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The United States Hang Gliding and Paragliding Association Inc. (USHPA) is an air sports organization affiliated with the National Aeronautic Association (NAA), which is the official representative of the Fédération Aéronautique Internationale (FAI), of the world governing body for sport aviation. The NAA, which represents the United States at FAI meetings, has delegated to the USHPA supervision of FAI-related hang gliding and paragliding activities such as record attempts and competition sanctions. The United States Hang Gliding and Paragliding Association, a division of the National Aeronautic Association, is a representative of the Fédération Aéronautique Internationale in the United States.



HANG GLIDING AND PARAGLIDING ARE INHERENTLY DANGEROUS ACTIVITIES

USHPA recommends pilots complete a pilot training program under the direct supervision of a USHPA-certified instructor, using safe equipment suitable for your level of experience. Many of the articles and photographs in the magazine depict advanced maneuvers being performed by experienced, or expert, pilots. These maneuvers should not be attempted without the prerequisite instruction and experience.

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Flight Plan [Editor > **LIZ DENGLER**]

I've been on the road this past month, and it's been a wonderful experience. Not only have I had the opportunity to fly some new sites, but I've also been able to observe the styles of various flying communities along the way. Some sites focus on tandems and

the money chain; others are more community-based. Some are glad for new faces to grace their skies, and others would prefer to keep their sites locked down for locals only. However, one thing is certain, regardless of the nature of the community on the ground, once in the air, everyone is stoked. It's free flight that connects us.

When flying in one community for a long time, we can get set in our ways of doing things. We understand our launches and the mood of our community, and we figure out the best ways to adapt. We have rhythm and, most of the time, harmony. When we step outside of that safe zone, it's exciting and, at times, a bit intimidating. But typically, you'll also meet some awesome people along the way and will find it fun to run into them again in the future at some random mountaintop.

I encourage you to get out and explore. It is a skill that needs to be nourished, and it takes practice. You don't have to go far, just reach out to the broader community and find a new place to fly. You may be surprised by how difficult it can feel to show up at a new site with a new community where you know only one or two people or no one at all. It brings to light how comfortable we can get.

Even with the most detailed site intro, there is so much we don't know about a new site. We can never have the same knowledge as a local pilot, and therefore, we need to be extra aware and on our game. A local pilot who is practiced at launching into a strong compression is not equal to your light wind launching skills (and vice versa, of course).

Whether you take a step back when launching a new site for the first time, or you show up and send it, stay diligent. You don't know what you don't know. I prefer to keep it relaxed, chill, and pleasant for my first time at a new launch—then, on the next round, I have a better understanding of the area and can devote more energy to a longer flight.

Whatever your style, get out and experience some new sites! You may be surprised at what you learn in the process.



Zac Majors gets some last-minute love from his dog Nube in the launch line at the 2021 Paradise Airsports Hang Gliding Nationals in Groveland, Florida.

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Finding Lift [Executive Director, USHPA > MARTIN PALMAZ]

Recreation RRG Anniversary

June 1, 2021 marked five years since the Recreation Risk Retention Group (RRRG), USHPA's self-insurance organization, issued its first policy. After traditional insurance would no longer cover our sports, we are proud to have created a successful alternative to offer affordable insurance for sites, chapters, landowners, instructors, and members. This solution prevented a massive closure of sites around the country, which would have been a serious hit to our sports.

As a brief background, USHPA's previous insurance provider, Lloyds of London, discontinued all coverage of hang gliding and paragliding activities in 2016. USHPA collaborated with the Foundation for Free Flight, the Professional Air Sports Association (PASA), several prominent schools, and many volunteers to find a solution to keep sites and schools insured and open. Ultimately, the free-flight community worked together through this insurance crisis to raise the \$2 million minimum capital needed to start our own self-insurance company and formed the Recreation RRG. (For more on the history of the RRRG, please see my column in the magazine's July/August 2020 issue.)

At the time, self-insuring was our only solution, but it was also our best one. Many other sports, including CrossFit, Divers Alert

Network, and USA Hockey, also self-insure. As the only insurance organization run entirely by hang glider and paraglider pilots, the majority of whom are volunteers, the RRRG focuses on the interests of ultralight aviation. While the company is required to be externally regulated and follow strict industry and state guidelines, the RRRG works within these rules to provide comprehensive insurance coverage tailored to our sports.

For instance, the RRRG offers varying levels of coverage suitable for different locations so that schools and sites in both rural areas and city centers can access adequate insurance. It also instituted lesson requirements that best protect our sports long term, such as asking instructors to record all student injuries to demonstrate that serious injuries during lessons are less frequent than the uninitiated assume. The RRRG is additionally willing to defend nuisance lawsuits rather than making an expedient settlement, as traditional insurance companies tend to do. The RRRG has continued working to improve their application, renewal, and other processes for chapters and instructors. In doing so, the RRRG has also supplied this detailed data to USHPA—this data was compiled to provide members a flying sites map

Interested in a more active role supporting our national organization? USHPA needs you! Have a skill or interest and some time available?

VOLUNTEER!

ushpa.org/volunteer

Annual Members & Fall Board Meeting

November 11-13, 2021

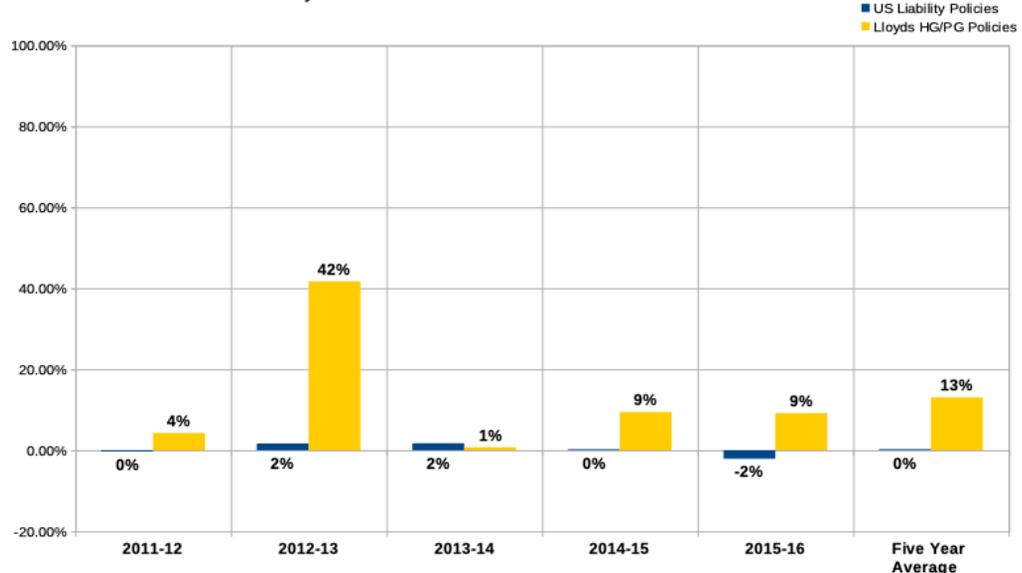
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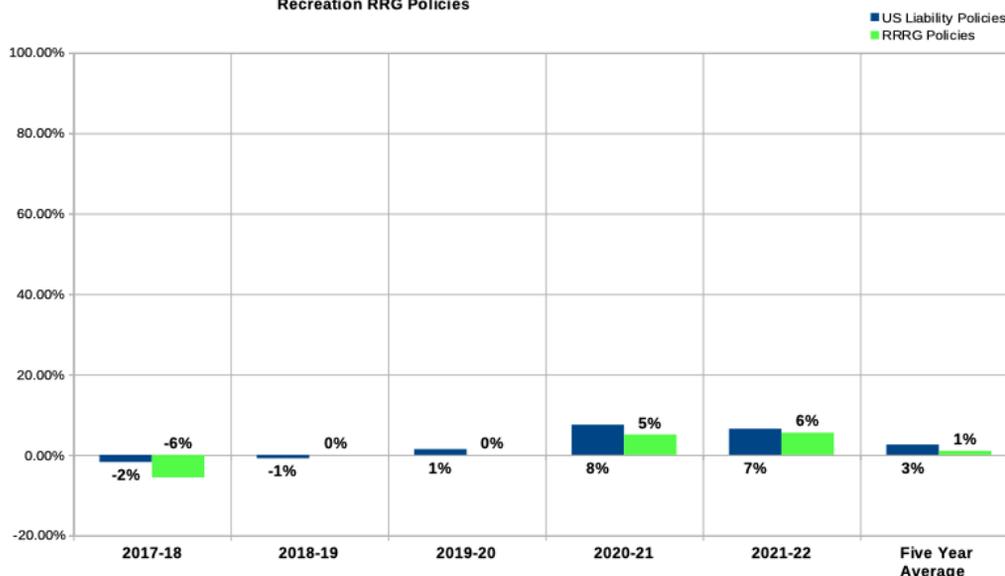
ushpa.org/boardmeeting

RIGHT Insurance rates in the five years before the formation of the RRRG went up an average of 13% per year.

Rate Change - Year Over Year - Compared to US Liability Policy Market
Lloyds HG and PG Policies



**Rate Change - Year Over Year - Compared to US Liability Policy Market
Recreation RRG Policies**



LEFT Since 2017, the RRRG rates have risen an average of 1% per year. During that same period, overall liability insurance rates for all industries in the U.S. have risen an average of 2.5% per year.

as an additional benefit.

Since 2017, the RRRG has insured over 160 sites, 600 site locations (locations within sites), 90 chapters, 415 instructors, and 390 landowners, in addition to USHPA's membership. They actively work with interested schools and instructors to ensure that policies are affordable and provide the necessary coverage.

With the significant efforts at managing risks by chapters, schools, instructors, and members, the RRRG has managed to keep price increases well below the trajectory of liability insurance rates in the U.S. Since insurance premiums represent a third of USHPA's budget, this translates to USHPA being able to direct more resources to our sports and membership without raising dues, and to schools having stable insurance rates and availability. With the RRRG recently paying off their start-up loans, and assuming it remains profitable in the future, they may be able to reduce rates or avoid excessive rate hikes for shareholders, including USHPA, the Foundation for Free Flight, and each school that holds an RRRG policy (PASA schools).

The RRRG is vital to providing our community with insurance to allow us to keep flying. To make insurance coverage available and affordable to our sports for the long term, changes had to be made in how insurance works, who is covered, and who pays for that coverage. Significant changes also were made in how members, chapters, schools, and instructors manage risk. We understand that not everyone is happy with

all those changes, and the initial implementation has raised administrative and cost burdens for chapters, schools, and instructors. While difficult, the results of those changes have enabled the RRRG to survive the early years and become more financially stable.

Insurance is a complex and challenging topic. The work of identifying insurance needs, crafting appropriate coverages, and finding improved methods of managing risk is an ongoing process, and we are working closely with the RRRG to identify and suggest improvements. To that end, USHPA has formed a new insurance subcommittee where USHPA BOD members work alongside RRRG BOD members to reduce the administrative burden of complying with insurance requirements without compromising our goals for improving safety throughout the community. I would encourage pilots to learn more about insurance to help preserve this crucial element of our ecosystem. I hope a better understanding of the RRRG's benefits and its key role in ensuring the future of free flight can help members appreciate this significant accomplishment of achieving self-insurance.

If you have any questions about USHPA's insurance policies, we are here to answer them. More information about the Recreation RRG can be found at recreationrrg.com.

ERRATA In last month's July/August column about EAA AirVenture Oshkosh, Blue Water Hang Gliding Minnesota was mistakenly omitted as one of USHPA's partners for the event. We apologize for this error.

Do you have questions about USHPA policies, programs, or other areas? Email us at:

communications@ushpa.org

Let us know what questions or topics you'd like to hear more about!

- Blue skies, Martin Palmaz
Executive Director, USHPA

Launching [Latest Gear]



PHI ALLEGRO X ALPS The ALLEGRO X-alps has been completely recalculated and redesigned on the base of the ALLEGRO. The result is an extraordinary superlight EN-C. Because of the lighter canopy, the ALLEGRO X-alps is a little more "communicative" in thermals and softer in extreme maneuvers. The combination of the ALLEGRO X-alps and the new R07 riser with a unique ergonomic C handle position is offering a new flying sensation. The test pilots were excited: now it's on you to try! For more information visit eagleparagliding.com.

WOODY VALLEY QUADRO 140 Our light rescue parachute QUADRO140 LIGHT, suitable for heavier paragliding pilots, hang gliding, and paramotoring, is finally ready! Its main features are a sink rate of 5.49 meter/second (at maximum work load of 140 kg), an opening time of 3.20 seconds and a very light weight of 1,450 grams. Visit eagleparagliding.com for more information!



ADVANCE COMFORT PACK 4 The backpack is as slender and compact as before, but in a completely new design: the COMFORTPACK 4 offers superior carrying comfort and ample space for all your paragliding equipment. Reports are that it sits perfectly on the body and provides exceptional carrying comfort by virtue of its ergonomically shaped shoulder straps and a back section with mesh. It has waist strap pockets for wallets and keys and it comes in four sizes from 100 L (1.1 kg) up to 145 L (1.25 kg) and is light grey. It is delivered on purchase of some Advance paragliders and is available through Super Fly, Inc. www.superflyinc.com 801.255.9595 or your local dealer.

GIN GENIE LITE 3 RESCUE DECK The Genie Lite 3 rescue deck enables you to fit a second front-mounted rescue to your Genie Lite 3 harness. A second rescue can be easily deployed with either hand in case your primary rescue handle cannot be reached or becomes caught by the glider. It also enables the Genie Lite 3 harness to meet the requirements of FAI Cat 1 competitions. The Genie Lite 3 rescue deck also fits most other cocoon harnesses which feature a cockpit with velcro. Pilots should take note of its size limitations as it works best with a light weight and compact reserve. It is available through Super Fly, Inc. www.superflyinc.com 801.255.9595 or your local dealer.



NOVA XENON The XENON (EN/LTF D) is an ultralight two-liner for experienced pilots. Excellent glide performance, simple handling, and a high degree of stability guarantee extensive XC miles without the risk of fatigue. The glider has Height-Adjustable B-Handles (HAB-Handles) that can be adjusted to six different heights and thus optimally adapted to pilot size and harness geometry. Nova states that collapses are rare and that if the XENON does collapse, the reaction is tame for a glider of this aspect ratio. It does not tend to reopen abruptly, responds well to input during asymmetric collapses, and shows no tendency to stall during a frontal. The XENON uses Nitinol rods fitted throughout the wing depth of the upper surface to increase stability. The XENON is 3.15 kg in size 17. It is available through Super Fly, Inc. www.superflyinc.com 801.255.9595 or your local dealer.





ABOVE The author flying over the Whitwell Baptist Church LZ.

Accident Review Committee [by > JULIE JULIAN and JIM MACNUTT]

Bad landing: a case review

AIRS
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SAFETY

On March 12, 2021, H3 pilot Julie Julian had an accident landing her custom Sport 3 135 (a race model hang glider). She had logged 6 hours, 11 minutes on 5 prior flights with this hang glider, and over 188 flight hours on hang gliders in total. This was her 406th flight. The accident occurred at Tennessee Tree Toppers - Whitwell Baptist Church landing field, Whitwell, TN. Here is her account:

I was hoping to get my new Sport 3 on its first flight of the year. The weather was looking good, so we loaded up our gear and headed to the Tennessee Tree Toppers Whitwell launch. My last flight was in December 2020 and I could not wait to take my sixth flight on my new "Little Ray of Sunshine." We arrived with blue skies and calm conditions that did not look as promising as we were anticipating. Paragliders were sinking out and the few hang gliders that launched shortly found themselves heading to the LZ. But it was still early and I kept thinking the valley

would heat up soon and turn on. Finally, as clouds started to appear, my gut said it was time. I launched around 1:30 p.m. It was a good launch with full wire crew assistance. My first thought was, "Crap, this is going to be a sled run."

I looked for any possible heat sources on the ground, and unexpectedly found a thermal that shot me up well over launch. As I flew, the clouds grew and there were thermals everywhere. After an hour into my flight, all I could think was "I wish I kept my glove heaters on." Instead, they were tucked in the back pouch of my harness. But as they say, if you want to get up, underdress!

« As I set up my approach, I was plagued by internal voices of two brains urging me in opposite directions... »

ON THE SCENE

Jim MacNutt, Julie's first responder, contributed the following report:

Flying conditions: Wind coming down the valley had broken lift and could shift up to about 90 degrees in very light cycles. PG launches were tricky. Julie had an awesome launch and soaring flight with Jeff. Only a few PGs had soared. Other HGs and most PGs sledged. I had mostly sink out to the church. A little lift. A little turbulence. But just a sled ride.

I was on the ground packing up my glider, roughly facing toward the cars. The first I knew that a glider was around, it was already on the ground. I saw the wing tip across the landing zone when I happened to glance over my shoulder. It didn't move so I started running. As I got closer I couldn't hear her (but I had just lost a hearing aid) and didn't know if she was hearing me.

