



# USHPA RISK ASSESSMENT WORKSHEET

## Hang Gliding / Paragliding Site

The United States Hang Gliding & Paragliding Association • [www.ushpa.aero](http://www.ushpa.aero) • [info@ushpa.aero](mailto:info@ushpa.aero)

<b>Flying Site Name:</b>	Villa Grove		
Site Location: (Closest City, State)	Villa Grove, CO	<b>Annual/ Last Assessment Revision Date:</b>	11 Jan 2019
Primary Launch GPS Coords: (DD.DDDD, -DD.DDDD)	38.2919, -105.8825 HG 38.2916, -105.8822 PG 9760 MSL	Primary LZ GPS Coords: (DD.DDDD, -DD.DDDD)	38.2680, -105.8981 PkLot 38.2666, -105.8981 HG LZ 38.2631, -105.8963 Larrys
<b>Site Requirements:</b> <i>examples: H3, P3, H3 w/ CL</i>	H2/P2 (morning / late evening), H3/P3 (midday, midday paragliding not advised during summer) Advise HA, TUR ratings for afternoon flying for HG &PGs as well as SIV training for PGs Launch and primary LZs on public Forest Service/BLM land (not USHPA insured). Larry's LZ is USHPA insured and primarily used for special events or "fly-ins" (gated property). Mini wing not recommended.		
<b>Site Type:</b> <i>examples: Coastal Cliff, High Alt, Mt Thermal, Eastern Ramp</i>	High Alt, Mt Thermal. High desert site conditions typical during summer flying season.		
<b>Site Guide Link:</b> <i>https://www.link.com</i>	<a href="http://www.rmhpa.org/villa-grove-site-guide/">http://www.rmhpa.org/villa-grove-site-guide/</a>		
Site Guide Review Login: (if protected)		Site Guide Review Password: (if protected)	
<b>Chapter #:</b>	21		

# USHPA Risk Assessment Worksheet - Hang Gliding/Paragliding Flying Site

<b>Chapter/Club Name:</b>	Rocky Mountain Hang Gliding and Paragliding Association
Name of Safety Coordinator:	Ed Williams, Tavo Gutierrez, Ben Devoti
Name of Site Coordinator: (for chapter)	Jeff Bevan (PG), JJ John Jaugilas (HG), Larry Smith (local)

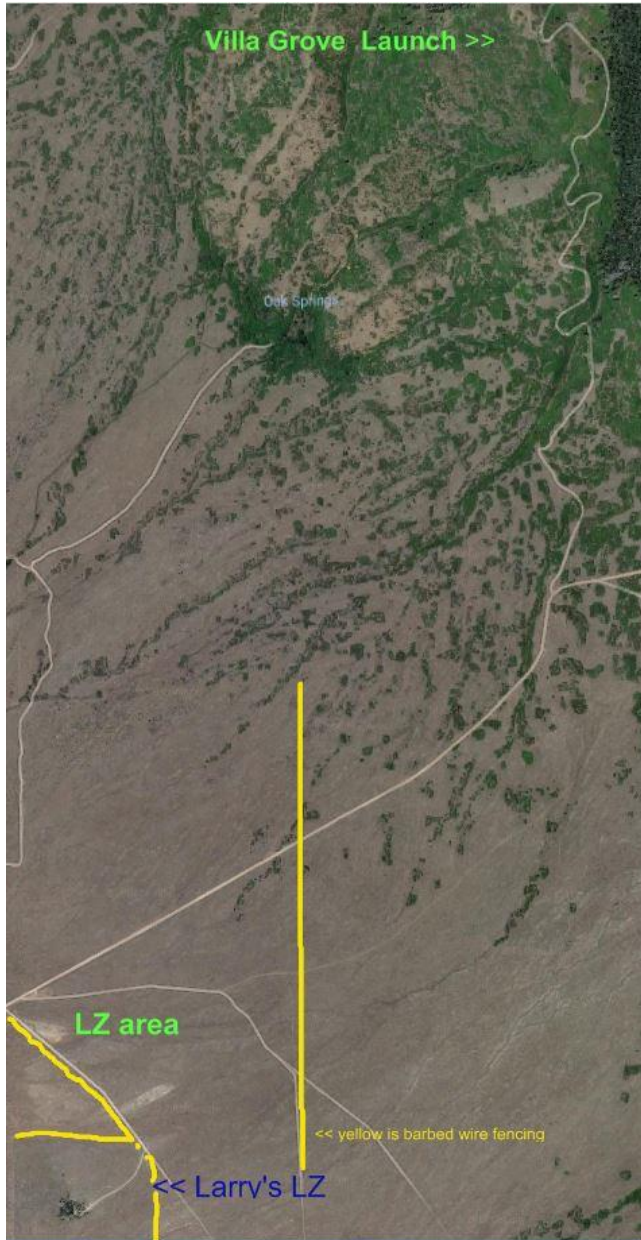
For Risk Management Information & Process Instructions see: [START HERE: USHPA RISK MANAGEMENT PROGRAM](#)

