

# Adventure World

## magazine

FALL 2017

### BLOOD ROAD

A DAUGHTERS SEARCH.

A TRAIL TO DISCOVERY



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14	untamed new england	55.00
15	Only MOSTLY Lost	52.00

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# Down in the Valley

by Steve Chapin

photos by Joel Sunderland & Justin Balog



## ADVENTURE CALLING

For the adventurer and cyclist within us, the name alone is a calling of sorts. With more miles of road than any other US national park – nearly 1,000 miles of paved and gravel roads in total – Death Valley delivers more than ample occasion for exploration and adventure. With potential for early season warmth, minimal traffic, an almost absolute void of people, and the inability to connect to those outside the park, Death Valley offers a unique opportunity to truly detach. And with this in mind, we embarked on a journey of camping, lesser travelled gravel roads, sunshine, good food, drink, and a reunion with our Squadra Avventura friends.



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## SUNSHINE ABOUNDS

Possibly the most important consideration when visiting Death Valley, and certainly our first lesson learned, was regarding weather variations.

Come in the summertime and you'll most likely be welcomed with extreme heat. Furnace Creek is on record as having the hottest atmospheric temperature ever recorded on earth (134 °F!), back on July 10, 1913, and more recently (2001) the park saw temperatures in excess of 100 °F for 154 consecutive days. You're almost guaranteed sunshine, which is practically a given, as Death Valley sees on average less than 2 inches of rainfall in an entire year. We believe that's what cyclists refer to as 'shorts weather.'

But come – as we did – during a cold snap in early March, and all bets are off. We had the pleasure of experiencing temps which dipped in the evening to near freezing, and a wind which made it seem much colder than that. And while daytime down on the valley floor offered much more pleasant temps in the mid-70's, warmers and wind jackets were still critical once we climbed up above 5,000', not to mention the descents.

## VALLEY OF LIFE

Far from the relentless fields of brown we expected, record levels of spring rain had brought the valley to life. Hailing from Portland, OR, we wouldn't go as far as calling the flora abundant, but we were treated to both a surprising amount of greenery and an occasional display of wildflowers, known as ephemerals due to their short-lived nature. Short lived seemed an appropriate descriptor of anything foolish enough to try and make a living in Death Valley.



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## FEAR NO EVIL

Death Valley's name actually originates from a group of pioneers who became lost during the winter of 1849-1850. While the entire party assumed the valley would become their grave, all but one of the group survived. Our intentions were to avoid both the fear of and the actuality of our demise by staying hydrated and carrying plenty of supplies, and alas, we all lived to tell the tale. Although we never found ourselves close to any real danger, it was easy – and somewhat fun from our perch of safety – to envision a scenario where events could snowball into a situation where this might not be the case.

## DETACHED

Straddled between eastern California and Nevada, Death Valley encompasses over 5,200 square miles. Not designated as a national park until 1994, the Valley is best known for its harsh climate, ghost towns, remnants of abandoned mining operations, and rattlesnakes. The park now sees almost 1.3 million visitors per year, although during our visit in early spring, we had the roads – and campsites – almost completely to ourselves.





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## DIVERSITY

The geologic diversity the park offers is more than impressive. From Badwater Basin, the lowest point in North America at 282 feet below sea level (ironically, sitting less than 85 miles east-southeast of Mount Whitney, the highest point in the contiguous US, at an elevation of 14,205 feet), to the otherworldly Ubehebe Crater (formed by a hydrovolcanic eruption, leaving a crater over a half mile wide and almost 800 feet deep), there's a lot to see. And there's no better way to see the park than by bike; you'll definitely want to include a decent camera and an extra battery on your packing list.

Oh, and we'd suggest the widest tires your bike can accommodate if you plan on leaving the paved roads. The gravel roads are abundant but are some of the roughest we've ridden, and if you want all-access, we'd recommend going with 40cc tires and a low PSI.





## NIGHTFALL

We spent 4 nights camping in the park, with Mesquite Springs Campground as our chosen base, partly because of its proximity to some of the gravel roads in the northern part of the park, partly because we knew it would be far less busy than the campgrounds further south and closer to Furnace Creek, and partly because of the easy access to Ubehebe Crater.



Sunsets in the park did not disappoint, nor did the evening excursions under the stars. As the sun slowly set each evening beyond the western edge of the Panamint Range, the sky would explode with color. With very little air pollution, the sky in Death Valley is extremely crisp and clear, and an almost perfect darkness resulted in a pretty spectacular display of stars. As Carl Sagan said, 'there are billions and billions of stars in our galaxy,' and once the sun sets in Death Valley, almost each star seemed as though it was on display.



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## RISE AND SHINE

If there was one downside to our trip, it was the wind, which was ever-present. Throughout the night, our tents incessantly flapped with a ferocity appreciated by no one. Coupled with temperatures in the low to mid-30's, we found it especially difficult to extract ourselves and our gear from our sleeping bags each morning.

The saving grace, however, as so often is the case, came in the form of both Remi's cooking and pour over coffees from Stumptown Coffee Roasters. Warm bellies led to the desire to begin our cycling explorations, and so began each day.

## PERSPECTIVE

Perhaps as a result of the vastness of our surroundings, perhaps due to the heat and absolute void of water, or perhaps because you could literally ride for hours and not see another human, Death Valley has a way of making you feel small and perhaps a bit insignificant. It also provides you with a certain amount of appreciation for a world that exists well outside our daily realities. Spend even a couple of days in the Valley and you begin thinking about life in terms of survival. Not necessarily yours, but everything around you, from the plants and spring flowers to the wildlife. Simply stated, Death Valley would be an extremely hard place to live, and somehow this made our time here more meaningful, in a way that only seeing a completely different perspective can provide.



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## RITUALS AND ROUTINE

Our days were structured around riding and around food: wake up, eat breakfast, ride, eat lunch, ride, eat dinner, and then sit around the campfire and relive the stories of our day. There was plenty of time to relax and explore in between meals and spins on the bike, and perhaps even a little fun with the lights in the evenings if we still had energy. Great food, great friends, and great riding; we'd argue it can't really get much better than that.

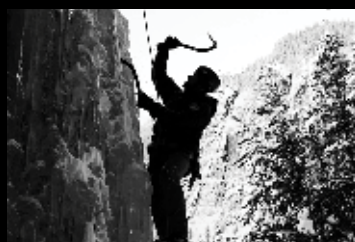
## INTO THE SUNSET

Religious or not, riding in Death Valley makes one recollect the oft-quoted Psalm, Even though I walk through the valley of the shadow of death, I will fear no evil... While one mustn't necessarily fear walking (or riding) in the Valley, having a certain level of respect is prudent if not a necessity. And with an appreciation for the adventures of each day, and an astounding admiration of our surroundings, we ended each day as it started, riding into the sunset and dreaming of another day on the bike.

For more awesome Squadra Avventura adventures visit: [www.squadra-avventura.com](http://www.squadra-avventura.com) **AW**



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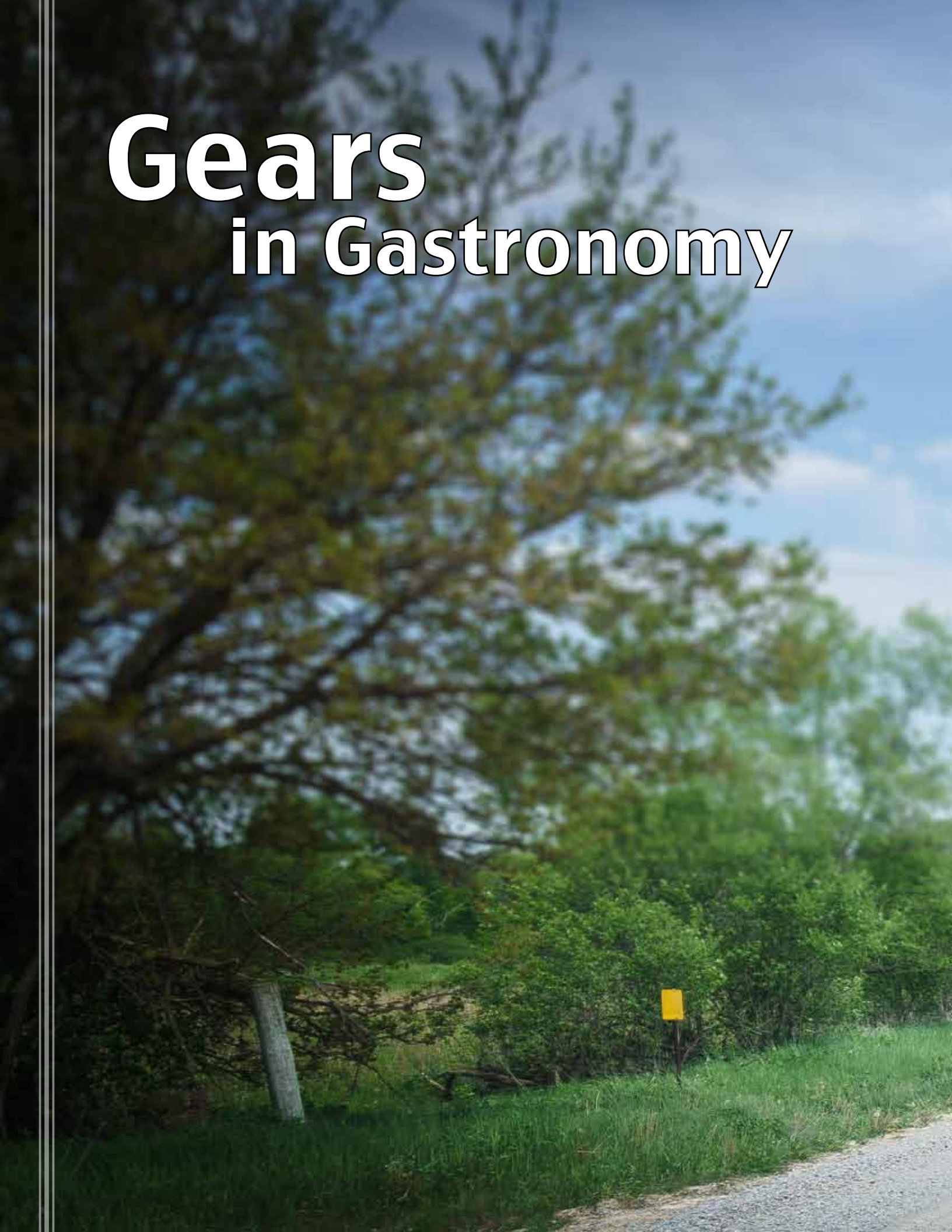
## 2018 USARA Adventure Race National Championship

The USARA is excited to announce that the 2018 USARA Adventure Race National Championship will be held in Bloomington, Indiana on September 28 & 29, 2018. The championship race will be produced by DINO, who have a long history of producing fun and exciting events including previous USARA Adventure Race National Championships. Qualifying for the championship is already taking place so be sure to find a qualifier and get your team to the 2018 championship.

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# Gears in Gastronomy



by Audrey Wiedemeier

Monday morning I called Lois up, and she starts right in: “A fox got to the chickens the other day. The mama fox is just trying to feed her babies. We probably end up feeding them every other day.” On May 14th farmers Lois Pavelka and Bill Ellison hosted 175 bicyclists at their farm, Pavelka’s Point Meats, northeast of Iowa City, Iowa where they care for around 400 animals. I’ve had the pleasure of knowing Lois for nearly ten years, so I also know that the fox episode is merely the start to another eventful day on the farm. “Every day is a surprise because we are managing a lot of livestock,” Lois continues. “The livestock are always testing the fences. Especially when the ewes have young ones; the lambs will break down gates to get back to their mothers. The last time the cows were in heat, the bulls broke out in search of them. And because we don’t want calves in January, we were relieved when we realized the bulls were too stupid to find the cows.” Corn and beans are more controlled, Lois tells me, but livestock are a different story. Want an adventure? Start a small farm.



RadTour organizes one-day adventurous bicycle tours to meet the Superhero Farmers; the folks who are fueling the real food movement. Farms are paired with a chef serving up seasonal food and ferments. Reluctant to act on that romanticized dream of moving to the country and raising your own food (cue *The Country Life*, by Crash Test Dummies)? Alternatively, let the Rockstar Chefs stationed at the farm stops inspire you to bring the zest into your own kitchen more often. Paired with Pavelka's Point Meats this past Spring on RadTour Cedar Rapids, Andrew Hoffman, head chef at Quarter Barrel Brewery, served a ramped-up version of the classic Greek Salad. Following Andrew's gustatory delight of lamb and pork meatballs on a bed of organic sprouts, pickled ramps, homemade quark cheese, pickled oyster mushrooms and drizzled with greek yogurt sauce, the next ten miles of the route was an equally exquisite smattering of all the different flavors of gravel.

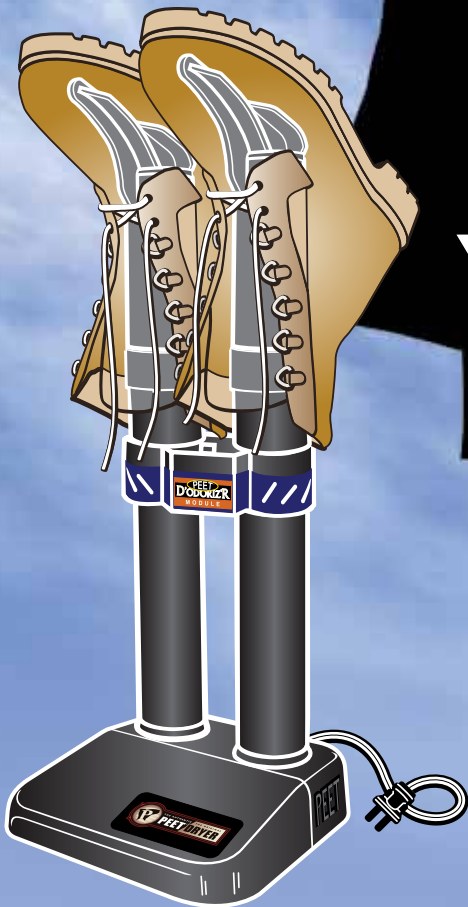




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After a late night dealing with coons in his own chicken coop, I caught up with a tired Andrew Hoffman. He admits that the adrenaline junkie side of him really enjoys working the line in a kitchen, as well as experimenting with local products that are in season. “There are always new ingredients at the farmers market. When I find a new ingredient I bring it into the kitchen, and find a way to work it into the menu for next year.” Says Hoffman. Many of the chefs RadTour works with have a similar philosophy to Andrew’s, which is why we refer to them as Rockstars. Instead of resting on entirely semi-truck sourced menus because local ingredients are more expensive, Andrew fills me in on various ways he works around the price point argument. “I love foraging in the woods for wild edibles and bringing them back to the restaurant to cook with.” Free is a good place to start. Andrew has also been ordering from Lois every two weeks for nearly three years so he knows when she’s got extra of something, which means he can negotiate the price a bit while conceiving creative combinations of ingredients for the menu. “It’s unusual to find someone like Andrew,” Lois tells me. “I like working with him because I need year round business orders from restaurants in addition to the 6 months of farmers markets to keep the business going.”



