



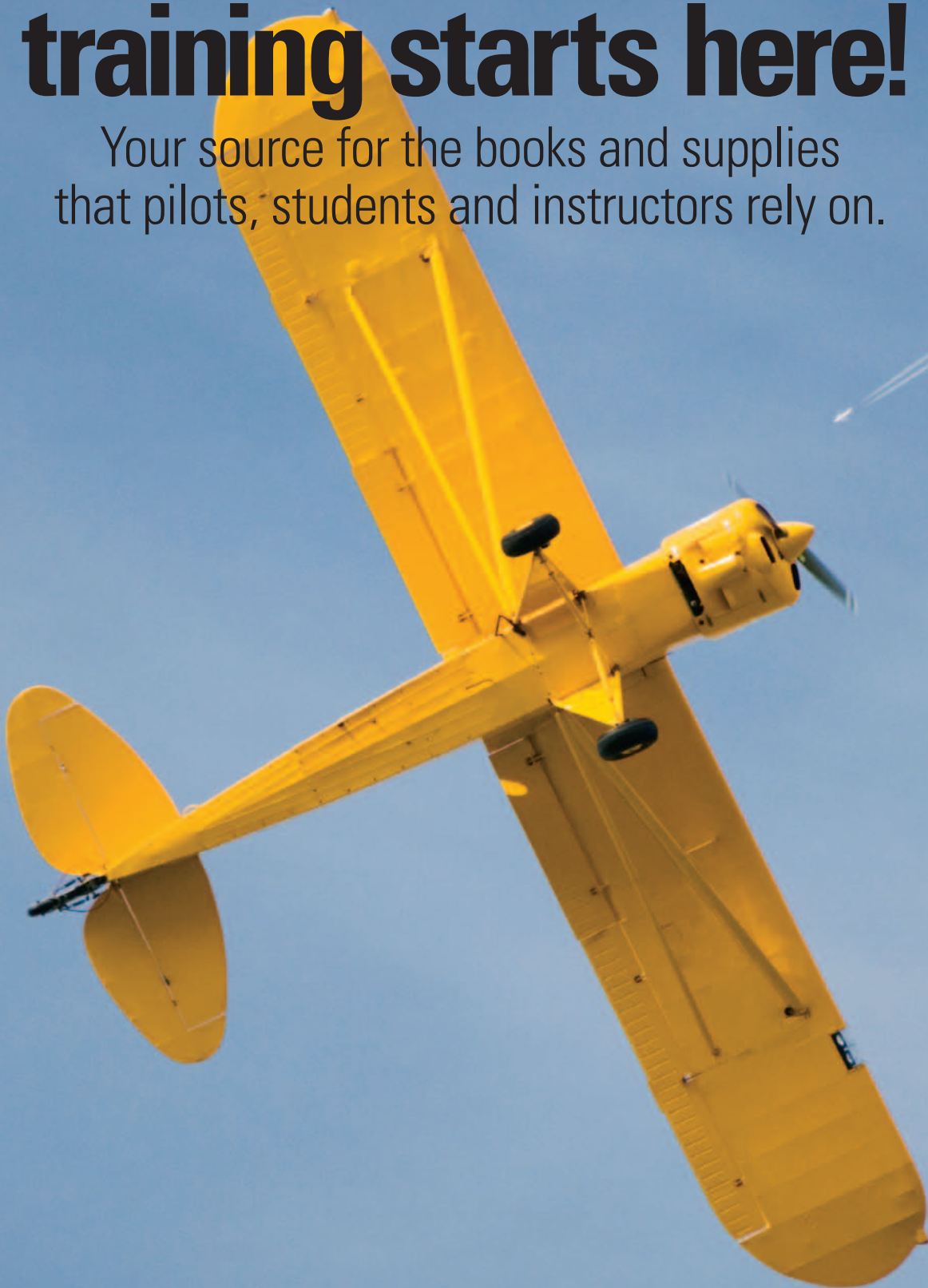
A GUIDE TO LEARNING TO FLY  
**REACH**  
for the  
**SKY**  
AND LIGHT-SPORT AIRCRAFT





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COVER DESIGN BY PHIL NORTON



# STEP INTO A LIFETIME OF AVIATION



## EAA can help your dream come true

TOM POBEREZNY, PRESIDENT, EAA

**I F YOU HAVE ALWAYS WANTED TO LEARN TO FLY**, EAA can help you fulfill that dream. This Reach for the Sky guidebook highlights many of the important steps along your flight path.

If you have ever thought about pursuing your interest in aviation, EAA is the organization that will provide you access to the information, and the relationships, that will nurture your dreams ... whether you choose to learn to fly, own an airplane, or participate in a community that shares your aviation interest.

I'm sure many of you have thought, "I'd like to learn how to fly, but I don't have the time, money, or ability." Through EAA, and its members and chapters, you will meet others who thought the same thing, until their dream was realized. I have used the word "community," and there is truly is no other word to describe this association whose members are famous for helping others. The steps in learning to fly can be made easier with the help, mentoring, and friendship of those already in aviation.

For more than 10 years, EAA has invested significant efforts to support a new initiative—sport pilot/light-sport aircraft—specifically to reduce the barriers to learning to fly for fun. And flying is fun!

The sport pilot certificate allows enthusiasts to earn their "wings" in less time and with less expense—two of the biggest hurdles historically facing student pilots—while the light-sport aircraft category opens the door to more affordable aircraft ownership. Together, they allow people to more quickly become engaged in fulfilling their aviation passions.

If you have an interest in aviation and want to share your interest with like-minded people, EAA is the organization for you. I encourage you to use this valuable booklet and pass it along to others who have an interest in flying.

Join EAA...it's a decision that will enhance your life. 

# THERE'S SOMETHING ABOUT FLYING!

## MARY JONES

**P**oets and artists...from Leonardo da Vinci to Jimmy Buffett...have spoken eloquently about the joy of flying. But they're not the only folks who can describe that experience. So can every pilot who has tasted that freedom. Here are the thoughts, feelings, and images of other fliers who have followed the path you're considering. Enjoy!

**BRENT BATTLES**, Grants Pass, Oregon: "I named the Zenith Zodiac 601 I built *Sojourner* for a reason. I fully intended my creation to transport me in a leisurely fashion to wherever my curiosity might lead. My 6,500 mile trip across the United States wasn't one big trip; it was a series of small destinations en route. And, it was as wondrous as I imagined."

**BRET SMITH**, Lincoln, Rhode Island: "We could go wilderness camping!" That's the pitch I made to my wife, Alex, while trying to convince her that I

should build a SeaRey amphibian. She loves adventure, and I knew that would seal the deal. Last summer, I delivered on the promise—a SeaRey date that included a 75-mile flight to Brattleboro, Vermont, and dinner at a marina. The trip was great—the best part was having Alex with me. The hard work of raising a family and running a household together makes sweet moments like this overwhelmingly wonderful. With Alex beside me and a magnificent landscape below, my mind whispered, "Sometimes there's just so much beauty in this world, I can hardly stand it."

**BART BROWNSTEIN**, Hollywood, Florida: "I'm a flightaholic! I'd been clean for about 12 years, and it looked like I'd kicked my lifelong flying habit, but a whole new category of aircraft caused a change in my life. I knew I didn't want to own another 30-year-old aircraft. I wanted something newer, but I couldn't afford an expensive new plane. Thanks to

the new light-sport aircraft category, I'm airborne again. I enjoy the perspective I'd been missing from above scattered clouds, looking down and escaping the problems below. I love flying throughout the Bahamas, from Walker's Cay in the north to Salt Cay in the south. The beauty of the water and the islands and the edgy thrill of flying over long stretches of open water have always fascinated me. Now, a light-sport aircraft gives me this joy. Is this a great country or what?"







**OPPOSITE PAGE:** Bret shares his love of flying with his grandchild, Bailey.

**TOP:** Bret and Alex decompressing on Lake Ossipee, New Hampshire.

**ABOVE:** Bret and Alex cruise along a river en route to Quabog Lake, Massachusetts, and a cool dip before heading home.

**LEFT:** Bart Brownstein celebrates returning to the Bahamas in his Evezor light-sport aircraft.

**“When once you have tasted flight, you will forever walk the earth with your eyes turned skyward, for there you have been, and there you will always long to return.”  
...LEONARDO DA VINCI**





**TOP:** Beth and Nathan fly over Lake Powell en route to the Rainbow Bridge.



**LEFT:** Chris Connor leans against his Aeronca Chief. He dreamed of becoming a pilot for 18 years before earning his sport pilot certificate.

**OPPOSITE PAGE:** Terri and Beth and sons, Jeremy and Nathan, with their AirBorne trikes at Bryce Canyon, Utah.



**“I don’t know what it is about pre-flying a plane in the early hours of morning. It’s not like jumping in your car, turning the ignition, and backing out of the driveway. I think it has to do with the fact that you’re leaving the earth, which most people can’t do, and the preparation for such a feat is almost as exciting as the event itself.” ...JIMMY BUFFETT**

**TERRI AND BETH SIPANTZI**, Forest, Virginia: “In 2004, my wife, Beth, and I lived our dream. With our two sons, a motor home, and our two AirBorne trikes in a trailer, we headed to the Northwest for the trip of a lifetime. The benefits of taking our trikes along on the trip were the new airports and surroundings we saw and the new friends we made. We continually looked for opportunities to introduce the joys of trike flying to other pilots. Pack up your trike, powered parachute, ultralight, or light-sport aircraft and visit exciting places. Meet new friends. You’ll wonder why you waited so long.”

**BERN HEIMOS**, Laguna Niguel, California: “Eight hundred feet above central Florida, cruising at 68 mph, the clatter of the 75-hp Continental engine pulling us through air competed with the sound of the wind rushing through

the cabin of the J-3 Cub. Steaming forests drenched with recent rains lay below. We were just high enough to enjoy what coolness the morning had left. In an instant I was struck with a feeling that can only be described by one word—liberty. I searched my memory to recall anything that came close to what I was experiencing, but nothing surfaced. My flight instructor and I were going to experience seven days of ‘liberty,’ flying from the Atlantic to the Pacific Coast, all at just a few hundred feet above the ground. Anyone who thinks aviation is just about flying is missing the adventure.”

**JIM LANIER**, Marietta, Georgia: “Fate is inescapable. I was driving to work one day when an ultralight popped into view. It flew over the top of the dam near my home just outside of Atlanta, down into the river basin and out of








**ABOVE AND LEFT: Jim and his Talon XP, which made his flying dreams come true. His “magic carpet” rests on the suburban Atlanta airfield from which he flies.**

sight. I was smitten. I was hooked. Soon I earned a private pilot certificate so I could fly and carry passengers. I bought a two-place, open-cockpit Talon XP because there’s no substitute for flying in an open-cockpit machine and being able to see everything. The only thing in my peripheral vision that indicates I am in an aircraft is the small instrument panel and the outline of the windshield. On a cool, crisp, early morning flight when the sun is just over the horizon and the mist is still settled in the valleys, I lower the flaps, pull the throttle, back off to a slow cruise, and feel like I’m on a magic carpet ride.

“Recently I took a vacation day just to go flying. Not even a slight breeze was stirring. Flying to a nearby lake, I turned and flew up the river, following its bends for several miles at a safe but low altitude. As I yanked and turned I occasionally

passed a waving fisherman. A couple of years ago that fisherman was me...but today I’m up here enjoying a much different view.”

**E.C. “CHRIS” CONNOR**, Greenwood, Delaware: “August 24, 2005, is a day I will not soon forget. That’s the day I made my first solo flight after 18 years of dreaming. In 1962, I told my teacher I was going to be a pilot when I grew up. I built models and read anything with the word airplane. Life went on, but my love for aviation never diminished. I tried to stay near flying. In 2004, I read about the sport pilot certificate and learned that some vintage airplanes qualified as light-sport aircraft. I’ve always loved vintage planes. Eventually, I found an Aeronca Chief about 400 miles away and made it mine. I began to fly with my instructor immediately. After a month, I heard the words I wanted, yet was scared, to hear. ‘Pull over by that hangar, I’m getting out.’ Over the engine noise he added, ‘Just do what you’ve been doing.’ And, I did. I dreamed of that day for more than 40 years, and now the dream has come true. One thing that will never be the same is the smile on my face.” 



“You haven’t seen a tree until you’ve seen its shadow from the sky.” ... AMELIA EARHART



**TOP:** Terri and Jeremy Sipantzi fly near Mount Saint Helens with Mount Rainier looming ahead.

**LEFT:** The view from Bern Heimos' J-3 Cub. Now this is “armchair” flying!



# YOUR FIRST STEP TO THE SKY



SCOTT DEMENTER

**L**earning to fly is akin to heading off for a great adventure. In fact, it *is* a great adventure. There's nothing quite like knowing you're carrying on the spirit of aviation's pioneers.

Take the Wright brothers, for instance. They weren't looking for the fastest way out of Kitty Hawk when they made history in 1903. No, what they achieved was the culmination of their passion to experience flight to become pilots.

