

Pilot Proficiency System

Standard Operating Procedure 12-02

Last Amended September, 2023

12-02.01 Introduction

USHPA pilot ratings are issued to reflect completion of WITNESSED tasks. Some tasks may seem to require excessive precision or attention to detail, but the practice of preparing for them will prove beneficial. A rating gives a pilot an introduction to local pilots at a different site. Flying sites are rated according to the approximate skill level required to fly there safely. A pilot may fly the site only if the local pilots feel the pilot is capable of doing so safely.

It is recommended that all pilots maintain a flight log.

Definitions:

- A. Pilot Ratings: A rating reflects the aptitude and flying competence on a free-flight wing or craft. Pilots are rated via the type of free-flight wing or craft: including hang glider and paraglider. Pilots are assigned a pilot rating 0-5 (Student, Beginner, Novice, Intermediate, Advanced, Master), depending on each classification structure outlined in the rating structure of SOP 12-02. Ratings do not expire until another rating of a higher level supersedes it.
- B. Special Skills: Techniques to support and enhance a rated pilots' flying experience are called special skills and include but are not limited to: launching, flying techniques, competitive learning, and circumstantial skills that enrich the pilots flying experience on or with a particular wing-type. Special Skills do not expire or get replaced by other special skills, ratings, or appointments.
- C. Appointments: Administrators or Directors give Appointment titles to a skilled pilot or pilot supportive role that shows a level of expertise and training above the average rating process or special skill processes – may include clinics, support the rating process, training high-level instructors, training basic pilot members, or acknowledgment of service to the members of the organization. Titles may include, but are not limited to: Instruction, Towing Administration & Supervision, Examiners, Observers, Mentors, and Tandem. All appointments are renewed every three years or annually based on SOP 12-05.

12-02.02 Administration Procedures

- A. Flights offered in evidence of a skill must have been made in accordance with regulations and requirements of the USHPA in effect at the time of the flight.
- B. Ratings shall be obtained in order, starting with either the Student (H0/P0/S0) or Beginner (H1/P1/S1) rating. Each successive rating assumes the applicant has the ability to perform the tasks required by all lower ratings. Beginner and Novice (H2/P2/S2) ratings may be issued simultaneously.
- C. Student ratings (temporary or H0/P0/S0) are issued by USHPA Basic, Advanced, Tandem, or Speed Flying Instructors for ALL students prior to training or tandem flights. A temporary Student rating is issued when the student and the Instructor complete and sign a 30-Day temporary Student membership application (including the Student Rating section), and waiver. A permanent Student rating (H0/P0/S0) may be issued when the applicant completes and signs a full

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membership application, the USHPA waiver, and both student and instructor sign the Student Rating Form. The documents and application fees (if applicable) are submitted to USHPA headquarters. Provided all the requirements are met, the USHPA shall issue a permanent rating.

- D. Beginner (H1/P1) and Novice (H2/P2) ratings may be issued by USHPA Basic or Advanced Instructors. Beginner (S0) and Novice (S2) Speed Flying ratings may only be issued by Speed Flying Instructors. A temporary Beginner or Novice rating is issued when the applicant and the Instructor complete and sign a USHPA Pilot Proficiency Program Rating Application. The applicant retains the 30-Day Temporary Rating Card at the bottom of the application and submits the application with the required application fee to USHPA.
- E. Intermediate (H3/P3) and Advanced (H4/P4) ratings may be issued by USHPA Observers or Advanced Instructors. Intermediate (S3) and Advanced (S4) Speed Flying ratings may only be issued by Speed Flying Instructors. A temporary Intermediate or Advanced rating is issued when the applicant and the Observer or Advanced Instructor complete and sign a USHPA Pilot Proficiency Program Rating Application. The applicant retains the 30-Day Temporary Rating Card at the bottom of the application and submits the application with the required application fee to USHPA.
- F. Master ratings (H5/P5) may be issued by the Training & Certification Committee. The applicant shall send the signed application form, the required application fee, and the completed waiver to USHPA Headquarters and provided that all the requirements are met, the USHPA shall issue a Master rating.
- G. Examiners may recommend applicants for the Instructor Certification Program, may appoint Observers, and may recommend Advanced Pilots (H4/P4) for the Master Rating (H5/P5). All recommendations are submitted to the USHPA office.
- H. All pilots applying for ratings Beginner (H1/P1/S1) and above must be a current Pilot, Rogallo, or Lifetime member.
- I. Any member renewing their membership as a Contributor must have any ratings deactivated in the USHPA database prior to processing that membership.
- J. Pilots who have been inactive for a substantial period of time are advised to see an Instructor for a proficiency check as a matter of good judgment.
- K. Before the USHPA issues any permanent rating card, and as a condition precedent to the issuance of any rating, the applicant must agree to all the provisions of the USHPA standard waiver and assumption of risk agreement and deliver an original signed copy to the USHPA office.
- L. Aerotow special skills (AT) can only be issued by Aerotow Observers, or by Basic or Advanced Instructors who also possess an AT rating.
- M. Aerotow Vehicle Pilot appointment (ATP) can only be issued by Aerotow Observers.

12-02.03 Rating Requirements

- A. Launch Method: All USHPA rated pilots holding a rating of Novice or above must hold at least one Launch Special Skill endorsement.
- B. Landing Method – Pilots are assumed to be proficient at foot landing, unless the “Landing Gear Only” Restriction (LGO) is attached to their rating.
 - 1. Landing Gear Only (LGO) Restriction: When all flights are completed on landing gear, and no foot landings are observed, the student may only achieve a HG rating that has the LGO restriction.

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- a. Demonstrates through actual observed flights the proper preparation for landing, followed by safe, smooth approaches, and landings utilizing landing gear (wheels, pontoons, skids, etc.).
 - b. All flight activities must be performed utilizing landing gear.
 - c. All flight activities are limited to LGO suitable flying sites.
- C. Tow Launch special skills: Holding a tow launch Special Skill does not signify the skills necessary to operate a tow system. The operation of a tow system is a difficult and demanding task requiring special training. A pilot must have an Aerotow Special Skill signoff before aerotowing behind a flying tow vehicle.

12-02.04 Witnessed Tasks and Launch Skill Requirement

Pilots applying for a higher rating must demonstrate proficiency in the launch method/s used to demonstrate the skills or tasks required to attain the higher rating.

12-02.05 Student Hang Gliding Rating (H0)

- A. Requirements for Student Pilots flying tandem
- A Student pilot has the basic knowledge required to understand and accept the risks of flying as a tandem passenger on a hang glider. This includes:
- 1. A basic understanding of the process involved in launching, flying and landing modern hang gliders.
 - 2. An understanding that a hang glider is controlled through weight shift and that control is hampered by holding any part of the vehicle other than where the Instructor indicates.
 - 3. An understanding that to foot launch a tandem flight, the Student and the Instructor must run efficiently together to produce airspeed to launch.
 - 4. An understanding that the Student must pay attention to the Instructor's commands at all times and be capable of carrying out those instructions.
 - 5. An understanding of the reasons for, techniques used, and deployment of a backup parachute.
 - 6. Must be advised that tandem flights on a hang glider is conducted under an exemption granted by the Federal Aviation Administration (FAA) and the glider is not certified for tandem flight by the FAA.
- B. Recommended Operating Limitations for Student Pilots flying solo
- 1. It is highly recommended that all flights be made under the direct supervision of a USHPA Certified Basic or Advanced Instructor.

12-02.06 Beginner Hang Gliding Rating (H1)

- 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 hang gliding rating systems and recommended operating limitations.
- B. Beginner Rating - Required Witnessed Tasks

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1. Set up and preflight of glider and harness, to include familiarity with owner's manual(s).
2. Demonstrate proper ground handling of equipment.
 - a. With each flight, demonstrate method(s) of establishing that pilot is hooked in just prior to launch.
3. Launch unassisted showing:
 - a. Aggressive run, if foot launched.
 - b. Good angle of attack and pitch control.
 - c. Directional control.
 - d. Smooth transition to flying, during launch.
4. Airspeed recognition and control.
 - a. Two flights, predetermined to show:
 - i. Constant airspeed.
 - ii. Smooth straight flight towards a pre-selected target.
 - iii. Safe, smooth landing, as pre-arranged on feet, landing gear, or floats, into wind.
 - b. Two flights, predetermined to show:
 - i. Confident, slight variation in airspeed showing awareness and control of airspeed envelope.
 - ii. Smoothly increasing airspeed, smoothly slowing airspeed showing good control, familiarity, and anticipation of safe envelope, without losing control. Airspeed to remain well above stall speed.
 - iii. Safe, smooth landing, as pre-arranged on feet, landing gear, or floats, into wind.
5. Shows ability to recognize and understand how different wind conditions at this site will affect their flights, including but not limited to:
 - a. Wind direction.
 - b. Wind velocity.
 - c. Terrain Shape.
 - d. Obstructions.
6. On each flight, demonstrates proper post-landing procedure, to include, but not limited to:
 - a. Setting glider down.
 - b. Unhooking.
 - c. Checking traffic.
 - d. Removal of glider from landing area.
 - e. Any specific protocol at this site.
7. Demonstration of understanding of the importance of proper breakdown, packing, transportation, and storage of glider.

