

TCT MAGAZINE



APRIL 2014 • VOLUME 7 • ISSUE 2

Marv Specter *The Land Cruiser Legend*



Marv was a giver—a generous, passionate, good-natured man with a library of information he shared freely and enthusiastically with everyone. Marv’s greatest gift was his friendship. “I never met a friend I didn’t like,” he used to say, and if you were his friend, you felt it. Marv was a mentor to many of us who regularly sought his sound and smart advice. He possessed an old wisdom, from a very young age, and people were attracted to and drew from this energy. He liked his flannel shirts, often holey, missing buttons, rolled up to his elbows covered in grease from turning wrenches on the car he loved, but he always remained a true gentleman.

Marv founded Specter Off-Road in 1981 with Kay, his partner and best friend, who was literally “the girl next door,” and who became his wife of 34 years. Specter Off-Road is Marv’s homage to Land Cruisers and the Cruising community. Marv’s passion for and knowledge of Land Cruisers is reflected in the coveted annual Specter Off-Road Catalog which fueled the interest for other Land Cruiser lovers. Because of that passion, Specter Off-Road houses the world’s largest Land Cruiser museum.

The love for Land Cruisers took Marv and Kay all over the world to meet others who shared their passion. They made many lifelong friends in countries like Japan, Australia, Chile, Saudi Arabia, Dubai, Ecuador, Costa Rica, Europe and the Philippines who Marv would insist stay with them at their home when visiting Specter Off-Road, for a more familial, less touristy visit with home cooked meals and personal attention. Marv was not only generous with friends, but anyone, even total strangers within the Land Cruiser community. Like the time a couple travelling the world in their 70 Series Land Cruiser broke down and Specter Off-Road was the only place with the part they needed, he insisted the couple stay for several days while the Land Cruiser was repaired at Specter. Many of these people they met while travelling are in Marv’s closest circle of friends. Marv never let distance get in the way of great friendships. He always felt humbled that the Land Cruiser brought so many good people into his life.

Even in his struggle with deteriorating health, he remained loving and giving and grateful

for the many people who touched his life and helped to shape this great man we all knew as Marv Specter. From our hearts to yours, we thank you all for being Marv’s friend.

From the day we met him until the day we said goodbye, having Marv in our lives was a gift of pure friendship, and as he always liked to say, “We’ll be friends until the end!”



Marv is survived by his bride, Kay; his sister, Melinda; his faithful dog, Hootie; the dedicated team at Specter Off Road; and the thousands of lucky people to have been touched in some way by him.

Marv’s public memorial will be held Sunday, May 4, 2014 at Specter Off-Road in Chatsworth, CA. The planning was made in consideration of how far away many of Marv’s friends have to come from to be at this event. We need a head count to plan for this event, and in order to get into SOR, you will need to register. See <https://www.sor.com/catCelebrate.sor> for details.

Keep Cruising, Marv, The legend of the Land Cruiser lives on. 🇺🇸



TOYOTA RACING DEVELOPMENT

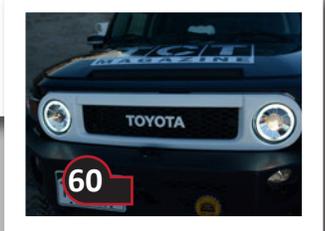
TFRD

TECHNOLOGY ON A FAST TRACK.

SINCE 1954



On The Cover:
The Last FJ
Cruiser TTUE,
Page 10



features

- i** Marv Spector
- 26** CBI Bumper Install
- 30** Father Son 4R Part 2
- 60** FJC Lighting Upgrade
- 72** Santoshi Grille
- 79** The Last Word

reviews

- 10** FJC TTUE
- 34** LabRack 100 Series
- 64** TJM Locker & Gear Install

overland

- 14** Kokopelli Trail
- 38** Keeping your Cooler Cold
- 48** Camp Stoves (2)
- 52** Monte's EPIC Finale

toyota life

- 22** Lone Star Roundup
- 58** DIY Tips
- 68** Intro to SCS Wheels



- Canada Snow Run **38**
- Texas Observatory **40**
- Grand Valley, CO **42**
- Holy Cross Trail **44**

