



# Solo & Instructor Ratings Program

United States Powered Paragliding Association

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These are primary ratings offered by USPPA for powered paraglider pilots. Differentiation is provided for wheel launch and foot launch—only the items required for the launch skill sought must be demonstrated. For information on the Tandem Program, refer TandemProgram.PDF, and for the High Wind rating, refer to Test-HighWindTextAndTest.doc.

## **Definitions:**

***Flight:*** A flight, for the purpose of these requirements, consists of inflation, launch, flying at least 360 degrees of turn, then landing and bringing the wing down.

***[WL]*** = Applies to Wheel Launch Only

***[FL]*** = Applies to Foot Launch Only

## **What Counts**

All required maneuvers must be done in a controlled fashion where the outcome is never in doubt. Any maneuver that results in damaged gear, injury, or falling cannot be counted as successful.

# PPG 1 Rating

This first step establishes the skills, knowledge and experience for the pilot who gets to take his first two flights. He is far from ready to venture out on his/her own but has made a significant milestone.

## PPG 1 Ground Requirements

1. Proper layout and preflight check of canopy and motor (including harness).
2. Has successfully completed a basic ground school.
3. Understanding of proper canopy packing, storage and care.
4. Site analysis including wind direction and velocity, terrain shape, obstructions and engine-out planning.
5. Proper canopy handling and kiting skills.
6. Explains motor, propeller, and fueling safety.
7. Understands basic operation the motor including at least two ways to shut it off and what to look for on preflight runup.
8. Explains effects of Center of Gravity and wing connection location on the harness or cart frame.
9. [WL] Explains the cause and cure to rollover-type accidents.
10. Has passed the USPPA/USUA PPG 1 written exam.

## PPG 1 Flight Requirements (Launch/Landing/Inflation)

1. Two controlled forward inflations with visual canopy check each time.
2. (FL) Two controlled reverse inflations with proper surge dampening.
3. (FL) Half-minute of controlled kiting overhead in a steady wind.
4. (WL) 15 seconds of controlled taxiing without lifting off.
5. Demonstrates a method of establishing proper connection to the wing, with cleared lines and risers, just prior to inflation.
6. Demonstrates two unassisted (other than radio) flights.

## PPG 1 Limitations

These recommended limitations are intended to provide a guide for those at this skill level to remain within their ability. Obviously there are other considerations before flying but this is a good starting point. Only exceed these limitations under instructor supervision.

1. All flights must be under the supervision of an instructor.
2. Max wind, including gusts of 8 mph
3. Launch and land directly into the wind
4. Use canopy rated for beginner (DHV 1, 1-2, EN-A, EN-B or equivalent other rating).
5. Takeoff and landing area should allow unimpeded climb and landing approach without maneuvering below 100' AGL.

## Ratings: PPG 2

This rating signifies that the pilot should be able to fly on his/her own within the limits specified below. It is the beginning of a lengthy learning period.

### PPG 2 Ground Requirements

1. Pilot uses judgment commensurate with the rating.
2. Attends a minimum of 8 hours of ground school.
3. Has passed the USPPA/USUA PPG2 written exam and reviewed incorrect answers.
4. Verbal analysis of general site conditions including a flight plan (flight path, avoidance areas, obstacles, wind effects).
5. Has received at least simulator training in avoidance and recovery from collapses, stalls, spins, and is familiar with the canopy owner's manual on them.
6. Demonstrates sufficient knowledge by explaining the following:
  - a) Correct motor, cart [WL], and wing maintenance.
  - b) Basics of airspace as it pertains to PPG and how to determine legal flight areas from sectional charts including how to obtain a weather briefing.
  - c) Proper strong wind landing procedures and how to keep from being dragged back.
  - d) USPPA incident reports.
  - e) Flight performance and the effects of weight, wing size, thrust, twist, winds, and density altitude.
  - f) Fitness for flight from an Aeromedical perspective.
  - g) How to shorten and lengthen flight path with no power.
  - h) Speedbar and trimmers, their use, risks, and limitations, including for reflex wings.
  - i) Airport operations.
  - j) CFR 14 Part 103 regulations.
  - k) Directional control and correction of significant asymmetric wing fold (that causes turning).
  - l) Causes, cures and risks of torque and its side effects.

### PPG 2 Ground Requirements (Demonstrations)

1. Demonstrates PLF technique sufficient to show understanding.
2. Demonstrates reserve deployment while hanging in a harness [FL] or sitting in cart [WL] in simulated turbulence or malfunction. This may be done without an actual reserve if none is available.
3. Setup and preflight of the glider, harness and reserve (reserve may be explained if not equipped).
4. [FL] Two minutes of controlled kiting overhead.