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Rolling out of Pavelka's Point Farm, the bucolic rolling green pastures sprinkled with lambs and sheep were the yin to the freshly laid gravels' gnarly yang. Small scale farming isn't a walk in the park, and though each route is different, RadTour bike rides aren't always easy either. RadTour hopes folks experience a step outside of their comfort zone, if not in cycling, then in the culinary arts. Rockstar Chefs worked nearly twenty different fermented items into their menus on RadTour Cedar Rapids giving every rider at least one thing they'd never tried before. Andrew's menu alone boasted that all ingredients were sourced from within thirty miles. Get out of town - connect with the soil, farmers, and food we eat. Find inspiration from eating seasonal foods you didn't know how to use, and take a step beyond the grocery store aisle. Find the freshest ingredients possible, invite some friends over, turn up the beats, and get creative in the kitchen.

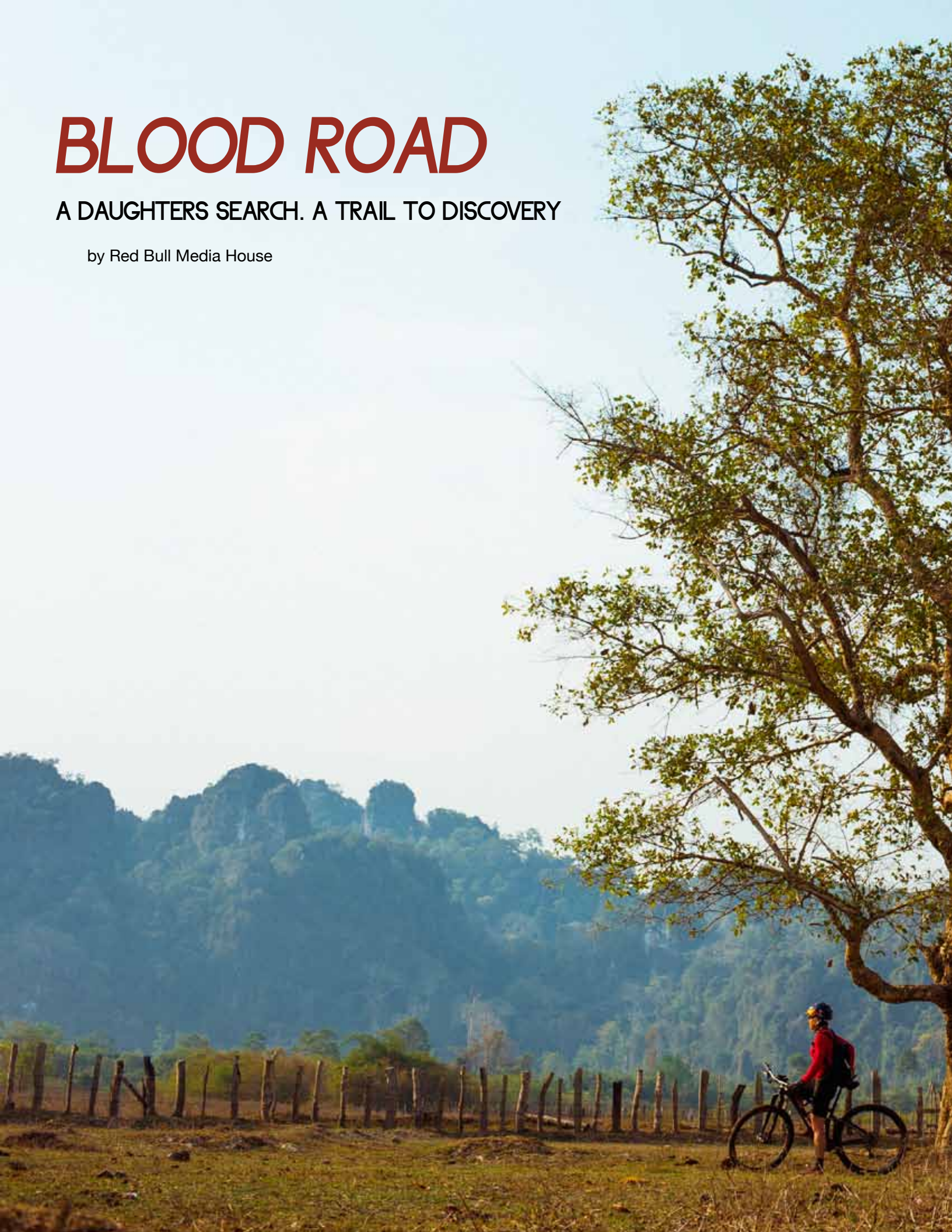
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# ***BLOOD ROAD***

A DAUGHTERS SEARCH. A TRAIL TO DISCOVERY

by Red Bull Media House





Rebecca Rusch, affectionately known as “The Queen of Pain”, is among the greatest female ultra-endurance mountain bikers in the world. Although she’s used to pushing her body to its limit, nothing could prepare her for the emotional journey she took in 2015 when she pedaled 1,200 miles of the Ho Chi Minh Trail in search of the site where her father, a US Air Force pilot’s, plane crashed during the Vietnam War. *Blood Road* is a journey of hope and discovery—a way for Rusch to begin a fresh relationship with the father she lost so long ago. Joined by Vietnamese competitive biking champion Huyen Nguyen, Rusch travels through the dense jungles of Laos, Cambodia and Vietnam. While Nguyen helps Rusch understand the cultural context of her quest, the women forge a deep bond triggered by a shared experience of war and loss. As the pair tests the boundaries of their athletic abilities, occasionally reaching their breaking points, they learn how conflict connected their cultures, even as it tore their families apart. They also glean the tragic history of the “Blood Road,” which leads them through the heart of darkness and into the light of local villages and Buddhist monasteries still marked by the painful relics of war, and populated by generous townspeople who share their stories. These experiences create a rich backdrop leading to the poignant moment when Rusch and Nguyen finally arrive at the crash site, marking the end of one story and the beginning of another. Throughout her journey, Rusch continues to synthesize how her family’s story flows into the river of history that continues to define the lives of generations of Southeast Asian people.

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## **When did you first have the idea to ride the Ho Chi Minh Trail and what was your inspiration?**

It was 2003 when I first visited Vietnam and that's when the seed for this expedition was planted, but it took another 12 years for it to materialize. I was competing in a jungle expedition race that entailed navigating more than 1000 miles of the brutal terrain on bikes, in kayaks, and on foot. We weren't being shot at, but we were being chased as we struggled to survive the intense elements and unforgiving landscape. Physically immersing myself in the jungle of Vietnam gave me a distinct feeling of empathy for my Dad that I had never felt before. I wondered, "Is this similar to what he and the other soldiers went through?" After the race ended, my mom and I visited Da Nang Air Force Base, where my father was stationed, the DMZ (demilitarized zone) the border between the north and the south, and the Khe Sanh, the location of one of the bloodiest battles in the war. So many physical remnants of the war still remain such as bomb craters, defoliation from Agent Orange, tunnels that were homes and plane wreckage. But the people have moved on and in most places the landscape rejuvenated, like at Khe Sahn. It's now a beautiful coffee plantation and you would never know it's horrific history without reading about it in a book. This was where our guide at the time pointed out the Ho Chi Minh Trail across the border, and I could see a little road running through the jungle. I knew my Dad, an Air Force fighter pilot, was shot down over the Ho Chi Minh Trail, but I didn't know much more about it's complex history or the route. I took a picture of the lush green hills and the trail. I had a fleeting thought that I wanted to go there one day and

travel along that trail. I didn't think about it again for years. In 2007 a search and recovery mission finally identified my dad's remains at the crash site, and that's when we finally knew that he had died in the crash that day in 1972. It took 30 years for us to know that he wasn't alive, that he wasn't a prisoner of war. There was part of me that was relieved to find out he was dead, more than anything that he hadn't been tortured and hadn't suffered. This discovery sparked my curiosity about the place and I thought again about going back. As my cycling was evolving to include more expedition riding, my idea to ride the Ho Chi Minh Trail took shape. After 15 years of working with Red Bull as an athlete it was natural to team up with them to tell this story. It was really once I dove into the digging process with Red Bull Media House that we began to see the depth of the story, and we all realized that there was a feature length film to be made. The inspiration was twofold: to attempt the biggest, most adventurous ride of my life and also to explore my family history and find a piece of myself that I never knew. The research and collaboration with Red Bull Media House was an exciting and creative multiyear process, a true collaborative effort.

## **In planning the journey, how did you choose where to start and finish?**

One of the most fascinating and complicated aspects of this journey was the historical research required to map the route and plan the ride. The Ho Chi Minh Trail was the main supply route constructed and used by the North Vietnamese to move soldiers, equipment, and ammunition during the war. The trail started in Hanoi, the main city in the north, and stretched thousands of miles, all the way to Saigon,



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now called Ho Chi Minh City. For this film we decided to follow the historical flow from North to South. We began the route outside of Hanoi in the small town of Tan Ky. This is where the official start of the trail was and now there is a Zero Kilometer monument in the center of town. The 1200 miles along the way were a mix of all types of terrain from paved roads to remote jungle foot paths where we needed machetes. The route took us through Vietnam, Laos and Cambodia. Towards the end, we entered back into southern Vietnam and finished in Ho Chi Minh City on the grounds of the Independence Palace, which at the time of the war was the official residence for the President of South Vietnam. Staying true to the history and integrity of the specific route of the trail was important to me. The route we choose was

mapped and researched by Laos resident and mapmaker Don Duvall. Don has spent over a decade devoted to exploring and mapping Laos and Cambodia, specifically the Ho Chi Minh Trail. He was the teammate that brought this goal to reality.

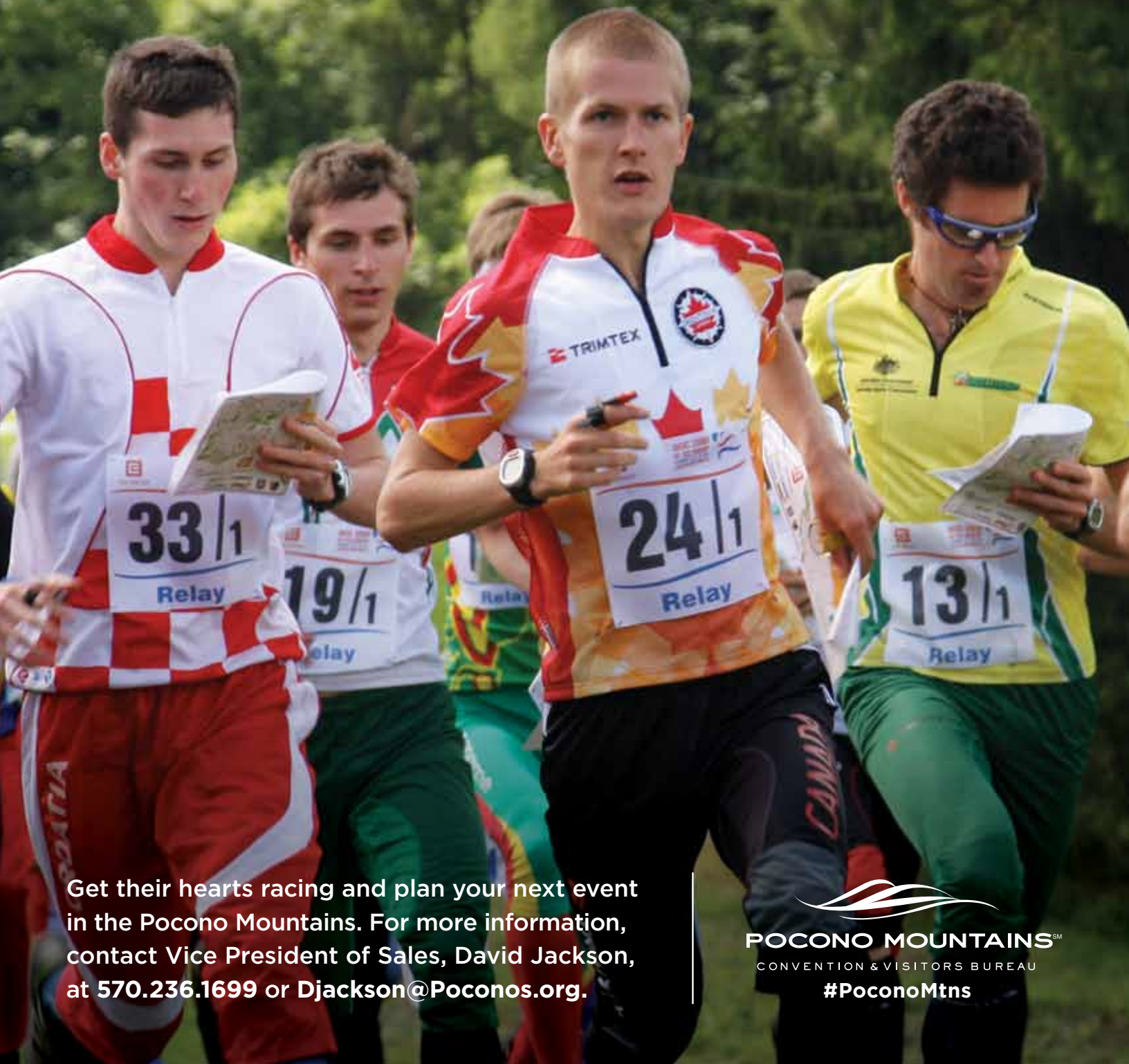
### **How did you do to train for this ride?**

My coach likes to tell me it's better to stay ready so you don't have to get ready. My lifestyle and work revolve around training, so I was already pretty fit but I also feel like my whole life has been a preparation for this journey. Every sport I've done has honed the skills that were needed on this ride; even whitewater rafting and rock climbing expertise came in handy. The navigational skills, teamwork and logistical planning that I developed adventure racing



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were also essential tools. When you combine the strain of disruptive sleep, the hours each day on the bike, exposure to the elements, and perpetual motion day after day; all of these things take a massive, cumulative toll physically and emotionally. It takes years to develop the durability and the maturity required for multi-day expeditions like this one. Thankfully I had these years of experience and training to fall back on, because we had just a couple months' notice once the trip was approved. All of my training at home ramped up when I got the news. I live in the mountains and it was November, so that meant indoor training on the bike, long backcountry ski days with a heavy pack, cross country skiing and snow biking. I also spent time in a sauna for some heat training to help my body with heat adaptation. Most of the

training was endurance based. Over the long haul of multi-day expeditions, what's important is how well your body holds up, how little do you break down, not necessarily how fast you are. The most challenging aspect of preparing for this trip was not the physical preparation since I'm adept at training my body. The logistical preparation was far more stressful. We had to carefully strategize on what gear to take, like what type of clothing for the jungle environment, medical kit for unknown injuries, spare bike parts, lights for night riding, and ultra-light camping equipment. Knowing that we had to travel light and carry much of this gear on our backs was a big consideration.

