and resources to work with the FAA on this project, and the agency could not have accomplished this kind of work without their help and expertise.

The ACS also benefits the active participation of a diverse FAA team. FAA participants include subject matter experts from the Air Transportation Division (AFS-200), the Aircraft Maintenance Division (AFS-300), the Flight Technologies and Procedures Division (AFS-400), the Regulatory Support Division (AFS-600), and the General Aviation and Commercial Division (AFS-800). It also includes expertise from the Orlando and Seattle FSDOs. [back]

What are all these acronyms (ARC, ARAC, ATST WG, ACS WG)?

To ensure transparency and diverse representation and to benefit fully from industry expertise, the FAA used several existing organizational structures.

- ATST ARC refers to the Airman Testing Standards and Training Aviation Rulemaking Committee, which the FAA chartered in September 2011 to make recommendations for more effective training and testing. ARCs are the required forum for rulemaking projects, but they are also used as a way for the FAA to benefit from stakeholder expertise in non-regulatory efforts, such as this project. The FAA selected the ARC's membership and convened it in September 2011. The ARC submitted its <u>report and nine recommendations</u> to the FAA on April 13, 2012.
- ARAC is the Aviation Rulemaking Advisory Committee (ARAC), a formal standing committee of aviation associations and industry representatives. The ARAC provides a transparent legal framework for industry stakeholders to provide advice and recommendations to the FAA. The ARAC performs its FAA-assigned tasks through expert-level working groups. To date, the ARAC has established two separate working groups for the Airman Certification Standards project.
- The ATST WG is the Airman Testing Standards and Training Working Group. To benefit from industry expertise in implementing the ARC recommendations, in August 2012 the FAA asked ARAC to accept this task. ARAC formed the Airman Testing Standards and Training Working Group (ATST WG, which consisted of aviation education and training professionals from all major segments of this community, to perform the specific tasks requested by the FAA. The ATST WG submitted its report to its parent body, ARAC, in mid-September 2013. ARAC accepted the <u>ATST WG report</u> and submitted it to the FAA on September 30, 2014.
- The ACS WG is the Airman Certification System Working Group. In order to continue the work started under the auspices of the ATST WG, in December 2013 the FAA asked ARAC to accept another set of tasks. ARAC established the ACS WG to perform this work. [back]

How were these people selected?

In accordance with standard procedures, the FAA published notices in the Federal Register to announce the establishment of the ARAC Working Groups and to solicit potential members. The FAA wanted people with current, real-world experience in all areas of the aviation training community. In consultation with industry leaders of the Working Groups, the FAA selected participants to include representatives from:

- Advocacy groups (AOPA has chaired the last two groups)
- Instructor groups (NAFI, SAFE)
- Academia
- Test prep providers
- Manufacturers
- Parts 61, 65, 121, 141, 142 and 147 training providers
- Knowledgeable individuals

To perform the FAA-assigned task to apply the ACS framework to other certificates and ratings, the ACS Working Group will add members with appropriate expertise. [back]

What expertise do they have?

In convening the original <u>Aviation Rulemaking Committee (ARC)</u>, and in its subsequent assignments to the <u>Aviation Rulemaking Advisory Committee (ARAC)</u>, the FAA stipulated that these groups should include aviation professionals with experience and expertise in airman training and testing, and technical experts having an interest in the assigned task. The FAA sought a wide range of members to ensure that all aspects of airman testing and training, including best practices, would be considered in the development of its recommendations.

Membership on the ARC and on each of the two ARAC-established working groups has included flight instructors, designated pilot examiners, the aviation academic community, industry advocacy associations, and training and test preparation providers involved with aviation training and testing in 14 CFR Parts 61, 65, 141, 142, 147, and 121 environments. To perform the FAA-assigned task to apply the ACS framework to other certificates and ratings, the ACS Working Group will add members with appropriate expertise.

To support the work and to ensure that the FAA has a full understanding of the groups' work and the rationale for their recommendations, the FAA assigns subject matter experts from a number of its policy divisions to attend these meetings. [back]

I'm an applicant. How do I use the ACS?

