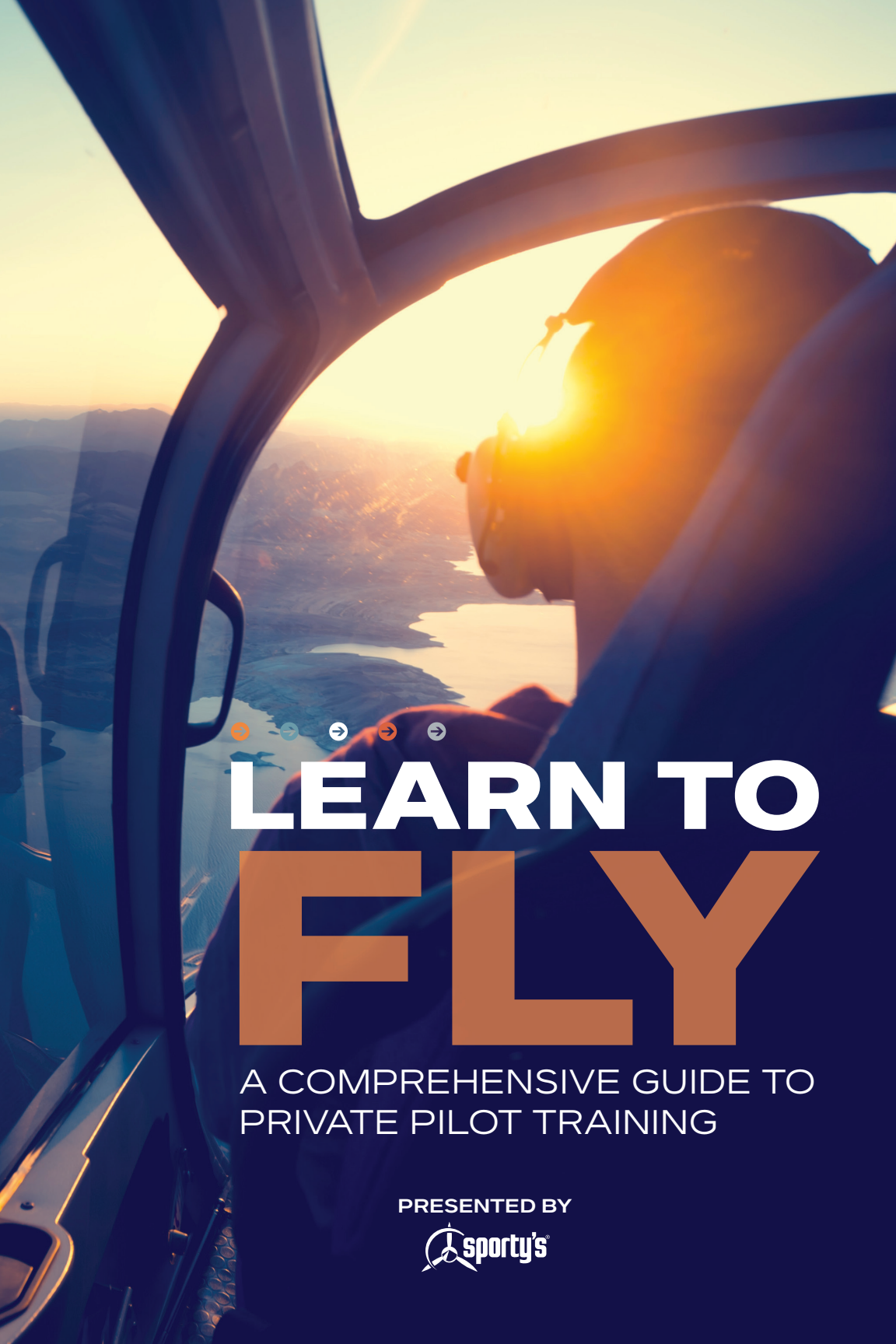

LEARN TO FLY

A COMPREHENSIVE GUIDE TO PRIVATE PILOT TRAINING

PRESENTED BY

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LEARN TO FLY

A COMPREHENSIVE GUIDE TO
PRIVATE PILOT TRAINING

by Sporty's Pilot Shop

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Sporty's/Clermont County Airport

PREFACE

Welcome to the amazing world of aviation! Whether you're just thinking about learning to fly or you're already in training, you've come to the right place. This book includes everything you need to know to get off to a fast start, save money, and achieve your aviation goals. Rest assured, we won't just recite the FAA textbooks here—our approach is to offer time-tested tips that make a difference.

But first, you may be wondering why you should listen to us. Who is Sporty's anyway?

Sporty's has been training and equipping pilots since 1961, when Hal Shevers, a flight instructor, sold his first product out of the trunk of his car. In the six decades since, we've grown tremendously, but we've stayed focused on developing the finest training courses and pilot supplies. Originally based at a small retail location at Lunken Airport (LUK) in Cincinnati, Ohio, Sporty's quickly grew and soon moved to a larger location at the Clermont County Airport (I69)—where you can fly in and visit us!

Today, Sporty's is one of the most respected names in aviation, with corporate activities in every segment of the industry: Sportys.com is the place to find the best pilot supplies, Sporty's Pilot Training Courses offer the finest online learning experience, and Sporty's Academy is one of America's best flight schools. Most importantly, our company is still made up of pilots and aviation enthusiasts, just like you.

That long and varied experience in aviation makes us uniquely qualified to help you on your flight training journey. Throughout this book, we'll share our honest advice based on decades of experience running a flight school. Everything here was written by our team of flight instructors, and is the same information we share with new flight students at Sporty's.

Aviation is more than just a business for us—it's our passion. That's why we're so excited to help you join the club. Now, let's get started.

LEARN TO FLY CHECKLIST

- [ ] Locate flight schools in your area
- [ ] Take a tour and choose a school that best fits your needs
- [ ] Talk to your instructor and share your goals
- [ ] Take a first flight lesson
- [ ] Purchase a home study course to prepare for your lessons and your FAA tests
- [ ] Decide whether you'll pursue the Sport, Recreational or Private Certificate
- [ ] Schedule an FAA medical exam with a local AME (not required for Sport)
- [ ] Pass your FAA Knowledge Test
- [ ] Pass your FAA Flight Test and earn your license
- [ ] Have fun!

Scan the QR above to locate flight schools in your area

PART ONE

BASIC QUESTIONS

FLIGHT PLAN

- WHY LEARN TO FLY? // PAGE 10
- WHO CAN BE A PILOT? // PAGE 11
- HOW MUCH DOES IT COST TO EARN A PILOT'S LICENSE? // PAGE 11
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WHY LEARN TO FLY?

Learning to fly will unlock a world of possibilities and give you unparalleled freedom to see the world. It is a truly unique experience—one of the last great adventures in our modern life. It is challenging, rewarding and flat out fun!

Some people start flying to make a career out of it, eventually working as a professional pilot. But remember there are numerous jobs in aviation besides just airline pilot. Career opportunities include business aviation pilot, flight instructing, cargo airlines, military flying, law enforcement, and many more.

For others, flying is a convenient and cost-effective method of personal or business travel. You can set your own schedule, use airports that airlines don't serve and leave the hassles of security lines behind. For business use, airplanes allow you to do more in one day than you could do in a week traveling by airline. Flexibility, privacy, security, and freedom are all great reasons to use a personal airplane for travel.

In the end, though, many pilots fly for pure enjoyment, taking local flights on nice days to soar above familiar sights and new places. You can take a friend and fly for lunch at another airport, tour local landmarks, or attend fly-ins to meet other pilots and get involved in the aviation community. No matter where you're headed, being up in the air is the greatest thrill of all.

Whether you want to fly for a living or just for fun, general aviation offers a safe, rewarding and efficient way to travel.

WHO CAN BE A PILOT?

There is no "right" type of person to become a pilot. Aviators come from all kinds of backgrounds, each with unique reasons for flying. The good news is, you can take lessons at any age—there is no minimum and no maximum.

Some requirements to keep in mind:

- You must be 16 years old to solo an airplane (or 14 to solo a glider)
- You must be 17 years old to earn a pilot license (Sport, Recreational or Private certificate)
- For the Recreational and Private certificates, you will need to pass a Third Class Medical exam (this isn't a big deal). For the Sport certificate, you'll need a valid US driver's license
- You must be able to read and speak English

And no, you don't have to be a math genius or have perfect health. Attitude and determination is more important than age or skill. A commitment to take the training seriously, and stick with it will serve you well. Learning to fly is a long, sometimes arduous journey marked by elation and occasional frustration. The process will be easier, and more enjoyable, if you can maintain a positive, always-learning attitude.

Maintaining a positive outlook with a focus on what the aviation community and being a pilot will provide will aid in your success. And there are plenty of ways to involve your support network (family, friends, etc.). Keep them apprised of your progress and even invite them to the airport or recruit them to help you study. The more support you have, the better!

HOW MUCH DOES IT COST TO EARN A PILOT'S LICENSE?

No one wants to pay too much for a product or service, and it's certainly no different with learning to fly. Learning to fly involves some expense, but it's important to examine this expense as an investment that will provide a lifetime of return. The extent and depth of the training you will receive for your money makes learning to fly one of the all-time great bargains compared to many other recreational or business pursuits. For your investment, you will acquire the basic skills needed to safely enjoy an extraordinary and unique activity for years to come—a pilot's license never expires!

Cost varies by flight school, certificate, and geographic location, but it is usually about the price of a luxury cruise for a week (anywhere from $10,000 to $15,000). And, you can pay as you go, so there's no large payment due up front.

US pilot's license

The good news is you can control much of what you spend and take steps to make your training more efficient (read the next section for Five Ways to Save Money During Training). Frequency of training has the greatest impact on your total investment. Sporty's recommends a frequency of 2-3 lessons per week for the best efficiency. A lesson costs about $250 – $300, which translates to $2,000 – $3,000 per month over the course of your training (about 4-5 months).

As with many things, in the long run value turns out to be more important than the bottom-line cost of your flight training. You should be concerned with what you are getting for your money, not just how much you'll spend. Value is measured by the quality of the training, and the relationship that develops between you and your instructor or flight school. The cheapest usually isn't the best.

When researching cost, be sure to ask about all the expenses associated with training: instructor time (including pre-flight and post-flight briefings), aircraft rental, ground school, the written test, the oral exam and check ride, and necessary supplies.

Some schools, and most ab initio career-training academies, charge an all-inclusive price covering flight and ground training for all certificates and ratings in the program. Look carefully at these deals. A seemingly low package price may cover only the minimum instructional flight hours required in the regulations. Since most people take longer, you could end up spending considerably more. Also check on the school's financial stability and refund policy in the event you must withdraw for whatever reason and always be cautious of paying large sums of money up front.

If cost is a critical concern, make it a priority on your school shopping list, but don't lose sight of the importance of value.

HOW TO PAY FOR FLIGHT TRAINING

No matter your ultimate aviation goal, whether it is recreation, business, career, or simply a new adventure, everyone must solo. The first solo is followed by a variety of certification pathways depending on your ultimate destination. Each path requires varying levels of investment.

As the adage goes, it takes money to operate an aircraft, and while there are innovative new concepts to help control the rising costs of pilot training (everything from less expensive re-manufactured aircraft to alternative energy sources), we shouldn't expect dramatic decreases in the costs associated with flying airplanes. Instead, let's be realistic about what it's going to take and make a plan to get there.

Do your homework. Research and learn what the real investment will be (in both time and money) to accomplish your pilot training. The time investment is often overlooked due to the more obvious financial challenges of learning to fly. But allotting the right amount of time and garnering the support of your personal network of friends, family and other loved ones, will have a profound impact on your monetary investment.

By the Numbers: Cost of flight training

- Lesson cost: **$250-$300**
- Per month cost: **$2,000-$3,000**
- Length of training: **4-5 months**

PRO TIP:
Recommended flight lesson frequency: 2-3/week

Your continuity of training is of paramount importance in reaching your goals. At Sporty's Academy, we recommend at least a two to three day per week commitment to ensure adequate retention and also to allow for proper time in between lessons for preparation. In short, this is the most efficient utilization of your time and money.

Regarding the dollars and cents, oftentimes prospective pilots mistakenly follow shamefully misleading information regarding costs based on minimum FAA training requirements. While not impossible, reaching a certification milestone at minimum experience requirements in today's age of more complicated aircraft with greater capability in more complex airspace, is not likely. And "minimums" certainly shouldn't be used for financial planning purposes.

A better method is to base your planning on average training time. If you're not able to gather this information from the flight school you are considering, that could be a bad omen. Also any personal connections you may have with existing pilots who can say with certainty how much time and money it took to accomplish their training would be invaluable. As a point of reference, averages can range from 50-70 hours for a Private Pilot certification. So let's discuss steps you can take to get to the low end or below average training time.

Prepare yourself. The phrase I like to use with new and prospective flight training customers is to "own your training experience." There are numerous resources available to pilots to assist in the training process and lower the time and money to completion. It's a matter of understanding what's available and utilizing the material effectively. Most impactful will be the use of a complete home-study or distance-learning program as ground school and to complete the FAA written test as well as a flight preparation resource.

While there are differing schools of thought, I support the approach of completing a complete home study course prior to engaging in the in-airplane training phase. This will not only provide a solid footing and more educated view of the process, but also allow you to complete the FAA written testing component so your 100% attention can be focused on the flight training component. And I've seen this process work well for pilots of all different backgrounds.

5 WAYS TO SAVE MONEY DURING TRAINING

The most popular questions we address with prospective pilots are: how much and how long? Of course the time and money variables go hand in hand. While difficult to arrive at an exact date and decimal point, pilots control much of their own destiny and we can provide ranges for time and money with reasonable accuracy based on past performance. There's no getting around the fact that pilot training represents a significant investment and, just like any savvy consumer, you should always make sure that you are receiving good value for the product or service and investigate options for maximizing that value.

Choosing the right school is the first step to maximizing your value during training. Making sure that you are paying commensurate pricing with the rest of the industry and working with professional people (whether an individual instructor or flight school) is always a good place to start your research.

Lowest cost doesn't mean the best value in training. The expression "you get what you pay for" is often something we have seen with clients from other schools over the years. By contrast, paying the highest price doesn't ensure quality either. Talking to current students, the chief flight instructor or flight school manager, or even other pilots in the area is often a good way to try to balance some of those factors and get the real story about a flight school.

Once you have set your course on a school, your total cost is now most likely a function of hourly pricing. The cost of the airplane, instructor, and fuel (if using "dry" airplane pricing) is going to be the bulk of your training expense. Since learning to fly is a different experience for each person, you must realize that the "posted costs" of earning your certificate will most likely vary. What you do and how you prepare for training are the best methods of saving money. Here are some specific pointers and ideas.

1. **Prepare for each lesson –** Coming to each flight or ground lesson prepared and ready to go will save you the most money over all the techniques listed here. Having completed reading or video assignments prior to beginning a new task or topic in your training will allow you to complete the task in less time. Reviewing a procedure manual or checklist is often one of the best ways to save time in the airplane. Spending time on the ground by yourself or with your instructor to review these flight critical items allows you to not waste time in the air discussing them with the engine running.

2. **Know what's next –** Working from a syllabus or other written training program allows you to stay ahead of the game with your instructor. You can't come prepared to a lesson if you don't know what to study in advance. The worst thing you can do for training is to show up to your lesson and ask your instructor, "So what are we going to do today?" Keeping your training records up to date

PRO TIP: SAVE MONEY
- Prepare for each lesson
- Train consistently
- Communicate issues early

is another commonly missed detail for those who are working from a syllabus. Make sure that you also have a copy of your records if your school keeps a copy for their purposes.

3. **Use a home study course –** Having a specific program that helps you study and prepare for both your written exam and the practical flight test is a great way to save a few hours of your training time. These type courses allow you to see rather than read what many of the maneuvers and knowledge areas are about. The Sporty's Learn to Fly Course incorporates all the knowledge you need for the written, oral and practical exams into one course, making it a great way to save money.