The glider was sitting nose down and on its left leading edge, right wing sticking up. Control frame had kept its shape. There were trenches where the wheels had created furrows in stopping her.

Julie was on the ground facing up, head near the nose plate. She seemed responsive and didn't think she had been knocked out. Her voice was very scratchy and soft. We talked about what hurt and what she could move. It was hard on her throat. The front wire was kind of caught under her helmet against her neck. In that position her hang strap was taut, wrapped around her side to her back. She couldn't get to her helmet catch. I had to go around and lift the nose to let her shimmy out from under the wire as she twisted and got her back towards the hang straps. It was tight. Any real effort to lift the glider was lifting her weight as well. I just took all the slack out to let her move.

Getting out from under the glider Julie seemed a little dazed. She had trouble trying to talk through the steps leading up to her bad landing. At some point in here we realized the keel had been cracked by her helmet, but the base bar was attached enough to allow carrying the glider out of the LZ.

We went back out and combed the area for Julie's lost earpiece from her glasses. No luck.

Ultimately a group of pilots (one has a Sport 3) bagged up her glider up for her.

After an hour and a half, I began to get cold and decided to call it a great flight, and I headed towards the Whitwell First Baptist Church landing field. As I made my way down the ridge, I told myself, "Don't forget to reduce the VG.*" Unfortunately, I forgot and landed at almost half VG. As I approached the field, the windsock was a little switchy. I decided my best approach was coming in from the south end with a quick 45-degree bump mid-field to land towards the windsock.

As I set up my approach, I was plagued by internal voices of two brains urging me in opposite directions, almost like in cartoons where you see an angel on one shoulder and a devil on the other. My altitude going downwind was perfect until I hit a turbulent patch of lift on the west side of the field.

« All I could think was, "Oh no! I am about to crash and there is nobody in the LZ." »

As I approached the south end of the field, Brain #1 said, "You should do S-turns here to burn off that altitude." However, Brain #2 countered, "Naaw, you can go farther." About halfway across the neighbor's yard, once again Brain #1 said, "You really should turn here!" But Brain #2 said, "Naaw, keep going. You've done it before." Finally, at the south end of the neighbor's field, I made my base turn. As I flew across the neighbor's field I found sink. At this point, Brain #1 said, "Land here in the neighbor's field!" But we all know what Brain #2 said! "Naaw, you can clear that tree line." Luckily, just two years ago, TTT received permission from the Church to maintain that tree line, so it is much shorter than before. I managed to barely clear the tree line, but it put me pretty low into the south end of the field. The ground at this end of the field gets soft during the rainy season due to the neighbor's pond overflowing, and we had recently received a lot of rain. I also felt like I was coming in faster than normal and decided to abort a normal flare and try to save my landing with a roll-in. All I could think was, "Oh no! I am about to crash and there is nobody in the LZ."

I got back into prone position and did my



LEFT Cracked keel 18" from the nose.

CENTER Snapped both downtubes close to the base tube connections.

RIGHT Downtubes were sheared off.

*VG is short for Variable Geometry. On some hang gliders, pilots can pull a string that is rigged to move the crossbar along the keel. Doing this spreads the wings apart, tightens the sail, and creates higher performance with a major improvement in glide ratio.

best to roll in. When my left wheel touched the ground, it furrowed a 5-foot trench. It managed to get back on top of the grass, but a few feet later the right wheel began to furrow a 4-foot trench. Once both wheels

couldn't go any farther, the glider came to a sudden stop, dropped the nose, and flung my body through the control frame. Knowing I was about to crash, I let go so I didn't break my arms. Smart words of wisdom my buddy

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ARC THOUGHTS

From John Hovey, for the USHPA Accident Review Committee

The USHPA Accident Review Committee examines free flight incidents, accidents, and near misses in the USA to identify trends in order that we might help prevent future mishaps for free flight pilots. We present case reviews, such as this one, in the hope that they help all of us to become more mindful and safer as we fly. We also offer and encourage commentary purely in a spirit of helpfulness and learning—and never with the intent to judge or belittle those involved, nor to downplay the real suffering and tragedy that accompany these painful events.

We would like to extend our gratitude to Julie Julian for volunteering her account here in USHPA Pilot magazine. We hope readers find some lessons they can use in their own flying to improve safety. A thought springs to mind about aircraft traffic patterns that we might add to Julie's analysis.

A textbook aircraft traffic pattern is designed primarily to provide safety in and around airport operations for powered aircraft. The "standard pattern" at 1000' AGL with left turns from downwind leg to base, and then from base leg to final, helps provide predictability and aircraft separation as pilots arrive and depart a runway environment. Flying a precise pattern also helps a pilot recognize and repeat a reliable way to the ground, hence the term, the pattern. However, in unpowered aircraft, our limitations often preclude us from flying a standard pattern. We are always descending through the air, we have limited ability to speed up or slow down, and we cannot simply add power to go around if we don't like our final approach. While some free flying sites prescribe a traffic flow for landing hang gliders and paragliders, it's up to each pilot to judge their glide slope, descent rate, proximity to the LZ, prevailing wind conditions, turbulence, and all other factors related to making a safe landing, and to pilot their aircraft in a manner to reach their intended touchdown point, or to another safe alternative. (Always have a Plan B and a Plan C!) The standard pattern may or may not be useful in any given landing approach, and priority should be given to making the safest possible landing and not to one that follows the textbook the most closely. We do not mean to criticize the traffic pattern or Julie's choices, merely to add our own concurrence that having a plan for landing and knowing when Plan B or Plan C should be enacted are very wise observations that she has brought to this story.

Once more, big thanks to Julie for this case study, and we wish you safe and enjoyable flying.

Gregg gave me when I was learning to fly!

Everything happened so fast, but, once I stopped, the first thing I realized was I couldn't breathe due to either my helmet strap or the nose wire on my neck. I couldn't yell for help due to my larynx swelling from impact and losing my voice. My right arm was pinned under the wing, so all I could do was remove my left glove and struggle to release the helmet strap. Thinking nobody was around, I had to do something to get out from under the glider so I also unbuckled and unzipped my harness completely. Little

« I was already on the ground when something told Jim to look over his shoulder. When he noticed my wingtip sticking up and not moving, **he knew something was wrong.** »

did I know that Jim MacNutt, one of the pilots who flew earlier, had just gotten back to the LZ to finish breaking down his glider.

I was already on the ground when something told Jim to look over his shoulder. When he noticed my wingtip sticking up and not moving, he knew something was wrong. I heard him calling, but he couldn't hear me respond due to my voice being very scratchy and soft. He ran to me and found me on the ground facing up, my head pinned near the glider's nose plate. He asked what hurt and what I could move. The front wire was kind of caught under my helmet against my neck, and I was tangled in my hang strap.

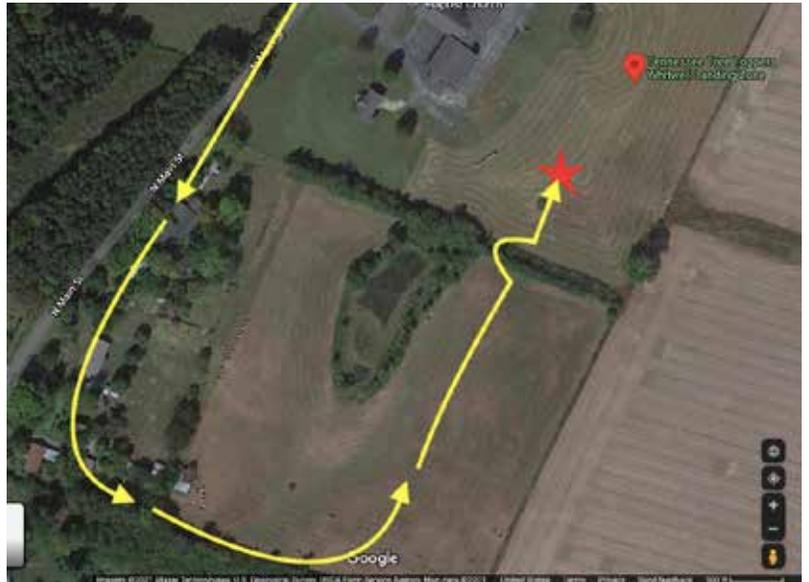
Jim had to go around and lift the nose to let me shimmy out from under the wire and wiggle back towards the hang straps. He said it was tight and that to lift the glider he had to lift my weight as well. Once I was out from under the glider, Jim said I seemed a little dazed. I had trouble trying to talk through the steps leading up to my bad landing.

At some point we realized the keel had been cracked, but the base bar was attached enough to allow carrying the glider out of the LZ. I was able to walk over to the breakdown area as Jim carried my equipment. Jim, and

two other pilots who came down the mountain to assist, carefully packed up my broken Ray of Sunshine. Thank you to all of the pilots who came to my aid. Especially Jim! If it wasn't for his sled run, I would have been there for a very long time.

The furrows dug by my wheels was the only damage to the landing area. My brand new glider, however, sustained a bent base tube, two broken down tubes, and a broken keel, about 18" from the nose. My helmet has no marks, so I believe the keel impact was with my right shoulder and not my head. As for myself, I didn't seek medical attention since I felt no signs of a concussion or broken bones. Possibly whiplash and a dislocated arm. Luckily, I wear a snowsuit when flying, so my neck had protection from the nose wire impact. The healing process has been going well.

So, what did I learn from this experience? NEVER listen to Brain #2! If Brain #1 says you should be doing something, then most likely you should do it! First of all, I forgot to reduce my VG coming in and landed at almost 1/2 VG. Second, I didn't take advantage of that long beautiful field. Who cares how far I would have to walk back to the breakdown area. I have a beautiful glider so why not strut around on the ground to show it off?



ABOVE Flight approach. Extended downwind way too far into the neighbor's field.

Third, when there are doubts about clearing the trees, land in the field below you! The neighbor wasn't on the Do Not Land list, so I had no excuse. Fourth, when Brain #1 makes a suggestion, listen to it! 🇺🇸

Have an accident or incident that you would like to share in a future ARC Case Review? Contact editor@USHPA.aero and tell us your story.

USHPA PILOT

2021 PHOTO ANNUAL } SEND IN YOUR IMAGES

We know you've got high-resolution images you want to share, so for the NOV/DEC issue *USHPA PILOT* will feature the best photographs taken by members in 2020-2021.

Submissions are due September 10th.

Captions should include location, pilot name(s), photographer name, and a short description.

If you're looking for inspiration and tips, check out the story "From the Ground Up," on page 42 of the Jul/Aug 2021 issue, written by Greg Gillam, Art Director for USHPA Pilot.

Review the guidelines at ushpa.org/editor

Submit images at ushpa.org/editorial-dropbox

And we're always looking for stories!

No matter your experience level or wing type, we want to hear about your epic adventures, everyday flights, and community updates.

Send in stories that are important to you—weekend adventures, gear reviews, fly-ins and competition pieces, trip-of-a-lifetime stories, photo essays, learning moments, educational pieces (weather, flying techniques, site reviews), and creative content such as poems or artwork.

Energy Balance [contributed by HONZA REIMANEK]

Heat flux and thermals

Originally published in Cross Country Magazine

Having spent the better part of the day flying through the mountains, reaching altitudes of 3,400 m, you decide to try your luck in the flats. As expected, thermals no longer reach as high, and you are only able to top out at 1,500 m. Climb rates are slower, and you take extra care not to sink out. In the late afternoon, you eventually land with a smile on your face. On the ride back, you begin to reflect on your flight and some of the differences between thermals in the mountains and in the flats.

To appreciate what makes flying in the mountains different from the flats, it is important to review some concepts concerning thermal formation.

Thermals can extend through the depth of the convective boundary layer. The lowest part of the convective boundary layer is called the superadiabatic surface layer. In this unstable layer, the environmental lapse rate exceeds the dry adiabatic lapse rate, and the air is warming and becoming positively buoyant. In this surface layer, thermals are born.

This unstable surface layer will begin to develop as soon as the surface temperature exceeds the air temperature adjacent to that surface. This is referred to as upward sensible heat flux. Increasing the temperature difference between the surface and the overlying air leads to an increase in the sensible heat flux.

Surface air that is destined to lift off as a thermal will flow over the surface for some time. This flow is a combination of synoptic wind and local wind resulting from other thermals lifting off. Exceptions exist when certain geographical features inhibit this flow, and the surface layer air stays relatively still, gaining positive buoyancy until a slight perturbation is sufficient to trigger ascent. Nonetheless, it is more common for the air to flow along the surface for some distance before it

lifts off as a thermal.

In our first scenario, let us consider air flowing over a flat, homogeneous surface, such as a region with large fields of similar crops. The surface temperature is more or less constant at a particular time of day. Originally this air descended to the surface and is relatively cool. At this moment, it is experiencing the greatest sensible heat flux because there is a large temperature difference between the surface and the overlying air. As a result, the air is heating quickly.

As the air continues to flow along the surface, it is still experiencing sensible heat flux. However, the rate of this flux is progressively diminishing because the horizontally flowing surface layer is continuing to warm, whereas the surface temperature is relatively constant. Nonetheless, despite the decrease in the rate of sensible heat flux, the surface layer air continues to warm. It slowly continues to become more buoyant and unstable. Eventually, it lifts off as a thermal.

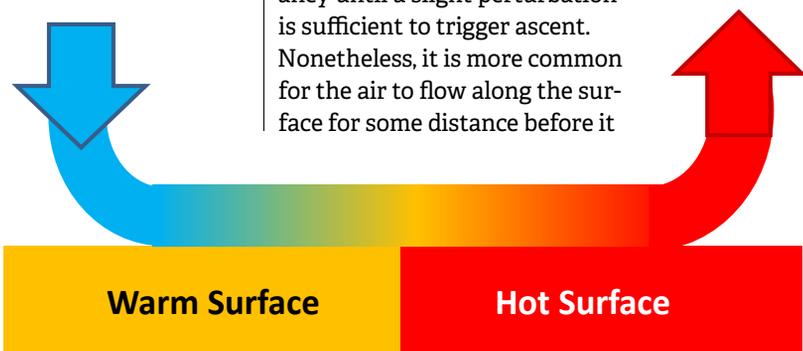
A flat, heterogeneous surface might have some fields that are dry and harvested and others that still have crops. Let us imagine the air flowing over the field with crops. This surface air will behave much like in the above scenario. However, if it flows over to a drier, hotter field, then the surface-to-air temperature contrast will suddenly increase, and the sensible heat flux again increases. This added boost of warmth and thus buoyancy can result in a stronger thermal.

It is important to keep in mind that a single dry field might not be the whole source area for a particular thermal. The surface layer might have originated elsewhere, warmed slowly, but then received a substantial boost in heating as it moved over the dry field. This extra sensible heat flux can quickly increase the buoyancy of a parcel that was almost ready to lift off.

It is essential to consider that these are idealized scenarios. It is not just critical buoyancy that leads to a thermal lifting off. In the real world, a net low-level convergence curtain sets up as a result of the semi-chaotic nature of convection. Sometimes surface layers that happen to be only slightly buoyant are forced together. The resulting thermal will be weak and might

BELOW When air flows along a horizontal surface that is warmer, the air will be heated and become less dense. If the warmed air continues to flow over an even hotter surface, then the air can continue to heat, thereby becoming even less dense and ever more buoyant.

OPPOSITE The surface temperature on a mountainside decreases slower than that of air flowing up it. This leads to a progressively greater temperature contrast between the surface and the adjacent air. Greater temperature contrasts between the surface and the air result in faster heat transfer to the air.



not ascend all the way through the depth of the convective boundary layer. Such a weak thermal can easily be brought to a halt by a descending batch of air.

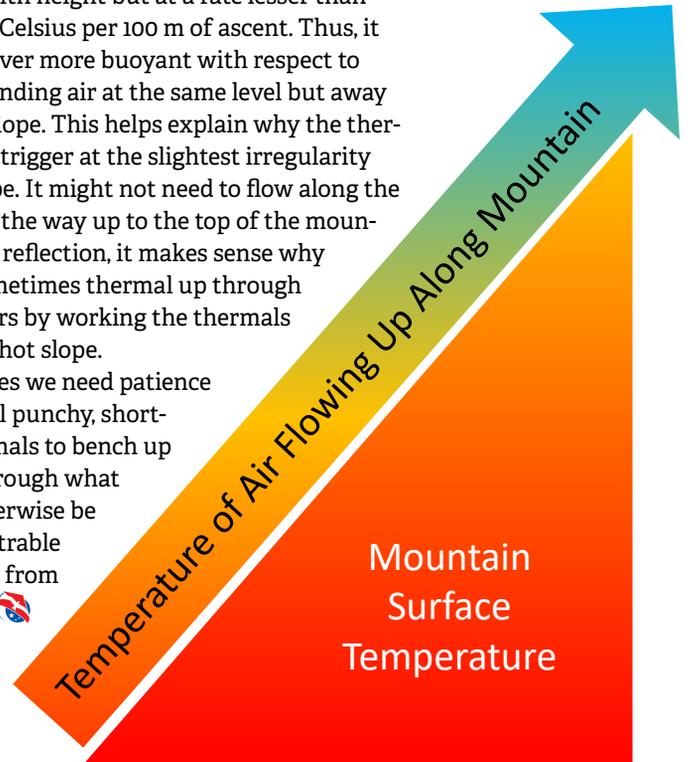
In a sheltered area, the air is less likely to be forced to ascend before it has reached critical buoyancy. As a result, the intervals between thermals might be longer, but the thermals are likely to be more coherent and powerful.