#### **What couldn't you prepare for?**

I couldn't prepare specifically for the terrain because



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we didn't know what we were going to encounter. We had mapped the most historically accurate route possible, but the remote nature and the lack of information left so many unknowns that we had to uncover along the way. Even the trails that were mapped change each rainy season. Bridges get washed out all the time and roads that are supposed to be there aren't there. There was so much that we couldn't plan for and we had to just be flexible and face the challenges as they came up. If I had been a less experienced athlete, I would not have had the ability to adapt and deal with the changing environment and massive demands of an expedition like this. I also couldn't prepare for the emotional journey. I had to just let it unfold naturally and try to be open and accepting as I ventured into this kind of unknown territory.

## **Describe an average day on the trail while making "Blood Road"?**

There was no such thing as an average day on the trail, but one thing is for sure, the pace moved much more slowly than I'm accustomed to as an athlete. Since this was a film production, we formed a different sort of team with a bigger mission than just going as fast as possible. Each day we planned to roll out early to avoid the riding in the heat of the day, but that was almost always pushed back due to film logistics like charging batteries, packing equipment into trucks, loading the motorcycles with film equipment, filling water and food for a day on the trail. The film team was also taking part in a brutally demanding expedition, so flexibility and patience were always part of our daily routine. Often the bicycles were the most nimble and quickest mode



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of travel on the trail, so that allowed Huyen and I time to interact with locals, take photos and get to know each other when we weren't pedaling forward. Much of the trail was not accessible by vehicle, so this meant our support vehicle would leapfrog around and meet us at specific points. Often we wouldn't see the support rig for the entire day, so we packed up to be self-sufficient, loaded down with water, food, map, small medical kit and bike repair. The terrain was often remote jungle dotted by tiny villages connected only by small footpaths. The motorcycle film crew was often close by or ahead filming. But there were hours of every day when Huyen and I were quietly riding through the jungle alone with nothing but the sound of the insects and the wind in the trees. Those are some of the most cherished moments when I was in my element, free of any distractions. At the end of the long riding days, we would all regroup as a team. When we rolled into camp, the day's work was far from over. We had hours of tasks to reset our gear and our bodies for the

next day ahead. This included hand washing our clothes, refilling water and food, reviewing the next day's route, bike maintenance, stretching, eating, maximizing recovery time, team planning and film crew prep. There really was this rhythm of controlling what you can so that when all the unpredictable things happen on the trail, you're at least in control of things like your gear, your map, and your physical well-being. It was a very simple and pure routine. Focused, but detached from distractions in a way that we don't often get in everyday life. The entire team was focused on the same goal at the same time, which was a rare gift to experience.

### **What motivated you more; the physical journey or the emotional journey at the outset?**

I initially planned the trip as a physical challenge... because that's what is familiar to me. This was a dream expedition; heading into the unknown and mapping our own route in remote places that few people had ever visited. I was extremely motivated and intrigued by the history of

the trail and wanting to see what was out there. Of course, my Dad's story is what inspired the idea, but I didn't set out to plan an emotional journey. I'm not sure anyone can plan for that type of thing.

### **Did that change by the end?**

I had the crash coordinates as my main goal the whole time. That was the reason to do this physical journey, but I didn't expect the kind of emotional transformation that I

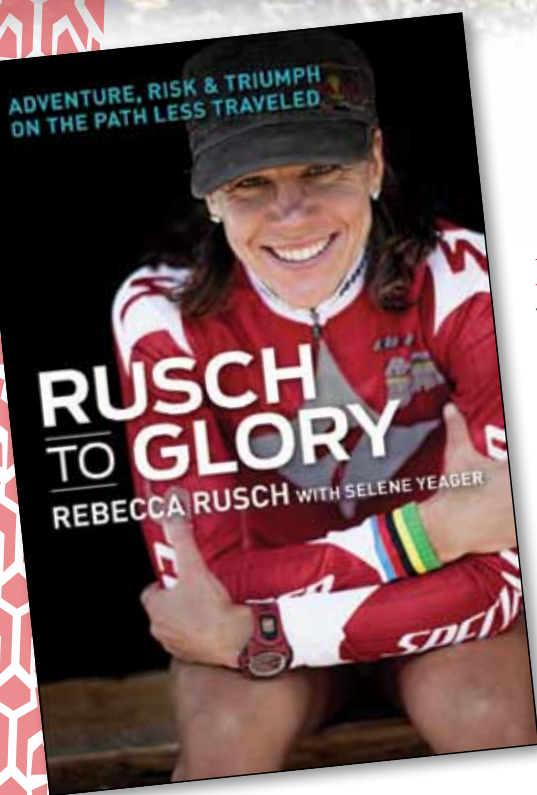






had. Slowly day-by-day, I started to change. It was almost imperceptible and two years later, looking back, I can see it. Huyen could see it, the film crew could see it, and it comes across on screen too. What I thought would be the most challenging ride of my life became the most impactful ride of my life for very different reasons. In the end, the physical journey was the easiest part for me. Getting to the crash site was more impactful and expansive than I expected. I am not the same person as the one who began the ride. Obviously, I knew it would be emotional, but as we rode closer to the crash site, I started to strongly feel my dad's presence. The many miles on the bike riding toward the place allowed me time to mentally prepare, to meditate and also physically strip away my armor. It sounds very cliché but I finally found what I was looking for, even though I wasn't aware that I was searching. All my life as an endurance athlete people have asked, "Why do you push so hard? Why do you do such long races? What are you searching for?" I never had an answer for that and I never would have said, "I was searching for my father," because it just didn't occur to me. Now it's clear that he brought me there to find a missing part of myself. Initially I was frustrated that the film crew slowed me down, but now I'm grateful because it gave me a lot of time to journal, and think, and process. As a competitive athlete, I'm usually trying to go fast to win a race or break a record and rarely take time to slow down. The hardest part for the film crew and Huyen was probably stripping away my competitive nature for this ride. It was a sore point for the early part of the trip, but eventually I was able to let go of what I trained my whole life to do and experience this ride in a more complete way. After reaching the goal of the crash site, we

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still had hundreds of miles of riding ahead. I felt a lightness, happiness and stillness that I've never felt while riding my bike. I was still moving the pedals like before, but I was free. It's hard to articulate, but it's as if I was no longer looking for something. I was completely at peace in the moment without having to strive for the next accomplishment. Looking for him at the crash site was really about finding out and understanding who I am and what is important to me.

**Was there a moment when you thought that you wouldn't be able to finish?**

The first hour of the ride, was the only time I had serious doubts about finishing. It was really upsetting. My knee was hurting, I felt out of breath and I was struggling and seriously doubting my ability and preparedness. Looking back, I think it was just a weird physical reaction to all the emotional stress of preparing for the journey. It was such condensed planning, many unknowns and my preferred strategy for a trip this big is to be prepared. I felt anything but prepared this time. I was riding with a teammate that I'd just met, I had no idea where we were going or what was ahead and it really hit me once we started riding. I went through about an hour of feeling really emotionally depressed when I should have been excited to be on the trail. Then my body remembered what it was supposed to do and after that, there was never one moment of doubt. I know Huyen and Don had their doubts and I know the crew had

their doubts, but I didn't. I was so motivated by what I was seeing and experiencing. I felt a magnetic pull and super human strength to finish.

**Your choice of Huyen Nguyen a Vietnamese rider with family who fought with the North Vietnamese during the war added an interesting perspective to the story. How did you connect with her and plan for this journey having never ridden together before?**

We felt that riding with a Southeast Asian partner would help me discover the country and experience the ride with a completely different perspective. I didn't have a lot of confidence that we would find the right teammate with the combination of physical and interpersonal skills that would work for something this big. I've never planned an expedition of this magnitude with a stranger. We found Huyen through research and word of mouth. She's the most decorated cyclist in Vietnam and has won the Southeast Asia games four times, which is a really big deal. But she's been retired



from racing for 10 years, she's a mom of two, she works, she's been away from regular training for a long time, and she had little notice, like I did, to prepare. We met for the first time authentically in the film. I admit, I was terrified. Having a new partner was the one thing that I was the most unsure about, because it was the one thing that was completely out of my control. She had so many new things to learn about expedition riding. I taught her how to use a Camelback. The brand new Niner bicycle was different than what she used to ride. I just didn't know if she could take the day-to-day toll. It takes a certain mindset and physical ability to be able to ride for 8-10 hours a day for almost a month. She ended up being the perfect teammate and I would not have guessed that she would do as well as she did. She exceeded my expectations. I thought she would get partway through and have to quit, but she didn't. What she lacked in experience and training, she made up for with determination and dedication. She was so compassionate, intuitive and supportive of my mission

that we ended up becoming like sisters in the end, and we are now bonded for life from this experience.

### **What did you learn from Huyen during this journey?**

She taught me to slow down, which allowed me to look, to listen, to change focus from just me and look outward beyond just my mission and open my eyes to the bigger world around me. This change in pace and perspective allowed me to experience the ride in a much more complete way. She also taught me that you don't need words to communicate and that despite very different upbringings and experiences, we are all very much the same. And she is very friendly, where I'm more quiet and reserved. She would tell me how rice is planted and harvested and she let me know that the people we were riding by were probably laughing because they can't believe that two women are out riding in the countryside by themselves. And she would share stories about what her family was going through during the war from her perspective. What I predicted would be the biggest



weakness and challenge during the trip ended up being one of the most enlightening and powerful aspects.

**Your nickname is the “Queen of Pain” and you are in a very independent sport, how did you have to adjust to take on a ride like this with not only a partner, but also a film crew?**

The biggest adjustment on this expedition was that most of us were strangers at the start of the trip. With the exception of Jason my lifetime mechanic and my husband, Greg, I didn't know anybody. I'm not a stranger to team sports though; I am very experienced at working in stressful team environments such as the fire department, adventure racing, and rock climbing. Throughout the years I've learned people's idiosyncrasies, like being able to read Huyen, when she was hungry, but she didn't really want to say. I've learned to read subtle physical cues to help take care of my teammate. It was a long expedition and that allowed us time to get to know each other. I didn't know Nick [Director], I didn't

know Huyen, I didn't know Ryan [Director of Photography], but they knew that I was intensely focused on my goal to finish this ride. We also aligned on our collective goal to document this story in a beautiful way in order to share it. When the team dynamics got challenging, I kept reminding myself that we all wanted the same thing, so we could find a way to work together as a team. Our team really became a family about 10 days into the trail, when I played my dad's song for the crew. When they heard his voice and his words it was a turning point for us because they understood why I was there and could see how important this journey was to me.

**What was the most amazing moment on your journey?**

Getting to the crash site. I knew it would be emotional but I didn't expect it to be such a peaceful place and I didn't expect to really feel like he was there. To, for the first time in my life, feel my dad...



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**Do you feel that this journey changed you? How?**

I feel whole. I thought about it a lot in the two years since we've been home how it changed me and I think it awakened a part of me that has always been there, my dad's DNA has always been part of me, but it was under developed. We all have the characteristics of both our parents in us. I share my mom characteristics; type A, go-getter, independent, those things have been very well nurtured in my life and in my career they've served me really well. I feel like the missing part of me that's been suppressed and the part that I held in a lot is being open or emotional. I feel like those are more of my dad's traits that haven't been nurtured as well. I'm finding out that if I do open up, and this film is a big part of totally opening my soul to strangers and learning that if I do that,

what I get back in return is 10 times. The more that I give, the more I get. I think the biggest change is realizing that he is alive within me and that he's part of me forever. I can celebrate his traits and get to know who he was and what he was like and through stories from my family and his letters. I am letting that part of me shine through. I've found a more complete version of me, a better version of me.

**If people leave this film with only one take away, what would you want for that to be?**

Forgiveness and acceptance. The forgiveness for me is forgiving myself for all my shortcomings and forgiving our war and all the atrocities. Forgiving the hatred that took people over there or the placing blame on what happened in the past. Forgiving the differences between our cultures.

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**You are now leading tours in Laos to share the journey, while educating about unexploded ordnances, can you tell us more about that?**

The biggest most shocking discovery on the whole trip was how much of our trash and unexploded ordnance are still there. Riding and looking at bomb craters along the trail and then finding out that villagers are still being killed every year was a devastating discovery. The war ended 45 years ago and it is still killing people. That to me was appalling and as I spent more time with these villagers, I felt shameful and it became apparent that I had to do something to help expedite the healing so forgiveness could truly happen. I started educating myself about the Mines Advisory Group and the work that is already being done to clear the land. It was a powerful realization that I can be part of the recovery

and use this film as a message. My bike rides can be an outlet to show others what I've seen. I've decided that it is my responsibility to share what I have learned and to be part of the solution. My inheritance from dad was to learn that I could use my bike for a bigger purpose than winning races. I could use my bike to facilitate change and recovery. Looking back, it seems obvious that this lesson from my Dad was waiting for me. I thought it was going on this bike expedition and that it would be a very personal journey and now I'm realizing that this whole story is so much bigger than just me. It's a story for veterans, for families, and for the villagers in Laos. It's a global story of forgiveness and I feel a big responsibility to be the messenger and to tell it well.