## Quick Risk Management Plan Steps outline:

1. Review the **Chapter Risk Management Training Videos & Training Materials** on <http://ushpa.vizigy.com>
2. Create / Update **Chapter Managed Sites and Site Locations List Table**
  - a. Update **Chapter Managed Site Additional Insured Landowner Table** and associate to Site Locations
3. **Create Site Maps** to be used in this assessment and Site Guides. Site Maps to include the setup, launch, teardown and landing areas, including use zones & measurements (to compare to guidelines) and include in Risk Assessment & Site Guide document.
4. **Risk Assessment and Mitigation** sections of Worksheet: Identify all possible risks. Evaluate from the perspective of spectators, visiting pilots, inexperienced and experienced pilots. Analyze all risks and determine the vulnerabilities.
  - a. **Note significant risks under Risk Detail and Risk Assessment.**
  - b. For each risk noted, **determine steps, actions, signs if necessary to mitigate the risk and document under "Risk Mitigation."**
5. **Create Risk Mitigation Plans** in section of this worksheet for actions to be implemented if not in place and follow-through on any actions or other mitigation activities identified in your Risk Assessments and Action Plan, such as signage or preventative measures.
6. **Create / Update Site Guide** and update rules/regulations/protocols /site guides to be reflective of risks.
7. **Communication**
  - a. **Publish your Site Guide** and any rules/regulations/protocol guides, so all users of the flying site are aware of them
  - b. **Publish your Risk Management Plan** to be available to Chapter Members
8. **Accident Investigations and feedback** findings to your Risk Assessment Worksheet & Site Guide if actions are required
9. **Submission – Upload during Chapter Application/ Renewal** (Annually) or send directly to USHPA or RRRG contact for updates after upload

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## Site Maps and Use Zones:



Overview context image. North up orientation. Yellow lines are barbed wire fencing.

## USHPA Risk Assessment Worksheet - Hang Gliding/Paragliding Flying Site



Overhead view of the LZ areas.



## USHPA Risk Assessment Worksheet - Hang Gliding/Paragliding Flying Site



Hang glider launching. Note "Hook In !" concrete marker at launch staging area.

## USHPA Risk Assessment Worksheet - Hang Gliding/Paragliding Flying Site



View of LZ from 500' AGL. Parking Lot LZ 1 to the right, LZ 2 immediately in front of HG wheel, and Larry's LZ in front of helmet.

