

# Landing a PPC Safely

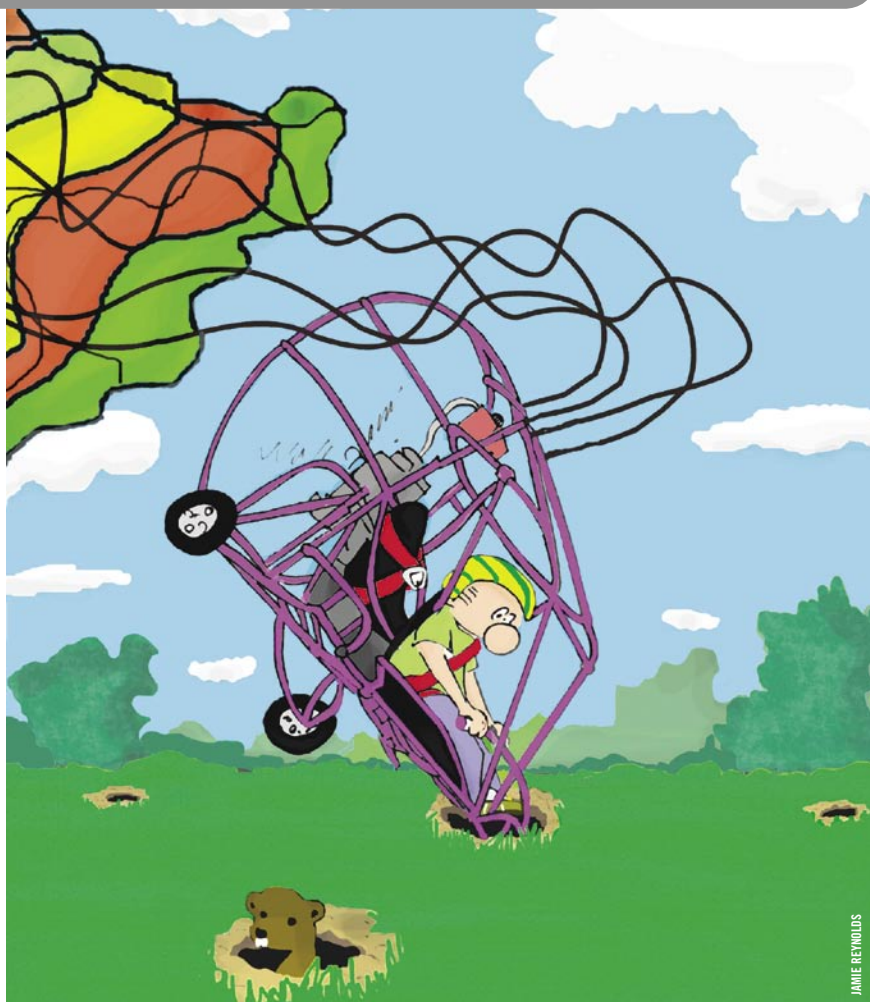
If a rock can land a PPC, why do landing incidents still happen?

**O**ne question invariably dominates what curious onlookers ask after I land my powered parachute (PPC), “How safe is that thing?” I usually respond, “A powered parachute is the only aircraft I feel I can fly every day and still promise my wife and kids I will come home every night.” In all honesty, a PPC is the only aircraft that I have flown in the last 25 years, but that doesn’t influence my answer.

I believe that, with the proper training, a powered parachute is just as safe as an all-terrain vehicle (ATV) or a dirt bike, and moms and dads everywhere have no problem buying these off-road vehicles for their kids. But let’s focus more closely and more specifically to the point of this article; if a powered parachute is safe, and if a rock can land one, as longtime PPC pilots joke, why do landing incidents still occur? I think there are several contributing factors.

## The Anxiety of Landing

People seem to have a natural fear, an innate sense of ill, as the ground rises up to meet them. Landing is apparently not a natural human trait. Consequently, instructors need to build confidence in students to



help them overcome this instinct that prohibits comfort during “the final approach.”

How does this natural fear relate to the incidents that occur during a PPC landing? I believe the anxiety of land-

ing drives students to overcompensate during the landing approach. They forget the benefits of slow, smooth throttle movement. They want the powered parachute to react immediately to their control inputs, like a Corvette. But PPCs are not built to react like a racket in the hands of a professional tennis player. They are machines that need to be finessed.

Landing an aircraft is a learned skill, not a natural ability like running or throwing a ball. Therefore the solution to the anxiety of landing is *training*. Training takes the student through a series of small, simple steps and focuses students' attention to things beyond the rising ground.

The next time you feel uncomfortable with landing (or have a student who is anxious about landing), try this. As you approach the field during your descent, focus on maintaining constant, straight and level flight at a low altitude over the runway (upwind) instead of focusing on the

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"rising" field. Try to level your PPC out at 5 feet off the surface. From there, your aircraft will, by itself, find an agreeable method of smoothly and softly touching Mother Earth.

Still not comfortable with the final approach? Let's back up and begin our preparation with the initial descent. Begin by bringing your machine down from pattern altitude slowly. Let's say you started your first solo descent at 500 feet plus, and that you stayed at that altitude and waited until most of

the butterflies subsided. Now, you are ready to descend. Stay in the field pattern and bring your aircraft down to a 200-foot pattern altitude. From here you can intensify your work on coordinated turns, using the throttle to maintain altitude through the turns. If you feel comfortable with your turns and your throttle control at 200 feet, bring yourself down to 100 feet, still staying in the pattern.