### PPG 2 Flight Requirements (Launch/Landing/Inflation)

1. Consistently succeeds at 2 out of 3 no-wind (0-2 mph) forward inflations.
2. (FL) Consistently succeeds at 2 out of 3 controlled reverse inflations with proper surge dampening.
3. (WL) 30 seconds of controlled taxiing without lifting off.
4. Two cross-wind ( $> 15^\circ$  cross to takeoff path) launches in light wind ( $\leq 5$  mph).
5. Landings are consistently smooth, power-on landings within 15' of a target and into the wind.
6. Landings, after removing thrust from at least 300' high, are consistently within 100' of a target (40' for the Precision Landing special skill).
7. (WL) Brief and instruct ground crew for assisted launch.
8. Demonstrates smooth variation in airspeed and throttle to maintain level flight from just above min sink to fast flight on a constant heading
9. Alternating 'S' turn (at least  $90^\circ$  heading change) flights along a planned path. Heading change  $< 45^\circ$  into wind.
10. Hands off (or up) flying with smooth transition to climb and descent using throttle only.
11. Hands off (or up) flying with turns using weight-shift (if available) and rear riser turns.

## PPG 2 Minimum Logged Flight Experience

These are minimums. It is common to need 40 or more flights before attaining PPG 2 skill levels.

1. 25 flights except that, for USHPA P2 or higher rated paraglider pilots, 15 non-powered flights can be used to count towards the 25 flight requirement.
2. 5 flying days.

## PPG 2 Limitations

These recommended limitations are intended to provide a guide for those at this skill level to remain within their ability. Obviously there are other things that should be considered before flying but this is a good starting point.

1. Only exceed these limitations after thoroughly mastering all PPG 2 tasks and with full understanding of the potential problems and dangers involved in doing so.
2. Max peak thermal strength 200 fpm.
3. Max gusts of 12 mph.
4. Max gust rate of 5 mph in 5 seconds.
5. Should not launch with the wind aligned more than 25 degrees from the takeoff path.
6. Avoid using of brake beyond 2/3 of full travel (stall).
7. Max bank angle of 30 degrees.
8. Avoid flying downwind less than 150' above the ground.
9. Use canopy rated for beginner (DHV 1, 1-2, EN-A, EN-B or equivalent other rating).
10. Takeoff and landing area should allow unimpeded climb and landing approach without maneuvering below 100' AGL

### Change Notes:

2018-11-20 Formatting to match updated syllabi

2017-03-19 Updated wheel launch items, Precision Landing special skills

2006-08-16 Moved "Explanation Requirements" to "Ground Requirements" for standardization. Added wheel launch kiting requirement, made reverse inflation foot-launch only.

2008-10-30 added definition of flight, changed minimum flights for a PPG2 to 25 with 15 flights credit for P2 USHPA pilots.

## Ratings: PPG 3

This rating builds on the knowledge and skills from the PPG1 & PPG2, only additional areas are included here. These are minimums. It is common to need 200 or more flights before attaining PPG 3 skill levels.

The pilot should have a thorough understanding of the knowledge items required of those ratings. He/she should be able to judge and safely fly from any launch site within his skill level. Launches should be consistently successful with the ability to easily steer during the launch run as well as control the flight path immediately from liftoff.

### PPG 3 Ground/General Requirements

1. Uses judgment commensurate with the rating.
2. Explains characteristics of impending stall or spin and the recovery technique for each.
3. Explains how to shorten and lengthen flight distance by adjusting speed, height and the relationship of headwind/tailwind in doing so.
4. Explains how to maintain directional control during and correct for an asymmetric wing fold of 50% or more of the wing span.
5. Has passed the USPPA/USUA PPG3 written exam and reviewed incorrect answers.

### PPG 3 Flight Requirements (Launch/Landing/Inflation)

1. All landings are safe, smooth, on the feet, in the desired touchdown area and in control.
2. Consistently succeeds at 3 out of the 4 no-wind (0-2 mph) inflations/launches.
3. Good canopy control while doing turns of at least 20 degrees while on ground (FL) running or (WL) rolling with the wing overhead and under power.
4. Consistently makes 2 out of 3 power-on landings within 5' of a target and into the wind.
5. Consistently makes 2 out of 3 power-off (from 300') landings within 15 feet of a target and into the wind without falling.
6. Demonstrates smooth transition from descent to climb in a go-around maneuver while controlling the surge.
7. Demonstrates smooth, single-swing dampening of surges using throttle only.
8. Demonstrates smooth, single-swing dampening of left/right oscillations.
9. Linked 180° turns along a predetermined ground track showing smooth controlled reversals and coordination at various speeds, throttle settings and bank angles.
10. Demonstrates ability to use Trimmers and Speed Bar setup and use. (gives explanation if not installed on wing)
11. Significant asymmetric tip folds and/or big ears (25% each side, 50% total) or other canopy reduction method to increase descent rate.

### PPG 3 Logged Flight Experience

1. 90 flights. It is common to need 200 or more flights before attaining PPG 3 skill levels.
2. 30 flying days.
3. Has had USPPA PPG2 rating or equivalent for at least 120 days.
4. 20 solo airtime hours.

### PPG 3 Limitations

These recommended limitations are intended to provide a guide for those at this skill level to remain within their ability. Obviously there are other considerations before flying but this is a good starting point.

