



PRACTICAL GUIDE

to the

CFI Checkride

SECOND EDITION

Gregg Brightwell
THE PRACTICAL EXAM GUIDE SERIES

THE PRACTICAL EXAM GUIDE SERIES
Practical Guide to the CFI Checkride
by Gregg Brightwell
Second Edition

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Contents

Foreword	v
Acknowledgments	vi
About the Author	vi
Introduction	vii
Practical Test Essentials	1
Prerequisites for the Flight Instructor Certificate	
Required Endorsements for the CFI Practical Test	
Special Emphasis Areas	
Applying the PTS Objectives and Tasks	
Area of Operation I: Fundamentals of Instructing.....	5
Area of Operation II: Technical Subject Areas	37
Area of Operation III: Preflight Preparation.....	75
Area of Operation IV: Preflight Lesson on a Maneuver to be Performed in Flight.....	89
Test Day: Taking the Practical Test	95
Appendix: FAA-S-8081-6DS	103
Flight Instructor Practical Test Standards for Airplane Single-Engine	

Foreword

When I first became a CFI in 1973 it was with an aspiration to be the best CFI that ever came down the pike. While I will never achieve that, it will always be my goal. My point is, this isn't just a job—it must be a passion. We certainly don't do this for money or fame. We do it because we want our students to be the best they can be, which requires us as CFIs to be the best we can be.

I first met Gregg Brightwell when he was a student in my CFI Practical and Exam Prep Course in 2009. Immediately I recognized his spirit of excellence and pursuit of perfection. I love those traits in a person—especially in my flight instructors and pilots! I generally assign the class to do lesson plans on each task in the CFI PTS Areas Of Operation (AOO) I, II, and III (and I furnish them with IV through XIV). Gregg's lesson plans were the best I had seen in my 40 years as a CFI and 23 years as a DPE. I have since used them as examples for the other students. When he told me he was going to put them in a book for CFI “wannabes” who were preparing for the mother of all checkrides—the CFI initial exam—I was thrilled.

The national pass rate for first-time CFI applicants hovers around 20%. This is because there is such a huge body of information that must be organized and made manageable. Most of this is accomplished through doing lesson plans, which helps organize the data. Using tabbing, highlighting, and underlining also helps tremendously.

The FAA “owns” the CFI initial checkride—it is the only practical exam where you cannot choose your examiner—they are assigned to you. This is for quality control purposes...as it should be! It is no mystery what it takes to pass this exam on the first attempt: your outcome is determined by your preparation. I strongly endorse this book and think it will greatly assist you in preparation for the ground portion of the CFI initial practical exam.

Good Luck and Tailwinds,
Nan Gaylord

Nan is an ATP/SEL&MEL, gold seal and master CFI/CFII/MEI, master ground instructor/GIA&I. With over 10,000 hours, she has administered over 7,000 practical exams, including over 1,000 CFI initial practical exams.

Acknowledgments

Throughout this book, I reference many sources and most are textual references from the FAA. Yet perhaps the most important reference source for this book is the knowledge and experience I acquired from Nanette Gaylord, CFI in the Tulsa, Oklahoma area. Her expertise has greatly benefited my CFI studies. With her help, I was very well prepared for my own CFI practical exam with the FSDO in Oklahoma City, and scored high praise from the administering inspector.

About the Author

Gregg Brightwell holds a B.S. in Aviation Science, CFI(I), CFII/MEI, and ATP certificates, Citation Mustang CE-510(S) Type Rating, and has worked for Cessna Aircraft Company as an Experimental Flight Mechanic, Production Flight Test Pilot, and Avionics Technician. He has worked for the Bombardier Flight Test Center as a Flight Test Engineer and is currently a Citation Instructor Pilot for FlightSafely International. He is passionate about aviation and loves the freedom flying offers, as well as sharing this with his students.

Introduction

The intent of this book is to consider the extremely large amount of information that applicants pursuing their flight instructor certificate must learn and find ways to help simplify this task by organizing and *managing* it. There are dozens of FAA Advisory Circulars (ACs), official FAA manuals, and other instructional books out there that go into great detail teaching what there is to know about all things pertaining to aviation. So CFI applicants read, and read, and then read some more.

