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4. It is suggested that pilot-in-command fly on the side allowing free throw of back-up reserve parachute system with his/her dominant hand (i.e. right-handed pilot flies to the right of passenger).
5. Prior to all tandem flights, the passenger or student must be informed that such flights are conducted under an exemption granted by the FAA, and that the ultralight vehicle does not meet aircraft certification standards set forth by the FAA.
6. Possession of FAA's Part 103, FAR Grant of Exemption #4721 is mandatory while flying tandem.
7. All tandem accidents should be reported by the tandem pilot involved and any other tandem pilot aware of the accident.

**E. Equipment Requirements**

1. At least one back-up reserve parachute which is rated for the gross load being flown and provides a descent rate no greater than 21 fps at the gross load being flown, is required on flights where any reasonable possibility of successful deployment exists. A 24 gore PDA or larger canopy is recommended. A 22 gore conical or 20 gore PDA canopy is minimally required.
2. Appropriate helmets are required for both occupants during flight.
3. The total combined load carrying capacity of all main suspension components connecting the pilot and passenger to the glider must be at least 8,000 lbs, and there must be a connection of the pilot to the passenger which has a minimum total strength of 4,000 lbs.
4. Although choice of other equipment is up to the individual pilot-in-command, a HGMA certified glider, control bar wheels and knee pads are recommended.

## **12-02.13 Beginner Paragliding Rating (P-1)**

- A. General Description - A Beginner pilot has the knowledge and basic skills necessary to fly and practice under direct instructor supervision and within significant operating limitations. The pilot understands the USHPA paragliding rating systems and recommended operating limitations.
- B. Beginner Rating - Required Witnessed Tasks
  1. Attends and completes a basic ground school.
  2. Layout and preflight of canopy and harness.
  3. Demonstrates canopy handling skills sufficient to launch - under control.
  4. With each flight, demonstrate method(s) of establishing that pilot is properly connected to the canopy, with cleared lines and risers, just prior to inflation.
  5. Launch unassisted showing:
    - a. Aggressive inflation and run.
    - b. Pendulum control during launch.
    - c. Directional control.
    - d. Smooth transition from running to flying, during launch.
  6. Airspeed recognition and control,
    - a. Two flights, predetermined to show:

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- i. Constant airspeed.
      - ii. Smooth straight flight towards a pre-selected target.
      - iii. Safe, smooth landing, on feet, into wind.
    - b. Two flights, predetermined to show:
      - i. Confident, slight variation in airspeed showing awareness of control inputs and pendulum control.
      - ii. Smoothly increasing airspeed, and smoothly slowing airspeed showing good control.
      - iii. Safe, smooth landing, on feet, into wind.
  7. Shows the ability to recognize and understand how different wind conditions at this site will affect their flights.
    - a. Wind direction.
    - b. Wind velocity.
    - c. Terrain shape.
    - d. Obstructions.
  8. On each flight, demonstrates proper post-landing procedure, to include, but not limited to:
    - a. Canopy deflation.
    - b. Canopy immobilization.
    - c. Checking traffic.
    - d. Removal of canopy from landing area.
    - e. Disconnection from the canopy.
  9. Demonstration of understanding of the importance of proper packing, storage, and care of the canopy.
  10. The pilot shall use good judgment and have a level of maturity commensurate with the rating.
  11. Must pass the USHPA Beginner Paragliding written exam.
  12. Must agree to all the provisions of the USHPA standard waiver and assumption of risk agreement for the Beginner rating and deliver an original signed copy to the USHPA office.
- C. Recommended Operating Limitations for Beginner Pilots:
1. Should exceed these limitations only after demonstrating complete mastery of the required Beginner paragliding tasks (above), and only after acquiring a full understanding of the potential problems and dangerous situations which may arise from exceeding these limitations.
  2. It is highly recommended that all flights be made under the direct supervision of a USHPA Certified Basic or Advanced Paragliding Instructor.
  3. Should fly only in steady winds of 12 MPH. or less.

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4. If foot launching, should only foot launch only on slopes of 3:1 - 4:1, where wind is within 15° of being straight up the slope.
5. Should launch only when there are no obstructions within 60° to either side of the intended flight path, and when pilot may fly straight out from launch to landing with no need to maneuver and no possibility of over-flying the landing area.
6. Should fly appropriate sites for this skill level.
7. Should fly a canopy recommended by the manufacturer as suitable for Beginner or Novice pilots.

## **12-02.14 Novice Paragliding Rating (P-2)**

- A. General Description – A Novice paraglider pilot has the knowledge and basic skills necessary to fly and practice without direct instructor supervision but within significant operating limitations. The pilot understands the USHPA paragliding rating systems and recommended operating limitations.

The pilot shall use good judgment and have a level of maturity commensurate with the rating. Pilots must demonstrate Beginner level skills and knowledge before obtaining the Novice rating. All witnessed flights must be pre-planned by the pilot and discussed with the Instructor.

- B. Novice Rating - Required Witnessed Tasks

1. Logged Requirements

- a. Attends a minimum of 8 hours of ground school.
- b. Must have logged a minimum of 25 flights above 299' which require a landing approach.