The ACS is the single source document listing the standards for both the knowledge test and the practical test. The ACS provides a clear, easy-to-use "flight plan" for the material the FAA expects you to know (knowledge), consider (risk management), and do (skill) to qualify for your airman certificate or rating. You will also use the ACS to develop an understanding of how knowledge, risk management, and skill elements work together for safe performance of each Task. Be sure to read the ACS Introduction and the appendices carefully to understand how it all works together. [back]

I'm already in training. How will the change affect me?

You simply switch from using the PTS to the ACS, which is the single source document listing the standards for both the knowledge test and the practical test. Because the ACS provides a clear, easy-to-use "flight plan" for the material the FAA expects you to know (knowledge), consider (risk management), and do (skill) to qualify for your airman certificate or rating, you will be much better prepared for both the knowledge test and the practical test. [back]

Will I have to take a new "ACS knowledge test?"

No. There is no requirement for retesting if you have already passed the FAA knowledge test. [back]

Will the ACS make my training harder?

No. In fact, applicants who have been training properly all along are likely to find the FAA knowledge test easier. Instead of having to "learn" or memorize information that isn't relevant to knowledge and skills actually needed for operation in today's National Airspace System (e.g., the now-deleted questions on ADF/NDB) the test consists of questions coded via the appropriate ACS to specific Areas of Operation/Tasks.

When the FAA gains the ability to print ACS codes on the Airman Knowledge Test Report, the ACS-coded questions will make it much easier for applicants, instructors, and evaluators to specifically identify and retrain on weak areas.

Overall, the ACS-enabled correlation of training and testing will make the process easier because knowledge testing will be meaningful and relevant – not an exercise in memorizing information you will never need in real-world operations. [back]

Will the ACS make my checkride longer?

No. In fact, the integrated and efficient ACS presentation of the material to be tested could even shorten the test, especially if the evaluator has more confidence in the quality and meaning of the applicant's knowledge test score. Once it is possible for the FAA to report ACS codes on the Airman Knowledge Test Report, evaluators will be able to effectively and efficiently re-test any deficient knowledge elements identified on the airman knowledge test report to ensure the applicant has trained to proficiency in all areas.

The ACS benefits from nearly 18 months of prototype activity in high-volume training areas like Orlando and, for the Instrument Rating, the nation's "IFR capital" in Seattle. Prototype participants included all types of students and several flight training environments. The goal was to determine that the ACS could be successfully used for teaching, training, and testing in environments ranging from academic flight schools, fixed-base operator flight training, stand-alone flight schools, and independent flight instructors in rental or customer aircraft.

Members of the ACS Working Group with academic research credentials and experience played a significant role in the design and conduct of the prototype activities. In surveys they designed, administered anonymously to prototype participants, and analyzed, feedback was very positive. None of the participants or representatives reported the need to modify their curricula to use the ACS. There were no reports of increased training time, unsatisfactory lessons, or overall training cost. DPE surveys indicated that the ACS did enable a more efficient practical test. [back]

Will the ACS make my training more expensive?

No. In fact, a more integrated and efficient presentation of the material to be tested should make training more effective and efficient for all stakeholders, and thus less costly. [back]

Does the ACS require me to do my flight training as part of an integrated program?

No. You may still choose to complete ground school and take the knowledge test before you start flight training. Just as with the PTS, you may structure ground training and flight training together as an integrated program, or separate and sequentially – you can choose what will work best for your time and resources. The ACS simply presents the existing knowledge requirements and better defines risk management elements relative to the existing skill requirements, so you can better understand how knowledge, risk management, and skill elements work together for safe flight operations. [back]

How do I interpret the ACS codes?

The ACS assigns a unique code to each knowledge, risk management, and skill task element. These codes provide the means to correlate the tasks in the ACS with guidance and testing, and to keep them aligned going forward. As soon as the technical capability comes online, the ACS codes will supersede the current system of "PLT" Learning Statement Codes (LSC).

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

PA.I.D.K4:

PA = Applicable ACS (Private Pilot - Airplane)
I = Area of Operation (Preflight Preparation)
D = Task (Cross-Country Flight Planning)
K4 = Task element (Elements of a VFR Flight Plan)

[knowledge (K), risk management (R), skill (S)] [back]

When will I see ACS codes on my Airman Knowledge Test Report?

