



Instrument Pilot

ORAL EXAM GUIDE



MICHAEL D. HAYES

THE COMPREHENSIVE GUIDE
TO PREPARE YOU FOR THE
FAA CHECKRIDE

TENTH EDITION

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AVIATION SUPPLIES & ACADEMICS
NEWCASTLE, WASHINGTON

Instrument Pilot Oral Exam Guide

Tenth Edition

by Michael D. Hayes

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Tenth Edition published 2020.

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ASA-OEG-I10-PD

eBook PDF ISBN 978-1-64425-022-8

Softcover ISBN 978-1-64425-019-8

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Introduction

The *Instrument Oral Exam Guide* is a comprehensive guide designed for private or commercial pilots who are involved in training for the instrument rating. This guide was originally designed for use in a Part 141 flight school, but quickly became popular with those training under 14 CFR Part 61 not affiliated with an approved school. This book is also helpful for instrument-rated pilots who wish to refresh their knowledge or are preparing for an instrument proficiency check (IPC).

The Instrument Rating Airman Certification Standards (FAA-S-ACS-8) specify the areas in which knowledge must be demonstrated by the applicant before a pilot certificate or rating can be issued. This guide has been designed to evaluate a pilot's knowledge of these areas and contains questions and answers organized into four main chapters which represent logical divisions of a typical instrument flight. An FAA evaluator may ask questions from any of the subject areas within these divisions, at any time during the practical test, to determine if the applicant has the required knowledge. For some topics, the evaluator will ask the applicant to describe or explain; for other items, the evaluator will assess the applicant's understanding with a scenario that requires appropriately applying and/or correlating knowledge, experience, and information to the circumstances of the given scenario. Chapter 5 of this guide provides examples of scenario-based questions the evaluator may use to test this. Through intensive post-instrument-checkride debriefings, we have provided you with the most consistent questions asked along with the information necessary for a knowledgeable response.

At the end of this guide are three appendices: Appendix 1 with the "Applicant's Practical Test Checklist" to be used when making final preparations for the checkride, and Appendix 2 has the "Flight Instructor—Instrument Airplane Supplement" that provides additional study material for instrument instructor candidates preparing for the add-on to their existing flight instructor ticket, but it is also of potential interest to pilots preparing for the instrument checkride or an IPC. Appendix 3 is an excerpt of the FAA's "Instrument Proficiency Check Guidance"

document, which assists an instrument instructor in determining whether a pilot seeking an IPC endorsement has both the knowledge and skills for safe operation in all aspects of instrument flying. It should also prove very useful to pilots preparing for the instrument check-ride or an IPC—see a full version of this FAA guide on the “Reader Resource” webpage for this book.

You may supplement this guide with other study materials as noted in parentheses after each question; for example: (FAA-H-8083-15). The abbreviations for these materials and their titles are listed below. Be sure that you use the latest revision of these references when reviewing for the test. Also, check the ASA website at www.asa2fly.com for the latest updates to this book on our “Textbook Updates” page; all the latest changes in FAA procedures and regulations that affect these questions will be listed there.

14 CFR Part 43	<i>Maintenance, Preventive Maintenance, Rebuilding, and Alteration</i>
14 CFR Part 61	<i>Certification: Pilots, Flight Instructors, and Ground Instructors</i>
14 CFR Part 91	<i>General Operating and Flight Rules</i>
14 CFR Part 93	<i>Special Air Traffic Rules</i>
14 CFR Part 95	<i>IFR Altitudes</i>
14 CFR Part 97	<i>Standard Instrument Procedures</i>
14 CFR Part 142	<i>Training Centers</i>
AC 00-6	<i>Aviation Weather</i>
AC 00-24	<i>Thunderstorms</i>
AC 00-45	<i>Aviation Weather Services</i>
AC 00-54	<i>Pilot Windshear Guide</i>
AC 20-113	<i>Pilot Precautions and Procedures to be Taken in Preventing Aircraft Reciprocating Engine Induction System and Fuel System Icing Problems</i>
AC 61-65	<i>Certification: Pilots, and Flight Instructors, and Ground Instructors</i>
AC 61-67	<i>Stall and Spin Awareness Training</i>
AC 61-98	<i>Currency and Additional Qualification Requirements for Certificated Pilots</i>
AC 61-134	<i>General Aviation Controlled Flight Into Terrain Awareness</i>