# USHPA Risk Assessment Worksheet - Hang Gliding/Paragliding Flying Site

(000 - Flying Site Name) Villa Grove		Review/ Revision Date 11 Jan 19	
Risk Identification (Examples – Feel free to identify your own!)	Risk Detail & Risk Assessment	Risk Mitigation	Sign Off
<b>Road or Trail Access</b> <ul style="list-style-type: none"> <li>What type of road access is there (4WD, paved, public, etc.)?</li> <li>What type of trails are used to access site features?</li> <li>Are roads and trails used to access the site secured using gates or locks? Should they be?</li> <li>Does access to roads/trails need to be restricted or monitored?</li> <li>Are there potential conflicts between pedestrians and vehicles (pilots or spectators)?</li> <li>How do emergency vehicles access site areas?</li> <li>Is signage needed?</li> <li>Have there been any incidents or accidents involving vehicles at this site?</li> </ul>	<p>Launch and primary LZs are on Forest Service/BLM land.</p> <p>Dirt road access to launch and LZ.</p> <p>Road to launch requires 4WD vehicle with high clearance and is narrow single lane with turnouts and scrub oak on both sides of the road (expect scratches on vehicles).</p> <p>Short walk to launch area from parking location.</p> <p>Alternate LZ is Larry Smith's property which is used for special events and is USHPA insured. Check to see if gate is open prior to landing at this LZ.</p>		
<b>Vehicle Parking Area</b> <ul style="list-style-type: none"> <li>Is there a designated parking area for vehicles?</li> <li>What is the clearance between vehicles and:                             <ul style="list-style-type: none"> <li>Setup? Are gliders in setup area secured?</li> <li>Launch?</li> <li>Landing area?</li> <li>Teardown area? Are gliders in teardown secured?</li> </ul> </li> <li>→ If any clearance is less than 50 feet, mitigation should be described</li> <li>Are tie-downs needed?</li> <li>Is signage needed?</li> <li>Have there been any incidents or accidents involving vehicles in the parking area at this site?</li> </ul>	<p>Parking is near launch, but not close enough to interfere with or distract anyone launching. The parking East and South of the glider setup area.</p> <p>Parking is adjacent to the primary parking lot LZ (LZ1).</p> <p>There is a large glider setup area North of the parking area at launch with several tie downs for HGs. HGs and PGs can be shielded from winds by tall scrub oaks West of the parking area at launch.</p>		
<b>Spectator Areas</b> <ul style="list-style-type: none"> <li>What is the clearance between spectators and:                             <ul style="list-style-type: none"> <li>Setup? Are gliders in setup area secured?</li> <li>Launch?</li> </ul> </li> </ul>	<p>For spectators, mainly public trail users, spectators are kept away from use areas. Clearance &gt;50 is easily achievable and pilots are encouraged to allow spectators, but to explain to them where to view from and the importance of staying clear of use areas.</p>	<p>Respectful and thoughtful communication between pilots and spectators.</p> <p>Due to the 4WD road to launch few spectators venture to the launch area. In the LZ there is ample room for landing away</p>	



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<ul style="list-style-type: none"> <li>○ Landing area?</li> <li>○ Teardown area? Are gliders in teardown secured?</li> <li>→ If any clearance is less than 50 feet, mitigation should be described</li> <li>● Are tie-downs needed?</li> <li>● Are spectators allowed in areas with gliders without an escort? Should they be?</li> <li>● How are spectator limitations communicated and enforced?</li> <li>● Are barriers needed?</li> <li>● Is signage needed?</li> <li>● Have there been any incidents or accidents involving spectators at this site?</li> </ul>		<p>from any spectators or vehicles. There are multiple LZ choices.</p>	
<p><b>Potential Obstacles</b></p> <ul style="list-style-type: none"> <li>● Which potential obstacles are present at the site:                             <ul style="list-style-type: none"> <li>○ wires</li> <li>○ towers</li> <li>○ lake or river</li> <li>○ ocean</li> <li>○ forest or trees</li> <li>○ large rocky areas</li> <li>○ other</li> </ul> </li> <li>● What is the clearance between potential obstacles and:                             <ul style="list-style-type: none"> <li>○ launch? (50 feet)</li> <li>○ landing area? (100 feet)</li> <li>○ planned flight path? (75 feet)</li> </ul>                             → If any clearance is less than noted distance, collision avoidance mitigation should be described                         </li> <li>● Is the clearance sufficient?</li> <li>● Are potential obstacles marked?</li> <li>● Is signage needed?</li> <li>● Have there been any incidents or accidents involving overhead obstacles at this site?</li> </ul>	<p>Launch area obstacles: Scrub Oaks trees and rocks below launch but these are not issues due to the slope of the launch ramp for HG and in the PG launch area.</p> <p>Landing area obstacles: The LZ area is wide open and generally has several wind flags and streamers set up.</p> <p>The primary public LZs (LZ1, LZ2) have no fencing except for a barbed wire fence across the dirt road to the East of the LZs.</p> <p>There are barbed wire fences around Larry's LZ but this is a square 40 acre parcel and wind flags are present on the perimeter of the area when in use.</p> <p>Clearances are sufficient, obstacles are obvious, no flight path obstacles.</p>	<p>Have site mentor do a walk-through with new pilots For returning pilots, walk full LZ and launch areas. Before every flight, conduct a flight-plan review taking into account obstacles Steer clear of obstacles and be aware of the danger of object fixation. Understand density altitude and how it affects launch and landing characteristics (HA endorsement required). Do not fly alone.</p>	
<p><b>Launch Areas</b></p> <ul style="list-style-type: none"> <li>● What is the clearance around the take-off area:                             <ul style="list-style-type: none"> <li>○ in front (for solo pilots)? (50 feet)</li> </ul> </li> </ul>	<p>Clearance for take-off obstacles is adequate but typical remote mountain site obstacle are present. Slip/trip/fall hazards are present due to native</p>	<p>Walk intended and backup takeoff paths. Site regulations are posted on the RMHPA Site Guide and communicated to pilots</p>	