Lastly, we want to consider what happens as a surface layer flows up the side of a hill or mountain. For simplicity, let us consider a large, homogeneous slope such as a barren scree face. In the afternoon, the surface temperature of these rocks might decrease as little as 2 degrees Celsius per 1,000 m of elevation gain. The surface layer flowing up the slope would have a tendency to cool at 10 degrees Celsius per 1,000 m of ascent. This is the cooling rate of rising air. Therefore, air flowing along a hot slope would be experiencing an ever-increasing sensible heat flux because it would be increasingly cooler with respect to its underlying surface.

Taking on all this heat, the flowing air would

still cool with height but at a rate lesser than 10 degrees Celsius per 100 m of ascent. Thus, it would be ever more buoyant with respect to the surrounding air at the same level but away from the slope. This helps explain why the thermal might trigger at the slightest irregularity on the slope. It might not need to flow along the surface all the way up to the top of the mountain. Upon reflection, it makes sense why we can sometimes thermal up through stable layers by working the thermals on a large, hot slope.

Sometimes we need patience and several punchy, short-lived thermals to bench up and get through what would otherwise be an impenetrable layer away from the slope. 🇺🇸



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THE ROAD TO BOX CANYON

by **STUART FROST**

Southern Arizona, as one could imagine, is not exactly what could be considered a good, or even advisable, environment to pursue free flight. Much of the landscape is covered in rocky soil, prickly bushes, and various species of cacti. Soft grassy landing zones are a rare commodity.

To add to this, the only drive-up launch (aside from the 300-foot, cactus-covered hill in Tucson that even our most skilled and experienced locals tend to avoid) is an axle-busting, door-panel-scraping, 4WD slog up an old mining road to what we refer to as “Mid Launch” at Box Canyon.

Most flying endeavors in this neck of the woods involve hauling your gear up a steep “trail,” avoiding contact with the local flora, and

negotiating barbed wire fences. Mid Launch at Box Canyon is also the only launch we have that supports hang

gliders and paragliders alike. On the infrequent occasion that someone is willing to subject their rig to the horrendous drive, it usually makes for some great flying.

Located in the Santa Rita Mountains south of Tucson, Box Canyon provides excellent XC and evening glass-off flying. With three separate launches, it is the most often flyable site in the prevailing winds of southern Arizona. First flown in the early '70s by a few industrious University of Arizona students with home-made hang gliders, the site has been home to the Southern Arizona Hang Gliding Association (SAHGA) since the club's formation in the early '80s.



ABOVE and RIGHT Machinery operators doing the heavy lifting. **LEFT** FFF sign.

SAHGA has about 30 annual members on average, mostly consisting of paraglider pilots these days with less than half who could be considered “active” pilots.

I think most of us within SAHGA would agree Box Canyon is our home site. It’s where my flying dreams were first transformed into reality, and it has been the place where the club has shared countless afternoons and evenings in the air. After a season of serving as the SAHGA secretary and treasurer, I found myself being nominated (coerced) into taking a shift as the club president. As the newly elected leader, I decided I’d do what

I could to lead the club in the realization of a long-discussed idea: making the road to Box

« Being such a small club, the cash outlay required to complete the project was a bit of a roadblock. »

Canyon Mid Launch suck less!

But how to accomplish this? In early 2021, the club had the following resources to leverage: club members with forest road building experience, a reasonable quote for earth-moving machinery rental, and a can-do attitude. But being such a small club, the cash outlay required to complete the project was a bit of a roadblock.

Having heard about the Foundation for Free Flight from a visiting pilot, I got in touch with Jerry Keller (chair of the grant committee) via foundationforfreeflight.org to see what help, if any, could be offered. After a short discussion with Jerry about the project and a painless

application submission, it was only a matter of weeks before the funds were approved, and a check was on its way. With a budget approved by the SAHGA board and a generous grant supplied by the Foundation for Free Flight, the club set a date and hatched a plan.

Over the weekend of April 18, SAHGA tackled the rugged stretch of road to Mid Launch with two tractors, 13 club members, chainsaws, picks, shovels, and various other implements of destruction. We repaired the road, trimmed overhanging brush, and installed erosion control





FROM THE FFFF

Iayne DePanfilis, Executive Director

The Foundation for Free Flight and Lerry Keller, chair of the grant committee, worked closely with SAHGA president Stuart Frost to restore a two-mile stretch of road for the only drive-up launch to the Box Canyon "Mid Launch" in southern Arizona. Mid Launch at Box Canyon is widely considered to be the home flying site for the club's active hang glider and paraglider pilots.

SAHGA assessed available resources including the use of heavy earth-moving equipment, volunteer labor, and matching funds before approaching the Foundation. Frost also included a detailed budget, site photos, and specifications, attesting to the value and popularity of the site for both hang glider and paraglider pilots. The club's preparation greatly reduced the need for back and forth communication, so after a few phone calls and emails, the trustees quickly convened a grant committee meeting to determine that this project met all the criteria for a grant from the Site Preservation Fund. The grantmaking process took less than a month from start to finish.

features in hopes of making our effort last for years to come.

The results were better than expected. Nearly two miles of road were improved into decidedly drivable condition, ready to take pilots to the

best launch at Box Canyon. The hard work should hopefully earn the club more flying opportunities, beautiful Arizona sunsets viewed at altitude, and additional good times in the LZ. 



OPPOSITE TOP Club members putting the finishing touches on a drainage feature roughed in by the tractors. **BOTTOM** Club members relaxing after day one of the project. **BELOW TOP** Local pilot Tyler Petreshock on glide to the LZ at the end of a southern AZ glass-off. **BOTTOM** SAHGA members in the LZ at Box Canyon.



The Foundation Needs Your Support

To donate to the Site Preservation Fund or to the other four core funds including Safety and Education, HG and/or PG Competition, or the General Fund, visit foundationforfreeflight.org, click on the "DONATE" button, and select the preferred fund from the drop-down list. Your tax-deductible gift will automatically be credited to the selected fund. You can also select a targeted fund to donate to the national teams, women's competition, and other vital flying site projects. Targeted funds are created for projects with specified beginning and ending fundraising dates, including the Tennessee Tree Toppers Burnside Property Acquisition Fund, which sunsets in 2023.

Effective January 1, 2021, "Friends of the Foundation" match USHPA membership renewal donations to the Foundation's five core funds up to \$1,000 annually. Be sure to click through to the Foundation's uniquely coded donation form when you complete your USHPA membership renewal online. Whether you donate to any, or all five, of the Foundation's core funds with your annual USHPA membership renewal, you are doubling the impact of your tax-deductible gift and contributing to a critical source for the Foundation's grant budget.

The Foundation for Free Flight is an independent 501(c)(3) charity separate from USHPA. We rely on donations from pilots and benefactors to fulfill our mission. We work hand in hand with the free flight community to support site preservation and enhancement, safety, education, and competition. We are a dedicated team of volunteers accessible 365 days a year, and eager to assist. Contact grants@foundationforfreeflight.org or text 559-677-7546 for more information.

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HG NATS 2021

Paradise Airsports Hang Gliding Nationals 2021

by **SARA WEAVER** photos & captions by **AUDRAY LUCK**

Mid-April of 2021, every competition hang glider pilot in the United States had a collective sigh of relief. We'd been holding our breath for over a year while planet Earth paused and dealt with the COVID-19 pandemic. Finally, at Paradise Airsports in Groveland, Florida, 40 hang glider pilots gathered for the Paradise Airsports Nationals, overjoyed to fly in the same space again.

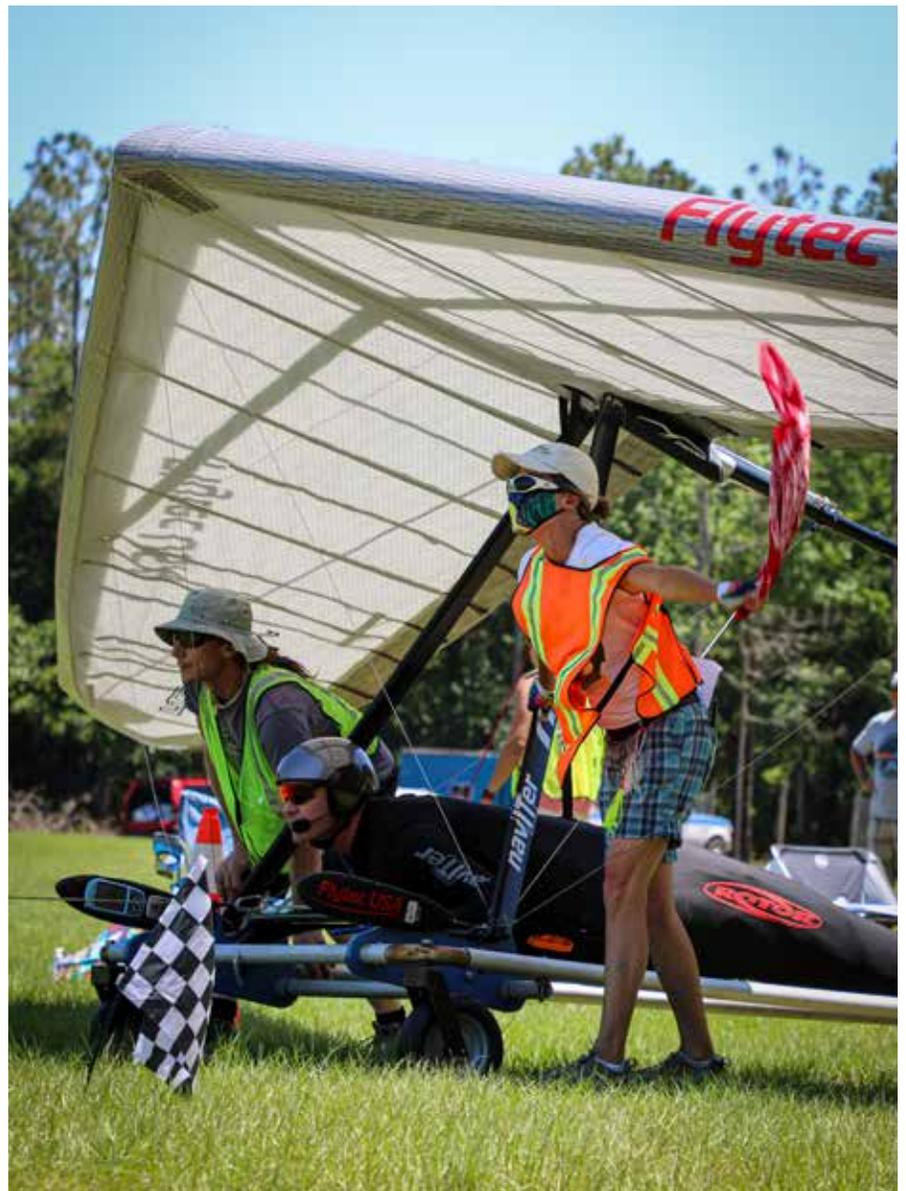
Yet 2021 felt different than years previous. This year, pilots who had taken a long break got their wings again, and pilots, like me, who hadn't seen their competition buddies in what felt like ages got to join their community again. It was a celebration, a homecoming, and an immense joy to be a part of.

The theme of the week was that the weather was better than it looked. We started with thunderstorms and ended with days of strong westerlies, Paradise's least favored wind direction. But somehow, we still got five taskable days. For me, the marginal weather meant the week became more about the community than the flying. After all, my flying community was the whole reason I was able to attend at all. Paradise Airsports and

Kitty Hawk Kites together funded my trip not only to support me as a pilot but also to help share our beautiful sport online with others who might

not know what they're missing.

Arriving a couple of days early was a bust. I was hoping to get some practice flights on my new Wills



LEFT Lined up and ready to go!
RIGHT The competitions would be nothing without the people that make them happen. Every year there is a great launch crew. This year Heather Renihan took the lead as launch director and did an outstanding job keeping pilots safe on their way to the sky.



Wing Sport3 135, but after arriving in the late evening, I wasn't in a rush to take to the skies. I was pretty rusty after all, not having aerotowed in a year and a half and taking a six-month break from flying altogether. I wasn't alone in this—pilot after pilot I spoke with lamented a slow winter flying season, maybe because of the weather, maybe because of those “life lessons” that everyone's had to deal with these days. As a result, a lot of us were a little rusty.

After a practice day and the first day of the event were canceled, we were all itching for some actual flying weather. So on the second day, I got up early, set up in the sunrise, and took my first flight as the sun crested the tree line. It was like riding a bike ... if the bike was a rusty, anxious

ball of nerves. The flight was, however, an excellent opportunity to shake off the dust and remember how to aerotow after so much time off. We towed up between the clouds, I saw my glory [also known as a halo or Brocken Spectre] for the first time in years, and my landing was flawless. I couldn't ask for a more beautiful flight to awaken from a restless winter.

Later that day, the Task 1 course was all about triangles. The Sport Class traced a southerly path, while the Open Class tackled what is likely one of the goofier course lines Florida's ever witnessed, two overlapping triangles to the southwest. Again, the weather looked doubtful, but with two-thirds of the field making goal, it ended up being an almost full value day, with Zac Majors taking the win for Open Class and Tim Delaney claiming the top spot for Sport.

Sadly, there weren't any clouds to assist us during the kite-

shaped Task 2, which took a path to the south and back. The lift was light, the cap was low, and the thermals were far apart. All Open Class pilots continued to thermal as the first start gate came and went. Most returned to the start cylinder to take the second, and eight of the 28 pilots made it to goal, with Kevin Dutt taking the day. The Sport Class course was another triangle, successfully completed by just two of 12 competitors, Ric Caylor and Tim Delaney.

The third day finally delivered a good weather day! Task 3 for the Open Class went straight downwind, then straight upwind for double the distance, then downwind again for a speedy return to Paradise. Most of us were experiencing the fear and excitement of a crowded gaggle for the first time since pre-pandemic. The day just got better and better. After the easy downwind leg, pilots were rewarded with the formation of clouds minutes after reaching the first turnpoint. It was a real racing day, with Canadian Tyler Borradaile taking the win. The Sport Class had a harder time during the





ABOVE New tug pilot Kacey Loughrie was a pilot favorite. She worked hard towing in her first competition. **BELOW** Interesting perspective of the launch through the visor of pilot Owen Morse. **RIGHT** Task board. **OPPOSITE** Seeing double. Doug Hale and Ric Caylor almost have identical Moyes Geckos.





crosswind leg of their triangle course, with only one persistent pilot, Ken Millard, making it into goal.

Then the westerlies arrived. Tasks were called, but in the end, the Sport Class Task 4 was canceled due to the strong winds and turbulent tows. The Open Class set a basic 63 km task to the NNW but landed en masse just after 20 km. JD Guillemette was the star of the day, earning his first day win in 15 years of competing in the Open Class. It's safe to say that the weather during Task 4 was NOT better than it looked, and most pilots were happy to be back on the ground.

The marginal weather didn't let up much for the last day of the competition, and rain was added to the forecast. The Sport Class went northwest to Grassroots Airport and back where they contended with (and ultimately lost to) dark and heavy skies. Richard Milla won the day for the Sport Class after traveling 12 km, four more than his nearest competition. The Open Class doglegged 46 km to the southeast, then 12 km more back to the northwest to land at Wallaby Ranch, dodging suspicious-looking clouds to find clearer skies to the south. Four Open Class pilots fought

their way into goal, with Zac Majors taking his second win of the week.

To be honest, Florida didn't bring her best to Paradise Airsports Nationals in 2021. We should have been there the week before when Larry Bunner and Davis Straub flew 100 miles four days in a row. It was a tough welcome back to the world of competition hang gliding for many of the North American pilots, but I think most of us were relieved simply to be doing what we loved once more. The top three pilots for the Open Class were Zac Majors (USA), Filippo Oppichi (ITA), and Tyler Borradaile

« This competition, like many before it, **brought out the best in our little community.** »



(CAN), while Tim Delaney (USA) brought it home for the Sport Class, followed by Ken Millard (USA) and Doug Hale (USA).