2. Demonstrated Skills and Knowledge

- a. Demonstrates layout and preflight of the canopy, harness, and backup reserve parachute.
- b. Gives a reliable analysis of general conditions of the site and self, and a flight plan including flight path, areas to avoid in relation to the wind flow, and obstacles to stay clear of.
- c. Demonstrates 5 consecutive forward inflations with a visual check of the canopy each time.
- d. Demonstrates 5 consecutive controlled reverse inflations with proper surge dampening.
- e. Demonstrates controlled kiting of a glider overhead for 2 minutes in a steady wind.
- f. Demonstrates 2 clean, smooth reverse inflations/reversals prior to launch.
- g. With each flight, demonstrates a method of establishing that the pilot is properly connected to the glider, with cleared lines and risers just prior to inflation.
- h. Demonstrates 2 successful, aggressive, confident inflations/launches, where the wind is at least 15° cross to straight up the hill in wind not exceeding 5 m.p.h.
- i. Demonstrates 2 no-wind (0-5 m.p.h.) inflations/launches.

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- j. Demonstrates how to brief and instruct a ground crew and explain when an assisted launch is necessary.
- k. Demonstrates 2 high-wind (10-15 m.p.h.) inflations/launches.
- l. Demonstrates flight with smooth variation in airspeed, from above minimum sink to fast flight, while maintaining a heading.
- m. Demonstrates flight showing the ability to comfortably and precisely slow the glider to minimum sink and smoothly increase to normal airspeed while maintaining a heading. The pilot should not slow the glider to near the stall speed.
- n. Demonstrates flight(s) along a planned path alternating 'S' turns of at least 90° change in heading. Flight heading need not exceed 45° from straight into the wind. Turns must be smooth with controlled airspeed, ending in safe, stand up landings on a heading.
- o. Demonstrates 180° turns in both directions, and at various speeds and bank angles.
- p. Demonstrates hands-off flying, one handed flying skills, weight-shift turns, and rear-riser turns.
- q. Demonstrates symmetric and asymmetric tip folds for increased descent rate.
- r. Demonstrates the ability to judge and allow for proper clearance from a ridge and other aircraft.
- s. Demonstrates 5 landings within 25' of a target, safe, smooth, on the feet and into the wind. The target must be sufficiently close to launch such that turns are required to set up an approach and avoid over-flying the target. The target should be at least 100' below the launch point.
- t. Explains proper strong wind landing procedures and how to keep from being dragged back.
- u. Explains correct canopy maintenance.
- v. Explains how to lengthen and shorten the flight path.
- w. Explains the right of way traffic rules.
- x. Demonstrates the proper use of a speedbar/accelerating system.
- y. Demonstrates reserve deployment while hanging in a harness in simulated turbulence or malfunction conditions.
- z. Gives a thorough verbal demonstration of knowledge of how to:
  - i. Maintain directional control during and correct for an asymmetric wing fold of 25% of the wing span.
  - ii. Fly at minimum sink while precluding any chance of inadvertent stall or spin, particularly when flying through lift, sink or in conjunction with making turns.
  - iii. Increase descent rate and/or forward speed.
- aa. Demonstrates proper and effective PLF technique.
- bb. Must pass the USHPA Novice Paragliding written exam.

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- cc. Must agree to all the provisions of the USHPA standard waiver and assumption of risk agreement for the Novice rating and deliver an original signed copy to the USHPA office.
  - dd. Acknowledges and understands the need to become familiar with site-specific restrictions and launch or landing access limits, consistent with preservation of flying privileges at a site.
- C. Recommended Operating Limitations for Novice Paragliding Pilots
1. Should exceed these limitations only after thoroughly mastering all required tasks, and after acquiring a full understanding of the potential problems and dangers involved in exceeding these limitations.
  2. Maximum base wind of 12 MPH
  3. Maximum peak gusts to 15 MPH
  4. Maximum gust rate of 5 MPH in 5 seconds.
  5. Should not fly in thermal lift where peak climb rates exceed 200 fpm.
  6. If foot launching, should launch only on slopes steeper than 4:1, where the wind is within 25° of being straight up the slope.
  7. Visual contact with the landing zone.
  8. Avoid application of either brake beyond 2/3 of the way from slack to stall position.
  9. Limit turns to 30° of bank, limit speed in turns to 1.5 times the straight line, brakes off, cruise speed, and smoothly exit any spiral turn which shows a tendency to steepen or accelerate.
  10. Should fly a canopy recommended by the manufacturer as suitable for Beginner to Intermediate pilots.

## 12-02.15 Intermediate Paragliding Rating (P-3)

- A. General Description – The pilot has the knowledge and skills to fly most sites in mild to moderate soaring conditions, and to judge when the site and conditions are within the pilot's skill, knowledge, and experience level. The pilot understands the USHPA paragliding rating system and recommended operating limitations, and the FARs and other flying rules applicable to his/her flying (ridge rules, thermal right of way, FAR 103, aircraft sectional use and regulated airspace avoidance, etc.).

The pilot shall use good judgment and have a level of maturity commensurate with the rating.

