Hello and welcome! Since 2016, the FAA has released five Airman Certification Standards documents. These include Private Pilot-Airplane, Instrument Rating-Airplane, Commercial Pilot-Airplane as well as ACSs for Remote Pilots of Small Unmanned Aircraft Systems and Military Competence for Commercial Pilot Certification.

This Webinar is in support of the release of the Airline Transport Pilot/Type Rating-Airplane, Airman Certification Standards (ATP ACS). This ACS has been in development for several years and is the result of a collaboration between the FAA and our aviation community partners. In support of the ACS system, the FAA has also released changes that are editorial in nature to the Private Pilot-Airplane, Instrument Rating-Airplane, and Commercial Pilot-Airplane ACS's to ensure consistency across the Airplane ACS documents. All four of these ACS's became effective on June 28, 2019.

This presentation offers a recap of the ACS for those who haven't used it, and then introduces and explains how to use the ATP ACS. We think you will enjoy learning about the ATP ACS during this Webinar, so lets get started.

My name is Robert Terry, I am an Aviation Safety Inspector, and I work in the Airman Testing Branch of the Regulatory Support Division in the Office of Safety Standards – also known as AFS-630.

The panelists who are assisting today are Jeff Spangler, Margaret Morrison, Ricky Krietmeyer, Dr. Barry Hyde, Barbara Adams, Richard Orentzel, Ethan Argenbright, and Chris Morris

We are recording

- **We hope to make this webinar recording available for review.**

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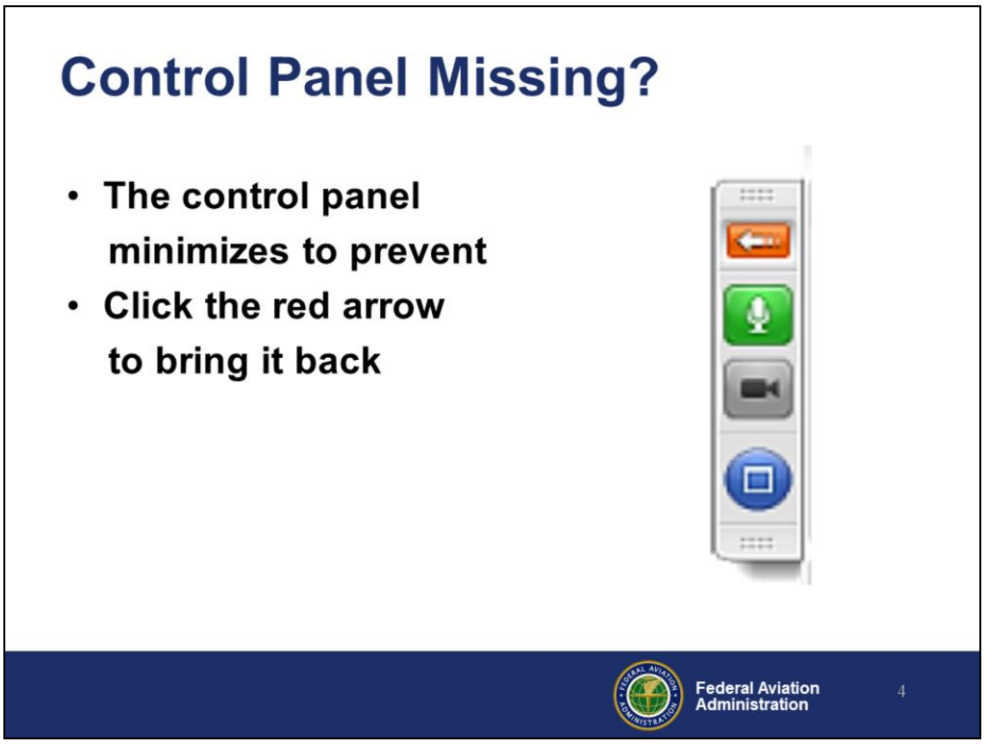
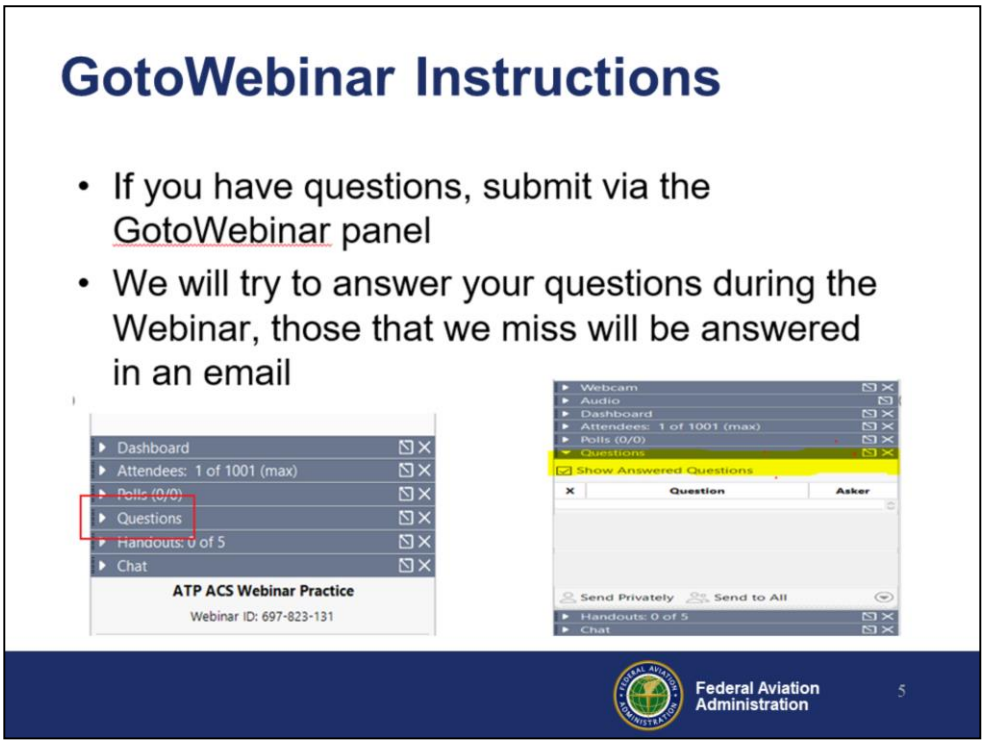
We will post the Webinar to the Airman Testing Branch's web page. Everyone on the call will be sent this presentation, it will have our web page's address on the last slide.



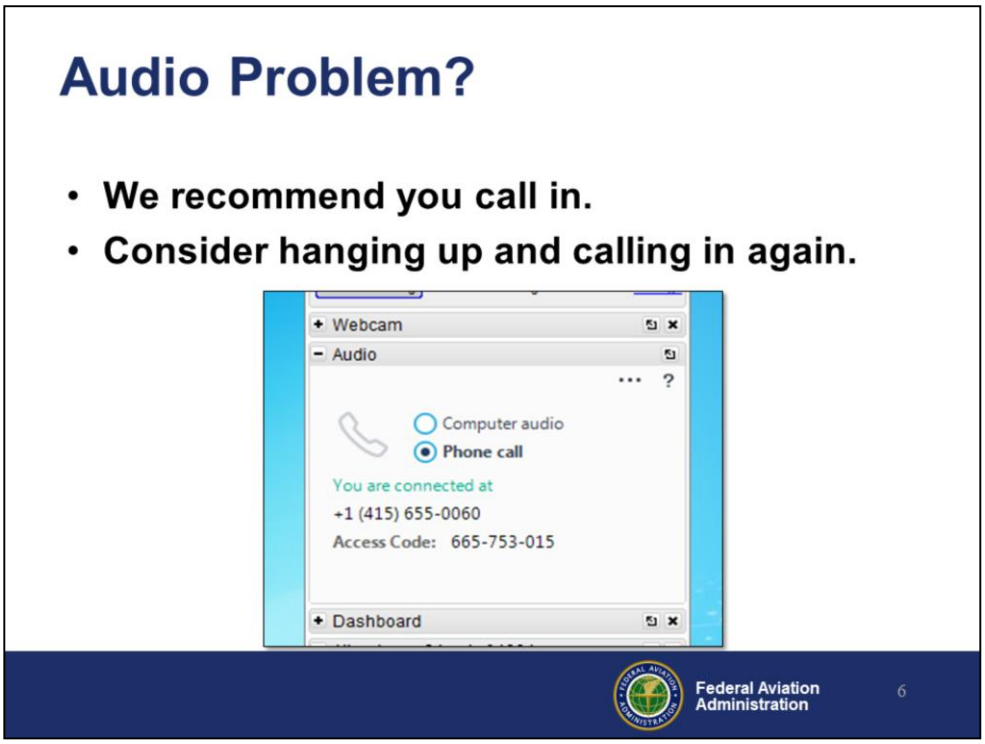
There is a control panel that you can use to ask questions during the webinar. If you do not see the control panel, look for this icon that is located on your screen. Use your cursor and click the red arrow, that will open your panel.



With the control panel open, you will see the graphic on the left side of this slide. There is a line with “Questions” on it. Click on the white arrow, and the box on the right side of the slide will open. You can break the text box out and make it larger by clicking on the box with the arrow that points up to the left on the right side of the Questions line. It is highlighted here. This makes asking questions a little easier.

Our panelists will answer questions to the best of their ability during the webinar. Questions that are regulatory or policy directed will not be answered during the webinar. Answers to these types of questions usually need some research and collaboration within the FAA.

We will email all the participants the questions and answers in the near future.



In past Webinars some people have said that they cannot hear the audio very well. This is usually because the person is using their computer speakers. We suggest you use the phone number to call in if you are having audio dificulties.

Airman Certification System

- Recap - What is the ACS?
- ACS Development - What's Next?
- ATP ACS Driven New Development
- ATP ACS Development & Process
- How to use the ATP ACS
- How will this affect Airline Training & Checking?
- How will this affect an Airline's ATP CTP?
- Resources

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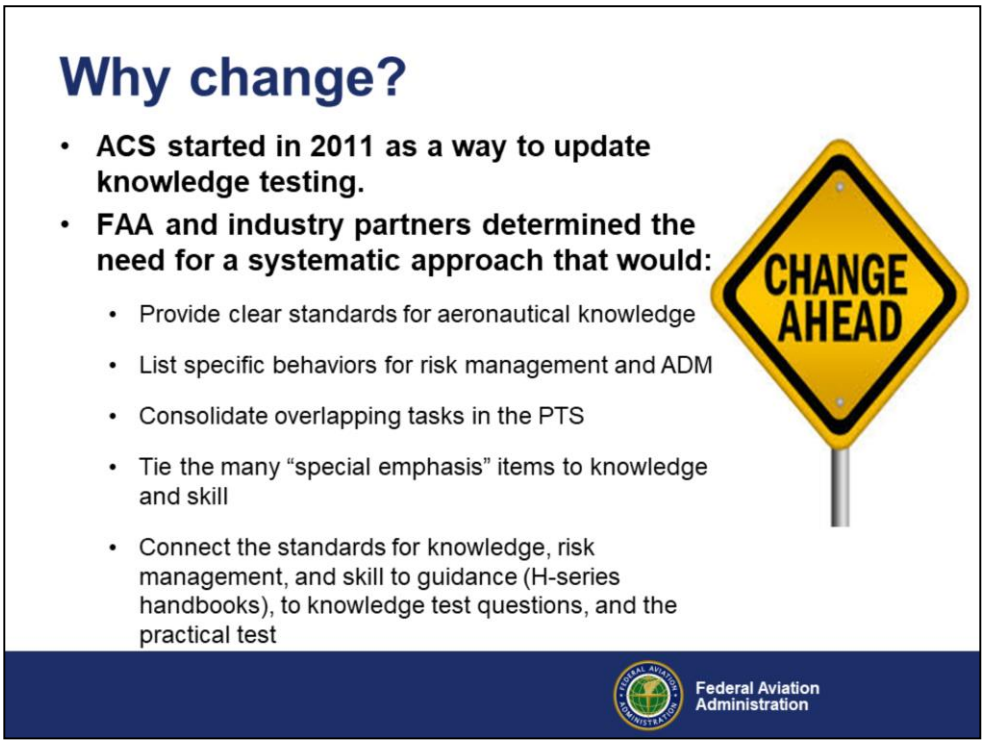
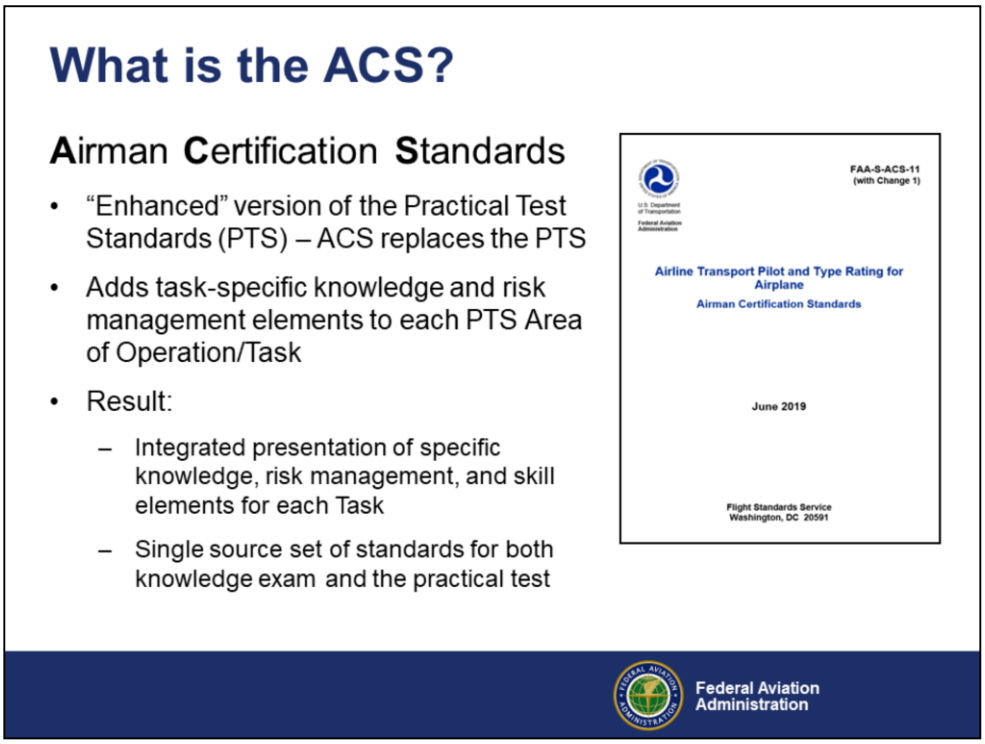
In this webinar we will cover the following topics:

- What is the ACS
- What is the current status
- How was the ATP ACS was developed
- How is Airline training and checking effected
- How the ATP ACS effects an airlines ATP CTP
- And we will finish up with resources



The ACS started in 2011 as a way to update knowledge testing, which was criticized for being out of step with today's operating environment. We asked for help from aviation training industry experts whose names you will see later in this presentation. They started with the idea of a "Knowledge Test Standard," or KTS, but realized we really needed a systematic approach to the overall airman certification system. This will allow us to:

- Provide clear standards for the aeronautical knowledge elements listed in the regulations, and make sure that the knowledge items reflect things an airmen really needs to know to operate safely in the NAS.
- List specific, observable behaviors for risk management and aeronautical decision-making; rather than just words in the introduction of the PTS.
- Consolidate overlapping Tasks in the PTS.
- Tie the many "special emphasis" items listed in the PTS to knowledge and skill.
- And last but not least, we needed to connect the standards for Knowledge, Risk Management, and Skill to FAA handbooks, the knowledge test questions, and the practical test.

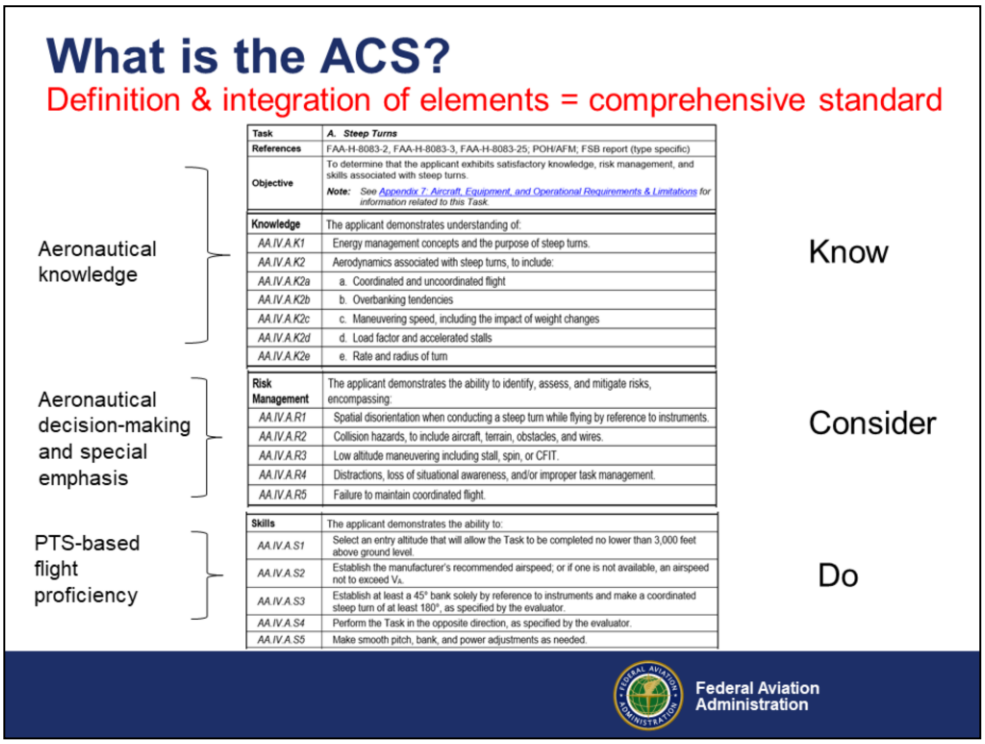


- The result of the need for a systematic approach is the Airman Certification Standards, or ACS.