This competition, like many before it, brought out the best in our little community. Belinda and Davis Straub did a wonderful job mentoring hang gliding competition's newest meet organizer, Stephan Metler. The Straubs are a whirlwind force in competition organization, and their years of service must not go unrecognized. They may have wanted to retire to a life of hang gliding but instead chose to tackle the mounds of work it takes to get a competition to run smoothly year after year. May they rest happily in their newfound, actual retirement from competition organizing.

Metler took on the job seamlessly. Like me, he's an early riser. As I set up my gear before the sun came up, Metler was stepping into the office to prepare for the day of work ahead. We shared our daily anxieties during the week's silent foggy mornings while Metler brainstormed ways to best highlight the accomplishments of the Sport Class pilots. Recognizing these little victories, Metler feels, keeps the newest competitors in our community excited to continue. Like the Straubs, he is a cornerstone community member whose hard work culminated into a flawless first competition that deserves to be celebrated.

Other shout-outs include Heather Renihan, the new launch director. She ran a tight ship, coordinating the volunteers like a well-oiled machine. Victoria Nelson, flight park manager, kept everyone in line and was a crucial part of the organization. The tug pilots' and other volunteers' contributions cannot be understated. Despite all of us being out of practice, the competition flowed more smoothly than any other I've attended. What a fantastic way to return to competition hang gliding after our hiatus!

It's a joy to watch our community reform and celebrate. Each of us has been walking our own path this past year, some darker than others. The shift from before and after was tangible; I think many of us felt we had

been circling in zero up for too long, waiting for the thermal to develop around us. It finally did; we're here, with more appreciation than ever for the light and love of our flying community surrounding us. 🇺🇸



ABOVE You can often find tug pilot and Dragonfly creator Bobby Bailey taking a break in the shade under his plane in between tows. **OPPOSITE** On launch between all the madness, people often take cover in any shade they can find, with their eyes glued to the sky looking for the gaggle.

Cold Injuries [contributed by JUSTIN GRISHAM]

How to handle hypothermia

Imagine you and your partners just had a strenuous 90-minute hike to launch. It's a beautiful day in the mountains and 40 degrees Fahrenheit as you hike uphill through thick clouds and a slight drizzle. You're happy to be out and looking forward to flying. Given how chilly the day is, you don't think about taking off your thick jacket.

The wind is perfect on launch, but low clouds obscure the LZ, and the parawaiting begins. After an hour on launch, things clear enough for a flight. You fumble with your risers as you get set up, and small things like suggestions from your partners frustrate you. Instead of waiting for a good cycle, you push a hurried launch and miss the first climb of the day. You sink out and head straight for the LZ to wait for your friends.

What happened? You were mildly hypothermic thanks to the cool conditions and your sweaty clothes, which affected your judgment, dexterity, and mood.

It's not only pilots in the mountains who are at risk for cold injuries such as hypothermia or frostbite. Given the wide range of temperatures that can be experienced in one flight, difficult clothing choices, and high exposure to the wind, anyone flying can be susceptible. Knowing the basics of preventing cold injuries will make you a safer and happier pilot who makes better decisions on launch and in the air.

To keep yourself and your partners from getting cold injuries like hypothermia, frostbite, frostnip, and chilblains (small bumps or sores on the skin that occur after repeated exposure to cold), it is helpful to understand a bit of the physics of energy transfer. Instead of thinking about "hot" or "cold," try to think only in terms of heat. There is either too much heat, and you feel too warm; or there is too little heat, and you feel too cold.

There are four methods by which heat, or energy, is transferred into and out of our body:

1) Radiation: All objects at temperatures of more than absolute zero emit electromagnetic radiation through the air and space around them. They also absorb the same IR radiation. Example: solar radiation from the sun warm-

ing your skin.

2) Conduction: Heat transfer between objects that are in direct contact. Example: sleeping on the cold ground.

3) Convection: The facilitation of conductive heat transfer caused by the movement of molecules in a gas or liquid. Example: air rushing by you while flying.

4) Evaporation: When water changes state from liquid to gas, a large amount of energy in the form of heat is released. Example: sweating in warm conditions or becoming very cold when wearing wet clothes in cold conditions.



RIGHT Pilots hike up on a cool winter day.

In cold conditions, we want to minimize heat transfer out of our body to stay warm. In hot conditions, we want to maximize heat transfer out of our body to avoid overheating. Each method of heat transfer can be minimized in different ways:

- 1) Radiation can be minimized by covering exposed skin—especially skin with a lot of surface area like our head.
- 2) Conduction can be limited by insulating ourselves from cold surfaces. An example would be using a harness or rucksack to insulate our body from the cold ground.
- 3) Convection can be minimized by using a wind-blocking layer to keep the movement of air off our skin.
- 4) Evaporation can account for a significant amount of heat loss. While this is a good thing in the summer, it can be disastrous in the colder months. Hiking at an easy enough pace to keep from sweating and changing out of wet clothes before a flight can help avoid evaporative heat loss.

Now that we've covered a bit about the types of energy transfer, let's discuss what happens to our body as it begins to get colder than usual. Our nervous system becomes depressed, leading to impaired memory and judgment, increased risk-taking behavior, slurred speech, and, in extreme cases, decreased consciousness. As our body becomes colder, our heart initially beats faster, and then as our body becomes profoundly cold, our heart rate becomes very slow. Our blood vessels constrict and become smaller—this physical reaction will be important when we talk about frostbite. As our blood vessels con-

« It's not only pilots in the mountains who are at risk for cold injuries such as hypothermia or frostbite. **Given the wide range of temperatures that can be experienced in one flight, difficult clothing choices, and high exposure to the wind, anyone flying can be susceptible.** »

strict, they push more blood to our internal organs, such as our kidneys. As a result, we have to urinate more. Finally, as we get colder, our blood does not clot as easily.

Hypothermia (hypo=low, thermia=temperature) begins when our body's temperature drops only a few degrees below normal. Treating hypothermia in ourselves and our partners starts with a basic understanding of the four stages of hypothermia:

Mild: In mild hypothermia, your core temperature has only dropped a few degrees. Your body is still shivering to generate heat. This is the stage where you're cold, crabby, and your judgment starts to get worse. Luckily, you can recover from this stage of hypothermia with plenty of calories and by limiting additional heat loss using the strategies listed above.

Moderate: Moderate hypothermia is defined as the absence of shivering, and people suffering from moderate hypothermia may appear to be asleep. Often, these patients will only respond to painful stimuli or direct loud noises. When the body can't shiver, it cannot warm itself and will require heat



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ABOVE When we fly at altitude or in the cold, it is easy to realize that hypothermia may become a problem.

from external sources such as a warm car, warm house, fire, or another person to warm back up. Moderate hypothermia requires an immediate evacuation to the closest hospital or medical center.

Severe: Patients in severe hypothermia are unconscious and have no response to pain. Their heart and brain lack blood flow, and their heart rate and respiratory rate are very low. Just like moderate hypothermia, these patients cannot warm themselves. They require immediate and rapid transport to the closest hospital.

Profound: Patients in profound hypothermia often have almost no heart rate or breathing rate. Their brain is, in essence, “shutting down.” Though these patients may seem to be beyond help, there have been some reported survivals from this stage of

hypothermia. A good rule of thumb is “you’re not dead unless you’re warm and dead.” These patients also require immediate and rapid transport to the closest hospital.

Treating hypothermia is similar for all stages. Begin by limiting heat loss by ensuring your patient has warm, dry clothes that will insulate them well. Make sure they are not sitting or lying directly on the cold ground and are blocked from the wind. If your patient is in mild hypothermia, make sure they have enough calories so that their body can keep producing heat by shivering (or walking uphill). Warm drinks may be a morale boost but don’t help warm our body up much—if you give them warm liquids make sure the beverage also has calories or sugar. Sugary drinks will help give their body the energy to keep producing heat.

Patients in the colder stages of mild hypothermia may require a hypothermia wrap (also called a burrito wrap).

- 1) Place a tarp, space blanket, or another windproof layer on the ground. A paragliding wing works well; just be sure to use the patient’s wing since they’ll be sitting on it.
- 2) Put a sleeping pad or other thick insulation on the windproof layer.
- 3) Place the patient in a sleeping bag or

« Prevention is key with hypothermia.
Pay attention to your clothing choices next time you’re flying, and think about how you can limit heat loss to the environment when it’s cold out and when you’re getting ready to fly. »

wrapped up in warm insulating clothes like puffy jackets and pants on the insulation layer (sleeping pad).

4) Wrap the patient like a burrito using the rest of your original windproof layer.

Try this at home. You will be surprised at how quickly you warm up.

Anyone who has progressed beyond mild hypothermia needs to be evacuated to the nearest hospital. This is an appropriate time to call 911 and/or activate the patient's inReach or Spot messenger device.

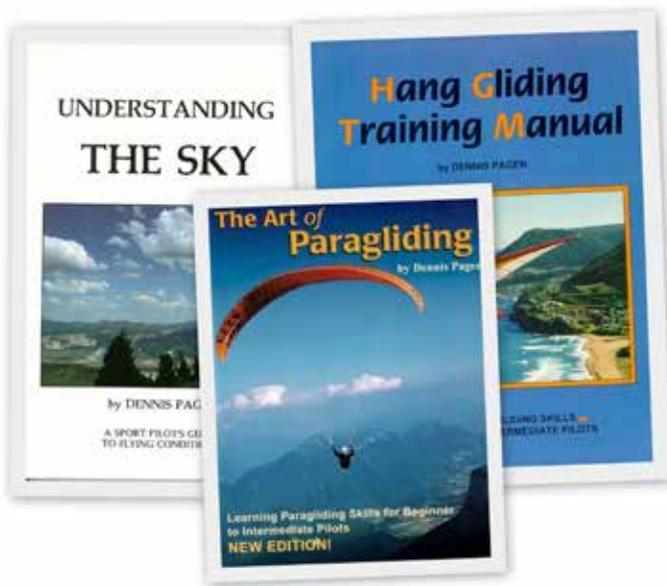
During the evacuation, keep the patient as warm as possible. Remember, they cannot generate their own heat, so you may have to add your own. Warm water bottles or large chemical heat packs can be placed on the groin, armpits, neck, and chest of the patient in the hypothermia wrap. They may not help much, but they may be all you have. Putting the patient in a warm car may also help. In the end, these patients often need advanced medical care.

When transporting anyone with hypothermia, it is essential to be as gentle as possible. When our hearts get cold, they are more prone to deadly heart rhythms. These

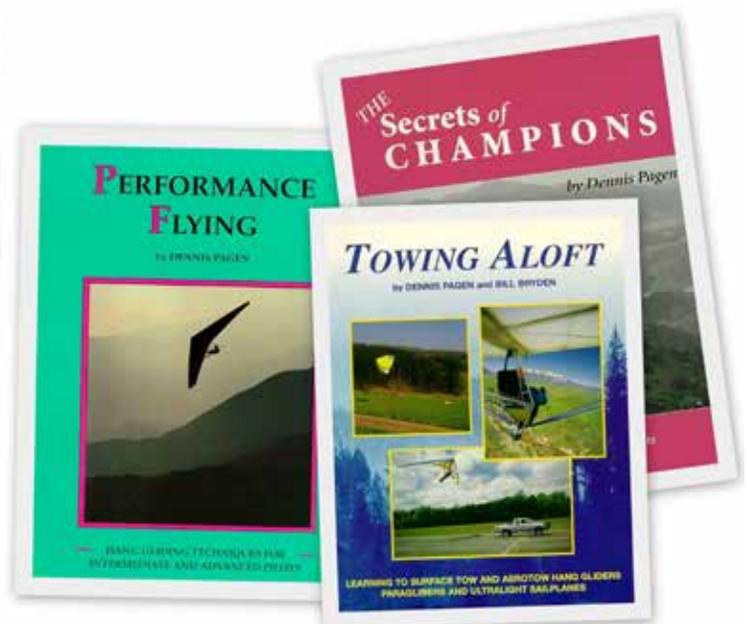
heart arrhythmias can be induced by rough handling and can be deadly and difficult to fix outside of a hospital setting.

Prevention is key with hypothermia. Pay attention to your clothing choices next time you're flying, and think about how you can limit heat loss to the environment when it's cold out and when you're getting ready to fly. Pay attention to the signs and symptoms of hypothermia in yourself and your partners on launch and landing. Remember, poor judgment and crabbiness are often early warning signs of hypothermia. Finally, treat hypothermia based on what stage of hypothermia the patient is in. If the patient has any altered mental status or has stopped shivering, get them to a hospital immediately! 🇺🇸

Justin Grisham is the owner of www.paraglidingfirstaid.com and teaches wilderness first aid classes for pilots, mountain bikers, and rock climbers, as well as the U.S. Military. He is a flight surgeon with the U.S. Army, an ER physician, and the former chief medical officer with the Salt Lake County Search and Rescue Team. You can find him on one of the many launches around Colorado.



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Inspired by the migration of the Monarch butterfly, Benjamin Jordan spent last summer on a genuinely epic 150-day, 2,835 km vol-bivouac journey across the USA, traveling north from the U.S./Mexico border to Canada.

This is his incredible story.

THE MONARCA EXPEDITION

words by **BENJAMIN JORDAN** photos by **BENJAMIN JORDAN / LYND SAY NICOLE**

A butterfly blows past my window seemingly inconspicuous and no more than a tiny moment of beauty. No part of me thinks, “There goes my teacher.” Where is it going anyway? Is it flying around aimlessly, or is it on a cross-country mission so great that it would make even the most ambitious of pilots green with envy?

It’s November 1, 2020, and Mexicans are celebrating the Day of the Dead. From the sky, I see families gathered, eating and lighting fireworks. I figure as long as I fly high, I’m safe. But as I near the Nevado de Toluca, a 4,680 m volcano 60 km east of Valle de Bravo in Mexico, a band of over-developing clouds seals my fate, forcing me to land in a shady meadow. Strange; rather than the usual mob of kids, I am swarmed by a sea of butterflies.

I pack quickly and follow them into the nearby forest. The farther I walk into the trees, the denser the flock becomes until the sound of rustling leaves is drowned out by the beating of millions of tiny orange and black wings. I stand and look around like a kindergarten on their first day of school. I feel that I am surrounded by teachers, the butterflies that will change my life forever.

The Day of the Dead is a holiday

when Mexicans honor the lives of their ancestors. In the Sierra Madre mountains, it is also a time to celebrate the return of the Monarch butterflies. Over the next few weeks, millions complete their long, arduous journey

from Canada. Beginning from a band of lakes thousands of kilometers wide, they flock to one of the few small mountaintops in this region of Mexico, where they will land on the same trees where their ancestors overwintered the



ABOVE Taking the first step, Benjamin peers over the border wall into Mexico before turning north, never to look back again. **OPPOSITE** Though his northbound journey took a route 500 to 1,500 km west of the great Monarch's, Benjamin connected with countless species of butterflies in the mountain regions he traveled through.

HERE Swarmed by inspiration, Benjamin visits the Monarch Sanctuary in Cerro Pelón, Mexico.



previous year.

How can a life form with what seems like the piloting skills of a post-it note find its way across North America to a destination no larger than a school playground that neither it, nor its parent, nor its grandparent have ever seen before? This question is a mystery that baffles scientists to this very day. What do these tiny pilots understand that we cannot? What does their journey entail, and what wisdom have they found along the way?

It's April and Mexico is getting hot. It's high time I fly home to Canada. I make the travel arrangements, but not with the same airline I used to fly south in the fall. Instead, I cancel my ticket and make my way, by land, to the border of Mexico and the United States. Though seemingly unreasonable, I plan to par-

allel the Monarch's northern migration and make my way, all the way back to Canada, by paraglider.

The Start

The tall, thick metal fence stretches across the southern Arizona landscape like an infinite series of rusted metal spikes from medieval times. I reach out to touch it, and, almost instantly, a white SUV appears over the horizon, kicking up the desert dust, speeding towards me. It's the U.S. Border Patrol. They exit their vehicle, hands on guns, and ask me what the hell I am doing here.

I struggle to find the words. Though I'd written a sea of sponsorship proposals, this was the first time I say it out loud, and my elevator pitch needs work. "I'm a paraglider pilot. I'm going to fly

all the way across the United States," I say quickly. "All the way to the Canadian border."

"You can do that with one of those things?" The guard asks. The scope of this expedition hits me like a tsunami. "Yes," I hesitate. "In theory," I add. "Well, good luck," he offers before continuing his patrol of the infamous fence line.

Leaving the tall, metallic fence is harder than I could have imagined. Taking this first step means committing to a journey that I both fear I may be physically unable to complete and simultaneously know, once begun, that I cannot allow myself to fail. I step away from the fence.

Arizona

WSW at 35 km/h, WNW 40, NW 36.



This is the wind forecast for the next few weeks. As if the patchwork of razor-sharp cactus and sagebrush landing options aren't enough, the intimidation I feel around trying to suffer-soar sketchy, blown-out thermals is a reality I'll just have to suck up.