For more Information: [www.BloodRoadFilm.com](http://www.BloodRoadFilm.com) **AW**

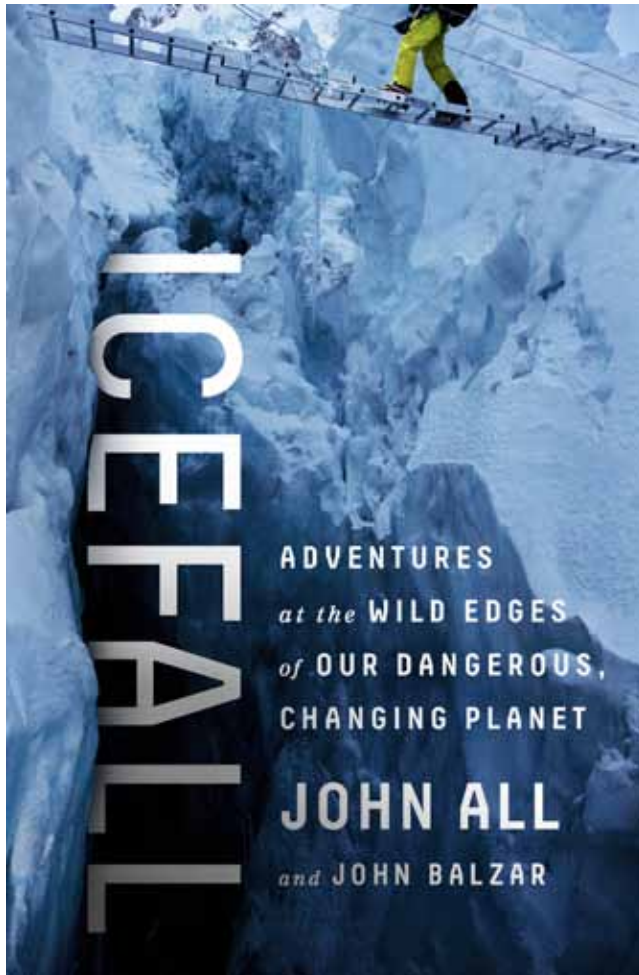


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## *Icefall by John All*

In May 2014, mountaineer and scientist John All fell into a 70-foot crevasse near Everest. Though badly injured—fifteen broken bones, internal bleeding, and a severely dislocated shoulder—he took a series of videos as he struggled to climb out through the ice and snow. They went viral, appearing in newscasts all over the world and on media websites from People Magazine to National Geographic. NPR called him “a badass for science.” Yet this is only one of many adventures this Western Washington environmental science professor shares in his new book, ICEFALL. His stories include outrunning a wild hyena, stepping on a black mamba in the African bush, and scaling Everest, all in pursuit of his passionate exploration of the impact of global warming. More than just an adventure story, Dr. All provides dispatches from the most extreme posts on earth and lessons for how humans will need to adjust as our world continues to change beneath our feet.  
[www.hachettebookgroup.com](http://www.hachettebookgroup.com)

## *Yeti Duracoat Rambler*

The Yeti Duracoat Rambler is a nice addition to the tumbler line and adds Seafoam, Tahoe Blue, Olive Green & Black color choices to the original stainless steel model. Featuring 18/8 stainless steel double wall vacuum insulation the tumbler keeps its contents hot or cold for an incredibly long time while not sweating and not freezing or burning your hand. Yeti tough and dishwasher safe, the Duracoat Rambler Tumbler is the perfect accessory for your hand.  
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# Product Reviews

FALL 2017

## *UCO Sweetfire Strikable Fire Starter*

The UCO Sweetfire Strikable Fire Starter sure beats rubbing 2 sticks together for a fire. The box contains 20 Strikable Fire Starters that are infused with vegetable wax to provide up to 7 minutes of burn time each. Did we mention that the Sweetfire is made from a sugarcane by-product called bagasse that is already commonly used around the world as a renewable biofuel - SWEET. Just break off a point, strike it on the box and enjoy your fire. Get with the times - the UCO Sweetfire Strikable Fire Starter is the new camping match.

[www.ucogear.com](http://www.ucogear.com)



## *Thermacell Halo Patio Shield*

The Thermacell Halo Patio Shield provides 225 square feet of silent and odorless mosquito protection. Thermacell has increased the burn time for the Halo which can provide up to 48 hours of protection by using 4 fuel cartridges. The Halo is easy to operate and includes a viewing window like other Thermacells devices which glows orange when ignited. The Halo also has a white ring around the body which is the ZoneCheck Monitor that runs on 4 AA batteries. While the Halo is heating up the ring pulses but once the Halo reaches operating temperature the ring glows solid, letting you know the zone of protection is in place. This feature is also handy when the fuel cartridge runs low as the ring will start to pulse telling you it is time for a new fuel cartridge. If the batteries run down the Halo will still operate but the ZoneCheck Monitor will cease to work. Available in white, black or gray the Halo will insure your evening outings are bite free.

[www.thermacell.com](http://www.thermacell.com)



## *Kershaw Reverb*

The Kershaw Reverb is a light weight functional knife that is perfect for just about any outing. The Reverb features a carabiner clip and a pocket clip for easy attachment to just about anything. The 2.5 inch PVD coated modified drop point blade is a traditional manual opening blade but has a machined recess for 1 handed opening and a frame lock to keep it in place once opened. The carbon fiber overlay & grey body combine to create a beautiful knife and the minuscule 1.6 ounce weight make it the perfect companion for any adventure.



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## *UCO Stormproof Torch & Utility Tape*

The UCO Stormproof Torch & Utility Tape is a great 1-2 punch for covering your gear needs on any overnight outing. UCO leads off with a triple jet refillable butane torch that provides plenty of firepower to light a campfire on even the windiest day. The adjustable flame torch features a stormproof case with a carabiner so you can hook it to your backpack. Wrapped around the case is 3 feet of something you should always have in the woods - duct tape! Patch an air mattress, repair a tent pole or stop your tent mate from snoring by simply tearing off a piece of duct tape and applying where needed. UCO has done it again and the Stormproof Torch & Utility Tape are a great addition to your mandatory gear.

[www.ucogear.com](http://www.ucogear.com)



## *Kelty Linger Get Down Chair*

The Kelty Linger Get Down Chair is an ultra-compact, lightweight collapsible chair that is perfect for sporting events, camping and outdoor concerts. The Linger Get Down comes with a handy carrying bag and the aluminum frame assembles in less than 1 minute. Built to last the 3 pound chair can support up to 300 pounds and is sure to make you the king of the camp fire ring. The Linger Get Down is slightly reclined and has a built in headrest to keep you chilling in comfort for the duration of your event. Stop messing around with the pretenders and get yourself a Kelty Linger Get Down Chair.

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## *Zing Thumb Chucks*

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[www.thumbchucks.toys](http://www.thumbchucks.toys) **AW**



# The Inaugural USECF Gravel Grinder Nationals

by Lawrence Dreyfus





I was excited and a bit surprised when earlier this year the, newly-formed, United States Endurance Cycling Federation (USECF) announced the inaugural Gravel Grinder national championship race to be held in my hometown of Lawrence, Kansas! Call me biased, but northeast Kansas does have some of the very best gravel roads around and the gravel cycling community in this part of the country is second to none. “Gravel racing” and “Kansas” used in the same sentence will always conjure images of the “Dirty Kanza”, the now iconic granddaddy of all gravel races. Launched 13 years ago, the DK200 has grown from a small band of local riders setting off on an epic 200-mile race across the rugged gravel roads of the Flint Hills of Kansas, to an internationally recognized event now synonymous with challenging and unforgiving conditions and organizational excellence on every front. Its popularity is, in part, responsible for spawning numerous self-supported gravel endurance races across the Midwest and the entire country for that matter. Launching the inaugural Gravel Grinder Nationals (GGN) in Dirty Kanza country thus immediately thrust the USECF in the position of having to live up to some sky-high expectations from some world class riders in the epicenter of U.S. gravel racing!



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From the very start, the GGN materials posted on the USCF website were thorough and professional and only heightening my level of anticipation and excitement for the event. As with all self-supported gravel endurance races it “gets real” when the course is revealed and you begin pouring over the path and terrain in an attempt to get a preview of what to expect. Being familiar with the gravel roads around Lawrence, KS, I was initially surprised that the GGN would leave Clinton State Park and eventually head south, thus bypassing some of the very best and most challenging gravel roads around, namely those to the north and east in Jefferson and Leavenworth Counties. However, once the race was underway, and throughout the entire day, the course proved to be challenging, fast, and covering great gravel roads, some that were even new to me! In addition, running the course in and out of Lone Star Lake for 2 slightly overlapping loops was brilliant planning since it allowed a convenient single location for the two oasis stops at 40 and 75 miles. Plus, Lone Star Lake is one of the truly beautiful and well-ridden cycling spots in Douglas County, KS.

Though mentioned in the race promotional materials, the 12-15 miles of paved roads breaking up the much longer gravel segments, was an interesting feature to this race that is atypical to most gravel events I have participated in. I’m sure this routing was borne more out of convenience rather than intention, but I found that it gave the race a fresh character that was both unique and exciting from the perspective of race tactics.





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And speaking of racing, being over 60 years old, I truly appreciated there being a 60+ category in the GGN. It's tough at 64 to compete with the 50 year olds! Some of those dudes are really fast! Case in point, John Harp of Monument, CO, the 50-54 age group winner, finished the 112-mile course in 6:06:48 tying for the 5th best overall time! That's flying on gravel! Racing in my own age group allowed me to challenge my best effort while legitimately racing for a spot on the podium. From about the 35-mile mark to the finish line, I was in constant contact with two other racers in the 60+ category. Fully aware that besting these two other riders could be a ticket to podium my day was about keeping their wheel when slower and pushing distance when possible; though I ended up missing the podium by a fraction of a second in a sprint to the finish, it was an exciting day of racing! What's not to love about that?

Did the USECF Gravel Grinder Nationals step up the challenge? From this rider's perspective, the USECF GGN was an amazing success! The race was extremely well-organized and flawlessly-executed and given only minimal local organizational support (it's tough doing these things long-distance for the first time), the race came off exceptionally well. Moreover, the after-race food and "party" atmosphere was much appreciated after 112 miles of gravel racing! Much credit goes to the organizers, sponsors and the many volunteers of this event who really pulled off a fun, family-oriented, day of racing. I sincerely hope the USECF plans on returning to Lawrence, KS for the 2018 race! I'm sure it will be even bigger and better. [www.GrinderNationals.com](http://www.GrinderNationals.com) **AW**





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# Family Fun Adventures in Southwest Colorado

by Troy Farrar

We headed to Southwest Colorado for a few weeks packed full of fun family adventures. We choose Ouray as our base camp which is a marvelous little town known as the Switzerland of Colorado. One look at the towering peaks that surround Ouray and you realize how this mining town got it's nickname. Ouray has a ton of fun activities, some amazing hiking trails, a couple of awesome waterfalls and lots of restaurants & little shops. Ouray is a great location as a home base providing easy access to all of the other amazing towns we visited.

## Mesa Verde, Colorado

### Mesa Verde National Park

The Mesa Verde National Park was established to preserve the archaeological sites built by the Ancestral Puebloans who inhabited Mesa Verde for more than 700 years (550 A.D. to 1300 A.D.). There are over over 4,700 archaeological sites including



600 cliff dwellings which are some of the most notable and best-preserved ruins in the United States. We took the 700 Years Tour which I would highly recommend. The 700 years tour provides a historical overview of the Ancestral Puebloans' architecture and culture by visiting several archaeological sites in chronological order. The 4 hour tour travels by bus to each site where you disembark and get an up close view of the ruins along with a detailed description by your guide. The trip culminates with a visit to the Cliff Palace, which is the largest cliff dwelling in Mesa Verde and an amazing site to visit. There are several other tours as well as self-guided hikes that you can take in the park. Mesa Verde should become one of your bucket list items as the experience is awe inspiring and unforgettable. [www.visitmesaverde.com](http://www.visitmesaverde.com)

### Far View Lodge - Mesa Verde National Park

The Far View Lodge is a great place to stay while visiting Mesa Verde National Park and the only hotel located inside the park. Conveniently located 15 miles inside Mesa Verde National Park near the guided tours and most of the self-guided hikes, there is also a small store and a restaurant in the Far View Lodge. The rooms were nice and simple reflecting the true essence of Mesa Verde, providing solitude from the distraction of in-room TVs replaced by great views of Mesa Verde. Our room had a nice balcony and featured a fridge and free wireless Internet. [www.visitmesaverde.com](http://www.visitmesaverde.com)





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## Telluride, Colorado

### Camel's Garden Hotel – Telluride, Colorado

The Camel's Garden Hotel is the perfect place to set up your base of operations while visiting Telluride, Colorado. Camel's Garden is in historic Telluride which is only a couple of blocks from the main drag with tons of restaurants & shops and only 50 feet away from the free gondola that takes you up to the Telluride Mountain Village. The Camel's Garden Hotel room was very spacious and we even had our own fireplace & private balcony. Our room was perfect for a family of 4 with two small children and would be my pick for any future visits to Telluride. The Camel's Garden Hotel is a luxurious hotel with a choice of rooms, suites & condos that will enhance your visit to Telluride. [www.camelsgarden.com](http://www.camelsgarden.com)

### Telluride Mountain Village

There are more summer adventures than you can imagine in Telluride, Colorado. Telluride features some amazing hiking & biking trails along with rock climbing, paddle sports, camping, fly fishing and horseback riding. If you are into motorized exploring there are jeep, motorcycle & ATV rentals along with miles of trails for exploring. Throw golf & disc golf into the mix and there is something for everyone. We rode the gondola halfway and then took the ridge trail down to Mountain Village which was the perfect scenic trail for families with younger kids. There are also several waterfall hikes out of Telluride which are fantastic. If you have young kids don't miss Gravity Play in Mountain Village. You can get a pass for the American Ninja Warriors styled ropes course, have battles in the giant balloon water walkers, reach for the sky on the bungee trampoline and find some treasures as you pan for gems at the mining trough. All of the guides at Gravity Play were fun & friendly enhancing the experience for both the kids and parents alike. Telluride is a great place to visit in both the summer and winter and will leave you with great memories. [www.visittelluride.com](http://www.visittelluride.com)

## Ridgway, Colorado

### San Juan Balloons

The San Juan Balloons hot air balloon trip was another highlight of our visit to Ouray. Much more than just a balloon ride San Juan Balloons provides a hot air balloon experience that begins when you arrive and get to help set up & inflate the balloon. Soon you rise into the sky on a peaceful flight surrounded by the San Juan Mountains. Our flight varied from soaring high above the valley to an amazing drop where we were mere feet above the river and our kids actually picked a leaf from a tree as we rose out of the river bed. We experienced amazing views and even saw a mule deer cow and calf crossing the river. Our pilot Gary made the trip much more than a simple balloon ride and the experience was an amazing way to start the day. After the ride we had a delicious breakfast and traditional champagne toast as we learned a little about the history of hot air ballooning. Their passion for ballooning was evident as San Juan Balloons went the extra mile to make our hot air balloon experience one of those unforgettable moments of a lifetime. Be sure to take a flight with San Juan Balloons when you are in the area as you are guaranteed to create some lifelong memories. [www.sanjuanballoon.com](http://www.sanjuanballoon.com)



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The APEX Enduro Run Short is perfect for those who need extra storage during training or races. It features extra pockets for your gear, food and valuables. Mesh side panels offer increased ventilation and keep you comfortable at all times. The leg length is perfect for on the trail and also hanging out at the coffee shop after your run.