- B. Intermediate Rating - Required Witnessed Tasks
1. Logged Requirements
    - a. Must have logged a minimum of 30 flying days.
    - b. Must have logged a total of at least 90 flights.
    - c. Must have logged a minimum of 20 hours of solo airtime.
  2. Demonstrated Skills and Knowledge
    - a. Has received training in and/or understands the importance and significance of:
      - i. Right of way rules.

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- ii. FAA Regulations and aircraft sectional charts
  - iii. Airspeed control, stalls, spins, and turbulence-induced collapses and recoveries.
  - iv. Canopy owner's manual.
  - v. USHPA Accident Report results currently in print.
- b. Can give verbal analysis of conditions on the hill, demonstrating knowledge of wind shadows, gradients, lift, sink, laminar air, turbulence and rotors, and the effect these items have on an intended flight path and turns.
  - c. Must give a verbal flight plan for each observed flight.
  - d. Must show thorough preflight of the harness, canopy, and backup reserve parachute.
  - e. With each flight, demonstrates a method of establishing that the pilot is properly connected to the glider, with cleared lines and risers just prior to launch.
  - f. All inflations/launches should be aggressive, confident, and with a smooth transition from running to flying. Flights with slow, unstable inflations/launches will not be considered adequate for witnessed tasks.
  - g. For witnessed tasks, all landings must be safe, smooth, on the feet, and in control.
  - h. Demonstrates the ability to differentiate airspeed from ground speed.
  - i. Demonstrates linked 180° turns along a predetermined ground track showing smooth controlled reversals and proper coordination at various speeds and bank angles.
  - j. Demonstrates 360° turns in both directions, and at various speeds and bank angles.
  - k. Demonstrates symmetric and asymmetric tip folds (25% per side, 50% total) or some other method of canopy reduction for increased descent rate.
  - l. Demonstrates one method to increase forward speed.
  - m. Demonstrates proper surge control of canopy using properly timed brake application.
  - n. Gives a thorough verbal description of how to maintain directional control during and correct for an 50% asymmetric wing collapse.
  - o. Gives a thorough explanation of:
    - i. why flying a paraglider with one or both control toggles significantly extended should be avoided unless flaring for a landing.
    - ii. the signs that the paraglider has entered a stalled configuration (one or both sides).
  - p. In 8 to 15 m.p.h. winds, demonstrates the ability to maintain airspeed at or near minimum sink during crosswind and upwind legs, without any evidence of stalls.
  - q. Demonstrates 5 landings within 10' of a target after flights requiring turns on approach.

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- r. Demonstrates proper airspeed control on landing approach when descending through a gradient.
- s. Demonstrates proper airspeed for maximum distance flown into a significant headwind.
- t. Demonstrates complete understanding of all Paragliding Tow Discussion Topics (for tow rated pilots only).
- u. Must pass the USHPA Intermediate Paragliding written exam.
- v. Must agree to all the provisions of the USHPA standard waiver and assumption of risk agreement for the Intermediate rating and deliver an original signed copy to the USHPA office.
- w. Acknowledges and understands the need to become familiar with site-specific restrictions and launch or landing access limits, consistent with preservation of flying privileges at a site.

**C. Recommended Operating Limitations for Intermediate Paraglider Pilots**

- 1. Maximum base wind of 15 m.p.h.
- 2. Maximum peak gusts to 18 m.p.h.
- 3. Maximum gust rate of 5 m.p.h. in 5 seconds.
- 4. Avoid steep turns close to the ground.
- 5. Avoid application of either brake beyond 3/4 of the way from full off to stall position.
- 6. Limit turns to bank angles recommended by the manufacturer, limit speed in turns to 2 times the straight line, brakes off, cruise speed, and smoothly exit any spiral turn that shows a tendency to steepen or accelerate.
- 7. Should initiate downwind turns only with 300' of clearance outward from the hill or ridge in winds above 15 m.p.h., and 200' of clearance in winds above 10 m.p.h.
- 8. Should not fly in thermals where peak climb rates exceed 500 fpm or where significant vertical cloud development exists.
- 9. Upon mastering the above skills, an Intermediate Paragliding Pilot should pursue new maneuvers, sites, and conditions with the guidance of a USHPA Certified Advanced Paragliding Instructor or Observer.

## **12-02.16 Advanced Paragliding Rating (P-4)**

- A. General Description – The pilot has the knowledge and skills to fly technically demanding sites in strong soaring conditions, and to judge when the site and conditions are within the pilot's skill, knowledge, and experience level. The pilot understands the USHPA paragliding rating system and recommended operating limitations, and the FARs and other flying rules applicable to his/her flying.

The pilot will fly using good judgment and have a level of maturity commensurate with the rating.

**B. Advanced Rating - Required Witnessed Tasks**

- 1. Logged Requirements
  - a. 250 flights.