The limitations of today's knowledge test management system do not permit the FAA to print ACS codes in lieu of the Learning Statement, or PLT, codes. The agency is contracting for a test management services system that will include this capability. In the initial ACS implementation phase, however, applicants, instructors, and evaluators will continue to see PLT codes on the airman knowledge test report. [back]

How do I use the ACS to prepare for the knowledge test?

The ACS is the single source document listing the standards for both the knowledge test and the practical test. The ACS provides a clear, easy-to-use "flight plan" for the material the FAA expects you to know (knowledge), consider (risk management), and do (skill) to qualify for your airman certificate or rating. You will also use the ACS to develop an understanding of how knowledge, risk management, and skill elements work together for safe performance of each Task and phase of flight (Area of Operation).

When you are preparing for the knowledge test, be sure to look at all the elements – knowledge, risk management, and skill. While the knowledge test is primarily focused on elements in the "K" and "R" sections, you will also find questions that ask you to "calculate" or "determine" some value. The FAA

assigns a skill ("S") code to questions of this nature. The References provided within each task steer you to the FAA guidance document where you can learn more about each task element. [back]

How will I use the ACS to prepare for the practical test?

You will use the skill standards in the ACS just as you use the performance values and metrics in the PTS today. Because the ACS also includes the material the FAA expects you to know (knowledge) and consider (risk management) in the context of each task, it will help you better prepare for the oral portion of the practical test. Be sure to read the ACS Introduction and the appendices carefully to understand how it all works together. [back]

Are Knowledge and Risk Management elements a new requirement for applicants to demonstrate during the practical test?

No, not at all. These requirements already existed in the PTS. Applicants are required to take an FAA Knowledge Exam. Instructors are required to retrain any deficiencies shown by the Airman Knowledge Test Report. Evaluators are required to retest Knowledge Exam deficiencies. Risk Management was included via the special emphasis items list in the PTS. The ACS integrates, organizes, and presents these requirements in a way that is more meaningful and relevant to phases of flight and safe operations. [back]

I want to complete my ground school ahead of flight training. Does the ACS require me to complete my training as an integrated program?

No. You may still choose to complete your ground school and knowledge exam ahead of your flight training. You may conduct ground training and flight training together as an integrated program, or separate and sequentially. It is up to you to choose what will work best for your time and resources. The ACS presents the existing knowledge and risk management requirements in the context of the existing skill requirements to help everyone understand how these elements work together for safe flight operations. [back]

I'm an instructor. How do I use the ACS?

The ACS provides a clear, easy-to-use "flight plan" for the material the FAA expects your applicant to know (knowledge), consider (risk management), and do (skill) to qualify for your airman certificate or rating. It is the single source document listing the standards for both the knowledge test and the practical test. So the ACS is a tool that will help you ensure that the applicant meets the knowledge, risk management, and skill standards established for each Task. Be sure to read the ACS Introduction and the appendices carefully to understand how it all works together.

You will also use the ACS to develop and deepen the applicant's understanding of how knowledge, risk management, and skill elements work together for safe performance of each Task. [back]

How do I use the ACS to teach and train?

You will use the ACS just as you used the PTS, only the ACS provides a great deal more information. The ACS will guide you in teaching and training an applicant not only on everything he or she must know, consider, and do to pass the knowledge test and the practical test, but – more importantly – how to operate safely in the NAS. [back]

How will the ACS change the way I teach ground school?

If you are using the ACS as a guide to your syllabus and curriculum content, anyone you teach in a ground school course will be very well prepared to pass the knowledge test. If your applicants have taken the FAA knowledge test for the Private Pilot Airplane certificate or the Instrument Airplane rating in the last year, they have actually taken an "ACS knowledge test," because the FAA has already aligned all active knowledge test questions for these airman qualifications with the corresponding ACS.

When you are preparing an applicant for the knowledge test, be sure to cover all the elements – knowledge, risk management, and skill. While the knowledge test is primarily focused on elements in the "K" and "R" sections, there are also questions that ask an applicant to "calculate" or "determine" some value. The FAA assigns a skill ("S") code to questions of this nature. [back]

How will the ACS change the way I conduct flight training?