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## Silverton, Colorado

### Old 100 Gold Mine Tour

The Old 100 Gold Mine Tour in Silverton is hands down the best mining tour I have ever taken. The tour starts as you ride into the Galena Mountain mine in an original vintage electric mine train. The guides are all miners so they are knowledgeable about all aspects of mining which made for a fascinating tour. During the tour you will see lots of actual demonstrations from drills to slushers & mucking equipment, as your guide operates the equipment used in mining. Learn about the rigors of a mining life as you stand in the Old 100 surrounded by the equipment used by the miners. When you emerge from the tour you can try your hand at panning for gold, silver & copper at the Old 100 and you get to keep whatever you find. The Old 100 Mine Tour was a fun & interesting insight into mining and a must do activity in the Silverton area. [www.minetour.com](http://www.minetour.com)



## Durango, Colorado

### Purgatory

Purgatory provides a host of summer activities surrounded by beautiful mountain views in the Durango area. The Total Adventure Ticket is you pass to a long list of exciting activities such as summer tubing, a rock wall, bungee trampoline, alpine slide, miniature golf, gyro chair, alpine slide, zip lining, scenic chair lift, adventure ropes course, paddle boarding, boating, treasure panning, bounce house & down hill mountain biking. We kept busy going from one great activity to another as we spent a day of fun in the sun at Purgatory. When you need a break there are several nice restaurants where you can grab a bite and enjoy an outdoor lunch surrounded by the beautiful mountain peaks of Purgatory. If you decide to venture out a little further there are lots of choices from mountain hikes, jeep, atv & UTV rentals, horseback tours and even white water rafting. If you like being outdoors then Purgatory has plenty of outdoor activities and is a great place to spend some time during the summer. [www.purgatoryresort.com](http://www.purgatoryresort.com)



### Soaring Tree Top Adventures

I have been on several zip lining tours around the country however Soaring Tree Top Adventures completely blew us away with a totally different experience. We started by catching the Durango / Silverton Express narrow gauge train through the mountains which is the only way to access the Soaring Tree Top Adventures property. Once on property our friendly sky rangers took us on 27 different zip lines including one that was 1400 feet long – the longest in the U.S. We spent the day soaring back and forth across the Animas River, learning cool tricks and having the time of our lives. During the day we were also treated to several educational breaks where we learned about the mountains, local plants, animals and the history of the area. For our lunch break we were treated to a chef prepared gourmet meal on a platform by the river which we chose from a list of meal options when we first arrived. The day ended with a train ride back to our cars and some permanent smiles on our faces. Soaring Tree Top Adventures is a definite bucket list activity and a must do zip lining experience when in the Durango area. [www.soaringcolorado.com](http://www.soaringcolorado.com)





## Ouray, Colorado

### Ouray Hot Springs

The Ouray Hot Springs Pool & Fitness Center opened in 1927 after several years of hard work & construction by the local citizens. Drawing both local and international visitors for over 90 years the Ouray Hot Springs provides sulfur free hot springs water ranging from 80-106 degrees. The mountain views are unbelievable as you relax in the warm water of the shallow pool, the hot pool or the overlook pool. There are several choices for the more active crowd ranging from a lap pool, an inflatable obstacle course, water slides and a climbing wall. There is also a fitness center, float rentals and a restaurant on location. The Ouray Hot Springs are the perfect place to relax after a long day of hiking and a fun place for a family to spend the afternoon. [www.ourayhotsprings.com](http://www.ourayhotsprings.com)

### Action Adventures Trail Rides

I believe a horseback ride in the mountains is a must when you are in the area where True Grit was filmed and the guides at Action Adventures Trail Rides are the perfect choice. The guides are friendly and helpful with a great stable of horses that will take you on amazing mountain trail rides. There are plenty of epic views as you mosey along on the trails in the mountains around Ouray, Colorado, so don't forget your camera. Action Adventures Trail Rides offers trail rides of differing lengths along with overnight trips and even guided hunting trips later in the season. So give Action Adventures Trail Rides a call, grab your reins and start making memories that will last a lifetime. [ride.actionadventures.net](http://ride.actionadventures.net)

### Wiesbaden Hot Springs

The Wiesbaden Hot Springs Spa & Lodge is a small, intimate natural hot springs spa which includes a vapor cave, a soaking pool and a lodge. Surrounded by the awe inspiring San Juan Mountains, the Wiesbaden provides a relaxing and rejuvenating soak in the healthy continuous flow hot springs. Choose from the hot springs vapor cave located in and under the mountain, below the Wiesbaden's main lodge area with a 108 degree soaking pool, the 99 to 102 degree outdoor swimming pool or rent the Lorelei, a private outdoor spa with soaking pool for that romantic evening. All of the springs at Wiesbaden are non-recirculating, naturally flowing pure hot springs that contain no chemicals or additives. The Wiesbaden also offers a full range of spa treatments. Work out those sore muscles after that day on the trails by treating yourself to a relaxing visit to the Wiesbaden Hot Springs Spa. [www.wiesbadenhotsprings.com](http://www.wiesbadenhotsprings.com)

### Switzerland of America Jeep Tours

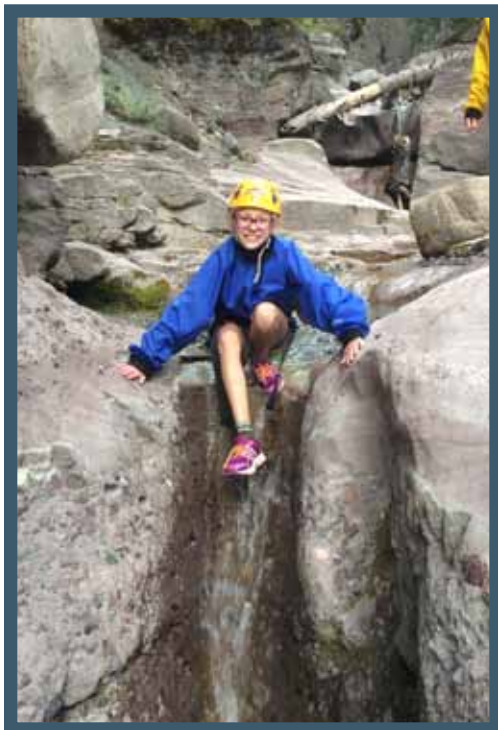
The Switzerland of America Jeep tours are a fantastic way to see the San Juan Mountains surrounding Ouray and learn the mining history of the area. Our jeep tour took us to areas that we never would have experienced and provided some amazing photo opportunities of the area. We saw ghost towns, active & abandoned mines, waterfalls, wild flowers and beautiful mountain vistas. Our guide was an amazing fountain of knowledge from the mining history of the area to the different types of wild flowers and really added to the tour. We even had time to stop and have a quick snowball fight which was great as our kids don't see much snow in Texas. The tours are available in half & full days or you can rent a Jeep and head out on your own adventure. The Switzerland of America Jeep tour was a great way to start the day and we highly recommend getting a tour on your schedule. [www.soajeep.com](http://www.soajeep.com)



### San Juan Mountain Guides Canyoneering

The San Juan Mountain Guides Canyoneering trip was a highlight of our visit. We had a great guide, Mason, who was both patient with the kids and a lot of fun which definitely added to the trip. We started out at a practice rock where Mason made sure everyone was proficient and comfortable with rappelling (Mason also provided a backup belay). Then we were off to canyoneering, which is traveling down a stream bed that is bordered on both sides by high canyon walls. To successfully travel down the canyon requires you to scrambling over rocks and rappel down waterfalls. There were fantastic photo opportunities and a lot of smiles on our canyoneering trip. We had an amazing time and made some lifelong memories as we traveled down the canyon with Mason. A San Juan Mountain Guides Canyoneering trip is a must do bucket list item if you are ever in the Ouray area and they can tailor the trip for your experience level. We had an 8 & 10 year old that had never rappelled and they had the time of their life. San Juan Mountain Guides also offer lots of other services such as alpine, rock & ice climbing, skiing & expedition trips. So add it to your bucket list and make sure to take a San Juan Mountain Guides Canyoneering trip when you are in the area.

www.mtnguide.net **AW**

A photograph of a group of children and adults on mountain bikes, smiling and posing for a photo. They are wearing helmets and backpacks. The background is a dirt trail with trees.

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### Start *or* Fund a Trips For Kids Program!

**Many kids never leave their own neighborhood to enjoy the beauty of nature.**

That's why we started Trips for Kids, an international non-profit organization that provides mountain bike rides and environmental education for disadvantaged youth. You can start a Trips for Kids<sup>®</sup> chapter in your area. We'll assist you, at no charge, by supplying bikes, helmets and support ... based on 25+ years of experience.

You can also make a difference by donating money, bikes or equipment (new or used). All donations are tax-deductible. Want to get involved? Consider volunteering or otherwise supporting a chapter in your area.

**Make a difference: [tripsforkids.org](http://tripsforkids.org)**

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Berryman	9/9/17	Rolla, MO
Florida 24	9/9/17	Florida
Coosa River Challenge	10/7/17	Wetumpka, AL
Storm the Eastern Shore	10/7/17	Salisbury, MD
CIA - Central Indiana Adventure	10/14/17	Anderson, IN
Pisgah 26.2 Hour	10/21/17	Brevard, NC
The Fig	11/4/17	Slade, KY
Turkey Burn Adventure Race	12/2/17	Apopka, FL
Raid the Rock	12/9/17	Little Rock, AR
Florida 24 Adventure Race	12/30/17	Marianna, FL

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# Going Carbon

by Troy Farrar

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Carbon Fiber has been leading the way as a stiff, chemical resistant, high temperature tolerant material with an amazing strength to weight ratio. What does all of that tech talk mean to us outdoor loving lay folks? Well it means that Carbon Fiber equipment is tough as steel but light as a feather and can take the abuse that often happens while we are playing outdoors. Here is some of the great carbon fiber equipment that is available for your upcoming outings.

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## THE LEKI MICRO VARIO CARBON ANTISHOCK TREKKING POLES

*The Leki Micro Vario Carbon Antishock Trekking Poles are a minimalist dream. These trekking poles separate into 3 sections which are connected by a cord leaving them a mere 15 inches long when disassembled for traveling but can be reassembled using the Speed Lock 2 system in less than 5 seconds. The Aergon grip provides several comfortable options including palming and includes a thermal extension that gives you 12 inches of gripping options. Ultra-light breathable straps will keep your poles secure and the built in dynamic suspension system will reduce impact and eliminate vibrations that can irritate shoulders and elbows while trekking. The carbon fiber trekking poles adjust from 110 – 130 cm and the flexible carbide tip will provide miles of secure grip in just about any terrain. The Leki Micro Vario Carbon Antishock Trekking Poles are both compact & light enough to take on any adventure and are guaranteed to make your trek more enjoyable. [www.leki.com](http://www.leki.com)*



## CHRISTENSEN ARMS CARBON FIBER BOTTLE OPENER

*The Christensen Arms Carbon Fiber Bottle Opener is light weight enough that you will never even notice it has been added to your keychain, that is until you need it. A slim & sleek bottle opener that looks more like something from a formula one car, these bottle openers make great gifts. Laser engraved with the Christensen Arms logo this is definitely something for the most interesting man in the world. [www.christensenarms.com](http://www.christensenarms.com)*



### VANGUARD VEO2 235CB TRIPOD

The Vanguard VEO2 235CB is a light weight carbon fiber tripod that is packed full of heavy weight features. The 5 section carbon fiber legs can be quickly extended up to 57.1 inches using a simple twist lock system and also features 3 different angles (20°, 45°, 80°) combined with non-slip rubber feet which insure a stable platform on uneven terrain. The multi action ball head is controlled using 3 separate knobs which include lock, pan and friction control for up to 13.2 pounds of equipment and will move into any position you can imagine. The lightweight portable tripod comes with a travel bag and a soft rubber handle which provides a solid grip in any condition. The Vanguard VEO2 235CB is a super stable, lightweight and durable dynamo that will provide the foundation for great images in both rough and smooth terrain. [www.vanguardworld.us](http://www.vanguardworld.us)



### CHRISTENSEN ARMS CARBON FIBER MONEY CLIP

The Christensen Arms Carbon Fiber Money Clip is a minimalist dream. This light weight money clip is laser engraved with the Christensen Arms logo and will add a touch of class to you bank roll. A functional piece of art the Christensen Arms Carbon Fiber Money Clip is both rugged and sleek. [www.christensenarms.com](http://www.christensenarms.com)



### ULTREC QUICK CHANGE CARBON FIBER STICKS - TRIPOD

The Ultrec Tripod Quick Change Carbon Fiber Sticks feature ultralight carbon fiber legs that will not weigh you down on your next hunting trip. The 360 degree rotating gun support make it easy to follow a moving target and can be removed and replaced with other mounts which are securely held in place using the push button Posi-lock system. The 3 section telescoping legs provide unlimited options by extending from 24 – 64 inches and lock in place with a simple flip tab lock. Each leg features an 8 inch foam grip which provides for easy and quiet handling and there is an included Velcro strap to keep the legs secure while traveling. Ultrec also makes bipods and mono pods and all of their products come with a 1 year warranty and a handy carrying case. The Ultrec Tripod Quick Change Carbon Fiber Sticks provided added support & stability for a range of shooters from youth to those who have been hunting for decades and will help insure you stay on target. [www.ultrec.com](http://www.ultrec.com)



### SPARTAN PRECISION EQUIPMENT JAVELIN BIPOD LONG

The Spartan Precision Equipment Javelin Bipod Long is an adjustable, light weight quick attaching bipod. Made to last a lifetime, the Javelin long is a sturdy bipod made from aluminum & carbon fiber that can withstand the harshest conditions. The extendable legs adjust from 8.1 inches to 11.8 inches and combined with the built in cant provide a large window of variation while being compact enough to carry in your pocket. Using a strong magnet, the bipod can be attached to your rifle in a couple of seconds. Spartan Precision has a variety of adapters for just about any rifle which allows you to switch the bipod between firearms as needed. The Javelin can be placed facing forward which allows swivel or placed backwards which locks the bipod in place. Featuring rubber & tungsten carbide feet that will insure a stable base in any environment, the Javelin bipod long is a light weight heavy duty performer. [www.javelinbipod.com](http://www.javelinbipod.com)

### SPARTAN PRECISION EQUIPMENT POUCH

Spartan Precision Equipment has teamed up with Niggeloh from Germany to provide a great belt pouch for their bipods. The neoprene & leather pouch is light weight and has a flap to keep your bipod secure. The pouch also features a webbing belt loop and is a great accessory for those who don't want to carry their bipod in a pocket. Niggeloh also makes a rifle sling and a rifle back pack sling for Spartan Precision Equipment [www.javelinbipod.com](http://www.javelinbipod.com)