- New & Noteworthy **6**
- Featured: 100 Series **57**
- Your Rigs **80**

EDITORIAL STAFF



Shane Williams | Publisher
2007 FJ Cruiser TRD SE | 2007 Lexus GX 470
Colorado Springs, CO



Jim Akers
2006 Tacoma
Colorado Springs, CO



Jonathan Harris
2005 100 Series Land Cruiser
Grand Junction, CO



Beau & Krista Johnston
1998 4Runner | 1969 FJ-40
Casper, WY



Bob Holliday
2006 Tacoma TRD
Denver, CO



Phillip Jones
2007 4Runner | 2006 Tacoma TRD
Frisco, TX



Vacant
Contact Shane for info



Vacant
Contact Shane for info



Vacant
Contact Shane for info



FROM THE PUBLISHER

Issue 2 of the most exciting, best informative Toyota Land Cruiser, Truck, and SUV magazine on the planet!

The entire team at TCT Magazine is very excited to deliver this issue! We have so many great stories to share, and we're kicking off the summer season in style.

In these pages you'll find an amazing collection of trip reports, install stories, news, tech, and tips to help make your Toyota or Lexus truck one of a kind, and you'll find tons of inspiration to get you ready for fun on the trail in 2014.

Also, if you haven't heard yet, TCT Magazine now has our very own NATIVE iPad app. This app really is the best way to enjoy our little publication. It features intuitive swipe-to-read navigation, embedded slideshows & videos, and the ability to download & read the entire contents of each issue while offline. If you haven't done so yet, check out <http://tctmag.me/tctapp> to learn more about our app.

Our team will literally be all over the place this summer, starting with Cruise Moab at the end of April. In May we'll be at Overland Expo and other early season events, then it's off to the FJ Summit in July. Check our events page at TCTMagazine.net for details on where you can find us next!

Until next time, Tread Lightly, Stay the Trail, and HAVE FUN!

Shane

Colorado Springs, CO 80923
www.tctmagazine.net

Published By

Zaxyn Media, LLC
Shane P. Williams, Publisher
Angela C. Williams, CSFA

Managing Editors

Bob Holliday | Jonathan Harris
Phillip Jones | Jim Akers
Beau & Krista Johnston

Associate Editors

Tim Mitchell | Electronics

Wes Craiglow | Overland
www.centraloverland.com

Colter Larsen | Special Events

Paul Thompson | Special Projects
www.lastgreatroadtrip.com

Creative Director

Kimberly Proffitt

Contributors

Adam Acenio
Matt Hayward
Josh Lassiter
Dennis Lloyd
Perry Lowery
Eric McKercher
Monte Nickles
Stan Wright

"TOYOTA", "FJ CRUISER", "LAND CRUISER", "4RUNNER", "TACOMA", "TUNDRA", et. al. are registered trademarks of Toyota Motor Corporation. TCT Magazine is not affiliated with or endorsed by Toyota Motor Corporation, Toyota Motor Sales, U.S.A., Inc. or any of Toyota's affiliated companies. These terms are used for descriptive purposes only, and not to denote affiliation or connection with Toyota Motor Corporation.

Copyright 2014 by Zaxyn Media, LLC

Reviews, opinions, comments, and ratings of any product do not represent endorsement of said product by TCT Magazine, it's editors, or publisher.

Statement of Ownership

Number of issues published annually: Five
Annual in-app subscription price: \$9.99 in U.S.A.
Location of known office of publication:
7248 Midnight Rose Dr, Colorado Springs,
CO 80923
Owner: Zaxyn Media, LLC 7248 Midnight
Rose Dr, Colorado Springs, CO 80923

ZAXYN
MEDIA, LLC



TOYTEC™ lifts

1.866.254.0076 www.toyteclifts.com

YOUR TOYOTA SUSPENSION & 4X4 ACCESSORIES SPECIALIST!