4. **Train consistently –** Ask any instructor, flight school, or research study on the topic and you will find a simple answer: fly more frequently = spend less on your training. Too much time between lessons allows for memory decay. This decay has to be overcome by reviewing or re-teaching the same items you did on your last flight, which translates to money wasted that could have been spent on learning something new. Although you will be spending money faster by training more often, your total investment in training will be less. If financial reasons or scheduling prevent you from training at least 2-3 lessons per week, try to "chair fly" at home to review your last flight before you go back for your next lesson and supplement with video preparation that will make you feel like you are back in your lesson.

5. **Communicate issues early –** If you feel that your training is not going the way you expected, or you are having difficulty with a specific area, address these concerns early! Do not wait until you feel like it is hopeless or so frustrating you can't continue. By talking with your instructor early about the issue or concern, hopefully you can overcome it earlier, saving you money in the long run. Instructors are great at working with their students to get over obstacles in their training, but they aren't very good at that unless they know there is an issue. Most common issues will be picked up by a quality instructor early, but remember that communication is the only way to make sure you are both on the same page.

Although training costs will always vary student to student, using these techniques will try to maximize your value during training so you don't waste your money.

Once you've completed your home study, the preparation doesn't end. Consider it a standing homework assignment to look forward in the syllabus; when you come upon a topic to be introduced on the next lesson, attempt to become an expert by referencing your home study course or the various FAA or other online documents related to that topic. The use of a syllabus (or training course outline) is critical and should not to be compromised. If you're unsure of whether you're following a training outline, or if the instructor or flight school has difficulty in producing its syllabus, this would be yet another red flag.

While referenced above, it's worth reiterating that maintaining a regular training schedule to ensure effective continuity is imperative to a successful and enjoyable learning experience. The training industry typically experiences high turnover among flight instructors, but a reputable flight school should be able to manage any changes of instructor. And that is a question you may wish to pose when evaluating training facilities.

Paying the bills. Now that you've determined what it will take in terms of time and money, the next step is ensuring the funding is in place to see your training through. While it's necessary to have an accurate estimate of what the entire learning experience will cost, keep in mind that it doesn't need to be paid up front. Most schools will accept payment as you progress for services rendered. Be skeptical of any organization requiring fees to be paid ahead of providing the service.

If you don't have the current means or option to save in order to fund your training out of pocket, consider a financing source. There could be personal connections through family or friends that would be willing to invest in your success. There are some flight training institutions that have financing options available directly. Also consider Aircraft Owners and Pilots Association (AOPA)—the largest pilot association in the world—which also offers financing for flight training through AOPA Finance.

Scan the QR code above for more information about flight training through AOPA Finance

Scholarships are available for pilot training. If you're enrolled in a career program through an institution of higher learning, scholarship opportunities are more numerous, but they still exist for everyone.

Scan the QR code above to see a listing from Sporty's Flight Training Central of available scholarships

A few words of wisdom on **scholarship applications**:

- Carefully review scholarship requirements to ensure eligibility before applying
- Be meticulous in reviewing forms and items that must be submitted with applications and be accurate in your completion
- Stand out in the crowd—include background, service, and experiences that are uniquely you
- Don't procrastinate—if required to obtain a letter of reference, start ear-

ly and don't expect those who may offer recommendations to be able to deliver a polished letter on a day's notice

- Respect the deadlines—deadlines do not mean postmarked. Allow enough time for your applications to arrive well ahead of deadlines

Establish goals and work around obstacles. A worthy exercise in beginning your journey is to take inventory of your goals and priorities. If you're like most, you can't exactly slide pilot training into an already busy schedule, so most likely there will have to be some give and take in life's commitments. The inventory will help you identify those activities that can be placed on hold in order to meet your goals.

Establish both short and long-term goals to help maintain your focus. Your list of goals should be a work in progress. Make modifications when things progress better than planned and when things don't go as well as planned. Everyone will experience a learning plateau. Use task lists, calendars and other support mechanisms to effectively manage your time. As much as aviation seems like an individualized activity, a network of support can be a major boost.

Enjoy the experience. Remember, the training experience is only the gateway, a path to a new world. The freedom, adventure, and rewards of aviation are just beginning at pilot certification. For the health of mind and body, take the time to reflect on where you've been and where

Sporty's/Clermont County Airport

A student celebrates her first solo with her flight instructor

you're headed. Coming to the airport should not always be about the next lesson. Involve yourself in the aviation community and get to know the pilots around you who can also offer support. After all, the airport is a fun place to be.

HOW LONG DOES IT TAKE TO EARN A PILOT'S LICENSE?

The length of time it takes to earn a pilot certificate varies widely (anywhere from a few weeks to a year), and depends, as we discussed above, on how frequently you opt to train. One of the first major milestones in your training is your first solo, when you fly the plane without your instructor. Most students reach this point after 15-20 hours of flight instruction.

From there, you will train for the Sport, Recreational, or Private Pilot Certificate. Federal Aviation Regulations require a minimum of 20 hours of training for the Sport Pilot Certificate, although many students need more time. The requirement is 30 hours for the Recreational Pilot Certificate, and most students complete this certificate in 30-40 hours. For the Private, the minimum is 40 hours—20 with an instructor and 20 solo—but most students take 60-80 hours.

Note that these figures represent only flight time, and do not include time spent on ground school or personal study. While this time is less expensive (at least you aren't paying for an airplane), it should be approached with the same dedication and focus as a flight lesson.

DO I NEED A MEDICAL EXAM?

When talking to other pilots, you may hear about "the medical." Don't worry—you do not have to have perfect health or 20/20 vision to be a pilot. Recreational and Private pilots who are just starting out do need to pass a basic medical exam from an FAA Aviation Medical Examiner (AME).

AMEs are physicians with a special interest in aviation safety and have training in aviation medicine. There are hundreds of AMEs across the country, and you'll most likely find one very close to your home.

Scan the QR code above for to find an FAA Aviation Medical Examiner near you

Your flight physical will be a brief medical exam, including tests of your hearing, vision, and blood pressure. Before you visit the AME, make sure to fill out the FAA's MedXPress online form. Typically, you'll receive your medical on the spot. If you have any condition that may be medically disqualifying or could slow your medical approval, do not visit your AME before meeting with and discussing your options with someone like a flight instructor or flight school manager. Alternatively, you can contact a resource like the Aircraft Owners and Pilots Association (AOPA) to discuss your situation. You can get a free 6-month membership as a Student Pilot. They have experts available to help find your best route for success in the medical certification process.

Some conditions that can be disqualifying or could slow your medical approval include but are not limited to:

- Diabetes
- Heart Disease
- Meniere's Disease
- Nervous Disorders
- History of Kidney Stones
- Emotional or Mental Disorders
- Epilepsy
- Uncorrectable Vision
- Certain Levels of Hearing Loss
- History of Alcohol or Drug Dependence
- Any condition that could impair your ability to operate an aircraft safely

The Aircraft Owners and PIlots Association has a helful page with tips, vidos and an online tool.

Once you've passed an initial medical exam (and at all times for the Sport Pilot Certificate), you can self-certify your medical fitness. For Sport Pilots, a driver's license and a personal assessment of your health is all that is needed. For Recreational and Private Pilots, you'll just need to review your FAA medical every few years.

WHAT IS BASICMED?

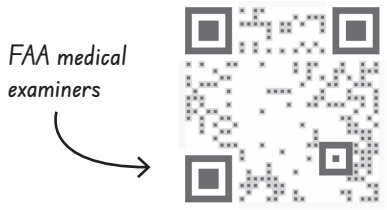
If you've held a valid medical certificate at any point after July 14, 2006, you may never have to see an Aviation Medical Examiner again under the BasicMed rule.

And for those just getting started, you may be able to complete just one AME medical exam at the beginning of your flying and then use the simplified BasicMed process as long as your flying can be accomplished with third class privileges.

Third class medical flying can be thought of as recreational or personal flying—generally flight training and all types of flying short of commercial operations, including day and night VFR operations and even IFR flying. When flying under BasicMed, there is a maximum number of passengers that may be carried (five) and the aircraft operated is limited to six seats and may not be certified for more than 6,000 lbs. Pilots are also altitude restricted to 18,000 feet MSL (no Class A operations) and a speed limit of 250 knots.

Third-class medical reform does not affect those already flying Light Sport Aircraft (LSAs) with a valid driver's license in lieu of a third-class medical. You may continue flying LSAs.

As part of the new guidance, pilots flying under BasicMed need to visit their primary care physician (or any state-licensed physician) at least once every four years and provide an FAA checklist of issues to be discussed during the visit. Both the pilot and physician need to sign the checklist stating that the items have been completed. A record of the required visit should be noted in the pilot's logbook and pilots should save their checklist. There is no additional need to report or file anything directly with the FAA.



Scan the QR code above for a medical examination checklist

The required checklist is provided in two parts. There are questions to be answered by the pilot in advance of the exam and a list of items for the physician to include as part of the exam which are typical of items found in any routine physical. The questions include a short medical history, a list of current medications and, as one might expect, information about whether the pilot has had a medical denied, suspended, or revoked.

Pilots are required to complete an online training course in aeromedical factors every two years. The course is available free from AOPA or Mayo Clinic. A copy of the course completion certificate should be saved and a notation of the training made in the pilot's logbook.

Perhaps the greatest financial and regulatory relief of the reform movement comes to those with special issuance medicals.

Scan the QR code above for a free online training course in aeromedical factors

Special issuance medicals are an option for pilots with certain medical conditions that are specifically disqualifying. Once the FAA reviews the history and circumstances, the pilot may be cleared to fly under the special issuance authorization.

If you currently hold a special issuance third-class medical, or have held one after July 14, 2006, and do not suffer one of the specific cardiac, neurological, or mental health conditions identified as exceptions, you will never again be required to go through the special issuance process.

An important note is that third-class medical reform does not alleviate the need for pilots to continually self-certify when it comes to being fit for flight. This includes consideration for any medications that may affect physical or cognitive abilities. While it would make sense that a primary care physician would be in a better position to assess one's overall health than the snapshot that takes place during the traditional AME exam, the process also depends on an honest and free exchange with your doctor.

Summary: BasicMed

BasicMed summary—what you need to fly:

- Hold a US driver's license
- Hold or have held a medical certificate issued by the FAA at any point after July 14, 2006
- Answer the health questions on the Comprehensive Medical Examination Checklist (CMEC) and complete your examination by any physician—required every four years
- Take the online medical education course (required every two years) and complete the attestations/consent to the National Driver Register (NDR) check. Keep the course completion document
- Go fly!

Operational restrictions under BasicMed:

- No more than five passengers
- Operate within the United States, at less than 18,000 feet MSL, not exceeding 250 knots
- Do not operate for compensation or hire
- Accepted in the Bahamas, Mexico, and other countries

HOW TO CHOOSE A FLIGHT SCHOOL

Finding a flight school is the first step towards earning your license. So how to find one? Our flight school database is a good place to start—it shows over 1,000 flight school locations in the US. You can also do a basic search at your favorite internet search engine, or ask other pilots for recommendations.

Scan to view an online flight school directory

Once you've located some schools, choosing the right one is one of the most important choices you'll make in training. More than anything, a flight school needs to be a good fit for you—your schedule, your goals and your personality.

Visit flight schools near you. Meet with the staff and tour the facilities and airplanes. Ask any questions you may have about the flight training process, flight school policies, scheduling, rates and instructors. Your personal opinion counts here. Do the airplanes look clean and well-maintained? Are the instructors friendly and helpful? What is your general feeling about the school as a whole? Details matter and typically, if a flight school cares about the details, you're in for a good experience.

Personal referrals are always a good option. Consider if you are connected to someone who has trained at a specific school and would be willing to recommend the school and/or an instructor.

Flight schools vary from large training facilities to one airplane flight schools with part time instructors. But bigger doesn't always mean better, so look for some signs of a well-run flight school:

- A bricks-and-mortar facility with classrooms, helpful teaching aids, and a supportive learning environment.
- A staff of flight instructors from which to choose.
- An engaged and supportive management structure
- A proven training curriculum.
- A well-maintained fleet of training aircraft.

WHAT ARE PART 61 AND PART 141 FLIGHT SCHOOLS?

You may hear flight schools talk about "Part 61" and "Part 141" programs. This refers to different parts of the Federal Aviation Regulations (FARs) that set minimum standards for flight training. In general, Part 61 schools are local flight schools that train students on a one-on-one, customized basis, and are not necessarily career-oriented flight academies. Part 141 schools are usually larger, more structured programs, often emphasizing professional pilot training. They may also be associated with a college or university.

No special designation or certification is needed to operate as a flight school. However, a flight school can choose to be certified under FAR Part 141, "Pilot Schools." In addition to specifying minimum qualifications and requirements for the school's personnel and facilities, Part 141 provides for Federal Aviation Administration (FAA) approval of the school's training curriculum. The school is subject to FAA inspection and must meet minimum performance levels in terms of preparing students for the FAA flight test.

Certainly, Part 141 certification can be viewed as evidence of at least a minimum standard of quality and performance. However, it does not mean that instruction at a Part 61 school will be inferior. In fact, many Part 141 schools also train students under Part 61 because it allows for greater flexibility in accommodating a part time student's schedule and pace of learning. Don't base your decision solely on whether a school is Part 61 or 141.

Part 61:

- Local flight schools
- Independent CFIs
- One-on-one training
- Customized training
- Standard or flexible curriculum

Part 141:

- Larger, more structured programs
- Professional pilot training emphasis
- May be associated with college or university
- Meets the minimum qualifications and requirements for personnel and facility
- Federal Aviation Administration (FAA)-approved training curriculum
- Subject to minimum performance levels for the FAA exam

PRO TIP:
Don't base your decision solely on Part 61 vs. Part 141. Many Part 141 schools also train students under Part 61 because it allows for greater flexibility in accommodating a part time student's schedule and pace.

- An efficient scheduling system for aircraft and instructors.
- Flexible hours to fit your training schedule.
- Experience in teaching primary students.
- Financing arrangements to help you manage the cost of learning to fly.
- Some schools that cater to aspiring professional pilots even offer housing and job placement opportunities.

You can also train with an independent instructor, outside of a formal flight school. This can be a good option if the instructor is someone you know and respect and whose schedule fits yours. But make sure to ask about access to an aircraft—if you're constantly canceling lessons because you can't rent an airplane, you'll soon get frustrated.

HIGH WING OR LOW WING—WHICH TRAINER SHOULD YOU CHOOSE?

"Low wing airplanes were designed by the very devil himself. How do I know this? Because birds were designed by God and he created them with high wings"

—John Frank,
Cessna Pilots Association

You don't have to hang around airports, airplanes, or pilots very long until someone will crank up the high wing versus low wing debate. Early airplanes were called biplanes because they had two wings, one above and the other below the fuselage. This design was necessary because early engines produced very limited horsepower. This meant the airplane, if it were to carry anything, had to be built from very light materials incapable of providing support for a wing long enough to generate the needed lift.

The bi-wing design allows two shorter wings to be braced against one another with a series of struts and wires providing the strength and lifting surface required. Farmers utilize a similar system to firmly anchor a run of fence with an upright brace post reinforcing the end post. Shorter wings can also translate into greater maneuverability as evidenced by the aerobatic airplanes utilizing this configuration.

The ability to lift heavier loads with a shorter wingspan has also contributed to the long production history of the mighty Antonov AN-2, the world's largest biplane, in production since 1947.

The bi-wing design has one serious flaw: those struts and wires create a lot of parasite drag, anathema for aircraft whose design and mission is speed. Throughout the history of aviation, whenever there has been a need, usually some enterprising engineer with a dinner napkin has risen to the challenge. In 1915 Hugo Junkers utilized metal construction and cantilevered wings to produce the first commercially successful monoplane, spawning the high wing/low wing debate.

The case for high wings

Some of the most successful general aviation aircraft have been high wing models. This design, even in the wood and fabric world of early aircraft, carried such aviation icons as the Piper Cub and Aeronca Champ aloft. After WWII, Cessna aircraft started to construct all metal high wing airplanes like the 170, 180, and 195. Then in 1956 Cessna moved the tailwheel on the 170 to the nose and the resulting high wing 172, with well over 40,000 copies, became the best-selling civilian aircraft in history.