AC 61-136	<i>FAA Approval of Aviation Training Devices and Their Use for Training and Experience</i>
AC 68-1	<i>Alternative Pilot Physical Examination and Education Requirements</i>
AC 90-100	<i>U.S. Terminal and En Route Area Navigation (RNAV) Operations</i>
AC 90-107	<i>Guidance for Localizer Performance with Vertical Guidance and Localizer Performance without Vertical Guidance Approach Operations in the U.S. National Airspace System</i>
AC 90-114	<i>Automatic Dependent Surveillance – Broadcast Operations</i>
AC 91-73	<i>Parts 91 and 135 Single Pilot, Flight School Procedures During Taxi Operations</i>
AC 91-74	<i>Pilot Guide: Flight in Icing Conditions</i>
AC 91-78	<i>Use of Class 1 or Class 2 Electronic Flight Bag (EFB)</i>
AIM	<i>Aeronautical Information Manual</i>
AFM	<i>FAA Approved Flight Manual</i>
AWC	<i>Aviation Weather Center</i>
FAA-H-8083-2	<i>Risk Management Handbook</i>
FAA-H-8083-3	<i>Airplane Flying Handbook</i>
FAA-H-8083-6	<i>Advanced Avionics Handbook</i>
FAA-H-8083-9	<i>Aviation Instructor’s Handbook</i>
FAA-H-8083-15	<i>Instrument Flying Handbook</i>
FAA-H-8083-16	<i>Instrument Procedures Handbook</i>
FAA-H-8083-25	<i>Pilot’s Handbook of Aeronautical Knowledge</i>
FAA-H-8083-30	<i>Aviation Maintenance Technician Handbook—General</i>
FAA-H-8083-31	<i>Aviation Maintenance Technician Handbook—Airframe</i>
FAA-H-8083-32	<i>Aviation Maintenance Technician Handbook—Powerplant</i>
FAA InFO 15012	<i>Logging Instrument Approach Procedures (IAP)</i>
FAA-P-8740-16	<i>Understanding and Caring for your Gyroscopic Instruments</i>

FAA-P-8740-30	<i>How to Obtain a Good Weather Briefing</i>
FAA-P-8740-36	<i>Proficiency and the Private Pilot</i>
FAA-S-ACS-8	<i>Instrument Rating—Airplane Airman Certification Standards</i>
Order 8260.3	<i>United States Standard for Terminal Instrument Procedures (TERPs)</i>
P/CG	<i>Pilot/Controller Glossary included in the AIM</i>
POH	<i>Pilot Operating Handbook</i>
TPP	<i>Terminal Procedures Publication</i>
USRGD	<i>FAA Aeronautical Chart User's Guide Chart Supplement U.S. (formerly A/FD)</i>

These documents are available from www.faa.gov. Additionally, many of these publications are reprinted by ASA and are available from aviation retailers nationwide.

A review of the information presented within this guide should provide the necessary preparation for the oral section of an FAA instrument certification or re-certification check.

Were you asked a question during your checkride that was not covered in this book? If so, please send the question to ASA. We are constantly striving to improve our publications to meet the industry needs.

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Preflight

1

A. Pilot Qualifications

1. An applicant for an instrument rating must have at least how much and what type of flight time as pilot? (14 CFR 61.65)

A person who applies for an instrument–airplane rating must have logged the following:

- a. 50 hours of cross-country flight time as PIC, of which 10 hours must have been in an airplane;
- b. 40 hours of actual or simulated instrument time in the Part 61 areas of operation, of which 15 hours must have been received from an authorized instructor who holds an instrument airplane rating, and the instrument time includes:
 - 3 hours of instrument flight training from an authorized instructor in an airplane that is appropriate to the instrument–airplane rating within 2 calendar months before the date of the practical test;
 - Instrument flight training on cross country flight procedures, including one cross country flight in an airplane with an authorized instructor, that is performed under IFR, when a flight plan has been filed with an ATC facility, and that involves a flight of 250 NM along airways or ATC-directed routing, an instrument approach at each airport, and 3 different kinds of approaches with the use of navigation systems.

Exam Tip: The evaluator may ask you to demonstrate that you're current and eligible to take the practical test. When preparing for your practical test, verify that you have the required hours, that you're current, and don't forget to double-check all of your endorsements. Make sure you have totaled all of the logbook columns and that the entries make sense.

2. When is an instrument rating required? (14 CFR 61.3, 61.133, 91.135, 91.157)

When operations are conducted:

- a. Under instrument flight rules (IFR flight plan),
- b. In weather conditions less than the minimum for VFR flight,

Continued

- c. In Class A airspace,
- d. Under Special VFR within Class B, Class C, Class D and Class E surface areas between sunset and sunrise.
- e. When carrying passengers for hire on cross-country flights in excess of 50 nautical miles or at night.

3. What are the recency-of-experience requirements to be PIC of a flight under IFR? (14 CFR 61.57)

The recency-of-experience requirements are:

- a. A flight review;
- b. To carry passengers, 3 takeoffs and landings within the preceding 90 days in an aircraft of the same category, class and type, if a type rating is required (landings must be full stop at night or in a tailwheel).
- c. Within the 6 calendar months preceding the month of the flight, performed and logged in actual weather conditions or under simulated conditions using a view-limiting device, at least the following tasks in an airplane:
 - Six instrument approaches.
 - Holding procedures and tasks.
 - Intercepting and tracking courses through the use of navigational electronic systems.

Note: 14 CFR §61.57(c) allows the use of an aircraft and/or a full flight simulator, flight training device, or aviation training device for maintaining instrument experience, subject to certain limitations.

Remember: **6-6-HIT. 6** approaches in previous **6** months including **H**olding, **I**ntercepting and **T**racking courses.