Preparing for the CFI practical exam is hard. It takes a lot of dedication, very disciplined studying, and can be a significant expense. Then, after all of that, you ask yourself, “What is the examiner looking for?” Speaking of “examiner,” let’s clarify that term. On practical exams for other certificates or ratings, applicants can choose either a Designated Pilot Examiner (DPE) or an FAA aviation safety inspector in operations. However, applicants for the CFI initial certificate usually do not have a choice; they must go to the FAA, and take the practical with an inspector. Yet there are exceptions. If the particular Flight Standards District Office (FSDO) in your area is very busy, and cannot schedule your practical within a reasonable time, then they may allow certain approved DPEs in the area to perform the exam. So from here forward, the terms *examiner* and *inspector* will be used interchangeably. (Note: The FAA is transitioning away from district-based organization to functional organization; thus, the term “Flight Standards District Office (FSDO)” is being replaced with “Flight Standards office.”)

Back to what the examiner is looking for: as with other certificates and ratings, the CFI applicant will be tested using the appropriate FAA Practical Test Standards (PTS). Most likely, by the time applicants are seeking their CFI certificate, they are well versed in the use of a PTS/ACS, and have endured several practical tests. However, the CFI practical is longer, more difficult—much more *in depth*—though it follows the same format as any other practical and consists of an oral and flight component. The FAA’s official CFI PTS (FAA-S-8081-6, which is included in this book in the Appendix) and forthcoming Airman Certification Standards (ACS) are much thicker than the PTS or ACS for other ratings and there is a lot of material that has to be covered. If you read every book, document, and manual that was referenced in the CFI PTS, page by page, you will have read many thousands of pages of material.

Therefore, as you begin to prepare for your checkride, where do you start? How do you organize and prioritize all this information? How do you correlate the Practical Test Standards/Airman Certification Standards to what you've learned in your studies? What specifically do you need to know to demonstrate mastery of a given subject? How do the "Area of Operations" and "Tasks" translate to questions you can expect examiners to ask?

These are the questions this book is designed to answer—it can serve as a plain-language study guide to help you navigate through all those thousands of pages of CFI material. This book can help you organize that material and correlate it to the FAA's training and testing document by clarifying wherever the PTS is vague about source materials.

Does this book still work with the new ACS? Yes! The Private Pilot, Commercial Pilot, and Instrument Rating Airplane PTS have been replaced with the ACS. Language throughout this book has been updated accordingly from PTS to ACS. Note that in the PTS, the discussion of every task was arranged in the order TASK, References, Objective, and Intent (Knowledge, Explain, Locate, etc.). In the new ACS, the TASKS are arranged in the same order, but with the addition of these new categories:

Knowledge—based on the Knowledge Exam. Be prepared to re-test on any questions you missed in your exam.

Risk Management—be prepared to explain the risks associated with every Task in the ACS.

Skills—the desired outcome, expectations, and tolerances of each Task, as appropriate. These are consistent with the skills in the PTS.

Therefore, include in each Task discussion throughout the book an appreciation and understanding of these new categories of *knowledge*, *risk management*, and *skill*.

A few notes: This book does not include discussions on the Areas of Operation V–XIV, which is the flight portion of the practical exam—these were intentionally omitted for a couple reasons. First, the examiners and inspectors I queried agreed that applicants who do well on the ground portion of the exam typically do well on the flight portion. Applicants generally spend enough time rehearsing and preparing for the flight portion, yet they underestimate the significance of the ground portion. Secondly, there are many commercially available sources for well-written lesson plans that cover the flight portion (i.e., the flight maneuvers).

In addition, note that if you are pursuing the CFII (Instrument Instructor) as the *initial* flight instructor certificate, there has been a change to the Instrument PTS as well—the incorporation of the Instrument ACS. FAA-S-8081-4E *Instrument Rating Practical Test Standards* (with Changes 1, 2, 3, 4, and 5) has been superseded by *Instrument Rating – Airplane Airman Certification Standards* (FAA-S-ACS-8).

So, let's get started: Use this book as a guide to help you prepare for the ground portion of the practical exam. When you do, during your exam you'll be better able to pull the pertinent knowledge from the original sources—such as the latest revision of the *Aviation Instructor's Handbook* (FAA-H-8083-9)—and thereby be able to easily demonstrate your grasp of how to teach flight students.

Are you ready to become a certified flight instructor?

Practical Test Essentials

Prerequisites for the Flight Instructor Certificate

For the sake of discussion in this book, the assumption will be that you are applying for your *initial* CFI certificate, in a single-engine land airplane.