You're embarking on that same path right now. And, we hope, you have that same passion. It's a passion that has consumed a particular group of enthusiasts for more than five decades. They're called EAA members.



## NOT YOUR AVERAGE AVIATION ASSOCIATION

If you're more interested in flying for fun than for transportation, EAA is the association for you. With tens of thousands of recreational aviators worldwide, EAAers fulfill the dream of flight by participating in the activity that unites them all. Sometimes that means getting their hands dirty on a restoration project, sharing a laugh with fellow pilots in a hangar somewhere, or putting that can-do spirit to work on perfecting their piloting skills.

This is what makes EAA members the heart and soul of aviation. And becoming an EAA member is about sharing that enthusiasm with fellow members. Is it any wonder EAA's annual membership convention—EAA AirVenture Oshkosh—has become the world's premier general aviation event?

Best of all for aspiring aviators, EAA provides a grassroots environment of inspiration, support, and fellowship. And by joining EAA, you'll gain access to countless resources with which to fulfill your passion to become a pilot.

## NEW WAYS TO PARTICIPATE

There are nearly 1,000 EAA chapters around the world. These groups are the ideal gathering place for you to meet other EAA members and participate in aviation activities at the local level. Chapter members take part in aircraft building seminars and projects, Young Eagles rallies, fly-ins, airport open houses, and even pancake breakfasts.

As an EAA member, you'll also be invited to attend the annual EAA AirVenture Oshkosh membership convention. Held each summer at EAA headquarters in Oshkosh, it's seven days of air shows, forums, exhibits, aircraft, and member fellowship. Then there's the handful of EAA regional fly-ins taking place throughout the country each year. More than likely, one of them is in your neck of the woods.

## EXPERT GUIDANCE AND RESOURCES

Being a pilot is a continuous learning process. So each month, EAA members receive their choice of either *EAA Sport Aviation* or *EAA Sport Pilot & Light-Sport Aircraft* magazine. Every issue is filled with aviation news, features, tips, and product reviews. Members also receive *e-Hotline*, EAA's weekly e-newsletter, as well as access to the members-only section of the [www.EAA.org](http://www.EAA.org) website. All of which will help you get into the air faster, safer, and easier.


And should you ever decide to build or restore an airplane, EAA offers free technical advice through its Information Services Hotline, 888-EAA-INFO (888-322-4636).

## REPRESENTING YOU IN WASHINGTON, D.C.

When you belong to EAA, you're represented by an organization that works in partnership with the FAA for the development of laws, regulations, and policies that safeguard recreational aviation. These efforts help preserve and defend your right to fly.

One of EAA's most notable successes in this area is the sport pilot rule. EAA worked with government and industry for more than 10 years to create this safe and affordable way to enjoy personal flight. You're now able to become a pilot with less investment of time and expense. The sport pilot rule addresses everything from getting your entry-level pilot certificate to providing aircraft that are much more affordable. To learn more, visit [www.SportPilot.org](http://www.SportPilot.org).

## MAKING FLYING MORE AFFORDABLE

If there's one thing that discourages most would-be pilots, it's the cost involved. That's why EAA membership allows you to save money on a number of aviation products and services, including FAA aviation tests through LaserGrade, EAA how-to and technical publications, and Visa credit card purchases at Aircraft Spruce. As a member, you'll also receive free access to the EAA Flight Planner, EAA Aeromedical Advisors, and admission to the EAA AirVenture Museum in Oshkosh. Plus, you'll save on admission to EAA AirVenture Oshkosh, EAA SportAir Workshops, and EAA regional fly-ins. 

## A Moment to Join, A Lifetime to Fly

Ready to head off on the great adventure of becoming a pilot? EAA is the best first step. Join the community of EAA members. Call 1-800-Join-EAA (1-800-564-6322) or by join online at [www.EAA.org](http://www.EAA.org). Welcome aboard, pilot!



## THE DNA OF EAA

EAA was formed in Milwaukee, Wisconsin, in 1953 by founder Paul Poberezny and a handful of pilots who wanted simply to design, build, and fly their own affordable airplanes. Since those humble beginnings, EAA headquarters moved to its current location in Oshkosh, Wisconsin, and has grown into the world's pre-eminent recreational aviation association. Today, EAA is the only organization that offers the fun and camaraderie of sharing a love for flying, building, and restoring recreational aircraft with the most passionate aviation member-enthusiasts in the world.

# LEARNING TO FLY

## What it takes to become a sport pilot

CHARLIE BECKER, EAA AVIATION SERVICES



Jim Koepnick

**Certified flight instructor Romke Sikkema explains the instrument panel to a student.**

**S**o, you're thinking you might like to learn how to fly? Welcome to a wonderful adventure! Flying is an experience that transcends everyday life. Ask pilots why they fly and watch as their eyes go distant. For just a moment, they'll be airborne before they come back to the ground, refocus their attention, and answer your question.

What does it take to become a pilot? Here are the basic requirements to earn the simplest pilot certificate available—a sport pilot certificate. First, you'll need to meet the following criteria: Be 16 years old to become a student pilot (14 for gliders). Be 17 years old to test for a sport pilot certificate (16 for gliders). Be able to read, write, and understand the English language. Have a valid state driver's license. Beyond that, nothing is stopping you from becoming a sport pilot.

### CHOOSING AN INSTRUCTOR

The next big step to becoming a pilot is selecting a certificated flight instructor (CFI). This is an important step—so important that we have a separate article in this guide that talks about it. See "Choosing a Flight Instructor" (pages 16-17). You'll need to make sure you or your instructor have access to an aircraft. Most students rent the aircraft they train in from either their instructor or the flight school that the instructor works with. To find an instructor, visit EAA's website, [www.SportPilot.org](http://www.SportPilot.org), and look under "Training."

Along the path to becoming a pilot, you'll have to pass some tests to verify your aviation knowledge and skills. The Federal Aviation Administration ([www.FAA.gov](http://www.FAA.gov)) has the responsibility to assure that no one will be allowed to fly until he or she can safely act as pilot in command.

The first is the FAA Knowledge Test. This is often referred to as the "written" test because it is a 40-question, multiple-choice test. You must score 70 percent or better to pass. Before you can take the test you'll need to prepare by training with an instructor, taking a class (called "ground school"), or a self-study course at home. Once you've completed the course, you'll receive a recommendation (called an endorsement) stating that you are ready to take the knowledge test. This test can be taken at any time in your training program, but it must be completed before your second and final test—the practical flight test, commonly called the "checkride." Knowledge test results are valid for two years; that is, you have two years after you've passed the test to complete your checkride.

Now that you have a CFI and an aircraft to train in, you'll need to complete the appropriate training and meet the minimum number of



training hours for the type of sport pilot certificate you are seeking. That training time includes time flown with your CFI (dual instruction) and time that you fly the aircraft alone (solo). The minimum training times for the different classes of sport pilot certificates are shown in chart below.

During dual instruction, your CFI will be on board the aircraft and will train you in all the necessary skills required to pilot the aircraft—and be there to keep you out of trouble.

Once you're making sufficient progress flying the aircraft, your instructor will ask you to get a student pilot certificate and explain how to do so. It essentially involves completing some paperwork. These certificates are issued by either an FAA flight standards district office or an FAA designated pilot examiner (DPE).


The student certificate from the FAA is free; however, the DPE will charge you to process the paperwork, typically \$40. The student certificate is good for two years. EAA issues free student certificates to members at AirVenture and Sun 'n Fun, so pick one up before you need it.

Once you have a student pilot certificate, at the appropriate time your instructor will have you fly the aircraft solo. This will be the first time you fly the aircraft with no one else onboard. This is a milestone in your life that you will never forget. Ask pilots about their first solo flight and watch their eyes light up all over

again. Now that you've soloed, you're well on your way to becoming a pilot. Your instructor will supervise the rest of your solo work so that you accomplish specific goals and tasks, like a solo cross-country flight.

After you complete the minimum flight times and have demonstrated to your instructor that you're ready to be a pilot, he or she will give you an endorsement to take the FAA practical test, called a checkride. A checkride consists of two parts: an oral test and a flight test. You must be successful at both to pass. A DPE will administer the test. You and your instructor will choose the examiner. For the flight test, the examiner will follow the FAA's practical test standards (PTS). (See "The Checkride" on pages 20-21 to learn more about this test.)

It is helpful to get a copy of the PTS to review in advance (find a link to the appropriate PTS for your pilot certificate at [www.SportPilot.org](http://www.SportPilot.org) under "Training"). Although the checkride may seem intimidating, your instructor won't endorse you to take the test unless you are ready. After you successfully pass the practical test, the examiner will issue you a pilot certificate, and you may now fly as a sport pilot and bring a passenger!

Although pilot training and testing may present hurdles along the way, the end result is that you will become a competent pilot, ready to fly with friends and loved ones as passengers. 

- ✓ *Meet age & medical requirements*
- ✓ *Pass knowledge test*
- ✓ *Select and train with an instructor*
- ✓ *Receive a student pilot certificate*
- ✓ *Solo!*
- ✓ *Complete training*
- ✓ *Pass practical test*
- ✓ *Pilot certificate issued!*

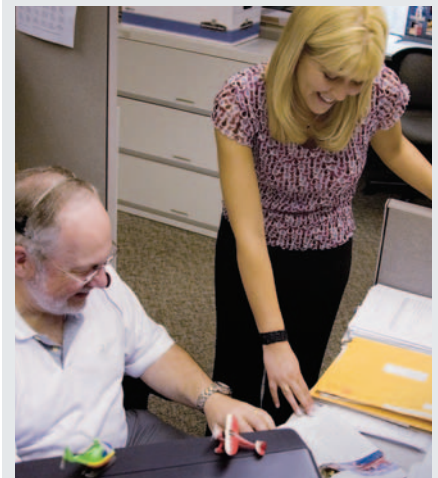
## MINIMUM TRAINING TIMES

	Airplane	Powered Parachute	Weight-shift Trike	Glider	Gyro
Dual	15	10	15	8	15
Solo	5	2	5	2	5
Total	20	12	20	10	20

## LOOKING FOR A FLIGHT INSTRUCTOR?



If you're seeking sport pilot training, EAA's sport pilot website, [www.SportPilot.org](http://www.SportPilot.org), carries a listing of active sport pilot instructors and flight training centers. Click on "Learning to Fly" and go to "Where can I start." These flight instructors can also answer questions about aircraft ownership and training. Educate yourself, and then have fun!



EAA's Aviation Services staff members Joe Norris and Jen Bork in action at EAA Headquarters answering questions for EAA members throughout the world. Have a question? Call 888-EAA-INFO.



The National Association of Flight Instructors is a great resource for locating a professionally minded instructor. [www.NAFINet.org](http://www.NAFINet.org)



# THE RIGHT CERTIFICATE



## Sport pilot or private, which meets your needs best?

CHARLIE BECKER

Once you have made the decision to learn to fly, you will need to choose the correct pilot certificate for the type of flying you wish to do. In the past, this wasn't a difficult decision because there was only one choice: the private pilot certificate. Thankfully, those days are in the past and now there is another, less costly and time-consuming option: the sport pilot certificate. This article will explain the key differences between the sport pilot and private pilot certificates so you can choose the best option for you. The good news is there is no wrong answer. Both pilot certificates allow you to experience the freedom of flight.

In the past, everyone became a private pilot because that was the only certificate available to a new student. A private pilot certificate allows you to fly single-engine aircraft. As time went by, more and more training requirements were added to the private pilot certificate to cover the growing capabilities of the various aircraft private pilots were allowed to fly. For example, additional training was added to allow a private pilot to fly an aircraft on floats or an amphibious aircraft. The problem with this approach is that this first step on the ladder kept getting harder to accomplish.

To combat this complexity, EAA pushed for a new pilot certificate. After 10 years of effort, the FAA created the sport

pilot certificate in 2004. This is an entirely new pilot certificate that is dramatically different from the private certificate. It allows someone who wants to fly for fun to get into flying much more easily. The best part is that all your sport pilot training will apply toward a private pilot certificate if you wish to advance your flying skills and activities.

The overriding factor in deciding which way to go in your flight training is...what is the main reason you are learning to fly? Do you want to fly for recreational reasons (fun!) or do you see flying as a means of transportation? The sport pilot certificate was created with recreation in mind. While private pilots also fly for fun, many use aircraft as a means of transportation to visit family and friends or for business purposes, which often requires more advanced pilot skills and ratings.

### SPORT PILOT

Let's first look at the advantages of a sport pilot certificate. The biggest advantage is the reduced training requirements that let you become a pilot quicker and for less money than a private certificate. The minimum training time for a sport pilot certificate is 20 hours versus 40 for a private pilot.