This morning, I am relieved by the relatively light wind and, after a restless week of being grounded, I am starkly aware that if I don't make distance today, I'll be sitting out at least three more before being granted another chance.

I close my eyes and count to three. With a subtle tug of my A-lines, my factory folded Alpina 3 pops up. A strong cycle lifts my body before I have a chance to turn around. War drums in my head beat with conviction. There will be no meters lost, no thermal

spared. I'm one with nature, and the only difference between myself and the Monarch butterflies is the combination of peanut butter and Nutella that has somehow become one with my facial hair.

Gaining only 0.1 m/s on average, I turn patiently, each centimeter gained, lessening the anxiety brought on by the expansive cactus fields below. An hour passes. I am only 200 m over launch, too low to go anywhere yet just high enough to realize that every creek bed within 10 km is bone dry. I close my eyes, trying to feel the air. The smell of peanuts is overwhelming, and BOOM!—my climb accelerates to a heart-pounding 10 m/s almost instantly! Quickly reaching 3,000 m ASL, I plan my first move as the climb continues to a whopping 5,200 m, higher than I've ever been in my life. Cactus or crocodiles, drought or drenched, this is an entirely new kind of flying, and any move is now a good move. I'm a freaking astronaut!

I skip along northbound as my luck continues. High above the desert floor, I can see mines, aqueducts, distant mountain ranges, and the sprawling city of Tucson, Arizona, which is no larger than my boot. With days like this, I'll get to Canada in a week!

Mildly hypoxic, I land somewhere outside of the ruins of Winkelman, a small mining town that was washed away by a 1993 flash flood of Arizona's Gila River. At the lowest point (600 m ASL) on my 2,800 km route, the desert heat sinks into the ghost town as if it were the bottom of a drain.

My improvised launch for the next day, a 300 m ridge-top above the old copper refinery, is a painstakingly cleared dirt patch amidst a cactus salad and hot rocks. I carry 10 extra liters of water now, 13 in total, up the hill to avoid dehydration, spend the night, and then launch from my precarious perch day after day.

Four stable days have passed, and I can't pretend to understand the conditions. It's sunny, the wind is reasonable, but it takes a total of seven days for me

to realize that I've never actually flown in the desert. Too proud to ask the local Facebook group, my afternoons are spent playing my travel banjo in the shade of an old mine shaft. My sad songs exude the regret of a gold digger who showed up about 100 years too late.

It's already May 15. Though I've already used up 25% of my expedition season, I've covered not even 10% of my route. Unless something changes, I'm not going to complete this journey. I search for wisdom amidst the 200-year-old cactus, the dry riverbeds and tumbleweeds blowing between them, and realize that the only thing that will ever change out here is me.

This first step is the hardest. Not because walking the 60 km of flat pavement will result in painful blisters nor because of the heckles from Arizona pickup drivers. It's hard because, on some level, this feels like giving in. I don't want to walk; that's not what I do. More bruised than my feet is my ego. Instead of proving myself in this state of miraculously long XC flights, I am trying to swallow the reality that I'm way out of my league and that the only "miracle" I might find on this expedition is the finish line.

After three long days of hiking, I arrive east of Phoenix. The Superstition Mountains instill a familiar confidence despite their imposing spires and name. Glider, check. Harness, check. Cameras hanging from everywhere, check, check, and I'm airborne.

My petty grievances and fragile ego give way to giant red rocks and dagger-like grey spires. They shape-shift, moving through the parallax below, reminding me of my great purpose. Desert lakes and cityscape become my focus as the rough air carries me to elevations that play games with my depth perception.

Never have I felt so great while simultaneously recognizing my minuscule existence. Though void of trees, the rough, cactus-laden desert screams, "Fly or die!" So fly I do, forgetting what



I think I know, absorbing what lessons the desert has to offer.

I hop north, and cloudbase rises, as does the valley floor. Below me is a pencil-thin topographical line where the cactus gives way to trees and streams rich with water. As if having flown into some parallel universe, the air, once hot and dry, is now filled with the crisp scent of pine, and before me stands the great Mogollon Rim. This 300 km long escarpment cuts across the north of Arizona, marking the southern edge of the Colorado Plateau.

Patience pays off, and my luck continues, and I make quick work of northern Arizona over the next week, flying from the great Rim to Sedona to the high city of Flagstaff and an epic flight north, along the eastern edge of the Grand Canyon. Though I am legally required to walk across national parks and monuments, Utah, after all this time, is just a stone's throw away.

Utah

The sun rises, and from the 3,400 m summit of Monroe Peak, Utah, I exit my tent and stretch my arms out with confidence and pride. Finally, after two months of negotiating short ranges, flats, and odd bumps, I am standing at the south end of a series of expansive, tall mountain ranges and the birthplace of some of the longest flights in the United States.

Unlike my improvised launches in Arizona, there are other pilots on launch, and a healthy sense of competition fills the air. Some locals launch with the first cycles, making it clear that today will be windy but from the south: perfect. I wait half an hour for cloudbase to rise, but on my first transition, just one other pilot dares join this one-way journey north. Both on EN-C wings, we leapfrog forward in the heavy drift of the 25 km/h southerly. Sometimes I find the climb; other times, he does.

Now 40 km north, the features become much lower, but with plenty of height, I lead the charge with a new-

found sense of confidence. Another 5 km pass, and I glance back to see my wingman coring a steady climb about 2 km behind me. I turn around quickly only to realize that the now 30 km/h, southerly gusts have other plans for me. I revert north and fly like a banshee, but the low, wind-swept ridges suck me in like a butterfly in a wind tunnel. My ground speed clocks minus 10 km/h, I touch down in a canyon east of the town of Salinas, covering about 50 km in all.

I pack up, find water, and walk west to exit the canyon that same evening, regrettably checking XContest.org to see if my fellow pilot made it much farther. The gentleman had flown a whopping 160 km and not landed for another three hours! Until now, I had always justified my shorter flights by telling myself that I'd flown the maximum potential of a given day; objectively witnessing another pilot clobber my distance sends my psyche into a tailspin. Do I walk back 50 km and try to do better, or do I





walk to the next launchable terrain, 50 km north, and affirm my position as a lesser pilot?

I toss and turn all night, weighing the pros and cons of each option, ultimately realizing that no matter which I choose, I lose. In one case, I can't hold my own with the Utah pilots. In the other, I do something outrageous out of a desperate need to prove myself to them. In shame and only marginally decided, I roll up my tent and shuffle north.

Three days pass. Two days of highway blisters, being honked at randomly, and trying to convince myself of my half-hearted choice, and another day of bushwhacking 1,300 m up the west face of a mountain, 15 km south of Utah's legendary Wasatch Range. Nursing my feet and licking my emotional wounds, my pride can't stand to take another step.

A fresh sun brings strong thermals, and while the overnight wind hasn't died down, I launch into the void with the humility of a junior attending his first day of high school. Whack, I lose 40% of my left wing. Please be kind. Swoosh, there goes the right. From the scene of my impromptu SIV, I fly out, realizing that I'd be content with a sledder at this point. My confidence shot and ego deflated, I'm no longer full of

the kind of hot air that's been carrying me north, and I don't know what to do.

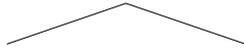
Beep-beep, goes my vario, now far from the hill and 1,000 m above its foothills. Beep-beep. I turn. Beep-beep, this continues for another 1,000 m. I can visualize my momentous glide to the Wasatch. Farther north, I become a bystander as the flight begins to direct

itself. Not the way I had imagined—scratching the towering ranges and specking out above them; instead, the wind, wing, and thermals dance in a conservative manner, keeping mainly over the smaller foothills and a respectful distance from the turbulence-inducing terrain.

At 90 km north, my zen flight ends in



THIS PAGE, TOP The first flight, just 750 meters north of the Mexican border, Benjamin climbs above Montezuma Peak, the southern terminus of the Huachuca Mountains of southern Arizona. **ABOVE** Riding the bronco, Benjamin ultimately realizes that in order to fly in southern Arizona's spring, he'll have to suck up his distaste for strong wind and learn the language of rough, desert air. **OPPOSITE** Parawaiting for days, Benjamin spends the first week of his expedition capturing what little energy the shaded sun provides while keeping himself busy learning to play a miniature, 2 lb, 5-string banjo.



TOP LEFT There's gold in these hills. On his first 100+ km flight, Benjamin goes on an epic 40 km sunset glide from 5,000 above sea level to the Gila River, north of Tucson, AZ. **RIGHT** Do or die, Benjamin runs out of water after bombing out 10 km south of Mt. Ord, north of Phoenix, AZ. He'll have to climb an additional 1,200 m before scoring another drop from a spring atop the mountain. **BOTTOM LEFT** Never quitting, always smiling, Lyndsay Nicole hides roadside during one of Benjamin short hikes in Utah. **RIGHT** Where cactus becomes pine, winds die down and thermals take hold. Having just crossed over the Mogollon Rim, Benjamin takes advantage of a cloud street lining the elevated plateau south of Flagstaff, AZ. **OPPOSITE** Just 10 km east of Grand Canyon National Park, the Canadian pilot takes in the remarkable feature for the very first time.

the unexpected thermal block brought on by the Provo lake breeze. Underterred, I climb back up the Wasatch and make the most of each day, day after day, 21 days in a row. While many five-hour flights have only 50 km to show for them, the daily routine of making coffee, flying to the best of my ability, and finding a new place to launch before pitching a tent is the meditation I've long searched for. I learn here in Utah that this expedition isn't about pushing the limits of a sport and being the best, but rather about finding the

edges of myself, ultimately discovering my best.

Idaho

Wind rips fiercely across the face of "Number Hill." Aptly named by the Arco locals for all of the numbers painted on its face, these digits signify the graduating year of each high school class since the early 1920s. Above the potato fields below, I gain the decorated 400 m ridgeline with a lighter-than-average pack. With relatively low expectations of the day to come, I imagine bombing





out and have chosen not to restock my food in the town below. But if you've read this far, you know by now that I'm almost always wrong.

Three—two—one, and I'm off on an express train to the rapidly growing cloudbase. Climbing so fast that I can't even swallow my own saliva, I'm now 500 m up after just 30 seconds of flight. Today is full of potential for both distance and the other reality I'm trying hard to forget: massive overdevelopment.

But unstable days like this are like finding a needle in a haystack. Having suffered through three months of stable conditions across Arizona and Utah, if I sit this out, I'll surely die of regret. North I go, spinning around the summits of the famous flying site of King Mountain and the great Lost River Range. Unstoppable, I relish in delight, witnessing small planes and cars passing far below my feet, oblivious to the increasing wind or clouds closing in all around me.

CRACK! goes the first roll of thunder. Following the flash by only four seconds, I do the math and realize I am just 1 km from becoming a flying shish kebab. Still 3,000 m above the valley floor, the wind and lift have both increased significantly, and, shy of stalling my wing, I have no way to get down within the next 30 minutes.

CRACK! goes a second charge, this time right in front of me. Without thought, I turn southeast, using the tailwind to run as far as I can. Water pours down in every direction, and the spot of blue above me is closing in quickly. Darting along at 70 km/h, I'm

sinking fast and taking collapses in the rotor that trails behind the peaks I skirt around. Now, somewhere deep in the Lemhi Range, I turn back into the wind and, moments later, touch down, not in the valley, but rather atop a massive ridge I could not commit to flying over because I could not see beyond. This 3,233 m mountain, I would later learn, is named Junction Peak.

Flashes of lightning burst down atop the walls of my ultralight tent. The torrential downpour washes away any hopes of flying the next day. Suddenly,

my choice to fly lighter and not load up on food in Arco turns my stomach with regret. Regret transforms into hunger as I reach into my food bag to find only one day's ration remaining. Damn.

Rain continues through the morning and early afternoon. Lying in my tent, trying not to burn calories, I play banjo as insanity consumes me. Alpine mice scurry around my shelter, keen on the smell of my dwindling peanut butter ration. Guarded, it doesn't leave my right pocket save for mealtime, and my ramen noodles are safely stashed in the



TOP LEFT The green hills of southern Idaho present another major transformation in the great American landscape. The farther Benjamin flew, the more he found an abundance of streams, lakes and snowmelt. **RIGHT** Idaho packs a punch while Benjamin does his best to keep his glider over his head. The Lost River Range north of Arco, ID was one of the expedition's most epic stretches, both in terms of flying and scenery. **ABOVE** The cabin. Weighing in at approximately 600 g, Benjamin two-person "Tiger Wall Carbon" from Big Agnes kept him comfortable through 150 nights across a wide range of wilderness. **OPPOSITE** Oh, Canada. After 150 days of epic flights, scary flights and exploring America's mountains on foot, Benjamin arrives at the Canadian border following 69 flights and 2,835 km of unsupported travel. With no ground left to cover, he can finally relax and attempt to take in the scope of what the heck just happened.

left. I fall in and out of sleep, my stomach grumbling with hunger, and hope for anything but rain tomorrow.

Stuffy air overwhelms me mid-slumber, a feeling I haven't known in days and one that can only be caused by direct sunlight warming the inside of my tent. The sun!

Desperate to get my head straight, I build a fire, boil snow, pound a coffee, and consume my final pack of noodles. It's 9 a.m., and cu's take shape like popcorn all around me. It's not a good sign, but I'll try to remain positive.

Though my return to safety involves crossing a giant, remote mountain range, the next civilized valley is only 15 km away. Just one climb should do. Cu's grow all around me. Spots of blue now scarce, I clip in with a sense that this is all or nothing. Do or die, the Rambo within me has been summoned, and my Hollywood sequel now hangs in the balance of my unlikely success.

I wait here for the south face's cycles to begin, but a gust emerges from the

north, blowing my glider downhill towards me. With only a cliff and canyon to the north, this south face, my only out, is beginning to feel more like an emergency exit that's about to slam shut.

"PLEASE!" I scream to any of the mountains and towering clouds that can hear me, a tiny, insignificant speck of life, clipped into a wad of nylon in the middle of nowhere. Again, from the north. Again and again, I reset my glider, resolving that my only path is to run with the tailwind and pray.

Like a Hail Mary pass in the final seconds of a college football game, I charge like the running back, head first, arms out, straight down the rocky slope. One yard, two yards up, my legs still spinning circles like a cartoon character unknowingly running off a cliff.

At 60 km/h, my mostly inflated glider takes flight, and only then do I gain context of where I am. Tree-lined canyon walls surround me, with white water rushing some 500 m

below. I'm sinking fast while trying to wrap around the east end of the ridge, praying for the lee side climb that is nowhere to be found.

At 250 m above the river, I fly forcefully into the awkward ridge lift produced on the pointed spires halfway up the north side. From dagger to dagger, I soar figure eights, saying thank you for each meter they offer until reaching the top, where, like a rocket of gratitude, the southernmost spire sends me skyward like the last kernel to join the infinite bucket of popcorn above.

At 700 m over my hazardous launch, I look down at the vast wilderness below. Though I had hoped to fly north, survival instincts force me east, dashing through turbulent airways as fast as I can away from the brewing storm.

With an epic, 30 km tailwind glide, I reach the town of Lemhi, and while only just soaring the bump above town, I feel the profound emotion of a dream come true. Though just a foothill, I have come upon North America's Con-





tinental Divide, the rocky, red carpet to Canada.

From the front hills, I bench up to the back, then finally over the main spine of the Great Dividing Range. Momen-tous peak after peak, I'm gaining the kind of ground I'd longed for since day one. The smell of gratitude inoculates the sweet, thin air as I drift from Idaho into Montana and back. I soar over old towns and bundle up, clapping my frozen hands on transitions to help restore blood flow.

Along the divide I go, pushing stubbornly into the increasing north wind, making up for all the hardship I have faced over months of challenging terrain and conditions. Still frozen and tired from six incredible hours in the elements, I touch down in North Fork, Idaho, only to be greeted by a landowner and his son, each toting the largest assault rifles my tender Canadian eyes have ever seen.

"What the hell are you doing here?" the younger one asks.

"Thank you, wow, amazing, thank you!" I cry out, my elevator pitch now just a ranting deluge of gratitude, stoke, and love.

As if I'd said the magic words that I had been missing all along, the pair lowered their guns and gave in to my barrage of laughter and enthusiasm as well.

Montana

More than 2,000 km along, I proceed with so much of this great country in my rearview—the cactus, the Grand Canyon, the Great Salt Lake, and even the unassuming state of Idaho. A journey that once seemed too great to tackle is three-quarters complete and with only the cherry-on-top left to consume—or so I thought.

Familiar to me, Montana's Rockies remind me of those I've cut my teeth on back home. From here on out, it's no longer a question of how to fly but only a matter of when. But the sky is becoming dark, not with clouds but, instead, with a blanket of smoke. Though 3,000 km away, California's wildfire exhaust has made its way northeast, shading the sun, causing mind-numbing waits of five days or more.