With one exception (Maneuvering During Slow Flight), the ACS does not change the expectation or values for acceptable performance of PTS skills tasks and maneuvers in the PTS. The ACS thus does not substantially change the way you teach stick-and-rudder skills. It does, however, provide the knowledge and risk management context for the exercise of these skills. Using the ACS will help you make sure your applicant understands how knowledge, risk management, and skill elements work together for safe performance of each Task. Be sure to read the ACS Introduction and the appendices carefully to understand how it all works together. [back]

What resources do I have to teach risk management?

In general, the FAA uses the Pilot's Handbook of Aeronautical Knowledge to support ACS knowledge task elements, the Risk Management Handbook to support risk management task elements, and the Airplane Flying Handbook to support ACS skill task elements. An ongoing revision to the Aviation Instructor's Handbook will specifically and explicitly address risk management, both in terms of teaching these concepts to applicants and in terms of managing the risks inherent in flight training.

Both the FAA and the ACS WG have reviewed ACS task elements to ensure that the FAA has guidance to support them, and the FAA is careful to verify that the agency has an appropriate reference for each knowledge test question that we review or develop.

Risk management training and testing is already required, but the ACS improves the current structure by explicitly listing specific procedures and behaviors relevant to risk management for each task. It also improves the PTS by defining the items listed under "special emphasis" in the PTS and integrating them into the context of the appropriate task(s). Feedback from prototype participants suggests that this approach clarifies and simplifies risk management training and testing for all concerned. [back]

What do I do with students who are already training when the ACS takes effect?

You simply switch from using the PTS to the ACS, which is the single source document listing the standards for both the knowledge test and the practical test. Because the ACS provides a clear, easy-touse "flight plan" for the material the FAA expects your applicant to know (knowledge), consider (risk management), and do (skill) to qualify for an airman certificate or rating, your applicant will be much better prepared for both the knowledge test and the practical test. [back]

How do I interpret the ACS codes?

The ACS assigns a unique code to each knowledge, risk management, and skill task element. These codes provide the means to correlate the tasks in the ACS with guidance and testing, and to keep them aligned going forward. As soon as the technical capability comes online, the ACS codes will supersede the current system of "PLT" Learning Statement Codes (LSC).

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

PA.I.D.K4:
PA = Applicable ACS (Private Pilot - Airplane)
I = Area of Operation (Preflight Preparation)
D = Task (Cross-Country Flight Planning)
K4 = Task element (Elements of a VFR Flight Plan)

[knowledge (K), risk management (R), skill (S)]

[back]

When will I see ACS codes on the applicant's Airman Knowledge Test Report?

The limitations of today's knowledge test management system do not permit the FAA to print ACS codes in lieu of the Learning Statement, or PLT, codes. The agency is contracting for a test management services system that will include this capability. In the initial ACS implementation phase, applicants, instructors, and evaluators will continue to see PLT codes on the airman knowledge test report. [back]

If I can't see ACS codes on the Airman Knowledge Test Report (AKTR), how do I conduct remedial training?

Each ACS code is unique to a knowledge, risk management or skill element in the standard. LSC (PLT) codes are derived from references, so any topic may have a number of different codes. For this reason, there is no one-to-one correlation between LSC (PLT) codes and ACS codes.

You can still use the ACS for more efficient retraining and retesting. All active knowledge test questions for the Private Pilot Airplane certificate and the Instrument Airplane rating have been aligned with the applicable ACS. The PLT codes on your applicant's airman knowledge test report will help you with more efficient retraining, because you can use them to zero in on a smaller number of ACS Tasks rather than going through multiple references in an attempt to find the specific subject in which the applicant is deficient.