Training packages for a sport pilot certificate, depending on the aircraft, run anywhere from \$2,500 to \$3,900. Most of these packages build in some additional flight time—

### SPORT PILOT VERSUS PRIVATE PILOT CERTIFICATE

	SPORT	PRIVATE
Cost	\$2,500 - \$3,900	\$6,000 - \$8,000
Cross Country Flight	Yes	Yes
Night Flight	No	Yes
Instrument Flight	No	Yes, with instrument rating
Passengers	1	No limit
Flight in towered airspace	Yes, with additional training and endorsement	Yes
Type of Airplane	Any that meets LSA	<12,500 lbs. max takeoff weight
Speed	Limited to 120 knots (138 mph)	Unlimited
Flight Time	20 hours	40 hours

typically five hours—because not everyone completes training in the minimum time required. Compare this with the training requirements for a private pilot certificate, and you can easily plan on double the cost—around \$8,000. Obviously, a private pilot certificate is a much greater investment of time and money, and one that many people find tough to make all at once.

The shorter training time for a sport pilot certificate also makes it more likely you'll be successful and complete your training. If you train two to three hours a week as a student sport pilot, you can realistically expect to complete your training in eight to ten weeks. Most people can integrate family and work commitments within this timeframe. Compare that to the private pilot certificate, where the commitment may take five to six months, and a lot of things can get in the way.

Weather is always a factor in flight training, and the increased training time for a private pilot certificate can present challenges. Anyone living in the northern climates will run into winter if the training isn't planned just right. The realities of life have a way of derailing our dreams, and the longer those dreams take to accomplish, the more likely life will interrupt them.

The only medical hurdle a sport pilot must meet is to hold a valid state driver's license. Private pilots must receive a third-class medical by visiting an aviation medical examiner (AME) and taking a physical exam. Typically, this exam costs \$75 to \$150, depending on the AME. A person who applies for a medical and does not pass the exam is not allowed to use a driver's license for sport pilot. So before a sport pilot decides to upgrade to private pilot status, it's wise to make sure no medical obstacles would cause the medical certificate to be denied.

Maybe your long-term goal is to become a private pilot. A sport pilot certificate still might be the right answer as a first step. All of your training and experience as a sport pilot can be applied to any higher pilot certificates you pursue later. The sport pilot certificate is an excellent way to break a big goal—the private pilot certificate—into more achievable steps. It also helps reduce the initial financial investment. Another advantage of training in stages is that you're gaining valuable flying experience as a pilot in command before moving on to your private pilot training.

### PRIVATE PILOT

The private pilot certificate is designed more with transportation in mind. If your ultimate goal is to use your aircraft to get from point A to point B, you'll eventually want to become a private pilot with instrument flight rules (IFR) training and an IFR rating.


This rating allows you to fly in weather that exceeds visual flight rules (VFR) conditions.

When you start using your aircraft as a means of frequent transportation, you'll find that sport pilot training comes up short. Although you can travel anywhere in the United States as a sport pilot, this certificate was intended as a license to fly for fun, with transportation as a possible side benefit. With a limitation on the size and speed of aircraft that a sport pilot may fly, this certificate was not intended for use as a means of regular transportation, thus the reduced level of training. The private pilot certificate has none of these limits. As a private pilot, you may pilot any single-engine aircraft regardless of performance and number of seats, allowing you to bring family and friends along and get there faster than by car.

A private pilot may also fly at night, which will allow you to stay a few extra hours on a weekend trip to the beach and still make it home for work on Monday morning. With fewer hours of daylight during the winter months, you'll find it even more helpful to be able to extend your flying time into the night hours. As a private pilot, you'll receive the training necessary to fly at night.

Again, a private pilot, with additional training, also may fly in IFR conditions. This is a huge advantage for someone trying to get from point A to point B. A few trips where weather conspires against you will convince you that instrument flying and/or using your aircraft for personal transportation is always more efficient.

### SUMMARY

Becoming a pilot, either at the sport or private level, is one of the greatest experiences an individual can encounter. Thanks to the work of EAA, you now have a viable alternative to the private pilot certificate if your goal is flying for fun or you just want to make your flight training more manageable. Take that first step; EAA will be there to cheer you on! 

## SPORT PILOT TRAINING COST ESTIMATOR

Training Materials	King Schools	\$239
Knowledge Test	Lasergrade	\$80
Student Certificate		\$40
Aircraft Rental	20 hours @\$65/hour*	\$1,300
Flight Instruction	15 hours @\$35/hour*	\$525
Practical Exam		\$200
<b>TOTAL</b>		<b>\$2,384</b>
Additional training "cushion"	5 hours @\$65/hour Flight time	\$325
	5 hours @\$35/hour instruction	\$175
<b>REALISTIC BUDGET</b>		<b>\$2,884</b>

\*Rates may vary between flight schools/instructors, thus the estimated range of \$2,500 to \$3,900 in Table 1.



# CHOOSING AN INSTRUCTOR

CHARLIE BECKER, EAA AVIATION SERVICES;  
RUSTY SACHS, NATIONAL ASSOCIATION OF FLIGHT INSTRUCTORS



**T**he sport pilot certificate lit the fuse for many people who have dreamed of becoming pilots. Now their dream is within reach. The next step is to get the training necessary to make that dream a reality.

The choice of a flight instructor sets the stage for your success as a student pilot. On the surface, choosing a flight instructor may seem akin to selecting any other business service—for example, a golf instructor. However, during the course of pilot training, the flight instructor will be more than a teacher; he or she will be a mentor, coach, cheerleader, and friend. Your flight instructor will be at your side during one of the most memorable times of your life, so it's wise to be choosy in the selection process.

When selecting a flight instructor, ask yourself the following:

» *Is the instructor enthusiastic about sport pilot training?* Sport pilot is new in the aviation world, and some instructors have little interest in teaching sport pilots. If a potential instructor seems reluctant to embrace your goal, find someone who isn't. Remember, it is your money you're investing to become a pilot, so you have the final say. EAA's Sport Pilot Instructor Database can help you locate an instructor eager to teach sport pilots; visit [www.SportPilot.org](http://www.SportPilot.org) and look under Training.

» *Is there a sport pilot-eligible aircraft available in which to train?* Sport pilots may only fly aircraft that meet the definition of a light-sport aircraft (LSA). Any airplane may be used for the dual portion of your training, but you will need a sport pilot-eligible aircraft for your solo flights and practical test (checkride). Make sure that at least one LSA will be available regularly. The availability of LSA for sport pilot training is still somewhat limited, but it is improving rapidly.

» *How well are the aircraft and facility maintained?* Well-maintained aircraft and flight school facilities are strong indications that the instructor(s) and training facility have a professional attitude and approach to training. A flight school that is struggling financially may not be able to retain quality flight instructors and may be tempted to defer maintenance items. That's not the kind of place at which you should train.

» *How much training experience do the flight instructors have?* All flight instructors must meet the FAA's stringent training requirements. Some instructors, however, have just begun their aviation careers. Look for an instructor with an established record of teaching new students to fly. Ask for a list of previous students with whom you can speak. Check the instructor's reputation with a local designated pilot examiner.

» *Are you compatible with your instructor?* After discuss-

ing your goal of becoming a sport pilot with the potential flight instructor, ask yourself if this is someone you will enjoy training and flying with. Flight training is challenging, but it should be fun and enjoyable. If you doubt whether this instructor's training style will mesh with yours, trust your instincts and keep looking for an instructor!

» *Is the instructor a member of the National Association of Flight Instructors (NAFI)?* Membership in this professional association provides a good indicator of the instructor's dedication to her teaching skills. Is she truly interested in teaching others to fly or merely logging hours to meet the hour requirements for an airline job? Visit [www.NAFINet.org](http://www.NAFINet.org) to learn more about NAFI and to locate instructors associated with this group.

» *How far do you live from the training facility?* The closer you live to the training site, the better. Time spent commuting to a distant facility is time that is not available for training. Several flight schools have developed accelerated courses where you travel to the school and stay nearby for




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**Visit [www.NAFINet.org](http://www.NAFINet.org) to learn more about NAFI and locate an instructor ...**

several days to complete your training. That may be an option to consider.

One item missing from the above list is the cost of instruction. Selecting an instructor by price is always the wrong reason. Would you hire the cheapest doctor to perform an operation? Cost is a factor, but you'll find most instructors have comparable rates, so saving a few dollars an hour by going with your third or fourth choice is false economy.

The right instructor will know when to push you and when to back off. He will know how to coach you to maximize the amount you learn. If, after a few lessons, you realize the instructor isn't working out, look for a new one. Remember that you are not married to your instructor; you are a consumer, and you have the right to make different choices. 



# OVERCOMING TRAINING HURDLES



Bonnie Kratz

## Communication is the key!

EARL C. DOWNS, EAA 369805

**Y**our friends tell you, “You can do it,” but you also know people who have started flight training but didn’t complete it. Hang around student pilots for a while, and you are sure to hear stories of trials and tribulations. You think, “What if I start training and run into trouble; do I have the right stuff to finish the job?”

You’re asking the right questions. Anyone who starts flight training will, at some time or another, run into a phenomenon that has many names and descriptions. It’s the bump in the road or the flat spot in the learning curve. One of my students once said, in frustration, “I don’t think my brain is connected to the moving parts of my body anymore!”

It may be that frightening stall or 360-degree steep turn. Maybe it’s judging the flare altitude on landing or defeating those evil crosswinds. Whatever the stumbling block, it is a learning hurdle you must overcome if you are to reach your ultimate goal.

Nothing can present a greater challenge to your ability than your own self-doubt, frustration, and

self-directed anger. Mastering the wonders of flight is filled with the potential to have negative thoughts about your abilities. But learning to fly *is* a challenge. That’s what makes it worth doing. The negative feelings you may encounter are as natural as the halting hops a baby bird makes when it ventures from the nest. You and your instructor can work together to clear the hurdles you may face as you move from the nest to the sky.

First and foremost, look at your expectations. Making the decision to learn to fly, or to advance your flying skills, is a step that requires confidence. However, you must also accept that you will be challenged at times. Even an experienced pilot faces challenges. For example, I am an experienced fixed-wing pilot and feel comfortable in most airplanes. Yet when I took a lesson in a helicopter a few months back, my learning curve went vertical, and I felt like a new student...because I was! However, my expectations for the helicopter lesson were realistic; I was mentally prepared to be challenged. The fact that I flew like my brain had dumped

its hard drive didn’t frustrate me because I expected it.

Unrealistic expectations can create bumps in the road to learning that seem real but are not. Sometimes learning hurdles are self-induced, and aviators are often their own worst enemies. Military pilot training is based on a “make or break” criterion. In the military, certain performance standards must be met at specific times or the trainee is washed out. Sometimes this military concept seeps into our civilian training, and it may not be appropriate. Sure, we produce the best military pilots in the world, but that does not mean the military training style is necessarily applicable to civilian training. General aviation training does not have a make-or-break mentality unless you put it there.

### TAILOR YOUR TRAINING EXPECTATIONS

It is important that you and your instructor tailor your training expectations to your situation. You are unique, and learning is unique to you. It is up to you and your instructor to maximize your learning skills. Listening

to pilots telling war stories can be a lot of fun, but don't let the "I soloed in five hours" stories mess up your personal expectations. What other students and experienced pilots do, or claim they have done, may not be the same as the learning plan you and your instructor have structured. Don't build learning hurdles that do not exist.

Notice I said you and your instructor must have a *learning plan*. This is not the same as a *training plan*. A training plan is what your instructor puts together to help you reach your learning goals. A learning plan is derived when a student clearly communicates with the instructor about his or her learning goals.

Communication is the key! The instructor may be an experienced teacher, but the student is ultimately in charge of learning. This is particularly important when it comes to bumps in the road. When you encounter a learning hurdle, don't waste time pondering about how you suddenly got so stupid. Discuss it with your instructor—in detail. Instructors can clearly recognize when your performance is unacceptable, but they are not mind readers. Working together, your learning plan and your instructor's training plan can be joined to help you jump the hurdle.

Sometimes a simple but honest comment to your instructor can make the difference. One of my students was having a persistent problem with judging the height for starting the landing flare. It had developed into a frustrating learning hurdle. After one landing that would have been perfect if the airport had only been 10 feet higher, the student said, "I just can't seem to visualize what the airplane should look like at the flare point." This comment led me to ask if he had ever sat by a runway and watched airplanes land. He hadn't. I parked him beside the runway (a training-friendly, nontowered airport) and performed three landings directly in front of him. He was astounded at what all the fuss in the cockpit looked like from the outside, and it helped him overcome the hurdle. He simply needed to visualize the airplane in the landing maneuver. The training plan was adjusted to fit the learning plan.

Another example of adjusting the training plan occurred when another student was about to solo, but her landings became inconsistent. We

continued to practice, but I was unsure about her soloing and so was she. She expressed her frustration and said she was considering quitting flying. I must have been listening that day because I noticed it was the lack of progress that seemed to be the hurdle, not just the landings.

We changed our training plan and proceeded to cross-country training without the traditional first solo flight. She excelled at cross-country flying and recognized her progress. Her new confidence seemed to eliminate the inconsistent landing problem. She had more than 30 hours of training before her first solo flight but successfully completed her private pilot checkride in about the same time as the average trainee.

