#### What if the motor quits?

It's a glider! You'll coast slowly downhill and in full control of direction. The glider flies about 6 feet forward for every foot lost (a 6 to 1 glide ratio). So you'll be descending at about 3 mph while gliding forward at about 20 mph and you can land in a space smaller than the average yard. A motor failure is rarely more than an inconvenience.

#### Flying Without the Motor

Paragliding, or free flying, can be done using your paramotor wing but with a different harness. Free flyers rely on updrafts from thermals or air blowing up hills so they gravitate to mountainous areas. You can also get towed up although towing can be surprisingly dangerous. Never, ever try towing without using proper equipment and certified tow operations.

Most free-flight launch sites require pilot ratings from the U.S. Hang Gliding and Paragliding Association (USHPA.org)

## Can I take people up?

The simple regulation we operate under is intended for solo operations. However, recognizing the value of two-place (tandem) training, an exception is made for instruction using two-place craft. The instructor must be qualified under a special program run by an organization allowed to do so by the FAA such as USUA.

Tandem operations require significant knowledge and skill to operate safely since you must manage the motor, wing and another person at the same time. Many instructors use a wheel-equipped machine to make it easier.



Left: William Shatner was 72 years old when he flew a powered paraglider for a charity event and helped the USPPA with its "Risk & Reward" safety video.



#### **Fast Facts**

Altitude: Up to 18,000 feet although most pilots fly between 200 and 2000 feet above ground level (AGL).

**Speed:** 20-35 mph although most fly about 25 mph.

**Weight:** about 65 lbs ready to launch including fuel. The wing weighs about 15 pounds but the pilot doesn't feel it.

**Cost (New):** \$3500-\$6000 Motor, \$1700-\$3500 Wing, \$600-\$1500 Training

**Payload:** 170 - 400 Lbs. Powerful tandem units provide the highest payload.

**Fuel:** 1 to 5 US Gallons of auto fuel or avgas mixed with 2-stroke oil. A few motors (4-stroke) require no mixing.

Endurance & Range: 1-3 hours, 40-70 miles (calm)

**Transport & Storage:** Small Car or shipped affordably in boxes and stored in a room corner.

Motor: 12-25 hp 2-Stroke, 12-15 hp 4-stroke, 8-12 hp electric.

**Propeller:** 30 to 51 inch wood or composite with from 2 to 4 blades. Most props are spun through reduction drives.

**Launch/Land Area:** 200 x 400 minimum with a another 400' clear climbout zone. Experienced pilots can safely fly out of a space half that size.

**Training Time:** 1 to 3 days for first flight and 5 to 8 days to become independent.

**Getting Started:** Visit USPPA.org for a USPPA/USUA certified instructor in your area. Do that before buying equipment, not all instructors will teach on all units.



The Most INCREDIBLE form of Personal Flight

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# Powered Paragliding

## The Ultimate High

Ten minutes after putting your car in park, everything is ready. It's just you and the perfect morning air, at the perfect place, ready to go fly.

You throttle up and start to run. The wing springs to life, fills with air and comes overhead. You squeeze into full power and, with a few more steps, run into the sky.

Your view is essentially unobstructed and control is precise. With experience, a pilot can fly within inches of his or her desire.

Many flyers enjoy just tooling around to take in the sights while others enjoy carving up the sky and thrilling to their fine control. The same wing that is used for powered paragliding (PPG) can be used for soaring, too, just like sailplane pilots.

#### What is a Powered Paraglider?

Paragliding is the simplest form of flight: no plane, no windows, just you in control, flying through the air. It launches from a field, is easy to fly, to transport, and is inherently stable while offering amazingly precise control. The paraglider itself has no rigid structure—the pilot sits in a seat, suspended by lines. The paramotor, a backpack power unit that attaches to the harness, provides thrust for climb and flying level at your own will.

It is not a parasail or powered parachute which use very stable, but far less efficient wings.

#### **Physical Requirements**

The motor does most of the work. Although you must be able to walk around and handle its weight, you certainly don't have to be an athlete. Numerous pilots continue flying into their 70's and others have started as young as 14 years old. Once in flight, the wing carries all the weight.

#### License, The Law, & Where You Can Fly

No license is required although training is incredibly important. PPG's are minimally regulated under the Federal Aviation Administration's Part 103. Essentially we can fly during daytime in wide-open areas. We must avoid flying over people, near big airports and a few other locales.

Private open fields, some smaller airports, and a few parks are great places to fly. One beauty of the sport is that we don't need an airport! Most state and national parks are off-limits to launch but do allow overflight.

There are many groups of pilots who have established local flying sites where you can launch. Courtesy of neighbors is important so as to minimize complaints.

## Fear of Heights

Ask just about any pilot if they're afraid of climbing ladders and the answer will be yes. Human nature is to be afraid of heights, a healthy response to obvious risk. Everybody starts with that fear and, after a few flights, it is essentially gone. Once you internalize how secure the harness and wing is, there becomes little to fear.

#### Training

Different courses are available, but be very careful to pick a qualified, certified instructor with an organized program. Make sure they use the USPPA syllabus or equivalent and have thorough emergency training including simulator rehearsal. Make sure that, if towing is used, USPPA tow guidelines are followed. Solo pilot certification is available for student (PPG1), pilot (PPG2) and advanced pilot (PPG3) levels through the USPPA/USUA. Visit www.USPPA.org for a list of schools and instructors.

You can reasonably expect to have your first flight (achieve the PPG1) in 3 days but are far from ready to be considered a pilot (PPG2). Accelerated courses, which take significant extra precautions, can get someone a flight on their first or second day. Expect 5 to 8 days to earn a PPG2 rating.

### What Weather Can It Handle?

This is a light-wind sport. Generally a maximum wind of 12 mph is acceptable although, under certain conditions, experienced pilots can fly in stronger winds. We generally fly in the mornings and evenings so as to avoid the bumpy mid-day air. A few pilots seek out those mid-day conditions at the expense of some added risk.

#### What's Is the Risk?

Powered paragliding is probably the safest form of aviation ever devised. Pay attention to your instructor and respect the prop to minimize most of the risk. Like any recreation with humans in motion, there is risk. Training and the first few hours of flight are the most critical. We estimate the overall risk is less than motorcycle riding or free flying (paragliding with no motor) or flying small airplanes, but it's more than driving a car.

Of the minimal risk, most comes from pilot error, not equipment malfunction. A conscientious pilot with the right attitude and good instruction can make this sport incredibly safe.