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<ul style="list-style-type: none"> <li>○ in front (for tandem pilots)? (75 feet)</li> <li>○ behind? (30 feet)</li> <li>○ to the sides? (30 degrees)</li> <li>→ If any clearance is less than noted, collision avoidance mitigation (for obstacles or spectators) should be described</li> <li>● Are there ground obstructions (trip/fall hazards)?</li> <li>● Is the launch area clearly marked? Does it need to be?</li> <li>● Are there appropriate/adequate tie-downs?</li> <li>● Are the site regulations and launch requirements clearly communicated to all pilots and spectators? How?</li> <li>● Are there launch assistant qualifications and equipment guidelines communicated? How?</li> <li>● Are spectator areas delineated and communicated? How?</li> <li>● Is signage needed?</li> <li>● Are there First Aid – First Responder resources?</li> <li>● Have there been any incidents or accidents involving obstacles, obstructions, vehicles or people on launch at this site?</li> </ul>	<p>environment</p>	<p>during site walkthroughs and introductions. Cellular coverage is usually available. Launch is clearly marked and obvious. Emergency medical response is available from Villa Grove, CO.</p> <p>Due to prior Colorado Fly Week events at Larry's property club members have actively practiced emergency rescue training with local authorities (police and fire departments). They are aware of the HG/PG activity and are supportive of it.</p>	
<p><b>Landing Zones</b></p> <ul style="list-style-type: none"> <li>● What is the clearance around the landing area and: <ul style="list-style-type: none"> <li>○ ground personnel</li> <li>○ vehicles</li> <li>○ structures</li> <li>○ active roads/trails</li> <li>○ spectators</li> </ul> </li> <li>→ If any clearance is less than 50 feet, collision avoidance mitigation should be described</li> <li>● Are there ground obstructions (trip/fall hazards)?</li> <li>● Is the landing area clearly marked? Does it need to be?</li> <li>● Are there appropriate/adequate tie-downs?</li> <li>● Are the site regulations and landing requirements clearly communicated to all pilots</li> </ul>	<p>Slip/trip/fall hazards are present due to native environment. There are rocks and cactus at or near the LZ areas; however the LZ areas are used because they are relatively free of larger rocks or cactus. If an LZ area is congested there are plenty of alternatives through the entire San Luis valley for landing. This is a sparsely vegetated area.</p> <p>Numerous wind flags and indicators are positioned at the Launch area and in the LZs. These are updated regularly by locals and club members.</p>	<p>Site regulations are posted on the RMHPA Site Guide and communicated to pilots during site walkthroughs and introductions. Cellular coverage is usually available. The LZ, and backup LZs, are not clearly marked, but obvious. Signage not allowed on USFS property. Emergency medical response is available from Villa Grove, CO. Understand density altitude and HA endorsement required. TUR signoff and SIV courses are advised for PGs.</p>	

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<p>and spectators? How?</p> <ul style="list-style-type: none"> <li>Are spectator areas delineated and communicated? How?</li> <li>Are there guidelines regarding ground handling (kiting) in the LZ area?</li> <li>Are there appropriate wind indicators?</li> <li>Is signage needed?</li> <li>Are there First Aid – First Responder resources?</li> <li>Have there been any incidents or accidents involving obstacles, obstructions, vehicles or people in the landing area at this site?</li> </ul>			
<p><b>Other Activities in Area</b></p> <ul style="list-style-type: none"> <li>Is the site open to the general public?</li> <li>Do other activities occur in the same area? Such as:                             <ul style="list-style-type: none"> <li>radio controlled (RC) aircraft</li> <li>model rocketry</li> <li>skeet shooting</li> <li>kite flying</li> </ul> </li> <li>→ If any other activity occurs, mid-air mishap mitigation should be described</li> <li>Is signage needed?</li> <li>Have there been any incidents or accidents involving other activities at this site?</li> </ul>	<p>General public can access the launch area, but there is plenty of space for pilots to keep clearance from spectators. This is not typical due to the 4WD dirt road to launch.</p>	<p>Pilots will communicate with spectators to keep them clear of launch area.</p>	
<p><b>FAA Recognition and Communication</b></p> <ul style="list-style-type: none"> <li>Are there other flight operations in the area?                             <ul style="list-style-type: none"> <li>general aviation</li> <li>commercial aviation</li> <li>agricultural aviation</li> </ul> </li> <li>→ If any other flight operations occur in the area, interference mitigation should be described</li> <li>Has the local FAA office been advised in writing of glider flight activities?</li> <li>Are NOTAMs published for this site?</li> <li>Are there conflicts with Terminal Controlled Flight areas (TCA)?</li> <li>Are there potential conflicts with general aviation airports and landing patterns (non-</li> </ul>	<p>Sled rides should be low enough to avoid conflicts. Thermal flights above launch altitude or out into the valley could encounter general aviation traffic. However this is a relatively sparsely populated valley without significant air traffic or training in the area.</p>	<p>Air Space: Villa Grove is in class G airspace up to 1200' above the surface, above 1200' it is Class E airspace. Almost all of the San Luis Valley has open areas to land but do not land in the Great Sand Dunes National Park and Preserve. There are scattered small air fields and some victor airways around the Valley so the possibility of encountering aircraft traffic exists but the volume of traffic is low. San Luis Valley Regional Airport has Class E airspace to the surface and is in the center of the Valley south of the Great Sand Dunes—don't fly in the Airport's airspace without prior authorization. The Airport's airspace is probably not a factor unless your cross</p>	