Her learning plan was not synchronized with a typical training plan, but the end result was the same. Look at it this way: As children we learn the alphabet by singing our ABCs. However, the order in which we learn the alphabet has nothing to do with reading or writing. As students and instructors we can be creative by adjusting the training to help jump the hurdles or attack them from behind.

You can also help yourself. As I said before, the student is in charge of learning and his or her learning attitude. Only you can control your attitude. Here are some suggestions:

1. Recognize your achievements. Crosswind landings may be eating your lunch, but only a few training sessions ago you couldn't hold altitude within a few hundred feet of where you were supposed to. You have made progress!

2. Turn anger at what you perceive to be a failure into resolve to solve the problem. Anger closes the door to opportunity; resolve opens it.

3. Anything you do in a plane is a combination of tasks. Take the learning hurdle at hand, write down every part of it, and try to identify a solution to the problem. Review your list with your instructor. As an instructor, I have been surprised several times when I saw what my student had written. It helped me revise my training plan.

4. Expand your horizons. Don't focus on the learning hurdle at hand. Read some aviation stories. Sit around an airport for a day and soak in the activity. Go to an air show. Talk with your EAA friends. Place your learning

## Sometimes a simple but honest comment to your instructor can make the difference.

hurdle into perspective by reminding yourself what a wonderful endeavor you are undertaking.

If you are considering becoming a sport pilot, your first hurdle may be finding a flight school, aircraft, or flight instructor that offers such training. Remember, your EAA membership comes with vast resources for obtaining information. You can research all facets of sport piloting by visiting EAA's website at [www.SportPilot.org](http://www.SportPilot.org). Or you can call the EAA Aviation Services staff at 888-322-4636. You'll find friendly specialists who can answer your questions.

Finally, consider getting some help from another training professional if you are fighting a hurdle. This can be a tough decision because emotions get involved. The student thinks, "If I ask my instructor for help from another instructor, she will be insulted." The instructor thinks, "If I suggest my student could be helped by another instructor, he will think I am giving up." Get over it! Your instructor is a professional who wants you to succeed. As a student, take charge of your learning and do what is best for you. In more than 45 years of aviation training I have seen hundreds of students and instructors helped by working together to resolve learning hurdles. Aviators help each other!

The famous aviator, explorer, and storyteller Antoine de Saint-Exupery once wrote, "I fly because it releases my mind from the tyranny of petty things..." Breathe in the wonder of flight and banish that training hurdle to the lower world of petty things.

You can do it! 

*Earl Downs holds commercial, multi-engine, certificated flight instructor and air transport pilot ratings. He owns Golden Age Aviation in Cushing, Oklahoma, and flies an Aeronca Champ and Kitfox Lite.*



# THE CHECKRIDE

The final test



EARL C. DOWNS, EAA 369805

**T**he final test necessary to earn a pilot certificate is called the practical test or checkride. This test is administered by a designated pilot examiner (DPE), who represents the FAA. The test involves both oral questions to determine your basic aviation knowledge and an actual flight to assess your skills.

Your flight instructor will determine when you are ready for the checkride, and you can be assured he or she won't send you for this test until you are ready. Flight instructors have a responsibility to properly prepare a student for the

checkride, and, frankly, their reputation is at stake, too. When the day arrives and your instructor says it's time for you to take your checkride, celebrate!

## WHAT HAPPENS?

Every checkride is conducted in accordance with the practical test standard (PTS) for the pilot certificate sought. The PTS is an FAA document that outlines the skills a pilot candidate must demonstrate. Understanding the PTS is one of the most important factors in completing a successful checkride. You can review

the appropriate sport pilot PTS for your category of LSA online; visit [www.SportPilot.org](http://www.SportPilot.org) and look under Training. It's likely your flight instructor will conduct much of your training using the PTS as a guide. Don't hesitate to ask your instructor about the PTS.

Your checkride will actually begin with a pre-test briefing, during which the DPE will check to make certain you and your aircraft qualify for the test. If you are organized, this could take as little as 15 minutes. The PTS includes a checklist to help applicants prepare, and your

flight instructor will help you, too. The DPE will review your training records and aircraft documents. All training records and flight instructor endorsements should be readable and easy to find.

The next phase of the checkride is the oral test. The PTS requires the applicant successfully demonstrate knowledge in several areas of operation, and this portion of the test is completed on the ground, prior to flight.

The DPE will spend about an hour asking you a variety of questions. Generally, the questions during this phase demonstrate your knowledge of the PTS Area of Operations. As an applicant, you also have a right to ask questions, too. The DPE's wording may differ from yours; if you don't understand the question, ask for clarification. Preparing for the oral questioning part of the checkride is just as important as making a good crosswind landing. A smooth oral will leave you relaxed and ready for the flight test. Have a friend quiz you as a practice session. It might soothe your nerves.

### THE FLIGHT TEST

The flight-testing phase starts when you and the DPE walk out to the aircraft to begin the preflight inspection and progress to the flight test. During the oral questioning, you will plan a cross-country trip, a flight to another airport 50 miles or more from your departing airport. The first part of your flight test

**The checkride is your opportunity to access the world of flying. While you may feel stressed in approaching this momentous occasion, remember that it's not an all-or-nothing experience.**

will be to begin the planned trip. The DPE will allow you to progress along the planned trip for a while and then move on to having you demonstrate other flight skills, including high-altitude maneuvers, steep turns, slow flight, and stalls.

You'll also be asked to demonstrate low-altitude maneuvers. You can expect a simulated emergency resulting in a simulated forced landing. The DPE will also ask you to perform some ground reference maneuvers and takeoffs and landings. In the introduction to the PTS, a section titled Special Emphasis Areas details a number of items an examiner must evaluate throughout the checkride, so the DPE may also ask you knowledge questions during the flight. Don't let the DPE's questions distract you from flying the plane;

that's your primary responsibility.

Typically, the flight phase of the test runs about 1.5 hours including the ground preflight time. Faster aircraft can reduce this time a bit because the cross-country flight goes quicker and multiple takeoffs and landings don't require as much traffic pattern time. Slower aircraft take more time for the cross-country portion of the test, but more time does not necessarily mean more work.

The final landing will complete the airborne portion of the checkride. There's also paperwork to be completed, and if you've had a successful checkride, you'll walk out as a certificated sport pilot.

### SUMMARY

The checkride is your opportunity to access the world of flying. While you may feel stressed in approaching this momentous occasion, remember that it's not an all-or-nothing experience. You'll get a second chance to pass the test, and the opportunity for more training, if things don't go right the first time.

Consider the checkride an opportunity to learn more about your new hobby. You'll be flying with someone who's recognized by the FAA as having considerable knowledge and skill, so learn what you can. Most examiners will do everything possible to put you at ease. They want the same outcome as you—another aviator to join them in the sky. *EAA*



Cessna 210





**FOR MORE INFORMATION ABOUT FORMING A PARTNERSHIP  
OR FLYING CLUB, VISIT [WWW.EAA.ORG](http://WWW.EAA.ORG)**

# SHARING THE COST

## Partnerships, flying clubs can get you more airplane

THOM RIDDLE, EAA 676777

The only one way I know that most of us can afford to own a new or nearly new factory-built light-sport aircraft (LSA) is to share the costs with other like-minded pilots. This article is about how to do that safely and successfully. I am merely sharing what I've learned from having done this myself twice—once with a Cherokee 140 and now with a nearly new factory-built LSA.

Aircraft cost-sharing arrangements have the greatest initial economic impact for frugal or under-funded pilots in two areas. One is in the actual purchase of the aircraft we would like to fly, and the second is the overhead expenses (such as hangar rental, insurance, maintenance, fuel, etc.) that derive from simple ownership of the machine. The direct operational costs can add up pretty quickly. Note that I included only the most basic ownership costs that most aircraft owners will incur, regardless of what state they live in. Some states have an annual ad valorem tax that must be paid.

Also, most joint ownership arrangements with three or more owners use some sort of scheduling service, such as [www.AircraftClubs.com](http://www.AircraftClubs.com).

There is nothing sacred about these numbers, but they are realistic for western New York, where our LSA is based. Plug in the numbers for your area and do the math.

### UNANTICIPATED COSTS

Although they can't be quantified here, other potential costs should be considered when looking at the possible economic benefits of a multiple-owner arrangement. For example, if you and the other pilots want to add optional equipment after flying the aircraft for a while, then you each

		ACQUISITION		ANNUAL OWNERSHIP	
		COST	SAVINGS	COST	SAVINGS
NUMBER OF PILOTS	1	\$60K	\$0	\$5,100	\$0
	2	\$30K	\$30k	\$2,550	\$2,550
	3	\$20K	\$40k	\$1,700	\$3,400
	4	\$15K	\$45k	\$1,275	\$3,825
	5	\$12K	\$48k	\$1,020	\$4,080





**This Fantasy Air Allegro 2000 is the airplane Thom's partnership group chose to purchase. As Thom wrote, the one way most of us can afford to buy and own a new or nearly new factory-built LSA is to share the costs with other like-minded pilots.**

share in the cost of these upgrades. After acquiring our airplane, we decided we needed a transponder, so we split the equipment and installation cost evenly. To keep the cost down, we bought a factory-refurbished transponder on eBay and had it installed by a local avionics shop for a total cost of about \$1,200. Split multiple ways, this was not nearly as painful as it would have been alone. We also decided to purchase a newer (more expensive) GPS to be kept in the airplane for all pilots to use instead of us each using our old personal GPS units. I would not have considered such a purchase by myself, but again, split multiple ways it was a relatively easy economic decision.

On a negative but realistic note, what happens if you incur an unexpected maintenance expense? We discovered cracked landing gear legs during our annual inspection and had to purchase new main gear legs at a cost of \$850, which would have been rather painful if I had not been able to share the cost with the other pilots. We also discovered a cracked exhaust system that we had repaired, but it broke again, so we ordered a new stainless steel exhaust (\$600) that has not had this problem. Again, the economic pain was minimal because of cost sharing.

Although this article emphasizes the benefits of cost sharing, other ways to economize will help you stretch your flying budget. For example, we bought our demo aircraft from a dealer when it had about 270 hours on it. We saved many thousands of dollars compared to the cost

of a new airplane, even though it is only two years old!

We selected an airplane with the 80-hp Rotax 912 engine rather than the 100-hp version and saved at least \$1,500. The performance difference between the two engines is negligible for our typical use. If we lived in an area that experienced high density altitude conditions or were carrying floats around, then the larger engine would have made more sense.


Another reason we wanted the 80-hp engine was because of its lower compression, which is quite happy with 87-octane auto fuel, whereas the 100-hp engine requires at least 91 octane and burns more fuel to boot. At \$3 per gallon and 4 gallons per hour compared to \$3.20 per gallon and 5 gallons per hour, we are saving \$4 per hour in fuel costs alone!

That leads me to a brief discussion of direct operational costs, which are generally borne by individual pilots based on actual hours flown. Though

generally not shared, they must be considered when calculating your personal flying budget.

The range in operational costs shown depends on the engine installed in your airplane. Some engines require special aviation fuel known as 100LL, which is more expensive than auto fuel, and some engines are more powerful with a higher fuel burn. The range of operational costs also depends upon the usage profile. If the airplane is used in a training environment or on rough fields, for example, ongoing maintenance may be higher.

If we combine the annual ownership costs with the direct operational costs, we can see clearly the economic benefit of cost sharing in aircraft ownership in terms of cost per hour.

All things considered, if you want to fly a new airplane and don't have the financial wherewithal to do it alone, I can think of no better way to get into the aircraft of your dreams than to find a number of like-minded pilots and share the costs in a rational, equitable way. The ingenuity and creativity of individuals designing and building recreational aircraft is what made EAA the organization it is today. When applied to aircraft ownership, those same virtues of ingenuity and creativity pay big dividends by making our flying dreams become a reality; even on a budget. 

*A retired mechanical engineer, Thom Riddle took his first flight in a light plane in 1966. A member of the Deaf Pilots Association, he flies LSA almost exclusively these days, because "they are more fun to fly than complex GA aircraft." He also holds an FAA powerplant mechanic rating.*



**A well-thought-out operating procedures document will prevent discontent among sharing partners, and should outline such issues as post-flight inspections, notification requirements, and aircraft grounding responsibilities.**

# ABOUT LIGHT-SPORT AIRCRAFT

## The category explained



MARY JONES

In other sections of this publication, we've introduced you to the sport pilot certificate, the easiest, least expensive pilot certificate to earn. Becoming a sport pilot is easier than any other pilot certificate because the training is limited to learning to fly a light-sport aircraft (LSA) in daylight conditions. But, what is an LSA?

The defining characteristics of LSA are:

- Maximum gross takeoff weight: 1,320 pounds, or 1,430 pounds for seaplanes/floatplanes.
- Maximum stall speed: 51 mph (45 knots).
- Maximum speed in level flight with maximum continuous power: 138 mph (120 knots).
- Single or two-seat only.
- Single, reciprocating engine (if powered), including rotary or diesel engines.
- Fixed or ground-adjustable propeller.
- Unpressurized cabin.
- Fixed landing gear, except for an aircraft intended for operation on water or as a glider.