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- b. Must have made 5 flights at each of 5 different sites in Intermediate level conditions, of which 3 were inland.
  - c. Must have logged a minimum of 80 flying days.
  - d. Must have at least 3, 1-hour flights in thermal lift without sustaining ridge lift. Flights must originate from at least 2 different sites in Intermediate level conditions.
  - e. Must have at least 1, 1-hour flight in ridge lift without sustaining thermal lift.
  - f. Must have logged a minimum of 75 hours total airtime, with no more than 25 of these hours to be tandem. Of these 75 hours, 25 must be in thermal lift, with no more than 10 of these 25 hours to be tandem flights.
  - g. Must have flown a minimum of 5 different canopies.
2. Demonstrated Skills and Knowledge
- a. Demonstrates preflight of the harness, canopy, and backup reserve parachute.
  - b. Can give a verbal analysis of conditions.
  - c. Can develop then follow a flight plan.
  - d. With each flight, demonstrates a method of establishing that the pilot is properly connected to the glider, with cleared lines and risers just prior to launch.
  - e. All inflations/launches should be aggressive, confident, and with a smooth transition from running to flying. Flights with slow, unstable inflations/launches will not be considered adequate as witnessed tasks.
  - f. All landings must be safe, smooth, on the feet and in control.
  - g. Demonstrate ability to allow clearance when doing 360° turns by demonstrating figure eights:
    - i. In a wind sufficient to cause drift, two points will be selected on a line perpendicular to the wind.
    - ii. The pilot will fly along a line parallel to that joining the pylons, slightly downwind of the pylons, toward a point midway between them. During the crosswind leg, the pilot will establish the degree of wind drift. At the midpoint between the pylons, the pilot will make a smooth, deliberate upwind turn and enter a figure eight course consisting of smooth turns of constant ground track radius around the pylons (centered on the pylons) with straight segments at the midpoint between the pylons.
    - iii. The pilot must complete two consecutive figure eights in which the airspeed, bank angle, and turn rate are altered smoothly around the course such that the proper ground track is held and the drift is compensated for, without overcompensation or hesitation.
  - h. Demonstrate three consecutive landings within 10' of a target after a flight which requires turns on approach. In smooth conditions, the spot location should be changed by the Observer, for each of the three flights. Flights should be a minimum of one minute and 200' AGL.
  - i. Demonstrate smooth coordinated 360° turns in both directions, with reversal at various speeds and bank angles appropriate to the rating level.

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- j. Demonstrates significant asymmetric wing collapses (50% of the wing span) with directional control.
- k. Demonstrates complete understanding of all Paragliding Tow Discussion Topics (for tow rated pilots only).
- l. Must pass the USHPA Advanced Paragliding written exam.
- m. Must convince the Instructor or Observer that he can check in and fly Advanced rated sites without endangering spectators, other pilots, or jeopardizing the site.
- n. Must agree to all the provisions of the USHPA standard waiver and assumption of risk agreement for the Advanced rating and deliver an original signed copy to the USHPA office.

**C. Recommended Operating Limitations for Advanced Paraglider Pilots**

- 1. Should not fly within 30' of another glider in smooth air, or within 100' of another glider in moderately turbulent air.

## 12-02.17 Master Paragliding Rating (P-5)

A. General Description – For pilots who wish to further diversify their skills in the sport of paragliding, and to recognize the achievement of the expert skilled pilot who has experience beyond the Advanced level, there is a designation of Master Pilot. No site will be designated as requiring Master skills. The pilot will fly using good judgment and have a level of maturity commensurate with the rating.

**B. Master Rating - Required Witnessed Tasks**

**1. Logged Requirements**

- a. Must be a current USHPA Pilot or Rogallo Member.
- b. Must have all Special Skills witnessed except Para Ski (PS).
- c. Must have a minimum of 1,450 points in at least 6 categories (see chart below). Must have a minimum of 400 hours airtime with at least 200 hours in thermals, and at least 500 logged flights.
- d. Must obtain at least 3 letters of recommendation from USHPA Paragliding Observers, Examiners, or Advance Instructors, who will attest to the flying requirements and especially the good judgment and maturity of the applicant. If these officials have not seen the applicant flying for this 3 year period, additional letters of recommendation must be presented so that the 3 year block of time is covered.
- e. Must possess the Bronze Safe Pilot Award, or above (100 flights; there are no points given for this).

<u>Categories</u>	<u>Points</u>	<u>Max Points Allowed</u>
Air time (min. 400 hrs.)	1 pt./hr (beyond 400 hrs required airtime)	350
No. of flights (Min. 500 flts. 250 must be foot launched)	1 pt./flt. (beyond required 500 flts)	250
Altitude Gains(Only one altitude gain may be used	10pts./2,000' gain 15 pts./3,000' gain	350

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from each flight)	20 pts./4,000' gain 25 pts./5,000' gain 30 pts./6,000' gain	
Cross Country (10 mi. min. flts.)	1 pt./mi	350
Number of different sites flown	10 pts./site	300
Number of different gliders flown	5 pts./glider	150
Competition	10 pts./fifth 20 pts./fourth 30 pts./third 40 pts./second 50 pts./first	100
Tandem (As pilot in command)	10 pts./flight	100
Towing(Payout Reel, Stationary Winch Static Line)	5 pts./flight	100 (50 pts. in each of the possible categories)

- f. The pilot is to present documentation of flight experience, to meet the 1,450 point minimum, to his Regional Director, who confirms completion of the requirements. The Director then approves or denies the application. If the application is denied, the pilot may appeal the denial to the USHPA Board of Directors. A two-thirds vote of the Board is required to uphold the appeal. A Regional Director's award of a Master designation may be rescinded by a two-thirds vote of the Board.
- g. Must agree to all the provisions of the USHPA standard waiver and assumption of risk agreement for the Master rating and deliver an original signed copy to the USHPA office.