- The official PTS-to-ACS transition started on June 15, 2016 when the private pilot and instrument rating-airplane ACSs were released. The following year, the commercial pilot-airplane was released. The FAA has also released the first Remote Pilot ACS in 2016 and most recently released the Military Competency ACS in October 2018.

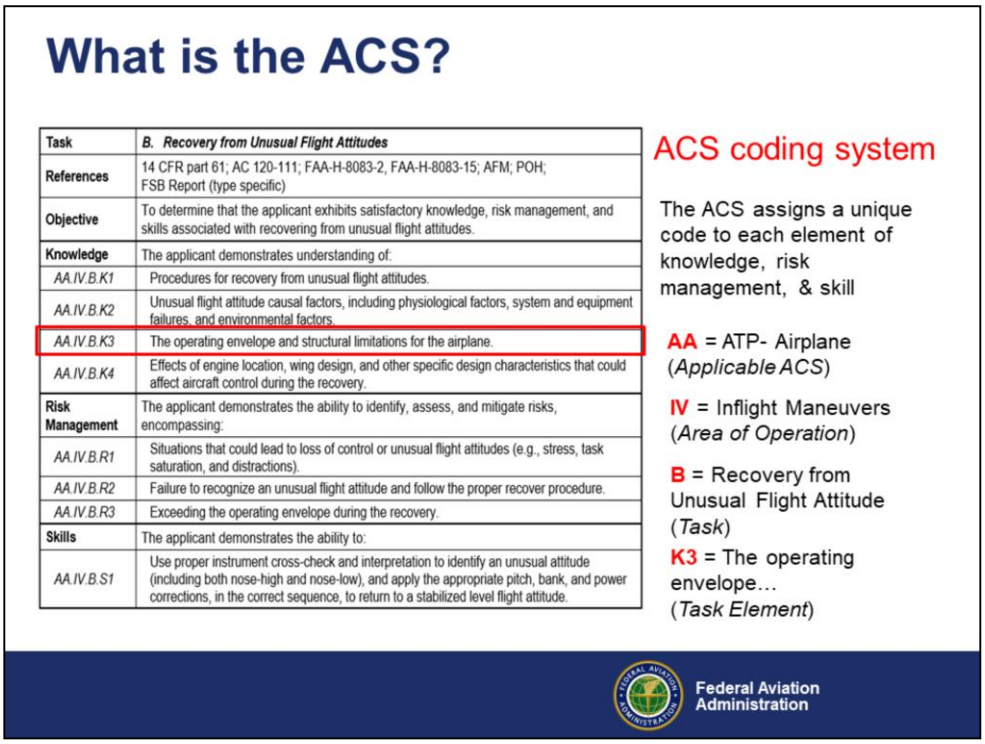
- The ACS adds task-specific Knowledge and Risk Management elements to each PTS Area of Operations and Tasks. The result is an integrated presentation of specific Knowledge, Risk Management, and Skill elements for each of the Tasks.

- The ACS thus provides a single-source set of the standards for both the knowledge exam and the practical test.



Task	A. Steep Turns
References	FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-25; POH/AFM; FSB report (type specific)
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with steep turns. **Note:** See Appendix 7: Aircraft, Equipment, and Operational Requirements & Limitations for information related to this Task.
Knowledge	The applicant demonstrates understanding of:
AA.IV.A.K1	Energy management concepts and the purpose of steep turns.
AA.IV.A.K2	Aerodynamics associated with steep turns, to include:
AA.IV.A.K2a	a. Coordinated and uncoordinated flight
AA.IV.A.K2b	b. Overbanking tendencies
AA.IV.A.K2c	c. Maneuvering speed, including the impact of weight changes
AA.IV.A.K2d	d. Load factor and accelerated stalls
AA.IV.A.K2e	e. Rate and radius of turn
Risk Management	The applicant demonstrates the ability to identify, assess, and mitigate risks, encompassing:
AA.IV.A.R1	Spatial disorientation when conducting a steep turn while flying by reference to instruments.
AA.IV.A.R2	Collision hazards, to include aircraft, terrain, obstacles, and wires.
AA.IV.A.R3	Low altitude maneuvering including stall, spin, or CFIT.
AA.IV.A.R4	Distractions, loss of situational awareness, and/or improper task management.
AA.IV.A.R5	Failure to maintain coordinated flight.
Skills	The applicant demonstrates the ability to:
AA.IV.A.S1	Select an entry altitude that will allow the Task to be completed no lower than 3,000 feet above ground level.
AA.IV.A.S2	Establish the manufacturer's recommended airspeed; or if one is not available, an airspeed not to exceed V_A.
AA.IV.A.S3	Establish at least a 45° bank solely by reference to instruments and make a coordinated steep turn of at least 180°, as specified by the evaluator.
AA.IV.A.S4	Perform the Task in the opposite direction, as specified by the evaluator.
AA.IV.A.S5	Make smooth pitch, bank, and power adjustments as needed.

- The integrated format of the ACS has a number of benefits.
  - It clearly tells applicants, instructors, and evaluators what an airman must KNOW, CONSIDER, and DO to pass the knowledge test and the practical test.
  - It shows how the required Knowledge, Risk Management, and Skill elements for each Area of Operation and Task are connected.
  - It defines the expectations and behaviors for Risk Management and connects them to a specific Task.
  - It puts the “special emphasis” items from the PTS into the right context.
- In summary – the ACS approach enhances safety by making tests meaningful and relevant to actual flight operations. And it contributes to standardization in teaching and testing of these concepts.

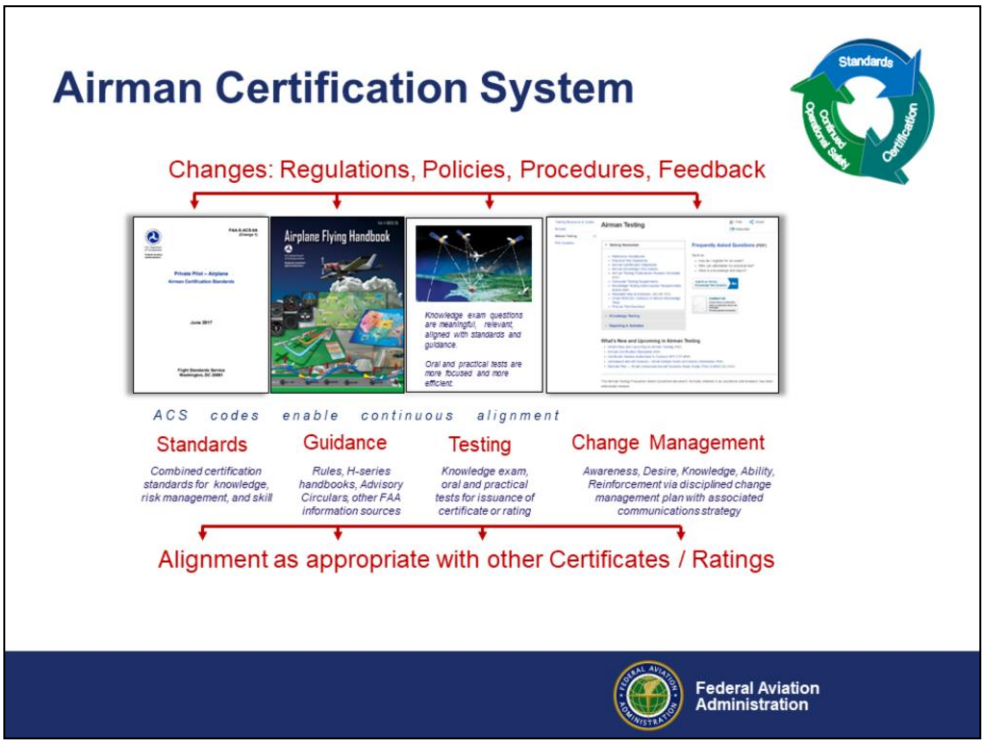


One of the strongest tools that the industry team developed for the Airman Certification Standards framework is the coding system.

The ACS assigns a unique code to each element of Knowledge, Risk Management and Skill.

In our example, let's take a look at what AA.IV.B.K3 means:

- **AA** = Airline Transport Pilot- Airplane (*defines the applicable ACS*)
- **IV** = Inflight maneuvers (*defines the Area of Operation*)
- **B** =Recovery from unusual flight attitudes. (*defines the Task*)
- **K3**= The operating envelope and structural limitations for the airplane. (*defines the element*)



- This is what we call the “One Slide”. It shows how the standards are one key component of the entire Airman Certification System, but it does not make up the entire system.
- The Guidance must support the Standards; and Testing must be in line with the guidance and the standards. Any changes must be communicated for the system to work properly.
- The ACS coding system provides the “thread” that links the standards to the guidance and the test questions, and will keep them aligned in the future.
- Any changes such as a rule change, the addition of a new technology or procedure, will feed the system. Then we must ask ourselves – Does the standard need to be updated? Is there guidance to support what’s changed? Do we need to test the material or make changes to what we already test? And finally, any decisions made as a result of the change must be communicated. We do that now with our “What’s New?” quarterly posts on the FAA’s Airman Testing Branch’s Website. We will provide the details of where you can find that information at the end of the webinar.
- This kind of communication is what’s called Change Management. This webinar is an example of CM. It is simply the FAA making the

public aware of changes we are making.

Who created the ACS?

ACS arises from extensive FAA/industry collaboration

- Industry-led development – the ACS has been developed, refined, and tested through three consecutive aviation training industry groups with diverse representation.
- Public comment - the FAA established several dockets for the industry groups to receive public comments on the ACS.
- Prototyping - the FAA and its industry partners conducted ACS prototype activities to test and refine the ACS for private pilot (airplane) and instrument rating (airplane).

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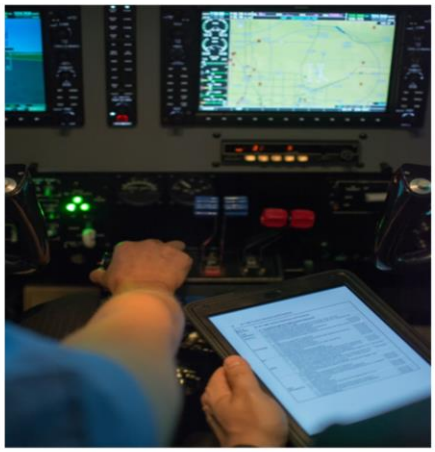
- Industry participation is a very important point, which we want to emphasize on this slide.
- The ACS reflects a great deal of input from industry experts, and from the public.
- The FAA has now used three groups of training and testing experts to develop, refine, and prototype the ACS concept.
- On behalf of industry working groups, the FAA twice established public dockets to receive feedback on the draft Private, Instrument, and Instructor ACSs.
- The working groups used those comments to refine the ACS, and also to develop a set of Frequently Asked Questions for the FAA's Airman Testing Branch's web page.
- With help from FAA and industry teams in Orlando and Seattle, we also conducted prototype testing of the Private Pilot Airplane and Instrument Airplane rating ACS.

ACS – What's Next?

In development:

- Private/Instrument/Commercial Updates
  - Effective June 28, 2019
- Airline Transport Pilot/Type Rating (Airplane)
  - Effective June 28, 2019
- Instructor (Airplane)
  - *Industry recommendations complete*
- Aircraft Mechanic Certificate with Airframe and/or Powerplant ratings
  - *Public comment period complete*
- Helicopter
- Powered-Lift
- Lighter-than-air



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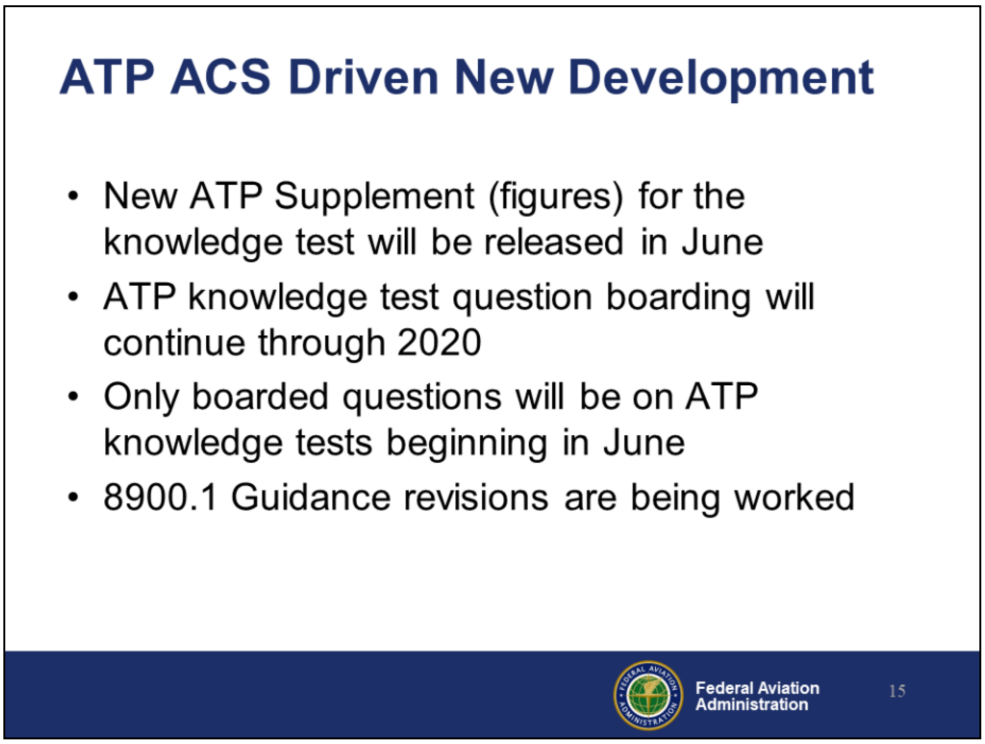
- So what's next?
- The release of the first ATP/Type Rating-Airplane ACS, which is why most of you are here; and the changes to the Private, Instrument, and Commercial ACSs.
- The FAA has also received industry recommendations for the Instructor-Airplane ACS and it is currently under review by the FAA.
- In 2016, we also started work on an ACS for the Aircraft Mechanic Certificate with Airframe and/or Powerplant ratings. This ACS has already gone through the public comment process. However, with the recent publication of the part 147 NPRM, it is waiting to see how changes to part 147 could impact it.
- With new membership, the industry groups have been actively developing the Rotorcraft/Helicopter ACSs; and has also begun to develop the first Powered-lift standards. This past winter industry also started work on the LTA ACS.

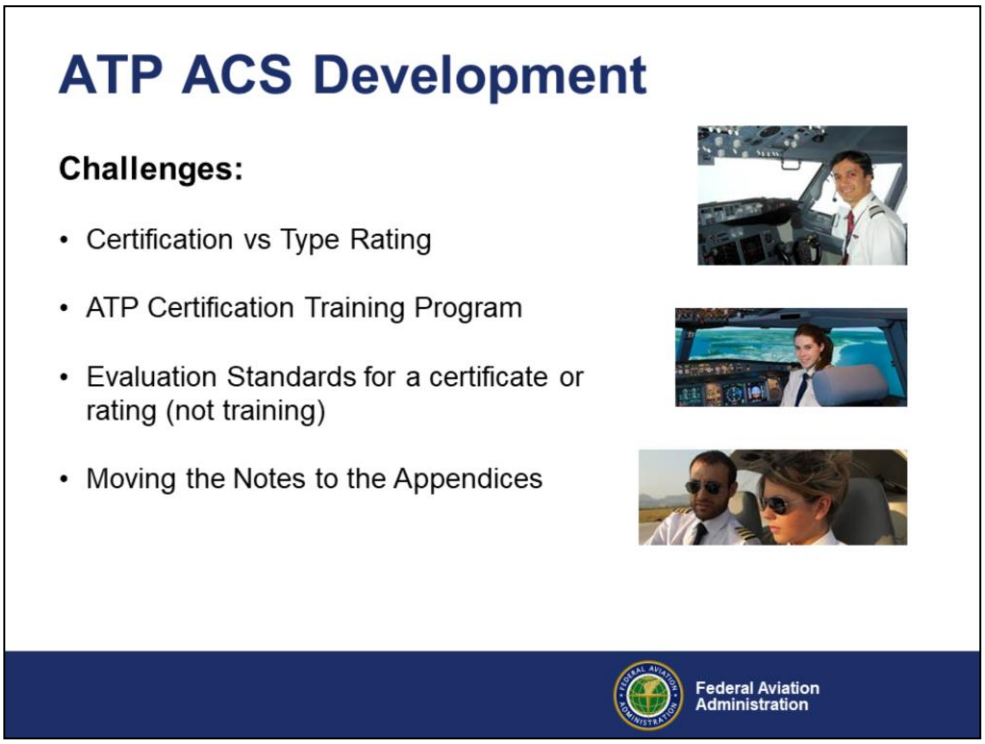


Before we get started into the ACS, let me inform you of other changes that occurred in June.