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8. The pilot shall use good judgment and have a level of maturity commensurate with the rating.
 9. Must pass USHPA Hang Gliding Beginner written exam.
 10. 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 flying solo:
1. Should exceed these limitations only after demonstrating complete mastery of the required Beginner 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 Instructor.
 3. Should fly only in winds of 12 mph or less, with gust differential of 5 mph or less.
 4. Should foot launch only on slopes of 3:1 to 6:1, 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 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 maintain flight heading within 15° of directly into the wind.
 7. Should fly appropriate sites so as to maintain altitude below 100' AGL.

12-02.07 Novice Hang Gliding Rating (H2)

- A. General Description – A Novice hang glider 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 hang gliding 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 pilot and discussed with Instructor.

- B. Novice Rating - Required Witnessed Tasks

1. Logged Requirements

- a. Attends a minimum of 8 hours of ground school theory as outlined in the ICP Manual:
 - i. Weather
 - aa. Show students how to observe weather forecasts relating to the site from news broadcasting, newspapers and the Internet.
 - ab. Monitor weather forecast on a weather radio and or smart phones prior to leaving for flying and on site prior to flying.
 - ac. Discuss with students the wisdom of calling a local pilot to gain insight into the local conditions.
 - ii. Launches
 - aa. Consider altitude humidity and temperature factors (air density)

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- ab. Consider the slope of the ramp or hill, wind factors and the need for wire assistance.
 - ac. Discuss the angle of attack requirements, especially with cliff launches.
 - iii. Danger Signs
 - aa. High wind, dust blowing, white caps, swaying trees, smoke laying down and lenticular clouds.
 - ab. Rotor possibilities – note overall wind signs (cloud drift, water lines, bird drift, smoke from fires or smoke stack smoke direction) with respect to wind indicators at launch.
 - ac. Varying wind directions and differences at launch and landing.
 - iv. Landing
 - aa. Consider air density (as listed above in launches)
 - ab. Wind direction awareness and how wind affects landing. Wind direction indicators other than the wind sock.
 - ac. Approach
 - i. Watch for man-made objects. Lines in the field mean fences, ditches or power lines. Assume all roads have power lines.
 - ii. Setup procedures for long straight approach.
 - iii. Discuss approach options and preferred approaches with locals.
 - iv. Extra speed for handling gradient and turbulence.
 - v. Review crosswind landing techniques.
 - vi. Tree landing techniques.
 - vii. Avoidance of obvious crop fields.
 - v. Equipment
 - aa. Food and water.
 - ab. Instruments – air speed indicator etc.
 - vi. Site Orientation
 - aa. Discuss general site specifics, departure time, arrival time, and protocol. Also review the dive syndrome (first flight students flying too fast to LZ) and signs of proper airspeed (bar position, air speed indicator and bar feel).
 - b. Must have logged a minimum of 25 flights with a required ability to demonstrate an appropriate landing approach.
- 2. Demonstrated Skills and Knowledge
 - a. Demonstrates set-up and preflight of glider, harness, and reserve parachute.

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- b. Gives a reliable analysis of general conditions of the site and self; and flight plan including flight path, areas to avoid in relation to the wind flow, and obstacles to stay clear of.
- c. With each flight, demonstrates method of establishing that pilot is hooked in just prior to launch.
- d. Demonstrates flight with smooth variation in airspeed, from above minimum sink to fast flight, while maintaining a heading.
- e. Demonstrates flight showing 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 mush or stall the glider. These maneuvers should be practiced and observed with a minimum of 75 feet AGL in smooth conditions.
- f. While in preferred flying position, 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 wind. Turns must be smooth with controlled airspeed, ending in safe, stand-up landings on a heading.
- g. Demonstrates 180° turns in both directions, and at various speeds and bank angles.
- h. Explains how to safely execute a 360 degree turn, and describes the associated risk factors and decision making process.
- i. The pilot must demonstrate consistent landings satisfying the following requirements
 - 1. Safe, smooth landing, on feet and into the wind.
 - a. Pilots with Landing Gear Only (LGO) Restriction may land on landing gear
 - 2. The target must be sufficiently close to launch such that turns are required to setup an approach and avoid over-flying the target.
 - 3. The target should be at least 100' below the launch point.
 - 4. Landings must be performed in a variety of conditions at the discretion of the Instructor.
 - 5. Prior to each flight, the pilot shall describe their planned approach and landing based on site characteristics, conditions and equipment.
 - 6. The consistency requirement for the task is 3 landings in any continuous sequence of 5 landings.
 - a. The landings do not have to be consecutive.
 - 7. The H2 accuracy radius for each landing is:

Conditions:	Calm
Single Surface Glider:	100 ft

- j. Demonstrates smooth entry to and exit from flying position without changes in pitch and roll.

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- k. While in preferred flying position, demonstrates flight with smooth variation in airspeed, from above minimum sink to fast flight, while maintaining a heading.
 - l. While in preferred flying position, demonstrates flight showing ability to comfortably and precisely slow the glider to minimum sink and smoothly increase airspeed to normal while maintaining a heading. The pilot should not mush or stall the glider. These maneuvers should be practiced and observed with a minimum of 75 feet AGL in smooth conditions.
 - m. Must pass the USHPA Novice Hang Gliding Written Examination.
 - n. 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.
 - o. Demonstrates reserve deployment while hanging in a harness in simulated turbulence or emergency conditions.
 - p. 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 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. It is highly recommended that all flights be made under the direct supervision of a USHPA Certified Basic or Advanced Instructor or Observer.
 - 3. Should fly only in smooth winds of 18 mph or less and gusty winds to 11 mph.
 - 4. If foot launching, should launch only on slopes 2:1 to 7:1, where wind is within 25° of being straight up the slope.
 - 5. Should maintain heading within 90° of directly into wind, and within 45° of directly into wind below 60' AGL.
 - 6. Flight speed. Should not attempt to fly slowly when encountering lift, but instead, concentrate on maintaining attitude, heading, and airspeed. Slow flight must be preceded by stall experience 500' from any object.

12-02.08 Intermediate Hang Gliding Rating (H3)

- 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 hang gliding rating system and recommended operating limitations, and the FARs and other flying rules applicable to their 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.

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- b. Must have logged a minimum of 90 flights.
 - c. Must have logged a minimum of ten 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.
 - ii. FAA Regulations and aircraft sectional charts.
 - iii. Airspeed control, stalls, spins, and adverse yaw.
 - iv. Glider 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 can 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 harness, glider, and reserve parachute.
 - e. With each flight, demonstrates a method of establishing that the pilot is hooked in just prior to launch.
 - f. All takeoffs should be aggressive, confident and with a smooth transition to flying. Flights with slow, unstable launches will not be considered adequate as witnessed tasks.
 - g. For witnessed tasks, all landings must be safe, smooth, on the feet, and in control.
 - i. Pilots with Landing Gear Only (LGO) restriction may land on landing gear.
 - h. Demonstrates the ability to differentiate airspeed from ground speed.
 - i. Demonstrate smooth coordinated 360° turns in both directions, with reversal at various speeds and bank angles.
 - j. Demonstrates linked 180° turns along a predetermined ground track showing smooth controlled reversals and proper coordination at various speeds and bank angles.
 - k. Explains stall warning characteristics.
 - l. Has practiced and demonstrates gentle stalls and proper recovery under the direct supervision of an instructor or qualified observer, at least 500' from any object.
 - m. In 8 to 15 mph wind, demonstrates the ability to maintain airspeed at or near minimum sink during crosswind and upwind legs, without any evidence of stalls.
 - n. The pilot must demonstrate consistent landings satisfying the following requirements
 - 1. Safe, smooth landing, on feet and into the wind.
 - a. Pilots with Landing Gear Only (LGO) Restriction may land on landing gear
 - 2. The target must be sufficiently close to launch such that turns are required to setup an approach and avoid over-flying the target.

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3. The target should be at least 200' below the launch point.
4. Flights should last a minimum of one minute.
5. Landings must be performed in a variety of conditions at the discretion of the Instructor.
6. Prior to each flight, the pilot shall describe their planned approach and landing based on site characteristics, conditions and equipment.
7. The consistency requirement for the task is 3 landings in any continuous sequence of 5 landings.
 - a. The landings do not have to be consecutive.
8. The H3 accuracy radius for each landing is:

Conditions:	Calm	Moderate
Single Surface:	50 ft	75 ft
Double Surface:	75 ft	100 ft

- o. .
- p. Demonstrates proper airspeed control on landing approach when descending through a gradient.
- q. Demonstrates proper airspeed for maximum distance flown into a significant headwind.
- r. Must pass USHPA Hang Gliding Intermediate written exam.
- s. The pilot 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.
- t. 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 Pilots

1. Should fly only in winds of 25 mph or less, with gust differential of 10 mph or less.
2. Should initiate downwind turns only with 500' of clearance outward from the hill or ridge in winds above 18 mph, and 300' of clearance in winds above 10 mph.
3. Upon mastering the above skills, an Intermediate Pilot should pursue new maneuvers, sites and conditions with the guidance of a USHPA Certified Advanced Instructor or Observer.