Stubbornly refusing to walk any of this Rocky Mountain landscape, I sit for days now, only to pull off a 20-30 km flight north then climb back up to my

next camp. Food rations dwindling, my diet shifts to blueberries, which grow abundantly here. I'm also experiencing mild hallucinations. The berries, the smoke, the banjo, the loneliness. This is my life though, somehow, I can live with that.

Day 150. I awake from a berry-induced coma, exit my tent, and feel that old, nagging northwest wind across my face. At least it's clear, I think to myself, having lowered my bar for conditions to pretty much any day I can breathe. I clip effortlessly into my harness and wing, launch amidst the sharp rocks, break a stabilo line, assess the risk, and plug on to the north.

Like I am watching myself from above, this man and his psyche have become more devoted to this one goal than I've ever been able to commit to anything in my life. He has surrendered his heart and soul so completely to the dream that he has relinquished any last shred of personal identity, and now he, himself, has become the dream.

2,815 km along, I see now that the dream is not a world record but a record of lessons learned along the way. While Arizona teaches patience and one's place in the world, Utah preaches humility, reminding us that one's greatness can only be measured unto itself. On the other hand, Idaho reminds me not to judge books by their covers and illuminates that gratitude unlocks the

WATCH THE FILM

Benjamin Jordan and Lyndsay Nicole's film of this expedition is due for release in November 2021. Find out more and learn how you can help save the majestic Monarch at

flymonarca.com.



solution to any problem unsolved.

And it is right here and now that Montana unveils her wisdom. It's a rugged, no-nonsense landscape built up by seismic activity, chiseled away by mineral and gas exploration, yet still thriving with an abundance of nature and beauty that leaves the most cynical in awe. Montana teaches surrender, the art of allowing Mother Nature to govern our experience as she always has and always will.

Low, just 50 m above a gravel pit and still 20 km from Canada, I prepare to land, overwhelmed by gratitude for this final flight and good things to come. Beep-beep, I give it a whirl. The warm breeze continues and, despite drifting away from my safe landing area, I lean to my left and turn circles out of sheer habit. I gain 50 m, doubling my clearance above the ground. My eyes closed, I ascend another 400 m, and at 1,000 m, it clicks. This final climb was born in a moment of patience, unconditional gratitude, and surrender to the world as it is, free of judgment of the unfavorable conditions or my worn-out self. It serves as a reminder that miracles aren't just arriving at the finish line but rather the infinite number of tiny circumstances, good or bad, that got us here.

Now just 1 km away from the razor-thin line marking Canada's southern border, the true success of this

journey will be measured by those who imagine a tiny butterfly attempting the same feat. With ninja-like skill, these vulnerable warriors defy the limits of the known universe and remind us that, on a global scale, we humans are just as small and, better yet, just as capable. 🇺🇸

Thank you to Lyndsay Nicole, who provided weather forecasts via inReach and documented the expedition. Thank you also to our sponsors, XINSURANCE, Ozone Paragliders, High Adventure, Big Agnes, Garmin Outdoor, and Goal Zero.



TOP LEFT Emotional support. Though Lyndsay and Benjamin agreed from the start that she was there to shoot and not offer expedition support, he often credits the friendship and camaraderie she offered as the force that got him through. **CENTER** Getting friendly with the locals of North Fork, Idaho, Benjamin finds creative ways to say "don't shoot" while packing up in the searing summer heat. **RIGHT** Just one range before Idaho's Continental Divide with Montana, Benjamin searches for lift amongst the painted hillsides of the Lemhi Range, ID. **ABOVE** Thank you USA. Thank you for your mountains, rivers and great people in-between. Today I must return home and I wish you well, until we meet again. Photo credit: Benjamin Jordan



A Hang Gliding Memoir

My Journey Continues > Part 5

by JOHN ARMSTRONG

In 1993, the snow was holding off, and I managed to kick off the year with a smooth 70-minute flight on January 7 at Jake's Mountain (West Rutland, Vermont). It snowed the next day!

By early April, the southern Tennessee spring air was calling. On April 3, after attending the Vermont Hang Gliding Association meeting held at Morningside Flight Park, Charlestown, New Hampshire, a couple of friends and I began another road trip south to Tennessee for a hang gliding vacation. The week was a bit touch-and-go weather-wise, but we were able to squeak in a few flights mid-week. Even though all 30 pilots were all only getting sled rides, we were happy to be there, sharing camaraderie and stories. Rain once again shut us down at the end of the week, but we took the opportunity to do some sightseeing, touring the Civil War Battlefields at Lookout Mountain and the incredible Chattanooga Aquarium. I highly recommend both if you get the chance to visit.

Back in Vermont, I was routinely going on XC flights. Landing after one of my flights all alone in a farm pasture, several Holstein cows surrounded me while I was breaking down the glider. They were licking my TRX and, a few

times, stepped on the wings. They were surprisingly curious, and I had to keep shooing them away.

On May 8, I met four fellow pilots early in the morning at the Rut where we worked on improving the rough road to the launch. The work primarily involved cutting brush and weed whacking the sides of the road. Later, about 30 pilots showed up to fly. When I launched a bit later, I immediately climbed in a 1,000 ft/min thermal to 5,400 feet and headed out on a westerly XC flight—a good one until the landing 45 minutes later.

As I was going to land in a large, flat field and zoomed along about eight feet above the ground, I made a correction. I banked right to get better lined up with the smoke that I had dropped as a wind indicator. However, when I weight shifted left to come back to level flight, the glider didn't unbank quickly enough. I was going to touch down and needed to flare but couldn't with the banked glider, so I just let the glider land itself. Unable to flare, the right side of the base tube caught the turf, and wham! I had a pretty fast and hard

crash. Amazingly the glider appeared to be unscathed—I, however, sustained a pretty good contusion to my left upper chest and shoulder where I landed on my radio which I had strapped on the harness left shoulder strap. It took about a month for the black and blue to go away, but even though it hurt, I continued to fly.

My next flight was a week later and turned out to be my longest XC yet: 39 miles. Halfway through my flight, I was only 300 feet over a freshly plowed field, unzipped and prepared to land. Suddenly, I hit a very strong thermal, grabbed it, and started circling. Down low, it was extra turbulent and kicked my butt. It threw me into a 90-degree roll, and I issued a scream while trying to get the wing back to a normal thermaling angle. I hung on tight, unable to zip the harness back up until I had gained thousands of feet, climbing all the way to 6,200 feet MSL.

I continued on northerly over the Bristol Cliffs (my first time) and beyond, without any more thermals, just gliding and slowly descending at best L/D to my landing point. Some-

« It took about a month for the black and blue to go away, but even though it hurt, I continued to fly. »

one had picked up my flying partner, Jake, and they were following along behind me with radio contact the last couple of miles. I arrived at a very small field, did two tight 360s, and made a good landing in Starksboro, Vermont. I was ever so pleased with that accomplishment!

On May 31, the Region 8 XC competition started, and the first day was from Mt. Ascutney launch. The air was strong that first day—15 to 25 mph at launch! The designated goal was 26 miles to the south at Westminster. I was lucky and won Round 1, with a 62-minute flight. Pilots Steve Arent and Randy Adams tied for second, and Dennis Cavagnaro came in fourth. We four were the only ones to make goal, with everyone else landing up and down the Connecticut River Valley. There were two more comp days, and I finished fourth overall.

One July XC, I managed to fly from West Rut to New York State. To my knowledge, it was the first hang glider flight from a Vermont site to land in New York. The wind was very light, and my flight began as a sledder to the valley floor. Down low, about 300 feet over the LZ, I managed to work some very light lift for about an hour. I slowly gained altitude, finally reaching 5,000 feet MSL. I decided to continue drifting on the southward breeze in what appeared to be a convergence and maintained lots of altitude, averaging close to 7,000 feet for almost two hours.

I was getting tired and feeling some ground suck when I decided to abandon further XC distance. Knowing I could easily make New York, I straight-line glided at best L/D in that direction for eight to ten miles to two miles south of Salem, New York. I dropped a smoke bomb, but it didn't go off, so I used clothes on a clothesline below me to determine the wind direction. After a safe landing, I hitchhiked back to the town and called for a retrieve.

Over the winter of 1994, I ordered a

new harness and was excited to test it out. It included a new chute and a BRS Rocket to deploy it. I was always a little scared having that BRS—if it accidentally went off, it could do a lot of harm. Although the main benefit of a ballistic was the faster deployment of the chute when you needed it, that concept never caught on among pilots.

After a successful May flying in Rut-

maled up to 600 feet above the height of the mountain. For an excellent 65 minutes, I had a stunning view of the Alps around me. Looking down over the back, I could see the villages of Zell am See and Kaprun and, out front, the beautiful snow-covered mountains and green summer fields in the broad valley. It was an expensive single flight, but every flight you don't take is one you'll never get!



land, it was time for another Austria trip. Hans, Jake, and I headed out for a two-week vacation. It turned out that we each got a single flight. For that flight, Jake borrowed his brother's car, and we drove up a steep mountain logging road to a north-facing launch called Swallow's Wall at Saalfelden, Austria. Jake launched, then Hans, then me. Jake thermaled up right away and disappeared. He flew 15 miles over the back to Dienten, the town where he grew up.

After Hans' launch, the antenna on his radio dropped off, so he lost all communication. I flew last, and ther-

ABOVE Breaking down after landing from an eight-mile XC flight; Shrewsbury, Vermont.

The rest of the year was good but relatively unremarkable. In October, a flight from Rutland was my last one of the year. There was nothing particularly special about it, but the free flight scene was noticeably changing and ever-growing. On that last day, there were eight hang gliders and 10 paragliders in the sky.

My 1995 season was fairly limited. I had a flight in February and one in March, both

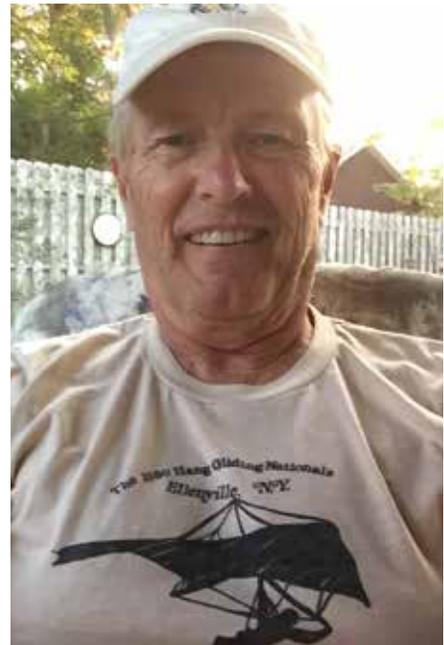
at the Rut. They turned out to be my only hang gliding flights of the whole year! At this time in my flying journey, 20 years into the sport, I was feeling rusty, and an uneasy feeling about flying was creeping into my brain.

In late March, Rick and Ruth Sharp invited Jake and me to their Cobble Hill paraglider lesson business site in Milton, Vermont. Over a two-day training period, for the first time, we each got to fly a paraglider. I ended up with three one-minute flights from the top. It was something new, different, and fun—if I were 50 years younger, I would have gotten one.

In the 1996 season, I was still hanging on to my four-year-old TRX hang glider but was not doing much flying. I only had two flights on it in 1996.

The first was in August—about a half dozen of us had an hour flight each. It was good to fly the hang glider again. It was easy and less complicated than my new flying adventures with sailplanes or operating my Motor Swift. My second and only other hang glider flight of that year was in late October. That turned out to be my last hang glider flight before coming down with acute lymphocytic leukemia (ALL), which drastically cut down my cherished flying. I underwent two years of chemotherapy and came real close to dying in the middle, but I eventually did fully beat it. I thank God every day since. Life is a nice trip! 🇺🇸

Stay tuned! There are more flying memories to come.



2020 USHPA AWARDS

Call for Nominations

Every year, USHPA gives awards and commendations to those making "above-and-beyond" contributions to our sport.

You know who's worthy of recognition in your community; please let us know, too. Make your nomination at

ushpa.org/page/award-nomination-form

NOMINATIONS ARE DUE OCTOBER 1.

PRESIDENTIAL CITATION - USHPA's highest award is presented to a member or non-member who has made significant contributions to the sport.

ROB KELLS MEMORIAL AWARD - Recognizes a pilot, group, chapter or other entity that has provided continuous service, over a period of 15 years or more, to the sports of hang gliding or paragliding or both.

USHPA EXCEPTIONAL SERVICE AWARD - This award recognizes outstanding service to the association during the year by any member or non-member.

NAA SAFETY AWARD - The NAA presents this award to an individual, recommended by USHPA, who has contributed to safety promotion in hang gliding or paragliding.

FAI HANG GLIDING DIPLOMA - This diploma may be awarded every year by the FAI to an individual who is considered to have made an outstanding contribution to the development of hang gliding or paragliding by his or her initiative, work, or leadership in flight achievement.

FAI PEPE LOPES MEDAL - The medal may be awarded annually by the FAI, on recommendation by the FAI Hang Gliding and Paragliding Commission (CIVL), for outstanding contributions to sportsmanship or international understanding in the sports of hang gliding or paragliding.

CHAPTER OF THE YEAR - This award recognizes the USHPA chapter/club that has conducted successful programs that reflect positively upon the chapter and the sport.

NEWSLETTER/WEBSITE OF THE YEAR - This award recognizes an outstanding club publication (printed or web-based).

INSTRUCTOR OF THE YEAR AWARD - Nominations should include letters of support from three students and the local Regional Director. One award per sport per year may be given.

RECOGNITION FOR SPECIAL CONTRIBUTION - Awarded to any number of non-members and organizations that have done exceptional volunteer work that has significantly enhanced and promoted our sports in the U.S.

COMMENDATIONS - Commendations are given to any number of USHPA members who have contributed to hang gliding and/or paragliding on a volunteer basis.

BETTINA GRAY AWARD - The Bettina Gray Award was created to honor the woman who contributed so much to our sport through her photography. This award is issued to the photographer (male or female) whose work (three examples needed for review) is judged best by the committee in consideration of aesthetics, originality, and a positive portrayal of hang gliding or paragliding. One award will be given each year.

BEST PROMOTIONAL FILM - This award recognizes the videographer whose work is judged best by the committee in consideration of aesthetics, originality, and a positive portrayal of hang gliding or paragliding. One award will be given each year.



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Ratings Issued May & June 2021



Take your ratings and expiration date everywhere you fly. Download from the Members Area section of the USHPA website. Print, trim, and store in your wallet. Great for areas without cell coverage. Always available at www.USHPA.org. Save the PDF on your mobile device for easy reference.