Most aviation enthusiasts are readily familiar with fixed-wing airplanes; that's what we typically think of first when flying is mentioned. But there are other categories of aircraft that offer different flight experiences. In the LSA category, there are seven classes of aircraft:

- Fixed-wing airplanes
- Powered parachutes
- Weight-shift control aircraft (trikes)
- Balloons
- Airships
- Gliders
- Gyroplanes

In the "Guide to Special Light-Sport Aircraft" (see pages 31-40), you'll find a listing of special LSA (S-LSA). These are aircraft that are approved for sale as ready-to-fly aircraft. That is, you can buy one today and fly it tomorrow, theoretically. Generally speaking, you'll likely have to wait anywhere from a few weeks to a few months to take delivery of your aircraft as sales currently outpace production for many models.





Tecnam Bravo

Most of these S-LSA are fixed-wing airplanes, but among those aircraft are powered parachutes and trikes, which offer the most open-air flying experience available. Want to fly with the breeze in your face? Look into a powered parachute or trike!

Powered parachutes are essentially two-seat, three-wheeled carts with fixed landing gear that are pushed by an engine mounted behind the pilot and passenger with a parafoil wing overhead. Powered parachutes average a maximum cruising speed of 26 to 30 mph and are easy to learn to fly. Power is typically added or reduced by a single, hand-controlled lever while foot pedals control steering.

A powered parachute is a great machine for around-the-patch flying...a great way to begin or end a busy day. Powered parachutes typically aren't flown in windy conditions; that makes the quiet air of the early morning or late evening perfect for powered parachute flying.


Weight-shift trikes also offer "wind in your face flying," but with a bit more versatility than a powered parachute. Trikes also feature two-seat carriages with fixed landing gear and pusher-mounted engines, but their wings are rigid, have a triangular shape, and are fabric-covered, typically using high-tech fabrics. Trikes are steered via a control bar that turns

the wing of the aircraft in the desired direction of flight while power is added or reduced via a foot pedal.

Many trikes' carriages will accommodate various wings that have different performance characteristics; some trike wings fly faster than others. Their cruise speeds can vary from 25 to 100 mph. Newcomers to trike flying are advised to start out with lower performance, slower wings. Because trikes have wings of varying performance levels, many trike pilots whose machines reach higher speeds consider them viable cross-country fliers, with a great view to boot!

Other LSA types include lighter-than-air balloon, airships, gliders, and gyroplanes. Currently, no models of these aircraft are available as ready-to-fly machines, though some gliders and gyroplanes are available in kits.

Constructing an aircraft is a great way to save money on the price of the aircraft and to intimately learn about it. To learn more about the option of building an aircraft, read *Building Your Own Airplane* on pages 27-30. For a complete listing of aircraft, including many fixed-wing airplanes, that you can build and fly as a sport pilot, visit EAA's sport pilot website, [www.SportPilot.org](http://www.SportPilot.org), and click on "Aircraft" and then "Experimental Light-Sport Aircraft."

The variety of LSA available makes it likely you'll find an aircraft that meets your flying needs. And think of the fun you can have on the "test drive"! 

**"WANT TO FLY WITH THE BREEZE IN YOUR FACE?  
LOOK INTO A POWERED PARACHUTE OR TRIKE!"**



Progressive Aerodyne SeaRey



Gemini Powered Parachute

# BUILDING YOUR OWN AIRPLANE

## An affordable alternative

LAURAN PAINE JR. EAA 582274



Lauran Paine is all smiles as he Clecos the fuselage sides together in preparation for riveting the all-metal airplane.

**T**hinking about building an airplane? If you're thinking about it, you're halfway there! You already recognize that flying is special and building your own airplane would make it even more special. And then the doubts creep in: Can I? Should I? Can I afford it? I'll answer all three questions for you at once: Yes! Let me take you down the path to building an airplane, so that when you finish reading, you will also answer: Yes!

But first I want to talk about the Wright brothers. They were the first aircraft homebuilders, and I want you to take notice of some of their characteristics. They were both bright and inquisitive. Few can match them on either of those two counts. But along with being bright and inquisitive, they also believed and persevered. Those latter two qualities are what held the dream of flight together. And you can match them there. Think about it: they were living in a time when there was no such thing as powered flight. None!

Skeptics regularly called the brothers "crazy" and "fools." But the crazy fools believed and persisted and, eventually, gave us the beginnings of powered flight that we enjoy to this day. What I'm saying is that you too can build an airplane by believing and persisting.

I'm taking you down the path of aircraft homebuilding because I've been there, and other than marrying my bride and the births of our two children, it is the most satisfying and rewarding thing I've ever done. That's a strong statement, I know. But it's a testament to how rewarding the journey is. It took me seven years to build my airplane. Building

**Build the airplane that your heart leads you to. Building an airplane shouldn't be work; it is a journey of the heart.**

can reward you with satisfaction and happiness. Some people never find those things. Most homebuilders

do. Aircraft homebuilding is doing. Therein lies the joy. The reason aircraft homebuilding is so enjoyable is that you work with your mind and your hands, and from that you reap genuine satisfaction.



## **". . . if you can chew gum and walk in a straight line at the same time, you have the skills to build an airplane."**

Who are you to build an airplane? Let me give you some builder profiles, and you can see where you fit in. Some set up shop, buy a "quick build" kit (all the big parts are already built; you have but to assemble them) and "git 'er done" in a year or less. The quick-build method takes less time but costs more money. But it works well if you're in a hurry or don't have enough spare time. Many buy a "standard kit." You assemble all the little pieces into the whole. It takes longer to finish but is less expensive. That's the route I took. Some, called scratchbuilders, just buy plans and make their own parts to assemble. These are the purists, and I admire them. Some take the aforementioned year to finish, and some take three to five, the latter probably being the average. Some take seven, like me. Some take 12. Some take 20. Some never finish, but they never really stop,

either. They just enjoy building. And, of course, some stop and never finish and then sell their airplane parts. If it's not for you, it's not for you.

All of the above are okay. You fall somewhere in the above categories. And, this is where belief and perseverance come in: when you believe and persevere, you will finish and fly your airplane and enjoy the reward and satisfaction. That is, after all, the goal, and you can accomplish it!

What type of airplane should you build? Simple: pick the one that moves you; the one that tickles your fancy; the one that you like to look at; the one that you see yourself sitting in. The one that you'll be proud to be seen sitting in; the one that you love; the one that grabs your heart and tugs; the one that will be one with you in the sky. Get the picture? Build the airplane that your heart leads you

to. Building an airplane shouldn't be work; it is a journey of the heart. With that kind of relationship with your project, you will complete it.

I was smitten by what the airplane I built offered me: tandem seating, stick, canopy, and feather-light ailerons. To this day, after I fly it, I park it in front of my hangar, sit on the park bench that is inside of my hangar, eat my sandwich, and look at my airplane. Just look at it. My eyes wander around it, thinking of the parts I put together to make the whole. It was as close as someone of my gender can come to giving birth.

Do you wonder about having the skills or time to build? You're not alone. So let me tell you this: if you can chew gum and walk in a straight line at the same time, you have the skills to build an airplane. Stay with me! Walking and chewing gum are learned. So, you can learn to work with aluminum or fiberglass or aircraft fabric. To squeeze a rivet, torque a bolt, cut Plexiglas, and fit a canopy. You can learn all of the above...and more. You can learn by going to a class, a seminar, a forum at EAA AirVenture Oshkosh and by asking someone or by reading a book. But mostly you'll learn by doing. After you've learned the required skill, you then apply it to your airplane. The learning is incremental; it's also very satisfying. New skills are new horizons; you grow with your project.

Time? I know, we're all busy. But I also know that we make time for what we want to do. Family first, and then make a living, but trust me, when your project moves you, you'll find the time. It will not be a chore in your life; it will be a part of your life. And I can say, without equivocation, that it beats the heck out of daytime TV.

Where to build, and what about tools? Build your plane in your bedroom; I don't care. Just build. People build in their garages and hangars. Those are the obvious places. They also build in barns, sheds, apartments, basements, living rooms, and wherever. Whatever works for you, works. Eventually you will need to work your way to an airport, but that's all part of the evolution of your project. Perseverance makes things happen!

Tools? Now we're talking fun. Who doesn't like tools? Certainly no one I know. You already have a lot of



Parts for Luran Paine's RV-8 arrived in this crate, which is typical of many homebuilts. And, it's a thumbs-up after the first flight in his mini-fighter.





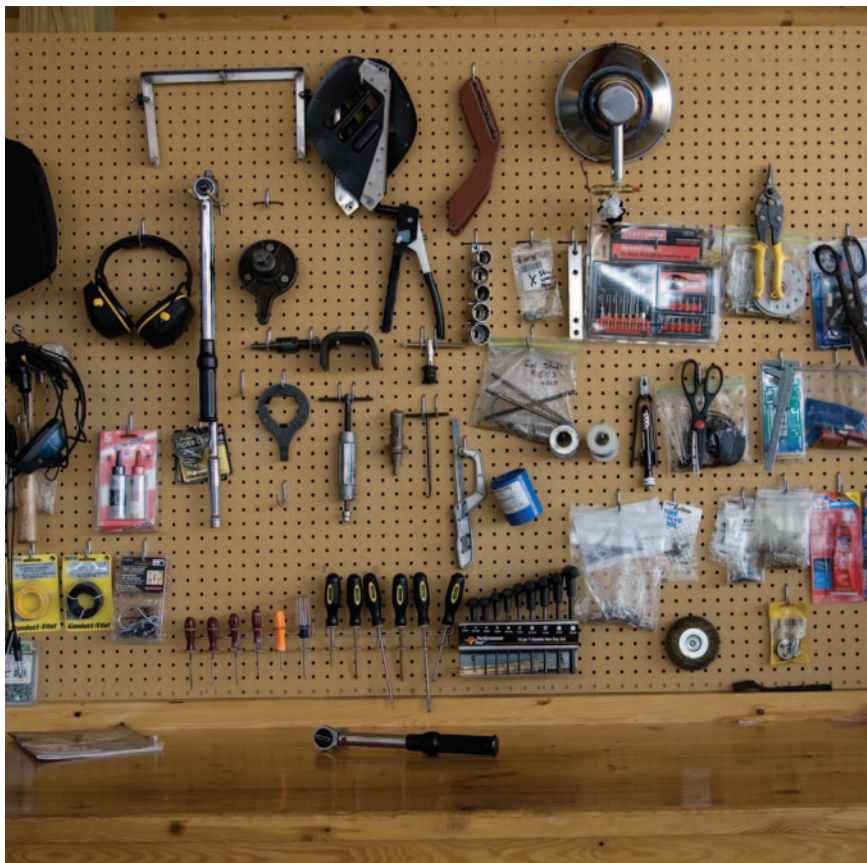
the ones you need. They're just the everyday variety of tools: sockets, wrenches, screwdrivers, electric drill, and such. You'll need some specialty tools, too, but you can buy them incrementally, as you need them. You can also buy "starter kits" of aircraft tools from aircraft supply companies for between \$400 and \$800. You can then fill in from there, as desired. My money-saving tip: don't buy every widget known to mankind; you don't need them. Just buy what you need, when you need it. And then this will happen: your friend will walk into your garage and ask, "What's that?" You'll say, "A nibbler." And then he'll point and say, "And that?" You'll answer, "A plate-nut drill jig." Your friend will continue with, "And what are those?" You'll say, "Bucking bars." And all that'll just make you feel smarter than a cow in tall grass.

Okay, I touched on it in the last paragraph, so let's get it out in the open right now: the money thing. It costs money to build an airplane. But I took economics in college, and here's what I learned: money happens. You make money and you spend money. And you spend it on what you need and want. If an airplane is what you want, then an airplane is what you'll spend your money on. What I'm saying is, you can make it happen financially. You can buy plans in the \$100 range. You can buy some aluminum angle for a lot less than that and make an aileron bracket out of it by using your plans. Or you can kick it up a notch and buy a tail kit from Van's Aircraft for around \$1,500. Either way, you have a beginning. And that is step No. 1.