## 12-02.18 Paragliding Special Skill Endorsements

A. Special Skills attainable by Novice only.

1. 360° Turns (360):

- a. Demonstrates ability to do 360° turns in both directions with constant airspeed and bank angle.

B. Special Skills attainable by Novice and above.

1. Ridge Soaring (RS):

- a. Demonstrates the ability to kite and launch safely on a slope producing sustainable ridge lift
- b. Demonstrates the ability to fly a standard traffic pattern in both isolated and traffic conditions, illustrating the ability to communicate properly with other pilots in the pattern.
- c. Demonstrates the ability to soar in a crosswind without stalling on downwind legs, and demonstrates the ability to fly at minimum sink without stalling in turns.
- d. Demonstrates the ability to perform consistent and safe top landings.

2. Light Wind Cliff or Ramp Launch (CL):

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- a. Demonstrates the ability to launch safely from a shallow slope ramp or non-abrupt or overhung cliff top, where running room is severely restricted, drop off is steep, and wind is 5 m.p.h. or less, such that positive attitude control and strong, aggressive sprinting starts are required. Stalled, falling/diving launches are not acceptable demonstrations, even if flight is achieved.
3. Flat Slope Launches (FSL):
  - a. Demonstrates ability to launch in less than 10 m.p.h. wind from slopes which approach the maximum L/D of the glider.
4. Restricted Landing Field (RLF):
  - a. Demonstrates a landing using a downwind leg, base-leg, and a final leg approach where the entire base-leg, final, and landing occur within a 100' square.
  - b. Demonstrates the ability to plan and execute consistent and controlled side hill landings on various slopes.
  - c. Demonstrates the ability to plan and execute consistent and controlled top landings from various approaches.
5. Turbulence (TUR):
  - a. Demonstrates controlled and un-panicked flight in conditions requiring quick, deliberate, substantial, and correct control application to reduce pendulum motion.
  - b. Demonstrates proper directional control and correction of full (i.e., 50% of the wing span) asymmetric collapses.
  - c. Demonstrates sustained flight in moderate thermal conditions without the aid of ridge lift.
  - d. Demonstrates smooth and correctly timed surge control.
  - e. Must have logged five 30-minute thermal flights without sustaining ridge lift.
6. High Altitude Launch (HA):
  - a. Demonstrates the ability to launch unassisted with strong, running forward-inflation launches in winds less than 5 m.p.h.
  - b. Demonstrates launches from sites with density altitude of 6000' or higher.
  - c. Demonstrates understanding of high altitude conditions (e.g., air density, cloud suck, anabatic and catabatic conditions, hypoxia, hypothermia).
7. Surface Tow (ST)
  - a. Must demonstrate tow system set up and preflight, including a complete discussion of all of the factors which are particular to the specific tow system used, and those factors which are relevant to towing in general. Must demonstrate complete understanding of both normal and emergency procedures, including checklists for normal procedures and the indications of an impending emergency, and convince the instructor of his/her ability to recognize and execute emergency procedures.
  - b. Demonstrates successful, confident, controlled launches and flight under tow to release altitude, with a smooth transition to flying. Such demonstrations may be made in ideal wind conditions.

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- c. Has discussed all Towing Discussion Topics with the issuing ST official
- 8. Para-Ski (PS)
  - a. Demonstrates the ability to correctly set up and self launch with skis on. This is a no wind skill. Pilot must have the ability to inflate the canopy in forward launch position first try.
  - b. Explains conditions, weather, equipment and protocols peculiar to flight in a ski area environment.
  - c. Demonstrates light wind launches and landings with skis.
- C. Special Skills attainable by Intermediate and above.
  - 1. Assisted Windy Cliff or Ramp Launch (AWCL):
    - a. Demonstrates ability to launch with assistance in windy conditions from a non-abrupt or overhung cliff or ramp that exhibit strong lift at takeoff. Must show proper use of release signals and confident, aggressive launch.
  - 2. Cross Country (X-C):
    - a. Must hold B.4 and B.5 above.
    - b. Demonstrates ability to recognize a safe landing area from the air and determine and execute a safe approach and landing, accounting for wind direction, rotors, obstacles, power lines, ground slope, vegetation, etc.
    - c. Demonstrates significant altitude gains (1000' or greater) above launch.
    - d. Demonstrates flight at a site where the landing area is not visible from launch, is not the normal landing area, and cannot be reached in a glide. The flight must demonstrate the pilot's ability to locate and link thermals to reach a destination.
    - e. Demonstrates knowledge applicable to cross-country flight (e.g., downwind rotors, cloud streets, detecting wires and other obstructions from the air, advancing storm fronts, convergences and shears, etc.).