An updated ATP knowledge test supplement has been released and is now active. The new supplement is a single document, so the days of fumbling through multiple supplement books for the knowledge test are over. There have been some additional Figures added, and some that have been deleted. While this is a change, it will not be seen as a major deviation from the previous supplements.

We are currently reviewing knowledge test questions that could be seen on the actual knowledge test. We call this process, “Question Boarding.” The purpose of question boarding is to ensure the questions are relevant, correct, the topic is in the ATP ACS, there are resources available to provide testing material, and that the questions are at the ATP level.

FAA Guidance, the 8900.1, will also require revisions in support of the ATP ACS. We are actively working on those.



The ATP ACS presented some unique challenges in its development.

One challenge that is unique to this ACS is that the evaluation standards in the PTS have served two purposes –ATP certification and type rating qualification. When you add the knowledge elements to the evaluation standard, they don't necessarily apply to a type rating evaluation. The only time that a type rating qualification would require covering missed items on the knowledge test is when an ATP certification is also occurring. This is because a knowledge test is not required when adding only a Type Rating an existing certificate.

Along those same lines, we now have required training for the multiengine ATP certificate, which is a prerequisite to taking the knowledge test. This will be the FAA's first opportunity to capture the knowledge elements for the ATP Certification Training Program (ATP CTP) in a standards document. Unlike other certificates, part 61 has distinct differences in what a pilot must know between single-engine and multiengine class ratings.

Another challenge is ensuring we stick to establishing the evaluation standards – not the training standards. There may be areas that could or should be trained, but are not areas that require evaluation. While the document can help with training program development, it is not necessarily all-inclusive.

Finally, the ATP PTS had a significant number of notes – more than any other PTS document. To provide context – when all of the notes were pulled out of the PTS, it was 8 pages long, single-spaced. That is a lot of extra material for an applicant, an instructor and an evaluator to be familiar with. Like existing ACS documents, a majority of the note content has been captured in the appendices. With the task-specific information found in Appendix 7. We highly encourage everyone who uses the ATP ACS to take the time

and become familiar with Appendix 7.

ATP ACS – Process

- **Industry recommendation received –** June 2018
- **Published DRAFT for public comment**
  - October 2018 (60 days)
  - 94 commenters
  - https://www.regulations.gov/document?D=FAA-2018-0811-0002
- **FAA Release**
  - Effective: June 28, 2019

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It's important to comment on the process that went into the ATP ACS development. This was a collaborative effort with input from the training and testing industry and the public, which has made it a much better standards document.

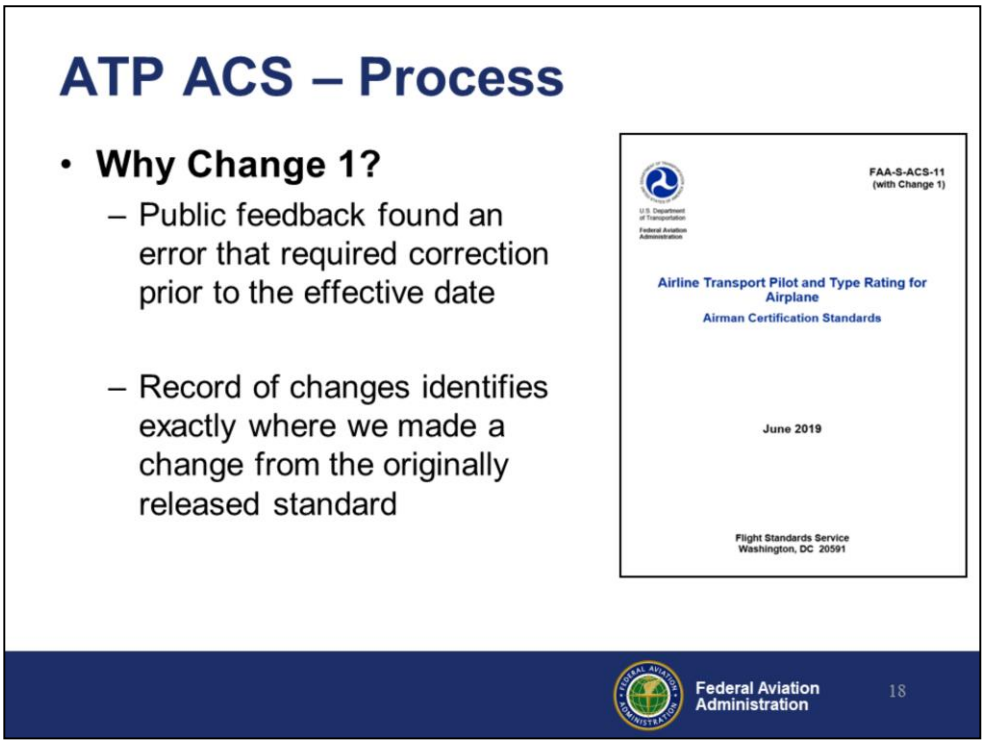
The FAA received the draft document from the ACS Workgroup in June, 2018. This group is under and approved by the FAA's Aviation Rulemaking Advisory Committee (ARAC).

New for this ACS, we were required to create a public docket to announce the document, and make it available for public comment; similar to how we publish proposed rules. We had a 60-day comment period that ended on December 21, 2018.

The Comments –

- Were overwhelmingly positive
- They were submitted by individuals, training organizations, aircraft manufacturers, and pilot labor groups
- Edits were made as a result of the feedback we received
- Many of the changes resulted in clarifying content

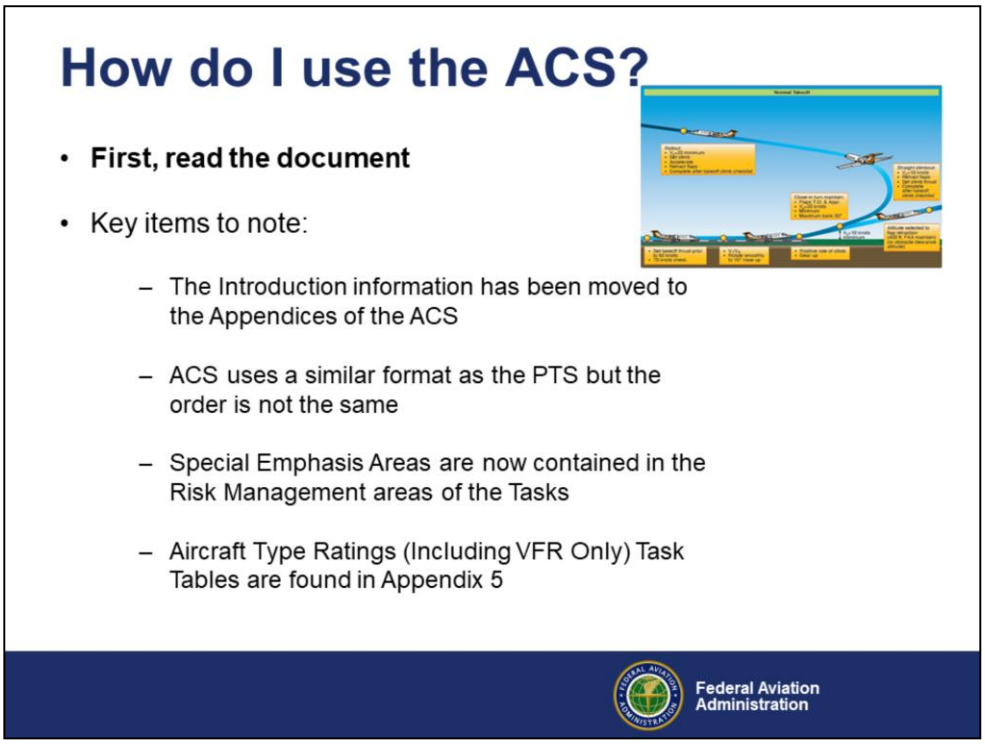
We have included the link above – you can also go to www.regulations.gov and search the docket number, marked with the red box. There you can view the draft document, all comments submitted, and the current version of the ATP ACS..



As you may have noticed, we have already had to release a change prior to the effective date. Despite the lengthy and deliberative process the document went through, there was an error. There is a record of changes that specifically identifies what has changed.

Indicative of the new process and how we are using the system, we received an inquiry about tasks required for adding a class rating to an ATP-airplane certificate. It turns out, we had placed “none” instead of “all” in the added rating task tables for instrument procedures. That was an error that we needed to correct prior to the effective date. So we made the change.

The change wasn’t quite that simple, however. After a review of the ACS task tables, and what part 61 requires for adding a category or class rating to an ATP certificate, ***we found there is no latitude in part 61*** – ***we are required to test every area of operation***. In addition, the expectation in the PTS is that you complete every task in an area of operation appropriate to the category and class sought. Maintaining that standard from the PTS is important, so we opted to remove the added task rating tables we had created. Now applicants seeking to add the airplane category, or an airplane class rating to an ATP certificate, will just follow the ATP Task Table.



Now let's get into how to use this document.

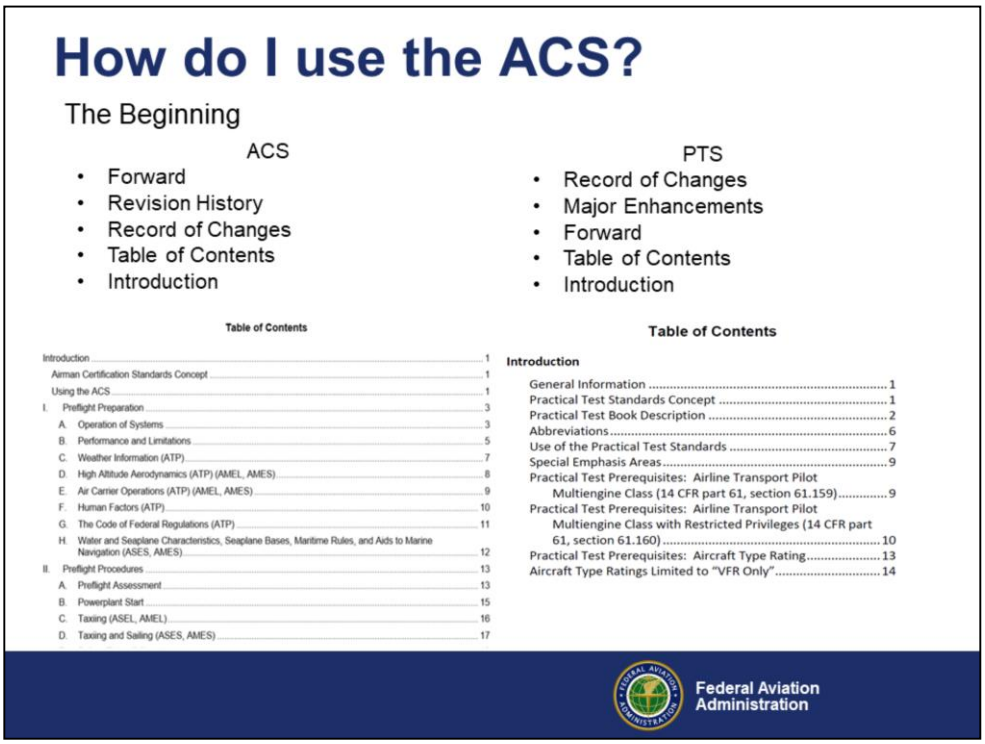
The first step should always be to read the document. There have been many times that we have received feedback from ACS users before they had fully read the ACS. Many times, if that person had read the entire ACS, their questions would have been answered farther into the publication.

Much of the introduction information has been moved to the Appendices of the ACS. If you are familiar with the other airplane ACS documents, the appendix structure is the same, and the content has been modified for the ATP ACS where necessary. We will review the appendices later in the presentation.

Although the ACS continues to use Areas of Operation and Tasks, the organization and order of the content has changed. In an effort to be consistent, the organization and format is modeled after the other ACS documents. The information is still there, only its placement has changed. In addition, we think you will find the actual Tasks easier to use and read as they are in a more user friendly table.

Special emphasis areas are now contained in the Risk Management part of each of the Tasks. There were comments early in the deployment of the ACSs that there are many more Risk elements than what were found in the PTS. This really is not the case. Instead of the elements being in one place, as they were in the PTS, they are now incorporated into the appropriate Tasks to better tie the risk being managed to a given task. We tried to make the risks more relevant to operations and therefore aid in considerations and decision making for a pilot.

We have created tables for tasks to add only an aircraft type rating, including VFR Only. You will find these tables in Appendix 5.



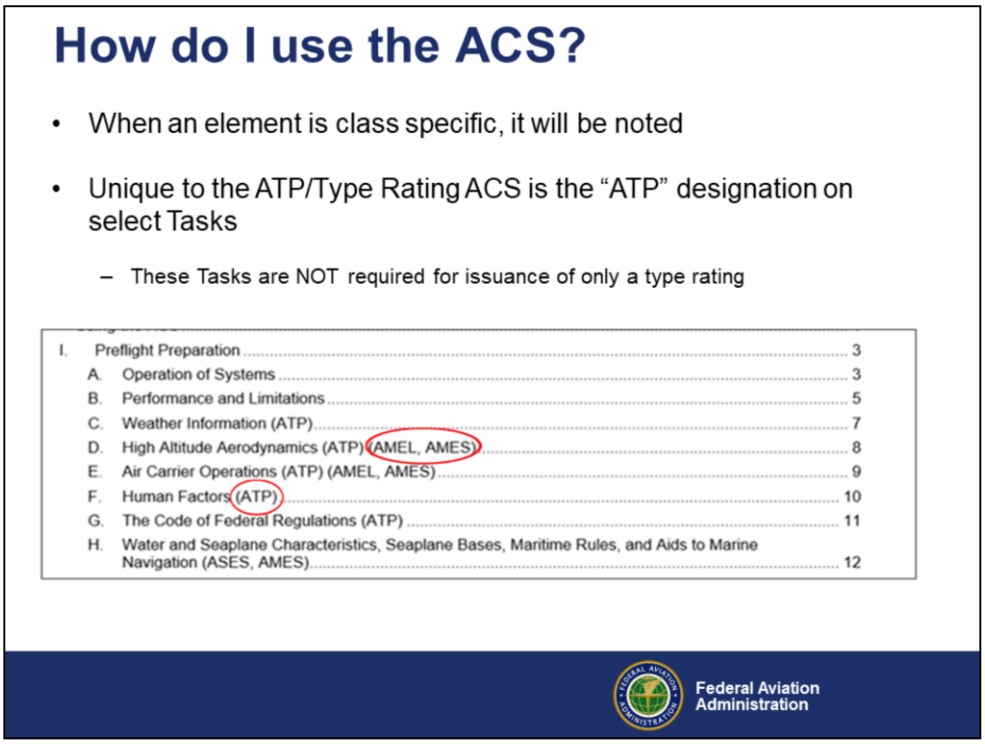
To provide a little more detail about the differences, I will highlight more specifically what has changed, and I will start at the beginning.

You will find the ACS Forward to be more comprehensive than the PTS forward. It briefly explains the rationale behind the change from the PTS and how it is part of the Safety Management System (SMS) framework the FAA uses to mitigate risks associated with airman certification.

The PTS began with a Record of Changes and Major Enhancements. As I just explained, we have already released a change, so the ACS does have a Record of Changes, after the Forward. Any subsequent revision could also see a Major Enhancements page, like the other ACS documents.

The most noticeable difference between the two is the introductory material. A majority of the content currently found in the PTS Introduction is now found in the appendices of the ACS. By moving it to the end, the user is not required to flip through more than 20 pages of content to get to the standard. If you need it, it's available, just not at the very beginning.

The ACS simply starts with the Airman Certification Standards Concept and a brief explanation of how to use the ACS. It's also important to note that the ACS is not broken into sections like the PTS. We did, however, retain the structure of Areas of Operations and Tasks, as I mentioned. Next I'll show you how it works without the sections.

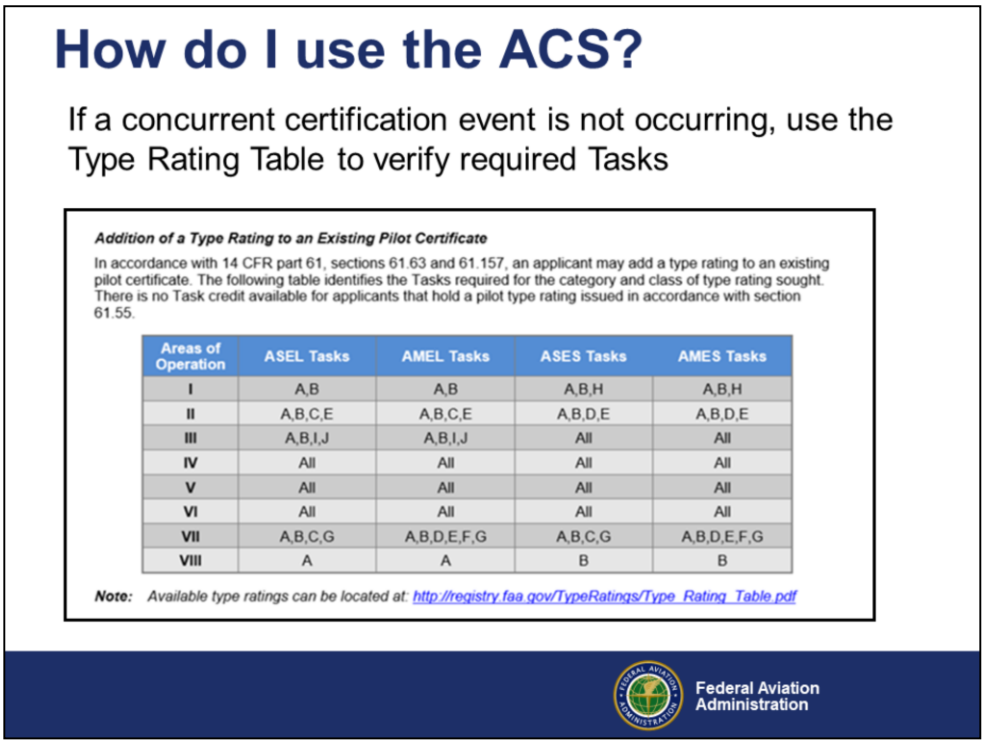


Instead of using sections, when an element is class specific, it will be noted. In our example, High Altitude Aerodynamics, it applies to AMEL and AMES classes only. If the element is not class specific, there will not be a designation next to it, and it applies to all applicants. If you're familiar with the other airplane ACS documents, the designations work the same here as well.