12-02.09 Advanced Hang Gliding Rating (H4)

- 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 hang gliding rating system and recommended operating limitations, and the FARs and other flying rules applicable to their flying.

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

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B. Advanced Rating - Required Witnessed Tasks

1. Logged Requirements

- a. 250 flights.
- b. Must have made 5 flights at each of 5 different sites in Intermediate level conditions, of which at least 3 were inland.
- c. Must have logged a minimum of 80 flying days.
- d. Must have at least one 1-hour flight.
- e. Must have at least one 30-minute flight in thermal lift without sustaining ridge lift.
- f. Must have logged 75 hours total air time 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.

2. Demonstrated Skills and Knowledge

- a. Demonstrates preflight of harness, glider, and 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 pilot is hooked in just prior to launch.
- e. All takeoffs should be aggressive, confident and with a smooth transition to flying. Flights with slow, unstable launches will not be considered adequate as witnessed tasks.
- f. All landings must be safe, smooth, on the feet and in control.
 - i. Pilots with Landing Gear Only (LGO) restriction may land on landing gear.
- g. Demonstrate ability to allow clearance when doing 180° 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 crossing 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.
 - iv. The pilot must demonstrate consistent landings satisfying the following requirements
 1. Safe, smooth landing, on feet and into the wind.

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- a. Pilots with Landing Gear Only (LGO) Restriction may land on landing gear
- 2. The target must be sufficiently close to launch such that turns are required to setup an approach and avoid over-flying the target.
- 3. The target should be at least 200' below the launch point.
- 4. Flights should last a minimum of one minute.
- 5. Landings must be performed in a variety of conditions at the discretion of the Instructor.
- 6. Prior to each flight, the pilot shall describe their planned approach and landing based on site characteristics, conditions and equipment.
- 7. The consistency requirement for the task is 3 landings in any continuous sequence of 5 landings.
 - a. The landings do not have to be consecutive.
- 8. The H4 accuracy radius for each landing is:

Conditions:	Calm	Moderate
Single Surface:	25 ft	35 ft
Double Surface:	50 ft	75 ft

- v.
- h. At a minimum of 500' demonstrate intentional stalls straight ahead and in turns, not exceeding manufacturer's recommended limitations, showing confident, smooth recoveries.
- i. Demonstrates the ability to soar above a low point for five minutes on each of three different flights.
- j. Demonstrates an altitude gain of at least 500' in thermals.
- k. Must pass the USHPA Hang Gliding Advanced written exam.
- l. Must convince the Instructor or Observer that they can check in and fly Advanced rated sites without endangering spectators, other pilots, or jeopardizing the site.
- m. 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 Pilots

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

12-02.10 Master Hang Gliding Rating (H5)

- A. General Description – For pilots who wish to further diversify their skills in the sport of hang gliding, 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



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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 non-launch Special Skills.
- c. Must have a minimum of 1,450 points in at least six categories. (see chart below)
Must have a minimum of 400 hours logged airtime with at least 200 hours in thermals, and at least 500 logged flights.
- d. Must obtain at least three letters of recommendation from USHPA 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 three-year period, additional letters of recommendation must be presented so that the three-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 hours)	1 pt./hour (beyond 400 hrs. required airtime)	350
Number of flights (Min. 500 flights. 250 must be foot launched)	1 pt./flight. (beyond required 500 flights)	250
Altitude Gains (Only one altitude gain may be used from each flight)	10 pts./2,000' gain 15 pts./3,000' gain 20 pts./4,000' gain 25 pts./5,000' gain 30 pts./6,000' gain	350
Cross Country (10-mile min. flights)	1 pt./mile	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, Aerotow)	5 pts./flight	100 (50 pts. in each of the possible categories)

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- f. The pilot is to present documentation of flight experience, to meet the 1,450 point minimum, to the Training & Certification Committee, who confirms completion of requirements. The Training & Certification Committee 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. The award of a Master designation by the Training & Certification Committee 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.

12-02.11 Hang Gliding Special Skill Endorsements

A. Special Skills attainable by Novice and above (H2-H5).

1. Foot Launch (FL):

- a. Demonstrates successful, aggressive, confident launches on a slope shallower than 4:1 with less than 6 mph wind.
- b. Demonstrates successful, aggressive, confident launches, where wind is at least 15° cross to straight in wind not exceeding 5 mph.

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

- a. Demonstrates the ability to launch safely from a shallow slope ramp or cliff top, where running room is severely restricted, drop off is precipitous, wind is 5 mph 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 mph wind from slopes which approach the maximum L/D of the glider.

4. Platform Launch (PL)

- a. Must demonstrate tow system set up and preflight, including a complete discussion of the factors that are particular to the specific tow system used, and those factors that are relevant to towing in general.
- b. 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 their ability to recognize and execute emergency procedures. Must demonstrate understanding of ground clearance requirements for high line tension.
- c. Demonstrates successful, confident, controlled launches and flight under tow to release altitude, with a smooth transition to flying, proper directional and pitch control resulting in the proper tracking of the tow line while maintaining proper tow line tension and airspeed. Such demonstrations may be made in ideal wind conditions.
- d. Demonstrates proper practices in loading the glider onto the launch platform and taxiing into launch position with special attention given to wind direction and speed.

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- e. Demonstrates successful, smooth, confident launches in a crosswind.
- f. Demonstrates how to brief and instruct a ground crew.
- g. Demonstrates the assembly of the system, including inspection of the towline connection, tow bridle and release system, weak link, and test of the release functionality prior to every flight.
- h. Demonstrates understanding of signals between ground crew and pilot.
- i. Demonstrates or describes thoroughly the procedures related to weak link breaks at various stages of flight and towline tension (takeoff, initial climb out, and at altitude).
- j. Demonstrates complete understanding about the inherent increased risk of lockout as the glider's heading diverges from the towline.
- k. Describes thoroughly how to recognize a lockout situation, including emergency procedure.
- l. Demonstrates complete understanding of when and how to use a hook knife.
- m. Has discussed Towing Discussion Topics with the issuing PL Observer and passed the PL written examination.
- n. Demonstrates to the satisfaction of the rating official knowledge of proper weak link use for the towing skill under evaluation. The pilot under evaluation must demonstrate an understanding of the following:
 - i. The purpose of weak links.
 - ii. How to determine proper weak link failing strength.
 - iii. Proper weak link set up including acceptable knotting.
- o. Demonstrate the knowledge of applicable FAA regulations.

5. Aerotow (AT)

The aerotow skill is a demonstration of the pilot's ability to launch and tow successfully and safely behind a flying tow vehicle. In order to receive the special skill, a pilot must demonstrate the following to an Aerotow Observer:

- a. Demonstrates the assembly and preflight of the system, including inspection of the tow line, tow line connection, tow bridles and releases.
- b. Demonstrates understanding of signals between tow vehicle pilot and glider pilot. Must demonstrate system set up and pre-flight, including a complete discussion of all those factors which are particular to the specific aerotow system used and those factors which are relevant to aerotowing in general. Must demonstrate complete understanding of both normal and emergency procedures, including checklists for normal procedures, indications of possible impending emergencies and how to properly execute emergency procedures.
- c. Gives a complete discussion of the risks to the glider pilot and tow vehicle pilot due to improper positioning of the glider pilot during tow in both straight and turning flight; being high or low and left or right of the proper center position in straight flight, being too high or low on the inside of a turn, and being too high or low on the outside of a turn.
- d. Demonstrates successful, confident, controlled launches and flight under tow to release at altitude, with a smooth release and turn to the right when transitioning to

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free flight. Must demonstrate proper directional and pitch control resulting in proper tracking of the aerotow vehicle in both straight and turning flight and appropriate maintenance of proper tow line tension and airspeed. If aerotowing skills were gained through tandem instruction, the candidate must demonstrate all skills during solo flights as well.

- e. Must demonstrate proper technique for at least one normal and one crosswind takeoff (actual or simulated).
- f. Must demonstrate the ability to control the glider position within the “cone of safety” behind the aerotow vehicle.
- g. The candidate must also demonstrate the ability to properly react to a weak link/tow rope break simulation, initiated by the pilot at altitude, but at a lower than normal release altitude. Such demonstrations should be made in smooth air.
- h. Additional instruction or mentorship should be provided to help the newly skilled aerotow pilot gradually transition to towing in mid-day thermal/turbulent conditions.
- i. Has discussed all Towing Discussion Topics with the issuing AT Observer and passed the AT written examination.
- j. Demonstrates to the satisfaction of the rating official knowledge of proper weak link use for the towing skill under evaluation. The pilot under evaluation must demonstrate an understanding of the following:
 - i. The purpose of weak links
 - ii. How to determine proper weak link failing strength.
 - iii. Proper weak link set up including acceptable knotting.
- k. Demonstrates the knowledge of the standards of FAR Part 103 as applicable to both powered and unpowered ultralight vehicles.