RTG	RGN	NAME	STATE	RATING	OFFICIAL	RTG	RGN	NAME	STATE	RATING	OFFICIAL
H1	1	John Anthony Crane	WA		Josh Patrick Laufer	H3	2	Joe Silveira	CA		John Simpson
H1	3	Wayne Gilmour	CA		Josh Patrick Laufer	H3	3	Michael Rodriguez	AZ		Dan DeWeese
H1	4	Larsen Christiansen	NC		William G. Vaughn	H3	4	George Morrison	GA		Gordon Cayce
H1	4	Zachary Dawson	NC		William G. Vaughn	H3	4	Renzo Scheidema	GA		David Miller
H1	4	Timothy DuBois	FL		Rick Brown	H3	4	Charlie Yowell	TN		Matthew Taber
H1	4	Mason Eaglin	NC		Nic Baack	H3	5	Larry Bender	NJ		Matthew Taber
H1	4	Ashley Herrin	NC		Wolf Gaidis	H4	1	Vincent Lynn Geer	OR		Eric Ollikainen
H1	4	Katherine Schuck	VA		Ryan Salvo	H4	2	Thomas Cook	CA		Kurtis Carter
H1	4	Sean Stroud	VA		Ryan Salvo	H4	2	John J. Glime	UT		Kevin Koonce
H1	4	Leo Tapia	NC		Nic Baack	H4	2	Ryan Matthews	CA		Kurtis Carter
H1	5	Jude Denton	PA		Nic Baack	H4	2	Mike Schuster	CA		Patrick J. Denevan
H1	5	John Patrick Gagnon	MD		Nic Baack	H4	3	Andrew Vanis	NM		Mel Glantz
H1	5	Christopher Rocco Prestia	PA		Daniel C. Guido	H4	3	Rick Warner	CA		William C. Dydo
H1	5	David Schechter	MD		William G. Vaughn	H4	4	Matthew McCleskey	TX		Tiki Mashy
H2	1	Stephen Danielson	IA		Andrew Nigh	P1	1	Kayla Cissell	OR		Maren Ludwig
H2	1	Jason Hubbard	NE		Cj Giordano	P1	1	Marc Leglise	OR		Randolph Ruffin
H2	1	Nicholas Moser	IA		Andrew Nigh	P1	1	Roy E. Massie	WA		Abhay Okaraio Morrissey
H2	2	Colin Campbell	UT		Ian Brubaker	P1	1	Joe Meschke	OR		Kelly A. Kellar
H2	2	William Count	CA		John Simpson	P1	1	Matthew Vernon Porter	OR		Randolph Ruffin
H2	2	William Dickey	CA		Michael Briganti	P1	1	Pieter Roets	WA		Maren Ludwig
H2	2	Liam Jacob	CA		John Simpson	P1	2	Venkata Rupesh Kumar Dabir	CA		Jeffrey J. Greenbaum
H2	2	Clemence Lepold	CA		Michael Briganti	P1	2	Kellie Lu	CA		Jeffrey J. Greenbaum
H2	2	Max Rosenblum	CA		Michael Briganti	P1	2	Steffen Otto	CA		Jeffrey J. Greenbaum
H2	3	Steve Braker	CA		William C. Dydo	P1	2	Hari Sudhan Parameswaran	CA		Wallace K. Anderson
H2	3	Ruilin Chu	CA		Dan DeWeese	P1	2	Nir Rikovitich	CA		Jeffrey J. Greenbaum
H2	3	Eric Everrett	NM		Michael Briganti	P1	2	Johnathan Rutkowski	UT		Ken W. Hudonjorgensen
H2	3	Megan Friesen	CO		Cj Giordano	P1	2	Sai Surya Shashanka Timmarajus	CA		Jeffrey J. Greenbaum
H2	3	Trevor L. Lester	CO		Malcolm A. Jones	P1	2	Vikram Pratap Singh Raj	CA		Jeffrey J. Greenbaum
H2	3	David McGee	NM		Mel Glantz	P1	2	Mark Zhang	CA		Jeffrey J. Greenbaum
H2	3	Joshua J. Parke	NM		Mel Glantz	P1	3	Dylan Beard	CA		Jordan Neidinger
H2	3	Derek Simpson	CA		Dan DeWeese	P1	3	Marc Blackwood	CA		Vito Michelangelo
H2	3	Robert Whalen	NM		Cj Giordano	P1	3	Madison Dahl	CO		Gregory Kelley
H2	4	David Absalom	GA		Cj Giordano	P1	3	Joseph Franco	AZ		Vito Michelangelo
H2	4	Kristin Bennett	GA		Andrew Nigh	P1	3	William Blake Hupfer	AZ		Chandler Papas
H2	4	Neil Brunett	TN		Gordon Cayce	P1	3	Marc Leatham	AZ		Chandler Papas
H2	4	John Chapa	TX		Cj Giordano	P1	3	Siyun Luo	CA		Max Leonard Marien
H2	4	Ryan Eastwick	TN		Cj Giordano	P1	3	Eli Mansour	CA		Jordan Neidinger
H2	4	Larry R. Garner	TN		Andrew Nigh	P1	3	David J. Shaw	CA		Jordan Neidinger
H2	4	Peter Hall	GA		Andrew Nigh	P1	3	Connor Smith	CA		Max Leonard Marien
H2	4	Perrin Hamilton	AL		Andrew Nigh	P1	3	Christopher Jordan Stuart	CA		Vito Michelangelo
H2	4	Kevin Hamilton	AL		Gordon Cayce	P1	3	Alexis Wheeler	CA		Juan E. Silva
H2	4	Mat Hartje	VA		Matthew Taber	P1	3	Alexandra Wix	CO		Randall Shane
H2	4	Nikolas Kubli	VA		Steve A. Wendt	P1	3	Alex Wright	CA		Vito Michelangelo
H2	4	Jesse N. Lemly	FL		James E. Tindle	P1	4	James W. Edwards	AR		Britton Shaw
H2	4	Nycolas Lotocky	VA		Matthew Taber	P1	4	Sarath Pathuri	TX		Max Leonard Marien
H2	4	Landon Manchester	GA		Andrew Nigh	P1	5	Jim Black	NY		Rob Sporrer
H2	4	Courtenay Shea Graham	TX		Cj Giordano	P1	5	Tyler Brown	MA		John E. Dunn
H2	4	Jax Tolzmann	TN		Cj Giordano	P1	5	Karina Chu-Boyle	NY		Miguel Rodas
H2	5	Marin Erhan	IL		Cj Giordano	P1	5	Jeff Harris	NY		Steven Taylor Couch
H2	5	Patrick McDonnell	PA		Rick Brown	P1	5	Josh Marks	DE		Ken W. Hudonjorgensen
H2	5	Juan Pace	MD		Andrew Nigh	P2	1	Jonas Abdo	ID		E. Scott Edwards
H2	5	Devin Rayow	NY		Cj Giordano	P2	1	Michael Anderson	HI		Rob Sporrer
H2	5	Joey Shears	MI		Cj Giordano	P2	1	Cody Anderson	HI		Paul Gurrieri
H2	5	Brent Viau	NY		Rick Brown	P2	1	Jack Becker	MN		Rob Sporrer
H3	1	Yvette Aguayo	ID		John Simpson	P2	1	Cornelia Bernd	HI		David (Dexter) Binder
H3	1	Jeremy Thomas	OR		Eric Ollikainen	P2	1	Dan Betts	ID		E. Scott Edwards
H3	2	Dmitriy Bryndin	CA		Takeo Eda	P2	1	Bruce F. Biddle	WA		Matt Cone
H3	2	Raymond Cheng	CA		Masayo Miyauchi	P2	1	Kristin Bindi	OR		Andy Macrae
H3	2	Harry James Cocco	CA		Terry A. Strahl	P2	1	Craig Bishop	HI		Robin J. Marien
H3	2	Shawn Dunning	CA		Patrick J. Denevan	P2	1	Edward Bourguignon	WA		Maren Ludwig
H3	2	Brandon Holt	CA		Richard Sibley	P2	1	Kevin Brenden	ID		Christopher Grantham
H3	2	Jeff Morgan	CA		John Simpson	P2	1	Christopher Chance Campbell	WA		Denise Reed

RTG	RGN NAME	STATE	RATING	OFFICIAL
P2	1 Justin Caprari	OR		Kevin R. Lee
P2	1 Brianna Clark	WA		Jonathan Jefferies
P2	1 Trevor Clinkenbeard	WA		Kelly A. Kellar
P2	1 Jason Curtis	WA		Matt Cone
P2	1 Kenny Daniel	WA		Denise Reed
P2	1 Ralph E. De Simone	WA		Denise Reed
P2	1 Abrianna Lynn Drake	WA		Kelly A. Kellar
P2	1 Brendan Duddy	WA		Denise Reed
P2	1 Samuel Lyle Duguay	OR		Keith Lowe
P2	1 Nova Fallen	WA		Denise Reed
P2	1 Danny Filice	WY		Fred Morris
P2	1 John Patrick Finigan	ID		Andy Macrae
P2	1 Farzad Forqughi	WA		Denise Reed
P2	1 Paul Frekot	MN		Rob Sporrer
P2	1 Megan Grassell	WY		Fred Morris
P2	1 Jonah Greenberger	WY		Fred Morris
P2	1 Gain Hagenau	WA		Matt Cone
P2	1 Sidney Hahn	MT		Jennifer Bedell
P2	1 Tyler Hamke	WA		Denise Reed
P2	1 Zach Hartnett	WY		Scott C. Harris
P2	1 Cullen Hedlesky	WA		Stephen J. Mayer
P2	1 Oren Free Hertzog-Holloway	OR		Zion Susanno-Loddy
P2	1 Benjamin Janicki	WA		Denise Reed
P2	1 Ian Jones	MT		Andy Macrae
P2	1 David Keierleber	WY		Jonathan Jefferies
P2	1 Kim Keller	MT		Rob Sporrer
P2	1 Jared Kellerer	WA		Denise Reed
P2	1 Eileen Kutscha	WA		Denise Reed
P2	1 Jack Langenkamp	HI		David (Dexter) Binder
P2	1 Stan Lyons	HI		Lorenzo Romano
P2	1 Max Millen	MT		Lisa Dickinson
P2	1 Brian Murchie	MT		Andy Macrae
P2	1 Brennan Niehoff	WA		Steven R. Wilson
P2	1 William ODonnell	WY		Fred Morris
P2	1 Patrick Penoyar	AK		Denise Reed
P2	1 Kris Peterson	AK		Christopher Grantham
P2	1 Hugo Reis	HI		Scott Gee
P2	1 Logan Rooper	WA		Matt Cone
P2	1 Daniel Wayne Rowley	WA		Denise Reed
P2	1 Daniel Ryan	HI		David (Dexter) Binder
P2	1 Christian Schmid	OR		Wallace K. Anderson
P2	1 Joshua Schneider	WA		E. Scott Edwards
P2	1 Doug Schulz	WA		Jonathan Jefferies
P2	1 Katharine Schwedhelm	WA		Denise Reed
P2	1 Jacqueline Scott	WA		Patrick Kelly
P2	1 Samantha Smith	HI		David (Dexter) Binder
P2	1 Matthew Swanson	WA		Matt Henzi
P2	1 Ronald Thompson	WA		Denise Reed
P2	1 Shawni Van Vessem	WA		Matt Henzi
P2	1 Martin Wisehart	OR		Kelly A. Kellar
P2	1 Yugala Priti Wright	WA		David (Dexter) Binder
P2	1 Jeffrey Wright	WA		David (Dexter) Binder
P2	1 Lauren Young	ID		E. Scott Edwards
P2	1 Philip Zald	OR		Kelly A. Kellar
P2	2 Terrence Chris Ash	UT		Jonathan Jefferies
P2	2 Jacob Azevedo	NV		Robert Black
P2	2 Polina Bulgakova	CA		Robert Black
P2	2 Colby Butchereit	CA		Robert Black
P2	2 Michael DAntonio	NV		Rob Sporrer
P2	2 Mark Deem	CA		Jesse L. Meyer
P2	2 Aritra Ghosh	UT		Ben White
P2	2 Wade Green	CA		Robert Black

RTG	RGN NAME	STATE	RATING	OFFICIAL
P2	2 Soren Grimmer	UT		Nathan Alex Taylor
P2	2 Steve Hofsaess	NV		Michael Gatto
P2	2 Robert Hueber	CA		Jesse L. Meyer
P2	2 David Hunter	CA		Joseph B. Seitz
P2	2 Michael Judas	CA		Jesse L. Meyer
P2	2 Gage Kazickas	UT		Jonathan Jefferies
P2	2 Brad Kunkel	CA		Jesse L. Meyer
P2	2 David Lariviere	UT		Stephen J. Mayer
P2	2 Mark LeBlanc	UT		Jonathan Jefferies
P2	2 Julian LeMoine	CA		Mike Fifield
P2	2 Garrison Lindley	UT		Patrick Kelly
P2	2 Deloy Lindley	UT		Patrick Kelly
P2	2 Owen Lynch	UT		Nathan Alex Taylor
P2	2 Joshua Marcum	NV		Rob Sporrer
P2	2 Lionel Marks	CA		Wallace K. Anderson
P2	2 Joseph Merrill	CA		Jesse L. Meyer
P2	2 Phillip Miner	UT		Nathan Alex Taylor
P2	2 Jesse L. Mitchell	UT		Jonathan Jefferies
P2	2 Daniel Nguyen	CA		Jesse L. Meyer
P2	2 Scott Norcross	UT		Jonathan Jefferies
P2	2 Insa Norcross	UT		Jonathan Jefferies
P2	2 Jason Opdycke	UT		Nathan Alex Taylor
P2	2 Ebrahim Paryavi	UT		Harry Sandoval
P2	2 Suhas Pathak	CA		Robert Black
P2	2 Ryan Pflieger	CA		Mitchell B. Neary
P2	2 Krishna Harsha Reddy Kothapalli	CA		Jesse L. Meyer
P2	2 Dana Shell	CA		Jesse L. Meyer
P2	2 Thomas Stagnaro	CA		Jesse L. Meyer
P2	2 Mary Grace Stocker	UT		Brian Clark
P2	2 Clark Stromberg	NV		Stephen J. Mayer
P2	2 Cesar Toscano	CA		Jesse L. Meyer
P2	2 Leo Toulet	CA		Robert Black
P2	2 Ethan Veneklasen	CA		Jesse L. Meyer
P2	2 Justin Westling	CA		David Blacklock
P2	2 David Wiens	CA		Jesse L. Meyer
P2	2 Warren Williams	UT		Jonathan Jefferies
P2	2 David Wrobel	UT		Stephen J. Mayer
P2	2 Jeffrey Yaeger	UT		Chris W. Santacroce
P2	3 Michael Alcorn	CA		Stephen Nowak
P2	3 Brian Anschel	CA		Jeremy Bishop
P2	3 Cally Arndt	CO		Chris W. Santacroce
P2	3 Shannon Barger	CA		Rob Sporrer
P2	3 Thaddeus Barnes	CO		Johannes Rath
P2	3 Melissa Barry	CO		Misha Banks
P2	3 Jacob Billingsley	CO		Robert Black
P2	3 Thomas Michael Bone Jr	CO		Chris W. Santacroce
P2	3 Mimi BowQuay	AZ		Marcello M. DeBarros
P2	3 William Trent Buckner	CO		Johannes Rath
P2	3 Daniel T. Burns	CO		Mauricio Fleitas
P2	3 Daniel Covill	CO		Denise Reed
P2	3 Sheamus Croke	CO		Stephen J. Mayer
P2	3 Neil Cutcliffe	CA		Christopher Grantham
P2	3 Patrick Davenport	CO		Misha Banks
P2	3 Gwenaelle Dorning	CO		Mauricio Fleitas
P2	3 Jay Drescher	CO		Christopher Grantham
P2	3 James DuPlain	NM		Charles (Chuck) Woods
P2	3 William Erkelens	CO		Mauricio Fleitas
P2	3 Jacob Fornarotto	CO		Misha Banks
P2	3 Wesley Fowler	CO		Johannes Rath
P2	3 Mitchell Friedeman	CO		Johannes Rath
P2	3 Taylor Giordani	CA		Paul Gurrieri
P2	3 James Gorman	CO		Hayden Dudley

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Ratings Issued May & June 2021 (continued)