What are the prerequisites to becoming a CFI? The answer is in Title 14 of the Code of Federal Regulations (14 CFR) Part 61:

1. You must be at least 18 years of age.
2. You must be able to read, write, speak and understand the English language. If in doubt, see Advisory Circular (AC) 60-28.
3. You must hold either a commercial certificate with instrument privileges, or an airline transport pilot (ATP) certificate with an aircraft category rating appropriate to the flight instructor rating sought—“aircraft category rating” means, for example, aircraft single-engine land (ASEL). You cannot take the practical test in a category of aircraft in which you are not rated.
4. You must possess at least a current third class medical to take the practical test, because you will be acting as pilot-in-command (PIC).
5. You must have an endorsement from an authorized instructor on the Fundamentals of Instructing (FOI) appropriate to the required FAA knowledge test.
6. You must have passed the appropriate flight instructor knowledge tests within 24 months of taking the practical test. Or, more simply put, you have 2 years from the last day of the month in which you took the knowledge exams, to take and pass the practical test. After that date, the tests will expire, and must be retaken. I say “tests” because there are two: the Fundamentals of Instructing (FOI), and the Flight Instructor Airplane (FIA). You must be at least 16 years old to take these tests.
7. You must have an endorsement from an authorized instructor certifying that you, the applicant, have been given flight training in the areas of operation

listed in 14 CFR §61.187, which is the Federal Aviation Regulation (FAR) that covers the flight proficiency requirements for the CFI practical. You must also have, in accordance with 14 CFR §61.39 (which covers the prerequisites for practical tests), a written statement from an authorized flight instructor that within the last 2 months, instruction was provided to you and logged in preparation for the practical test. The endorsement must state that the instructor finds you prepared for the practical test, and that you have demonstrated satisfactory knowledge of the subject area(s) in which you were deficient on the knowledge tests.

The total number of endorsements from an authorized instructor you should have in your logbook for the CFI practical alone is 5. (Note that item numbers 3 and 4 in the section below are for the two knowledge tests.)

Required Endorsements for the CFI Practical Test

1. A complex aircraft endorsement (per 14 CFR §61.45, and the CFI PTS “Introduction” section). The PTS clearly states what is required of the aircraft. To be considered complex, the aircraft must have retractable landing gear, flaps, and a controllable propeller. The FAA recently began accepting aircraft that are equipped with a full authority digital engine control (FADEC) as fulfilling the requirement for having a controllable propeller.
2. A spin endorsement from an authorized instructor that provided instruction covering stall awareness, spin entry, spins and spin recovery (per §61.183[i][1]). This endorsement states that the applicant possesses instructional proficiency in stall awareness, spin entry, spins, and spin recovery procedures.

Basically, you must know:

- What is a spin,
- What causes spins,
- What the aircraft is doing while in a spin, and
- What actions are required to recover from a spin.

A complete, detailed explanation on spins can be found in the latest revision of the *Airplane Flying Handbook* (FAA-H-8083-3). **Note:** If you were to receive a “Notice of Disapproval” during your practical test, and the reason for the failure was a deficiency in your ability to demonstrate knowledge or skill related to stall awareness, spin entry, spins, or spin recovery procedures, then the examiner *must* retest you on these subject areas by doing them in an airplane that is certified for spins (per §61.183[i][2]). Therefore, be sure to spend plenty of time studying stall/spin awareness.

3. Endorsement for the Fundamentals of Instruction (FOI) (§61.183[d]).
4. Endorsement for aeronautical knowledge (FIA) (§61.185).
5. Endorsement for the practical test (§61.187[b]).

Special Emphasis Areas

The CFI PTS lists sixteen “Special Emphasis Areas.” These areas might not be addressed or evaluated by one certain task, but the FAA considers them essential to flight safety—so each area will be evaluated in the Tasks covered throughout the practical test.

These 16 areas are:

1. Positive aircraft control.
2. Positive exchange of the flight controls procedure.
3. Stall/spin awareness.
4. Collision avoidance.
5. Wake turbulence avoidance.
6. LAHSO
7. Runway incursion avoidance.
8. CFIT
9. ADM and risk management.
10. Wire-strike avoidance.
11. Checklist usage.
12. Temporary flight restrictions (TFRs).
13. Special use airspace (SUA).
14. Aviation security.
15. Single-pilot resource management (SRM).
16. Other areas deemed appropriate to any phase of the practical test.