6. Surface Tow (ST)

- a. Must demonstrate tow system set up and preflight, including a complete discussion of the factors which are particular to the specific tow system used, and those factors which are relevant to towing in general.
- b. 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 their ability to recognize and execute emergency procedures. Must demonstrate understanding of ground clearance requirements for high line tension.
- c. Demonstrates successful, confident, controlled launches and flight under tow to release altitude, with a smooth transition to flying, with proper directional and pitch control resulting in the proper tracking of the tow line and appropriate maintenance of proper tow line tension and airspeed. Such demonstrations may be made in ideal wind conditions.
- d. Demonstrates 3 or more accelerations to speed with heading and glider control using the appropriate launch method (foot launch or wheel assisted). Observers must document an endorsement into the pilot’s logbook attesting to the launch method demonstrated
- e. Demonstrates successful, smooth, confident launches in a crosswind.

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- f. Demonstrates no-wind (0-5 mph) launches.
 - g. Demonstrates high-wind (10-12 mph) launches.
 - h. Demonstrates how to brief and instruct a ground crew.
 - i. Demonstrates the assembly of the system, including inspection of the towline connection, tow bridle and release system, weak link, and test of the release functionality prior to every flight.
 - j. Demonstrates understanding of signals between ground crew and pilot.
 - k. Demonstrates or describes thoroughly the procedures related to weak link breaks at various stages of flight and towline tension (takeoff, initial climb out, and at altitude).
 - l. Demonstrates complete understanding about the inherent increased risk of lockout as the glider's heading diverges from the towline.
 - m. Describes thoroughly how to recognize a lockout situation, including emergency procedure.
 - n. Demonstrates complete understanding of when and how to use a hook knife.
 - o. Has discussed all Towing Discussion Topics with the issuing ST Observer and passed the ST written examination.
 - p. Demonstrates to the satisfaction of the rating official knowledge of proper weak link use for the towing skill under evaluation. The pilot under evaluation must demonstrate an understanding of the following:
 - i. The purpose of weak links.
 - ii. How to determine proper weak link failing strength.
 - iii. Proper weak link set up including acceptable knotting.
 - q. Demonstrates the knowledge of applicable FAA regulations.
- B. Special Skills attainable by Intermediate and above (H3-H5).
- 1. Assisted Windy Cliff or Ramp Launch (AWCL):
 - a. Demonstrates ability to launch with wire assist in windy conditions from a precipitous cliff or ramp with strong lift at takeoff. Must show proper use of release signals and confident, aggressive launch.
 - 2. Turbulence (TUR):
 - a. Demonstrates controlled and un-panicked flight in conditions requiring quick, deliberate, substantial, and correct control application.
 - 3. 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 300' square.
 - 4. Cross Country (XC):
 - a. Must hold 2 and 3 above.
 - b. Demonstrate 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.

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5. High Altitude Launch (HA):
 - a. Demonstrates the ability to launch unassisted with strong launches in winds less than 5 mph.
 - 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).

12-02.12 Student Paragliding Rating (P0)

A. Requirements for Student Pilots flying tandem

A Student pilot has the basic knowledge required to understand and accept the risks of flying as a tandem passenger on a paraglider. This includes:

1. A basic understanding of the process involved in launching, flying and landing modern paragliders.
2. An understanding that a paraglider is controlled through the use of brakes and risers and that control is hampered by holding any part of the vehicle other than where the Instructor indicates.
3. An understanding that to foot launch a tandem flight, the Student and the Instructor must run efficiently together to produce airspeed to launch.
4. An understanding that the Student must pay attention to the Instructor's commands at all times and be capable of carrying out those instructions.
5. An understanding of the reasons for, techniques used, and deployment of a backup parachute.
6. Must be advised that tandem flights in paragliders are conducted under an exemption granted by the Federal Aviation Administration (FAA) and the glider is not certified for tandem flight by the FAA.

B. Recommended Operating Limitations for Student Pilots flying solo.

1. It is highly recommended that all flights be made under the direct supervision of a USHPA Certified Basic or Advanced Instructor.

12-02.13 Beginner Paragliding Rating (P1)

- 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:

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- a. Smooth, confident 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:
 - 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

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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.
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 (P2)

- 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 theory as outlined in the ICP Manual.

i. Weather.

- aa. Show students how to observe weather forecasts relating to the site from news broadcasting, newspapers and the Internet.
- ab. Monitor weather forecast on a weather radio and or smart phones prior to leaving for flying and on site prior to flying.
- ac. Discuss with students the wisdom of calling a local pilot to gain insight into the local conditions.

ii. Launches

- aa. Consider altitude humidity and temperature factors (air density).
- ab. Consider the slope of the ramp or hill, wind factors and the need for wire assistance.
- ac. Discuss the angle of attack requirements, especially with cliff launches.

iii. Danger Signs

- aa. High wind, dust blowing, white caps, swaying trees, smoke laying down and lenticular clouds.

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- ab. Rotor possibilities – note overall wind signs (cloud drift, water lines, bird drift, smoke from fires or smoke stack smoke direction) with respect to wind indicators at launch.
 - ac. Varying wind directions and differences at launch and landing.
 - iv. Landing
 - aa. Consider air density (as listed above in launches).
 - ab. Wind direction awareness and how wind affects landing. Wind direction indicators other than the wind sock.
 - ac. Approach.
 - i. Watch for man-made objects. Lines in the field mean fences, ditches or power lines. Assume all roads have power lines.
 - ii. Setup procedures for long straight approach.
 - iii. Discuss approach options and preferred approaches with locals.
 - iv. Extra speed for handling gradient and turbulence.
 - v. Review crosswind landing techniques.
 - vi. Tree landing techniques.
 - vii. Avoidance of obvious crop fields.
 - v. Equipment
 - aa. Food and water.
 - ab. Instruments – air speed indicator etc.
 - vi. Site Orientation
 - aa. Discuss general site specifics, departure time, arrival time, and protocol. Also review the dive syndrome (first flight students flying too fast to LZ) and signs of proper airspeed (bar position, air speed indicator and bar feel).
 - b. Must have logged a minimum of 35 flights with a required ability to demonstrate an appropriate landing approach with the canopy lowered to the ground between flights.
 - c. Must have logged a minimum of 7 flying days.
- 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.

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- e. Demonstrates controlled kiting of a glider overhead for 2 minutes in a steady wind.
- f. 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.
- g. Demonstrates flight with smooth variation in airspeed, from above minimum sink to fast flight, while maintaining a heading.
- h. 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.
- i. 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, standup landings on a heading.
- j. Demonstrates 180° turns in both directions, and at various speeds and bank angles.
- k. Explains how to safely execute a 360 degree turn, and describes the associated risk factors and decision making process.
- l. Demonstrates hands-off flying, one handed flying skills, weight-shift turns, and rear-riser turns.
- m. Demonstrates symmetric and asymmetric tip folds for increased descent rate.
- n. Demonstrates the ability to judge and allow for proper clearance from a ridge and other vehicles.
- o. Demonstrates 5 landings within 25' of a target (or optional landing task – see Addendum 1 – Optional Landing Task), 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.
- p. Explains proper strong wind landing procedures and how to keep from being dragged back.
- q. Explains correct canopy maintenance.
- r. Explains how to lengthen and shorten the flight path.
- s. Explains the right of way traffic rules.
- t. Demonstrates the proper use of a speedbar/accelerating system.
- u. Demonstrates reserve deployment while hanging in a harness in simulated turbulence or malfunction conditions.
- v. 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.
- w. Demonstrates proper and effective PLF technique.

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- x. Must pass the USHPA Novice Paragliding written exam.
 - y. 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.
 - z. 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. If tow launching in winds in excess of 3 mph, should only launch where the wind is within 25° of being straight along the tow line.
 - 8. Visual contact with the landing zone.
 - 9. Avoid application of either brake beyond 2/3 of the way from slack to stall position.
 - 10. 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.
 - 11. Should fly a canopy recommended by the manufacturer as suitable for Beginner to Intermediate rated pilots.

12-02.15 Intermediate Paragliding Rating (P3)

- 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 their 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

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- a. Has received training in and/or understands the importance and significance of:
 - i. Right of way rules.
 - 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.
3. 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.
4. Must give a verbal flight plan for each observed flight.
5. Must show thorough preflight of the harness, canopy, and backup reserve parachute.
6. 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.
7. All inflations/launches should be controlled, confident, and with a smooth transition from running to flying. Flights with slow, unstable inflations/launches will not be considered adequate for witnessed tasks.
8. For witnessed tasks, all landings must be safe, smooth, on the feet, and in control.
9. Demonstrates the ability to differentiate airspeed from ground speed.
10. Demonstrates linked 180° turns along a predetermined ground track showing smooth controlled reversals and proper coordination at various speeds and bank angles.
11. Demonstrates 360° turns in both directions, and at various speeds and bank angles.
12. Demonstrates symmetric and asymmetric tip folds (25% per side, 50% total) or some other method of canopy reduction for increased descent rate.
13. Demonstrates one method to increase forward speed.
14. Demonstrates proper surge control of canopy using properly timed brake application.
15. Gives a thorough verbal description of how to maintain directional control during and correct for a 50% asymmetric wing collapse.
16. Gives a thorough explanation of:
 - a. Why flying a paraglider with one or both control toggles significantly extended should be avoided unless flaring for a landing.
 - b. The signs that the paraglider has entered a stalled configuration (one or both sides).
17. In 8 to 15 mph winds, demonstrates the ability to maintain airspeed at or near minimum sink during crosswind and upwind legs, without any evidence of stalls.
18. Demonstrates 5 landings within 10' of a target (or optional landing task – see Addendum 1 – Optional Landing Task) after flights requiring turns on approach.
19. Demonstrates proper airspeed control on landing approach when descending through a gradient.
20. Demonstrates proper airspeed for maximum distance flown into a significant headwind.