1. Only exceed these limitations after thoroughly mastering all Novice tasks and after acquiring a full understanding of the potential problems and dangers involved in exceeding these limitations.
2. Follows safe flying guidelines.
3. Max peak gusts 15 mph without high-wind add-on.
4. Max gust rate of 7 mph in 5 seconds.

5. Limit turns to bank angles recommended by the manufacturer, Smoothly exit any spiral turn that is becoming steeper or accelerating.
6. Should not fly in thermals where peak climb rates exceed 500 fpm or where significant cloud development exists.
7. Avoid using of brake beyond 3/4 of full travel (stall).
8. Avoid steep banks close to ground.
9. Avoid flying downwind less than 100' above the ground.

**Change notes:**

2006-08-16 Moved "verbal explanation requirements" to "ground requirements" for standardization, removed duplicate airspace requirement and other duplicates.

# PPG Instructor

These requirements are meant to insure flight instructors have the requisite experience and skills necessary to safely instruct. This is for an instructor who is not tandem qualified but does instruction using other means.

The Minimum Training Standards, as well as the Instructor Commitment are meant to help insure students receive safe and effective training. These recommendations come from experienced instructors who have found they minimize the risk during training.

## PPG Instructor Ground/General Requirements

1. Pilot uses good judgment and has a level of Maturity commensurate with the rating.
2. All witnessed flights must be pre-planned by the pilot and discussed with the examining instructor.
3. Successfully passed USPPA/USUA Instructor Certification Clinic given by an instructor administrator or completed 20 hours of apprenticeship with a USPPA/USUA PPG Instructor administrator.
4. Successfully passed USPPA/USUA Instructor Written Test.
5. Successfully completed First Aid and CPR class. Acceptable versions are from the Red Cross, American Heart Association (click here and choose the "Heartsaver First Aid Course") and CPRToday (Enter the BCLS discount code given by your instructor administrator for a 10% discount on the fee).

## PPG Instructor Experience and Minimums

1. One year of flying using a paramotor.
2. (WL) At least 60 flights
3. 120 flights using a paramotor.
4. 45 flying days using a paramotor.
5. Has had a USPPA PPG3 rating for at least 180 days (may be waived).
6. 50 solo airtime hours.
7. Agrees to apply minimum training standards prior to student instruction, flight and other areas as appropriate.
8. Adheres to "commitment letter" whenever doing instruction for USPPA rating.

# PPG Instructor Administrator

These requirements are meant to insure Instructor Administrators have the requisite experience and skills necessary to safely certify new instructors. It is important that any issuance of instructor ratings be based solely on the applicants ability to evaluate potential instructors so as to ensure our program is administered fairly.

Instructor Administrator is our most important position and is subject to annual review of the training committee. These individuals are responsible for selecting competent Instructor Candidates who:

1. Embrace our standards,
2. Are willing to work with the USPPA instructor community,
3. Operate first and foremost in the success of their students,
4. Represent and support our training program in a way that reflects well on the profession and organization.

A list of Instructor Administrators is available at the bottom of Officers and Committees.

An administrator's status will be reviewed by the training committee annually and can be revoked by a majority vote of the committee. The intent is to insure that these individuals are adhering to the program and policies, being fair and not compromising quality. Any revocation must be by a majority of the training committee and may be appealed to the officers. A majority of the officers must agree with the revocation for it to stand.

## Requirements

Instructor Administrator applicants must:

1. Have at least 2 years as USPPA instructor, actively teaching.
2. Have been the primary instructor for at least 20 students *and* given them their PPG 2 ratings within the last year. Primary instructor means giving at least 90% of all the instruction to each student, including their first solo flight and testing for the PPG2 rating. Up to half of this requirement can be met with other instruction of equivalent value, such as for free flight, at the discretion of a majority of the training committee.
3. Commit to giving at least 1 instructor clinic per year that accepts any qualified applicant regardless of brand or school relationship.
4. Be recommended by a USPPA instructor Administrator and 1 USPPA instructor.
5. Pass a review of the training committee.

## Process

Here is the submission process.

1. The recommending instructor administrator should submit an email to the training committee, via [theUSPPA@gmail.com](mailto:theUSPPA@gmail.com) indicating the desire to certify a new Instructor Administrator and listing his years of instructor service.
- 2.

Change notes:

2017-03-19 Added mention of Precision Landing requirements.

Modified synchronized wheel launch and foot launch syllabuses, mostly by using [WL] and [FL].

**Added** changes to Instructor Administrator program, 2 years active instructing, 20 students (from 5) taught, recommended by USPPA instructor and instructor admin.

2012-06-15 Updated requirements to say "Consistently" makes 3 out of 4, deleted duplicates and less relevant tasks.

2009-11-04 Increased requirement to have taught qualifying PPG2 pilots from start to finish., recommendation required by admin.1.

2006-08-16 Reformatted, removed the BCLS price, changed name from "Flight Instructor" to "Instructor" to avoid confusion with a Tandem Instructor.

2006-02-27 Added "administrator" to clinic and apprenticeship.

2004-11-01 Listed approved First Aid & CPR to include Online.

2005-04-27 Removed expired grandfather clause..

2002-04-23 Added page.