## **12-02.19 Paragliding Tandem Requirements**

### **A. Administration**

1. The USHPA has established a 3-tiered system of requirements for tandem ('two-place' or 'dual') flying: Tandem 1 and Tandem 2 for recreational tandem flying, and Tandem Instructor for instructional tandem flying. These requirements are in addition to those established by the Federal Aviation Administration tandem exemption. See Addendum 3 – Exemption #4721 (Tandem).
2. All necessary information will be distributed and administered by designated USHPA Tandem Administrators. A study guide and both flight and written examination requirement information packages are available from the office of the USHPA.
3. The Tandem I rating involves minimal requirements and regulation as this form of flying takes place only between qualified and consenting USHPA rated pilots. This rating is authorized by a Tandem administrator after administering the written examination and witnessing the proper flight skills utilizing the designated launch method, as well as the designated landing method.

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- a. Attendance in a tandem training program or USHPA Tandem Certification Clinic is mandatory.
4. Tandem 2 rating requirements are much more stringent, and require a substantial amount of tandem experience, as they allow flights with USHPA Student rated passengers of limited experience, who have in their possession a USHPA Student Membership Card. This rating is authorized only by the office of the USHPA, after the applicant pilot submits proof of complying with all requirements, including successful completion of a USHPA Tandem Instructor Certification Clinic.
5. Tandem 2 rated pilots may not offer instruction, and may not accept any form of remuneration for their flight service.
6. The designated launch methods will be Foot Launch (TFL), or Surface Tow (TST). All Tandem pilots, Tandem Instructors, and Tandem Administrators will operate only in those disciplines for which they are rated.
7. All Tandem ratings are valid for 3 years from the date of issuance.
  - a. Tandem 1 rating renewal requires that the pilot either:
    - i. Submit documentation to a Tandem Administrator showing a minimum of 10 tandem flights of 2 minutes duration or longer per year over the previous three year period; or,
    - ii. Take and pass a check flight exam with a Tandem Administrator.
    - iii. Submit to the USHPA a USHPA Tandem renewal form, signed by a Tandem Administrator, attesting to the above requirements being fulfilled.
  - b. Tandem 2 rating renewal requires that:
    - i. The pilot prove currency by either:
      - a. Submitting documentation to a Tandem Administrator showing a minimum of 10 tandem flights of 2 minutes duration or longer per year over the previous three year period; or,
      - b. Take and pass a check flight exam with a Tandem Administrator.
    - ii. The pilot present proof to a Tandem Administrator of a current first aid card as required for all Instructors in SOP 12-05.04;
    - iii. The Tandem Administrator verify that the pilot is complying with the (30 day or full) membership and waiver requirements for his/her tandem students; and
    - iv. The Tandem Administrator submit to the USHPA a signed USHPA Tandem renewal form, attesting to the above requirements being fulfilled
8. NOTE: The USHPA has a procedure to rescind a Tandem rating.

**B. Pilot Rating Requirements**

1. Tandem 1:
  - a. Current USHPA Advanced Rating, Turbulence sign-off, AND;
  - b. Minimum 200 hours of logged airtime, OR 100 hours with 500 flights of at least 500' vertical descent, OR 100 hours with 500 flights of 2 minutes or longer.

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- c. Ability to consistently perform zero-wind and light crosswind launches, and zero-wind and light-wind landings culminating in zero ground speed at the moment of the flare and when the pilot's feet first contact the ground.
- d. At least 2 logged tandem flights as a passenger with a USHPA Tandem rated pilot using the designated launch method.
- e. 4-10 flights as pilot in command with a current USHPA Tandem Administrator as passenger. Flights must originate from a minimum altitude of 500' AGL or a minimum duration of 2 minutes. These flights should include one light wind (0 - 5 MPH) launch using a forward inflation, one high wind (10 – 15 MPH) launch using a reverse inflation, and landing.
- f. Successful completion of a flight skills test with a Tandem Administrator as the tandem passenger. This test will include, as a minimum, a passenger briefing, a successful tandem launch and a successful tandem approach and landing utilizing the designated launch method.
- g. Successful completion of a written test administered by the USHPA Tandem Administrator.
- h. Neither flight skills nor written test is to be administered prior to completion of pilot rating requirements.
- i. Must agree to all the provisions of the USHPA standard waiver and assumption of risk agreement for the Tandem 1 rating and deliver an original signed copy to the USHPA office.

2. Tandem 2:

- a. Current USHPA Tandem 1 rating
- b. At least 25 logged tandem flights of at least 500' vertical descent or at least 2 minutes duration as pilot in command using the designated launch method.
- c. Successful completion of a 1-2 day tandem exam clinic and pass a written exam and flight test with a Tandem Administrator. Attendance in the exam clinic cannot precede the requirements above.
- d. Must agree to all the provisions of the USHPA standard waiver and assumption of risk agreement for the Tandem 2 rating and deliver an original signed copy to the USHPA office.

C. Tandem launch special skills

Note 1: Tandem special skills can only be given by Administrators possessing those tandem special skills themselves.

Note 2: Solo pilot special skills do NOT automatically cross over or apply to tandem ratings.