### SPARTAN PRECISION EQUIPMENT SPARTAN 300

The Spartan Precision Equipment Spartan 300 is the next step in the evolution of bipods by providing a light weight carbon fiber bipod that can remain folded and locked on the rifle when not in use. Using a quick connect magnetic attachment system, the stainless steel, aluminum & carbon fiber bipod is ultra-light weighing in at 5.6 ounces and has 6-9 inch extendable legs that will insure you are on target in any terrain. The Spartan 300 folds both forward and backwards on the stock and the legs are outfitted with tungsten carbide tips which come with detachable rubber covers. The 300 provides a large range of travel with both rotation & cant which allow you to make accurate shots from just about any terrain. The magnetic attachment system can be combined with a variety of adapters for just about any rifle and also allows you to switch the bipod between multiple firearms. Spartan Precision will be the last bipod you need and is guaranteed to keep you on target without weighing you down. [www.javelinbipod.com](http://www.javelinbipod.com)



### SMOKE COMPOSITES OPEN SHOULDER STOCK

The Smoke Composites carbon fiber open shoulder stock in short pull length is the lightest stock ever produced. Smoke Composites also offers a carbon fiber stock with a closed shoulder plate which weighs just a hair more than the open stock and provides a little more durability. The Smoke Composites stocks are functional pieces of art, which are beautifully handcrafted and tough as nails. All of their stocks can be custom built to any desired length. Smoke Composites also offers an ultra-light weight carbon fiber buffer plate & aluminum castle nut to keep your rifle light and round out your custom build. [www.smokecomposites.com](http://www.smokecomposites.com)



### **FIERCE FIREARMS C3 CARBON BARREL**

*The Fierce Arms C3 Carbon Barrel is built using a unique 3 step layup process that produces a stiff and accurate barrel. Fierce starts off with their match grade hand lapped barrel. They add several layers of carbon fiber in a unidirectional application manner that gives the barrel a 3 times higher modulus (stiffness) which produces better accuracy. The second stage is a Hoop process which is a 90 degree carbon wrap that provides increased barrel strength. A controlled tension filament wind process finishes out the process producing a perfectly uniform barrel. The result is a stiff barrel with smaller vibrations and increased heat dissipation that provides reliable accuracy. The Fierce Arms C3 Carbon Barrel is a perfect choice for an accurate custom rifle build and will not let you down when you need to make that long range accurate shot. [www.fiercearms.com](http://www.fiercearms.com)*



### **IOTA KREMLIN STOCK**

*The Iota Kremlin composite molded rifle stock is combination of both a hunter and shooter stock shape resulting in a durable precision stock that increases stability from any shooting stance. Customizable to fit your exact needs, Iota starts with custom machined pillars that maintain action & bottom metal dimensions and minimize stock fatigue resulting in consistent accuracy. Each stock comes with a LimbSaver AirTech recoil pad, a vertical grip and an ambi palm swell. The Iota Kremlin is hand mixed and molded using a carbon fiber reinforced composite to maximize the stock's strength while keeping the weight at a paltry 2.5 pounds. Choose from a variety of colors, action lengths, barrel channels, bottom metal configurations and molded in ports which are all hand laid. The Iota Kremlin is a great carbon fiber base for your next custom rifle. [www.iotaoutdoors.com](http://www.iotaoutdoors.com)*



### **LANCER LCH5 HANDGUARD**

*The Lancer LCH5 Carbon Fiber Handguard is a great looking, light weight free float handguard. The octagon shaped handguard provides a sure grip and has cooling slots for the barrel and holes for a bi-pod or sling swivel. Lancer designed the sturdy handguard so it does not flex or compress when you apply pressure making this handguard durable enough for any application. The Lancer handguard comes with an aluminum barrel nut and is available in multiple lengths with multiple rail options. Customize your rifle with a beautiful and functional Lancer LCH5 carbon fiber handguard. [www.lancer-systems.com](http://www.lancer-systems.com)*



### CHRISTENSEN ARMS AERO GRADE CARBON FIBER SPORTER STOCK

The Christensen Arms Aero Grade Carbon Fiber Sporter Stock is made exclusively for Remington 700 actions. This 100% hand-laid aerograde carbon fiber stock is the same premium stock that Christensen Arms uses on their top of the line Summit titanium rifles. Equipped with built in carbon fiber bedding pillars, single front & rear sling studs and a Limbsaver recoil pad the Aero Grade Carbon Fiber Sporter Stock weighs in at 1 pound 10.4 ounces. This light weight stock will provide an ultra-accurate base for your rifle due to its strength and rigidity. Light enough to carry in the mountains for days the Christensen Arms Aero Grade Carbon Fiber Sporter Stock will be the envy of the hunting camp and provide you with the necessary tool to make consistently accurate long range shots. [www.christensenarms.com](http://www.christensenarms.com)



### CHRISTENSEN ARMS CARBON FIBER BARREL

Christensen Arms developed the first carbon fiber rifle barrel over 20 years ago and their continued innovation has led to some of the lightest and most accurate firearms in the world. The barrel lining is made from match grade 416R stainless steel and is measured to a tolerance of  $\pm .0001$ . Christensen Arms then uses a proprietary layering system that provides superior strength while producing a barrel that weighs less than a steel barrel of the same contour. All Christensen Arms Carbon Fiber barrels are button rifled and include a muzzle end thread protector. Christensen Arms has mastered the use of top tier aerospace materials and processes which results in light weight barrels with super accurate repeatable performance – what more could you ask for? [www.christensenarms.com](http://www.christensenarms.com)



### SMOKE COMPOSITES HANDGUARD

SmokeComposites newest carbon fiber handguard is one of the lightest handguards on the market but they do not sacrifice quality to shed weight. The sturdy handguard will not flex and retains its shape even under the most strenuous use. The ergonomic handguard is compatible with Magpul M-LOK rails and can be configured to handle any accessories you desire. Smoke Composites carbon fiber handguards are efficient heat dissipaters making them a great choice for any shooter who sends lots of rounds down range or utilizes a suppressor. Smoke Composites can custom make your handguard to any length and once you get your mitts around one of these handguards, you will wonder how you ever got by without one. [www.smokecomposites.com](http://www.smokecomposites.com) **AW**





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# Shooting Sports

## product reviews



### *Lucid Optics SC 9 Spotting Scope*

The Lucid Optics SC 9 Spotting Scope is a compact dynamo that takes the hassle out of lugging around a boat anchor of a spotting scope without giving up the features you demand. The 9x - 27 x 56 spotting scope uses ED glass and fully multi coated lenses providing exceptional color & contrast in an amazingly compact package that is small enough to be carried just about anywhere. The 9x - 27 magnification range gives you the ability to use the spotting scope at a fairly close range and still pull in those long range targets for clear viewing. The 56mm Objective lens works great in low light situations such as dusk & dawn and the oversized eyepiece with adjustable eye cup provides great eye relief for every situation from glasses wearers to contact lenses. Easy to operate the SC 9 has a simple twist to adjust 9x-27 magnification ring, a focus adjustment ring and comes with a carry bag, strap, lens covers and a lens cloth. The Lucid Optics SC 9 Spotting Scope has set the bar at a new height and the best thing of all is that Lucid has done it without breaking the bank. Once you get your hands, or should I say eyes, on a Lucid SC 9 spotting scope you are going to wonder how you ever lived without it.

[www.mylucidgear.com](http://www.mylucidgear.com)

### *Sitka Coldfront GTX Glove*

The Sitka Coldfront GTX Glove is a guide tested bullet proof glove built for extended exposure to extreme cold and nasty weather. The Coldfront features Primaloft insulation and high density fleece to provide the warming protection you need and follows it up with 3 layer GORE-TEX protection from the wind & wet. The short glove has an adjustable Velcro cuff closure, a finger pull off tab for easy removal, a tough nylon exterior and an oil-tac leather palm which provides excellent grip even in wet and icy conditions. Get yourself a pair of Sitka Coldfront GTX gloves and forget about cold hands on your future excursions.

[www.sitkagear.com](http://www.sitkagear.com)



### *Vanguard VS-82 Tripod*

The Vanguard VS-82 is the perfect companion for the Lucid Spotting scope. The VS-82 is an ultra- lightweight (.86 lbs.) and ultra-compact (9 inches folded) table tripod. Small enough to fit in a purse or day pack and light enough to carry on any outing the aluminum VS-82 is great for spotting scopes or cameras. The 2 way pan head can swivel 360 degrees and the non-slip rubber feet mounted on adjustable legs provide a great base for stable viewing & photography. The light weight Vanguard VS-82 made the decision to take along a compact tripod on your next outing a no brainer.

[www.vanguardworld.us](http://www.vanguardworld.us)



### *Sitka Cloudburst Pant*

The Sitka Cloudburst Pant in the new Optifade Subalpine pattern was designed to insure that miserable weather could not make you or your hunting trip miserable. These light weight GORE-TEX pants feature 4 deep front pockets for stowing your gear, dual full length side zippers to help regulate your temperature and elastic cuffs to seal you up and keep you dry. The 2 way stretch material is nice and flexible, the zippers are welded to keep them waterproof and the abrasion resistant material is tough enough to take just about anything you throw it's way. Light enough to pack on just about any outing, the Sitka Cloudburst Pant come with a belt and removable elastic suspenders and will keep you dry and smiling even in the harshest hunting conditions.

[www.sitkagear.com](http://www.sitkagear.com)



### *SOG Throwing Hawks*

The SOG Throwing Hawks are good old fashion fun in a sheath!

The 3 pack of one piece steel throwing tomahawks all fit in the nylon sheath and come with paracord wrapped handles. The SOG Throwing Hawks have a hard cased black coating for protection, making them extremely scratch resistant. The SOG Throwing Hawks were designed for target throwing but can be used as a perfect back up tool while camping. These Hawks will provide hours of entertainment in the back yard and on camping trips as you battle it out for the title of camp chief.

[www.sogknives.com](http://www.sogknives.com)



### *Muck Pursuit Snake Boots*

The Muck Pursuit Snake Boots are a warm weather, light weight boot that will protect you from snake bites during your outings in the woods. The tough full rubber exterior works great against thorns, saw briars and other harsh environments but the crown jewel is the protection from snake bites. Muck actually tested the boots by placing inflated balloons inside and having a 5 foot rattle snake strike the boots repeatedly. The rattle snake struck 13 times and there was not a single penetration of the Muck Pursuit Snake Boots. These boots were designed for warmer weather from 40°F and above and feature an XpressCool moisture wicking fabric liner and a friction defeating sock liner so you won't have to deal with blisters.

The boots feature an EVA midsole with aggressive outsole pods that provide great grip in any weather conditions. The Muck Pursuit Snake Boots are your feet & leg armour from mud, water thorns & even snake bites, so slip on a pair and know you are protected.

[www.muckboots.com](http://www.muckboots.com)



### *Peltor Sport Tactical 500*

The Peltor Sport Tactical 500 takes electronic hearing protection to the next level. The Tactical 500 features 3M Smart Technologies which automatically adjusts to the shooters environment and firearm sound and the clear voice tracking seeks out voices for improved understanding and tactical awareness. Bluetooth wireless technology allow you to sync the headset with mobile devices so you can make or receive phone calls through the headset and the recessed microphones reduce wind noise. The foldable Tactical 500 headset features a vented adjustable headband that is handy when wearing hats and low profile cups with cutouts. The controls are easy to use and the headset provides a 26 dB Noise Reduction Rating and auto shut off. The Peltor Sport Tactical 500 are cutting edge hearing protection and a must have for any serious shooter.

[www.3m.com](http://www.3m.com)





# CARBON BARRELS



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### *Kryptek Elite Range Bag*

The Kryptek Elite Range Bag is the newest offering in Kryptek's awesome line of bags & cases. The bag is packed full of features starting with an oversized ID holder and a U shaped zippered top closure that makes access to the main compartment a snap. The bag features 5 zippered pockets for magazines or other must have items, an elastic accessory holder, a separate brass bag and a removable magazine insert. Capable of holding 4 pistols and 7 magazines this oversized range bag has plenty of room for your essentials. The

tough 600D polyester weather resistant fabric is available in Typhon black or Raid grey and includes a padded shoulder strap with heavy-duty metal swivels. The fully stitched studded rubber footpads are a unique feature that keep the range bag dry in any conditions by lifting it up off wet or muddy surfaces. Get yourself a Kryptek Elite Range Bag and you will become the envy of all your shooting buddies.  
[www.kryptek.com](http://www.kryptek.com)



### *Kryptek Gunfighter Glove*

The Kryptek Gunfighter Glove is an all-around versatile glove for mild to moderate temperatures. These light weight gloves feature a reinforced durable outer shell that protect your knuckles and a touch screen index finger that allow you to operate your smartphone or GPS without removing your gloves. The same great surface that is on the palm & fingers extends between the thumb & forefinger insuring you won't lose your grip in a critical moment. These tough gloves cinch down nicely with a Velcro closure and have a small finger strap for easy removal. Treat your hands to the rugged Kryptek Gunfighter Glove and you'll be protected during just about any activity.

[www.kryptek.com](http://www.kryptek.com) **AW**



# SUPPRESSED

by Troy Farrar

We have all seen the virtually silent suppressor or silencer used in movies by secret agents like James Bond or Jason Boerne, but that depiction is not completely accurate. Suppressors muffle the sound of a firearm report significantly (just like a car muffler) but do not completely eliminate the sound as in the movies. As a matter of fact the first firearm suppressor was patented in 1909 by the same company that patented a gasoline engine muffler. But how does a suppressor work? When a gun is fired, the hot gas that leaves the muzzle is mixed with the cooler outside air resulting in a loud report. A silencer minimizes this report by directing the hot gas through the suppressor baffles which cools the gas and produces the silencer effect. So the 10,000 dollar question is why would a normal shooter want or need a suppressor? I have heard the acronym "HARP" used to describe the benefits of suppressor use; H is for hearing protection, A is for accuracy improvement, R is for recoil reduction and P is for preserved night vision. While all 4 are important benefits for shooters, I believe hearing protection leads the charge and the use of a suppressor allows you to shoot most calibers without wearing hearing protection. This provides better situational awareness by allowing the shooter & bystanders to go without ear protection as well as providing an environment where communication & instruction can be easily heard. Currently 42 states allow suppressor ownership and 40 states allow suppressors to be used for hunting. Ownership requires filling out an ATF application, waiting 8-12 months for ATF approval & paying a onetime \$200 tax stamp per suppressor.