New & Noteworthy

Springtail Solutions MP-X



The Springtail Solutions MP-X Seatback MOLLE Panel is designed to fit nearly any vehicle. It doesn't interfere with airbag usage, can be used either vertical or horizontal, and is compatible with all types of MOLLE gear.

While this panel is designed for seat-back use, it can be used nearly anywhere you need secure MOLLE storage. The inner panel is firm yet flexible so it conforms to the seat back but doesn't sag when fully loaded.

We just received a set of 2 MP-X Panels so we'll be installing them in our FJ Cruiser and GX-470 in the near future.

Single Panel: \$46 | Two Panels: \$80

\$79.99 Combo Includes: One MP-X, One FT Pouch (Folding tray), One Gen-P Pouch (General purpose), One Flashlight Pouch



SOURCE: springtailsolutions.com

Split Second MAF conversion for Toyota Land Cruiser

Split Second has announced a new Mass Airflow (MAF) conversion for the 80 series Land Cruiser that promises better throttle response, smoothness, and enhanced acceleration.

The kit replaces the stock assembly with a large reducing elbow and a new MAF sensor, which opens up the intake and improves airflow performance while not compromising ruggedness or reliability.



OEM MAF (L) | SS MAF (R)

The kit includes a laptop programmable calibrator that is pre-programmed to provide the correct fuel curve. The calibrator also handles all the functions originally performed by the stock air flow meter including fuel pump control. The kit is complete with all parts required and step-by-step installation instructions.

MSRP for this kit is \$779.

SOURCE: splitsec.com

Expedition Lighting Systems X.Bar



Founded in 2012 by brothers George and Nick Expedition Lighting Systems (ELS) set out with a

goal to provide a wide range of the best LED lighting products at a price point that stands out among the competition.

Looking at light bars today, one notices that they all use the very similar designs and components. ELS, in collaboration with The Retrofit Source of Atlanta set out to break that mould. Enter the X.Bar. Crafted out of CNC'd 6061 Aluminum and anodized in a wide variety of colors to suit. Each housing contains the new

10W Cree XML-L2 and is connected to adjacent housings utilizing a super conductive gold plated bar.

The end result is 1200 lumens of focused high quality light. A 10" X.Bar containing 5 of the aforementioned pods produces an amazing 6,000 lumens while consuming 50W. Optics can be customized for the perfect mix of spot and flood patterns and can be changed by the end user to fine tune the experience. Even the bezels, which come standard in Piano Black can be changed out to a variety of colors.

The icing on the cake for us is that each components was painstakingly sourced, assembled and tested in the United States! All this at a price point that makes the X.Bar a no-brainer.

Prices start as low as \$75 through \$1500

SOURCE: expeditionlighting.org

Piranha Dual Battery Kit

Outback Proven offers a wide range of Piranha dual battery kits designed to fit various Toyota Trucks and Cruisers. We recently got our hands on the Piranha kit designed for the 2005+ Toyota Tacoma.

The Piranha DBE140S dual battery management system is a fully sealed micro-processor 140 amp isolator used to ensure the main battery stays protected from the auxiliary battery and accessories. The unit uses relay switching versus solenoid alternatives. An Intelligent Current Sensor helps protect your vehicle and the unit.

The other main component of the dual battery kit is the Piranha DBM4 battery monitor. The microprocessor controlled unit is designed to provide superior reliability and accuracy within your dual battery system. It also helps to extend battery life by limiting how much power can be drained from the battery by the fridge that is connected to the DBM4. The monitor uses an LED display to indicate battery voltage for both the main and auxiliary batteries. Multiple operating modes offer various levels of power consumption limitations for the fridge or other accessory.



The kit comes with an electroplated battery tray, 140 amp isolator (Piranha DBE140S), battery monitor (Piranha DBM4), cable kit, six blade fuse box and mount, and steering pump hoses that are used in rerouting the plumbing. Battery sold separately.

Retail price \$562.00 through Outback Proven

SOURCE: outbackproven.com

2015 TRD Pro

Every Toyota cruiser, truck, & SUV owner loves seeing what new rigs come out of the factory. Even if you prefer to build rather than buy your trail rig, for many of us, eom aftermarket upgrades ensure peace of mind on the trail.