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controlled)? <ul style="list-style-type: none"> <li>Are all tandem and towing operations in compliance with FAA rules and regulations?</li> <li>Have there been any incidents or accidents involving FAA non-compliance or other flight operations in the area of this site?</li> </ul>		country becomes epic and involves flat land flying. See SkyVector for an overview of the San Luis Valley airspace.	
<b>Organized Events</b> <ul style="list-style-type: none"> <li>Does your Chapter have any organized events at this site? Such as:             <ul style="list-style-type: none"> <li>club meetings, picnics or parties</li> <li>fly-ins or demo days</li> <li>ACE events or sanctioned competitions</li> <li>public demonstrations</li> </ul> </li> <li>Is there a Flight Safety Coordinator designated for all flying events?</li> <li>Are spectator areas and vehicle parking areas clearly defined, designated and enforced?</li> <li>Are recommended clearances between flight operations and spectator areas marked, maintained and enforced?</li> <li>Are tie-down systems available and in-use for organized events?</li> <li>Are flight simulators or other demonstration equipment under direct supervision at all times until disassembled?</li> <li>Are First Aid – First Responder resources on site and available?</li> <li>Have there been any incidents or accidents during organized Chapter-sponsored events?</li> </ul>		In the past organized events have occurred. At the time of this submittal, there are no plans for organized events at this Site.	
<b>Safety Officer (Annual Review)</b> <ul style="list-style-type: none"> <li>Do your Bylaws clearly define the responsibilities of the Safety officer (can be a Director, Coordinator, or other titles)? Such as:             <ul style="list-style-type: none"> <li>Risk Assessment and Risk Mitigation Plan</li> <li>Incident Reporting process and follow-up</li> <li>Oversight of Site-Event Management Plans</li> <li>Access to historical data for informing site guidelines and rules</li> <li>Authority to close a site due to hazardous conditions or situations</li> </ul> </li> </ul>		Yes, chapter bylaws included Safety Officer and Flight Director responsibilities, including reviewing and updating risk management plans, incident reporting, open access from pilots, site regulation changes and authority, and imposing flight restrictions.  Yes.	

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<ul style="list-style-type: none"> <li>○ Authority to restrict flight operations of a single pilot if necessary to avoid potential accidents</li> <li>● Does your Chapter have a copy of USHPA's <b>Risk Management Plan Program with Appendix A, Recommended Operating Guidelines?</b></li> <li>● Does your Chapter have appropriate documentation in place for:             <ul style="list-style-type: none"> <li>○ Risk Mitigation Plan</li> <li>○ Incident Reporting</li> <li>○ policy/procedure to close a site due to hazardous conditions or situations</li> <li>○ policy/procedure to restrict flight operations of a single pilot if necessary to avoid potential accidents</li> </ul> </li> </ul>		<p>Documentation is maintained.</p> <p>The Chapter Secretary is planning to visit all Chapter managed sites this year to review and update Google Earth Pro LZ obstacle photos with inputs from the local site experts/coordinators.</p>
<p><b>Information Communication</b></p> <ul style="list-style-type: none"> <li>● Are flying site rules and guidelines clearly and appropriately communicated? This could be through one or more of the following:             <ul style="list-style-type: none"> <li>○ website</li> <li>○ video</li> <li>○ signage on site</li> <li>○ paper hand-outs</li> <li>○ designated members (site administrator, sponsor, guide)</li> <li>○ other</li> </ul> </li> <li>● Are flying site parameters and protocol clearly and appropriately communicated (to spectators and pilots) through signage, physical markings, barriers, etc.?</li> <li>● Is contact information for the chapter site coordinator available at the site?</li> <li>● How can members and spectators provide input and suggestions to the site management team?</li> <li>● How is the Emergency Action Plan communicated?</li> <li>● Have efforts been made to claim ownership of internet information with pointers back to your Chapter as the primary information source that takes precedence if on Google Maps,</li> </ul>		<p>Yes, site guidelines and process are communicated to the RMHPA membership via email, social media, and an updated website Site Guide.</p> <p>In the chance spectators are present, pilots are encouraged to communicate with them on spectator safety hazards, where to view, and where to keep away from.</p> <p>Site coordinator information will be included on the updated Site Guide.</p> <p>Members and spectators are encouraged to contact any RMHPA officer with input or questions. Officer information is included in the RMHPA website.</p> <p>Ownership claim has not been initiated</p> <p>The Villa Grove Site Guide is being updated and rewritten to more clearly communicate relevant information.</p>