One of the beauties of homebuilding is that you can do it incrementally, as money, time, and space allow. Buy the tail kit, save money while you're building it, buy the wings, save money while you're building them, buy the fuselage, and so on. It wasn't included in my economics class, but building an airplane is one of the least expensive ways to own one. I built my airplane for around \$45,000. That may sound like a lot, but it's spread over seven years. It works out to around \$6,500 a year, a manageable sum for recreation. You can build for less. And you can build for more. For my money I got a 200-mph plane with an 800-mile range



EAA's volunteer Technical Counselor program offers on-site advice through experienced aircraft builders who visit members' projects and offer guidance. To learn more visit, [http://members.eaa.org/home/homebuilders/about/tech\\_counselors.html](http://members.eaa.org/home/homebuilders/about/tech_counselors.html)

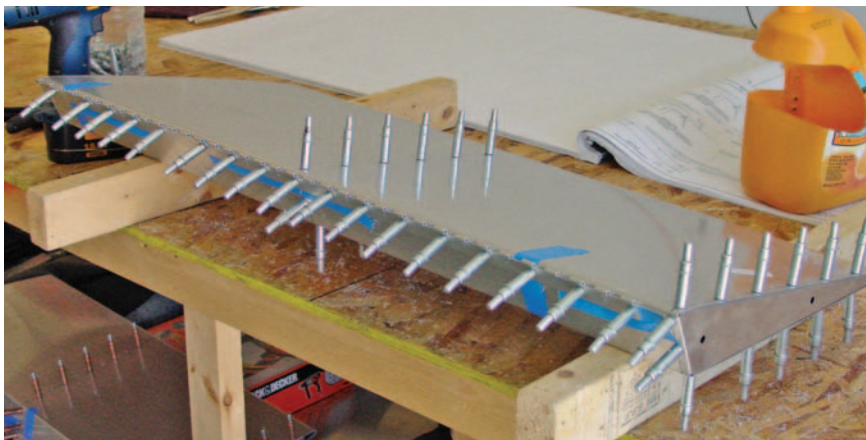


You probably already have many of the tools you'd need to build an airplane...socket wrenches, an electric drill, screwdrivers. You'll need some specialty tools, but you buy them as needed or borrow from a fellow builder.





A great place to learn new skills for your homebuilt project is at EAA AirVenture Oshkosh, where every year 500-plus forums and hands-on workshops will teach you what you need to know.



Today's homebuilt kit is professionally developed and organized and many companies offer the option to order the kits in stages as your wallet and building schedule accommodate. This is a control surface for a Sonex.


that will roll around the sky like a feather in a light breeze. Some expensive cars give "image"; my airplane gives me joy. Give me joy over image eight days a week.

Now...about your airplane. You've chosen it and decided you can do it—decided you will do it. You are underway. Congratulations! Now put some tools and aircraft parts in your hands and the recipe is complete. So now let me say a little something about the frosting on the cake: where you sit in the airplane—the cockpit—is your nest. Build it like you like it! I have my own philosophy about that: "If it

ain't required, don't put it in." But that's just me; I fly for fun. But if you want all the bells and whistles, by all means, put them in.

When you complete the process of building your airplane, there's something that happens: you become a little more confident and self-assured when it comes to accomplishing tasks. And you know why, right? Because, by building your own airplane, you learned, overcame, and accomplished. And you can be certifiably proud of that. It helps to make accomplishment a habit. No matter if you're 8 or 80, the feeling is the same.

And there's something else that happens in your journey down the homebuilding path: you become part of a community. Not just any community, but a community of people who represent life as it should be. They work hard, they laugh a lot, they play, they love family, they help, they can be trusted, they're friendly, and they're happy. It just sort of happens by osmosis: you're building and someone knows someone else who is building who knows someone who is building the same type of airplane you're building. And so on. Friends are suddenly everywhere. Encouragement is everywhere. The EAA has chapters everywhere, full of people willing to help. And all of that is mighty good for the soul...and your airplane.

Use your heart, pick your plane, let go of a few of your hard-earned dollars, lay your hands on some tools and airplane parts, and feel the joy. You'll continue to feel that joy every time you work on your airplane. Then, one day, you'll push the throttle up and you and your plane will become one with the sky. How's it get any better than that? It doesn't. Not in my book. And that is exactly why I wanted to share aircraft homebuilding with you. It's a wonderful journey! 

# SPECIAL LIGHT-SPORT AIRCRAFT

Compiled by Timm Bogenhagen and Joe Norris, EAA Aviation Services

**IN THE FOLLOWING PAGES** you'll find a catalog of the aircraft that have been approved as special light-sport aircraft (S-LSA) as of June 1, 2007. This list includes fixed-wing airplanes, powered parachutes, and weight-shift trikes. Earlier in this guide (see "About Light-Sport Aircraft") we reported there are seven categories of LSA. To date, no manufacturer has earned S-LSA approval for any balloons or airships.

An S-LSA is a factory-built, ready-to-fly aircraft designed and constructed in accordance with the ASTM consensus standards for light-sport aircraft (LSA). In addition to recreational flying, S-LSA can be rented and used for flight instruction. They must be maintained and inspected by an LSA repairman with a maintenance certificate, a standard FAA aircraft maintenance rating, known as an airframe and powerplant (A&P) rating, or at an FAA authorized repair station. Pilots can perform preventive maintenance on S-LSA.

Private owners of these aircraft may change an S-LSA's airworthiness certificate to experimental light-sport aircraft status (E-LSA). This allows the owner to perform the annual condition inspection after attending a 16-hour course to obtain a LSA repairman inspection certificate. However, once an S-LSA is certificated as an E-LSA, it may no longer be used for rental or commercial flight training. >



Rod Karmenzind





### MODEL: AIRBORNE XT 912 OUTBACK

Distributor/East Coast: Precision Windsports Forest, Virginia	Gross weight: 992 pounds
Website: <a href="http://www.PrecisionWindsports.com">www.PrecisionWindsports.com</a>	Empty weight: 483 pounds
Phone: 434-851-6804	Useful load: 509 pounds
Distributor/West Coast: U.S. AirBorne Sport Aviation Center	Range: 325 miles
Asotin, Washington	Cruise (75 percent): 60 mph
Website: <a href="http://www.USAirBorne.com">www.USAirBorne.com</a>	Stall (with flaps): 34 mph
Phone: 509-243-4988/269-467-9572	Fuel capacity: 18.5 gallons
Manufacturer: AirBorne Australia	Engine: Rotax 912
Manufactured in: Australia	Cockpit width: open
	Construction: N/A
	Base price: \$42,479



### MODEL: AIRWOLF 912

Distributor: Powrachute Corporation Middleville, Michigan	Useful load: 664 pounds
Website: <a href="http://www.Powrachute.com">www.Powrachute.com</a>	Range: 150 miles
Phone: 574-286-9670	Cruise (75 percent): 35 mph
Manufacturer: Powrachute Corporation	Fuel capacity: 15 gallons
Manufactured in: USA	Engine: Rotax 912S
Gross weight: 1,150 pounds	Cockpit width: open
Empty weight: 486 pounds	Construction: Aluminum tube
	Base price: \$31,710



### MODEL: ALLEGRO 2000

Distributor: Fantasy Air USA Sanford, North Carolina	Range: 350 miles
Website: <a href="http://www.FantasyAirUSA.com">www.FantasyAirUSA.com</a>	Cruise (75 percent): 120 mph
Phone: 919-775-2224	Stall (with flaps): 40 mph
Manufacturer: Fantasy Air	Fuel capacity: 17 gallons
Manufactured in: Czech Republic	Engine: Rotax 912
Gross weight: 1,320 pounds	Cockpit width: 44 inches
Empty weight: 628 pounds	Construction: Composite fuselage, Aluminum wing
Useful load: 692 pounds	Base price: \$76,000



### MODEL: BRAVO

Distributor: Tecnam USA Marietta, Georgia	Useful load: 590 pounds
Website: <a href="http://www.TecnamAircraft.com">www.TecnamAircraft.com</a>	Range: 725 miles
Phone: 770-309-4155	Cruise (75 percent): 133 mph
Manufacturer: Tecnam Costruzioni Aeronautiche	Stall (with flaps): 43 mph
Manufactured in: Italy	Fuel capacity: 26.4 gallons
Gross weight: 1,320 pounds	Engine: Rotax 912
Empty weight: 730 pounds	Cockpit width: 45 inches
	Construction: Aluminum
	Base price: \$93,234



### MODEL: BREEZER

Distributor: SportsPlanes.com Draper, Utah	Range: 497 miles
Website: <a href="http://www.SportsPlanes.com">www.SportsPlanes.com</a>	Cruise (75 percent): 120 mph
Phone: 801-420-6176	Stall (with flaps): 41 mph
Manufacturer: Comco Ikarus	Fuel capacity: 18.5 gallons
Manufactured in: Germany	Engine: Rotax 912
Gross weight: 1,320 pounds	Cockpit width: 44 inches
Empty weight: 704 pounds	Construction: Aluminum
Useful load: 616 pounds	Base price: \$108,000



### MODEL: C-42

Distributor: SportsPlanes.com Draper, Utah	Range: 450 miles
Website: <a href="http://www.SportsPlanes.com">www.SportsPlanes.com</a>	Cruise (75 percent): 92 mph
Phone: 801-420-6176	Stall (with flaps): 38 mph
Manufacturer: Comco Ikarus	Fuel capacity: 17 gallons
Manufactured in: Germany	Engine: Rotax 912
Gross weight: 1,141 pounds	Cockpit width: 48 inches
Empty weight: 593 pounds	Construction: Composite, aluminum, Dacron
Useful load: 548 pounds	Base price: \$84,000

### MODEL: CALYPSO SP

Distributor: Jabiru USA	Range: 495 miles
Shelbyville, Tennessee	Cruise (75 percent): 115 mph
Website: www.USJabiru.com	Stall (with flaps): 40 mph
Phone: 800-522-4781	Fuel capacity: 17.1 gallons
Manufacturer: Jabiru Australia	Engine: Jabiru 2200, 3300
Manufactured in: Australia & USA	Cockpit width: 42 inches
Gross weight: 1,100 pounds	Construction: Composite
Empty weight: 552 pounds	Base price: \$69,900
Useful load: 548 pounds	



### MODEL: COMMANDER SE 582

Distributor: Infinity Power Parachutes	Useful load: 620
Sturgis, Michigan	Range: 50 mi
Website: www.InfinityPowerchutes.com	Cruise (75 percent): 30 mph
Phone: 269-659-9113	Fuel capacity: 10 gallons
Manufacturer: Infinity Power Parachutes	Engine: Rotax 582/Rotax 912S
Manufactured in: USA	Cockpit width: Open
Gross weight: 1,000 lbs.	Construction: Aluminum tube
Empty weight: 380	Base price: \$20,995



### MODEL: CT

Distributor: Flight Design USA	Range: 1,080 miles
Woodstock, Connecticut	Cruise (75 percent): 128 mph
Website: www.FlightDesignUSA.com	Stall (with flaps): 45 mph
Phone: 860-963-7272	Fuel capacity: 34 gallons
Manufacturer: Flight Design GmbH	Engine: Rotax 912S
Manufactured in: Germany	Cockpit width: 49 inches
Gross weight: 1,320 pounds	Construction: Composite
Empty weight: 649 pounds	Base price: \$94,980
Useful load: 671 pounds	



### MODEL: DELTA JET 912

Distributor: Tampa Bay Aero (U.S. Built)	Range: 390 miles
Zephyrhills, Florida	Cruise (75 percent): 85 mph
Website: www.TampaBayAeroSport.com	Stall (with flaps): 40 mph
Phone: 813-786-8290	Fuel capacity: 14.5 gallons
Manufacturer: Apollo Aircraft	Engine: Rotax 912
Manufactured in: Hungary	Cockpit width: open
Gross weight: 1,040 pounds	Construction: Aluminum
Empty weight: 530 pounds	Base price: \$43,000
Useful load: 510 pounds	



### MODEL: ECHO SUPER

Distributor: Tecnam USA	Useful load: 650 pounds
Marietta, Georgia	Range: 675 miles
Website: www.TecnamAircraft.com	Cruise (75 percent): 128 mph
Phone: 770-309-4155	Stall (with flaps): 43 mph
Manufacturer: Tecnam Costruzioni Aeronautiche	Fuel capacity: 26 gallons
Manufactured in: Italy	Engine: Rotax 912S
Gross weight: 1,320 pounds	Cockpit width: 44 inches
Empty weight: 670 pounds	Construction: Aluminum
	Base price: \$89,026



### MODEL: EUROFOX

Distributor: Rollison Light Sport Aircraft	Range: 570 miles
Bloomfield, Indiana	Cruise (75 percent): 110 mph
Website: www.Eurofox-USA.com	Stall (with flaps): 40 mph
Phone: 812-384-4972	Fuel capacity: 22.5 gallons
Manufacturer: AeroPro	Engine: Rotax 912 or 912S
Manufactured in: Slovakia	Cockpit width: 44 inches
Gross weight: 1,232 pounds	Construction: Steel tube and fabric w/ folding wings
Empty weight: 677 pounds	
Useful load: 555 pounds	Base price: \$59,950







### MODEL: FAETA

Distributor: Atec Aircraft USA	Range: 700 miles
Rigby, Idaho	Cruise (75 percent): 138 mph
Website: www.AtecAircraft.com	Stall (with flaps): 39 mph
Phone: 208-528-4121	Fuel capacity: 18.2 gallons
Manufacturer: Atec Aircraft	Engine: Rotax 912S
Manufactured in: Czech Republic	Cockpit width: 44 inches
Gross weight: 1,212 pounds	Construction: Composite
Empty weight: 600 pounds	Base price: N/A
Useful load: 612 pounds	