It is imperative the CFI applicant have a good understanding of each of these 16 areas. You are strongly encouraged to research them in detail.

Applying the PTS Objectives and Tasks

What we have discussed so far is what it takes just to be *eligible* to take the practical test. Next, we will cover what you should study in order to prepare for it. Just like in all the Practical Test Standards, the CFI PTS is broken down into “Areas of Operation” (AOs), “Tasks,” and “Elements” within those Tasks. Our objective, then, is to further break down each of these elements into a *practical* application. To begin that process, the next section will deal with “Area of Operation I, The Fundamentals of Instruction.”

In this text you will find many, many acronyms—and detailed explanations will follow those acronyms. But don’t expect the examiner to be impressed just because you can memorize complicated textbook answers. It is called a “practical test” for a reason: you must *demonstrate* instructional proficiency and knowledge, which requires a much deeper understanding than mere memorization. The examiner will quiz you using mostly situational and “what if?” scenario-based questions. This is the reason for working to practically apply the PTS objectives

to how you instruct—so you can answer the examiner’s often “real-world” or scenario-based questioning.

Areas of Operation I, II, and III cover the ground portion of the practical test. Area of Operation IV basically explains what content is expected for lesson plans. During the parts of the test covering these AOs, you will be explaining these areas to the examiner, and the examiner’s role will still be “examiner.” However, for the remaining AOs, your examiner’s role will change slightly.

Areas of Operation V through XIV are considered the flight portions of the practical test and during these AOs, you will be “instructing” the examiner as if he or she were a student. For this role-playing exercise, you *will need* your own set of lesson plans. There are many free as well as paid sites on the internet where you can find lesson plans ready to print. However, I recommend that you take the time to “build your own.”

This is because the time you spend researching, typing, and formatting lesson plans is not wasted time: by doing it yourself, you cannot help but learn more, and thereby retain more of the information. You will know each of your lesson plans backwards and forwards. When the examiner asks you to teach a particular lesson, you will be able to flip right to that lesson plan, and teach the lesson with only an occasional glance at the sheet (if even that) in order to remain on track. This result conveys a much more professional approach than it would be if you stammered through the lesson without taking your eyes off the paper.

The CFI practical test is largely about preparation. Adequate preparation will be rewarded with a temporary flight instructor’s certificate. Inadequate preparation will be rewarded with an invitation to come back and try again.

Area of Operation I:

Fundamentals of Instructing

Task A: Human Behavior and Effective Communication

Task B: The Learning Process

Task C: The Teaching Process

Task D: Assessment and Critique

Task E: Instructor Responsibilities and Professionalism

Task F: Techniques of Flight Instruction

Task G: Risk Management

Task A: Human Behavior and Effective Communication

Note: The primary reference for all Tasks in Area of Operation I is the latest revision of the *Aviation Instructor's Handbook* (AIH, or FAA-H-8083-9).

Human Behavior

1. Definitions of human behavior.

- In the scientific world, human behavior is seen as the product of factors that cause people to act in predictable ways.
- Human behavior is also defined as the result of attempts to satisfy certain needs. A working knowledge of human behavior can help an instructor better understand a student.
- Fear causes students to either “fight” or “flee.” Fleeing is avoiding an action that is feared. To fight means to take measures to overcome that fear, or at least better deal with it more directly.

Understanding human behavior leads to successful instruction! Personality type has a tremendous impact on the success of both student and instructor. An instructor may have a specific, step-by-step syllabus, but he or she *must* appreciate the personality type of the student and tailor the syllabus accordingly. Students whose learning styles are compatible with the teaching style of an instructor tend to retain information longer and apply it more effectively, learn more, and have a more positive attitude. To summarize, the match or mismatch between instructor and student has a profound impact on student satisfaction or dissatisfaction.

2. Human needs and motivation.

- Maslow's ascending order of needs:
 - Physical needs*—food, rest, exercise, shelter, etc. Must be satisfied before student can concentrate on learning.
 - Safety*—must feel safe and protected from danger, threat, etc.
 - Social*—student must feel like they belong and are accepted.
 - Egoistic*—internal or external:
 - Internal.* Relates to self-esteem, the need to feel independent, self-confident.
 - External.* Relates to reputation, need for appreciation, status, and respect.
 - Self-fulfillment*—students need to realize their own potential, and use their creativity.
- Motivation is the reason that one acts or behaves in a certain way and is what lies at the heart of an individual's goals. A goal is the object of a person's effort.