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Paragliding Map, Paragliding Earth, or other online site guides?			
<b>Experience &amp; Skills required to fly the site safely</b> <ul style="list-style-type: none"> <li>● List the pilot skill sets required to fly the site safely.</li> <li>● <b>Does the site require a specific pilot proficiency rating / special skills? Cliff, ramp launch, thermal, turbulence, . . .</b></li> <li>● Is USHPA membership &amp; ratings required to fly at this site?</li> <li>● Each site should have recommended or required USHPA ratings</li> <li>● Do the site ratings reflect the launch and landing zone requirements?</li> <li>● Why did Site receive the rating? (Is the site a Green Circle run or a triple Black Diamond and why it was rated that)</li> <li>● How are pilot rating/special skill requirements verified? Some possible methods:             <ul style="list-style-type: none"> <li>○ sticker</li> <li>○ text message (719-387-4571)</li> <li>○ website (ushpa.org/m/#####)</li> <li>○ PDF USHPA or Chapter Member card</li> <li>○ designated members (site admin, sponsor)</li> </ul> </li> <li>● How is site access limited to only those pilots with a verified appropriate rating/special skills?             <ul style="list-style-type: none"> <li>○ all members</li> <li>○ designated members (site administrator, sponsor, guide)</li> <li>○ other</li> </ul> </li> <li>● How does the chapter encourage and enable appropriate pilot experience for flying at this site?</li> <li>● Does training take place at the site? If so, are USHPA training guidelines followed?</li> </ul>	H2/P2/M2 required w/ High Altitude and Turbulence endorsements. Mid-day summer flying not advised for PG or for H2 pilots.	The Site is insured, therefore USHPA membership and appropriate ratings are required.  Site ratings do reflect the pilot requirements during morning and evening flights and/or when thermic conditions and environmental hazards are not present. For mid-day conditions, H3/P3/M3 or higher, is recommended.  USHPA membership/rating is verified by email, in-person cards, and/or txt message verification to USHPA.  Mountain flight mentoring does occur at the Site. Currently no primary H1-H2 or P1-P2 training is conducted at the site as there are better alternative sites for primary flight training in the area.	
<b>Emergency Action Plan</b> <ul style="list-style-type: none"> <li>● Is the site Emergency Action Plan documented and communicated? Example methods:             <ul style="list-style-type: none"> <li>○ website</li> </ul> </li> </ul>	An EAP will be published on the website and briefed annually at a Chapter Meeting.	An EAP is published on the website and briefed annually at a Chapter Meeting.	