Why the success of high wings? By design, they provide both shade in the sun and an "umbrella" in the rain for passengers during boarding or debarking. On the ground they offer clearance over many fences. On aircraft fitted with floats,

CESSNA 182

Popular high wing aircraft include the Cessna series and a variety of lightsport aircraft

CIRRUS SR-22

Popular low wing aircraft include Piper, Cirrus and Diamond

Legend Cub

the wings may also pass over docks and shorelines. High wing aircraft are inherently stable, as the center of mass is located beneath the center of lift (compare hanging from a rope as compared to sitting on one). Short field landings can be shorter because the drag-robbing ground effect is lessened by the greater distance between the wing and ground. Most carbureted high wingers can eschew fuel pumps, as gravity (except during prolonged inverted flight) will serve the purpose of getting fuel from the tanks to the engine.

And speaking of fuel, sampling the tanks does not require getting down on hands and knees. Some complain the view of the airport is blocked during the base-to-final turn in a high wing and this is true, but we haven't experienced a runway moving during this turn. Granted, we've never made a carrier landing, but we have seen unannounced aircraft coming "straight in" on final while making that turn that would have been blocked by a low wing airplane. Finally, especially during cruise flight, the sights on the ground are unobstructed by the wings. On the down side are those diamond shaped scars on your forehead (Cessna pilots know what this means).

The case for low wings

In 1960, Piper engineers Fred Weick and John Thorpe developed the successful Cherokee single engine airplane, and even Cessna added the low wing TTx in its piston engine stable. Many aeronautical engineers maintain a preference for low wing aircraft because of their simplicity in design. The same spar used to carry the load through the fuselage during flight can bear the load from the landing gear on the ground.

Low wing aircraft may be lighter because high wing airplanes require what amounts to a wing spar, a gear spar, and an additional structure running through the fuselage to connect the two. Fueling a low wing airplane usually does not involve a step ladder, and neither does checking the security of the fuel caps. The low wing being closer to the ground may allow for a shortened takeoff roll and faster acceleration because of ground effect—a powerful argument for heavily laden crop dusting aircraft (as well as providing a handy place to attach that spray boom).

By incorporating more dihedral, the longitudinal stability can be increased to match that exhibited by the high wingers. Mitigating gravity's refusal to make fuel run uphill, most low wing airframes incorporate an engine-driven fuel pump backed up by an electrically-actuated one to boost the fuel to the level of the carburetor or fuel servo. Though some of the ground may be obstructed, low wings offer an unparalleled view of the sky, or


Piper Archer

the moon, or a sunrise or sunset, or meteor showers, or maybe Air Force One flying overhead. And you can confirm, during the base to final turn, that indeed the runway is not moving (unless you are making a carrier landing).

Settling the argument

Regardless of whether your flight school rents Warriors or Skyhawks, Evektors or Pipistrels, learning to fly will be largely the same. Both low wing and high wing aircraft will be affected by lift, weight, thrust, and drag. Maneuvering speed will decrease with fuel burn and required runway will increase with weight, temperature, and elevation. Takeoffs are optional while landings are mandatory, and during normal flight pulling back will make the houses get smaller.

The high wing/low wing arguments, much as Chevy/Ford or John Deere/New Holland deliberations, will probably only get resolved in the minds of their particular protagonists. In the end for the pilot, just like the difference in oral versus the "other" thermometers, it may just come down to a matter of taste. Some folks just like the looks of a low wing airplane; others will always prefer their airplane copy the structure of birds.

Summary:
Low wing vs. high wing

High wing pros:

- Ease of boarding
- Added wing clearance on ground
- Allow for float attachments

Low wing pros:

- Design simplicity
- Can be made lighter
- Ease of fueling
- Benefits of ground effect

ROUND DIAL OR GLASS: WHICH IS RIGHT FOR ME?

A question that often arises with new student pilots (when there is a choice of airplanes) is, "Should I train in a round-dial airplane or one with a glass flight deck?"

In some cases, a flight school may only have one choice, an older round-dial airplane or a newer glass flight deck airplane. If you want to train at this flight school, your choice is made for you. But if not, read on.

Definitions

First, we should define some terms. When we speak of round-dial airplanes, sometimes called "steam gauge airplanes" ‹cringe›, we are talking about an airplane with a mechanically driven "6-pack" of standard instruments. A glass flight deck airplane has the traditional instruments replaced with an LCD screen representation of the same information. Backup instruments may be mechanical or glass from a separate power source. There are also partial glass hybrids, where some of the mechanical instruments have been replaced with LCD representations of individual instruments but other mechanical instruments still exist.

In our experience at Sporty's, many of the LCD instruments in a partial glass hybrid flight deck are much like the mechanical instruments they have replaced, so we will consider them the same for the purposes of this post. There are certainly advantages of the partial glass hybrid flight decks, but we won't touch on those here.

Decision time

When deciding between training in a traditional round-dial airplane or training in a glass flight deck airplane, the first thing you must ask yourself is the question, "What type of airplane will I be flying after I get my rating?"

If you are training to fly an airplane that you own or will be purchasing, train for the equipment installed in that airplane (when possible). The same advice applies to renter pilots—if your favorite fixed base operator (FBO) only has one style of flight deck, train for that configuration.

If you are not sure about the answer to the question, or your FBO has a mixed rental fleet, the flight deck type becomes more about personal preference. Your decision should be based upon the skills that you bring to the airplane and the pros and cons of each design.

A student who is not comfortable with or struggles with computers might want to consider going the round-dial route if available. Modern glass flight decks typically have more to learn and may require additional study on the part of the student. This is certainly true when comparing it to the simple flight decks of older trainers without a GPS. Although newer round-dial trainers with a multi-function display, a GPS, and an autopilot can be nearly as complex as their glass cousins.

For basic understanding and interpretation of the flight instruments, learning the instruments in a glass flight deck may be easier for the beginner. Digital readouts for altitude, airspeed, and heading are just simpler and require little interpretation. The glass flight deck can also improve situational awareness with little effort.

On the downside, a glass flight deck can be very pretty and it may be hard to take your eyes off of it. This is a bad thing when you are flying under visual flight rules and your eyes are supposed to be focused outside the airplane.

Round-dial airplanes will be somewhat older and may have a cost advantage over the glass flight deck airplane. They and their hybrid cousins may also be more prevalent—for now.

Regardless of the flight deck type you use for training, if you decide that you want to fly the other type after obtain-

ROUND DIAL FLIGHT DECK

An airplane with a mechanically driven “6-pack” of standard instruments.

GLASS FLIGHT DECK

An airplane that has traditional instruments replaced with an LCD screen representation of the same information.

ing your rating, you must get training on that design! We have seen transitions in both directions at our flight school and both have their difficulties and hang-ups that can only be resolved through proper training.

HOW TO CHOOSE A FLIGHT INSTRUCTOR

Even once you've selected a flight school, your research is not over: spend some time to find the right flight instructor. He or she will be a key element in your training and will help determine how much enjoyment you get out of flying. While all flight instructors are certified by the Federal Aviation Administration and meet minimum standards, your personality and attitude will naturally be a better fit with some instructors than others.

Just like you "interviewed" the flight school, sit down with a prospective instructor and get to know them. Talk about your reasons for learning to fly, your goals, and your questions. Ask about the instructor's background, their previous students, and what training curriculum they'll use. And as always, judge whether your personalities will be a good match. Your gut feel is usually more important than the age or experience of an instructor. In most situations, you'll forge a lifetime relationship with your instructor.

It's important to ensure you'll be able to maintain open and clear communication and that expectations for both you and the instructor are well known.

Personal referrals also go a long way. If you have a connection to someone who has trained at a particular school, find out more about the instructor and why that person connected. Also keep in mind that, at most flight schools, you can change flight instructors if the relationship simply isn't working well.

GETTING STARTED WITH FLIGHT TRAINING CENTRAL

Sporty's Flight Training Central is your number one student pilot resource. Whether you're just getting started, a pilot in training, or even a licensed pilot, Sporty's team of flight instructors share helpful advice, information and insights on all topics related to flight training.

What's available free at Sporty's Flight Training Central:

- Getting started video series and tips
- Flight training articles
- Flight training scholarship directory
- Aviation industry news and events
- Flight school directory
- Quizzes and FAA practice tests

SPORTY'S FLIGHT TRAINING CENTRAL

Visit FlightTrainingCentral.com and sign up for our free newsletter

SPORT, RECREATIONAL, OR PRIVATE PILOT CERTIFICATE?

When you start flying, you may be presented the choice of pursuing your Sport Pilot, Recreational Pilot, or Private Pilot certificate. Understanding the differences between them will help you to choose the path that is best for you.

Sport Pilot – The Sport Pilot certificate allows you to earn your pilot's license in as little as 20 hours of training, and does not require a medical certificate (see above); however, a Sport Pilot must hold at least a current US driver's license. In practice, most students will require more than the minimum flight training experience. You are limited to flying Light Sport Aircraft (LSAs), which are limited to certain performance standards, and can only carry one passenger. You'll need to check on the availability of light sport aircraft at your local flight school as the aircraft are not as readily available as other category aircraft.

Recreational Pilot – Another great option for new pilots to get in the air quickly is the Recreational Pilot Certificate, which requires a minimum of 30 hours of flying. While 30 hours in the minimum, in practice pilots will typically take closer to 40 hours of training to obtain the required level of safety and proficiency.

The Recreational certificate allows you to carry a passenger during the day in good weather, and in aircraft with up to four seats and up to a 180 horsepower engine (a Cessna Skyhawk or Piper Cherokee, for example). This is perfect for local flights with family or friends, and will get you into the air quickly. You can also add additional privileges or transition to the Private Pilot certificate when you're ready—you'll just do some additional training with an instructor on cross country, night flying and/or in airspace requiring communication with Air Traffic Control.

Private Pilot – The Private Pilot certificate has been around the longest, and is often what people mean when they say they "got their license." There are fewer restrictions on the type of airplane you can fly and the places you can fly to, and there are plenty of options for add-on privileges, like Instrument and Multi-Engine ratings. The minimum training time is

40 hours—at least 20 with an instructor and 10 solo—but most students take 60-80 hours.

For all three of these certificates, you'll be required to complete ground training (which can be largely accomplished online), a written exam, and a flight test. Also remember that you can change your mind as you train. For example, Sport Pilot training time will count towards a Recreational or Private license. It's also worth noting that every pilot has to solo (fly the airplane by themselves) as a first step, so there is no need to make a decision quickly. The most important first step is to take an introductory or discovery flight at your local airport!

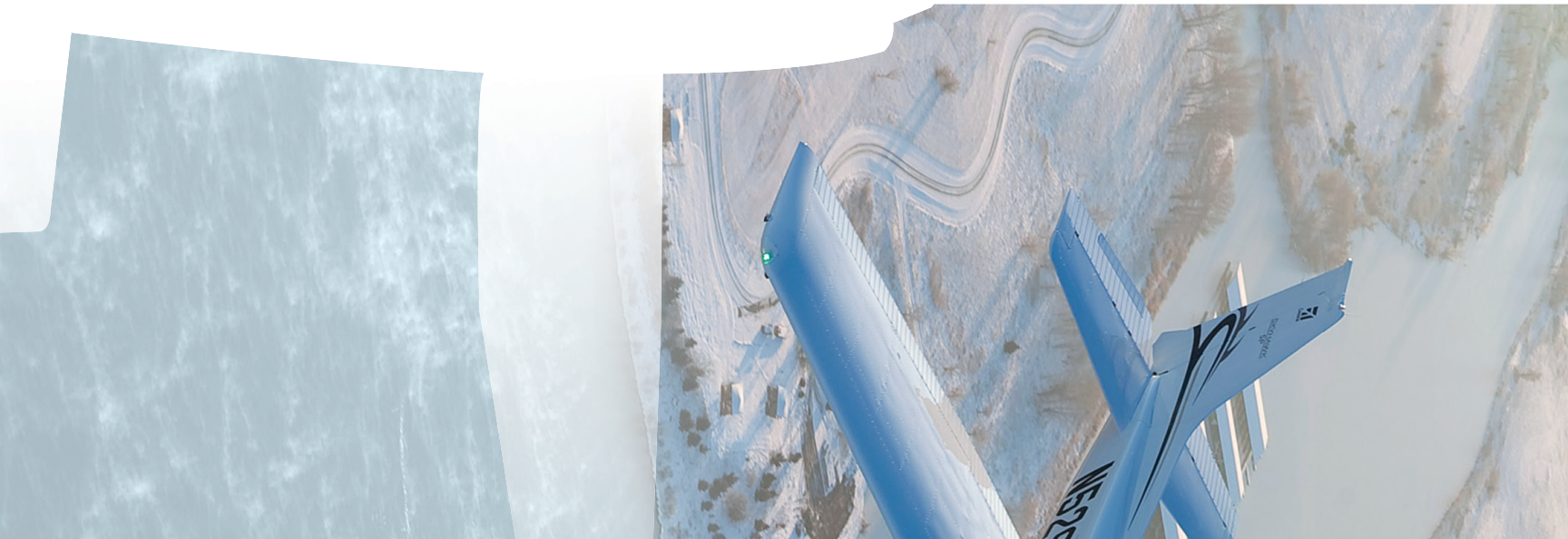
Summary: Sport, Recreational, or Private?

Sport:	Recreational:	Private:
Minimum hours of training: **20**	Minimum hours of training: **30**	Minimum hours of training: **40**
Medical Certificate? **X**	Medical Certificate? ✓	Medical Certificate? ✓
Maximum # of passengers **1**	Maximum # of passengers **1**	Maximum # of passengers **No Maximum**
Aircraft: **Light Sport Aircraft (LSAs)**	Aircraft: **Up to 4 seats, 180 horsepower engine**	Aircraft: **No restrictions for aircraft category and class for which you are rated**
Weather conditions: **Clear, daytime**	Weather conditions: **Clear, daytime**	Weather conditions: **Clear, day or night**

PRO TIP:
Pilots may use Sport or Recreational pilot as a stepping stone. Sport pilot training will count towards a recreational or private pilot license.

PART TWO

TIPS AND TRICKS



FLIGHT PLAN

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LEARNING TO FLY AND HAVING A FULL-TIME JOB: CAN IT BE DONE?

We get many aspiring pilots who ask us about learning to fly, but other commitments often result in a packed schedule. The thought of taking on flight lessons while maintaining a 40+ hour work week can be daunting, but do not be deterred! There is a path to earning your Private Pilot certificate while still paying the bills. We've seen many success stories and here are the insights on how to get it done.

Open up your schedule

Obviously you need to make time for lessons. For those of us with 9 to 5 jobs, it's a little more difficult. If you can sacrifice a little sleep or time at the gym, fly early in the morning. There are even some hidden benefits to the dawn flight hours, like smooth air, cool temperatures, and better aircraft availability. Before the sun has had time to warm up the ground and cause some afternoon bumps is a wonderful time to fly—it's peaceful and quiet. If you're lucky, you'll have the airport to yourself too. If you're flying in the evening, you usually can get in two to three hours before the sun goes down, depending on time of year. Both early in the day and late in the evening you're likely to have less traffic in the pattern to slow you down, meaning better efficiency when it comes to getting more takeoffs and landings in each lesson.

Make the most of your weekends

If you can free up your Saturdays and/or Sundays, you'll be much better off. The weekend is where we see students get the most training requirements knocked out. If you can fly 4-8 hours in a weekend plus a couple mornings and evenings during the week, it is possible to log 12+ hours in a week. While the minimum number of flight hours for your Private is 40 hours, most pilots exceed the minimum by up to 50%. Let's say it will take you 60 hours of training: that's really only five weeks of calendar time to meet the requirements. Sounds a little more manageable, doesn't it?

Use a home study course for ground lessons

Learning to fly is like any other type

of school these days in that you can study online at your own speed. With the Sporty's Learn to Fly Course you can complete all your ground training at home (or wherever you are) online or in the app. It's a great way to save time with your instructor on ground lessons and better learn the material needed for flying. This online course takes you step-by-step through all of the material you'll need to know to be a competent pilot. The lessons are divided into easy-to-follow study sections with video segments and review quizzes. When you complete all the videos and pass two practice exams in the course, you'll automatically be emailed your written exam endorsement which you need to take the FAA written exam. It makes that process simple and painless and will prepare you well for the actual exam.