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21. Must pass the USHPA Intermediate Paragliding written exam.
 22. 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.
 23. 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 mph 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 mph, and 200' of clearance in winds above 10 mph.
 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 (P4)

- 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 their 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.
 - 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 three 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 one 1-hour flight in ridge lift without sustaining thermal lift.

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- 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 controlled, 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 (or optional landing task – see Addendum 1 – Optional Landing Task) 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.
 - j. Demonstrates significant asymmetric wing collapses (50% of the wing span) with directional control.
 - k. Must pass the USHPA Advanced Paragliding written exam.
 - l. Must convince the Instructor or Observer that they can check in and fly Advanced rated sites without endangering spectators, other pilots, or jeopardizing the site.

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- m. 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 (P5)

- 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 non-launch Special Skills except Para Ski (PS), or Mini-Wing (M1-M2) .
 - 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 hours)	1 pt./hour (beyond 400 hours required airtime)	350
Number of flights (Min. 500 flights. 250 must be foot launched)	1 pt./flight (beyond required 500 flights)	250
Altitude Gains (Only one altitude gain may be used from each flight)	10 pts./2,000' gain 15 pts./3,000' gain 20 pts./4,000' gain 25 pts./5,000' gain 30 pts./6,000' gain	350
Cross Country (10 mile min. flights)	1 pt./mile	350
Number of different sites flown	10 pts./site	300
Number of different gliders flown	5 pts./glider	150

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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 the Training & Certification Committee, who confirms completion of the requirements. The Training & Certification Committee 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. The award of a Master designation by the Training & Certification Committee 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 and above (P2-P5).

1. Foot Launch (FL)

- a. Demonstrates 2 clean, smooth reverse inflations/reversals prior to launch.
- b. Demonstrates 2 successful, smooth, confident launches where the wind is at least 15° to straight up the hill in wind not exceeding 5 mph.
- c. Demonstrates 2 no-wind (0-5 mph) launches.
- d. Demonstrates 2 high-wind (10-15 mph) launches.
- e. Demonstrates how to brief and instruct a ground crew.

2. 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.

3. Light Wind Cliff or Ramp Launch (CL)

- 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, committed

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sprinting starts are required. Stalled, falling/diving launches are not acceptable demonstrations, even if flight is achieved.

4. Flat Slope Launches (FSL)
 - a. Demonstrates ability to launch in less than 10 mph wind from slopes which approach the maximum L/D of the glider.
5. 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.
6. 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.
7. 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).
8. Surface Tow (ST)
 - a. Demonstrates tow system set up and preflight, including a complete discussion of the factors that are particular to the specific tow system used, and those factors that are relevant to towing in general. Specifically demonstrates layout and preflight of the canopy, harness, backup reserve parachute, tow release, tow line, hook knife, and any other equipment required for the tow operation.
 - b. 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 their ability to recognize and execute emergency procedures. Specifically demonstrates awareness of fences, power lines, and other areas where the tow line may get tangled.
 - c. Demonstrates ability to inflate and run with glider overhead on the ground along an obstacle zig-zag course.

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- d. 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.
 - e. Demonstrates complete understanding about how to make course corrections in case of deviation from the tow line, including weight shift and required hand positioning to prevent lock-out tendency.
 - f. Demonstrates successful, smooth, confident launches in a crosswind.
 - g. Demonstrates no-wind (0-5 mph) launches.
 - h. Demonstrates high-wind (10-12 mph) launches.
 - i. Demonstrates how to brief and instruct a ground crew and explain when assistance with the tow line is necessary.
 - j. Demonstrates the assembly of the system, including inspection of the tow line connection, tow bridle and release system, weak link, and test of the release functionality prior to every flight.
 - k. Demonstrates understanding of signals between ground crew and pilot.
 - l. Demonstrates on simulator or describes thoroughly, surge control procedure and timing related to weak link breaks.
 - m. Demonstrates complete understanding about how to follow a runway or road while towing in a crosswind, and inherent increased lock-out risk to windward side.
 - n. Describes thoroughly how to recognize a lock-out situation, including emergency procedure.
 - o. Demonstrates complete understanding of when and how to use a hook knife in emergency situations to cut the weak link or tow line.
 - p. Demonstrates complete understanding of using a “tow assist” or “speed assist” bridle.
 - q. Describes differences between stationary and pay out tow systems and the differences between each system.
 - r. Has discussed Towing Discussion Topics with the issuing ST Observer and passed the ST written examination.
 - s. Demonstrates to the satisfaction of the rating official knowledge of proper weak link use for the towing skill under evaluation. The pilot under evaluation must demonstrate an understanding of the following:
 - i. The purpose of weak links.
 - ii. How to determine proper weak link failing strength.
 - iii. Proper weak link set up including acceptable knotting.
 - t. Demonstrate the knowledge of applicable FAA regulations.
9. 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.

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- b. Explains conditions, weather, equipment and protocols peculiar to flight in a ski area environment.
 - c. Demonstrates light wind launches and landings with skis.
- B. Special Skills attainable by Intermediate and above (P3-P5).
 - 1. Cross Country (XC)
 - a. Must hold RLF and TUR.
 - 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.).
- C. Special Skills for Mini Wing flying obtained by Novice rated pilots and above (P2-P5)
 - 1. All pilots rated P2-P5 must meet all requirements listed below.
 - 2. Mini Wing special skills are issued by paragliding Instructors. Observers may not issue mini-wing special skills, see SOP 12-05, Observers.
 - 3. All Mini Wing 1 (M1) requirements must be fulfilled before being issued a Mini Wing 2 (M2) special skill.
- D. Mini Wing 1 (M1) Special Skill

General Description: The pilot has the knowledge and skills to fly most sites in mild to moderate flying conditions, and to judge when the site and conditions are within the pilot's skill, knowledge, and experience level. The pilot understands the USHPA Mini Wing special skill system and recommended operating limitations, and the FARs and other flying rules applicable to their flying (ridge rules, 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 Special Skill.

 - 1. Required Witnessed Tasks
 - a. Logged Requirements
 - i. Attends ground school covering the glider, rules of flight, meteorology and applicable FARs.
 - ii. Must have logged a total of at least 25 flights on a Mini Wing in a variety of conditions and terrain.
 - iii. Flight altitude needs to be adequate height to allow for proper launch transitioning into normal flight and appropriate set up for landing.
 - b. Demonstrated Skills and Knowledge
 - i. Pre-flight and Launch (Includes Foot and Ski launched)

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- aa. All inflations/launches should be controlled, confident, and with a smooth transition from running to flying. Flights with slow, unstable inflations/launches will not be considered adequate for witnessed tasks.
- ab. Must pass the USHPA Mini Wing 1 (M1) written examination.
- ac. Provides a reliable analysis of general conditions of the site, their own mental state, a flight plan (for each flight) including flight path, areas to avoid in relation to the wind flow, how to lengthen and shorten the plan, and obstacle avoidance.
- ad. Gives 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. Able to differentiate airspeed from ground speed.
- ae. 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.
- af. Must convince the Instructor that they can check-in and fly rated sites without endangering spectators, other pilots, or jeopardizing the site.
- ag. Has received training in and/or understands the importance and significance of:
 - i. Right of way rules.
 - 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.
- ah. Explains relationship between roll and dive and increased rate of descent.
- ai. Explains functionality and proper use of the trim system.
- aj. Demonstrates layout and preflight of the canopy and harness.
- ak. Demonstrates 10 consecutive forward inflations with a visual check of the canopy each time.
- al. Demonstrates 10 clean, smooth reverse inflations/reversals prior to launch.
- am. Demonstrates controlled kiting of a glider overhead for 2 minutes in a steady wind.
- an. Demonstrates 2 successful, controlled, confident inflations/launches, where the wind is not exceeding 5 m.p.h.
- ao. Demonstrates 2 successful, confident, high-wind inflations/launches.

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- ap. Explains and demonstrates an aborted launch and reasons for doing so.
 - c. Flying
 - i. Pilots should only fly a Mini Wing commensurate with their skill level.
 - ii. When flying an USHPA site, it must be Mini Wing approved and appropriate for the pilots skill level.
 - iii. Demonstrates weight shift S-Turns.
 - iv. Demonstrates flight(s) along a planned path alternating 'S' turns of at least 90 degree change in heading. Flight heading need not exceed 45 degrees from straight into the wind. Turns must be smooth with controlled airspeed, ending in safe, stand-up landings on a heading.
 - v. Demonstrates flight showing Best Glide Speed, which may or may not be the same as the gliders trim speed, without slowing the glider to near stall.
 - vi. Demonstrates the ability to judge and allow for proper clearance from a ridge, gliders, and other obstacles.
 - vii. Demonstrates proper surge control of canopy using properly timed brake application.
 - viii. Demonstrates how to lengthen and shorten a flight path.
 - d. Landing
 - 1. Landings must be safe, smooth, upright, and in control.
 - 2. Explains proper strong wind landing procedures and how to keep from being dragged back.
 - 3. Explains and demonstrates proper flare timing.
 - 4. Demonstrates proper and effective Parachute Landing Fall (PLF) technique.
 - e. Demonstrates 5 safe landings within a designated rectangle 30' wide by 100' long.
2. Recommended Operating Limitations
- a. 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.
 - b. Launching in no wind, cross winds in excess of 25 degrees, and cliff launches are not recommended.
 - c. Maximum base wind of 15 m.p.h.
 - d. Maximum gust rate of 5 mph in 5 seconds.
 - e. Avoid steep turns close to the ground and 360 degree turns.
 - f. Limit turns to bank angles recommended by the manufacturer.
 - g. Avoid downwind turns.