If you are in the market to purchase a suppressor or any other NFA regulated item, forming a trust is an important consideration. We formed a trust through Crownover Law Firm NFA Gun Trust ([www.crownoverlawfirm.com](http://www.crownoverlawfirm.com)) as they are an inexpensive, trusted and experienced source for NFA gun trusts. Randy Crownover explained that all NFA regulated class 3 assets (suppressors, short barrel rifles, short barrel shotguns & pre 1986 automatic weapons must be registered with the ATF and a federal tax of \$200 must be paid for each item in order to obtain the required federal tax stamp. By forming a trust you can share ATF regulated assets with family and friends outside of your presence and without violating federal & state felony laws. A gun trust allows you to list an unlimited number of trustees who can all legally use the assets. If a friend is coming to town and you want to loan him a suppressor for a hunting trip you can temporarily add him as a trustee by signing a Request for Appointment as Trustee form, which is included

in the Crownover package. Later you can remove them from the trust by having them fill out and sign a Resignation of Trustee form. If you forget to have him fill out the resignation form before he leaves it is no big deal as you can complete a Removal of Trustee form which does not require his signature. The great thing is that none of these forms need to be filed anywhere, they are just stored with the trust documents. NFA Gun trusts and supporting documents do not have to be filed with any local, state or federal agencies and do not show up in any government databases. The ATF is the only agency that gets a copy when you purchase a NFA regulated asset and pay the \$200 tax and their copy is registered in the trust name and not your individual name. In contrast, owning a NFA regulated item as an individual means that item must be transferred by paying an additional \$200 federal tax or destroyed upon your death. The NFA Gun Trust lives on even if you pass away and all of your NFA regulated assets legally pass to your spouse, children or trustees without any cost or probate. Some people have formed LLC's or corporations for their NFA regulated assets which is a bad choice for individual or family NFA asset owners as these entities have annual fees, filing fees, franchise taxes and income tax complications that can become felony violations if delinquent. Whereas a NFA gun trust has none of these annual fees or potentially serious legal hazards. We would strongly recommend contacting the Crownover Law Firm if you are considering purchasing any NFA regulated items such as suppressors to discuss the benefits of a NFA gun trust.

There has been a huge growth in suppressor ownership over the past 5 years which has spurred a lot of growth in suppressor technology & trends. One trend has been to use suppressors that can be taken apart for cleaning for .22 rim fire & pistol calibers due to the fact that they generally have the most fouling build up. We suggest only purchasing suppressors with take down capabilities regardless of the caliber – why not have the ability to clean your suppressor. It is a simple equation; internal build up equals a less effective suppressor.

We chose some of the best take down suppressors available and only recommend using Titanium, Stainless Steel, and Inconel 7 with the unique preparation and cleaning method we will present which will make cleaning your filthy suppressors a breeze. All of the suppressors we tested cleaned up easily after 500 - 1000 rounds and we will be testing them further by running over 2000 rounds through each suppressor before cleaning - look for these results in an upcoming issue.

# Suppressors

## MACK BROTHERS VAPOR .22

The Mack Brothers have been manufacturing suppressors since 1997 and are well known for their high quality workmanship and attention to detail. The Vapor .22 is the shortest suppressor we tested measuring 5.5 inches making it perfect for rifle as well as pistol suppression. The full auto rated titanium Vapor is also the lightest suppressor we tested weighing in at a paltry 4.3 ounces, however the Vapor is definitely not light on sound suppression. Easy to disassemble with the included wrench, the 8 K-baffles cleaned up well and reassembly was a snap. The Mack Brothers Vapor .22 is a well-built suppressor that will keep your hunts or trips to the range silent & stealthy for years to come. [www.macbros.com](http://www.macbros.com)



## TACTICAL SOLUTIONS AXIOM .22

The Tactical Solutions Axiom features a unique stainless steel inner split tube which allows you to remove the K-baffles for cleaning no matter how dirty the suppressor gets. The 5.9" titanium suppressor is full auto rated and weighs 6 ounces. We found the Axiom was easy to disassemble and the 8 K-baffles cleaned up easily. The Tactical Solutions Axiom .22 comes with a heat resistant pouch and wrench for easy disassembly. The Tactical Solutions Axiom is a great all around suppressor for your .22 rifle or pistol and will provide years of silenced shooting. [www.tacticalsol.com](http://www.tacticalsol.com)



## THUNDER BEAST ARMS CORPORATION 22 TAKEDOWN

The Thunder Beast Arms Corporation 22 Takedown uses a Grade 9 titanium outer tube to shed weight and 17-4 stainless steel baffles. This multi-purpose full auto rated suppressor is 5.6 inches long and weighs 5.9 ounces. The 22 Takedown lived up to it's name and was easy to disassemble using the included tool. Once disassembled the TABC ULTRA Baffles cleaned up easily and assembly was straight forward because the baffles are keyed & labeled. Keeping the baffles in the same order assures solid POI for the life of the suppressor. The Thunder Beast Arms Corporation 22 Takedown will insure you are on target and will also insure that you do it quietly. [www.thunderbeastarms.com](http://www.thunderbeastarms.com)



## STEALTH ENGINEERING GROUP 9MM

Stealth Engineering Group has a unique custom approach to suppressors that allows users to order the exact configuration they desire. Customers can select a size from 13 different options, choose any caliber, select from 6 different combinations of materials for the monocoore baffles and outer tube from aluminum, stainless steel or titanium and finally choose from 6 different finishes. The titanium outer tubes have an option of several unique finishes that are infused through the outer tube and cannot be scratched or burned off. The titanium suppressors also feature limited full auto capability. The monocoore baffle design reduces weight significantly and the SEG suppressors are some of the quietest suppressors on the market. We chose a 9mm fully titanium Jefferson suppressor for our test. The monocoore baffle was easy to clean and a snap to reassemble. SEG offers a great suppressor and the ability to build a suppressor exactly to your specifications. [www.segsuppressors.com](http://www.segsuppressors.com)



## AMTAC SBR 5.56

AMTAC Suppressors are designed with both the shooters comfort & the end result in mind. The SBR we reviewed is a US made 7.7 inch suppressor that weighs in at 20.5 ounces. The SBR manages blowback by using a large blast chamber which ports gasses back into the first baffle eliminating the face full of hot gas that often comes with shooting a suppressed weapon and reducing recoil by acting as an internal muzzle brake. AMTAC reduces POI shifts by using a single piece baffle which eliminates turbulence in the bullet's flight caused by the propellant gases passing over baffles that are imperceptibly uneven. Combine this with a bulletproof lifetime warranty and you have quite a suppressor. We found the AMTAC SBR 5.56 broke down & cleaned up easily making it a great choice for your AR-15. [www.amtacsuppressors.com](http://www.amtacsuppressors.com)

## THOMPSON MACHINE 30Ti

Thompson Machine has been designing and manufacturing silencers for over 25 years and they hit a homerun with the 30Ti. This 100% titanium monocoire silencer is 8.3 inches long and weighs in at a measly 15 ounces which is unheard of in the 7.62mm category. Falling into the multiple caliber use category the 30Ti will work on anything that falls between a .22 long rifle and a .308 and has a limited full auto rating. The 30Ti is easy to disassemble and the bead blasted natural Ti finish cleaned up nicely without us worrying about removing the finish. The Thompson 30Ti is a great multi caliber suppressor that will keep you quiet and on target for years to come. [www.thompsonmachine.net](http://www.thompsonmachine.net)



## Rifles

### ANDERSON RIFLES AM-15 RF-85

The Anderson Rifles AM-15 Optic Ready with RF85 is unique in that it is the only rifle in the world that never requires lubrication. Anderson makes this possible by treating their rifles with RF85, a nano technology that permanently injects calcium into the molecular fabric of the metal. When heated and under pressure the calcium nano particles elongate and form a protective barrier that eliminates the need for lubrication. By eliminating oil, the carbon fibers are not trapped and baked onto the gun parts allowing the Anderson Rifle to run much longer without being cleaned. The RF85 reduces friction by 85%, producing a 23% faster action. When you get ready to clean the rifle all it takes is a little liquid detergent and water. The Anderson Rifle AM-15 Optic Ready comes chambered in .223/5.56 with a 16" Chrome Moly Vanadium Steel M4 contour barrel and a 17-4 stainless steel match grade Trigger and Hammer. We love shooting the suppressed Anderson Rifle because the RF85 coating make it easy to clean the extra fouling caused by suppressors making this the perfect firearm for suppressor usage. [www.andersonrifles.com](http://www.andersonrifles.com)





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# Accessories

## Suppressor Covers

### COLE - TAC PYTHON

The 1.9 oz Python is the lightest suppressor cover in the Cole-Tac stable and will ensure you have a clear sight picture by mitigating the mirage that comes off your suppressor. The inner cover is rated to 1800°F and the outer cover is made from 1000 D Cordura Nylon with fire resistant thread and the BOA strap system that will insure the cover stays in place while in use. Cole-Tac allows you to customize the Python by choosing the size and the outer shell color from 12 options, 6 strap colors, 3 buckle colors and they give you the option of adding a stricta cord. Make sure you clearly see your target and protect your skin from accidental burns with the Cole-Tac Python. [www.cole-tac.com](http://www.cole-tac.com)



### MANTA M7000 SUPPRESSOR COVER

The Manta M7000 Suppressor Cover's proprietary materials and design provide protection from accidental burns while reducing IR signature and mirage. Available in 1.5 inch diameter, the Manta covers can be trimmed to fit different lengths and can be interfaced together for a custom fit. The ribbed design provided for speedy cooling and we were able to touch the cover bare handed after a long string of fire. The made in the USA Manta is available in black, olive drab, dark earth and cammo. Manta also makes barrel covers and hand guard covers to extend the heat protection for the shooter. [www.mantadefense.com](http://www.mantadefense.com)



### ARMAGEDDONGEAR SUPPRESSOR MIRAGE COVER

The Armageddongear Suppressor Mirage Cover is designed to reduce the heat mirage in bolt action and semi-automatic rifles so you can make accurate shots and multiple shots through a high powered optic. The made in the USA Armageddongear cover is light weight and easy to install or remove using the adjustable shock cord. The thermal lining will protect the outer cover and protect you from accidental burns by a hot suppressor. Available in A-TACS AU, A-TACS FG, Black, Coyote Brown, Coyote Tan, Foliage Green, Multi, Cam, Ranger Green & Kryptek Highlander the Armageddon Gear Suppressor Mirage Cover will insure you are able to stay on target during your next big hunt. [www.armageddongear.com](http://www.armageddongear.com)



### YANKEE HILL MACHINE SUPPRESSOR COVER

Yankee Hill Machine introduced a line of suppressor covers in 2017 that are available in 6.5 & 8 inch lengths. Consisting of a slip on 3000°F rated inner sleeve and 1000 Denier Cordura Nylon 3 strap Velcro and buckle outer sleeve the suppressor cover installs in less than a minute. Once installed we did not have any slip or shift and the suppressor cover eliminated mirage, IR signature and the chance of accidental burns. The made in the USA cover is currently available in black and fits 1.6 diameter suppressors. Built with the same quality that Yankee Hill Machine has become known for the YHM Suppressor cover will keep you covered no matter how long your next shooting session lasts. [www.yhm.net](http://www.yhm.net)





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Anderson Manufacturing, the leader in AR-15 style rifles, is proud to announce the AM15-M4-TAC. This AM-15 comes chambered in .223/.556 with a 16" M4 contour barrel and utilizes a carbine gas system and low profile gas block. This AM-15 is ready for the field with Magpul MBUS flip-up sights, Magpul Angled foregrip, Magpul BAD Lever, and a Magpul enhanced trigger guard. With picatinny rails on all four sides, and our 2 to 1 tactical sling, the M4-TAC is always ready to fire, right out of the box.

**Visit [andersonmanufacturing.com](http://andersonmanufacturing.com) to learn more.**



### ELITE IRON SUPPRESSOR WRAP

The Elite Iron Suppressor Wrap is designed to eliminate optical mirage and accidental burns during precision and bolt action shooting. Using a combination of 1000D FR Cordura, NOMEX and Carbon X the Elite Iron is the thinnest suppressor cover we tested. Installing the made in the USA suppressor wrap takes a few minutes using straps with buckles and cord but once cinched down we did not have any issues with the cover moving. Available in multicam, multicam black, multicam black coyote, olive drab, alpine, black, coyote, Kryptek Highlander & Kryptek Mandrake, there is a color for just about any environment. Keep the heat under wraps during your next outing with the Elite Iron suppressor wrap. [www.eliteiron.com](http://www.eliteiron.com)



### BOWERS GRIPTASTIC SUPPRESSOR COVER

Bowers Griptastic Suppressor Covers are extruded silicone covers that will provide you with the heat protection you desire. These made in the USA covers are available in just about any size you can imagine and can be trimmed with a razor blade for exact fit. Available in black or coyote brown, the low profile internal ribs provide channels for quick cooling reducing IR signature, mirage and insulating you from burns. The Bowers Griptastic Suppressor covers are not easy to remove which means they will not slip in any condition, giving you the confidence to install and forget about them because they will do their job. We were impressed that after a long session of shooting we could immediately unscrew the suppressor with our bare hand on the Bowers cover. [www.bowersgroup.com](http://www.bowersgroup.com)



### COLE - TAC HTP

The Cole-Tac HTP which stands for High Temperature Python is the newest suppressor cover from Cole-Tac and was made in response to a request from shooters for a cover that could withstand long strings of fire. The outer shell is the same as the Metal Python Suppressor Cover which features 1000D Cordura Nylon that is rated to 600°F with metal buckles and BOA straps to insure the cover will never shift while in use. The middle layer is rated to 1800°F and the inner tube is rated to 3000°F which was designed to withstand the temperatures that are reached during full auto rates of fire. Cole-Tac allows you to customize the 5.4 oz HTP cover by choosing your size and the outer shell from 12 color options, 6 strap colors, 3 buckle colors and they give you the option of adding a stricta cord. Protect your skin and keep your sight picture by mitigating mirage even under rapid fire conditions with the new Cole-Tac HTP. [www.cole-tac.com](http://www.cole-tac.com)



# Adjustable Gas Blocks & Bolt Carrier Groups



## SUPERLATIVE ARMS ADJUSTABLE GAS BLOCK

The Superlative Arms adjustable gas block has a unique design that bleeds the gas out of the block and forward away from the shooter instead of restricting the flow like conventional adjustable blocks. The pressure is reduced to the amount required to drive the bolt carrier with the excess being bleed off resulting in a cleaner and cooler system. The 30 position removable adjustment detent is located outside of the block to prevent contamination, corrosion or possible seizing and has a safety mechanism to prevent accidental removal. The Superlative Arms adjustable gas block is a game changer which is available in 4 sizes, solid & clamp on and black melonite or matte stainless steel finishes. The Superlative Arms adjustable gas block will reduce both the recoil and the amount of gas & particle blowback you sustain when shooting suppressed firearms. [www.suparms.com](http://www.suparms.com)