Find an instructor who can work with your schedule and an airplane that does too

Finding the right flight school is one of the more difficult steps in this process. You can use our online database to locate the nearest one to you but that's only half the battle. More than anything, a flight school needs to be a good fit for you—your schedule, your goals, and your personality. You want high quality training and safe airplanes, but the best schools will go beyond those basics to tailor the training process to your life. Be up front about your preferences and limitations, and create a training plan that maximizes your opportunities for training.

Once you start, don't stop

If you're tempted to take a week off, don't. It's easy to let life get in the way of your flight training, but it's difficult to retain all of the knowledge if you let time pass without studying. Learning to fly is like any other skill: practice makes perfect. You're going to have to remain dedicated to learning to fly if you want to make this dream a reality. Try to keep a consistent training schedule, even if it's just flying a home flight simulator or watching training videos.

Dedicate your time to your flying goal and have an expected timeline for completion. Having a full-time job and learning to fly is 100% possible, so what's holding you back? You never know what doors it may open for you.

SIX BAD HABITS TO AVOID AS A STUDENT PILOT

We asked the pilots here at Sporty's what they thought student pilots should avoid. We're talking about bad habits that can get in the way of your goal of earning your wings. Here are six habits to avoid when you begin your flight training.

1. Don't be late for your lessons

This is an obvious but a sure-fire way to get off on the wrong foot with your training. Not only will your instructor be annoyed, but you'll soon realize how much money that wastes over time. Flight time isn't free. The more delays you encounter, the more time you'll spend relearning the material. Do yourself a favor and aim to be there 30 minutes early for every lesson. You'll have time to review your notes from the last session and get a head start on your preflight.

2. Don't go broke

This is good advice for any endeavor, but it definitely rings true with flight training. Lack of continuity is a killer. Better to wait a couple of months to save up so you can take your lessons one after the other than to have long breaks in between your flying lessons. There are many options like flight simulators and online training courses that will help you save money on your training. Consider utilizing these resources to preserve your money for flight time.

3. Don't go it alone

Find the pilot community, join an organization like EAA or AOPA, and make an effort to make new friends at the airport who are either going through the same training or can mentor you. It's a friendly group of people that can boost your encouragement on learning to fly.

4. Don't lose sight of the fun

Taking the time to enjoy your flight training can be really helpful. You'll be more confident if you're enjoying your lessons. And the more confidence you have, the faster you'll pick up the skills needed to become a great aviator. So what do you do to have more fun while flying? Add a breakfast or lunch run to your cross countries. The almighty hundred dollar hamburger is a perfect way to lift you and your instructor's mood.

5. Don't get discouraged

Just because your last landing wasn't the best doesn't mean your next one won't be. Stay on the wagon—you're building a skill set that takes time to acquire. It won't happen overnight, but it will happen with practice and study. Something that not every pilot will tell you is that learning plateaus are common and nothing to stress about. Talk with your instructor and start mixing up your lessons so you don't stall in your training.

6. Don't rely on YouTube

Everyone on YouTube thinks they're an expert, but few of them are. Relying on these short videos to learn aerodynamics is a bad idea. The person on YouTube is probably not as good of a pilot as they say they are, just like people on Facebook aren't actually as happy as they would have you believe. While there are plenty of online resources to aid your training, we recommend that you verify the source before taking their word for it. YouTube is great for sparking the passion for flying or getting ideas for new places to visit, but don't depend on it for technical knowledge and in-flight instruction.

Summary:
Six bad habits to avoid as a student pilot

1. Don't be late for your lessons
2. Don't go broke
3. Don't go it alone
4. Don't lose sight of the fun
5. Don't get discouraged
6. Don't rely on YouTube

AIR CONDITIONED

ADVICE FOR STUDENT PILOTS—OUR TOP 10 LIST

Sporty's Pilot Shop is also home to Sporty's Academy, a world renowned flight school. With thousands of hours of flying, we have a lot of flight training activity. Oftentimes one of our student pilots will ask for some advice from the more seasoned veterans. The replies vary, but these seem to be the tips you hear most.

1. You will not land perfectly every time. In fact, you're going to have bad landings. It's OK. Everyone goes through it. Don't give up.

2. Pull back, houses get smaller. Push forward, houses get bigger. When all else fails, remember this.

3. The plane will fly without you touching it. When you find yourself jerking the controls trying to get it to fly straight and level, try letting everything go (with an instructor sitting next to you). You'll be surprised how nicely the airplane can fly without human interference.

4. If flying were easy, everyone would do it. You'll get it, but not overnight.

5. Immerse yourself in aviation. Spend time hanging out at the airport. Talk to other pilots and listen to their advice. We've all been there.

6. Listen to the CTAF or Tower frequencies while flight planning. Hearing other pilots make mistakes on the radio will help keep you from making the same mistakes.

7. Just because you haven't vomited in an airplane yet doesn't mean you won't. Carry sic-sacs. If not for you, for your passengers.

8. Don't force the airplane on the ground. Eventually, it will come down.

9. Bored with turns around a point? Fly to grab a meal somewhere. Finding utility in aviation will make training much more fun.

10. Start watching the movies Airplane and Top Gun repeatedly. When other pilots throw out a movie quote, you need to be prepared to either complete it, or trump it with another one.

Maybe one of these tips will help build your confidence after a hot day trying to master eights on pylons. Whatever the trials and tribulations, flying is one of the most rewarding experiences you'll have in your lifetime. Getting that license is worth the occasional pain.

FLIGHT TRAINING FRUSTRATIONS: HOW TO BREAK OUT OF A RUT

Are you sometimes frustrated in your flight training? Does it feel like the more landings or instrument approaches you practice, the worse you get?

We've all been there: you feel like the harder you practice and the more repetition involved, you still plateau, or worse, you regress. Sometimes it seems like there's nothing you can do about it but keep spinning your wheels. However, there are some steps you should take to reduce these frustrating moments (that are inevitable).

There are many possible distractions that can bring about a learning plateau. It can happen at any time during your training and for any license or rating sought. Perhaps stress from work, school, or at home prevents you from coming to a flight lesson prepared to learn. Or you could be stressed because you're not progressing as fast as you had been before. What can you do? Keep trying and hope for the best? Take a break from training? No, you should take a proactive approach.

Examine your debriefings

First and foremost, examine your debriefing after each flight. Is there a debriefing? This critical time to review your performance while it's still fresh in your head is very important. It's almost as important as the flight itself. It should be detailed enough so you have all of your questions answered. If your instructor isn't putting forth the effort or the debrief seems short and vague, ask him if you can conclude your flight lessons ten minutes earlier than normal to allow enough time for more constructive review.

Ask for specifics

Ask for specific suggestions to help you improve. Ask your instructor to write down, while flying, anything they think is important to address in the debriefing, so nothing is forgotten. Go beyond vague advice like "fly precisely" and get detailed corrections. This alone will help prevent your training from becoming stagnant.

Prepare properly

The next step is to make sure there is a pre-flight brief. This should begin the day before your flight. You should know ex-

actly what to expect on the next flight. If you're unsure, ask your instructor to tell you. It seems like we're placing all the responsibility on the instructor to keep you engaged; however, this is your responsibility too.

Pre-flight briefings should include studying associated material, "chair flying" at home and "tie-down flying" in the airplane. Sitting in the airplane (with permission) when it's not being used is a fantastic way to practice. Leave the master switch off and just simulate everything in your head. Then when you go flying, your hands know right where everything is. Understanding what your instructor expects of you before every flight, and a thorough debrief, should help prevent most flight training frustrations.

Have fun

Another step you can and should frequently take is to have fun! Remember why you got into flying in the first place. Are you doing this for a hobby or for business travel? Maybe you are interested in a career?

Try something fun to remind you why you're making the investment in a pilot certificate. Try something new to rekindle the attraction. For example, if you're having trouble with pattern work and landings, try a change of scenery. If you practice at a non-towered field, ask your instructor to take you to a towered airport for multiple landings. Even if you're not ready to handle ATC communications just yet, your instructor should be more than happy to assist. It will be fun to be at an airport with bigger, faster aircraft to see.

If you train at a towered field, do the opposite. A non-towered field with a shorter runway will challenge you and help you hone your aim-point on landings. If you're having trouble with cross country flights or VOR and GPS tracking, fly with your instructor to an early breakfast. You can take off and track east before sunrise so you can see it easier from the air. Or maybe fly west to dinner to watch the sun set. While this may sound like a digression from your training syllabus and an extra cost you didn't plan on, it's not. The time and money you spend to have some fun while flight training will guarantee a return of knowledge, skill, and retention. Because only you know what is fun for you, don't be shy about offering some ideas.

Change instructors

It's also good to fly with a different instructor every now and then. Even if your instructor is very good, and you have been progressing well, a different instructor can offer a new perspective. A new instructor may say things just a bit different or offer more knowledge from his own experiences.

Your flight instructor will do everything they can to reduce frustration, prevent learning plateaus, and motivate you. You should meet them halfway and take steps to ensure you're getting your questions answered and leaving no doubt about what is expected before each flight. If you feel like progression is slowing down, be creative and do something to have fun!

PRO TIP:
Debriefing is almost as important as the flight itself. Allow enough time to ask questions and receive a constructive review from your flight instructor.

FIVE FLIGHT TRAINING MYTHS

Learning to fly is one of the most fun and rewarding experiences you can have. From day one, you'll be filled with excitement, curiosity, and a sense of adventure. Your new partner, coach, mentor, counselor, and friend will be your flight instructor—the person to pick you up when you're down and pat you on the back after a good day's work. And yes, it's normal and healthy to be talking aviation ten times the amount you will actually spend in the airplane.

It's also easy to get lost in the mountains of information related to flying an airplane. There are handbooks, manuals, regulations, videos, and maybe even a tall tale to offer an easy distraction. Know that stories exist and many have been stretched, bent, twisted, broken, and otherwise embellished along the way. As a wise man once said, only believe half of what you read and none of what you hear... especially when it comes to these classic myths.

1. You have to be really smart to learn how to fly

While an understanding of basic physics and trigonometry will help, you don't need an advanced degree to enjoy flying airplanes. Anyone with the passion and drive can learn to fly. While some topics are more complex than others and may cause a stumble, there are plenty of resources to help and plenty of people to guide you in the right direction. You can do this.

2. It takes years of training to learn to fly

Flight training may take months, but it shouldn't take years. Your calendar time investment all depends on the amount of effort you're willing to dedicate. If you can commit two hours a day, three times per week, you can knock it out in a few months. If you are only flying twice per month, then you're likely in for a long haul. If you're looking to save some money, continuity and consistency are key elements. Also be sure to ask the flight school or instructor what frequency the cost and time estimates are based.

3. Commercial pilots make easy money

Let's just say if you are doing it for the money, you may be disappointed. While a pilot with extensive experience flying for a legacy airline earns a sizable income, it may take many years to reach that seat and it's not without some sacrifice along the way, including a unique schedule and lifestyle. There are many quality, well-paying jobs as a commercial pilot, but do it for your love of aviation.

4. Your instructor knows everything

Sorry instructors—CFIs know a lot and you may think they actually know it all, but all pilots are always learning. Like any profession, the background and experience level of flight instructors can go from one extreme to the other. You'll want a relationship in which you're comfortable asking questions and free to voice an opinion. And don't shy away from flying with multiple instructors until you find the right fit.

5. You will get your license in the minimum amount of time

Forty hours of flying to earn your license is an exception to the rule. Be cautious in that some flight schools may base estimates on FAA minimum requirements so they may lure customers. In reality, very few people get their license anywhere close to that number. Flight training is a proficiency based system and not a race to a magic number. On average, expect 55-80 hours of flight time for your Private license. And remember there's no one passing judgment based on your total hours and it all builds in your logbook the same way.

Summary: Don't fall for these flight training myths:

1. **You have to be really smart to learn how to fly**
2. **It takes years of training to learn to fly**
3. **Commercial pilots make easy money**
4. **Your instructor knows everything**
5. **You will ger your license in the minimum amount of time**

HOME SIMULATOR FLYING AND FLIGHT TRAINING

Home flight simulation technology has made impressive leaps forward over the past 10 years. With Microsoft's release of the latest version of their simulator program in late 2020 and Laminar Research introducing X-Plane 12 in early 2023, we finally have at-home flight simulation real enough to provide tangible benefits to those who are currently in flight training or already hold a pilot's license. This realism does come with a warning though: unstructured or "game" flying can detract from your actual flight lessons or skill development. Here are some things to consider when using a home simulator setup.

Hardware setup considerations

There are many choices to make to determine your home setup: yoke, joystick, rudders, control panels, avionics, and more. The key to making this setup work is your comfort—having a system that you feel comfortable working with is the best place to start. Keep in mind that some setups can get fairly expensive, and although this adds realism it isn't necessary to get the most basic learning functions out of a simulator. For those working with aircraft that use a standard yoke setup such as a Cessna Skyhawk or Piper Cherokee, we encourage yoke and rudder pedals as a basic equipment package to train with. If you're training in a Diamond DA20 or the nostalgic Piper Cub, we recommend a flight stick and pedals.

Software choices

The Microsoft Flight Simulator program released in 2020 took the flight sim community by storm. In sixteen days the program logged one million unique users with over one billion (digital) miles flown. Microsoft's user interface and ease of operation make it a phenomenal program for new simmers. If you are inclined to learn a more detailed program with added features, X-Plane 12 has a great reputation for flight simulation realism. The aerodynamics and avionics

logic allow this program to run on a few Basic Aviation Training Devices (BATDs). There are many other programs available on the market that range from highly sophisticated to near game-only level. Regardless of your choice, learn what the program can and can't do and carry that into your training.

Training structure

This is the largest piece to transform your simulator into a true training machine. There are several strategies (see below), but regardless of which method you choose, make sure that each time you approach your simulator you treat it as an airplane and not a toy. Each flight should have a specific objective or purpose in mind. By adhering to this level of structure, you are able to take the lessons learned in the simulation world and translate them to the actual aircraft.

Feedback

If you fly your simulator and then observe your performance, either with an automatic scoring/evaluation system built into some systems or with recording and replaying your flights, you can act as both student and examiner. While you are flying, it is easy to miss deviations in performance (altitude, airspeed, centerline tracking, etc.), but if you replay your flight, you can distance yourself from your performance and observe with an objective eye.

Each system has its own different options for reviewing your flying, but the best way to truly structure your training is to work from a syllabus designed for home simulator flying. Examples include a resource such as Scenario-Based Training with X-Plane and Microsoft Flight Simulator by Bruce Williams, or similar books and syllabi. These products are specifically designed to give you a purpose for your lesson at home, and allow the most amount of positive learning transfer from simulator to aircraft.

In addition to these training products, sometimes the best resource for your home simulator is your flight instructor. Talk to your CFI and inform them that you have a home simulator and you want to make the best use of it by practicing your lessons at home to review and prepare for your in-aircraft lessons. Although CFIs have different views on how best to use home simulators, most will support its use when using the procedures and techniques taught from the aircraft. It can be difficult to make a breakthrough while learning on your own, but keeping your skills sharp and practicing your homework between lessons will definitely accelerate those breakthroughs with your instructor in the airplane.

Students should run through a simulated flight using their own navigation, as opposed to just placing the aircraft already lined up on final approach. By running the simulation through from beginning to end, the pilot is forced to set up radios, brief the full procedures, and contemplate emergencies. Train like you fly and fly like you train—that includes your simulator.

Flying in your simulator will not recreate the muscle memory and "feel" of flying the real aircraft, but your practice of procedures and techniques can be just as real at home as it is in the plane, making your next flight an even better experience.