- 1. Foot launch (TFL): Candidate demonstrates through actual observed flights (to the satisfaction of the rating administrator) a thorough proficiency in securing the passenger and themselves to the glider, preparing the passenger for the take-off run, and ultimately executing safe, consistent launches that smoothly transition to flight. Must demonstrate complete understanding of both normal and emergency procedures, including checklists for normal procedures and the indications of an impending emergency, and convince the Tandem Administrator of his/her ability to recognize and execute emergency procedures.
- 2. Surface tow launch (TST): Candidate demonstrates through actual observed flights (to the satisfaction of the rating administrator) a thorough proficiency in securing the

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passenger and themselves to the glider, preparing the passenger for the take-off and flight via surface tow methods, and ultimately executing safe, consistent launches that smoothly transition to flight. Must demonstrate complete understanding of both normal and emergency procedures, including checklists for normal procedures and the indications of an impending emergency, and convince the Tandem Administrator of his/her ability to recognize and execute emergency procedures.

**D. Operating Restrictions and Limitations**

**1. Tandem 1:**

- a. May fly tandem recreational flights only with passengers in possession of a current USHPA Beginner Rating card or higher, and utilizing their designated launch method (FL or ST).
- b. When flying with cross-discipline pilots, a novice rating is recommended for the passenger.
- c. Maximum allowable wing loading must be within the placards of the glider.

**2. Tandem 2:**

- a. Pilot may offer recreational tandem flights only, utilizing their designated launch method (FL or ST).
- b. Pilot may not accept any form of remuneration for his/her services.
- c. Passenger must have in their possession a permanent USHPA Student rating card or higher. A temporary rating form is not acceptable.
- d. Maximum allowable wing loading must be within the placards of the glider.

**3. Tandem Instructor:**

- a. May offer recreational or instructional flights, utilizing their designated launch method (FL or ST).
- b. Tandem Instructors may charge fees for lessons.
- c. Student must have in their possession a temporary or permanent Student rating or higher.
- d. Maximum allowable wing loading must be within the placards of the glider.
- e. When present at a flying site, a Tandem Instructor shall personally ensure that all tandem flying requirements and the site requirements are being strictly followed. He shall personally inspect the USHPA ratings of both tandem passengers and pilots, and shall have the authority to halt those tandem flights that are in noncompliance. Noncompliance shall be reported to the Regional Director.

4. Prior to all tandem flights, the passenger or student must be informed that such flights are conducted under an exemption granted by the FAA, and that the ultralight vehicle does not meet aircraft certification standards set forth by the FAA.

5. Possession of the FAA's Part 103, FAR Grant of Exemption #4721 is mandatory while flying tandem.

6. All tandem accidents should be reported by the tandem pilot involved and any other tandem pilot aware of the accident.

**E. Equipment Requirements**

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1. The glider is recommended by the manufacturer for two-place flight.
2. At least one backup reserve parachute rated for the gross load being flown is required on flights where any possibility of successful deployment exists.
3. Appropriate helmets are required for both occupants during flight.
4. Suitable harness on both people.
5. Hook knife on pilot.
6. Although choice of other equipment is up to the individual pilot-in-command, ankle supporting boots, knee pads, gloves, and clothing appropriate to the site conditions are recommended.
7. Steel carabineers for the main connection point where the spreader bar meets the riser.
8. A reserve bridle that connects the reserve parachute to the spreader bar and not to the tandem pilot

## 12-02.20 Addendum 1 – Optional Landing Task

At the discretion of the Observer or Instructor and not the pilot, this task may be substituted for the "three spot landings in a row" task. The administration of the task is as follows:

- A. Equipment. Two flags, connected by a 200' long piece of wide ribbon. Flags and ribbon should be of a size and color so as to be visible from the air. Alternately, a 200' long line may be permanently marked on the ground in areas where the wind direction is highly reliable. The endpoints of the line must be visible from the air on approach, and at least one wind direction flag should be provided.
- B. Procedure. - The Instructor or Observer selects the most logical (most desirable - safest) landing point in the landing area. He plants one flag (the limit flag) 100' directly upwind of this point, stretches out the ribbon and plants the second flag (the threshold flag) 100' downwind of the ideal landing point; 200' downwind of the limit flag.

The ribbon represents a runway. The task is to land on the runway. Successful completion of the task requires the pilot to make a landing where no weight bearing contact is made prior to the threshold flag, beyond the limit flag, or more than 20' laterally away from the ribbon (runway centerline). The pilot may not touch the nose of the glider, nor the control bar, nor any part of the pilot's body other than the soles of his feet to the ground. In a landing that is pre-designated to be made on wheels, the front of the pilot's body may touch the ground.

Successful completion of the task requires that two landings be made and observed and recorded by the Observer or Instructor in the pilot's certification book or logbook. They need not be on consecutive attempts; however, following any failed attempt at the task, the Observer or Instructor shall note the failed attempt in the pilot's certification book or logbook, and the pilot shall not be eligible to attempt the task again until he logs ten additional landings.