4. Must a flight instructor be present if you are planning on using an aviation training device to maintain your IFR currency? (14 CFR 61.51, 61.57)

No. A pilot may accomplish the recency of experience requirements in a full flight simulator, flight training device, or aviation training device, provided the device represents the category of aircraft for the instrument rating privileges to be maintained and

the pilot performs the tasks and iterations in simulated instrument conditions. A logbook or training record must specify the training device, time, and the content. An instructor is not required to be present.

5. Are you required to have an instructor present when a using time in an FFS, FTD, or ATD to acquire instrument aeronautical experience for a pilot certificate or rating? (14 CFR 61.51)

Yes, an instructor must be present. A person may use time in a full flight simulator, flight training device, or aviation training device for acquiring instrument aeronautical experience for a pilot certificate or rating, provided an authorized instructor is present to observe that time and signs the person's logbook or training record to verify the time and the content of the training session.

6. If a pilot allows his/her instrument currency to expire, what can be done to become current again? (14 CFR 61.57, 91.109)

A pilot is current for the first 6 months following his/her instrument checkride or proficiency check. If the pilot has not accomplished at least 6 approaches (including holding procedures, intercepting/tracking courses through the use of navigation systems) within this first 6 months, he/she is no longer legal to file and fly under IFR. To become legal again, the regulations allow a "grace period" (the second 6-month period), in which a pilot may get current by finding an "appropriately rated" safety pilot, and in simulated IFR conditions only, acquire the 6 approaches, etc. If the second 6-month period also passes without accomplishing the minimum, a pilot may reinstate his/her currency by accomplishing an instrument proficiency check given by an examiner, an authorized instructor, or an FAA-approved person to conduct instrument practical tests.

7. Explain the difference between being “current” and being “proficient.” (FAA-H-8083-2, FAA-P-8740-36)

Being “current” means that a pilot has accomplished the minimum FAA regulatory requirements within a specific time period so he or she can exercise the privileges of the certificate. It means that you’re “legal” to make a flight, but does not necessarily mean that you’re proficient or competent to make that flight. A “proficient” pilot is capable of conducting a flight with a high degree of competence; proficiency requires that the pilot have a wide range of knowledge and skills. Being proficient is not about just being “legal” in terms of the regulations, but is about being smart and safe in terms of pilot experience and competence.

8. What are the required qualifications for a person to act as a “safety pilot”? (14 CFR 61.3, 61.23, 91.109)

The safety pilot must:

- a. Possess at least a private pilot certificate with category and class ratings appropriate to the aircraft being flown.
- b. Possess an appropriate medical certificate (the safety pilot is acting as a required crewmember).
- c. If the flight is to be conducted on an IFR flight plan, the person acting as PIC of the flight must hold an instrument rating and be instrument current.

9. Can a pilot who does not hold a medical certificate but does possess BasicMed authorization act as a safety pilot? (AC 68-1, FAA BasicMed FAQ)

Only if the pilot is acting as PIC while performing the duties of a safety pilot. The statutory language prescribing BasicMed says it only applies to people acting as PIC. BasicMed cannot be exercised by safety pilots who are not acting as PIC yet are required crewmembers.

10. As an instrument rated pilot, can you fly IFR under BasicMed? (AC 68-1)

Pilots can fly as BasicMed (in covered aircraft) under VFR or IFR. There is no prohibition against flying in IMC, but BasicMed doesn’t change the requirement to hold an instrument rating and

be instrument current to act as PIC under IFR. Further, BasicMed does not relieve an aircraft from the requirement to be approved for IFR operations for flight under IFR.

11. What conditions are necessary for a pilot to log instrument time? (14 CFR 61.51)

A person may log instrument time only for that flight time when the person operates the aircraft solely by reference to instruments under actual or simulated instrument flight conditions.

12. When logging instrument time, what should be included in each logbook entry? (14 CFR 61.51)

Each entry must include the location and type of each instrument approach accomplished and the name of the safety pilot, if required.

13. What conditions must exist in order to log “actual” instrument flight time?

The FAA has never defined the term “actual” instrument time. 14 CFR Part 61 defines “instrument flight time” as that flight time when a person operates an aircraft solely by reference to instruments under actual or simulated instrument flight conditions. A reasonable guideline for determining when to log “actual instrument time” would be any flight time that is accumulated in IMC conditions with flight being conducted solely by reference to instruments. The definition of IMC is weather conditions below the VFR minimums specified for visual meteorological conditions. VFR minimums are found in 14 CFR §91.155.

14. What is the definition of the term “flight time”? (14 CFR Part 1)

Flight time means pilot time that commences when an aircraft moves under its own power for the purpose of flight and ends when the aircraft comes to rest after landing.

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INCLUDES A CHAPTER ON
SCENARIO-BASED TRAINING BY
ARLYNN MCMAHON

The OEG Series is an excellent study tool for students and instructors alike, arranged in a question-and-answer format. Use when you're gearing up for the Practical Exam, as well as for a general refresher! Other Oral Exam Guides available from ASA...

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ASA-OEG-110

TRANSPORTATION USD \$12.95

ISBN 978-1-64425-019-8



9 781644 250198