Scan the QR above to learn more about flight simulators

PART THREE

PREPARING FOR THE FAA TESTS

FLIGHT PLAN

- WHAT'S UP WITH THE FAA KNOWLEDGE TEST? // PAGE 50
- SMART STUDY STRATEGIES WITH SPORTY'S LEARN TO FLY COURSE // PAGE 55
- SCHEDULING YOUR FAA WRITTEN EXAM // PAGE 58
- HOW TO SURVIVE CHECKRIDE DAY // PAGE 59

WHAT'S UP WITH THE FAA KNOWLEDGE TEST?

The pathway to a Private Pilot certificate includes many training requirements, including ground school, in-airplane flight training, and a few FAA tests. While it's the time in the air with your instructor that makes the experience magical, there will be an equal amount of time studying on the ground in preparation for each lesson and for the required tests.

The first test you will take is the FAA Knowledge Test, consisting of 60 multiple-choice questions completed on a computer at an official PSI testing center. This will test your understanding of the ground and flight topics covered during your home study and training at the airport, and you must earn a minimum score of 70% to pass.

You can take this test at any point in your training, but our general recommendation is to focus on it after your first solo flight and when in the cross-country flying phase of your training. You must have an endorsement to take the test, which can come from a CFI or a home study system like Sporty's Learn to Fly Course.

We've been preparing students for FAA knowledge tests for over 20 years as flight instructors and have seen many changes to the test as the FAA continuously updates the focus and content of its questions. Much of this is for the better, as the questions on the test today seem to cover more practical flying topics vs. rote memorization of less relevant training topics. The challenge for students, however, is there is a lack of transparency from the FAA on what you will see on the test, creating a moving target for the flight training industry.

The old way to study

Twenty five years ago, the FAA published the complete set of all questions/answers that appeared on the test, leading to an over-reliance on rote memorization. For example, you could memorize the correct numerical value of a takeoff distance

question and answer it on the test without reading the question text.

By the late 2000s, the FAA stopped releasing all the questions to the public and started writing "parallel" questions. This eliminated the ability to memorize just the answers, but the test composition remained the same, and the test was not an accurate indicator of real world pilot knowledge. In 2016, the FAA transitioned from the older Practical Test Standards (PTS) to the new Airman Certification Standards (ACS) to create a common standard for both the knowledge test and the practical test (aka "the checkride"). To accompany this change, new questions were added, and existing questions were aligned with the specific Elements listed with each Task in the ACS.

To help instructors and students keep up with changes to the test, the FAA regularly published a newsletter titled "What's new and upcoming in airman testing," which included specifics on new topics that were added to the test as well as old material they were retiring. This provided a good middle ground between the old days of publishing all the questions and pointing someone to the vastness of the ACS to help focus their study.

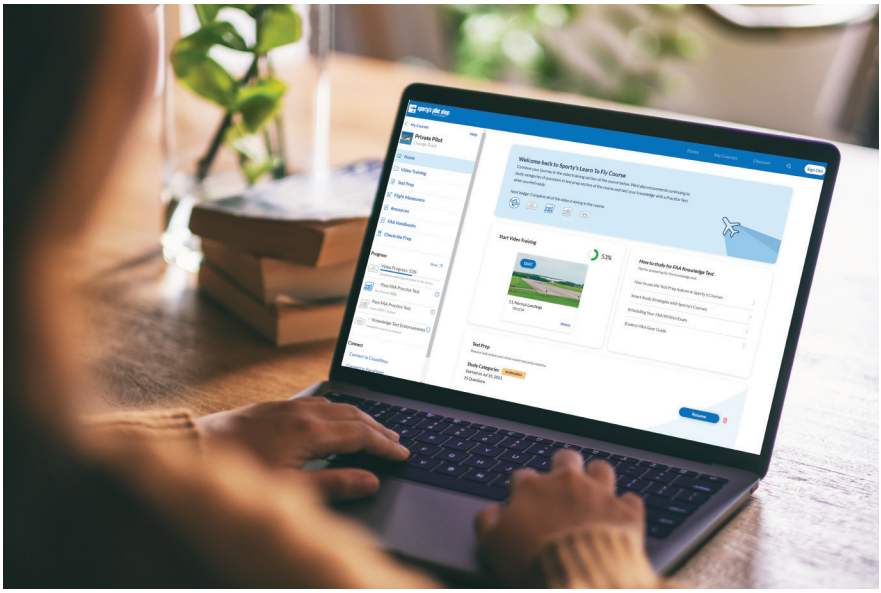
Unfortunately, for what are still unknown reasons, the FAA discontinued this newsletter in December 2021 and now provides no meaningful guidance on question topics that are added or removed from the test.

The new way to study

So here we are, where the only updates we receive on new content added to the knowledge test come from debriefing students on what questions they saw after they took the test. To be clear, we (Sporty's) and the aviation industry are not looking for the FAA to publish the specific questions added throughout the year, but rather some general information on the topics of newly added questions (e.g., ADS-B, stabilized approaches, slow flight, etc.).

To make things more confusing, the FAA started publishing a document called "Airman Testing Community Advisory" with some general information on the status of airman testing and FAA handbook status, but the guidance has been pretty vague so far as it relates to knowledge tests. Here is the only relevant statement we've come across in these advisories this year:

> *Changes were made to existing Private Pilot and Commercial Pilot test questions to assure they are aligned with the ACS and reference an existing FAA handbook.*



You will also find a 60-question Private Pilot sample test on the PSI testing website, but most of these questions are the same ones that have been around for over 15 years, with just a few new ones mixed in, so that is in reality less useful than third-party test prep resources.

If there's a silver lining to the lack of transparency, the general feedback from students is that the new content is focused on practical flying topics like airport operations, flight maneuvers, and takeoffs/landings. This is the right direction for the knowledge test and provides a more practical link between real-world flight training and what's on the test.

With all of this in mind, we've changed our advice to students on how they should prepare for the test. Instead of focusing on the knowledge test as a standalone task, preparation should be incorporated into the student's comprehensive training plan. Twenty years ago, we recommended students purchase a dedicated test prep book or software program, but today that does more of a disservice.

The best approach today is to start with a comprehensive personal study system, focusing on ground school and flight training topics like Sporty's Learn to Fly Course. The 15 hours of in-flight video lessons and interactive scenarios will help you understand the "why" of how things work in aviation and not just the "what." These personal study sessions, combined with the lessons at the airport with your instructor, will provide a solid foundation in preparing you for the FAA tests and to be a well-rounded and knowledgeable Private Pilot.

When it comes time to focus on the knowledge test towards the latter half of your training schedule, you'll find a dedicated test preparation section in Sporty's Learn to Fly Course. Here you can choose from one of several study modes and select categories of questions to get familiar with the test questions. When you answer a question, the course provides real-time feedback on whether you were right or wrong, a detailed explanation on the topic and a link to specific FAA reference material for additional studying.

This helps to make the studying process a learning experience rather than just memorizing answers. You'll also find lots of performance analytics after you start to build out some progress, highlighting your strengths and weaknesses.

Another recent improvement in the course is that the 1,000+ questions in Sporty's test prep database were recently recategorized to align with the Areas of Operations and Tasks in the Private Pilot Airman Certification Standards. This allows you to use the course more consistently and study both video lessons and test prep sessions using the ACS as your guide.

After completing the video training and when you feel comfortable with the questions from your study sessions, you can take a Practice Test in the course to gauge your readiness for the real thing. The practice tests are generated using the exact % of questions from each ACS Area of Operation, as outlined in PSI's Applicant Information Bulletin, to make it as realistic as possible. After completing two practice tests with a minimum score of 80%, the course will generate your official endorsement to go take the test.

The key takeaway from all of this is that the days of only studying sample test questions simply won't work anymore. Because the FAA continues to add new questions (without notice), it takes a more organized and comprehensive studying approach to ensure you're truly ready for both the test and your everyday lessons. By studying all of the lessons, videos, knowledge test prep, and checkride prep features in Sporty's Learn to Fly Course, you'll feel confident in your ability to ace all the tests and start on the right foot as a well-rounded Private Pilot after the checkride.

VVVV

Summary: FAA Knowledge test

How best to prepare:

- Incorporate test prep into your training plan
- Invest in a self-paced learning system
- Take advantage of dedicated test prep modules
- Take time to review answer explanations
- Use the analytics to guide your study

PRO TIP:

The key takeaway is that the days of only studying sample test questions simply won't work anymore. It takes a more organized and comprehensive studying approach to enure you're truly ready.

To learn more about Sporty's Learn to Fly Course, scan the QR code above.

SMART STUDY STRATEGIES WITH SPORTY'S LEARN TO FLY COURSE

Sporty's courses are the ideal pilot training companion – everything you need to prepare for your written test and earn your certificate or rating, with ground school, test prep, and real-world training all in one easy-to-use system. Real world video, flexible app options, and smart study tools all combine to offer an unmatched training experience. And better yet, your training content is accessible anywhere, on any device. For a single purchase, you gain access to all available formats: the online course, iPad/iPhone app, Android app, Apple TV and Roku TV apps at no additional cost. Once enrolled in the course, your access never expires and includes lifetime updates.

How can you gain the most from your investment in a Sporty's course?

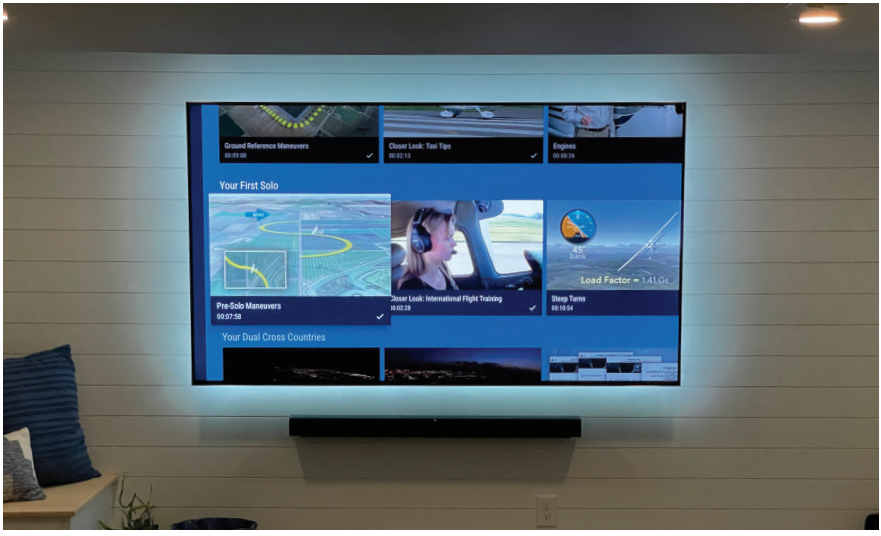
Video training

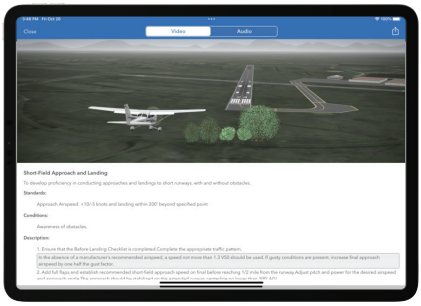
Complete the core, video-based training from start to finish in the order in which it is presented. The video-based training will build a solid foundation and provide a valuable perspective for all of your future training. Don't worry, Sporty's courses do not include boring classroom lectures. You'll be trained in a modern style with small, manageable training segments and engaging video shot in and around airplanes. Your video training is complemented with sophisticated graphics and animations.

When a topic has been viewed, it is noted with a green checkmark helping you recall where to resume your study and providing an easy-to-interpret snapshot of your progress. There will be some topics you may choose to review depending on how well you've comprehended the information. You can search for a topic at any time with the search tool to find specific videos based on the video script and keywords.

Many of the video training segments include on-screen quizzes and review notes to further assess your progress. To learn more about any question, press the Play Explanation button and the course will jump right to the spot in the video training that covers that specific topic.

Each video segment includes review notes which summarize key learning points along with a full transcript to cater to diverse learning styles.

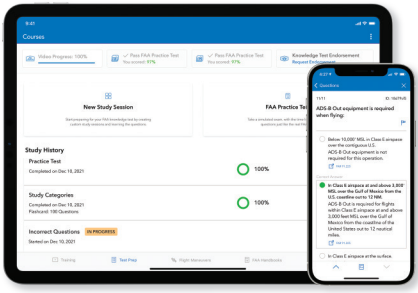




Flight maneuvers guide

As you prepare for each flight lesson, you'll want to use the Flight Maneuvers component to study step-by-step instructions on how to complete each flight maneuver. Each maneuver, like takeoffs or ground reference maneuvers, includes text and animations so that you can view a complete maneuver in an artificial, 3D environment.

It's important to review a plan with your instructor after each flight lesson to know what maneuvers are planned for the next lesson and study them here first. You'll find this extra preparation will pay off big time in the airplane, as you'll know what to expect when flying each maneuver.



Test prep

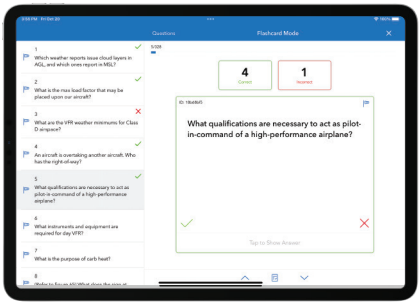
With video training complete, transition to the dedicated test preparation module. Sporty's test prep includes multiple modes of operation. Start in the Study Categories mode to select specific areas of study or choose a random mix of questions. Answering each question provides real-time feedback with detailed explanations and references. Question references link to the specific FAA resource for further review—learn the material, don't rely on rote memory.

Be sure to mark questions that you don't fully understand or that you want to review later, as you're able to create future study sessions based on incorrect or marked questions. There's also a Smart Study session option, which will automatically generate a session that focuses on your weakest subject area—great for a quick study session without having to select any options.

After proceeding through each category at least once, the performance analysis charts will provide a clear indication of weak versus strong subjects so you may continue focusing on your lower-performing categories.

After strengthening any weak subject areas, transition to the test mode that will generate a random mix of questions to provide a simulated exam—just like the real thing. After grading a session, you'll have the option to begin a new test based on only those questions answered incorrectly.

Further testing on deficient areas will help maximize your performance. The completion of at least two tests with a minimum score of 80% are required to earn the written exam endorsement. When you've completed the course and received your written test endorsement, you can log it in your ForeFlight digital logbook—complete with instructor signature.

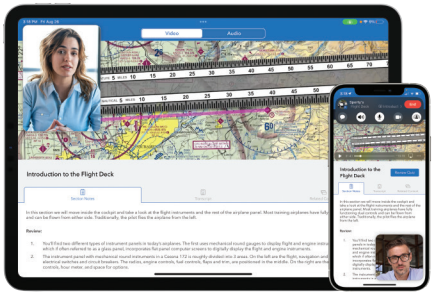


FAA handbooks and resources

Your course includes access to all the digital FAA books, like the Airplane Flying Handbook and Pilot's Handbook of Aeronautical Knowledge. Each book is presented in a full-featured digital reader, complete with annotation and bookmarking features. We'd suggest referencing these on an as-need basis when you'd like to learn more on a particular topic when progressing through the video training or studying FAA test prep questions.

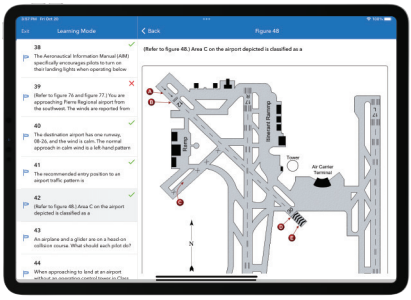
When you're looking for information on flight maneuvers, like slow flight or landings, check out the Airplane Flying Handbook. For more technical subjects, like weather or airplane systems, you'll want to reference the Pilot's Handbook of Aeronautical Knowledge (this is a great reference when you want to learn more about a specific test prep question). The digital reader interface includes a search function, making it easy to jump right to any section based on keywords.

You'll also find Sporty's Training Course Outline (TCO) in the Resources section of the course. This is a detailed flight training syllabus to serve as a bridge between your online training and the in-airplane training with your instructor, providing structure for your training. And the Interactive Airman Certification Standards (ACS) is the FAA's outline of all the knowledge and skill areas you need to know regarding the certificate you are pursuing. It's even cross-referenced to the appropriate video training segment within Sporty's course.