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- h. Should not fly within 50' of another glider in smooth air, or within 100' of another glider in moderately turbulent air.
- i. Should not fly in lift.
- j. Should maintain visual contact with the landing zone.

E. Mini Wing 2 (M2) Special Skill

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 their flying. The pilot will fly using good judgment and have a level of maturity commensurate with the Special Skill. The pilot has completed the training and skills needed to obtain a Mini Wing 1 (M1) special skill. All pilots shall meet all of the logged requirements, demonstrate ALL skill requirements, and pass the written exam.

1. Required Witnessed Tasks

a. Logged Requirements

- i. 250 flights.
- ii. Must have made 5 flights at 5 different sites in varied conditions.
- iii. Must have at least 20 flights with at least 1,000' of vertical decent for each flight.
- iv. Must have flown at least 5 different Mini Wings.
- v. Must have logged a minimum of 80 flying days.

b. Demonstrated Skills and Knowledge

- i. Fulfills the requirements of the Mini Wing 1 (M1) Special Skill.
- ii. Must pass the USHPA Mini Wing 2 (M2) written examination.
- iii. Gives verbal analysis of conditions.
- iv. Demonstrates preflight of the harness, and canopy.
- v. Develops then follows a flight plan.
- vi. Must convince the Instructor that they can check-in and fly rated sites without endangering spectators, other pilots, or jeopardizing the site.
- vii. All landings must be safe, smooth, on the feet and in control.
- viii. Demonstrates 5 consecutive landings within a rectangle 30' wide by 50' long after a flight that requires turns on approach.

3. Recommended Operating Limitations

- a. 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.
- b. Should not fly within 50' of another glider in smooth air, or within 100' of another glider in moderately turbulent air.

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- c. Avoid steep turns close to the ground.
- d. Maximum gust rates of 5 mph in 5 seconds.
- e. Limit turns to bank angles recommended by the manufacturer.
- f. When flying an USHPA site, it must be Mini Wing approved and appropriate for the pilots skill level.

12-02.19 Student Speed Flying Rating (S0)

- A. Note: Tandem Speed Flying is not permitted.

12-02.20 Beginner Speed Flying Rating (S1)

- A. General Description: A Beginner Speed Flying 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 Speed Flying (S1-S4) rating system and recommended operating limitations. The pilot shall use good judgment and have a level of maturity commensurate with the rating, and serve as a positive ambassador of the sport when interacting with the both the public, as well as pilots from other flying disciplines.

Note regarding students with previous skydiving experience: Many skydiving techniques can produce dangerous or even disastrous results when applied to Speed Flying. Students and Instructors must discuss the possible pitfalls that a skydiver will need to avoid.

- B. Beginner Rating - Required Witnessed Tasks
- 1. Attends and completes a basic ground school.
 - 2. Layout and preflight of canopy, trim-settings, harness and reserve (when applicable).
 - 3. Demonstrates ability to comfortably run/sprint for 30 yards.
 - 4. Demonstrates or explains proper and effective Parachute Landing Fall (PLF) technique, and when it would be appropriate.
 - 5. Demonstrates ability to consistently clip harness into canopy in both “forward” and “reverse” orientations.
 - 6. Before each flight, demonstrates method(s) for double-checking proper connection to the canopy, with cleared lines and risers, and “trimmers pulled in” prior to inflation. (unless otherwise suggested by wing manufacturer).
 - 7. Verbally discusses appropriate conditions for flying with reserve, what situations might necessitate its deployment, and demonstrates on a flight-simulator how to successfully deploy.
 - 8. Demonstrates canopy handling skills sufficient to launch under control.
 - 9. Launch unassisted showing:
 - a. Smooth, confident inflation and run.
 - b. Pendulum control during launch.
 - c. Directional control.
 - d. Smooth transition from running to flying.

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- e. Appropriate entry level decision making relative to air traffic, terrain, and conditions.
10. Airspeed recognition and control:
 - a. Two flights, predetermined to show:
 - i. Consistent airspeed.
 - ii. Smooth straight flight towards a pre-selected target.
 - b. Two flights, predetermined to show:
 - i. Confident, controlled changes in direction showing awareness of weight-shift, control inputs and pendulum control.
 11. Shows the ability to recognize and understand how different wind conditions at the site will affect their flights:
 - a. Wind direction.
 - b. Wind velocity.
 - c. Terrain shape.
 - d. Obstructions.
 - e. Thermic activity.
 12. Consistently demonstrates safe, smooth landing procedure onto feet, into prevailing wind, and with proper timing and depth of flare.
 13. On each flight, demonstrates proper post-landing procedure, to include, but not limited to:
 - a. Canopy deflation/immobilization.
 - b. Visual check of air-traffic and other pilots.
 - c. Removal of canopy from landing area.
 - d. Disconnection from the canopy.
 14. Demonstrates understanding of the importance of proper packing, storage, and care of the canopy.
 15. Demonstrates basic understanding of Trimmer functions, settings, and their effect on launch, flight and landing characteristics. Trimmers should be “pulled in” at all times, unless otherwise stated by manufacturer.
 16. Must pass the USHPA Beginner Speed Flying (S1) written exam.
 17. Must agree to all the provisions of the USHPA standard waiver and assumption of risk agreement and deliver an original signed copy to the USHPA office.
- C. Recommended Operating Limitations for Beginner Speed Flying (S1) pilots.
1. Pilot should not exceed these limitations until demonstrating complete mastery of the required Beginner Speed Flying tasks, and only after acquiring a full understanding of the potential problems and dangerous situations which may arise from exceeding these limitations.
 2. All flights must be made under the direct supervision of a USHPA Certified Basic or Advanced Speed Flying Instructor.

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3. Should fly only in steady winds of 15 mph or less, as dictated by instructor and site-specific conditions. (i.e., avoiding potential for mechanical turbulence)
4. If foot launching, should only foot launch on slopes without significant obstacles or hazards, and where wind is within 15° of being straight into the slope.
5. Should only launch when there are no obstructions within 60° to either side of the intended flight path.
6. Should only fly a canopy recommended by the manufacturer as suitable for Beginner (S1) or Novice (S2) pilots.
7. Recommended Wing Loading: 0.5 to 0.75 lbs./ft² (5.4 to 8 lbs./m²). Not to exceed a maximum Wing Loading of 0.8 lbs./ft² (8.5 lbs./m²).
8. Avoid downwind turns.
9. Should not fly within 50' of another glider in smooth air, or within 100' of another glider in moderately turbulent air.
10. Should not fly in soarable conditions.
11. Should fly with a reserve parachute on any flight that has the potential to have sufficient height above the ground for reserve deployment.
12. Should maintain visual contact with the landing zone.
13. Should never fly without first inspecting the landing area.
14. Should never fly without first confirming presence of a wind indicator in landing area.

12-02.21 Novice Speed Flying Rating (S2)

- A. General Description – The pilot has the knowledge and skills to fly well established entry level sites in mild to moderate flying conditions, and to judge when the site and conditions are within the pilot's skill, knowledge, and experience level. The pilot understands the USHPA Speed Flying (S1-S4) rating system, and recommended operating limitations, and the Federal Aviation Regulations (FAR's) and other flying rules applicable to their flying (ridge rules, FAR 103, aircraft sectional use and regulated airspace avoidance, etc.) The pilot has previously completed the training, written test, and skill-demonstrations needed to obtain the Beginner Speed Flying (S1) rating. The pilot shall use good judgment and have a level of maturity commensurate with the rating, and serve as a positive emissary of the sport when interacting with the public, as well as pilots from other flying disciplines. Pilots shall meet all of the logged requirements, demonstrate all skill requirements, and pass the written exam to receive their S2 rating.
- B. Novice Rating - Required Witnessed Tasks
 1. Logged Requirements
 - a. Attend ground school covering the glider, rules of flight, meteorology and applicable FAR's.
 - b. Must have logged a total of at least 50 flights on a speedwing.
 - i. From a minimum of two different launch locations.
 - ii. With a minimum of two directional changes of 90-degrees or more on each flight. A flight heading change of at least 45° from straight into wind shall count as directional change.