For example, there are at least six Learning Statement (PLT) codes that refer to airspace:

 PLT 040 Airspace classes, charts, diagrams
 PLT 161 Aircraft Systems / Avionics / Transponder / Airspace / Publications / AFD / Transponder Operations
 PLT 162 Airspace requirements, operations
 PLT 163 Airspace requirements, visibility / cloud clearance
 PLT 376 Airspace, special use, TFRs
 PLT 393 Airspace, regulations / restrictions The PLT codes are tied to references, and the scope for retraining and retesting is very broad. The ACS enables an instructor to narrow the scope and retrain an applicant whose Airman Knowledge Test Report includes one of these codes in the context of specific ACS Tasks. For example, you can:

- Ask about airspace in context of planning a XC flight (PA.I.D.K1)
- Ask about airspace as part of preflight preparation (PA.I.E.K1)
- Ask about airspace as part of preflight assessment (PA.II.A.S2)
- Ask about airspace as part of ground reference maneuvers evaluation (PA.V.B.S1)

[back]

When can we expect to see other certificates and ratings transition to the ACS?

Through the Aviation Rulemaking Advisory Committee (ARAC), the FAA originally asked the industry to develop Airman Certification Standards (ACS) for the Private Pilot, Commercial Pilot, Instructor, and Airline Transport Pilot certificates and the Instrument Rating, all in the airplane category. In December 2015, the FAA asked ARAC to add the Aircraft Mechanic Certificate with Airframe and/or Powerplant ratings to the ACS Working Group's charter.

The ACS for Private Pilot-Airplane certificate and Instrument-Airplane rating replaced the corresponding PTSs in June 2016. The FAA replaced the PTS for the Commercial Pilot Airplane Certificate (CAX) with the corresponding ACS in June 2017. We published this document, along with updated versions of the ACS for PAR and IRA, on the FAA's Airman Testing web page . Unless other circumstances require earlier amendments, we expect to update the existing ACS documents in June 2018. [back]

What is the difference between the ACS and a training syllabus?

The ACS defines what the applicant must know, consider, and do to earn an airman certificate or rating.

A training syllabus defines how (where, when and why) these standards are met.

Accepted industry practices for any certification process stipulate that it be based on a job/task analysis. The certification process must analyze, define, and publish the domains and tasks that are a part of the certification process. It must further identify the knowledge and skills associated with performance of those tasks. The required knowledge and skills become the basis for development of assessment activities.

The ACS documents function as the required job/task analysis, as they define the knowledge and skills needed to perform at the level of the target certificate or rating. In this way, the ACS approach better serves the applicant, the instructor, and the evaluator. Because the process of developing the ACS required a thorough review and update of knowledge and skills for airman certification, it also aligns with certification industry standards requiring periodic review and revision of the job/task analysis. [back]

Does the ACS continue to require scenario-based training?

There is no intent to drop the use of scenario-based activities in either training or testing. On the contrary, the Introduction (Airman Certification Standards Concept) clearly states that for appropriate items, "the evaluator will assess the applicant's understanding by providing a scenario that requires the

applicant to appropriately apply and/or correlate knowledge, experience, and information to the circumstances of the given scenario."

Both the FAA and the ACS WG also believe that the ACS structure itself supports scenario-based testing and training, because it presents specific elements of knowledge and risk management in the context of each skill task.

In addition, members of the ACS project team drafted guidance for both FAA inspectors and external evaluators to provide clarity on the 'plan of action' and use of scenarios. See <u>http://www.faa.gov/training_testing/testing/acs/media/acs_tips.pdf</u> for details. [back]

I'm a DPE. How do I use the ACS?

The ACS is the single source document listing the standards for both the knowledge test and the practical test. Be sure to read the ACS Introduction and the appendices carefully to understand how it all works together.

The ACS provides a clear, easy-to-use "flight plan" for the material the FAA expects your applicant to know (knowledge), consider (risk management), and do (skill) to qualify for an airman certificate or rating. Fundamentally, the ACS is a tool that will help you ensure that the applicant meets the knowledge, risk management, and skill standards established for each Task.

Specifically, you should use the ACS to refine your Plan of Action to create better / more focused questions and scenarios for both phases of the practical test. It will help you retest subjects associated with LSC (PLT) codes on the knowledge test report in the context of ACS Areas of Operation/Tasks. In addition, you will use the ACS to assess the applicant's understanding of how knowledge, risk management, and skill elements work together for safe performance of each Task. [back]

How do I use the ACS to conduct a practical test?