CFI Sharing

Along the way, you have the option to share your learning progress with your CFI. Once you've granted access, your instructor will see your video training progress and your practice test sessions. They will also have the option to view how you answered each question, so they may provide further guidance in your study.



Checkride Prep

The final phase of studying in the course takes place in the Checkride Prep. First watch the FAA Checkride Tips and Tricks video segment, presented by an FAA-designated examiner, to learn what the expectations are on the checkride. You can then use the Checkride Prep Flashcards to review a comprehensive set of questions that may be asked of you in the oral portion of the checkride.

PRO TIP:
Use the included practical test checklist to ensure you're prepared for checkride day.

SCHEDULING YOUR FAA WRITTEN EXAM

So you've completed your Sporty's home study course or received an endorsement from your CFI to take your FAA written test—now what?

The Federal Aviation Administration (FAA) utilizes a third-party testing provider, PSI Services, to administer all FAA written exams. PSI exams are available at a number of testing locations throughout the US and abroad and can be scheduled online. Many local flight schools or FBOs host testing centers so you may not have to travel very far. Locating a written testing center is accomplished as part of the test registration process.

The first step to scheduling your FAA written exam is to visit psiexams.com. First time users will be required to create an account. You may also review exam eligibility requirements from the link on the homepage.

After signing in, you'll be asked to verify your eligibility, which includes entering your unique FAA Tracking number (FTN). If you've not already obtained an FTN, you may choose the IACRA link, register for an online account via the FAA's IACRA site, and receive your FTN.

After verifying eligibility, you'll be asked to select the written exam you wish to take. Once you've selected the appropriate exam, you'll be asked to verify the number of times you've attempted the test. If this is your first time signing in, the exam attempts should default to 1 or you may correct the number of attempts in the editable field. You'll then be asked to select your authorization category.

Please note, if you are a Sporty's online course user, your "school or experience" selection will be "other" and your authorization category from the drop-down menu will be "other statement or endorsement of eligibility" if you intend to utilize your certificate of completion from the Sporty's course.

Next you'll be asked to select the testing center you intend to utilize. You may search by country, postal code, and distance from your location. You'll also be asked to choose a date range for completing the exam to display a list of available testing locations.

After selecting your location, date and time for the exam, you'll be taken to the payment page to complete the final transaction. If you later cancel or postpone your exam, you'll have up to 12 months to complete.

HOW TO SURVIVE CHECKRIDE DAY

It's here! It's finally here. Checkride day. The opportunity to shine. The end of a chapter in your aviation journey filled with triumphs, yet fraught with the challenges unique to flight training—including the angst often associated with checkride day.

But on the other side a new adventure and the ticket to freedom await. The much-anticipated dividend from your significant investment of time and money made possible by your hard work and determination—not to mention the many sacrifices you may have made along the way. Only the satisfaction of putting your knowledge, skill, and decision-making ability you've accumulated into the checkride remain.

While it's important to understand that by virtue of your instructor's endorsement you've met all of the requisite knowledge, experience, and skill elements to become a pilot, it doesn't completely alleviate the inevitable checkride jitters. A good examiner will approach the checkride of the mindset that you're a licensed pilot unless given reason to believe otherwise. This is an important distinction to the mindset that it's up to you to prove your worth.

Remember: no one actually enjoys the checkride environment. The thought of an examiner, who may be someone unfamiliar, carefully analyzing your every response, decision, and input can rattle you to the core unless properly managed. There are those who possess more confidence, either through preparedness or ignorance, and those who naturally excel in the high-stakes checkride setting, but given the option between evaluation and not, suffice it to say we'd all retreat to safety and comfort.

But no matter the side of the coin you find yourself on, the checkride is the necessary and required step for certification so let's look at what to expect, how to prepare, and how to settle the nerves.

First, don't wait until checkride day to meet your examiner. While the onus should be on your CFI or flight school to ensure you're properly introduced and briefed as to what to expect from the examiner, do your part and insist on learning as much as you can about the individual and the exam profile. No, this isn't cheating; quite the contrary. This is a wise, prudent step in preparing for the big day. Nearly all examiners have their "thing" they may wish to emphasize or teach and if it's important enough to test, it's important enough to learn.

Does the examiner have a typical cross-country and diversion scenario? Does the examiner prefer to combine maneuvers? Is there an airport the examiner enjoys visiting? Does the examiner have a preferred emergency scenario? Will the examiner insist on examining aircraft logs? Does the examiner prefer paper versus electronic charts? These are some questions you may consider answering in advance of the checkride.

Set the stage for success by ensuring the details are complete. This begins with a review of experience requirements for the certification itself. It behooves all pilots to be well versed in these requirements and know where the elements are documented in the logbook. Written test results should be in hand, with an understanding of deficient knowledge areas. Be sure to have payment in an acceptable form at the ready.

Certification standards are the examiner's guidebook. Have a thorough understanding and even a copy of the standards with you so it may be referenced if necessary. Don't panic if you haven't spent much time reading the certification standards. Your instructor will have been teaching to these standards along the way, but it would still be a worthy investment of your checkride preparation time to familiarize yourself with the guidance.

Many examiners will expect the pilot to demonstrate aircraft airworthiness with a review of the aircraft logbooks. While you may be able to recite, chapter and verse, the required aircraft inspections, you may be asked to take it a step further by locating those required checks in the aircraft and engine logs. Don't make checkride day the first time for opening an aircraft log.

A basic expectation of any checkride is flight planning. You may be asked to prepare a cross-country flight plan. Suffice it to say, weight and balance and performance data should be a part of this preparation. Check and double check your work and be prepared to explain how the information was derived. Most examiners will use the flight plan as a means to explore other areas of the certification standard typically contained in the oral phase. Even if you've transitioned to the flight phase of the checkride, oral questioning can and likely will continue.

Transitioning to the flight phase, consider that part of the examiner's evaluation includes your ability to make safe, sound decisions and be the pilot-in-command. Take control (command) of the situation and make your own definitive go/no-go decision and carry this mantra all the way through your flight. If you don't like how a situation is unfolding, take action. Perfection is not a passing requirement, but good decisions are.

For your checkride, DO:

- Learn the examiner ahead of your checkride and study the expected profile.
- Complete the details: 8710 application, logbook, written exam results, flight plan, endorsements, payment all in order.
- Review all the airspace and chart symbology along the cross-country route ahead of the checkride to ensure that it is understood.
- Study your aircraft's limitations and memory items. Examiners are fond of using these elements as starters for many of your oral questions.
- Relax in between maneuvers and don't rush.
- Be the pilot-in-command—always.
- Fly as you've trained.
- Review the appropriate ACS/PTS to ensure that you are comfortable and familiar with what is to be expected.

For your checkride, DON'T:

- Study obscure regulatory or AIM entries searching for a needle in the haystack.
- Memorize answers. Learn the material, not someone else's summary of the material.
- Cram up to checkride time. Once you're within a few hours of the exam, put the books down and relax.
- Doubt yourself. You can always be better and no one expects perfection. When your CFI says you're ready, go for it.
- Lie. If you make a mistake, own it and move on.
- Depart from your routine. Begin and end your days as you ordinarily would.
- Second guess. Your first instinct is usually correct.

Examiners have a job to do, but they are people and pilots just like you. If there is some question of what is being asked, ask for clarification. Communication is key to the examiner understanding your thought process and decision making. Checkrides have plenty of emotion and pressure that will hopefully allow you to excel. Don't bring unnecessary pressure or emotion to the flight by overreaching or trying to do too much. Fly like you've trained and be the PIC.

PART FOUR

PRO PILOT CAREER TIPS

FLIGHT PLAN

- **PROFESSIONAL PILOT JOB TRENDS** // PAGE 64
- **FIVE PROFESSIONAL DEVELOPMENT TIPS FOR ASPIRING PILOTS** // PAGE 66
- **PILOT'S GUIDE TO ATP CERTIFICATION** // PAGE 68
- **FIVE STEPS TO ACE THAT AIRLINE INTERVIEW** // PAGE 72
- **TRANSITIONING TO THE AIRLINES— ONE PILOT'S JOURNEY** // PAGE 76

PROFESSIONAL PILOT JOB TRENDS

Recent data indicates that pilot certification changes have had far-reaching effects on qualified commercial and airline transport pilots and flight departments are experiencing a shortage of qualified pilots. In addition to flying passenger aircraft for major and commuter airlines, pilots also crew corporate aircraft and serve the military and law enforcement. Others fly emergency medical services, perform aerial surveying and photography and conduct sight-seeing flights. Some pilots participate in firefighting, rescue searches, and other public service flying, while others become flight instructors.

As a professional pilot you must be able to make quick decisions and accurate judgments under pressure. You must be able to maintain a high level of alertness while working irregular work schedules and spending time away from home. You must be physically fit, have excellent eyesight and be able to pass the required FAA physicals. You must also be organized and detail oriented.

Immediate job openings exist for:

- Airlines
- Corporate
- Charter
- Military
- Law enforcement
- Education
- Cargo

Keys to success

As a professional pilot you must be able to make quick decisions and accurate judgments under pressure. You must be able to maintain a high level of alertness while working irregular work schedules and spending time away from home. You must be physically fit, have excellent eyesight and be able to pass the required FAA physicals. You must also be organized and detail oriented.

By the numbers: Airline and Commercial Pilots*

2021 Median Pay:	$134,630 per year
Number of Jobs, 2021:	135,300
Job Outlook, 2021-31:	6%
Employment Change, 2021-31:	7,100

*U.S. Bureau of Labor Statistics

Academics

To be competitive in professional aviation, a baccalaureate (four-year) degree is desirable, but your options for attaining this level of higher education are numerous. While an aviation-specific course of study is not a requirement, a number of institutions offer Bachelor of Science (BS) or Bachelor of Applied Science (BAS) degree options in professional aeronautics.

There are also a number of institutions offering Associate level (two-year) programs in aviation—typically an Associate of Applied Science degree that will serve as a stand-alone credential for a career in professional aviation.

In most degree programs, your FAA certifications up through Commercial pilot, and possibly beyond, will be included. If you currently possess a four-year college degree, our advice would be to focus on pursuing your Commercial pilot certificate.

What's next

Regardless of whether you opt for collegiate or non-collegiate pilot training, your pathway to the flight deck will progress through multiple pilot certifications including Private Pilot, Instrument Rating, Commercial Pilot for single and multiengine airplane, and Certified Flight Instructor (CFI). After earning your teaching certificate (CFI), many pilots have the opportunity to work as flight instructors. Flight instructors earn a competitive wage teaching pilots to fly while continuing to build pilot experience toward the 1,500 hours of total flight experience required of an airline pilot.

FIVE PROFESSIONAL DEVELOPMENT TIPS FOR ASPIRING PILOTS

The aviation job market has never been stronger. As an aspiring professional pilot, the opportunities are limitless. As a result, enrollment in collegiate aviation programs and flight training academies is on the rise. Pilots are being lured from the high school ranks as well as those longing for a career change. If you're one of the many thousands who one day aims to make a career as a pilot, there is plenty of advice and helpful tips to be mindful of as you begin your career path that are sure to pay dividends in the future. Here are six tips to know early in your journey.

1. Mind thy logbook

Regardless of your ultimate goals in aviation, a neat and tidy logbook demonstrates that details matter. Attention to detail is a desirable attribute for any pilot and especially those who aspire to the professional level, where the logbook may be scrutinized in great detail. While the regulations only require you to log in an official record that pilot time being applied toward a certificate or rating or pilot currency (in other words, pilot time to comply with regulations), it's best practice to record all of your pilot time. And further, it will save many hours and future headache to be well organized in how you document your pilot time, as future job and insurance requirements may be very specific in the type of experience you must report. For example, you may be asked to provide anything from complex aircraft experience, to pilot-in-command (PIC) cross-country time, to instrument instruction provided.

Paper vs. electronic? While a paper logbook is still widely accepted and some might even say offers great protection and assurance in the integrity of your records, there is also widespread adoption of electronic records. There's not an industry preferred format if you're currently preparing for an interview, but no matter the choice, a clean, uniform appearance of your flights is something any reviewer will prefer.

Consistency in your recording of flight time is imperative. Be sure to accurately categorize your flights with respect to single and multiengine, day and night, pilot-in-command and cross-country experience. These are all individual tallies

you will likely be asked to make in the future. The benefit of an electronic record is that you have flexibility to add categories that may be of interest that may not be pre-published in a paper logbook. For example, as an instructor you may wish to categorize VFR instruction from instrument instruction given. Or for any pilot, you'll likely want to distinguish complex or high-performance, multiengine or even the coveted turbine experience. And later even turbine PIC.

It's best to begin early in categorizing your pilot time to make the addition simpler in the future. To begin with, a standard breakdown of pilot experience for a first officer position with a regional airline would include total time, PIC, instrument (actual and simulated), multiengine, cross-country and night time.

What about logbook mistakes? No one expects the logbook to be perfect. In fact, mistakes are expected and demonstrate that you had the thoughtfulness to make an honest correction. If a correction is necessary, do NOT use white out on a paper logbook. Use a single line so the mistake is still legible and make a notation in the notes section to further clarify. Add a signature and date for good measure. If there is a major mistake or miscalculation, you may also use an addendum to further explain.

What about training device (ATD or FTD) time? It's best to document "simulator" time in a specific category, but most employers will wish to see flight time independent of simulator or training device time. The exception to this is if you've not reached the airline transport pilot level you should include all legally required experience you may count toward ATP requirements.

2. Know your logbook

It's not good enough to have tidy records, but not be able to find what you're looking for. Possessing a working knowledge of major aviation milestones is good practice. When did you solo? When did you earn your Commercial certificate or log your first actual instrument time? The ability to quickly identify these types of events, both in calendar terms and physical logbook location, demonstrates good organization and working knowledge of your records.

3. Balance your time

Diversity in your pilot experience is not only valuable to your developing skills and knowledge bank, it demonstrates to any future employer you're multidimensional and possess vast experience you can draw from to solve unique problems and execute a safe flight. Don't allow your instrument skills to degrade after earning your instrument rating (it can happen

quicker than you think). Resolve to file and fly IFR anytime the conditions allow while building further experience toward Commercial Pilot. If you're on the track to become a flight instructor (also highly valued and regarded), take the next step and earn an instrument flight instructor (CFI-I) and recruit instrument students. Your IFR skills and knowledge of procedures will naturally remain sharp. Remember, your future professional flying will nearly all be IFR.

The same can be said for night experience and cross-country flying. These are the two categories that often hold applicants up for ATP eligibility and can jump off the page in an interview. You don't want to be typecast as a local, traffic pattern only pilot. Seek these flying opportunities for your own benefit or for that of your students if you're an instructor. Strive to remain legally night current to carry passengers at the very least.

4. Obtain and maintain your documents

Included in this category is not only your pilot certificate but also your medical. If your pilot time builds rather quickly (quite likely), you'll not reach a time when you're required to obtain a flight review, but that's not a guarantee. You'd be surprised at the number of pilots who show up to an interview, or at any given time, and may be flying without a current flight review (required every 24 calendar months). While we're not suggesting you maintain first class medical privileges, it would behoove you to freshen the medical certificate ahead of an upcoming job interview.

Other documents that may not be on your radar (so to speak) include a passport and FCC Radio Operator's Permit. A pilot employer will wish to see that you have both. In the US the FCC issues a Restricted Radiotelephone Operator's Permit for US pilots, but only for international use—it is not required while flying in the United States. Airlines require that applicants possess the Restricted Radiotelephone Operator's Permit. The license is a one-time acquisition with no expiration. You can apply online at the FCC's website.

If you're obtaining your first passport, you must apply in person. If you're renewing (valid for 10 years), keep track of your next expiration.

5. Be kind

To say aviation is a small universe would be an understatement. Be kind to each other. Your fellow pilots can help get you a job, but also prevent you from landing a job. Many airlines allow company pilots to submit recommendations, but also provide the opportunity to offer objections. In private or business aviation, it can be even more personal, with chief pilots or hiring managers often seeking personal referrals or recommendations on candidates. Be kind and network.