### MODEL: FESTIVAL

Distributor: LightSportFlying.com	Useful load: 478 pounds
Arlington, Tennessee	Range: N/A
Website: www.LightSportFlying.com	Cruise (75 percent): 110 mph
Phone: 901-481-1934	Stall (with flaps): 41 mph
Manufacturer: Aerostar	Fuel capacity: 21.2 gallons
Manufactured in: Romania	Engine: Rotax 912S
Gross weight: 1,320 pounds	Cockpit width: 44 inches
Empty weight: 842 pounds	Construction: Aluminum
	Base price: \$75,500



### MODEL: FK9 B MARK IV

Distributor: FK Lightplanes USA	Range: 450 miles
Pembroke Pines, Florida	Cruise (75 percent): 120 mph
Website: www.FK-LightplanesUSA.com	Stall (with flaps): 39 mph
Phone: 954-965-6000	Fuel capacity: 16 gallons
Manufacturer: FK Lightplanes	Engine: Rotax 912S
Manufactured in: Germany	Cockpit width: 43 inches
Gross weight: 1,146 pounds	Construction: Composite fuselage,
Empty weight: 590 pounds	aluminum folding wings
Useful load: 556 pounds	Base price: \$84,500



### MODEL: FREEDOM S100

Distributor: LSA Aero	Range: 535 miles
Tanner, Alabama	Cruise (75 percent): 112 mph
Website: www.LSA-Aero.com	Stall (with flaps): 41 mph
Phone: 256-355-1022	Fuel capacity: 23 gallons
Manufacturer: Colyaer Products	Engine: Rotax 912S
Manufactured in: Spain	Cockpit width: 47 inches
Gross weight: 1,430 pounds	Construction: Composite amphibian
Empty weight: 854 pounds	Base price: \$117,406
Useful load: 576 pounds	



### MODEL: GTE 912

Distributor: Air Création USA	Range: 300 miles
Rimrock, Arizona	Cruise (75 percent): 65 mph
Website: www.AirCreation.net	Stall (with flaps): 39 mph
Phone: 623-566-8026	Fuel capacity: 16 gallons
Manufacturer: Air Création	Engine: Rotax 912
Manufactured in: France	Cockpit width: open
Gross weight: 998 pounds	Construction:
Empty weight: 498 pounds	Base price: \$35,000
Useful load: 494 pounds	



### MODEL: HIGHLANDER

Distributor: Just Aircraft	Range: 485 miles
Walhalla, South Carolina	Cruise (75 percent): 105 mph
Website: www.JustAircraft.com	Stall (with flaps): 23 mph
Phone: 864-718-0320	Fuel capacity: 18 gallons
Manufacturer: Just Aircraft	Engine: Rotax 912S
Manufactured in: USA	Cockpit width: 44 inches
Gross weight: 1,320 pounds	Const.: Steel tube & fabric/folding wings
Empty weight: 620 pounds	Base price: \$95,000
Useful load: 700 pounds	

### MODEL: J-170

Distributor: Jabiru USA	Range: 1,035 miles
Shelbyville, Tennessee	Cruise (75 percent): 115 mph
Website: www.USJabiru.com	Stall (with flaps): 44 mph
Phone: 800-522-4781	Fuel capacity: 35 gallons
Manufacturer: Jabiru Australia	Engine: Jabiru 2200
Manufactured in: Australia & USA	Cockpit width: 44.9 inches
Gross weight: 1,200 pounds	Construction: Composite
Empty weight: 638 pounds	Base price: \$79,900
Useful load: 562 pounds	



### MODEL: J-250

Distributor: Jabiru USA	Range: 966 miles
Shelbyville, Tennessee	Cruise (75 percent): 138 mph
Website: www.USJabiru.com	Stall (with flaps): 45 mph
Phone: 800-522-4781	Fuel capacity: 36 gallons
Manufacturer: Jabiru Australia	Engine: Jabiru 3300
Manufactured in: Australia & USA	Cockpit width: 44.9 inches
Gross weight: 1,320 pounds	Construction: Composite
Empty weight: 780 pounds	Base price: \$92,900
Useful load: 540 pounds	



### MODEL: KP-5

Distributor: Kappa Aircraft	Range: 630 miles
Pocono Pines, Pennsylvania	Cruise (75 percent): 125 mph
Website: www.KappaAircraft.com	Stall (with flaps): 38 mph
Phone: 570-839-6450	Fuel capacity: 25 gallons
Manufacturer: Jihlavan Industries	Engine: Rotax 912S
Manufactured in: Czech Republic	Cockpit width: 47.2 inches
Gross weight: 1,278 pounds	Construction: Aluminum
Empty weight: 695 pounds	Base price: \$100,000
Useful load: 583 pounds	



### MODEL: LEGEND CUB

Distributor: American Legend Aircraft	Useful load: 445 pounds
Company:	Range: 315 miles
Sulphur Springs, Texas	Cruise (75 percent): 95 mph
Website: www.Legend.aero	Stall (with flaps): 34 mph
Phone: 903-885-7000	Fuel capacity: 22 gallons
Manufacturer: American Legend Aircraft	Engine: Continental O-200
Company	Cockpit width: 28.5 inches
Manufactured in: USA	Construction: Steel tube and fabric
Gross weight: 1,320 pounds	Base price: \$84,785
Empty weight: 875 pounds	



### MODEL: LUSCOMBE SILVAIRE LSA-8

Distributor: Luscombe Silvaire Aircraft	Useful load: 440 pounds
Company: Riverside, California	Range: 500 miles
Website: www.Luscombe-Silvaire.com	Cruise (75 percent): 120 mph
Phone: 866-SILVAIR or 952-682-5385	Stall (with flaps): 44 mph
Manufacturer: Luscombe Silvaire Aircraft	Fuel capacity: 30 gallons
Company	Engine: Continental O-200
Manufactured in: USA	Cockpit width: 38 inches
Gross weight: 1,320 pounds	Construction: Aluminum
Empty weight: 880 pounds	Base price: \$90,000



### MODEL: MERMAID

Distributor: Sport Aircraft Works	Range: 620 miles
Palm City, Florida	Cruise (75 percent): 118 mph
Website: www.SportAircraftWorks.com	Stall (with flaps): 32 mph
Phone: 772-223-8915	Fuel capacity: 30 gallons
Manufacturer: Czech Aircraft Works	Engine: Jabiru 3300
Manufactured in: Czech Republic	Cockpit width: 46 inches
Gross weight: 1,430 pounds	Construction: Aluminum amphibian
Empty weight: 925 pounds	Base price: \$91,000
Useful load: 505 pounds	







### MODEL: MYSTIQUE

Distributor: LSA America, Inc. Sanford, North Carolina	Range: 500 miles
Website: <a href="http://www.LSAAmerica.com">www.LSAAmerica.com</a>	Cruise (75 percent): 115 mph
Phone: 919-776-8606	Stall (with flaps): 40 mph
Manufacturer: Interplane Aircraft	Fuel capacity: 18
Manufactured in: Czech Republic	Engine: Rotax 912
Gross weight: 1,320 pounds	Cockpit width: 42 inches
Empty weight: 570 pounds	Construction: Composite
Useful load: 750 pounds	Base price: \$79,000



### MODEL: PARROT

Distributor: Sport Aircraft Works Palm City, Florida	Range: 500 miles
Website: <a href="http://www.SportAircraftWorks.com">www.SportAircraftWorks.com</a>	Cruise (75 percent): 130 mph
Phone: 772-223-8915	Stall (with flaps): 35 mph
Manufacturer: Czech Aircraft Works	Fuel capacity: 26 gallons
Manufactured in: Czech Republic	Engine: Rotax 912, Jabiru 3300
Gross weight: 1,320 pounds	Cockpit width: 46 inches
Empty weight: 793 pounds	Construction: Aluminum
Useful load: 527 pounds	Base price: \$83,500



### MODEL: REMOS G-3

Distributor: Remos USA, Inc. Fullerton, California	Range: 635 miles
Website: <a href="http://www.Remos.com">www.Remos.com</a>	Cruise (75 percent): 130 mph
Phone: 888-838-9879	Stall (with flaps): 45 mph
Manufacturer: Remos Aircraft GmbH	Fuel capacity: 22 gallons
Manufactured in: Germany	Engine: Rotax 912S
Gross weight: 1,320 pounds	Cockpit width: 45 inches
Empty weight: 625 pounds	Construction: Composite, w/folding wings
Useful load: 704 pounds	Base price: \$99,500



### MODEL: STORM RALLY

Distributor: Air Elite Aviation Jackson, Michigan	Range: 920 miles
Website: <a href="http://www.AirEliteAviation.com">www.AirEliteAviation.com</a>	Cruise (75 percent): 123 mph
Phone: 269-273-8441	Stall (with flaps): 40 mph
Manufacturer: Prestige Aircraft	Fuel capacity: 35 gallons
Manufactured in: United States	Engine: Rotax 912S
Gross weight: 1,320 pounds	Cockpit width: 43.7 inches
Empty weight: 760 pounds	Construction: Composite
Useful load: 560 pounds	Base price: \$95,900



### MODEL: S-7LS COURIER

Distributor: RANS Inc. Hays, Kansas	Range: 341 miles
Website: <a href="http://www.RANS.com">www.RANS.com</a>	Cruise (75 percent): 110 mph
Phone: 785-625-6346	Stall (with flaps): 45 mph
Manufacturer: RANS Inc.	Fuel capacity: 18 gallons
Manufactured in: USA	Engine: Rotax 912S
Gross weight: 1,232 pounds	Cockpit width: 30 inches
Empty weight: 750 pounds	Construction: Steel tube/fabric-covered
Useful load: 482 pounds	Base price: \$80,000



### MODEL: SAVAGE

Distributor: Savage Aircraft Sales Manitowoc, Wisconsin	Range: 447 miles
Website: <a href="http://www.SavageAircraftSales.com">www.SavageAircraftSales.com</a>	Cruise (75 percent): 104 mph
Phone: 920-726-5260	Stall (with flaps): 38 mph
Manufacturer: Zlin Aviation	Fuel capacity: 18 gallons
Manufactured in: Czech Republic	Engine: Rotax 912
Gross weight: 1,235 pounds	Cockpit width: 27 inches
Empty weight: 639 pounds	Construction: Steel tube and fabric
Useful load: 596 pounds	Base price: \$54,000

### MODEL: SAVANNAH/SAVANNAH VG

Distributor: Skykits USA Corporation	Range: 425 miles
High River, Alberta, Canada	Cruise (75 percent): 90/95 mph
Website: www.Skykits.com	Stall (with flaps): 28/32 mph
Phone: 403-601-8700	Fuel capacity: 21 gallons
Manufacturer: ICP/Skykits	Engine: Rotax 912
Manufactured in: Italy	Cockpit width: 42 inches
Gross weight: 1,234 pounds	Construction: Aluminum
Empty weight: 698 pounds	Base price: \$59,995
Useful load: 634 pounds	



### MODEL: SAVANNAH ADV

Distributor: Skykits USA Corporation	Range: 455 miles
High River, Alberta, Canada	Cruise (75 percent): 115 mph
Website: www.Skykits.com	Stall (with flaps): 32 mph
Phone: (403) 601-8700	Fuel capacity: 21 gallons
Manufacturer: ICP/Skykits	Engine: Rotax 912
Manufactured in: Italy	Cockpit width: 42 inches
Gross weight: 1,234 pounds	Construction: Aluminum
Empty weight: 698 pounds	Base price: \$71,995
Useful load: 634 pounds	



### MODEL: SIERRA

Distributor: Tecnam USA	Useful load: 590 pounds
Marietta, Georgia	Range: 678 miles
Website: www.TecnamAircraft.com	Cruise (75 percent): 133 mph
Phone: 770-309-4155	Stall w/flaps: 44 mph
Manufacturer: Tecnam Costruzioni	Fuel capacity: 26 gallons
Aeronautiche	Engine: Rotax 912S
Manufactured in: Italy	Cockpit width: 43 inches
Gross weight: 1,320 pounds	Construction: Aluminum
Empty weight: 730 pounds	Base price: \$95,338



### MODEL: SKY ARROW

Distributor: Pacific Aerosystems	Useful load: 480 pounds
El Cajon, California	Range: 367 miles
Website: www.SkyArrowUSA.com	Cruise (75 percent): 109 mph
Phone: 619-631-0462	Stall (with flaps): 44 mph
Manufacturer: Iniziative Industriali Italiane S.p.A.	Fuel capacity: 18 gallons
Manufactured in: Italy	Engine: Rotax 912S
Gross weight: 1,320 pounds	Cockpit width: 26 inches
Empty weight: 840 pounds	Construction: Composite
	Base price: \$66,600