3. Defense mechanisms.

- Repression*—a person buries uncomfortable thoughts into unconscious mind.
- Denial*—refusal to accept reality because it is too threatening.
- Compensation*—psychologically balancing a weak area with a strong area.
- Projection*—relegating blame for one's own mistakes and/or shortcomings to others.
- Rationalization*—cannot accept real reasons for behavior, therefore, justifies actions.
- Reaction formation*—belief in opposite of true belief, because it causes anxiety.
- Fantasy*—escaping from reality by taking mental/physical flight; daydreaming.
- Displacement*—shifts emotion from original object to a less threatening substitute.

4. Student emotional reactions.

- Anxiety and stress
 - Anxiety is a feeling of worry, nervousness, or unease, often about something that is going to happen.
 - Reactions to anxiety can vary, from a hesitancy to act, to an impulse to do *something* even if it's wrong.
- *Normal* reactions to stress: A rapid and exact response, within the limits of experience and training.
- *Abnormal* reactions to stress: Extreme over-cooperation, painstaking self-control, inappropriate laughter or singing, and rapid changes in emotions.

Effective Communication

5. Basic elements of communication.

- Source: the sender of information—must be understood by student to be effective.
- Symbols: ideals and information shared by words, expressions, gestures.
- Receiver: the student, listener, reader, etc.—their background influences reception.

6. Barriers to effective communication.

- Lack of common experience. One of the greatest barriers to communication, mainly due to the differences in the backgrounds of student and instructor. Aviation is very “technical.”
- Confusion between symbol, and the symbolized object. This occurs when a word is confused with what it is meant to represent.
- Overuse of abstractions. Using words that are general rather than specific (avoid whenever possible).
- Interference (physiological, environmental, or psychological). These come from outside sources that the instructor cannot control.

7. Developing communication skills.

- Role playing*—the learner is provided with a general description of a situation, then applies a new skill or knowledge to perform the role.
- Instructional communication*—use of past experiences to illustrate a point.
- Listening*—to listen effectively, you must *want* to listen (“hearing with comprehension”).
- Questioning*—focused and open-ended questions determine student understanding.
- Instructional enhancement*—a good instructor is *always* learning more.

Task B: The Learning Process

In this task, you must exhibit instructional knowledge of the elements relating to the learning process; basically, this part of the test is about *how students learn*. This will most likely be the first question you will be asked by the examiner:

Question What is the definition of learning?

Answer Learning is a change in behavior as a result of experience.

Listed below are the elements for Task B, along with a concise explanation of each.

1. Learning theory.

- Behaviorism*—explains behavior from observable and measurable responses to stimuli.
- Cognitive theory*—focuses on what’s going on inside the mind. (Cognition = thinking.)

2. Perceptions and insight.

- Perceptions are the basis of all learning.
 - These are directed to the brain by one or more of the five senses.
- Factors that affect perception:
- *Physical organism.* This is the individual's ability to sense the world around them.
 - *Goals and values.* Every student has different beliefs and values. Knowing these values helps the instructor predict how a student will interpret experiences and instructions.
 - *Self-concept.* Positive or negative, this affects the ability to perform or do things favorably or unfavorably. Students with positive self-concept are more receptive to new lessons and experiences.
 - *Time and opportunity.* The ability to learn some things is dependent upon other perceptions. Plan a proper syllabus, in the correct order for optimum learning.
 - *Element of threat.* Fear adversely affects learning. Instructor must teach to fit the psychological needs of the student. If a situation overwhelms a student, he or she may feel threatened. Students must feel capable of coping with the situation.
- Insights are the grouping of perceptions into meaningful wholes. Students must be kept receptive to new experiences. As perceptions accumulate, the student develops insight by assembling them into larger blocks of learning.

3. Acquiring knowledge.

- Memorization*—when you are exposed to a new concept, you tend to acquire and memorize facts.
- Understanding*—organize your knowledge to gain an understanding of the things you've memorized.
- Application*—the ability to apply your knowledge to solve problems and make decisions.

4. The laws of learning.

Remember **REEPIR**:

Readiness. Students learn best when they are ready to learn.

Exercise. Things most often repeated are best remembered.

Effect. Learning is strengthened by a positive experience and weakened by a negative one.

Primacy. First-learned is best-learned. **Teach it right the first time!**

Intensity. Students learn better from the real thing than from a substitute.

Recency. Things most recently learned are best remembered.