PILOT'S GUIDE TO ATP CERTIFICATION

To be eligible to serve as an airline crew member, pilots must possess an Airline Transport Pilot Certificate (ATP). While it may seem to be a drastic difference between the older days when only a Commercial Pilot certificate was required to fly as an airline first officer, it's not nearly as dramatic of a change in practice.

Pilot hiring has always been market driven, and historically, pilots have been required to possess minimum experience at least close to the ATP requirements to be competitive for pilot positions. Pilots have generally been expected to possess anywhere from 1,000 to 1,500 hours of total time and 100+ hours of multiengine time to be marketable to the airlines, which hasn't changed much.

To reach the ATP level, pilots now have the option of pursuing an unrestricted ATP subject to FAR Part 61 requirements, or they may choose to pursue a Restricted ATP (R-ATP) qualification by graduating from an approved, collegiate-based aviation program. Eligibility requirements for the two pathways vary greatly.

Unrestricted ATP requirements

An unrestricted ATP requires that the pilot be 23 years of age and possess minimum flight experience to include:

- 1,500 hours total time
- 500 hours cross-country
- 100 hours night
- 75 hours instrument
- 250 hours PIC
- 50 hours of multiengine (if pursuing ATP multiengine)

Complete eligibility requirements are defined in § 61.159.

Restricted ATP requirements

The R-ATP allows a pilot to serve as an airline first officer before reaching the requisite 1,500 hours for an unrestricted ATP. The R-ATP also requires that a pilot be at least 21 years of age and successfully complete a checkride. The R-ATP offers credit for specialized training received as part of a collegiate aviation curriculum or through the military. The options for R-ATP minimum experience are:

- 750 hours for military pilots
- 1,000 hours for college graduates who possess a bachelor's degree with an aviation major from an approved school
- 1,250 hours for college graduates possessing an associate degree with an aviation major from an approved school

For each of the R-ATP options, the majority of total flight experience must have been obtained while enrolled in the approved program. It's worth noting that simply graduating from a program that confers a degree does not automatically grant eligibility for the R-ATP. Each school that desires to certify its graduates for the R-ATP must apply for and receive approval from the FAA and must meet criteria outlined in Advisory Circular 61-139.

Considered in the ATP regulations is a category of pilots who may possess the 1,500 hours of total pilot time required for an unrestricted ATP, but fall short of the requisite 500 hours of cross-country experience (e.g. flight instructors). These pilots, as long as they possess at least 200 hours of cross-country time, and otherwise meet ATP experience requirements, are also eligible to apply for the R-ATP.

When transitioning from a R-ATP to an unrestricted ATP, an FAA inspector can remove R-ATP limitations and issue a full ATP with paperwork only. The applicant must present evidence that they have met the ATP age requirement (23) and the aeronautical experience requirements of § 61.159. The applicant then must complete section III—Record of Pilot Time, on a pilot application (form 8710) to be issued the unrestricted ATP.

Also required for ATP certification is the completion of an FAA-approved Airline Transport Pilot Certification Training Program (ATP-CTP) prior to taking the FAA written exam for multiengine ATP. An ATP-CTP is a 40-hour course—30 hours of ground school and 10 hours of simulator training—intended to prepare the applicant to operate safely in those operations that require an ATP. Of the 10 hours of simulator training, six hours must be completed in a Level C or higher full flight simulator that represents a multiengine turbine airplane with a maximum takeoff weight of at least 40,000 pounds, rendering many corporate aircraft ineligible.

The ATP-CTP serves as a prerequisite for the multiengine ATP written exam and includes training in:

- Aerodynamics
- Automation
- Adverse weather conditions
- Air carrier operations
- Transport airplane performance
- Professionalism
- Leadership and development

All pilots taking the ATP knowledge test are required to present a graduation certificate certifying the completion of an ATP-CTP before taking the written test. Written tests for multiengine ATP are valid for 60 calendar months (much longer than the 24 months granted for other written exams). The ATP-CTP graduation certificate itself does not expire so there is no penalty and no harm in taking the ATP-CTP anytime that is convenient.

It's worth noting that the ATP-CTP itself does not prepare you for the FAA written exam. It's only a prerequisite for the written exam. It would be wise to select a trusted training source for dedicated written test preparation independent of your ATP-CTP training. There is no endorsement required to take the ATP written exam so it's up to you to determine when you're ready.

For those pursuing an airline career, most regional airlines have created their own in-house programs or have contracted with other training providers to deliver ATP-CTP training as part of their new-hire process. So in many cases this creates additional training time, but it does not represent an additional out-of-pocket expense.

If you happen to be in corporate aviation or perhaps on a military track and moving straight to the legacy air carriers, you may very well have to complete an ATP-CTP at your own expense to meet hiring require-

ments. There are independent training providers with courses available; costs for ATP-CTP range from $4,500 to $6,000 or more.

If you're curious about an alternate ATP option, single-engine ATP does not require the ATP-CTP course, but does require a separate single-engine ATP written exam. You will still need to complete an ATP-CTP in order to pursue a multiengine ATP.

It remains the case that the most common pathway for building your flight experience toward ATP certification remains the certified flight instructor (CFI) path. CFI jobs are plentiful as the demand for training increases and as CFIs transition to the airlines. Similar to airline starting salaries, CFI wages have increased. It is possible to earn a respectable wage in the CFI ranks and pursue a rewarding career. And most airline recruiters and human resource professionals will agree that the experience gained as a CFI will serve you well into the future.

Alternate routes for gaining additional experience toward ATP certification include private or business aviation pilot jobs, aerial surveying or mapping, freight, charter, and even investing in your own airplane.

No matter your ultimate pathway, there's only one correct way to begin: get to the airport and take that first flight or the next flight!

PRO TIP:

- **When applying for a professional pilot job, it's appropriate to note your eligibility for R-ATP if applicable**
- **Keep close track of your unrestricted ATP eligibility, as removing the restriction is only a matter of paperwork**

FIVE STEPS TO ACE THAT AIRLINE INTERVIEW

"Congratulations, it's our pleasure to offer you a first officer position with our airline. We believe you have the right qualifications and experience to succeed. We have a class beginning in two weeks. Included with our offer is a $15,000 signing bonus and you can expect an upgrade to captain in less than two years."

Sound too good to be true? It's a reality for those who meet the minimum certification requirements for an airline pilot, the Airline Transport Pilot (ATP) certificate. What's more, in the current job market, with demand up and supply questionable, it's not uncommon for aspiring airline pilots to find themselves with multiple job offers to consider.

For the student pilot, it's never too early to begin preparing for that dream job. The highly-respected Boeing Pilot and Technician Outlook predicts that through 2035, the aviation industry will need to supply more than two million new aviation personnel including 617,000 commercial airline pilots. Consider that the entire U.S. pilot population is only about 600,000.

And for those existing Commercial pilots and ATPs, now is the time to begin that detailed preparation to ace that first interview.

1. Understand the qualifications

Do your homework. It's not good practice to simply blanket the industry with generically-worded cover letters and resumes with little regard to what the airline has identified as minimum hiring requirements. That's not to say you shouldn't be your own best advocate and work to convince a potential employer of your qualifications even if falling short in some categories. However, being woefully short in multiple qualification categories could be wasted time and energy.

By law, a pilot flying for an air carrier must possess an Airline Transport Pilot (ATP) certificate (may be Restricted ATP (R-ATP) if graduating from an approved college or university). The minimum experience requirements for ATP generally suffice for most regional carriers. Do not be scared away if you meet the minimum experience requirements for ATP, but haven't yet completed the written exam and requisite ATP-CTP course. Many of the regional carriers will provide the ATP-

CTP training as part of the new-hire process and expect that you will complete the ATP practical exam as part of your type rating. Many airlines will even offer an interview if there is a reasonable expectation you'll meet ATP requirements in the coming months.

While educational requirements ebb and flow with supply and demand, most regional air carriers still publish a minimum Associate's Degree with Bachelor's degree preferred. You'll want to have in-hand a valid, first-class medical, current passport, and radio telephone operator permit.

2. Do your research

It's critical that you be well informed about any organization ahead of an interview to ensure a) it's a company you truly wish to fly for and b) you make a good first impression. Before applying for the job, you'll want to know the pilot domiciles, type of equipment operated, pay scale, typical time to upgrade, culture, etc. There are numerous online tools to assist in this research and you'll also want to tap the insight and expertise of other pilots you may know working for that airline. LinkedIn or other social media outlets can be a good source for determining how those in your network are connected to the airlines you are pursuing.

Don't get lulled into a false sense of security by grabbing on to the first Google return or ending your search in the "about" section on the company website. Familiarize yourself with company history, key executives and anything that may stand out in the annual report. Consider what's important from the company's perspective by investigating recent media releases or other news stories.

The ability to make a personal connection with something you've discovered is a great opportunity to make a good, lasting impression. One of the most sought-after traits for employers is an "engaged" employee. If your research doesn't quite lead you in the direction you would like, all is not lost. Use this as an opportunity to ask questions of the interviewer.

3. Organize your documents

The application process will force you to have your documents (pilot certification, logbook, medical, photo ID, passport, transcripts, etc.) organized for submission, but don't forget about the in-person

interview. It's always a good idea to have a single folder with copies of everything you may have been required to submit including your resume, cover and references.

It's a good idea to identify at least three professional references and have those contacts listed on a stand-alone document that you may hand over in the event you are asked. At the risk of stating the obvious, select those who you believe will make the strongest recommendation on your behalf. Former co-workers and supervisors are a good start—those who can attest to your piloting ability, work ethic, commitment to safety, and adherence to policies and procedure. Also, consider different categories of references. You'll want to avoid filling your reference list with only pilots. A contact outside of aviation that can speak to your professionalism and dependability will demonstrate multi-dimension.

A final word on references: be sure to gain permission first before listing an individual as a reference. There's nothing more awkward or embarrassing than a reference receiving an unexpected call. Not only get permission from your references, but keep your references informed so they may have some awareness that a call may be imminent. This will also provide a prime opportunity to influence or assist your reference in saying the right things. It's also the courteous, professional thing to do.

4. Prepare for your interview

All of the diligent resume building, research, and organization won't do any good unless you're prepared and rehearsed at delivering the information. There are a lot of great resources online that will provide sample interview questions. It's not cheating to prepare answers in advance and even rehearse responses in a mock interview setting.

For starters, a polished interviewee will have a stock answer to the question, "tell us about yourself." It sounds innocuous enough, but it's easy to fumble. Develop an "elevator speech" that will highlight your certifications and accomplishments with any experience (aviation or otherwise) that will differentiate yourself from the crowd of pilots vying for the same job.

Conflict resolution is another common source of questioning. You'll want to have various anecdotes available for quick retrieval that demonstrate you are able to get along with others, solve problems and lead. An airline is entrusting you with a tremendous amount of responsibility and the safety of hundreds; they want to be confident in your ability to utilize information and make sound, well-informed decisions.

If you're having trouble with clear examples that demonstrate a particular attribute, again talk to others about ideas. It's likely others have experiences that may jog your memory or be modified to fit a similar situation you've experienced.

While you'll want to be well-rehearsed, you don't want to look, sound, or act like a robot. Those who are likable in an interview will appear open and helpful with a warm, welcoming smile. Your voice needs to be warm with inflection (record yourself for practice). Your body language should project confidence, honesty, and positive energy. People respond to emotional connections, not memorized scripts.

5. Dress to impress

Impressions will be formulated from the time you walk in the door. Let's agree that humans are relatively superficial. It's widely known and accepted that it's good practice to dress for the job you want—in a manner that is aviation appropriate. For aviation, this can be described as formal, conservative, and crisp. Invest in a dark, well-fitted suit. A light-colored shirt is your best option and of course, avoid anything loud or flashy.

Each article of clothing should be clean and pressed. A trip to the dry cleaner may be in order ahead of the interview. Shoes should be in a style and color to match the suit choice and free of dirt and scuffs. The fine attention to detail will demonstrate your respect for the opportunity and appreciation for the responsibilities of the job of professional pilot.

VVVV

Summary: How to ace that airline interview

1. **Understand the qualifications**—Being woefully short in multiple qualification categories could be wasted time and energy.
2. **Do your research**—Make sure this is the company you want to work for.
3. **Organize your documents**—Make copies for you and the interviewer.
4. **Prepare for your interview**—Prepare your answers and rehearse.
5. **Dress to impress**—First impressions matter.

TRANSITIONING TO THE AIRLINES—ONE PILOT'S JOURNEY

So... you've finally met the aeronautical experience requirements to become an Airline Transport Pilot (ATP). It's time to take the next step in your professional aviation career and you've decided to join the ranks of airline pilots. But which airline do you pursue? How do you know what's the right fit?

Fortunately, in today's job market, there are many options as virtually all regional air carriers are hiring. In making your choice, you may consider pay, equipment, upgrade time, major airline affiliations, "flow-throughs," and a host of other benefits. There are job fairs as well as great online resources to help you compare airlines, including AirlinePilotCentral.com and FAPA.aero.

The best advice I received was to find an airline where you can base close to home for the best quality of life. If you're based close to home (the airport where your trips will originate), you avoid the added headache and time of commuting to work and the possible added expense of housing or a "crash-pad" in the city where you are based. It's one less life disruption during a period in your life with many other changes.

Once you've picked your airline and applied for the job, it's time to prepare for the interview. Some of your most valuable resources will be your peers that have joined the same company and been through the same interview. If you don't have a trusted source on the inside, there is still a popular online resource, AviationInterviews.com, where other candidates have left insightful information from their interviews for your benefit. Take the time to be comfortable and well-prepared for your big day.

On interview day at my airline, I was flown to the training center where I met other candidates before being called in for a presentation. In the presentation, we learned more about the organization. The presenters discussed scheduling, the bidding system, benefits, and provided a general company overview. After the presentation was complete, we were interviewed one by one.

The first portion of the interview is typically conducted by a human resources representative, where they ask traditional interview questions to figure out who you are as a person. The next phase is a technical interview with pilot representatives. I was asked to read and interpret a METAR and TAF. I also had to answer questions related to the rules on alternate airports for takeoff and landing. I reviewed the basics of Jeppesen instrument approach charts, SIDs, STARs, and overall chart symbology. There are regulations applicable to instrument flying that the airlines will expect candidates to know, such as when you may descend below MDA/DH and how to plan descents.

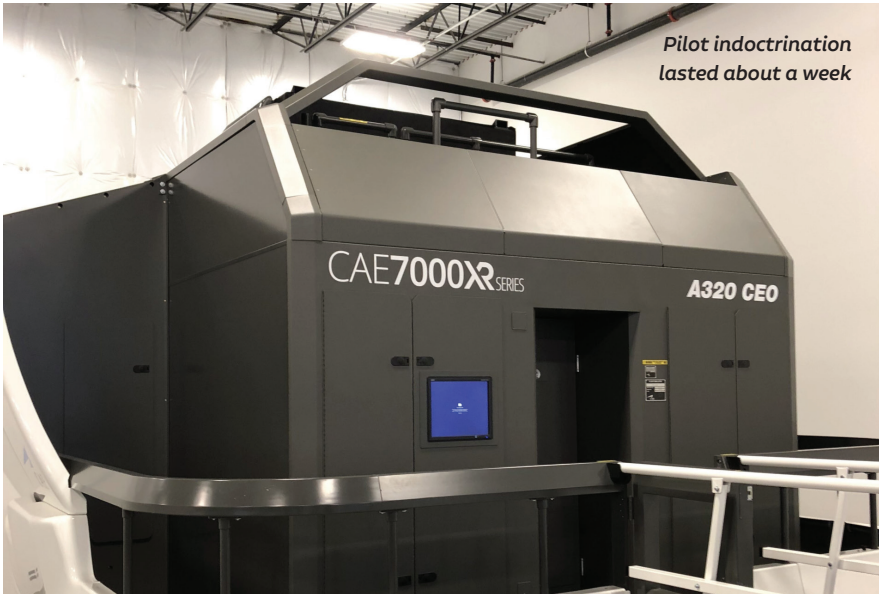
Upon completion of the interview, I was immediately offered a new-hire class date. I was officially an airline pilot and the remainder of my airline pilot training would be sponsored by the airline!