## NEXT INTENT TACTICAL ADJUSTABLE Ti GAS BLOCK

The Next Intent Tactical Adjustable Titanium Gas Block is a super light clamp on gas block available in .625 or .750. The addition of a suppressor increases the level of back pressure in a rifle; however, the Next intent Tactical Adjustable Ti Gas block is infinitely adjustable and can be dialed in to negate the increased pressure. Made from aerospace grade titanium, the Next Intent Tactical adjustable gas block is lighter than most nonadjustable gas blocks. Available in a both raw bead blasted Ti finish or black, the Next Intent Tactical Adjustable Titanium Gas Block will let you dial in your rifle to perfect operating specs. [www.nitactical.com](http://www.nitactical.com)



## GEMTECH 5.56 SUPPRESSED BOLT CARRIER

The GEMTECH 5.56 Suppressed Bolt Carrier has a unique design that allows the shooter to swap between unsuppressed and suppressed shooting with a simple twist of a valve. The GEMTECH Suppressed BCG is a drop in replacement BCG that does not require any modifications to the firearm or gunsmithing, eliminating the need for an adjustable gas block. Just set the valve with a simple turn to "U" for unsuppressed shooting or "S" for suppressed shooting and start shooting. The GEMTECH BCG vents excess gas at the bolt reducing the carrier speed which reduces recoil, gas to the shooters face & wear to the system. The GEMTECH 5.56 Suppressed Bolt Carrier is the perfect upgrade for the AR-15 owner who shoots both suppressed & unsuppressed; my only question is when will we see a .308 version? [www.gemtech.com](http://www.gemtech.com)

# Charging Handles

## RADIAN RAPTOR SD AR-10 & AR-15

The Radian Raptor SD ambidextrous charging handle features a ported shaft design that redirects gasses down and forward away from the shooter's face and minimizes blowback when shooting suppressed firearms. The US made 7075-T6 aluminum Raptor SD is designed for rapid palm "blading" or finger-thumb charging of the weapon with either hand. Available in an AR-15 and AR-10 model the charging handle comes in black anodized, brown, flat dark earth, NP3 coated and tungsten gray finishes. The Radian Raptor SD charging handle is smooth, functional & effective and will increase your control and decrease those blowback gases when shooting a suppressed firearm. [www.radianweapons.com](http://www.radianweapons.com)



## PRECISION REFLEX, INC GAS BUSTER AR-10 & AR-15

The PRI Gas Buster charging handle diverts harmful gases, oil and dirt particles away from the shooters eyes, which is especially useful when shooting a suppressed firearm. The AR-15 PRI Gas Buster comes in big military latch, flat latch and combat latch options with a choice of black or dark earth finishes. The made in the US, aluminum drop in replacement charging handle is also available in a black .308 version with a flat latch. Stop eating those harmful gases and get yourself a PRI Gas Buster. [www.precisionreflex.com](http://www.precisionreflex.com)



## ARMAGEDDON TACTICAL GMS-15 GEN II

The Armageddon Tactical GMS-15 Gen II Charging Handle (Gas Management System) will keep your face clear of gas & oil when shooting suppressed firearms. Armageddon Tactical does it with a diagonal hole through the stem of the handle that diverts gases out of the upper receiver into a cupped area and away from the shooters face. The two piece ambidextrous GMS-15 has a single button in the center of the handle that actuates the lever eliminating the external lever that can get snagged while in use. Available in black, gray, OD green & FDE, the Armageddon Tactical charging handle is made in the US and also features a serrated grip which provides a sure grip non-slip surface in any weather conditions. [www.armageddontactical.com](http://www.armageddontactical.com)



# Suppressor Pouches



## GEMTECH 5 CELL POUCH

The GEMTECH 5 Cell Pouch is the perfect carrying case for the multiple suppressor owner. The US made pouch has slots for 5 suppressors up to 2 inches in diameter and 9 inches in length. The 1000D nylon outer material and fleece lined inner cells are tough enough to protect your suppressors from dings and scratches even during rough transport. Add a carrying handle, Velcro for patches and a choice of Coyote Brown, Multicam or Multicam Black and GEMTECH has checked all of the boxes with the GEMTECH 5 Cell Pouch. [www.gemtech.com](http://www.gemtech.com)



## YANKEE HILL MACHINE SUPPRESSOR 8' POUCH

Yankee Hill Machine has suppressor pouches available in both 8 inch and 10 inch versions to cover just about any suppressor in your arsenal. Made from a heat resistant Basofil lining the YHM suppressor pouches will not burn or melt even if you place a hot suppressor inside. Featuring a snap top lid that can be cinched down and a Velcro belt loop the made in the US Yankee Hill Machine suppressor pouches are a perfect way to carry your suppressor in the field. [www.yhm.net](http://www.yhm.net)

# Other Accessories



## JP ENTERPRISES SILENT CAPTURED SYSTEM

Why suppress your weapon only to have a noisy “spoon over a cheese grater” sound of the conventional buffer spring and tube every time you fire the weapon. JP Enterprises has solved this problem with the Silent Captured System. The combination buffer spring assembly eliminates the friction of standard buffer components by using a centerless ground and precision polished buffer along with a small diameter spring. The result is a smooth & quiet operation that will increase your stealth signature. Available for carbine & rifle length systems in both AR-15 & AR-10, get yourself a JP Enterprises Silent Captured System and become invisible while operating your rifle. [www.jprifles.com](http://www.jprifles.com)



## GEMTECH 22 QDA

The GEMTECH 22 QDA was designed to give rimfire shooters with a threaded suppressor a quick detachment option for their suppressors. Simply screw the 1/2 x 28 threaded 4-lug muzzle device onto your .22 threaded rifle or pistol barrel. Next attach the 1/2-28 QDA mount to your suppressor. Now you are ready to quickly attach or detach your suppressor from the firearm. The GEMTECH 22 QDA makes it easy to switch a suppressor between firearms and still maintain zero and works with both .22 LR & .22 Mag. The GEMTECH 22 QDA comes with the adapter, muzzle device, and installation wrench and is a must have for anyone who is shooting suppressed on a .22 firearm. [www.gemtech.com](http://www.gemtech.com)

### FRANKFURT ARSENAL PLATINUM SERIES ROTARY TUMBLER

The Frankford Arsenal Platinum Series Rotary Tumbler is a huge 7 liter rotary tumbler that was perfect for our unique suppressor preparation & cleaning method as well as a high performance brass cleaner for reloaders. The large volume drum features clear end caps that provide visibility of the contents while tumbling and a soft molded rubber lining that protects the contents and dampens the noise. The Frankford Arsenal Platinum Series Rotary Tumbler easily held the suppressor baffles, outer and inner tubes and end caps for our special preparation process and will also hold up to 1000 pieces of .223 brass. The rotary tumbler has a built in 0 – 3 hour timer which automatically shuts off the tumbler. The tumbler comes with a set of sifting end caps that help separate media after tumbling, five pounds of 304 stainless media pins and a sample packet of Frankford Brass Cleaning Solution. The Frankford Arsenal Platinum Series Rotary Tumbler was practically made for the unique suppressor preparation & cleaning method and will serve you well as a tumbler for reloading as well. [www.btibrands.com/brands/frankford](http://www.btibrands.com/brands/frankford)



### FRANKFURT ARSENAL MEDIA TRANSFER MAGNET

The Frankford Arsenal Media Transfer Magnet makes it easy to handle your stainless media pins between uses. Just hold the magnet over the media to effectively gather the pins then pull the handle and the magnet releases the pins. The magnet is the perfect tool for moving media pins to a drying towel after tumbling and later moving the pins to a storage container. The Frankford Arsenal Media Transfer Magnet is a must have tool for anyone who uses a tumbler with media pins. [www.btibrands.com/brands/frankford](http://www.btibrands.com/brands/frankford)



### LYMAN DUAL SIFTER SYSTEM

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# CLEANING YOUR **SILENCERS** MADE EASY

by Steve Boelter

## Getting Started

I hate cleaning silencers, I hate it a lot. It's an incredibly tedious task for any rimfire shooter, and the difficulty in removing accumulated fouling has troubled many sport shooters for quite some time. Cleaning silencers bothers me so much that I decided to not only come up with a solution, but to also write about the process and share it with other shooters.

I make it a point to mention the rimfire component because it's the basis of this article and the fouling produced by a rimfire is significantly different than a centerfire. With that in mind, the following article will focus completely on silencers used with rimfire rifles and pistols; however this process can be used on centerfire silencers that are serviceable.



## WARNINGS:

Be sure to wear a mask, gloves and to wash your hands when finished to avoid lead poisoning. Make sure you follow the service and maintenance suggestions by your silencer manufacturer before trying any of these techniques listed below. Some of the techniques described here can damage metal finishes and delicate parts of your silencer.

The materials I worked with in this article DO Not include Aluminum. Only Titanium, Stainless Steel, and Inconel 7 were tested and treated. For the volume of shooting I do (+ 100,000 rounds per year), I am not convinced of the material's service life, thus I have no data for using aluminum in this process. Please use great caution if you choose to treat your aluminum parts with this method; I have no idea what will happen to them.

The finish on most outer tubes is Ceracoated and could be worn off if the outer tube is placed in the tumbler.

## Filthy

Why clean a silencer? The reason is performance. As fouling builds up in a silencer, the internal volume is reduced, thereby reducing the noise reduction of the unit. Further, as fouling begins to fill the inside of the silencer, the buildup can start to accumulate around the opening of the baffles and ultimately make contact with the bullet itself as it passes through opening, causing wild shots on target or even worse; a baffle strike.

Without servicing a silencer, at some point you will just have a solid pipe of fouling attached to the end of your rifle. The only way to prevent these problems is to clean the silencer with some frequency. The more you shoot, the more you need to clean. Unfortunately this is easier said than done. Anybody who has scrubbed away with brushes and picked at the accumulation with dental tools will know that fouling deposited in a rimfire silencer is very challenging to remove.

What makes cleaning a rimfire silencer so difficult is rooted in two issues; what the fouling consists of and how it is applied. The fouling is a mixture of carbon, a trace amount of unburnt powder, and lead. It's the lead which is evenly mixed with the carbon, in a vapor form, that acts like binding glue and sticks tenaciously to any surface it comes in contact with. In terms of application, this high velocity, high pressure vapor cloud of fouling is blasted against the baffle's surface and packed into layers. Each round fired deposits a small amount of this fouling vapor cloud on the internals of the silencer. The hot vapor cools and sticks to the metal surfaces with the first few baffles receiving a higher lead concentration and the rear baffles receiving more of a hard carbon coating. Repeat the process hundreds of times and you will have a very tough task at hand in the removal of this fouling.

## Attempted Removal

Like most shooters, after a long shooting session I would scrub the parts with a nylon brush soaked in Kroil or some other carbon remover, and then attack the heavier buildup with detail picks. I would even use a nylon brush attached to a Dremel rotary tool, and still the fouling resisted removal. The intricate shapes of the baffles made this a real challenge. The problem is that the lead is evenly blended with the carbon, and no commercial solvents actually dissolve lead. To dissolve lead, you need a few different chemicals not usually associated with firearms, and the byproduct is highly toxic.



## The Solution!

### Step 1: Cleaning the silencer parts

You should treat any part of your silencer which comes in contact with any hot gasses or fouling. For most shooters this consists of the baffles, end caps, and encasement tube. If the silencer is fitted with an inner sleeve, that needs to be treated as well.

You need to start off with clean silencer parts for this project. All parts must be completely free from any lead, powder, or copper fouling. It is ideal to start with a new silencer from the factory, but if it is used, you will need to take the time to clean the parts completely.



Once you have them cleaned, soak them in mineral spirits to remove any oils or solvents. From this point on, you should not directly touch the parts to be treated. Wearing latex gloves is a good idea. After removing the parts from mineral spirits, allow them to air dry on a paper towel. I use a large set of tweezers for handling the parts.

### *Step 2: Preparing the Equipment*

Use two glass jars for this; one that is short and fat so you can get the baffles out easily and one jar tall enough to completely submerge the longest part of the silencer, such as the main tube. A tall, narrow glass jar is ideal. You will need enough silicone oil to fill the glass jar almost to the top (350 cst pure Silicone Oil - \$18.00 on Amazon is the way to go).



You will need two baking sheets (save yourself the pain and just buy two cheap sheets - 8"x8"; leave your wife's baking sheets alone ) One of the baking sheets will be used to heat the parts on and the other will be used to dry the parts. Keep them separate and don't mix them up. The baking sheet for heating the parts must be clean and free of oils or solvents. Don't get this wrong or you will have a bigger issue to deal with.

### *Step 3: The Process*

Preheat the oven to 250 degrees F. While the oven is reaching the temperature, lay out all the parts on the clean baking sheet. Fill the glass jars with silicone oil, leaving about 1" of room from the top of the jar. On the second baking sheet, place a few paper towels down on the bottom to absorb the extra oil and set aside. Once the oven is at temperature, place the parts in the oven and allow them to heat for 15 minutes.

At the 15 minute point, open the oven, remove the baking sheet and place on a heat-resistant surface. Carefully use the tweezers to remove the hot parts and gently place them into the glass jar with the silicone oil. You can put as many parts into the jar as it will hold, as long as the parts are completely submerged.

Wait a few hours for the parts in the jar to cool down. Once the parts are cool, remove them with the tweezers and place them upright on the second baking sheet or other surface with the paper towels. Allow the extra oil to run off and soak into the paper towels.





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Once all the parts have been treated and allowed to sit overnight, carefully reassemble the silencer per manufacturer's directions. If you use any anti-seize on the thread forms, no problem, it will not affect the performance of the silicone oil.

You should repeat this process every time you clean your silencer. I have found that some of the coating either cooks off or tumbles off during the shooting and cleaning process, so every time you plan on doing a detailed cleaning of your silencer, you should repeat this process above.

## Cleaning the Silencer

Take the silencer apart and remove the fouling by wiping the parts. Place the silencer parts into a rotating tumbler with a mixture of two tablespoons of powdered dish-washing detergent, 5 lbs. of steel media, and two cups of water. Remember, if you place the outer tube into the tumbler the finish could be worn off. Run the tumbler until the parts are clean and remove any remaining fouling with dental picks. Rinse silencer parts with water.

The purpose of the detergent is to break the surface tension of the water and allow the fouling to stay in solution in the water rather than forming a sticky layer on the surfaces of the parts. The water also softens the impact due to the rotation of the parts and helps protect the edges of the baffles and threads of the end caps.



Repeat steps 1-3 to recoat the silencer parts with pure silicone oil.

Ahhhhh Clean again! **AW**