The Fjc ue is the last, great option for a short wheel-base, factory spec trail ready rig, but in 2015 TRD will offer new options: the TRD Pro series. While not what



most people would build with a huge budget and plenty of time, the TRDP trucks offer capability rarely seen in any factory option package.

These trucks are not meant as a replacement for the truck 'you' would build, but instead offer a factory backed option for those still flirting with using their daily drivers for off-highway fun. With factory lift options, upgraded suspensions & other components, along with special badging and a very cool TOYOTA grille, these will be great trucks to start your amazing Toyota Dream Truck. You can read about all the options from our original coverage at <http://tctmag.me/tctTRDP>



SOURCE: TRD Pro on Toyota.com

Everything And More For Your Toyota! Trdparts4u | TPS



Parts.ToyotaOfDallas.com

866-233-4305

Parts@ToyotaOfDallas.com

FunTreks California Guidebook

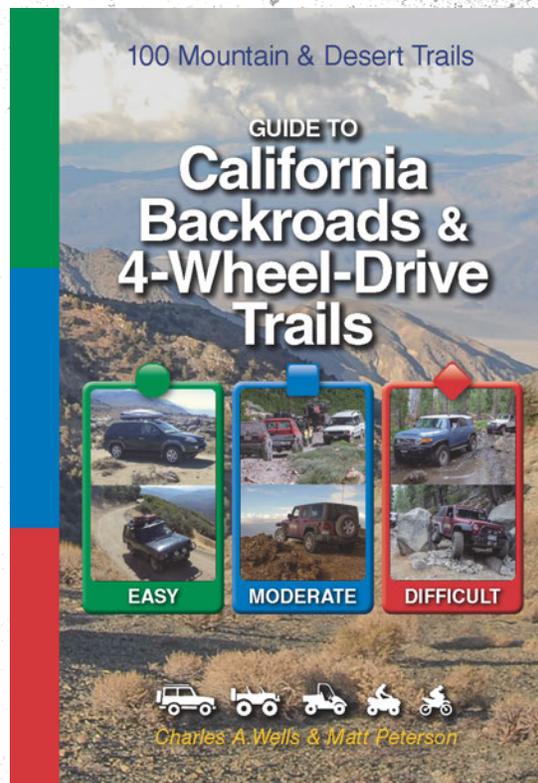
The guys from FunTreks have done it again: an all new Guide to California Backroads & 4WD Trails. This great new version of their California book replaces the two previous black & white books that were over 10 years old.

Printed in full color with over 500 photos and 100 trails, if you're looking for a place to wheel in Cali then this is the book for you. FunTreks is currently accepting pre-orders and will ship the books in early April.

Along with the new book, FunTreks has released a GPS data card that's "Plug & Play" compatible with most Garmin GPS units (including Nuvi), and contains GPX tracklogs & way-points for use with most GPS units and software programs. The card is a great addition to the book and helps ensure you're never lost in the woods.

Visit the FunTreks.com website for a free PDF preview and full details on this great new book.

SOURCE: FunTreks.com



SEARCHING FOR THE BEST 4X4 ACCESSORIES ON THE PLANET ?



YOU'LL FIND THEM AT **OUTBACK PROVEN**

WHEN IT COMES TO CREATING QUALITY 4X4 EQUIPMENT,
THOSE AUSSIE'S KNOW A THING OR TWO !

WWW.OUTBACKPROVEN.COM



Last but not Least.

The FJ Cruiser Trail Team Ultimate Edition

By Dennis Lloyd, iLounge.com

It's the end of the trail for the FJ Cruiser and Toyota leaves us with the special edition FJ Cruiser Trail Team Ultimate Edition (FJ UE). The FJ UE marks nine years of Toyota's modern style SUV which paid homage to the original and renowned FJ40. In those nine years the FJ has become an off-road legend and shows its prowess as one of the most capable vehicles. It's no slouch in stock form, but a few add-on items get you a serious trail rig. The FJ has seen several special editions over the years, including the very popular Trail Teams Editions and the original TRD Special Edition, as well as a few lesser known vehicles such as the ARB Edition FJ Crawler and XPLORE Edition. All of these vehicles had the 4.0-liter V6 and 4x4 underpinnings, but were equipped with various accessories which boosted performance and/or off-road capabilities.