Unique to this ACS is the "ATP" designation as circled in Task F, Human Factors. In this case, "Human Factors" is for ATP certification and it is not to be tested for applicants that are applying for a type rating only. The reason for what appears to be new tasks is the addition of the knowledge (or written test) standard. Part 61 specifically requires testing of these subjects so we had to add them.

I'd like to spend a little more time with this to allow it to sink in. I will walk through each Task in this first Area of Operation because this is the only place you will find the "ATP" designation.

- For **Task A**, Operation of Systems, it is a required task for every practical test, including a type rating.
- Same applies to **Task B**, Performance and Limitations; it is a required task for every practical test, including a type rating.
- **Task C**, Weather Information, applies to all applicants seeking an initial ATP certificate or added class rating to their ATP certificate.
- **Task D**, High Altitude Aerodynamics, applies to all applicants seeking a multiengine ATP certificate or adding a multiengine class rating to their certificate.
- **Task E**, Air Carrier Operations, also applies to all applicants seeking a multiengine ATP certificate or adding a multiengine class rating to their certificate.
- Both **Tasks F and G**, apply to all applicants seeking an ATP certificate or added class rating to their certificate.
- **Task H** is only applicable to applicants seeking a seaplane ATP certificate or adding the seaplane rating to their certificate.



For conducting a type rating only practical test, you will complete all tasks except the ones with an “ATP” designation **and**, if there is a class designation.

To avoid any confusion or uncertainty, we have added a task table in Appendix 5 for adding a type rating to a certificate. You would not use this table if there is a concurrent ATP certification test occurring.

We have also provided the link to the type rating table, which identifies all available aircraft type ratings.

How do I use the ACS?

Evaluator's Plan of Action must include:

- *At least* one **K**nowledge Element
- *At least* one **R**isk Management Element
- *All* **S**kill Elements from required Tasks
- All subjects missed on the knowledge test (if applicable)
  - The evaluator may use Task Elements from missed knowledge test subjects to meet the minimum requirement for one Knowledge and one Risk management element.
  - The evaluator has the discretion to select additional elements if the knowledge test report or the applicant's response to questions indicates weakness in a given Task.

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The Plan of Action that is developed by an evaluator is required to have for each required Task – at least one Knowledge Element, at least one Risk Element and all Skill Elements applicable to the class of airplane.

For ATP-specific tests, where a knowledge test is required to be completed, the evaluator must test any areas that were found to be deficient on the applicants knowledge test report. By covering something that was missed on the knowledge test, this would meet the requirement of testing one of the knowledge or risk elements for a given task. It is not intended to be the deficient area plus one additional element. However, it is always at the discretion of the evaluator to test additional elements if or when the evaluator deems additional testing is needed.

How do I use the ACS?

As with the PTS, the evaluator's Plan of Action should combine Tasks and Task Elements to create an efficient, scenario-based test.

The ACS should not make either the oral portion or the flight portion of the practical test any longer than it was with the PTS.

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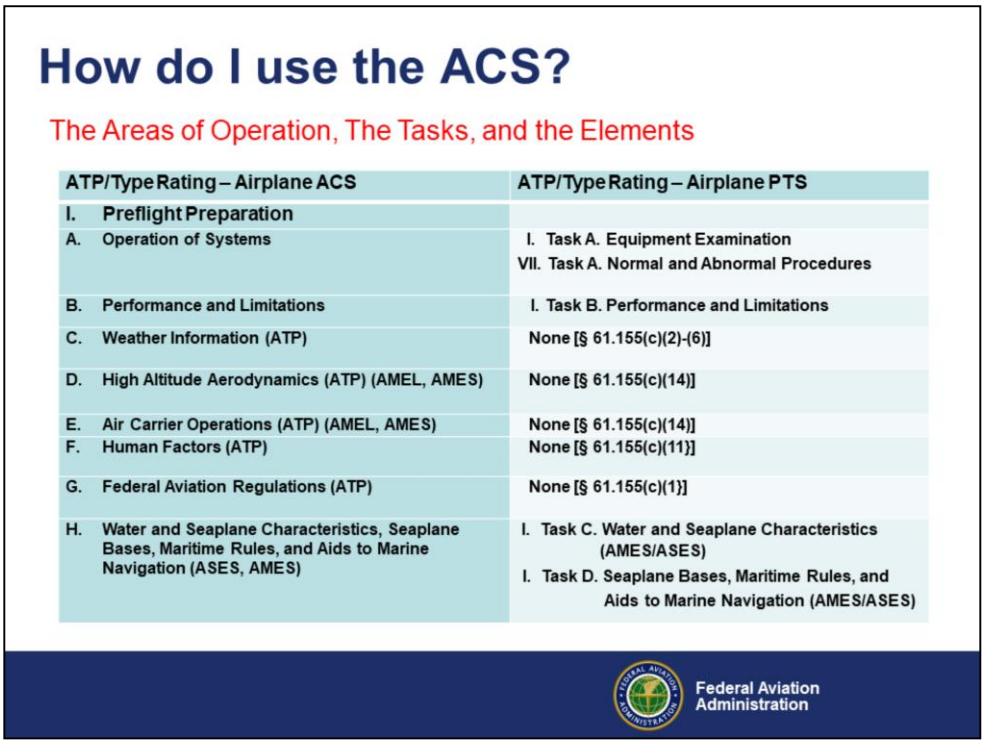
The Plan of action should combine Tasks and Task Elements to create an efficient, scenario-based test, where appropriate.

The ACS should not make either the oral portion or the flight portion of the practical test any longer than it was with the PTS. The required tasks and the standards generally have not changed.

With that, let's jump into the actual standards and talk specifics.

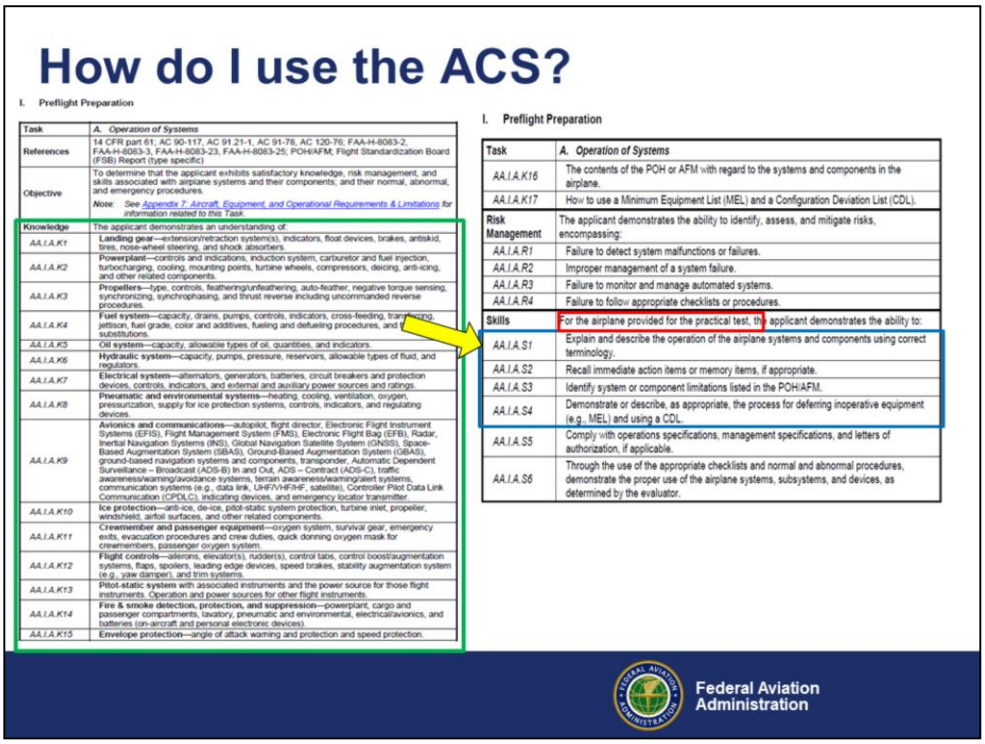


I'll first start with a comparison of Area of Operation I, Preflight Preparation, to show some examples of how we combined PTS Tasks.

- You will note that Task A, Operation of Systems, incorporates the PTS "Equipment Examination"; and the "Normal and Abnormal Procedures" Tasks.
- You will also notice that the two seaplane tasks in the PTS were combined into Task H in the ACS.

We have noted the regulatory reference for the topic areas found in Tasks C through G, since those Tasks do not currently exist in the PTS. This is an example of subject matter has always been a part of the knowledge testing. But, until now was not included in a testing standard, because one did not exist.

Next I'd like to break things down a little further and highlight some important considerations for the first two tasks – Operations of Systems and Performance and Limitations.



This is not meant to be an eye chart, but there are some important pieces to point out in this entire Task. You can reference with your copy of the ACS for the actual text.

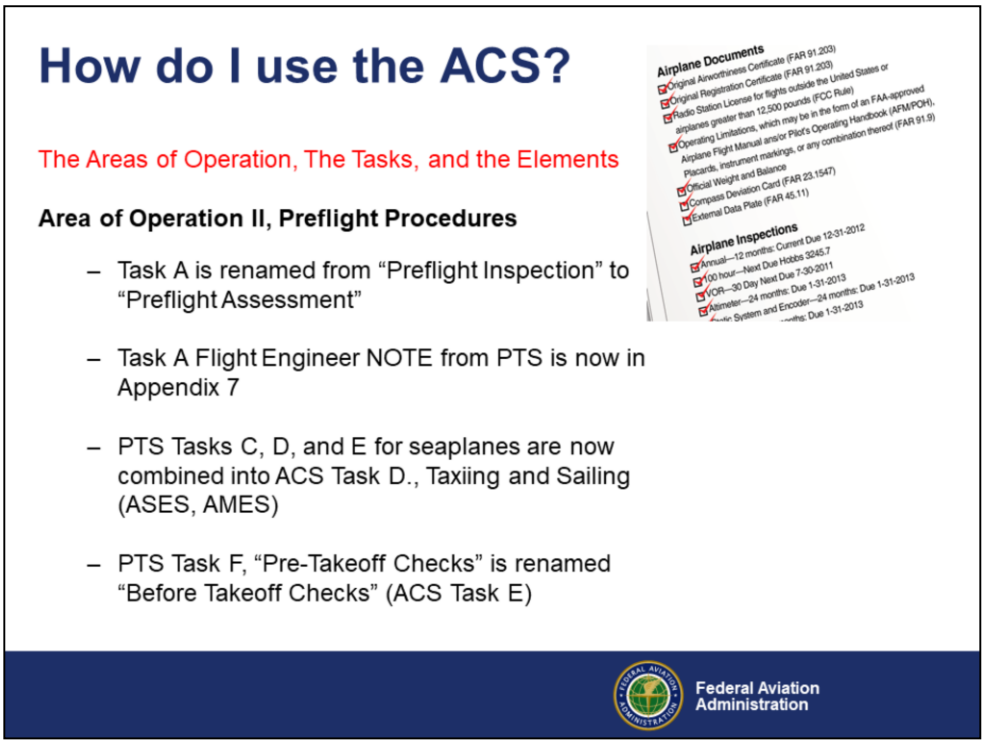
First, the lead in statement for the Skills section for these first two tasks is very specific. The elements that follow are specific to the airplane provided for the practical test. I've noted where to find that with the red box. This is important for this task, and for the performance and limitations task because of the next point.

Not all Skill elements are performed in flight. In some cases, there are Skill elements that would be appropriately assessed in the oral portion of the practical test, or prior to flight. Good examples of that are noted in the blue box. If you are familiar with the ATP PTS, the requirement for an applicant to explain or describe all of this content has not changed. In order to maintain the current standard, and ensure that all of these areas would be evaluated, we had to place it in the Skills section. That is because all of the Skill elements are required to be completed.

To practically apply this information, let's look at element S1; noted with the yellow arrow. It specifically requires the applicant to "Explain and describe the operation of the airplane systems and components using correct terminology." Based upon the lead in statement, this explanation should cover the systems of the airplane brought to the test. The evaluator can use the list of possible airplane systems and components found in the Knowledge section of the Task, noted with the green box.

The list of systems and components has been updated to reflect new technology and is more comprehensive than the PTS. Although it's more comprehensive, it is not all-inclusive. The evaluator should ask the applicant to explain the systems and components applicable to the airplane brought to the test. These elements provide a guide to what could be asked. It also provides a guide to what should not be

asked. For example, if the airplane does not have a fire suppression system, general questions on that system will not be asked.



AOO II has very few changes from the PTS to ACS.

- One of the changes is that the Preflight Inspection has been renamed Preflight Assessment. In the original development of the ACS, the work group determined that the preflight was more of an over-all assessment of the aircraft and renamed it. As a result, Preflight Assessment is used in all of the ACSs.

- The NOTE from the PTS about the use of a Flight Engineer and a pictorial means of the assessment has not been deleted, it is now found in Appendix 7 like a majority of the PTS notes.

- Another notable change is that PTS Task C, "Taxiing", Task D, "Sailing", and Task E "Seaplane Base/Water Landing and Site Markings and Lighting" have been consolidated into ACS Task D, "Taxiing and Sailing".

- Finally, PTS Task F, "Pre-Takeoff Checks" is renamed "Before Takeoff Checks", which is now ACS Task E.

How do I use the ACS?

The Areas of Operation, The Tasks, and the Elements

Area of Operation III, Takeoffs and Landings

- Task organization/order has changed
- Takeoffs and Landings associated with instrument procedures or an emergency procedure are found in their respective Areas of Operation
- Crosswind has been removed from the Normal Takeoff and Approach and Landing Task titles – but it is still part of the task evaluation

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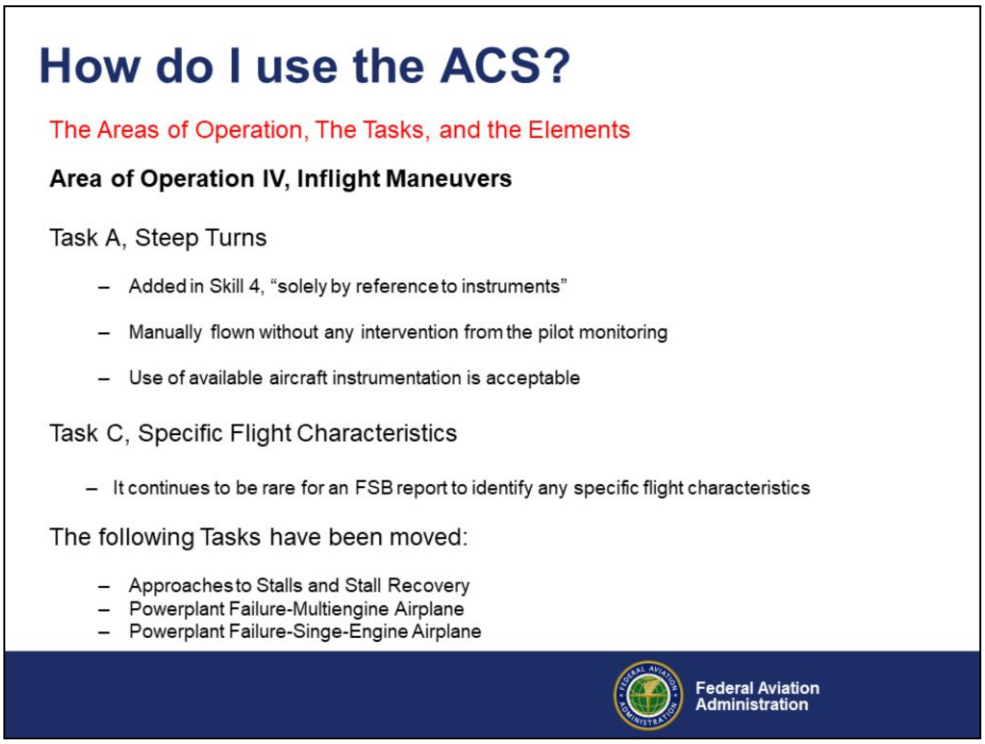
AOO III is where there is noticeable change. No longer are the ATP areas of operation organized by phase of flight. As previously mentioned, the areas of operation are in an order consistent across ACSs, where that is possible. What that means is the takeoffs and landings are generally together in this AOO.

You might consider the takeoffs and landings in this AOO to be visual maneuvers. Takeoffs or landings that are associated with instrument procedures or an emergency procedure are found in their respective AOO. I'll note those as we go along.

Another notable change is "crosswind" has been removed from the name of the Normal Takeoff and Normal Approach and Landing Tasks. A crosswind is considered to be a normal takeoff and landing procedure, the work group determined it did not belong in the Task title any longer – and the FAA agreed. It is, however, still part of the Task testing requirement.