There is no real difference in how you conduct the flight portion of a practical test under the PTS and how you conduct it under the ACS. With one exception (Slow Flight and Stalls Area of Operation), the ACS does not change the expectation or values for acceptable performance of PTS skills tasks and maneuvers in the PTS.

As you start using the ACS, though, it is very important to read the introduction and the appendices.

- The introduction contains important information such as general concepts and how to properly use the ACS when building your plan of action.
- The appendices consolidate many of the notes and comments that were scattered throughout the PTS. These notes remain critical to the practical test and must be considered.

After reviewing the appendices, you will need to ensure your written plan of action contains all required elements. Just as with the PTS, the ACS is divided into Areas of Operations, Tasks, and Elements. In the Private Pilot Airplane ACS and the Commercial Pilot Airplane ACS, there have been changes to some of the Areas of Operation, Tasks, and Elements. The Instrument Airplane rating ACS uses the same Areas of Operations as the PTS.

In addition to any elements added based on the applicant's knowledge test report, the plan of action (POA) must include at least one "K" element, at least one "R" element, and all "S" elements for all applicable Tasks. The evaluator may choose to add additional elements. Also, if the applicant were to provide information for an element that had not been selected for testing but nonetheless appeared to be deficient, the evaluator may test that element as well.

In the case of sub-elements such as PA.I.G.K1a ("a" representing the sub-element), the evaluator may select a primary ACS element code or an appropriate sub-element to evaluate.

As with the PTS, tasks and elements may be combined when appropriate to create an efficient practical test. The ACS is not intended or expected to lengthen either the ground or the flight portions of the practical test. [back]

How do I test applicants who did some or all of their flight training under the PTS?

You simply switch from using the PTS to the ACS, which is the single source document listing the standards for both the knowledge test and the practical test. Because the ACS provides a clear, easy-to-use "flight plan" for the material the FAA expects your applicant to know (knowledge), consider (risk management), and do (skill) to qualify for an airman certificate or rating, your applicant will be much better prepared for both the knowledge test and the practical test. [back]

How do I interpret the ACS codes?

The ACS assigns a unique code to each knowledge, risk management, and skill task element. These codes provide the means to correlate the tasks in the ACS with guidance and testing, and to keep them aligned going forward. As soon as the technical capability comes online, the ACS codes will supersede the current system of "PLT" Learning Statement Codes (LSC).

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

PA.I.D.K4:

PA = Applicable ACS (Private Pilot - Airplane)
I = Area of Operation (Preflight Preparation)
D = Task (Cross-Country Flight Planning)
K4 = Task element (Elements of a VFR Flight Plan)

[knowledge (K), risk management (R), skill (S)]

[back]

If I can't see ACS codes on the Airman Knowledge Test Report (AKTR), how do I conduct appropriate retesting?

Each ACS code is unique to a knowledge, risk management or skill element in the standard. LSC (PLT) codes are derived from references, so any topic may have a number of different codes. For this reason, there is no one-to-one correlation between LSC (PLT) codes and ACS codes and it is not possible to create a meaningful or accurate cross-reference.

We hope that evaluators already seek to obtain airman knowledge test report results in advance of the practical test, and the ACS does not change that expectation. If anything, though, the ACS should

ultimately streamline the process. As explained in the DPE training module that AFS-640 sent to all DPEs in May 2016, all active knowledge test questions for the Private Pilot Airplane certificate and the Instrument Airplane rating have been aligned with the applicable ACS. The PLT codes on the airman knowledge test report will enable more efficient retraining, because you can use them to identify the deficient subject area, perform a word search of that subject area in the ACS, and retrain and retest the deficient subject in the context of specific ACS Tasks. You can thus zero in on a smaller number of ACS Tasks rather than going through multiple references in an attempt to find the specific subject in which the applicant's knowledge is deficient.

When you are retesting an applicant on elements missed on the knowledge test, please note that these elements could be in knowledge, risk management, or skill. While the knowledge test is primarily focused on elements in the "K" and "R" sections, there are also questions that ask an applicant to "calculate" or "determine" some value. The FAA assigns a skill ("S") code to questions of this nature. [back]

Does the ACS continue to require "scenario-based testing?