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<ul style="list-style-type: none"> <li>○ signage on site (launch and LZ)</li> <li>○ paper hand-outs</li> <li>○ designated members</li> <li>● Is there a documented protocol for filing incident reports?</li> <li>● Have local emergency responders been notified of flying site location and methods of access?</li> <li>● What first responder resources are available on-site? Some possible options:                         <ul style="list-style-type: none"> <li>○ first aid kit</li> <li>○ direct phone numbers of emergency services</li> <li>○ landline telephone (e.g., pay phone)</li> <li>○ no-fly tarp/flag</li> </ul> </li> <li>● Does the chapter sponsor First Aid and CPR training for members? How often?</li> <li>● Have there been any incidents or accidents at this site using your Emergency Action Plan?</li> </ul>		<p>A generic EAP, developed with reference to USHPA's online training material, is included on the Chapter website and briefed at a Chapter meeting annually. Specifics for individual sites are included in the individual site guides.</p> <p>Our Chapter conducted first responder training in 2018 and will sponsor additional First Responder and CPR classes if pilots are interested.</p>	
<p><b>Tandem Flying</b></p> <ul style="list-style-type: none"> <li>● How is compliance with the USHPA FAA Tandem Exemption monitored and enforced?</li> <li>● Are all participants issued a 30-day student membership, or confirmed to possess a current USHPA membership?</li> <li>● What is the clearance around the take-off area:                         <ul style="list-style-type: none"> <li>○ in front (for tandem pilots)? (75 feet)</li> <li>○ behind? (30 feet)</li> <li>○ to the sides? (30 degrees)</li> </ul> <p>→ If any clearance is less than noted, collision avoidance mitigation (for obstacles or spectators) should be described</p> </li> <li>● Have there been any incidents or accidents involving tandems at this site?</li> </ul>	<p>No commercial ops that we are aware of at this time.</p>		
<p><b>Towing</b></p> <ul style="list-style-type: none"> <li>● If towing operations occur at the site, indicate all types:                         <ul style="list-style-type: none"> <li>○ aircraft</li> <li>○ boat</li> <li>○ scooter</li> <li>○ static line</li> <li>○ truck</li> </ul> </li> </ul>	<p>This is a mountain launch site. No towing is done at this site.</p>		

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<ul style="list-style-type: none"> <li>○ winch</li> <li>○ other</li> <li>● List each towing vehicle used (Year, Manufacturer, Make, Model, Owner)</li> <li>● Does every tow operator have the relevant USHPA towing appointments?</li> <li>● Is there a written schedule for maintenance of all towing equipment and associated line and hardware?</li> <li>● Does the Chapter verify that the towing equipment maintenance is up-to-date?</li> <li>● Are there towing-specific risks at this site? For example:                         <ul style="list-style-type: none"> <li>○ fuel storage</li> <li>○ equipment maintenance</li> <li>○ licensing of operation</li> <li>○ site access</li> </ul> </li> <li>● Is the clearance around the towing area sufficient:                         <ul style="list-style-type: none"> <li>○ in front?</li> <li>○ behind?</li> <li>○ to the sides?</li> <li>○ overhead?</li> </ul> </li> <li>● For aero-towing operations: How is compliance with the USHPA FAA Towing Exemption monitored and enforced at the site?</li> <li>● Have there been any incidents or accidents involving towing at this site?</li> </ul>			
<p><b>Glider Tie Down Systems</b></p> <ul style="list-style-type: none"> <li>● Are glider tie-down systems needed at this site (in either the setup or teardown areas)? Possible reasons to require:                         <ul style="list-style-type: none"> <li>○ dust devils</li> <li>○ gusty winds</li> <li>○ insufficient clearance from vehicles</li> <li>○ insufficient clearance from spectators</li> </ul> </li> <li>● If tie-downs are available, how are they communicated to pilots?</li> <li>● If tie-downs are available, how are pilots encouraged to make use of them?</li> </ul>	<p>People use tie downs or areas sheltered from winds at launch. There are large scrub oaks and other trees that provide shelter from winds. These are used during summer midday, due to the potential for strong thermals.</p> <p>PGs set up in an area where scrub oaks provide a natural wind block.</p>		