You will notice what appears to be a subtle change to Skill 4 in the "Steep Turns" Task. By adding the words "solely by reference to instruments" this aligns with part 61, by requiring the applicant to use a view limiting device when performing this maneuver. This was always the expectation, and it was included in the PTS notes; now you will find it as part of the standard.

We have also provided some additional guidance to evaluators for this task in appendix 7. For example, we have ***carried over the note from the PTS*** that explains the applicant must demonstrate his or her ability to control the airplane ***manually without any intervention from the pilot monitoring (NOTE: we have received some comments about this, it is a carry over from the PTS. Please refer to page 19 of the ATP PTS for reference)***. With constant increases in aircraft technology, we have also added that applicants may use available aircraft instrumentation when performing steep turns.

Specific Flight Characteristics remains a task in the ACS. However, it is rare to find an FSB report that has such a characteristics identified. So, testing of this task will continue to be uncommon.

There are some Tasks that have been moved to more appropriate

Areas of Operation in the ACS. For example, Approaches to Stalls is now covered in AOO V. Powerplant failures are now covered in AOO VII, Emergency Operations.

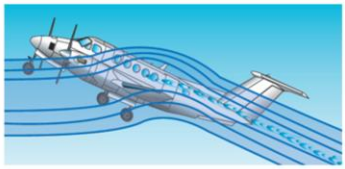
How do I use the ACS?

The Areas of Operation, The Tasks, and the Elements

Area of Operation V, Stall Prevention

There are now three separate stall Tasks:

- A, Partial Flap Configuration Stall Prevention
- B, Clean Configuration Stall Prevention
- C, Landing Configuration Stall Prevention



Tailored knowledge and risk elements:

AA.V.B.K2	how to recognize by sight, sound, or feel).
AA.V.B.K3	Factors and situations that can lead to a stall during cruise flight and actions that can be taken to prevent it.
	Effects of autoflight, flight envelope protection in normal and degraded modes, and

A low speed alert is NOT a stall warning

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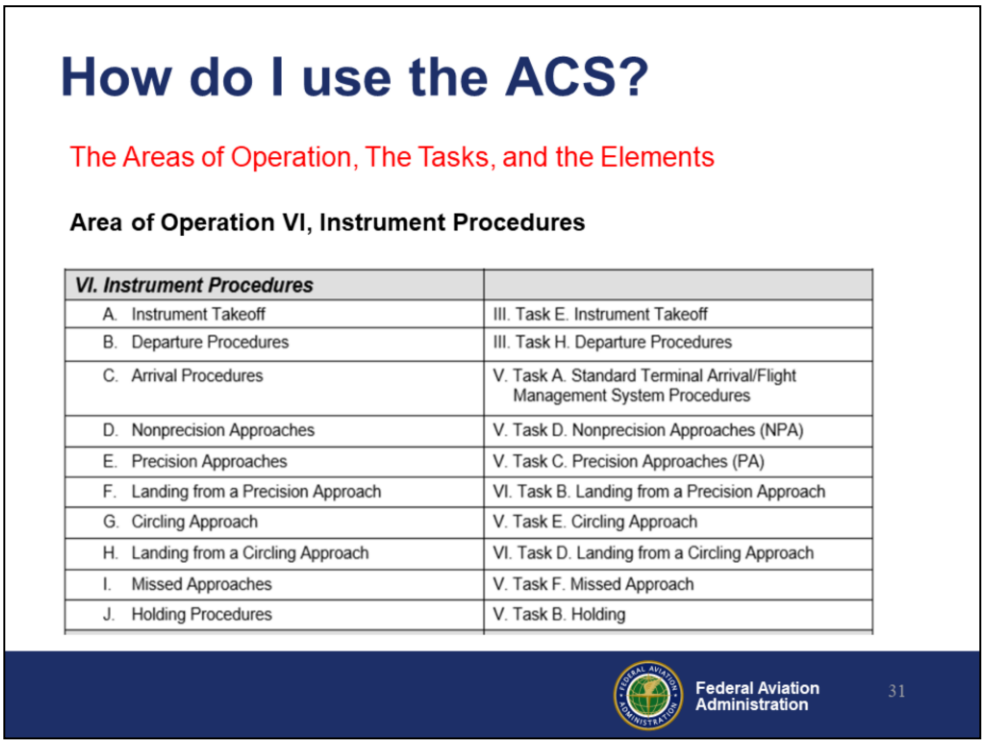
Similar to the other airplane ACS documents, we have placed the stall tasks in their own area of operation. In the PTS, stalls were just one task with a lengthy note. This Note explained you had to perform three different kinds of stalls with the airplane in different configurations.

In the ACS each type of stall is its own task, and the knowledge and risk elements are tailored for the specific stall configuration. One example is the applicant should be able to explain factors and situations that can lead to a stall in a particular phase of flight, and understand actions that can be taken to prevent it.

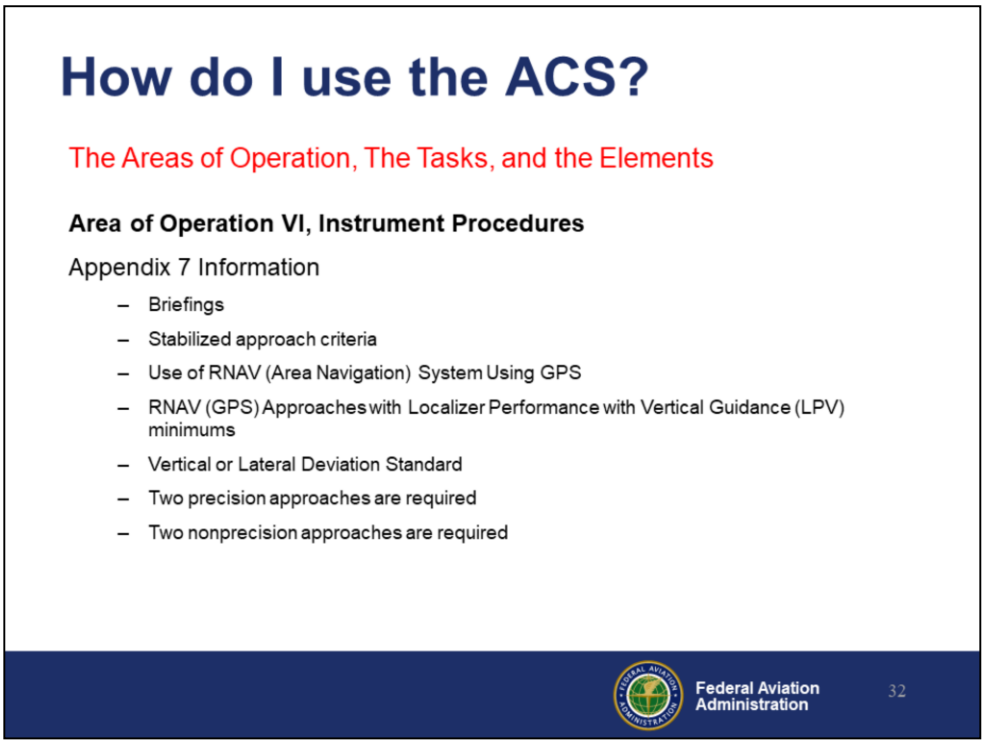
You will also find additional evaluator information in appendix 7. The FAA is regularly asked if a low speed alert is considered a stall warning. In accordance with aircraft certification standards, such an alert is NOT considered a stall warning. Therefore, for the purposes of this task, the applicants ability to recognize a stall warning must be furnished by inherent aerodynamic cues, or an acceptable stall warning device such as a stick shaker.



The next area of operation is Instrument Procedures. Here's the comparison of the ACS, left column, and the PTS tasks in the right column. A few task titles changed slightly and the organization of the tasks are different. They are purposely grouped so these normal instrument procedures are within one area of operation.

One of the challenges in converting to the ACS was the removal of redundant standards between the approach task and the associated landing or missed approach tasks. In some cases, landing standards were included in the approach standard and approach standards were included in the landing standard. We worked to minimize that overlap in the ACS, now there is a more clear division between tasks.

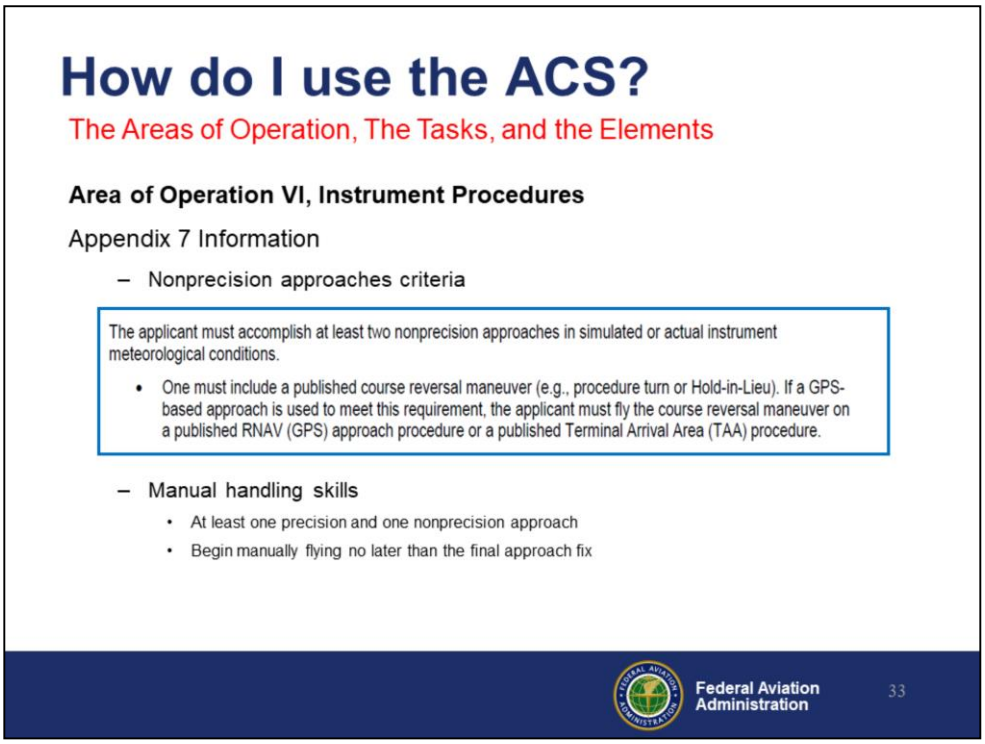
The PTS note concerning a VFR type rating is no longer needed here. With the addition of a VFR only type rating table in appendix 5, this area of operation is not tested.



Like many of the other NOTES from the PTS, the information is now consolidated into Appendix 7. There is a lot of information concerning instrument procedures so please take the time to read it carefully.

The specific guidance on applicant briefings, stabilized approach criteria, use of RNAV systems (if equipped), and the standard for vertical or lateral deviation is provided. There is also information regarding RNAV (GPS) approaches with LPV minimums, and when they can be used for precision or nonprecision approaches for the purposes of this test.

Additional details surrounding the number of approaches and other criteria for performing the approaches is also located within Appendix 7, under their respective task identification.

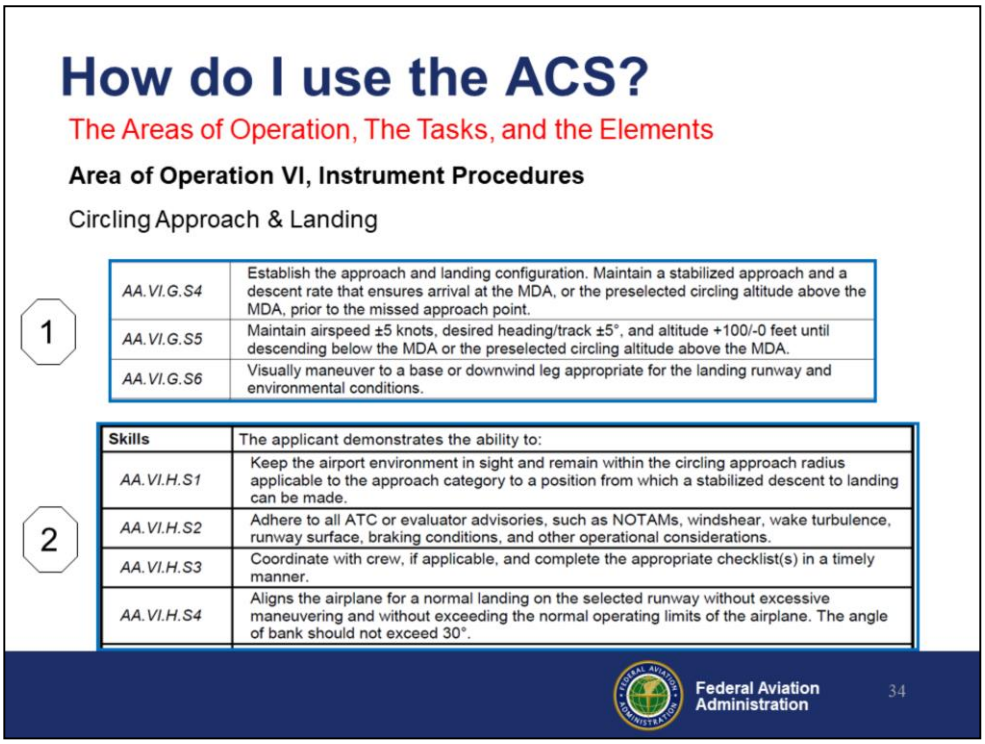


There is one criteria I'd like to highlight because it has been updated. This is if or when a GPS-based approach is to be used for one of the nonprecision approaches, a published course reversal maneuver must be performed.

If a GPS-based approach is used to meet this requirement, the applicant must fly the course reversal maneuver on a published RNAV (GPS) approach procedure, or a published Terminal Arrival Area (TAA) procedure.

Flying a Basic T, for example, where only a 90 degree turn is required does not satisfy the intent of this criteria.

With increased automation and tools available to pilots, the FAA is still emphasizing the importance of manual flying skills. This is why we continue to maintain the expectation that at least one precision and one nonprecision approach must be flown without the use of an autopilot. We have added criteria for when the manual flying should occur for better standardization in evaluating the tasks.



Circling approach and landing are two additional tasks we need to spend a little time on. As I noted earlier, we spent quite a bit of time removing overlap between related tasks. In this case, we needed to clearly define the standards for the approach, and determine at what point has the applicant transitioned to the landing from a circling approach task.

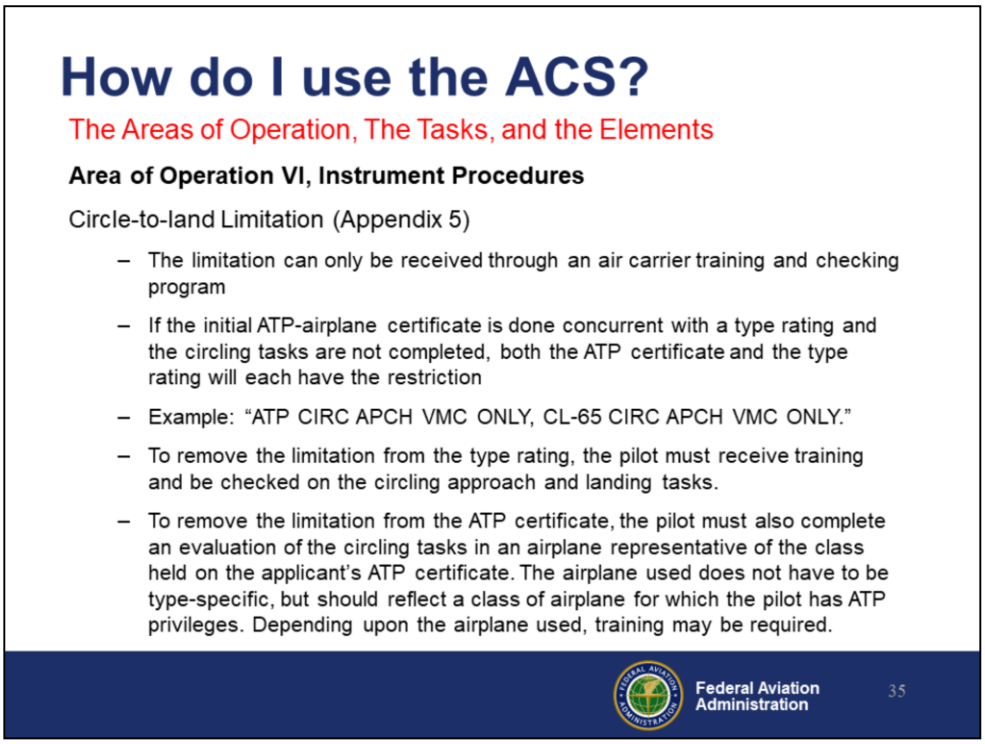
The first box represents elements from the approach task. The approach continues to the point where the pilot will visually maneuver to a base or downwind leg for the landing runway, and the environmental conditions. This phrasing aligns with the AIM and the explanation for a circling approach.

We needed to provide added clarification around this point. Many have interpreted this to also mean that the approach runway and the landing runway needed to be at least 90 degrees offset. That is not the case. It is possible for the runways to be less than 90 degrees offset, the key is that the applicant maneuvers to a base or downwind leg. Which, by doing so, should result in at least 90 degrees of heading change by the time the applicant makes the final turn to the landing runway.

This interpretation may have been driven by FAA simulator evaluation criteria. We will be looking at that guidance and updating where we need to so additional approach options that meet this clarified standard can be used when testing in a simulator.