There is no intent to drop the use of scenario-based activities in either training or testing. On the contrary, the Introduction (Airman Certification Standards Concept) clearly states that for appropriate items, "the evaluator will assess the applicant's understanding by providing a scenario that requires the applicant to appropriately apply and/or correlate knowledge, experience, and information to the circumstances of the given scenario."

Both the FAA and the ACS WG also believe that the ACS structure itself supports scenario-based testing and training, because it presents specific elements of knowledge and risk management in the context of each skill task.

In addition, members of the ACS project team drafted guidance for both FAA inspectors and external evaluators to provide clarity on the 'plan of action' and use of scenarios. See <u>http://www.faa.gov/training_testing/testing/acs/media/acs_tips.pdf</u> for details. [back]

What happened to the special emphasis items?

The PTS requires evaluation of these items, but it offers little more than a statement of the requirement and, in the case of "Special Emphasis" items, a list of subjects the DPE must evaluate.

The ACS incorporates Special Emphasis items in the risk management section of the appropriate Area of Operation/Task. It also provides specific risk management and ADM procedures and behaviors associated with the Task. On the practical test, it allows the evaluator to see and assess an applicant's judgment and decision making in the context of actual flight operations. The ACS thus discourages use of abstract and potentially subjective methods of testing these important skills. [back]

What resources do I have to test risk management?

In general, the FAA uses the Pilot's Handbook of Aeronautical Knowledge to support ACS knowledge task elements, the Risk Management Handbook to support risk management task elements, and the Airplane Flying Handbook to support ACS skill task elements. An ongoing revision to the Aviation Instructor's Handbook will specifically and explicitly address risk management, both in terms of teaching these concepts to applicants and in terms of managing the risks inherent in flight training. Both the FAA and the ACS WG have reviewed ACS task elements to ensure that the FAA has guidance to support them, and the FAA is careful to verify that the agency has an appropriate reference for each knowledge test question that we review or develop.

Risk management training and testing is already required, but the ACS improves the current structure by explicitly listing specific procedures and behaviors relevant to risk management for each task. It also improves the ACS by defining the items listed under "special emphasis" in the PTS and integrating them into the context of the appropriate task(s). Feedback from prototype participants suggests that this approach clarifies and simplifies risk management training and testing for all concerned. [back]

Will IACRA support the ACS?

Yes. We worked with AFS-700 to update IACRA. When an applicant's performance is unsatisfactory, IACRA allows the evaluator to select the failed Areas of Operations from a table. These tables have been updated to align with the ACS.

We strongly encourage evaluators to use IACRA's "remarks" section to record the specific ACS Task element(s) in which the applicant's performance was unsatisfactory by noting the ACS code. [back]

Should I use ACS codes on the Notice of Disapproval and Letters of Discontinuance? Yes. [back]

Is the FAA going to update DPE guidance to reflect the ACS?

AFS-640 has instructed all DPEs to take DPE-specific training on the ACS. That training requires a login ID and password for registration. The link below goes to the self-paced briefing: https://av-info.faa.gov/DsgReg/sections.aspx?SectionID=4386

Going forward, AFS-640 is incorporating ACS material into DPE standardization training.

In addition, industry members of the ACS project team drafted guidance for both FAA inspectors and external evaluators to provide clarity on the 'plan of action' and use of scenarios. See <u>http://www.faa.gov/training_testing/testing/acs/media/acs_tips.pdf</u> for details. [back]

I have a part 141 school. How do I use the ACS?

You will use the ACS just as you use the PTS today, only the ACS provides a great deal more information. The ACS will guide you in teaching and training an applicant not only on everything he or she must know, consider, and do to pass the knowledge test and the practical test, but – more importantly – how to operate safely in the NAS.

The FAA has published the final versions of the ACS for Private Pilot Airplane, Instrument Rating Airplane, and the Commercial Pilot Airplane on the FAA website's Airman Testing web page. Flight schools can use these documents to make any updates to their Training Course Outline (TCO) documents. A part 141 pilot school should work with its POI on any TCO changes needed to align with the ACS. The POI can contact the <u>ACS Focus Team (9-AVS-ACS-Focus-Team@faa.gov</u> for assistance if needed. [back]