# USHPA Risk Assessment Worksheet - Hang Gliding/Paragliding Flying Site

<ul style="list-style-type: none"> <li>Have there been any incidents or accidents involving loose gliders at this site?</li> </ul>			
<p><b>Environment &amp; Other Risk Considerations</b></p> <ul style="list-style-type: none"> <li>What are the Minimum &amp; Maximum allowed winds and maximum gust factor for the site? Explanations should be included if these numbers are high for the industry.</li> <li>Are there any other risks or hazards associated with this site or XC from this site? For example:             <ul style="list-style-type: none"> <li>man-made risks</li> <li>natural hazards</li> <li>environmental risks</li> <li>external events/forces</li> <li>weather conditions</li> <li>known venturi &amp; rotor zones</li> <li>potential risks of impact</li> <li>vulnerability</li> <li>Time of year and time of day hazards</li> <li>Other risks typically included in site briefings</li> </ul> </li> <li>Are there any possible risks due to local response?</li> <li>Are there preventative measures that can be implemented immediately?</li> <li>Have there been any incidents or accidents in the past at this site? If so, what actions, systems, communications, etc. could have mitigated those outcomes?</li> <li>Have there been any incidents or accidents in the past Year that warrant hazard updates to the Site Guide?</li> <li>List any facilities owned by the chapter at this site (such as clubhouse, storage shed, wind sock tower, launch ramp, towing equipment)</li> </ul>	<p>There are no minimum wind speed nor gust factors for the Site.</p> <p>Maximum winds are commensurate with ratings required for this site: H2/P2/M2 and H3/P3/M3 for mid-day conditions.</p> <p>Mountainous weather is the primary flight-related hazard associated with this Site, and includes:</p> <p>Wind velocity</p> <p>Turbulence</p> <p>Compression and venturi effects</p> <p>Thermic conditions</p> <p>Thunderstorm development</p> <p>Gust fronts</p> <p>Quickly changing conditions</p> <p>High Altitude</p> <p>Strongly consider portable Oxygen, and stay under 18,000 MSL.</p>	<p>Weather-related risk mitigation tactics include:</p> <p>Operating with rating limitations</p> <p>Site mentorships and site walkthroughs</p> <p>Understanding, reviewing, or being trained/mentored in wind judgement and compression effects, topographic and terrain-induced amplification of weather, thermal knowledge and skills to deal with high altitude thermic conditions and how to recognize ramping, wind shear knowledge and forecast review, knowing where nearby wind talkers are located, understanding thunderstorm lifecycle and recognizing hazardous conditions, having the flight skills to manage your aircraft including turbulence techniques and how to descend and land quickly when conditions build, recognizing changing conditions and landing quickly.</p>	



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<p><b>Mini / Speed Wing Provisions &amp; Associated risks</b></p> <ul style="list-style-type: none"> <li>• Are Mini/ Speed Wings flown at your site?</li> <li>• Do you have Mini/ Speed Wing provisions in your site protocols?</li> <li>• Provisions or Restrictions to consider:             <ul style="list-style-type: none"> <li>○ Required Glide Ratio from each Launch to each LZ</li> <li>○ Quantifiable terrain clearance limits to experience level.</li> <li>○ Acceptable flying conditions in conjunction with terrain clearance protocols including acceptable times of day to the season.</li> <li>○ Restrictions on Low Acrobatic Flying / Low Barrel Rolls / Swooping</li> <li>○ Distances from other pilots, observers, vehicles, structures, and other obstacles or areas</li> </ul> </li> <li>• Are there any other Mini/ Speed Wing risks or hazards associated with this site?</li> <li>• Have there been any Mini / Speed Wing incidents or accidents in the past Year that warrant hazard updates to the Site Guide?</li> </ul>	<p>Mini-wings not recommended due to glide-ratio requirements.</p> <p>Mini wing pilots sometimes soar other sites (especially coastal sites) in high winds. However, because of the rapidly changing and at times unpredictable nature of the weather/winds combined with the topography at our high mountain sites, high wind soaring is not recommended.</p>	<p>Mini/speed wings are occasionally flown at the Site. The terrain in flight path is native grass with outcroppings of scrub oak, trees to the left and right of the primary flight paths. The Site has potential for mini/speed-wing activities, especially during winter mornings and evenings.</p> <p>If flying mini-wings contrary to these recommendations, wings with a glide ratio of under 8:1 are not recommended.</p>	
<p><b>Annual Incidents &amp; Accidents Review</b></p> <ul style="list-style-type: none"> <li>• # of Incidents this past Year <u>  0  </u></li> <li>• # of Accidents this past Year <u>  0  </u></li> <li>• Has your Chapter Reviewed Accidents in this past year and prior years to determine if actions are required?</li> </ul>		<p>We are constantly reviewing safety protocols and procedures and how best to communicate all of that to our member pilots.</p> <p>Accidents and incidents are briefed at Chapter Meetings (when possible by the pilots involved). Lessons learned and takeaways for the future are discussed. Summaries of these accident and incident debriefs are included in Meeting Minutes on the Forum.</p> <p>It is our constant effort to keep the mentorship environment high for new pilots.</p>	

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## Risk Mitigation Plan Activities - to be implemented/ work in process

Risk Mitigation Plan Activities	Responsible Coordinators	Project Start	Est. Completion
Update RMHPA site guide	Greg Kelley & Webmaster	ASAP	Complete
Update RAW and Site Guide Photos with Google Earth Pro (LZ obstacle survey to add to existing photos)	Scott Drinkard	Feb 2019	Aug 2019
Add EAP brief and plan to the Chapter Website	Webmaster	Feb 2018	Complete

## Site Locations:

Attach & upload Chapter Managed Sites and Site Locations Table