ATP-CTP and ground school

New airline pilot applicants must go through a week-long training course known as the Airline Transport Pilot Certification Training Program (ATP-CTP). The course consists of a 4-day ground school covering high altitude aerodynamics, automation, adverse weather, air carrier operations, transport category airplane performance, and the crew environment. On the fourth day, we were given a knowledge test on the subjects covered. The next three days were in the simulators, utilizing an FTD and a full-motion simulator.

The simulators were used for introducing concepts unique to flying transport category airplanes. These included flight management system (FMS) programming, high altitude operations, high and low altitude stall recoveries, windshear escape maneuvers, ground-proximity warning system (GPWS), traffic collision avoidance system (TCAS) maneuvers, and automation management. Throughout the course, applicants were expected to study for the FAA knowledge test. ATP-CTP is a prerequisite to completing the FAA written exam for multiengine ATP (ATM).

With a good score and fresh copy of my ATM knowledge test results and ATP-CTP graduation certificate in hand, it was time to get ready for First Officer training!



Pilot indoctrination lasted about a week

Pilot indoctrination is designed to familiarize new applicants with airline operations and expectations as a first officer. It lasted about a week and a half. It consisted of reviewing HR paperwork, company policies, procedures, and documentation. The company also had various presentations on scheduling, initial operating experience, crew pay, benefits, and any programs the airline has incorporated such as AQP, LOSA, and ASAP. We also set up our EFB on the company-issued iPads, tried on our uniforms, selected our sim partner, and placed our bid for the aircraft we'd like to train for.

Some of the fundamental guidance documents the company trains for are the flight operations manual, aircraft operating handbook, and the airline's operations specifications. In short, these documents spell out the procedures, policies, limitations, and rules that the pilots must abide by. Another subject that receives a lot of attention is the flight release, a document that provides the pilots information ranging from crew members and weather to takeoff and landing data—the elements essential to a particular flight. At the end of indoctrination, we were tested on the previously mentioned documents.

With indoctrination behind us, it was time to move into the aircraft systems class. Systems is straight-forward and what you expect it to be. It's no different than when you were learning about your first training airplane during primary training. Our class convened each day and learned about each system of the airplane in detail including the APU, engines, hydraulics, flaps/slats, primary/secondary controls, and autopilot. They also reviewed emergency system backups, switch lights, the different switch positions, and what each of them mean and do.

After systems, we moved onto the computer-based procedures trainers. This is where we get a taste of what we would see in sim training. The procedures training demonstrated weight and balance, flows, checklists, procedures, call outs, and Quick Reference Handbook (QRH) usage. This is essentially the chair flying aspect that builds the ground work in preparation for simulator training. We had several lessons prior to doing a stage check and a mock oral examination.

At this point, we were expected to be prepped and ready to go for the oral exam. The oral was quite extensive and required a lot of studying on everything covered up to this point. The exam focused heavily on regulations, systems knowledge, aircraft limitations, company procedures, and memory items. Completing the oral is a huge milestone in airline training!

Ground school was over, a welcome relief, but it was time to prepare for simulator training.

Sim training

My sim partner and I went through eight simulator sessions. We were trained to be able to apply and correlate everything we'd learned in ground school. Throughout each lesson, we were presented with several emergencies, weather scenarios, abnormalities, malfunctions, and a lot of instrument approaches, both multi- and single-engine. We also went over the usual flight maneuvers profiles: power on/off stalls, maneuvering stalls, and steep turns.

We were expected to perform both pilot monitoring and pilot flying duties. At the end of the simulator lessons, it was time for the proficiency check. The proficiency check is the airline practical checkride, where an examiner will evaluate the performance of the applicants much like previous checkrides. It was a long night, but all the hard work paid off in the end. My sim partner and I both passed and we were officially type-rated airline transport pilots!

Then it was time to go fly the real thing. Crew scheduling assigned my first trip and this was the beginning of my initial operating experience (IOE). IOE is the pe-

Procedures training allows you to learn the flight deck

riod where you will spend your first few trips with a line check airman who will aid in transitioning from the simulators to real world airline flying. Your IOE captain will discuss operations ranging from pre-flight, airport procedures (security procedures, jet bridge access, safety precautions, etc.), crew rooms, hotels, and several other items. There's nothing like putting on the uniform for the first time.

For the first few trips, there were about 50 or so unsuspecting souls that unfortunately had to endure my first couple of landings while I was learning the proper technique and sight picture. No worries—my crew was understanding and I had apologized to the flight attendants in advance. IOE on average is about 30-50 hours and at the end of it is a line check.

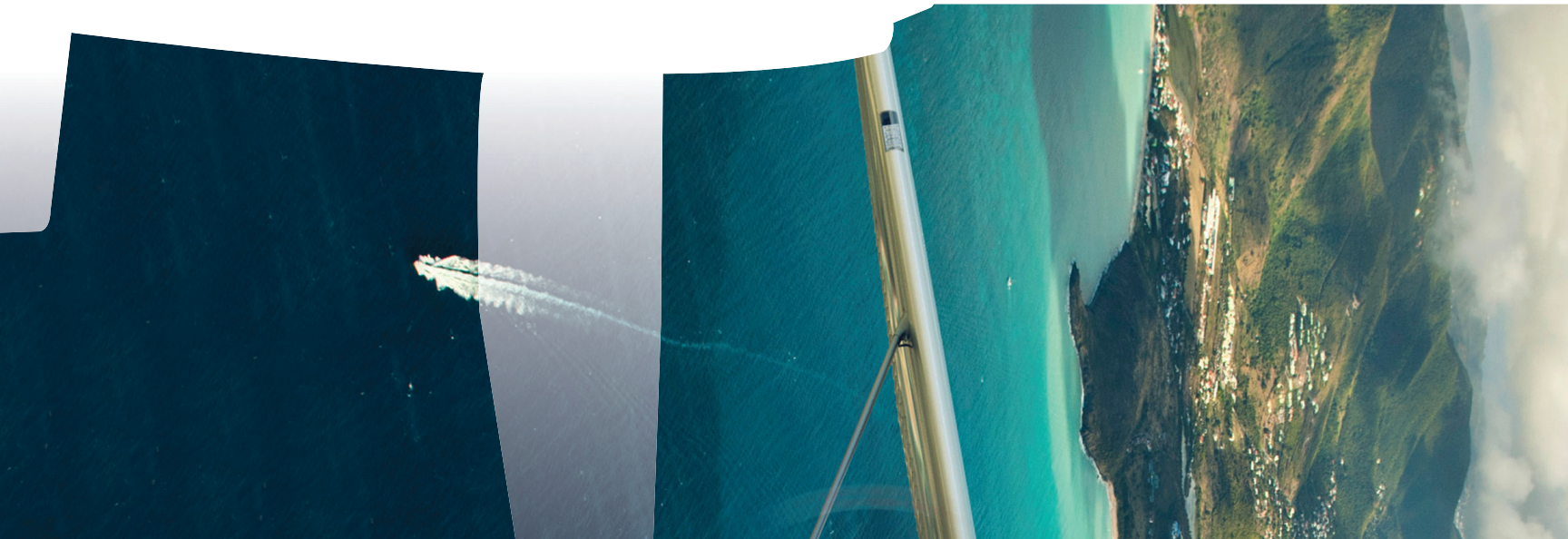
The line check is just another normal flight where I was expected to be able to safely fly the airplane with minimal assistance from the line check airman other than the normal pilot monitoring duties. Passing the line check was the finish line: I was released to the line where I would sit on reserve until I had enough seniority to be able to hold a line (schedule).

After all the years of persistent studying, dedication, and extensive training, I can live out my childhood dream of being an airline pilot!

IOE is time to fly the real thing with a training captain

PART FIVE

STUDENT PILOT RESOURCES



FLIGHT PLAN

- **FOUR FORCES OF FLIGHT** // PAGE 82
- **PARTS OF AN AIRPLANE** // PAGE 83
- **THE PILOT'S SIX PACK** // PAGE 84
- **SPORTY'S LEARN TO FLY COURSE** // PAGE 86
- **STUDENT PILOT CHECKLIST** // PAGE 88

FOUR FORCES OF FLIGHT

LIFT

To overcome the weight , airplanes generate an opposing force called lift. Lift is generated by the motion of the airplane through the air and is an aerodynamic force. Lift is directed perpendicular to the flight direction.

DRAG

As the airplane moves through the air, there is another aerodynamic force present. The air resists the motion of the aircraft and the resistance force is called drag. Drag is directed along and opposed to the flight direction.

WEIGHT

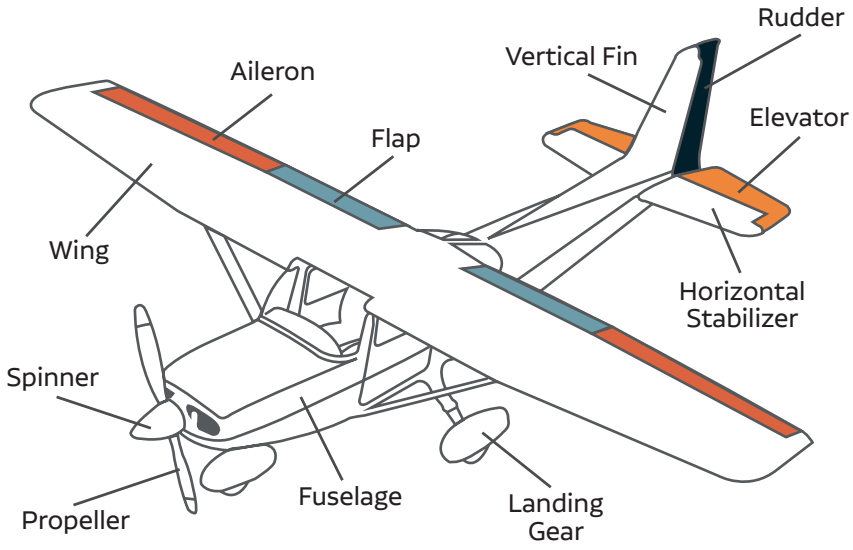
Weight is a force that is always directed toward the center of the earth. The magnitude of the weight depends on the mass of the airplane, plus the fuel and any people or baggage.

THRUST

To overcome drag, airplanes use a propeller or other propulsion system such as a jet engine to generate a force called thrust.

PARTS OF AN AIRPLANE

So... you've finally met the aeronautical experience requirements to become an Airline Transport Pilot (ATP). It's time to take the next step in your professional aviation.



Aileron: Controls aircraft roll

Flap: Changes the wing shape

Vertical Fin: Provides aircraft stability

Rudder: Controls aircraft yaw

Elevator: Controls aircraft pitch

Horizontal Stabilizer: Controls aircraft pitch

Landing Gear: Supports the weight of the aircraft

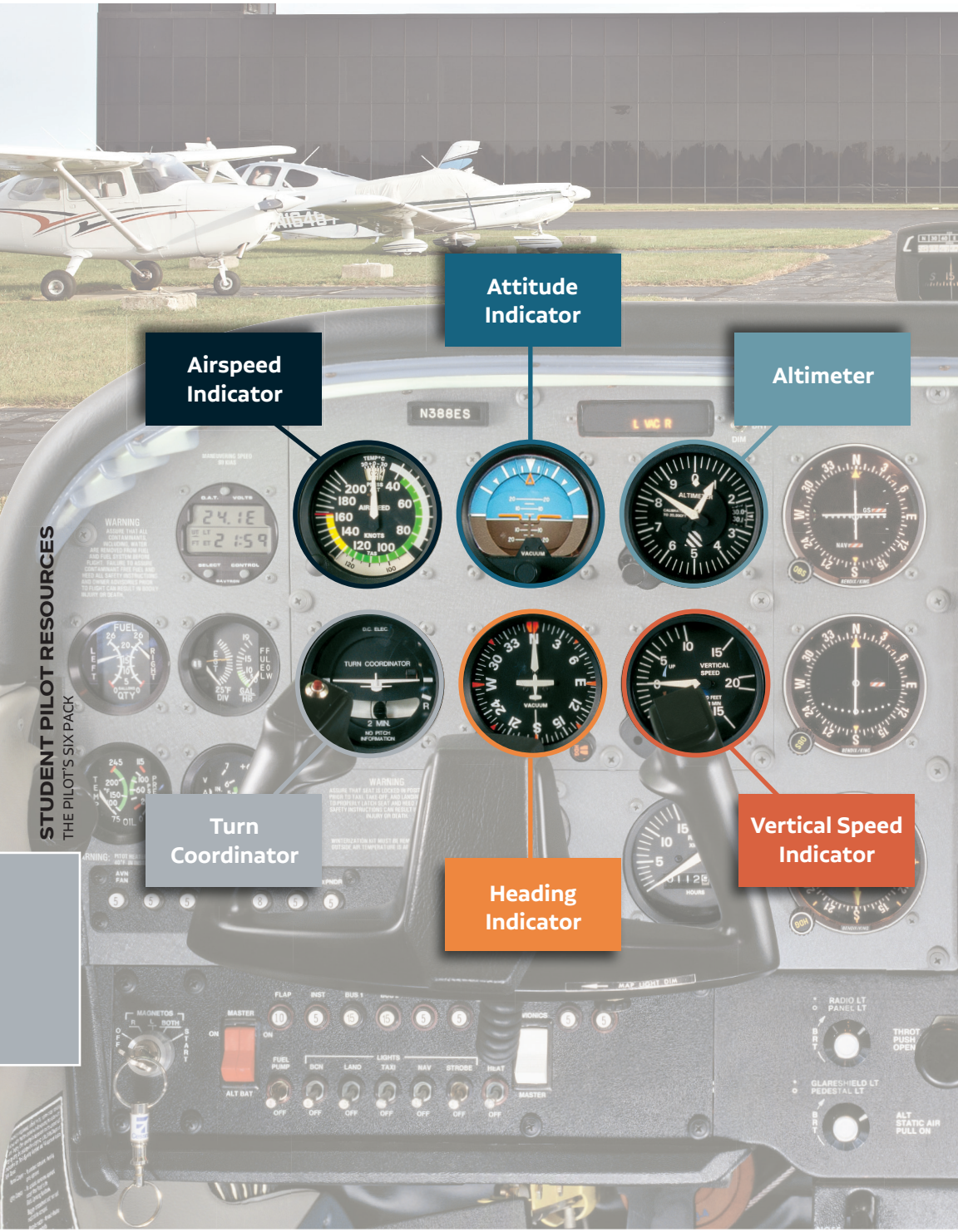
Fuselage: Holds passengers and cargo

Propeller: Provides propulsive force

Spinner: Turns the propeller

Wing: Provides aircraft lift

THE "PILOT'S SIX PACK



Summary: The Pilot's Six Pack

1. Airspeed Indicator:
Indicates airspeed (usually in knots)

2. Attitude Indicator:
Shows aircraft in relation to the horizon

3. Altimeter:
Shows aircraft height above sea level

4. Turn Coordinator:
Shows direction and rate of turn

5. Heading Indicator:
Shows aircraft direction

6. Vertical Speed Indicator:
Shows rate of climb or descent

Cessna 172R

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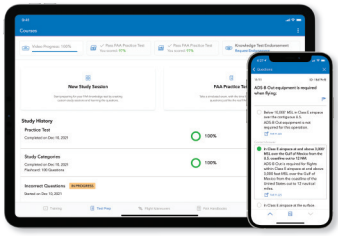

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LEARN TO FLY CHECKLIST

- [ ] Locate flight schools in your area
- [ ] Take a tour and choose a school that best fits your needs
- [ ] Talk to your instructor and share your goals
- [ ] Take a first flight lesson
- [ ] Purchase a home study course to prepare for your lessons and your FAA tests
- [ ] Decide whether you'll pursue the Sport, Recreational or Private Certificate
- [ ] Schedule an FAA medical exam with a local AME (not required for Sport)
- [ ] Pass your FAA Knowledge Test
- [ ] Pass your FAA Flight Test and earn your license
- [ ] Have fun!

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