Again, get comfortable with your throttle control and your coordinated turns. Then move your pattern altitude down to 50 feet. Once you (or your students) are comfortable at a constant pattern altitude of 50 feet, remind yourself that *no* turn should be started below 50 feet. Then during your upwind leg of the pattern, bring your PPC down to 20 feet over the field. Move your concentration to the height of the aircraft over the field and your thoughts to smooth and slow throttle control. This concentration will tend to remove your



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innate uneasiness with the approaching ground. Repeat to yourself that if the wheels do touch the ground, you will back off the throttle and steer your aircraft down the *center* of the runway while checking your wing for L.O.C. (that is, *lines are clear, cells are open, and the wing is centered*). Then climb back up to a 50-foot pattern altitude before beginning your cross-wind leg turn.




Once you get a feel for flying the upwind leg at 20 feet or more, lower the height during the next pass. Instructors: Please give your students feedback on their height above ground; some students have a hard time judging distance from the ground.



The purpose of this exercise is not to focus on maintaining exactly 20 feet, or any other particular altitude, during the upwind leg; it is to focus on maintaining a constant altitude down the field via throttle control. Once you are comfortable with your control during the previous low pass, come down to half that height during the next series of upwind leg passes. Again, remind yourself how to handle the aircraft if the wheels do touch down. At this point, few pilots, new or old, will be able to maintain a lower altitude; the PPC's wheel will touch down on one of these next passes. That is perfectly okay; what you have done is improved your throttle control and removed the anxiety about landing by refocusing your mind.

### Rushing the Landing



The second problem I see with new PPC pilots is that they want to rush the landing. Again, learning good landing techniques during training will help; however, some reminders might be needed for students to improve their landings. Reminders such as...

1. Make at least one pass over a *familiar* field to check the direction of the windssock and to look for stray cattle, dogs, or other obstructions on the runway before landing. Just because you took off to the south does not mean that you should land to the

south. Winds can change quickly, even in the short span of time you have been flying. Develop the habit of checking the windssock and the field before setting up for your landing approach.

2. Check out *unfamiliar* fields thoroughly. Powered parachute pilots typically do not land on airport runways. Ninety-nine percent of the time, we land in improved or unimproved fields.

Let's say that you just spotted some friends near a potential landing field, and you want to land and socialize. Remind yourself of the importance of making as many low passes as needed to scan for debris or hazards in the field. You need to ingrain the antidote "There's no need to rush a landing; the ground is not going anywhere" every time you find yourself focusing beyond your landing. Take the time to check out the landing field before you begin thinking about the upcoming social encounter with your friends. Too many incidents happen because landings are rushed. Question your intention to get on the ground immediately.

3. Don't succumb to peer pressure. Perhaps you feel that your friends are waiting, that they will not be patient. Or perhaps you are embarrassed to fly around the landing area one more time to check all the variables. Ask yourself, is it really that macho to land on the first pass? How much longer will your friends have to wait if you have a landing incident? Rocks or debris in the landing path and hidden gullies or small ravines do not have to create an incident! We have a chance to avoid them if we study our landing area thoroughly.

4. When flying in a group, use radios or hand signals. If a group is flying to a new field, one that may be without a windssock, have the first pilot to land report the wind velocity and field conditions. Even better, have the first pilot quickly walk the field to scan for potential obstacles. We use designated drivers when we party to get our group home; why not have a designated walker? If no

one in your group has a radio, then at least establish some hand signals previous to the flight to communicate different situations.

### Target Fixation

Target fixation is a mind-directional magnet that can lead to embarrassment and bent tubes for many new pilots. Human nature will unconsciously cause you to steer toward the object that you are focused on. What are most new pilots looking at during the landing—a fence or tree they want to avoid. If you are a novice watching the fence, more than likely you will soon become part of that fence. Instead, fixate on a target down the center of the field (runway). Pick a point on the field that you think will be your stopping point—the position where you will pull down your wing—and focus on that spot. Target fixation is the most common cause for hitting an obstacle during a landing.


### Small Fields

Trying to land in a field that is too small is another common cause for landing incidents. Be certain you'll have enough room after your wheels touch down to casually reach out and pull the wing down via the steering lines. When a fence or tree line is too close and you decide to use the Fred Flintstone method for stopping, you've just increased the percentage of lower leg injuries in the powered parachute community. Why do men (and I have seen only men do this) think they have the leg strength to stop 800 pounds of rolling aircraft?

What's the solution to a short landing field? Check your approach. Is it too shallow? Are you floating too far down the field? Is there too little room left in the field to be safe? If so, statistics tell us that aborting the landing and doing a go-around is the better part of valor.

If you consistently must land in a short field, install brakes on your unit. For normal fields, the drag of our parachute canopy is all most of us need to ease our PPCs to a stop. But

to prevent lower leg injuries, it takes more than a chute behind us; it takes pilot discipline!

When I tell my students "a rock can easily land a PPC," I do not feel that I am being silly or even obnoxious. Perhaps what I should say is that either a rock or a trained human can consistently and safely land a powered parachute. 


Frederick Scheffel is the author of a series of powered parachute training materials, including *The PPC Guide & Training Manual*. He is also the southwest regional director of the North American Powered Parachute Federation and is the lead advanced flight instructor at SkyTrails Ranch Inc., a full-time, year-round PPC training center in the beautiful color country of southern Utah. For more information, visit [www.SkyTrailsRanch.com](http://www.SkyTrailsRanch.com).



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