### MODEL: SKYBOY

Distributor: LSA America, Inc.	Range: 160 miles
Sanford, North Carolina	Cruise (75 percent): 90 mph
Website: www.LSAAmerica.com	Stall (with flaps): 40 mph
Phone: 919-776-8606	Fuel capacity: 10 gallons
Manufacturer: Interplane Aircraft	Engine: Rotax 912, Jabiru 2200
Manufactured in: Czech Republic	Cockpit width: 45 inches
Gross weight: 1,320 pounds	Construction: Aluminum tube, fabric wing
Empty weight: 770 pounds	Base price: \$64,000
Useful load: 550 pounds	



### MODEL: SKYLARK DV-1

Distributor: SportsPlanes.com	Range: 525 miles
Draper, Utah	Cruise (75 percent): 135 mph
Website: www.SportsPlanes.com	Stall (with flaps): 42 mph
Phone: 801-420-6176	Fuel capacity: 24 gallons
Manufacturer: Dova Aircraft Polska	Engine: Rotax 912S
Manufactured in: Poland	Cockpit width: 42 inches
Gross weight: 1,320 pounds	Construction: Aluminum
Empty weight: 653 pounds	Base price: \$114,000
Useful load: 667 pounds	







### MODEL: SPORT CUB

Distributor: CubCrafters Inc.	Range: 450 miles
Yakima, Washington	Cruise (75 percent): 105 mph
Website: <a href="http://www.CubCrafters.com">www.CubCrafters.com</a>	Stall (with flaps): 36 mph
Phone: 509-248-9491	Fuel capacity: 24 gallons
Manufacturer: CubCrafters, Inc.	Engine: Continental O-200
Manufactured in: USA	Cockpit width: 30'
Gross weight: 1,320 pounds	Construction: Steel tube and fabric
Empty weight: 825 pounds	Base price: \$99,500
Useful load: 495 pounds	



### MODEL: SPORT RIDER (MD-3)

Distributor: Unknown	Range: 621 miles
Website: <a href="http://www.flyitalia.it">www.flyitalia.it</a>	Cruise (75 percent): 100 mph
Phone:	Stall (with flaps): 37 mph
Manufacturer: FlyItalia	Fuel capacity: N/A
Manufactured in: Italy	Engine: Rotax 912S
Gross weight: 1,320 pounds	Cockpit width: N/A
Empty weight: 606 pounds	Construction: All metal
Useful load: 714 pounds	Base price: N/A



### MODEL: SPORTCRUISER

Distributor: Sport Aircraft Works	Range: 875 miles
Palm City, Florida	Cruise (75 percent): 138 mph
Website: <a href="http://www.SportAircraftWorks.com">www.SportAircraftWorks.com</a>	Stall (with flaps): 30 mph
Phone: 772-223-8915	Fuel capacity: 30 gallons
Manufacturer: Czech Aircraft Works	Engine: Rotax 912S, Jabiru 3300
Manufactured in: Czech Republic	Cockpit width: 46.5 inches
Gross weight: 1,320 pounds	Construction: Aluminum
Empty weight: 748 pounds	Base price: \$79,500
Useful load: 572 pounds	



### MODEL: SPORTSTAR

Distributor: Evektor America	Range: 805 miles
Kerrville, Texas	Cruise (75 percent): 126 mph
Website: <a href="http://www.EvektorAmerica.com">www.EvektorAmerica.com</a>	Stall (with flaps): 46 mph
Phone: 830-896-8910	Fuel capacity: 31.2 gallons
Manufacturer: Evektor Aerotechnik	Engine: Rotax 912 or 912S
Manufactured in: Czech Republic	Cockpit width: 46.5 inches
Gross weight: 1,268 pounds	Construction: Aluminum
Empty weight: 668 pounds	Base price: \$107,950
Useful load: 600 pounds	



### MODEL: STINGSPORT

Distributor: Sportair USA	Range: 529 miles
Little Rock, Arkansas	Cruise (75 percent): 120 mph
Website: <a href="http://www.SportAir.aero">www.SportAir.aero</a>	Stall (with flaps): 49 mph
Phone: 501-228-7777	Fuel capacity: 20 gallons
Manufacturer: TL Ultralight	Engine: Rotax 912S
Manufactured in: Czech Republic	Cockpit width: 44 inches
Gross weight: 1,320 pounds	Construction: Composite
Empty weight: 780 pounds	Base price: \$101,000
Useful load: 540 pounds	



### MODEL: SUMMIT II

Distributor: Summit Powered Parachutes	Useful load: 640 pounds
Vernon, British Columbia, Canada	Range: 120 miles
Website: <a href="http://www.SummitPPC.com">www.SummitPPC.com</a>	Cruise (75 percent): 30 mph
Phone: 250-503-1033	Fuel capacity: 14 gallons
Manufacturer: Summit Powered Parachutes	Engine: Rotax 582
Manufactured in: Canada	Cockpit width: Open
Gross weight: 950 pounds	Construction: Aluminum tube
Empty weight: 310 pounds	Base price: \$18,550

### MODEL: TANARG 912

Distributor: Air Création USA	Range: 350 miles
Rimrock, Arizona	Cruise (75 percent): 70 mph
Website: <a href="http://www.AirCreation.net">www.AirCreation.net</a>	Stall (with flaps): 40 mph
Phone: 623-566- 8026	Fuel capacity: 17 gallons
Manufacturer: Air Création	Engine: Rotax 912
Manufactured in: France	Cockpit width: open
Gross weight: 998 pounds	Construction: N/A
Empty weight: 527 pounds	Base price: \$79,900
Useful load: 465 pounds	



### MODEL: THORPEDO

Distributor: IndUS Aviation	Range: 375 miles
Dallas, Texas	Cruise (75 percent): 132 mph
Website: <a href="http://www.IndUSAv.com">www.IndUSAv.com</a>	Stall (with flaps): 47 mph
Phone: 214-337-6387	Fuel capacity: 21 gallons
Manufacturer: IndUS Aviation	Engine: Jabiru 3300
Manufactured in: USA and India	Cockpit width: 40 inches
Gross weight: 1,270 pounds	Construction: Aluminum
Empty weight: 665 pounds	Base price: \$95,900
Useful load: 605 pounds	



### MODEL: VALOR A-22

Distributor: Float Planes and Amphibs	Range: 528 miles
Sebring, Florida	Cruise (75 percent): 100 mph
Website: <a href="http://www.FPNA.com">www.FPNA.com</a>	Stall (with flaps): 32 mph
Phone: 863- 655-3770	Fuel capacity: 23.9 gallons
Manufacturer: Aeroprakt	Engine: Rotax 912
Manufactured in: Ukraine	Cockpit width: 50 inches
Gross weight: 1,199 pounds	Construction: Aluminum
Empty weight: 575 pounds	Base price: \$74,995
Useful load: 624 pounds	



### MODEL: VOYAGEUR II

Distributor: Adventure Sport Aircraft	Range: 345 miles
Torrance, California	Cruise (75 percent): 56 mph
Website: <a href="http://www.AdventureSportAircraft.com">www.AdventureSportAircraft.com</a>	Stall (with flaps): 36 mph
Phone: 877-835-9464	Fuel capacity: 18 gallons
Manufacturer: Delta Trikes Aviation	Engine: Rotax 582, Rotax 912
Manufactured in: France	Cockpit width: open
Gross weight: 992 pounds	Construction: N/A
Empty weight: 407 pounds	Base price: \$36,100
Useful load: 585 pounds	



### MODEL: ZODIAC CH-601 XL

Distributor: Aircraft Manufacturing and Development	Useful load: 550 pounds
Eastman, Georgia	Range: 715 miles
Website: <a href="http://www.NewPlane.com">www.NewPlane.com</a>	Cruise (75 percent): 130 mph
Phone: 478-374-2759	Stall (with flaps): 44 mph
Manufacturer: Aircraft Manufacturing and Development	Fuel capacity: 30 gallons
Manufactured in: USA	Engine: Continental O-200
Gross weight: 1,320 pounds	Cockpit width: 44 inches
Empty weight: 770 pounds	Construction: Aluminum
	Base price: \$79,900



### EAA –Your Source for LSA Information.

For the most up-to-date list of S-LSA, visit [www.sportpilot.org](http://www.sportpilot.org); click on Aircraft and then Special Light-Sport Aircraft (S-LSA) Listing.



## Other Aircraft Options for Sport Pilots

Sports pilots have more choices in the aircraft they may fly besides the new, ready-to-fly S-LSA listed previously in this guide, and the experimental light-sport amateur-built aircraft highlighted in “Building Your Own Airplane,” on pages 27-30. Some models of vintage “production” airplanes—that is, post-World War II aircraft built to FAA certification specifications—also qualify as light-sport aircraft. In aviation parlance, these aircraft are called “Standard Category” aircraft, referring to the certification standards under which they were manufactured.

The following listing highlights the most popular, and most readily available models. For a complete listing of standard category aircraft that meet the LSA definition, visit [www.sportpilot.org/learn/lsa/standard\\_certificate\\_aircraft.html](http://www.sportpilot.org/learn/lsa/standard_certificate_aircraft.html).



### AERONCA 7AC CHAMP

Manufacture began: 1946	Stall (w/flaps) 38 mph
Registered in U.S.: 2,750	Fuel capacity: 13 gallons
Gross weight: 1,220 pounds	Engine: Continental A-65
Empty weight: 710 pounds	Price (range): \$23-\$34,000
Useful load: 510 pounds	Cockpit width: n/a
Range: 250 miles	Construction: steel tube and fabric
Cruise (75 percent): 85 mph	



### AERONCA 11AC CHIEF

Manufacture began: 1945	Stall (w/flaps) 42 mph
Registered in U.S.: 1,000	Fuel capacity: 14 gallons
Gross weight: 1,250 pounds	Engine: Continental A-65
Empty weight: 725 pounds	Price (range): \$17-\$28,000
Useful load: 525 pounds	Cockpit width: n/a
Range: 330 miles	Construction: steel tube and fabric
Cruise (75 percent): 90 mph	



### ERCOPE 415-C AND CD

Manufacture began: 1940	Stall (w/flaps) 43 mph
Registered in U.S.: 2,135	Fuel capacity: 14 gallons
Gross weight: 1,260 pounds	Engine: Continental A-75
Empty weight: 750 pounds	Price (range): \$25-\$34,000
Useful load: 510 pounds	Cockpit width: n/a
Range: 300 miles	Construction: All metal
Cruise (75 percent): 95 mph	Note: Tricycle gear



### LUSCOMBE 8A

Manufacture began: 1940	Stall (w/flaps) 42 mph
Registered in U.S.: 1,700	Fuel capacity: 14 gallons
Gross weight: 1,260 pounds	Engine: Continental A-65
Empty weight: 750 pounds	Price (range): \$18-\$30,000
Useful load: 510 pounds	Cockpit width: n/a
Range: 350 miles	Construction: All metal
Cruise (75 percent): 105 mph	



### TAYLORCRAFT BC12-D

Manufacture began: 1945	Stall (w/flaps) 45 mph
Registered in U.S.: 1,800	Fuel capacity: 18 gallons
Gross weight: 1,200 pounds	Engine: Continental A-65
Empty weight: 670 pounds	Price (range): \$20-\$28,000 used
Useful load: 530 pounds	Cockpit width: 42 inches
Range: 400 miles	Construction: steel tube and fabric
Cruise (75 percent): 95 mph	



### PIPER PA-11 CUB SPECIAL

Manufacture began: 1947
Registered in U.S.: 550
Gross weight: 1,220 pounds
Empty weight: 730 pounds
Useful load: 490 pounds
Range: 300 miles
Cruise (75 percent): 85 mph
Stall (w/flaps) 38 mph
Fuel capacity: 18 gallons
Engine: Continental A-65
Price (range): \$32-\$48,000
Cockpit width: n/a
Construction: steel tube and fabric



### PIPER PA-15 VAGABOND

Manufacture began: 1948
Registered in U.S.: 220
Gross weight: 1,100 pounds
Empty weight: 620 pounds
Useful load: 480 pounds
Range: 250 miles
Cruise (75 percent): 90 mph
Stall (w/flaps) 45 mph
Fuel capacity: 12 gallons
Engine: Lycoming O-145
Price (range): \$18-\$26,000 used
Cockpit width: n/a
Construction: steel tube and fabric



### PIPER PA-17 VAGABOND

Manufacture began: 1948
Registered in U.S.: 126
Gross weight: 1,150 pounds
Empty weight: 650 pounds
Useful load: 500 pounds
Range: 250 miles
Cruise (75 percent): 90 mph
Stall (w/flaps) 45 mph
Fuel capacity: 12 gallons
Engine: Continental A-65
Price (range): \$26-\$43,000 used
Cockpit width: n/a
Construction: steel tube and fabric



### PIPER J-3 CUB

Manufacture began: 1937
Registered in U.S.: 4,700
Gross weight: 1,220 pounds
Empty weight: 730 pounds
Useful load: 490 pounds
Range: 250 miles
Cruise (75 percent): 80 mph
Stall (w/flaps) 38 mph
Fuel capacity: 12 gallons
Engine: Continental A-65
Price (range): \$26-\$43,000
Cockpit width: n/a
Construction: steel tube and fabric

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