RTG	RGN NAME	STATE	RATING	OFFICIAL	RTG	RGN NAME	STATE	RATING	OFFICIAL
P2	3 Felipe Guarderas	CA		Jeremy Bishop	P2	4 James Reid Lewis	TX		Nathan Alex Taylor
P2	3 Marshall Hayes	CO		Andy Macrae	P2	4 Stephen Ligtenberg	NC		Fred Morris
P2	3 Jeremy Hebert	NM		Charles (Chuck) Woods	P2	4 Jeffrey Maddox	TX		Rob Sporrer
P2	3 Arjun Heimsath	AZ		Chandler Papas	P2	4 Chris McDaniel	AR		Britton Shaw
P2	3 Bryant Hernandez	CO		Ryan J. Taylor	P2	4 Shelli McDaniel	AR		Britton Shaw
P2	3 Miles Higgins	CO		Johannes Rath	P2	4 Brian Morris	VA		Steven Taylor Couch
P2	3 Ian Higgins	CA		Christopher Grantham	P2	4 Tom Norris	GA		George R. Huffman
P2	3 Quayle Hodek	CO		Andy Macrae	P2	4 Matthew Pardis	FL		Zion Susanno-Loddy
P2	3 Jordan Holquist	CO		Christopher Grantham	P2	4 Todd Peele	OK		Britton Shaw
P2	3 Robert Orville Jensen	CO		Misha Banks	P2	4 Susan Penning	GA		Grayson Brown
P2	3 Tyler Johnson	CO		Misha Banks	P2	4 Emily Petersen	TX		Chris W. Santacroce
P2	3 James Jones	CA		Jordan Neidinger	P2	4 Corbin Petersen	TX		Chris W. Santacroce
P2	3 Dan Kamisar	CO		Stephen J. Mayer	P2	4 George Pitcock	GA		Steven Taylor Couch
P2	3 Kohl Kinning	CO		Misha Banks	P2	4 Chris Powell	TN		Grayson Brown
P2	3 Michael Kwesell	CO		Rob Sporrer	P2	4 Stephen Ravndal	FL		Christopher Grantham
P2	3 Matthew LaFontaine	CO		Misha Banks	P2	4 Joshua Schacter	TX		Ryan J. Taylor
P2	3 Hannah Livingston	CO		Stephen J. Mayer	P2	4 Maddie Sortino	FL		Stephen J. Mayer
P2	3 Eli Loper	CO		Douglas Brown	P2	4 Ashley Spellman	VA		Chris W. Santacroce
P2	3 Tyson Lukasavage	CO		Chris W. Santacroce	P2	4 David Spellman	VA		Chris W. Santacroce
P2	3 Mark Mancewicz	CA		Jordan Neidinger	P2	4 Clifford Steele	FL		Stephen J. Mayer
P2	3 Estevan McCalley	CA		Jordan Neidinger	P2	4 Daniel Wahl	MO		Ryan J. Taylor
P2	3 John McCarten	CO		Misha Banks	P2	4 Dustin Whittle	FL		Jesse L. Meyer
P2	3 Caitlin McGinn	CO		Stephen J. Mayer	P2	4 Jake Wyrick	TX		Nathan Alex Taylor
P2	3 Austin Monell	CO		Johannes Rath	P2	5 Celio Alves De Miranda	CT		Esau Diaz Guerrero
P2	3 John Nagyvary	NM		T Lee Kortsch	P2	5 Miles Babin	NY		Rob Sporrer
P2	3 Shawn Nekonei	CA		Max Leonard Marien	P2	5 Joe Bedinghaus	IN		Nathan Alex Taylor
P2	3 Jeffrey Orłowski	CO		Andy Macrae	P2	5 Tara Blair	MD		Matt Henzi
P2	3 Bruno Perthus	CA		Jonathan Jefferies	P2	5 Edward Allen Brown	Valle Del Cauca		Michael Gatto
P2	3 Ian Pierce	NM		Charles (Chuck) Woods	P2	5 Lone Hallum	Denmark		Jeff Hedlund
P2	3 Brady Robinson	CO		Johannes Rath	P2	5 Ryszard Husiatynski	NY		Miguel Rodas
P2	3 Greg S. Roby	CO		Ryan J. Taylor	P2	5 Andrew Kerber	PA		Thomas McCormick
P2	3 Ethan Saeta	CO		Johannes Rath	P2	5 Daniel Maurer	OH		Grayson Brown
P2	3 Karissa Sampson	CO		Johannes Rath	P2	5 Aaron McIntosh	MD		Zion Susanno-Loddy
P2	3 Navjot Singh	CA		Jordan Neidinger	P2	5 Jason Obrien	MA		Christopher Garcia
P2	3 Justin Sousa	CA		David John Hebert	P2	5 Monika Rakow	NJ		Stacy Whitmore
P2	3 Kyle Sovada	CO		Misha Banks	P2	5 Jamen Scharnberg	MD		Stephen J. Mayer
P2	3 Logan Stagg	CO		Stephen J. Mayer	P2	5 Shawn Sethi	MI		Robert Black
P2	3 Michael Thompson	CA		Mike Fifield	P2	5 Frank Tropea	PA		Miguel Rodas
P2	3 Josh Treptau	CO		Douglas Brown	P3	1 Alon Brasington	WA		Marc Chirico
P2	3 John Tucker	CO		Maren Ludwig	P3	1 Michelle Connacher	OR		Nathan Alex Taylor
P2	3 Riebeeck Van Niekerk	CA		Rob Sporrer	P3	1 Christopher Dziubek	WA		Marc Chirico
P2	3 Thomas Stone Weaver	CO		Johannes Rath	P3	1 Jason Flannery	OR		Steve Roti
P2	3 Daniel Winokur	CO		Ryan J. Taylor	P3	1 Aaron Gale	WA		Denise Reed
P2	3 Patrick Zdunek	CO		Stephen J. Mayer	P3	1 David Garry	WY		Fred Morris
P2	4 Samantha Amacher	SC		Nathan Alex Taylor	P3	1 Gonzalo Gomez Monge	WA		Johannes Rath
P2	4 Anna-Marie Bals	FL		Thomas Mistretta	P3	1 Robert Haugland	HI		Thomas Bartlett
P2	4 Dennis Blackstad	OK		Britton Shaw	P3	1 Denina Hospodsky	WA		Marc Chirico
P2	4 Andres Figuredo	FL		Nathan Alex Taylor	P3	1 Evan Larson	OR		Brad Hill
P2	4 Mio Garrard	GA		Grayson Brown	P3	1 Dean Maruyama	HI		Scott Gee
P2	4 Jim Garrard	GA		Grayson Brown	P3	1 Lee Neale	ID		Steve Roti
P2	4 Audra Nicole Gately	AR		Britton Shaw	P3	1 Kyle Oldemeyer	ID		Nathan Alex Taylor
P2	4 James Pitzer Gills III	FL		Jonathan Jefferies	P3	1 Chelan Pauly	ID		Nathan Alex Taylor
P2	4 Audra Gonzalez	FL		Stacy Whitmore	P3	1 Tyler Pennewill	MT		Joshua Phillips
P2	4 Bailey Hall	GA		Jonathan Jefferies	P3	1 Chester Schwie	MN		Steve Sirrine
P2	4 Peter Horine	TN		Grayson Brown	P3	1 Richard Siberell	MT		Rob Sporrer
P2	4 David G. Jones	KS		Chris W. Santacroce	P3	1 Alex Williams	WA		Marc Chirico
P2	4 Jacob Kalmakoff	FL		Zion Susanno-Loddy	P3	1 Scott Wuebber	MT		Andy Macrae
P2	4 Reid Kincaid	VA		Rob Sporrer	P3	2 Christoph Birkhold	CA		Jeffrey J. Greenbaum
P2	4 Aaron Kosht	FL		Calef Letorney	P3	2 Lucky Bovo	UT		Nathan Alex Taylor
P2	4 Darren Learmonth	TX		Max Leonard Marien	P3	2 Joe Bradshaw	NV		Jeremy Bishop

RTG	RGN NAME	STATE	RATING	OFFICIAL
P3	2 Rhett Burroughs	UT		Jeff Shapiro
P3	2 Aimee Cole	CA		Robert Black
P3	2 Logan Donovan	UT		Jonathan Jefferies
P3	2 Amy Donovan	CA		Jesse L. Meyer
P3	2 Jason Elder	CA		Mitchell B. Neary
P3	2 Andrew Fulton	NV		Jordan Neidinger
P3	2 Jonathan Hair	UT		Nathan Alex Taylor
P3	2 Aitor Iriso	CA		Robert Black
P3	2 Eneko Iriso	CA		Robert Black
P3	2 Peter Kunkel	CA		Jesse L. Meyer
P3	2 Kostyantyn Lasiy	UT		Nathan Alex Taylor
P3	2 Angel Lorenzo	CA		Jerome Daoust
P3	2 Achal Manak Asawa	CA		Robert Posey
P3	2 Mallory Millington	UT		Ben White
P3	2 Evan Peairs	CA		Jesse L. Meyer
P3	2 John Redding	CA		Robert Black
P3	2 Farzad Saidy	CA		Jeffrey J. Greenbaum
P3	2 Jim W. Shumway	UT		Chris W. Santacroce
P3	2 Malan Silva	UT		Patrick Johnson
P3	2 Evgenii Sirotin	CA		Jesse L. Meyer
P3	2 Jeremy Smith	UT		Stephen J. Mayer
P3	2 Sterling Warnick	UT		Jonathan Jefferies
P3	2 Darian Westrick	UT		Ben White
P3	2 Taylor Woodbury	UT		Jonathan Jefferies
P3	3 Giuseppe Bini	CO		Jerome Daoust
P3	3 Phill Bloom	CA		Rob Sporrer
P3	3 Sarah Brittain	CO		Misha Banks
P3	3 Aaron Brown	NM		Max Leonard Marien
P3	3 Caleb Campbell	CA		Jordan Neidinger
P3	3 Ross Cooper	CO		Johannes Rath
P3	3 Cory Cotter	CA		Jordan Neidinger
P3	3 Rob Crafts	CA		Max Leonard Marien
P3	3 Joshua Denson	CA		Stephen Nowak
P3	3 Lawrence DePorto	CA		Max Leonard Marien
P3	3 Chris Diebold	CA		Christopher Garcia
P3	3 Cameron Eibl	CA		Max Leonard Marien
P3	3 Lee Eisler	CA		Patrick Johnson
P3	3 Austin Fisher	CO		Misha Banks
P3	3 Grant Foad	CA		Christopher Garcia
P3	3 Brian Hellenbrand	CA		Max Leonard Marien
P3	3 Raymond Hower	CA		Robin J. Marien
P3	3 Katie Jackson	CO		Calef Letorney
P3	3 Amitkumar Kakkad	CA		Max Leonard Marien
P3	3 Andrew Klumpp	CO		Misha Banks
P3	3 Clinton Lariscy	CA		Vito Michelangelo
P3	3 An Le	CO		Misha Banks
P3	3 Juan Marmol-Velez	CO		Jerome Daoust
P3	3 Patrick Mattes	CA		Stephen Nowak
P3	3 Max MCGowan	CO		Misha Banks
P3	3 George Mesho	CA		Marcello M. DeBarros
P3	3 Jenny O'Neil	CO		Misha Banks
P3	3 Josiah Reed	NM		Zion Susanno-Loddbby
P3	3 Taylor Rice	CO		Johannes Rath
P3	3 Scott Rogers	CO		Ryan J. Taylor
P3	3 Dietrich Schuhl	CA		Christopher Grantham
P3	3 Nathan Sciacqua	CA		Hadi Golian

RTG	RGN NAME	STATE	RATING	OFFICIAL
P3	3 Jaewon Song	CA		Stanley-Kyon Ki-Hong
P3	3 John Spires	CO		Ryan J. Taylor
P3	3 Sangwon Suh	CA		Rob Sporrer
P3	3 Matthew Swartz	CO		Misha Banks
P3	3 Nicolas Viennot	CA		Jordan Neidinger
P3	3 Jay Brandon Whiteaker	NM		Max Leonard Marien
P3	3 Amanda Winther Schorsch	CO		Misha Banks
P3	4 Sean Ahrens	PR		Jeffrey J. Greenbaum
P3	4 Lee Park Cunningham	TN		Jeremy Bishop
P3	4 Megan Dodge	LA		Vito Michelangelo
P3	4 W Michael Ford	TX		Philippe Renaudin
P3	4 Stefan Katz	GA		Christopher J. Pyse
P3	4 Scott Paulson	VA		Chris W. Santacroce
P3	5 Shawn Carroll	VT		Calef Letorney
P3	5 Daniel Connell	NY		Calef Letorney
P3	5 Patrick Heal	WI		Thomas McCormick
P3	5 Mauricio Idalgo Clemente	NJ		Marcus V. Santos
P3	5 Meghan Kate	NH		Calef Letorney
P3	5 John Kennelly	CT		Steve Roti
P3	5 Joshua Dominic Anthony Mangakahia	NY		Max Leonard Marien
P3	5 David Marthe	WI		Steven Taylor Couch
P3	5 David Park	NH		John E. Dunn
P3	5 Ken Sober	NY		Calef Letorney
P3	5 Jonathan Wagner	PA		Mert Kacmaz
P3	5 Jacob Wilhelm	OH		Chris W. Santacroce
P3	5 Herbert Wootton Jr	PA		Marcus V. Santos
P4	1 Kristian Hansen	ID		Randall Shane
P4	1 Quentin Kawananaoka	HI		Pete Michelmore
P4	1 Trevor MacMurray	WA		Owen Shoemaker
P4	1 Mike Milliron Jr	ND		Steve Roti
P4	2 Timothy J. Barber	CA		Jesse L. Meyer
P4	2 Mondie Beier	CA		Juan A. Laos
P4	2 Mike Brown	UT		Patrick Johnson
P4	2 James Cooper	CA		Jesse L. Meyer
P4	2 Gregory Elsbecker	CA		Jesse L. Meyer
P4	2 Juan Fernando Molano Madrid	UT		Christopher Hunlow
P4	2 Jake Nelson	UT		Ben White
P4	2 Jordan Porter	UT		Jonathan Jefferies
P4	2 Matt Renaud	CA		Jesse L. Meyer
P4	2 Josh Waldrop	CA		Jeremy Bishop
P4	3 Mateo Caicedo	CA		Philip D. Russman
P4	3 Reilly Cooper	CO		Johannes Rath
P4	3 Michal Gola	CA		Jerome Daoust
P4	3 Ben Graham	CO		Rick Damiani
P4	3 Blake Thomas Hanson	CA		Rob Sporrer
P4	3 Marcos Rosenkjer	CO		Kari L. Castle
P4	4 Roberto Jose Andara Tagliaferro	FL		Thomas Mistretta
P4	4 Marcelo Brosig	FL		Marcello M. DeBarros
P4	4 Hernan Carreno	SC		Jaro Krupa
P4	4 Julian Carreno	SC		Jaro Krupa
P4	4 Josh McVeigh	VA		George R. Huffman
P4	4 Joglin Vivas	FL		Thomas Mistretta
P4	5 Ryan M. Reynolds	AE		T Lee Kortsch
P4	5 Elisabeth Sillince	MD		Zion Susanno-Loddbby
P4	5 Fernando Velasco	NY		Max Leonard Marien

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(4) Paid Distribution by Other Classes of Mail Through the USPS (e.g., First-Class Mail®)	260	223
c. Total Paid Distribution (Sum of 15b (1), (2), (3), and (4))	8171	8193
d. Free or Nominal Rate Distribution (By Mail and Outside the Mail)		
(1) Free or Nominal Rate Outside-County Copies Included on PS Form 3541	0	0
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f. Total Distribution (Sum of 15c and 15e)	8451	8580
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h. Total (Sum of 15f and g)	8571	8700
i. Percent Paid (15c divided by 15f times 100)	97%	95%

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2021 CALENDAR Submit listings online at ushpa.org/page/calendar. A minimum 3-MONTH LEAD TIME is required on all submissions. Tentative events will not be published. **Please contact event organizers regarding the status of events as these are subject to postponement or cancellation depending on how the pandemic progresses.**

Annual Members & Fall Board Meeting
November 11-13, 2021
Van Nuys, CA

Visit the website for further details and the most up-to-date information:
ushpa.org/boardmeeting

SEP 25-26; OCT 16-17 > MOUNTAIN FLYING / SITE PIONEERING CLINIC Various Utah flying sites. Learn how to pioneer a site, fly the mountain sites in UT, improve your safety in the mountain, quickly and appropriately plan the best approach to any landing zone, weather tendencies, patterns and considerations. Learn how to visualize air flow in the mountains. Two-can Fly Paragliding, Ken Hudonjorgensen, (801) 971-3414, email: twocanfly@gmail.com Website: www.twocan-fly.com

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SEP 19-26, OCT 24-31 > HANG 1 TRAINING CAMP Kitty Hawk Kites Hang Gliding School, Nags Head, NC. Immerse yourself in hang gliding for one week and let us take care of the rest! Our camps are intensive, challenging and fun. The cost includes unlimited lessons (weather permitting) and lodging for 7 days. Website: <https://www.kittyhawk.com/adventures/hang-gliding/becomeapilot/hang-1-camp/>

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IMAGES of FLIGHT

by Barbara Wiedemann

I

Standing on the ramp
at Lookout in Georgia
the mountains before her,
and the valley below,
the wings of the hang glider level,
she shouts, "Clear,"
a few steps
then flight—
no ties to the earth,
nor to the earthbound.

II

On a summer road trip
she visits Owens Valley
launches from Walt's Point
again a few steps
and she is flying
circling like a hawk, an eagle,
above and beside the Sierra Nevada peaks,
each boulder visible
one hundred, two hundred feet away
but still thousands of feet above the valley floor
flying on air currents
twenty-five miles
to land at Independence.

III

And, of course, there's Yosemite.
She's the only pilot that day
but there are tourists
who ask questions
and are sold t-shirts by the site director
who steadies her glider on the steep granite
before stepping away and she launches,
Half Dome in front, Yosemite Falls to the left
then the look for the LZ.
Misjudging the height of the Ponderosas
she sets up too low
splash lands in the swampy middle.
Dripping wet,
she talks to a tourist who sees sweat
and assumes flying is strenuous,
finally she hikes up the Seven-Mile Trail to her van.

IV

There are the sunsets
the fall colors of an eastern autumn
or the dogwoods and redbuds in the spring
the glimmer of the sea at Big Sur
the skull-painted rocks at Elsinore.
There are the memories
of proving the Venturi effect at King
of launching into the thin air at Princeton
of seeking shelter from hail at Telluride—
all magical.



PHOTO BY WINNIE ROBERTS



Hang Gliding and Paragliding can be dangerous when risks are not properly managed

THE RECREATION RISK RETENTION GROUP IS AN ORGANIZATION OF PILOTS FOR THE BENEFIT OF PILOTS

Our mission is to protect free flight in the US for the present and future. We are not an ordinary insurance company that seeks to maximize profits, we seek to increase the safety and reduce injury of all our members and return the savings back to the participants.

Over the past 5 years, we've worked with Chapters, Clubs, Schools, and Instructors to develop and implement hundreds of risk mitigation plans to improve safety and reduce accidents. We are in this with you! It is a lot of work for all involved, especially compared to the wild west days before we were forced to self insure, but together we are making progress. USHPA membership has its privileges and being covered by the RRRG is one of the best.

- We are working to reduce administrative burdens
- We maintained steady rates whereas the previous insurer increased premiums 20% every year
- We are developing data sets that will lower our rates and help us win court battles if needed
- We froze premium payments during COVID
- We created a loan program for instructors and schools that were facing challenges
- Schools only pay for insurance they use and receive credit on their next bill if business is slow
- Unlike any other insurance provider, we care what happens to Free Flight in the US
- For us, it is about keeping Free Flight viable, not making profits



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