Box 2 represents the landing standard. In S1 we have added emphasis on remaining within the

circling approach radius applicable to the approach category flown. S4 emphasizes maneuvering within the airplane operating envelope and not exceeding 30 degrees of bank.



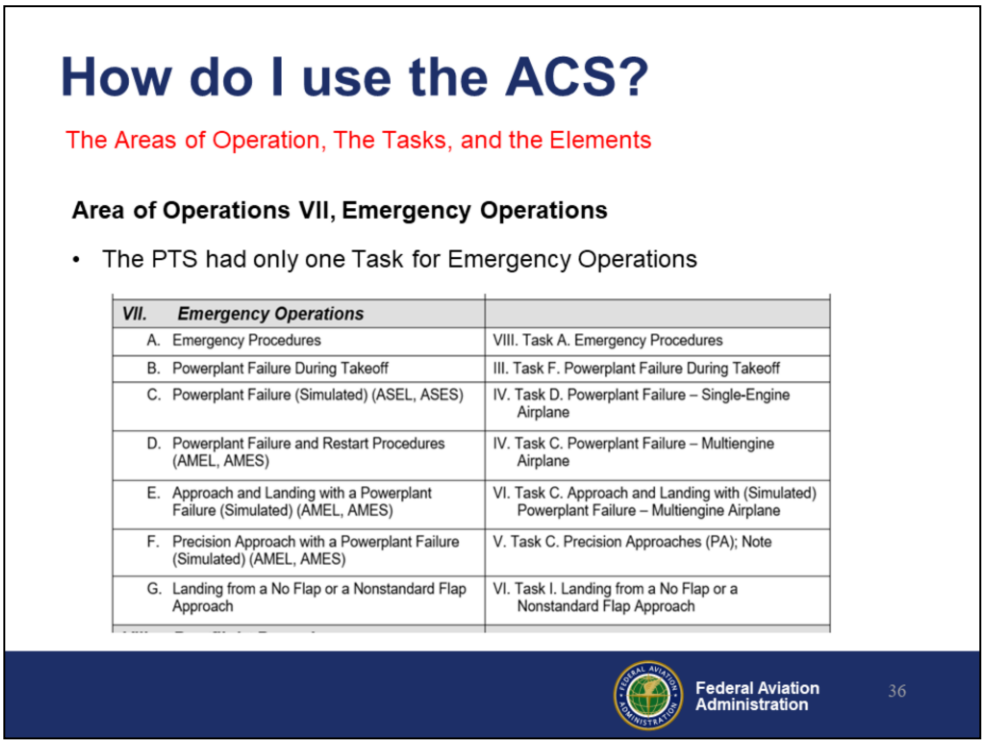
We are not quite done with circling – we need to cover the limitation that some pilots have on their certificates.

A pilot may receive a circle-to-land limitation through an approved air carrier training and checking program. This limitation restricts a circling approach in the specified airplane type to visual meteorological conditions (VMC) only.

If the initial ATP-airplane certification is done concurrent with a type rating, and the circling tasks are not completed, both the ATP certificate and the type rating will each have the restriction. I have included an example on the slide.

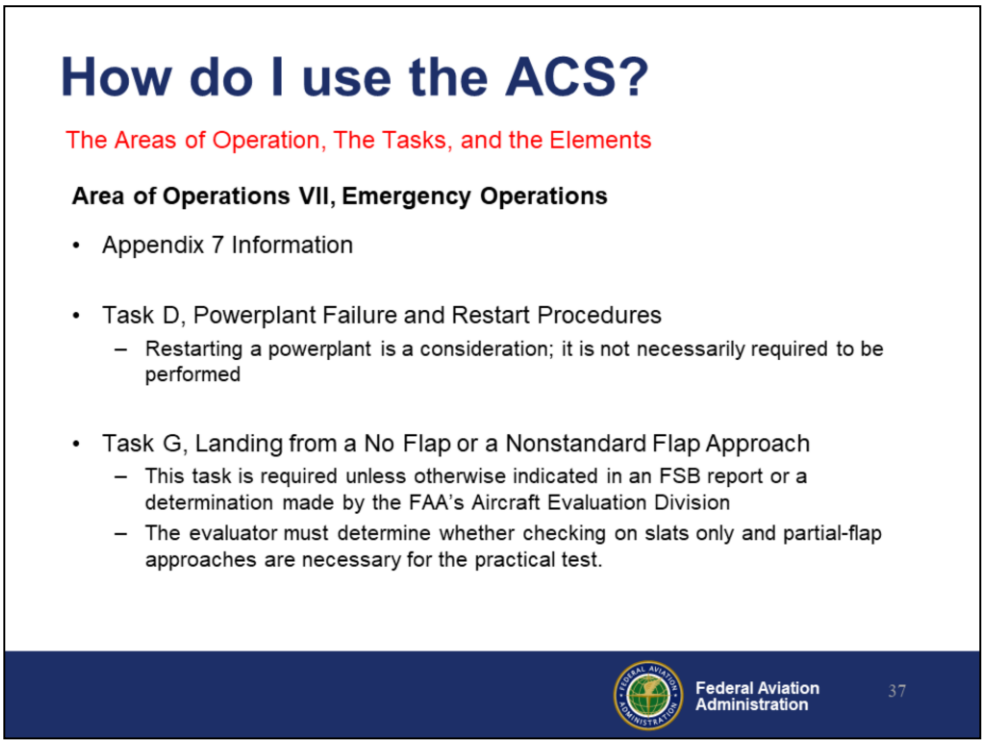
To remove the limitation from the type rating, the pilot must receive training and be checked on the circling approach and landing tasks.

To remove the limitation from the ATP certificate, the pilot must also complete an evaluation of the circling tasks in an airplane representative of the class held on the applicant's ATP certificate. The airplane used does not have to be type-specific, but should reflect a class of airplane for which the pilot has ATP privileges. Depending upon the airplane used, training may be required.



Emergencies are presented in a much different manner in the ACS than they were in the PTS. The PTS had emergency procedure tasks within many of the different areas of operation, as shown by the comparison on the slide. The ACS has grouped all tasks that are considered emergency operations into one area of operation. This is an advantage to the user in that the Tasks that are to be completed are in a more logical and user-friendly format.

There are a few additional points I'd like to highlight in this area of operation on the next slide.



I'd like to emphasize the importance of appendix 7 for this area of operation and encourage you to become familiar with the task-specific details found within it.

For Task D, "Powerplant Failure and Restart Procedures", although the title has changed from the PTS, the expectation that a restart is considered is not a change. The key word is "considered". Depending upon the scenario given or the airplane design, restarting a powerplant may not actually be an option. Additionally, the applicant should be able to convey why or why not.

For Task G, Landing from a "No Flap or a Nonstandard Flap Approach", this task is required, unless otherwise indicated in an FSB report or a determination made by the FAA's Aircraft Evaluation Division.

The evaluator must determine whether checking on slats only and partial-flap approaches are necessary for the practical test. However, probability of asymmetrical flap failures should be considered in this making this determination

How do I use the ACS?

The Areas of Operation, The Tasks, and the Elements

Area of Operations VIII, Postflight Procedures

- The ACS has two Tasks
  - Task A, After Landing, Parking and Securing
  - Task B, Seaplane Post-Landing Procedures

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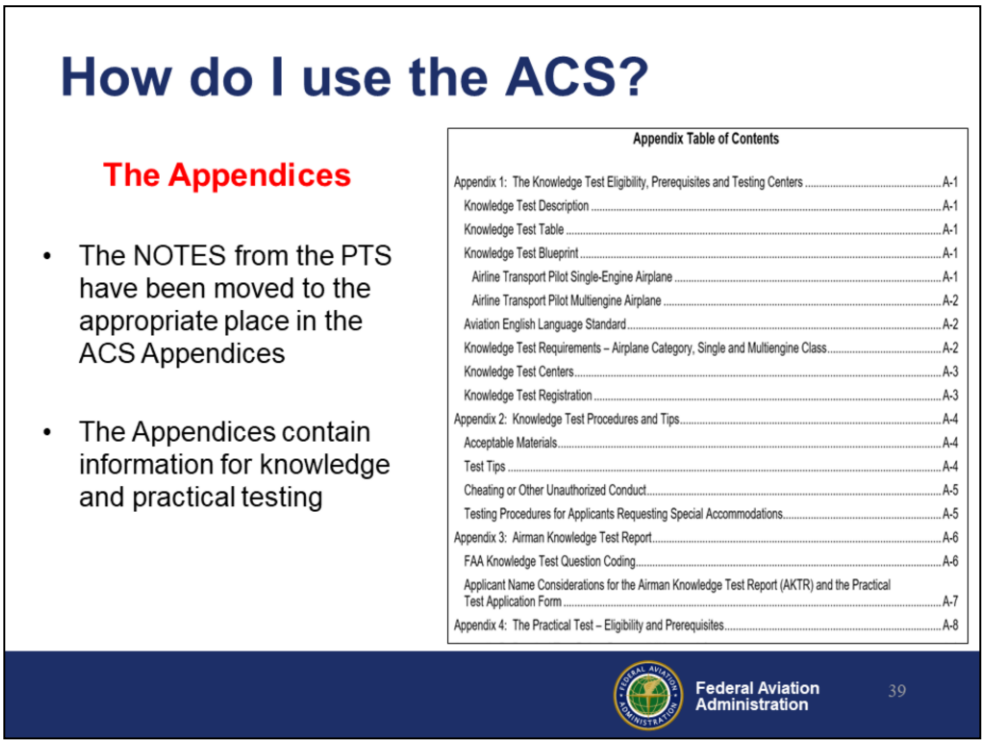
The ACS has two Tasks for Postflight Procedures – one for airplane and one for seaplane. The seaplane task in particular consolidates five tasks from the PTS – Anchoring, Docking and Mooring, Beaching, Ramping, and Parking and Securing.

While it appears that the Taxiing skills are not included in the final area of operation, the ACS does not repeat the taxiing standard here. The expectation is that the evaluation of taxiing skills is to be accomplished using the standard in area of operation II.

The same logic also applies to the seaplane. The testing standard is found in AOO II, Task D, Taxiing and Sailing. However, as I just said, for seaplane the Task name is Taxiing and Sailing, this is to allow for amphibious aircraft.



Next up are the Appendices. Although I have covered some material up to this point, and I will walk through each in more detail now. There is plenty more information that I will not cover in this webinar so please, take the time to familiarize yourself with all of it.

As I mentioned earlier in the presentation, the PTS notes were primarily moved to the appendices. All of the appendices in the airplane ACS documents are organized the same for consistency, ease of use, and contain information for both knowledge and practical testing.

How do I use the ACS?

Appendix 1: The Knowledge Test Eligibility, Prerequisites and Testing Centers

- Knowledge Test Description
- Knowledge Test Table
- Test Blueprint
- Aviation English Language Standard
- Knowledge Test Requirements
- Knowledge Test Centers

Test Code	Test Name	Number of Questions	Age	Allotted Time	Passing Score
ATM	Airline Transport Pilot Multiengine Airplane	125	18	4.0	70
ATS	Airline Transport Pilot Single-Engine Airplane	90	21	3.0	70
ACM	Airline Transport Pilot Multiengine Airplane Canadian Conversion	60	23	2.5	70
ASC	Airline Transport Pilot Single-Engine Airplane Canadian Conversion	40	23	2.5	70

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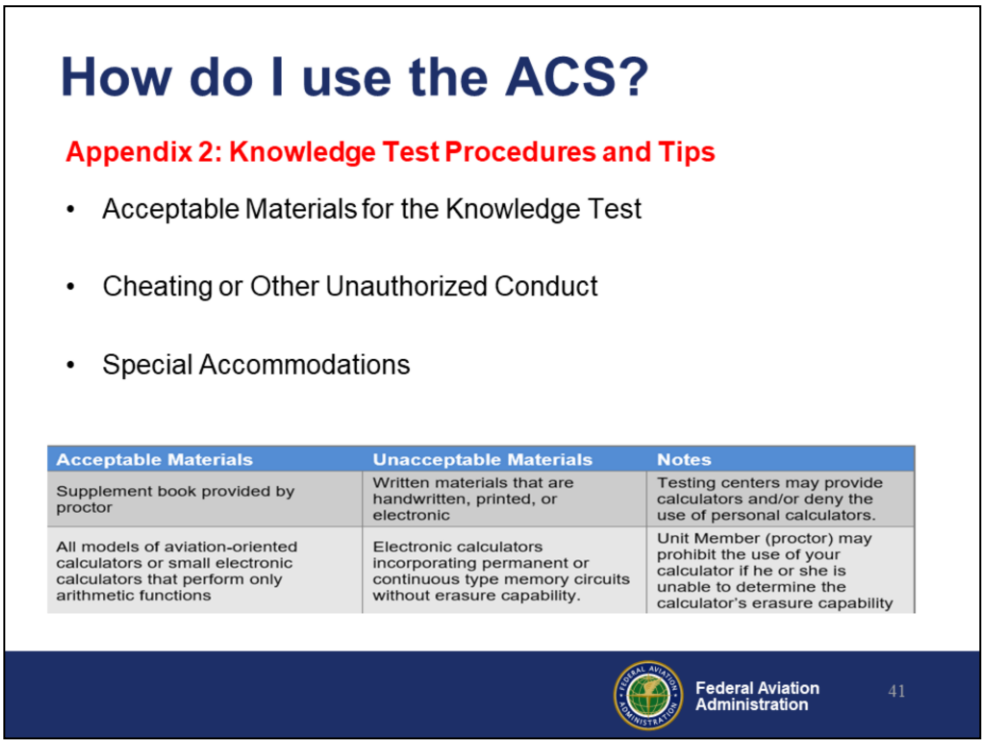
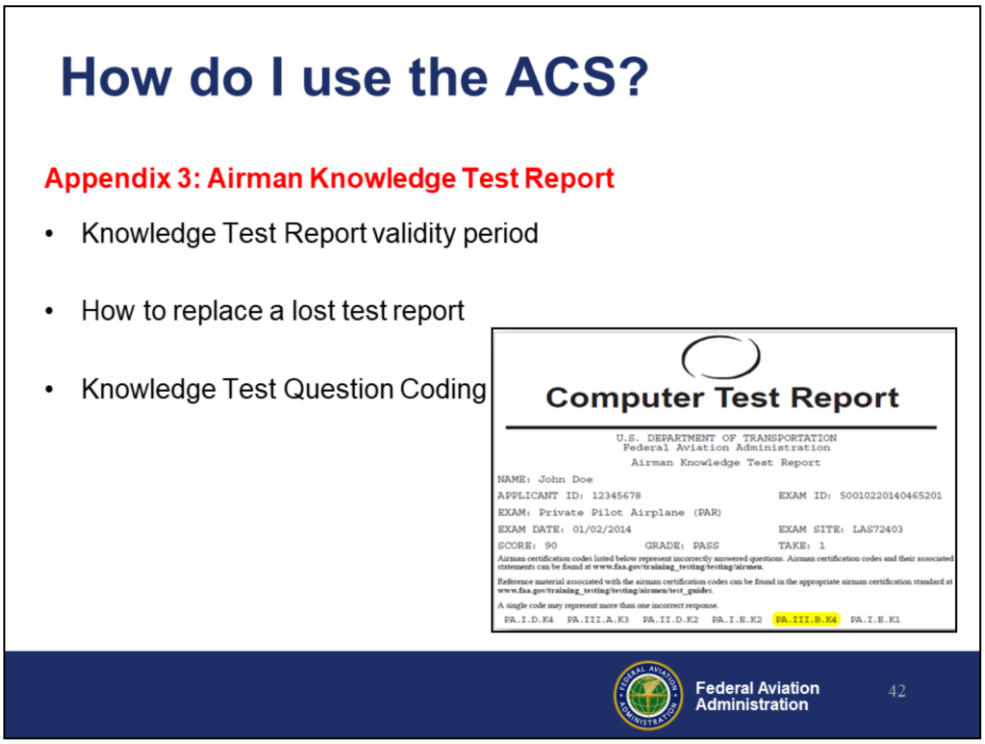
Appendix 1 provides information on knowledge testing to include applicant eligibility, prerequisites, and testing centers. I've included the knowledge test table on the screen.

There is guidance on the FAA English Language Standard.

We also include information about the training required for the multiengine airplane certificate and what to do if the multiengine airplane knowledge test is not passed successfully.



Appendix 2 is pretty straight forward and not much has changed. It includes knowledge test procedural information, test taking tips, and guidance if special accommodations are needed.



Appendix 3 is all about the knowledge test report. A few things to point out here. First, the ATP multiengine test report is valid for 60 months, from the month the applicant took and passed the test. The single-engine tests are valid for the standard 24 months, from the month the applicant took and passed the test. Although this isn't really new information anymore, we are approaching the 5-year mark from when the single- and multiengine tests were created. Paying attention to multiengine test reports will become more important.