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- c. 20 flights must include a minimum of two linked-turns, initiated with weight-shift, and with a smooth return back to stable glide.
 - d. Flight altitude needs to be of adequate height to allow for proper launch, transitioning into normal flight, a minimum of two turns (as noted above), and appropriate set-up for landing.
 - e. Has previously fulfilled the requirements of the USHPA Beginner Speed Flying (S1) rating.
 - f. Must pass the USHPA Novice Speed Flying (S2) written examination.
2. Demonstrated Skills and Knowledge
- a. Pre-Flight/Classroom
 - i. Demonstrates thorough and appropriate preflight inspection of harness, trim-settings, canopy, and reserve (when applicable).
 - ii. Demonstrates ability to consistently clip harness into canopy in both “forward” and “reverse” orientations.
 - iii. Before each flight, demonstrates method(s) for double-checking proper connection to the canopy, with cleared lines and risers, and “trimmers pulled in” prior to inflation. (unless otherwise suggested by wing manufacturer).
 - iv. Verbally discusses creation and execution of a flight plan given site layout, conditions, pilot state of mind, pilot currency, and gear being used.
 - v. Demonstrates skill at interpreting conditions that require a “hike-down”, and a willingness to do so.
 - vi. Gives verbal analysis of conditions on the hill, demonstrating knowledge of catabatic flow, wind shadows, gradients, lift, sink, laminar air, shear layers, turbulence and rotors, and the effect these conditions have on an intended flight path and turns.
 - vii. Demonstrates ability to differentiate airspeed from ground speed.
 - viii. Describes how to maintain and correct directional control during up-to a 50% asymmetric deflation/wing collapse.
 - ix. 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.
 - x. Pilot convinces Instructor that they can check-in and fly rated sites without endangering spectators, other pilots, or jeopardizing the site.
 - xi. Explains relationship between roll and dive and increased rate of descent.
 - xii. Explains and demonstrates functionality and proper use of the trim system.
 - xiii. Explains and demonstrates at least 2 methods for aborting a launch, and reasons for doing so.
 - xiv. Explains proper high-wind landing procedure, how to safely disable wing, and how to keep from getting dragged back.

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- xv. Demonstrates basic understanding of fundamental aerodynamic concepts including Wing Loading, Density Altitude, Polar Curve, and Angle of Attack.
 - xvi. Demonstrates or explains proper Parachute Landing Fall (PLF) technique and when it is appropriate to utilize.
 - xvii. Demonstrates proper wing-folding/packing technique for maintaining integrity of leading edge mylars.
 - xviii. Demonstrates an understanding of the subjects and significance of:
 - aa. Right of way rules.
 - ab. FAA Regulations and aircraft sectional charts.
 - ac. Airspeed control, stalls, spins, and turbulence-induced collapses and recoveries.
 - ad. Canopy owner's manual.
 - ae. USHPA Accident Report results currently in print.
- b. Launching / In-Flight
- i. Demonstrates controlled, confident inflations/launches with a smooth transition from running to flying. Flights with poorly-controlled or unstable inflations/launches will not be considered adequate for witnessed tasks.
 - aa. Demonstrates at least 10 consecutive forward inflations into headwind of 5 mph or less.
 - ab. Demonstrates at least 10 clean, smooth reverse inflations and turns to forward position into controlled launch.
 - ii. Demonstrates controlled kiting of a glider overhead for 2 minutes in a steady wind, with comfortable alternation between forward and reverse orientation.
 - iii. Demonstrates ongoing use of weight shift as a primary directional input.
 - iv. Demonstrates flight(s) along a planned path, alternating 'S' turns of at least 90 degree change in heading. Turns must be smooth with controlled airspeed, ending in safe, stand-up landings on a heading.
 - v. Demonstrates the ability to judge and allow for proper clearance from a ridge, gliders, and other obstacles.
 - vi. Demonstrates appropriate surge control of canopy using properly timed brake application.
 - vii. Demonstrates how to lengthen and shorten a flight path.
- c. Landing
- i. Landings must be safe, smooth, in control, and into the wind, ending in an on-heading standing position.
 - ii. Explains proper strong wind landing procedures and how to keep from being dragged back.
 - iii. Demonstrates proper 3-stage flare timing.

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- iv. Demonstrates or explains proper and effective PLF technique, and when it would be appropriate.
 - v. Demonstrates 5 safe landings, standing up, within a designated rectangle 10' wide by 100' long.
 - vi. Demonstrates proficiency landing with trims both "in" and "out", and describes conditions appropriate for either option.
- C. Recommended Operating Limitations for Novice Speed Flying (S2) pilots.
- 1. Pilots should only fly a speed wing commensurate with their skill level.
 - 2. When flying at a USHPA site, the site must be Speed Wing approved and appropriate for the pilot's skill level.
 - 3. First flights at new locations should always be conducted with a mentor or instructor.
 - 4. Recommended Wing Loading = 0.75 to .9 lbs./ft² (8 to 10 lbs./m²). Should not exceed a maximum wing loading of 1.2 lbs./ft² (13 lbs./m²).
 - 5. Maximum base wind of 15 mph.
 - 6. Maximum gust rate of 5 mph in 5 seconds.
 - 7. Avoid steep turns close to the ground, never exceeding a 90-degree turn into landing sequence.
 - 8. Never exceed more than 45-deg of bank-angle unless cued by and/or supervised by instructor on radio.
 - 9. Launching into cross-winds in excess of 25 degrees is not recommended unless a site-specific variance is approved by instructor.
 - 10. Avoid downwind landings.
 - 11. Should not fly within 50' of another glider in smooth air, or within 100' of another glider in moderately turbulent air.
 - 12. Should not fly in soarable conditions.
 - 13. Should always maintain visual contact with the landing zone.
 - 14. Should never fly without first inspecting the landing area.
 - 15. Should never fly without first confirming presence of a wind-indicator in landing area (unless on skis).
 - 16. Pilot should never fly alone without a GPS tracking device and/or a "check-in buddy".

12-02.22 Intermediate Speed Flying Rating (S3)

- A. General Description – The pilot has the knowledge and skills to fly technically demanding sites at a variety of altitudes and climates, and to judge when the site and conditions are within the pilot's skill, knowledge, and experience level. Pilot is comfortable navigating dynamic launches, as well as landings which may not be visible from the launch point. The pilot understands the USHPA Speed Flying (S1-S4) rating system and recommended operating limitations, and the FAR's and other flying rules applicable to their flying. The pilot has previously completed the training, written test, and skill demonstrations needed to obtain the Novice Speed Flying (S2) rating. The pilot shall use good judgment and have a level of maturity commensurate with the rating, and serve as a positive emissary of the sport when interacting with the public, as well as pilots from other flying

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disciplines. Pilots shall meet all logged requirements, demonstrate all skill requirements, and pass the written exam to receive their S3 rating.

B. Intermediate Rating – Required Witnessed Tasks

1. Logged Requirements.

- a. 250 flights in varied conditions, at a minimum of 5 different sites that are more than one mile apart.
- b. Must have at least 100 flights with a minimum of 1,000' vertical descent for each flight.
- c. Must have at least 3 flights on a minimum of 3 different speed wing canopies.
- d. Must have logged a minimum of 80 flying days.
- e. Have previously fulfilled the requirements of the USHPA Novice (S2) Speed Flying rating.
- f. Must pass the USHPA Intermediate Speed Flying (S3) written examination.

2. Demonstrated Skills and Knowledge

a. Pre-Flight/Classroom

- i. Provides a reliable analysis of general conditions of the site, their own mental state, a flight plan for each flight, including flight path, areas to avoid in relation to the wind flow, how to lengthen and shorten the flight plan, and obstacle avoidance.
- ii. Gives verbal analysis of conditions on the hill, demonstrating knowledge of wind shadows, gradients, lift, sink, laminar air, turbulence and rotors, and the effect these conditions have on an intended flight path and turns.
- iii. 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.
- iv. Must convince the Instructor that pilot can check-in and fly USHPA sites without endangering spectators, other pilots, or jeopardizing the site.
- v. Demonstrates ability to make skilled weather forecasting decisions, using a variety of forecasting apps, instruments and tools.
- vi. Comprehensively discusses intricacies and considerations for conducting cross-wind and tail-wind launches.
- vii. Provides comprehensive description of the risks and difficulties of flying nearby or behind other gliders/pilots.

b. Launching/In-Flight.

- i. Pilot demonstrates controlled, confident inflations and launches, with a smooth transition from running to flying. Flights with poorly controlled or unstable inflations or launches will not be considered adequate for witnessed tasks.
- ii. Demonstrates ability to differentiate airspeed from ground speed.
- iii. Demonstrates ongoing use of weight-shift as a primary directional input.

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- iv. Demonstrates skill at interpreting conditions that require a “hike-down”, and a willingness to do-so.
- c. Landing.
 - i. Landings must be safe, smooth, in control and into the wind, ending in an on-heading standing position.
 - ii. Demonstrates 5 consecutive landings within a rectangle 5’ wide by 75’ long, after a flight that requires turns on approach.
 - iii. Demonstrates safe and effective landings with trims both “in” and “out”, and describes conditions requiring either option.
- C. Recommended Operating Limitations for Intermediate Speed Flying (S3) pilots.
 - 1. Avoid steep turns close to the ground, never more than a 180-degree turn into landing-sequence.
 - 2. Recommended Wing Loading = 0.9 to 1.5 lbs./ft² (9.7 to 16.1 lbs./m²). Maximum Wing Loading of 1.6 lbs./ft² (17.2 lbs./m²).
 - 3. Maximum base wind of 20 mph.
 - 4. Maximum gust rates of 5 mph in 5 seconds.
 - 5. Should never fly without first inspecting the landing area.
 - 6. Should never fly without confirming presence of a wind-indicator in landing area (unless on skis).
 - 7. Pilot should never fly alone without a GPS tracking device and/or a “check-in buddy”.