The required task is the same for candidates for Novice, Intermediate, and Advanced ratings. However, Instructors and Observers should administer the task in conditions appropriate for each level: smooth winds at the end of the day with no significant thermal activity for Novice candidates, lighter or less consistent winds with some convective or turbulent activity for Intermediate candidates, and middle of the day, light or inconsistent winds with significant convective or turbulent activity for Advanced candidates. It is expected that pilots attempting the task be able to set up a crab to handle a slight variation between wind direction and "runway" orientation. However, the Instructor or Observer has the option of discounting a failed attempt

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and allowing an immediate re-test if a major change in wind direction or conditions during the attempt has made the difficulty of the task inappropriate for the level of skill being tested for.

## **12-02.21 Addendum 2 – Exemption #4144 (Towing)**

Pursuant to the authority contained in Sections 313(a) and 601(c) of the Federal Aviation Act of 1958, , the individuals authorized by the USHPA are granted an exemption for the FARs to the extent necessary to allow unpowered ultralight vehicles to be towed aloft by powered ultralights.

The exemption is subject to the following limitations:

1. Each operation must comply with all sections of Part 103 except #103.1(b) of the FAR.
2. No charge, assessment or fee may be made for the operation of the towing ultralight except the actual expenses of the specific flight.
3. Both pilots on both ultralights must possess a current pilot rating issued by the USHPA.
4. For identification purposes, the USHPA shall issue an individual authorization to each person allowed to conduct operations under this exemption. Each authorization shall include an identification number and a copy of this exemption. The USHPA shall have a procedure to rescind this authority when needed.
5. Operations conducted under this exemption shall be in accordance with the safety and certification rules and guidelines, as amended, established by the USHPA, including those specified in paragraphs 1 through 12 in the petitioners supportive information.
6. Each individual who operates an ultralight vehicle under the authority of this exemption must be familiar with the provisions contained herein and must have in his or her personal possession a copy of the authorization issued by the USHPA and a copy of this exemption. These documents shall be presented for inspection upon request by the FAA.

The following requirements must be understood and adhered to:

1. Both vehicles (powered and unpowered ultralight) must meet the vehicle standards of Part 103.
2. Both vehicles must meet the requirements of the USHPA Towing standards.
3. While towing, both vehicles may be used for recreational purposes only.
4. The pilot of the powered ultralight vehicle must possess and have in his possession a current tow rating issued by the USHPA.
5. The pilot of the unpowered ultralight vehicle must possess and have in his possession a current pilot rating issued by the USHPA. This rating shall be at least a USHPA Intermediate (level 3) for a recreational pilot and a USHGA Novice (level 2) for a student pilot under the supervision of a USHPA certified instructor.
6. The unpowered ultralight (hang glider) may be used for two place instructional purposes if the instructor possesses a current USHPA instructor rating and is operating under the conditions of the two-place exemption.
7. Prior to a student's first flight in a towed ultralight (hang glider), the pilot of the powered ultralight and the instructor must inform the student that instruction under tow is conducted under an exemption granted to the USHPA by the FAA.
8. The instructor must keep written record of all operations conducted under this exemption. The record shall include the students name, the date and the location of the instruction.

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The record must be maintained for 12 calendar months. The instructors shall present this record for inspection upon reasonable request by the USHPA or the FAA.

9. The instructor shall notify the USHPA within 30 days of any accident occurring while operating under this exemption. This information shall be made available upon reasonable request by the FAA.
10. The structural integrity of the tow hitch and tow line must be substantiated in accordance to USHPA standards and recorded in the tow launch vehicle records by the owner.
11. The operational capabilities of the powered ultralight to tow and release a hang glider satisfactorily must be demonstrated in an assigned test area under actual operational conditions to a USHPA observer and be duly recorded in the tow vehicle records.
12. Both towed and towing pilots must obey operational procedures set forth in the USHPA Towing standards.

## **12-02.22 Addendum 3 – Exemption #4721 (Tandem)**

This exemption to Federal Aviation Regulation 103.1(a) and 103.1(b) permits pilots to operate an unpowered ultralight vehicle with another occupant for the purpose of sport, recreation and/or training. This exemption is subject to the following conditions and limitations:

1. Each operation must comply with all sections of Part 103, except §103.1 (a) of the FAR.
2. For training purposes, this exemption applies only to flights for the purpose of giving instruction in two-place unpowered ultralight vehicles from USHPA-approved launch sites.
3. Both occupants on all two-place training flights must possess a current pilot rating issued by the USHPA and at least one occupant must possess a current USHPA instructor rating.
4. Prior to all two-occupant training flights, the student must be informed that the flight is conducted under an exemption granted by the FAA and that the ultralight vehicle does not meet aircraft certification standards set forth by the FAA.
5. Both occupants on all two-place flights, other than for training purposes, must possess a current pilot rating issued by the USHPA and at least one occupant must possess a current Advanced hang gliding rating issued by the USHPA.
6. For identification purposes, the USHPA shall issue an individual authorization to each person allowed to conduct operations under this exemption. Each authorization shall include an identification number and a copy of this exemption. The USHPA shall also have a procedure to rescind this authority when needed.
7. Each individual who operates an ultralight vehicle under the authority of this exemption must be familiar with the provisions contained herein and must have in his or her personal possession a copy of the authorization issued by the USHPA and a copy of this exemption. These documents shall be presented for inspection upon request by the FAA.