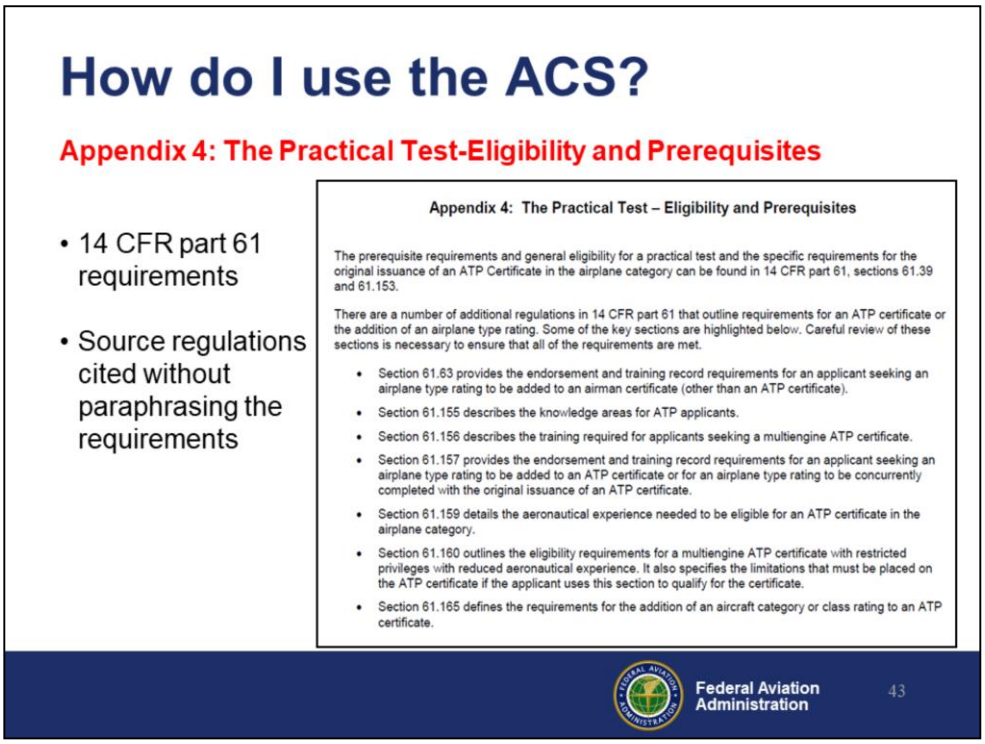
Instructions on how to replace a lost test report are found here as well. We also have information about knowledge test question coding.

Beginning with the effective date of the ATP ACS, all questions on the knowledge tests will have gone through what we call a boarding process. There is a group of FAA subject matter experts and an industry representative that have reviewed every question against the standard. The reference material is verified and the subject matter has been determined to be relevant. We have typically changed the stem of the question and revised answers and distractors. With the update of the testing supplement there are new figures available. Poorly rendered charts are gone. And questions with multiple interpolations that cause you to reference multiple charts at once have also been removed.

Although we have done all of this work in the background, the ACS codes will not yet be printed on the test report. The Airman Testing Branch is currently putting a new testing system in place that will eventually have the knowledge test questions that were missed with the appropriate ACS Codes printed on the report. During this transition time, the familiar PLT Codes will be printed on the report. Until the new system is up and fully running, continue to use the PLT codes just as you

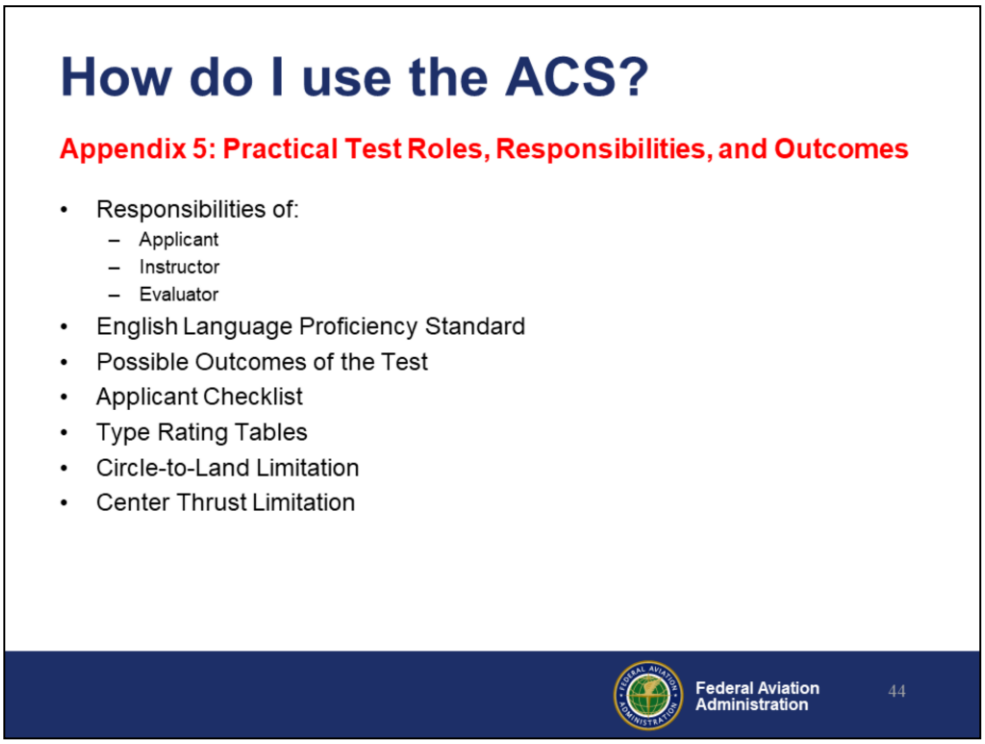
have in the past.

It’s important to note that there is not a one-to-one correlation of PLT codes to ACS codes. The subject matter within the PLT codes can be found and may require you to do a word search of the ATP ACS document. Just as you would have done with the ATP PTS.



Appendix 4 is the practical test, eligibility and prerequisites. Here you will find listed the appropriate 14 CFR references for ATP certification. It is short and straight to the point.

We have limited paraphrasing of the regulations, and instead point you to the source requirement to minimize the potential for incorrect information being provided if regulations change. This also reduces the length of the document.



Appendix 5 begins with the responsibilities of the applicant, the instructor and the evaluator.

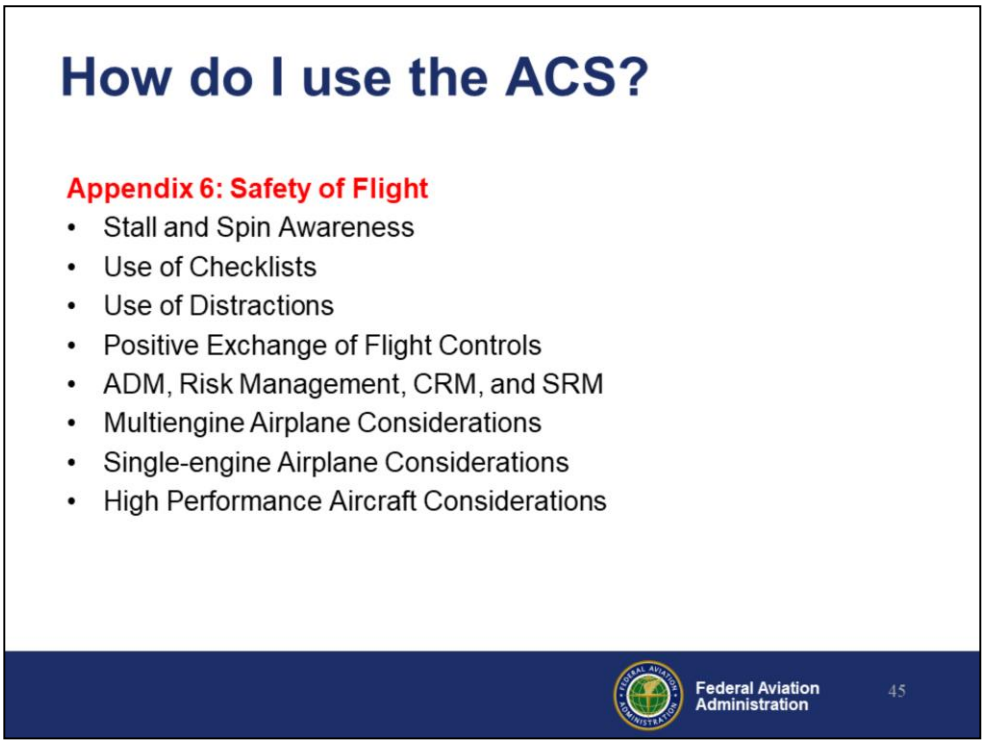
Please review the English Language Proficiency Standard information that is provided in this appendix.

There are 3 possible outcomes to the practical test. First, the test is Satisfactory and a temporary certificate is issued to the applicant. Second, the test is Unsatisfactory and a Notice of Disapproval is issued to the applicant. And third, the practical test was discontinued for reasons outside of the control of the applicant or the evaluator and a Letter of Discontinuance is provided to the applicant. For more specific information, refer to this appendix.

This appendix also provides an applicant checklist just like with the PTS although it has been updated.

There are tables included in Appendix 5 for ATP certification as well as adding a type rating.

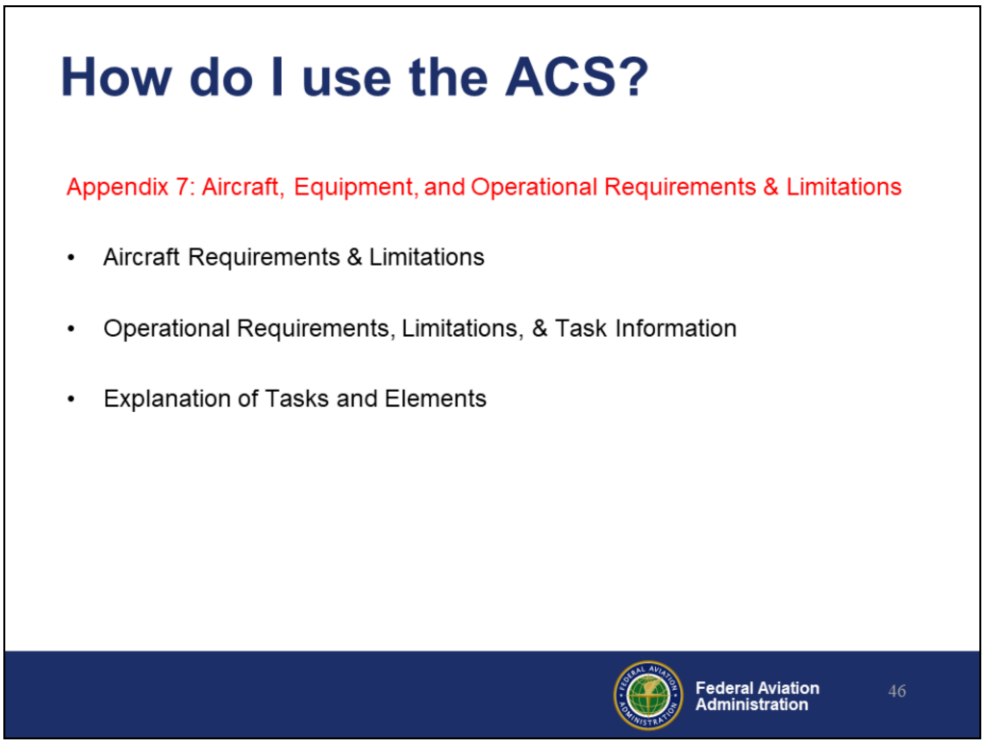
Finally appendix 5 gives information about circle-to-land and Center Thrust limitation removal.



Appendix 6 is a good example of how the ACS puts all the NOTES and other information that was scattered throughout the PTS, and puts it all into one area.

For those who are familiar with the PAR/IRA/CAX ACSs, the kind of information seen here in Appendix 6, is the same as you have seen in the other ACSs.

For those who are not familiar with the other ACSs, I will point out two areas that seem to have the most questions; these two areas are for SE airplanes. First, a simulated engine failure will not be attempted if a safe landing cannot be made. The safe landing does not have to be at a runway. An area that will not endanger persons or property on the ground meets this requirement. Second is a high performance Aircraft. The power setting may have to be reduced below the suggested setting to prevent excessively high pitch attitudes above 30 degrees nose up.



Appendix 7, “Aircraft, Equipment, and Operational Requirements & Limitations” contains a lot of information.

The appendix begins with 14 CFR part 61, paragraph 61.45. 61.45 basically says that the aircraft that is used for the practical test must be able to do all the maneuvers that are required for airman certification. Like the other ACSs, and the PTSs (where it is applicable) information is given about ME tests and engine shut downs.

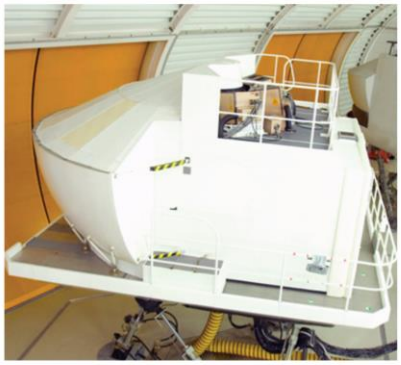
Under Operational requirements, an applicant must do AOOs IV-VII in actual or simulated instrument conditions. Except in two instances: 1. the elements require visual maneuvering, and 2, the aircraft’s type certificate makes it incapable of operating under IFR.

There is a new and unique area in appendix 7 of the ATP ACS. Beginning at AOO I, Task A, Operation of Systems, there are explanations of specific Tasks/elements that the ACS development team felt would be of use to an applicant, an instructor and an evaluator. If you have a question about what is expected of a particular Task/element, go the Appendix 7, there is a good chance it is explained here.

How do I use the ACS?

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

- Use of FSTDs
- Use of ATDs
- Credit for Time in an FSTD
- Credit for Time in an ATD
- Use of an FSTD on a Practical Test



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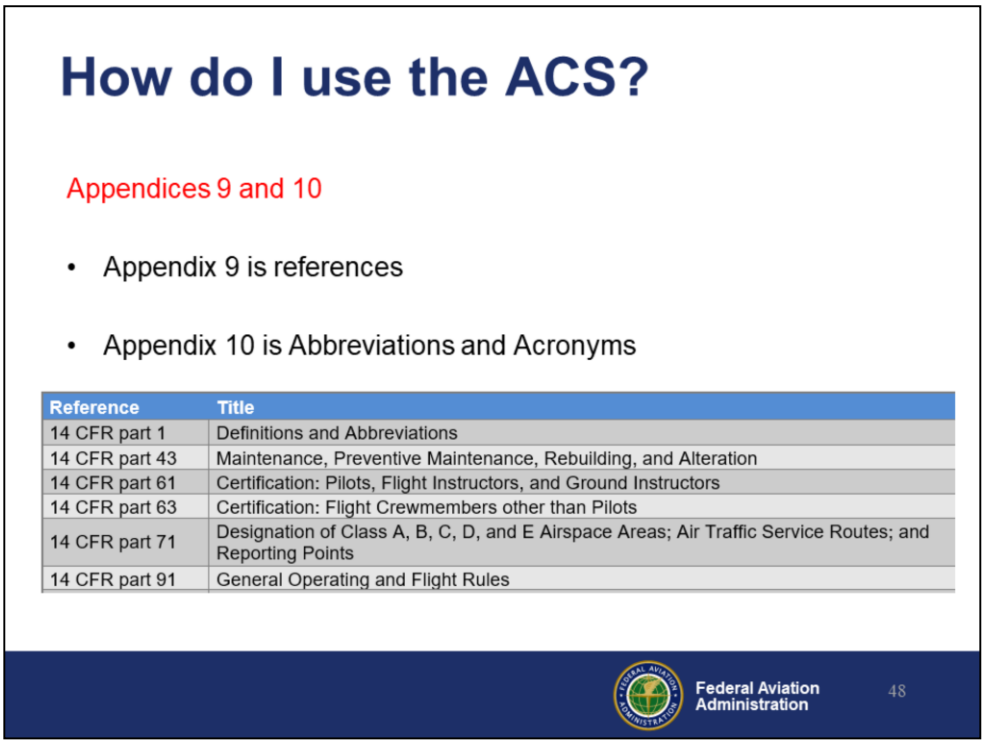
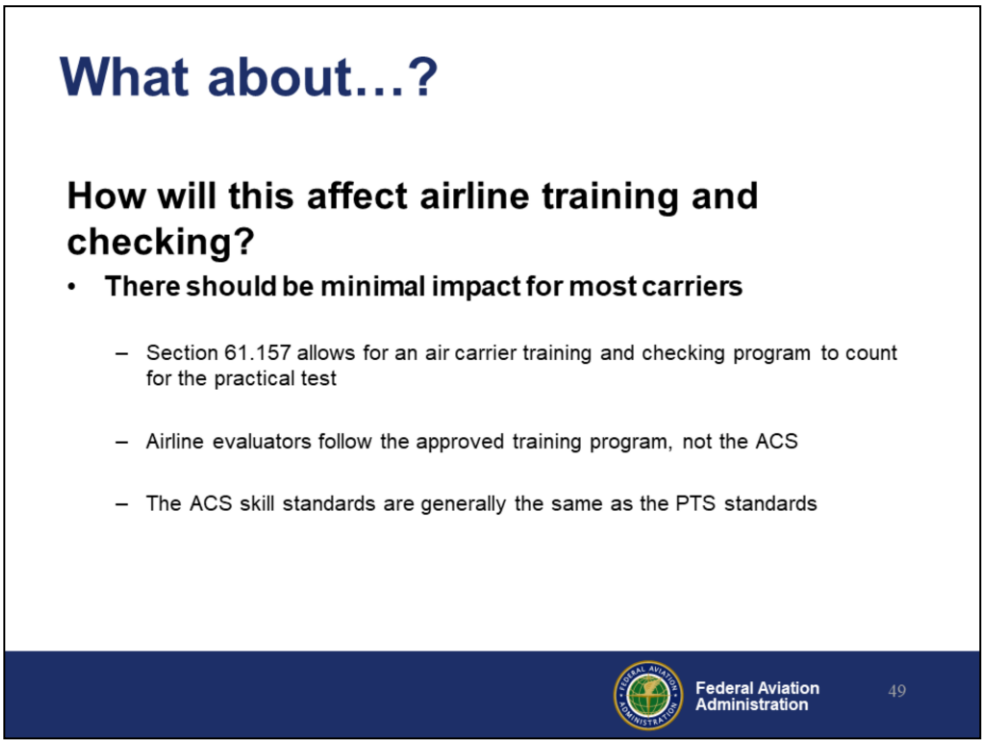
Appendix 8 deals with flight simulation, credit and uses on the practical test. I will not get into the depths of this Appendix, as it alone could be its own webinar. If you have questions about flight simulation, please refer to appendix 8. If you have more questions, please contact your POI or TCPM, as appropriate. For those who do not have a POI or TCPM, feel free to contact us in the Airman Testing branch, and we can guide you to the appropriate personnel in the FAA who can help you.