12-02.23 Advanced Speed Flying Rating (S4)

- A. General Description – The pilot has the knowledge, skills, and experience level to safely pioneer new, previously un-flown Speed Flying sites, and is adept on a broad range of Speed Wing sizes, wing loadings and aspect ratios. The S4 pilot is comfortable forecasting and flying in dynamic weather conditions, and navigating complex and/or short launch and landing areas. They are also comfortable providing site-introductions to S2 and S3 pilots, while confirming that individual skill levels and ratings correspond to the complexities of each flying site. The pilot understands the USHPA Speed Flying (S1-S4) rating system and recommended operating limitations, the FARs and other flying rules applicable to their flying. The pilot has previously completed the training, written test, and skill demonstrations needed to obtain the Intermediate Speed Flying (S3) rating. The pilot shall use good judgment and have a level of maturity commensurate with the rating, and serve as a positive emissary of the sport when interacting with the public, as well as pilots from other flying disciplines. Pilots shall meet all of the logged requirements, demonstrate all skill requirements, and pass the written exam to receive their S4 rating.
- B. Intermediate Rating – Required Witnessed Tasks
 - 1. Logged Requirements.
 - a. In not less than 1 year, but not more than 5 years, logged 700 or more flights, at 10 or more locations that are more than 1 mile apart.
 - b. Must have at least 500 flights with a minimum of 1,000’ vertical descent for each flight.
 - c. Must have at least 20 flights on a minimum of 5 different speed wing canopies.

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- d. Must have logged a minimum of 175 flying days.
 - e. Using a variety of wind-apps and forecasting services, demonstrates expert level weather forecasting for 5 different flying sites that are selected by instructor.
 - f. Has previously fulfilled the requirements of the USHPA Intermediate Speed Flying (S3) rating.
 - g. Must pass the USHPA Speed Flying (S4) written examination.
2. Demonstrated Skills and Knowledge.
- a. Demonstrates functional knowledge of Google Maps and Google Earth (or similar tools), to assess new flying sites, plan entry and exit paths, and assess emergency evacuation routes.
 - b. Demonstrates comfort and ability conducting spirals at all angles and on all bank axes, with maximum weight-shift.
 - c. Must convince Instructor that the pilot can assess and fly new, previously un-flown sites without endangering spectators, other pilots, or jeopardizing the site's future access.
 - d. Provides 3 sample "Site Introductions" to instructor, appropriate for:
 - i. New or experienced S2 pilot.
 - ii. New or experienced S3 pilot
 - e. Verbally outlines an in-depth understanding of Rear Riser and B/C Riser flying, as well as comfort and ability with all Trim settings, whether they choose to employ these methods or not.
 - f. Possesses a minimum of 8 Speed Flying Special Skills.
 - g. Demonstrates 5 consecutive touchdowns within a rectangle 2' wide by 15' long, after a flight that requires turns on approach.
 - h. Comprehensively discusses intricacies and considerations for conducting cross-wind and tail-wind launches.
 - i. SIV course or equivalent training recommended, done on a full-size paraglider, or appropriately sized canopy.
 - j. A USHPA Intermediate Paragliding (P3) rating, and/or additional aviation training is highly recommended.
- C. Recommended Operating Limitations Advanced Speed Flying (S4) pilots
- 1. Wing Aspect Ratio and maximum wing loading to be determined at pilot's discretion.
 - 2. Maximum base wind at pilot's discretion.
 - 3. Maximum gust rates of 5 mph in 5 seconds.
 - 4. Should never fly without first walking the landing area, regardless of pilot experience or the fact that other pilots might have landed there previously.
 - 5. Unless on skis, pilot should never fly without first confirming wind speed and direction in landing area, whether by wind-indicator, wind-app, or by another pilot in the LZ.
 - 6. Pilot should never fly alone without a GPS tracking device and/or a "check-in buddy"

12-02.24 Speed Flying Special Skills

A. Pilots should consult a mentor and/or an instructor before pursuing any Speed Flying Special Skill.

1. Special Skills attainable by Novice and above (S2-S4):

a. Speed Soaring/High-Wind Inflations (SSHW)

- i. Demonstrates the ability to kite and launch safely on a slope producing sustainable ridge lift .
- ii. Demonstrates the ability to safely inflate the wing in either direction, with either riser on top.
- iii. 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.
- iv. 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.
- v. Demonstrates the ability to perform consistent and safe top landings.

b. Speed Riding (SR)

Note: "AAI 1", "AIARE 1", or similar 24-hour avalanche course equivalent is highly recommended.

- i. 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 on first try.
- ii. Explains conditions, weather, equipment and protocols peculiar to flight in a ski area environment.
- iii. Demonstrates light wind launches and landings with skis.

c. High-Altitude Launches (HA)

- i. Demonstrates the ability to launch unassisted with strong, running forward-inflation launches in winds less than 5 m.p.h.
- ii. Demonstrates launches from sites at an altitude of 6,000' MSL or higher.
- iii. Demonstrates understanding of high altitude conditions (e.g., air density, cloud suck, anabatic and katabatic conditions, hypoxia, hypothermia).

d. Traction-Kiting on Foot or Ski's (TK)

- i. Demonstrates the ability to kite and launch safely on a slope producing sustainable ridge lift.
- ii. Demonstrates the ability to safely inflate the wing in either direction, with either riser on top.

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- iii. Demonstrates the ability to both “tack” and “jibe” in relation to prevailing wind direction (i.e., track upwind or downwind), utilizing canopy at cross-angles to body-stance in order to generate traction.

- e. Flat-Slope/Low-Angle Launches (FSL)
 - i. Demonstrates ability to launch in less than 5 mph head-wind from slopes which approach the maximum L/D of the glider, using gentle brake-inputs to achieve clearance from terrain.

- 2. Special Skills Attainable by Intermediate Pilots and above (S3-S4):
 - a. Cross-Wind launch (CWL)
 - i. Demonstrates ability to safely inflate and launch Speedwing in a 45-deg cross-wind, while maintaining directional authority directly forward.
 - ii. Demonstrates ability to inflate canopy facing directly into wind, and then turn canopy at 45 degree angle while running, to launch in alternate direction to initial inflation.
 - iii. Demonstrates an awareness of situations in which utilizing this skill would, or would-not be appropriate.

 - b. Terrain flying (TF)
 - i. Demonstrates capacity to consistently pilot Speedwing within 10-feet of the terrain, while at all times maintaining an “out” — i.e., capacity to turn away from the hill into open air, or sufficient flare authority to rapidly gain altitude.
 - ii. Explains the thought process and decision making skills required for evaluating the wind and weather conditions appropriate for Terrain Flying.

 - c. Cliff-Launching (CL)
 - i. 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, committed sprinting starts are required. Stalled, falling or diving launches are not acceptable demonstrations, even if flight is achieved.

 - d. Restricted Landing Field (RLF)
 - i. 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.
 - ii. Demonstrates the ability to plan and execute consistent and controlled landings on both uphill and downhill grades of up to 10%.

12-02.25 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.

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The exemption is subject to the following limitations:

- A. Each operation must comply with all sections of 14 CFR Part 103 except #103.1(b) of the FAR.
- B. No charge, assessment or fee may be made for the operation of the towing ultralight except the actual expenses of the specific flight.
- C. Both occupants on both ultralights must possess a current pilot rating issued by the USHPA.
- D. For identification purposes, the USHPA shall issue an individual authorization to each person allowed to conduct operations under this exemption. Each authorization must include an identification number and a copy of this exemption. The USHPA must have a procedure to rescind this authority when needed.
- E. 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.
- F. Each operator of an ultralight vehicle under the authority of this exemption must be familiar with the provisions contained herein and must have in their 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:

- A. Both vehicles (powered and unpowered ultralight) must meet the vehicle standards of Part 103.
- B. Both vehicles must meet the requirements of the USHPA Towing standards.
- C. While towing, both vehicles may be used for recreational purposes only. (Tow vehicles may be used in instructional flights but not for commercial purposes or for enumeration other than the cost of towing fees.)
- D. The pilot of the powered ultralight vehicle must possess and have in their possession a current aero-tug pilot appointment issued by the USHPA.
- E. The pilot of the unpowered ultralight vehicle must possess and have in their possession a current pilot rating issued by the USHPA. This rating shall be at least a USHPA Intermediate (H3/P3) for a recreational pilot and a USHPA Novice (H2/P2) for a student pilot under the supervision of a USHPA certified instructor.
- F. The unpowered ultralight (hang glider) may be used for two-place instructional purposes (tandem) if the instructor possesses a current USHPA Tandem Instructor appointment and is operating under the conditions of the two-place exemption.
- G. 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.
- H. 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. 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.
- I. 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.
- J. 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.



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- K. 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.
- L. Both towed and towing pilots must obey operational procedures set forth in the USHPA Towing standards.