Appendix 9 contains all the references in the ATP ACS. It is important to note that these references are what the FAA uses to draft knowledge test questions. They are also the references that an evaluator should use when they are creating questions for the practical test.

Appendix 10 is abbreviations and acronyms. The list is long, and I don't think I know what all of them are!



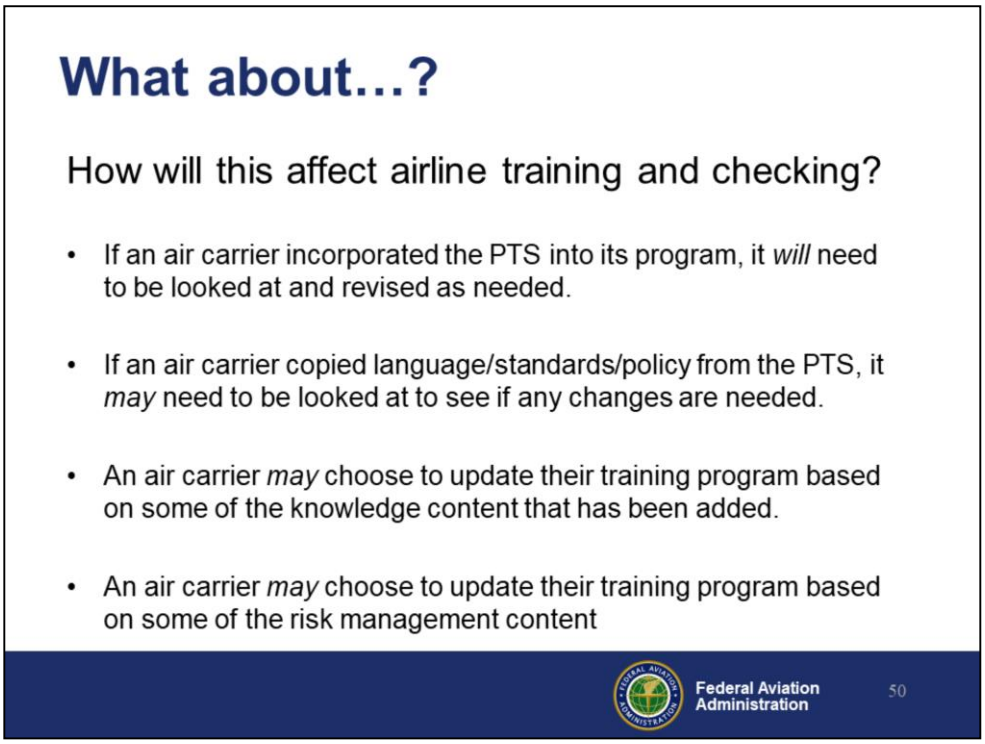
I will now move into the section that will address some of the questions we've been answering so far.

The first one is – What a carrier's training and checking program? How does the ACS affect it?

The answer is the ACS *should not* require any changes to a part 121 or 135 training and checking programs. Section 61.157 provides an exception, and allows for an air carrier training and checking program to count for the practical test. There are no planned rule changes to remove or change this particular exception for air carriers. Keep in mind that applicants still need to pass the multiengine ATP knowledge test and the knowledge standard is part of the ACS.

Airline evaluators are to follow the approved training and checking program, not the ACS.

I will point out, however, that the ACS skill standards are generally the same as the PTS standards. That leads us to the next slide.



There are some considerations for an air carrier and they are captured on this slide.

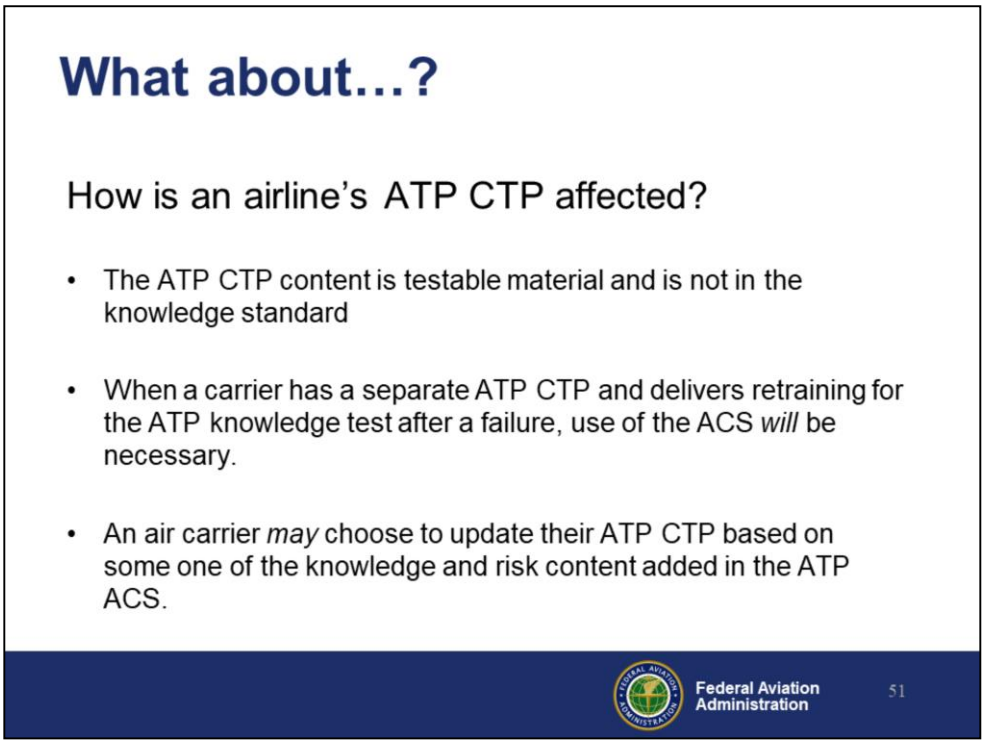
- If an air carrier incorporated the PTS by reference into its program, it will need to be looked at and revised as needed.

- If an air carrier copied specific language, standards or policy from the PTS, it may need to be looked at to see if any changes are needed.

- A multiengine ATP applicant at an air carrier is still required to complete the ATP Certification Training Program, and comply with the knowledge testing requirements. The ACS has added the knowledge standard from the PTS content, which is the basis for knowledge test questions and includes the content for the ATP CTP. A carrier may choose to update their training program based on some of the knowledge content added.

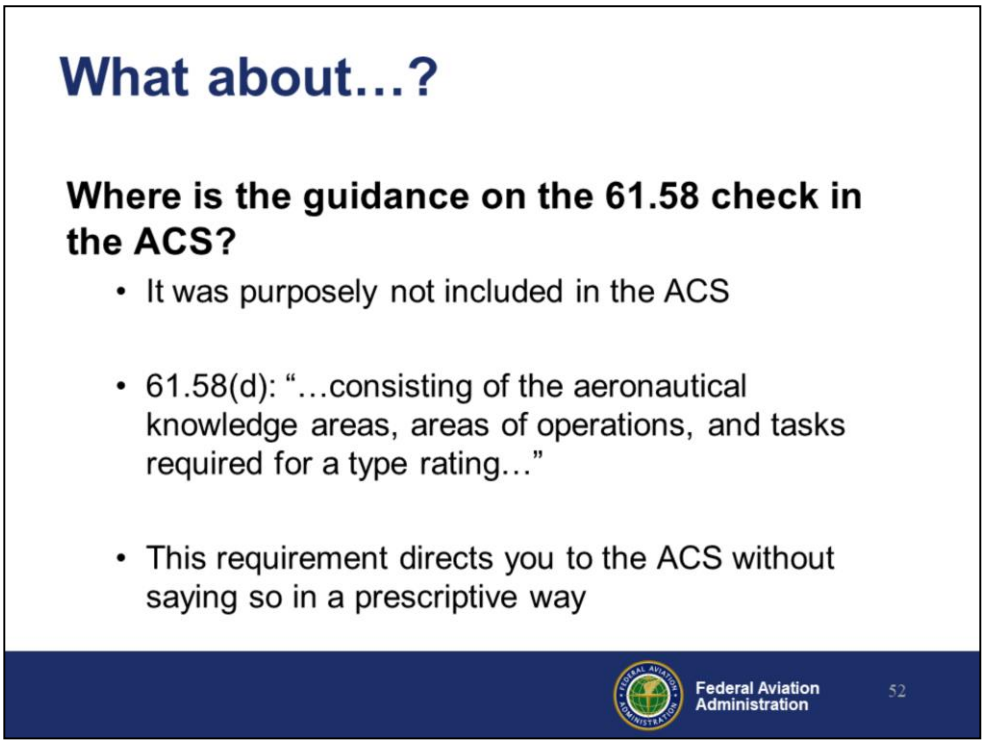
- The ACS also adds risk elements to capture how a pilot can identify, assess, and mitigate those risks for a given task or maneuver. Many of the PTS special emphasis items are found in these elements. A carrier may choose to update their training program based on some of the risk management content.

To reiterate, the ACS should not affect airline training and checking but it could given the considerations I just mentioned.



The next question is: What about the ATP CTP? How does the ACS affect it, particularly for an airline that has my own approved program?

1. The content of the ATP CTP is testable material and is now accounted for in the knowledge standard; primarily in the first AOO.
2. If a carrier has a separate ATP CTP and delivers retraining for the ATP knowledge test if an applicant is unsuccessful, use of the ACS will be necessary.
3. A carrier or training provider with an approved course may choose to update their ATP CTP based on some of the knowledge and risk management content added.



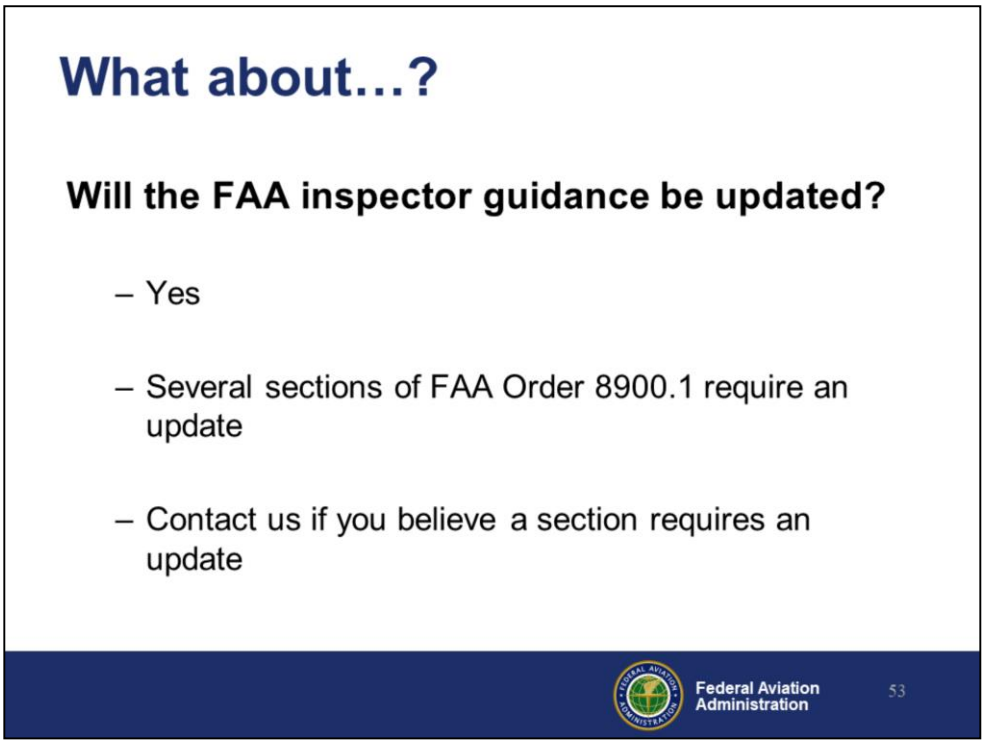
Our next question is: What about the 61.58 check? Where is the guidance that was in the PTS?

We removed specific information regarding the 61.58 check from the ACS because this document provides evaluation standards for basic certification – essentially obtaining a certificate or rating. Completion of the 61.58 check gives a pilot an operating privilege and there are multiple ways to satisfy the checking requirement.

In paragraph 61.58(d), it specifically states that the PIC proficiency check may be accomplished by satisfactory completion of "a check conducted by a person authorized by the Administrator, consisting of the aeronautical knowledge areas, areas of operations, and tasks required for a type rating, in an aircraft that is type certificated for more than one pilot flight crewmember or is turbojet-powered".

The ACS provides the aeronautical knowledge areas, areas of operations, and tasks required for a type rating and therefore the rule directs you to the ACS without saying so in a prescriptive way. We don't need to say it in the ACS and we shouldn't. Where we can provide more specific guidance is in the Inspector guidance that is found in FAA Order 8900.1.

This leads us to our next question.

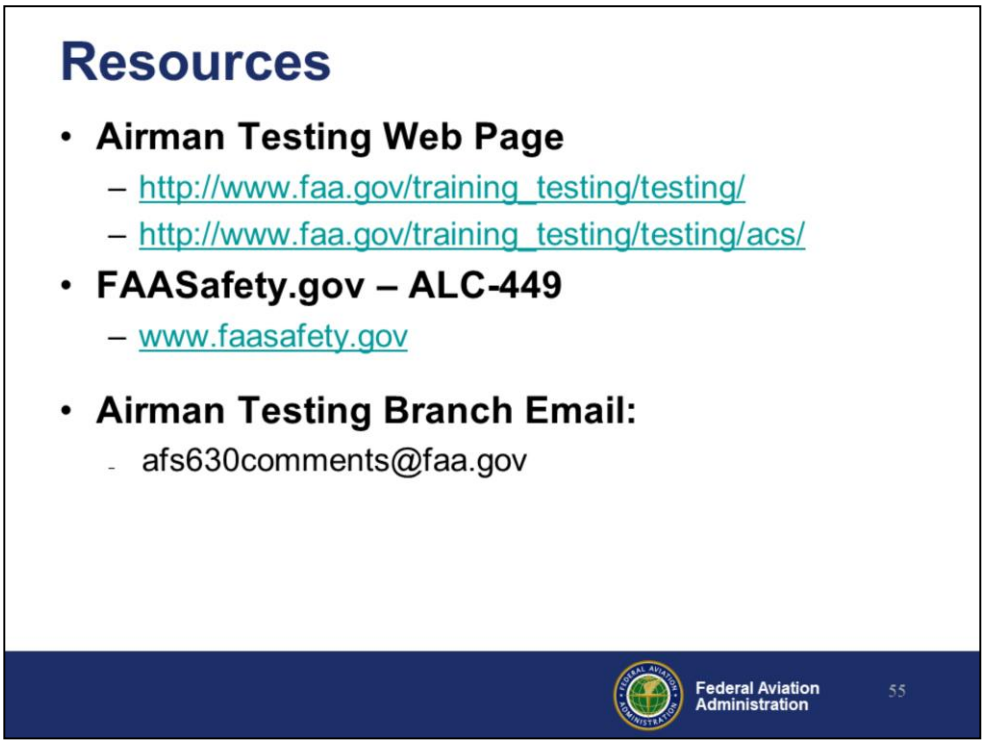


What about the inspector guidance and FAA Order 8900.1? Will it be updated?

The answer is yes, we must update several sections of the Order. We have already talked about guidance related to circling and the 61.58 check. There is other guidance as well. We have a list of sections that we are working on and we know it is likely not complete. If there is a particular section you work with regularly and believe it needs an update because of the ATP/Type rating ACS, please reach out and send that to us using the email address we will provide to you in a moment.

You can anticipate seeing the changes later this year.

- It would not have been possible to create the ACS without the expertise and dedicated hard work by a large number of people and organizations in the aviation community.
- This list includes all past and present working group participants.
- Thanks and kudos to those organizations and individuals who created the ACS in close collaboration with the FAA.



- The ACS team has developed a number of resources to help you get acquainted with the ACS. This slide shows links to the key areas.
- The Airman Testing web page includes:
    - The ACS for Private Pilot Airplane (PAR) certificate, the Commercial Pilot Airplane (CAX) certificate, and Instrument-Airplane Rating (IRA)
    - ACS Frequently Asked Questions
    - An ACS Informational Brochure
    - ACS PowerPoint presentations with notes
    - Sample PAR, CAX, and IRA knowledge tests that show both PLT and ACS codes
    - A What's New in Airman Testing document that includes a list of subjects deleted from airman knowledge tests.
- The FAASafety.gov site includes a WINGS credit course called "Understanding the ACS."
- If you have any questions or comments, please feel free to contact us at the email address you see here for the Airman Testing Branch
- Thanks for your attention, and we look forward to hearing your feedback on the Airman Certification Standards.