Like other FJs before it, we suspect the new Ultimate Edition will forever carry on Toyota's reputation for reliability. The running commentary among Toyota off-roaders is that it isn't broken in until it hits 100k miles on the odometer. We've read numerous accounts of FJs around the world trekking through terrain from deserts to beaches, rock gardens to wash board roads and coming back for more each time. It has seen harsh conditions exploring the continent of Africa, playing in and around the base of Mt. Fuji, snowfields in rural Russia and bouncing along dunes in Dubai. You don't have to take it on an epic journey, just throw it around on your local trails and it will make you smile as it provides hours of fun in the dirt.

We've come to love the FJ in all of the various flavors. Not only is it reliable, but the big, boxy tank-like, goofy to some and cool to others "SUV" has brought together thousands of like-





mindful individuals out on the trails. In the early days of production, online forums and our own FJC Magazine were started to provide owners and potential buyers a place to virtually meet, greet and discuss their love of the FJ—what accessories to buy, what performance mod to install, and where to get it dirty. The FJ Cruiser culture sprung to life and has created lifelong friendships and camaraderie among its peers. It has truly galvanized the Toyota off-road culture and now we've come full circle with the final Ultimate Edition.

We picked up our Ultimate Edition in Torrance, CA at Toyota HQ, thanks to Toyota's press team who gave us unprecedented access to their last limited FJ. Our plan was to bring it home, then take it out on the next day to some of our favorite local tracks. Our primary test track (Silverado Canyon) was closed due to high fire danger, so we went to our alternate dirt patch near Trabuco, CA known as Holy Jim. Although it's a mild trail with a few semi-challenging side trips, we put the FJ through her paces nonetheless.

The next morning before starting our trail ride we got a good look at the truck. First you'll notice the new white grill reminiscent of the FJ40s of the past. If there is anything that says FJ40, it's the white grill, which is a fitting tribute to the



See the slideshow in our App





venerable heritage of the FJ40. Even Toyota indicates the importance of the lineage of FJs by naming the new paint color Heritage Blue. The color is similar to blues (Capri Blue and Horizon Blue) found on FJ40s during the 60s and 70s. Like previous Trail Team Editions, the Ultimate Edition gets a paint matched roof, black mirrors and door handles, roof rack, Trail Team badge on the rear, and TRD Edition wheels mounted to BFGoodrich All-Terrains.

The interior, like FJs before, remains unchanged except for a special metal badge on the dash that reads "Ultimate Edition Limited Production ONE of 2,500." The FJ Cruiser logo on the badge also has a white painted grill. The Heritage Blue paint continues on door panel inserts and the dash surround. Although our model didn't come with them, we're told that the front and rear seats will come with grey inserts on the Ultimate Edition. It also comes with black glossy transmission and transfer case shift knobs with FJ engraved on the top of the transmission shift knob. Of course the Ultimate Edition comes standard with 4x4 and includes Active Traction Control (A-TRAC), Crawl Control (CRAWL available with automatic transmission only), Vehicle Skid Control (VSC) with off switch and electronically controlled locking rear differential. Our model did not have the CRAWL feature nor did it have the overhead console first found on 2013 models.

As we started our trail ride to Holy Jim, the hard pack was dotted with plenty of 2x2-foot wide pot holes (from previous California rainstorms) which put the new race-inspired Toyota Race Development (TRD) Bilsteins to the test. Hit them hard or soft, the new front 60mm coilovers plus new 50mm rear reservoir shocks and springs held up just fine. The TRD beadlock-styled wheels mated to BFGoodrich All-Terrains crawled up and over rocks, through washes, across water, gravel and deep ruts without incident. The suspension was specifically tuned for increased dampening, articulation and high-speed stability. These should do well in the deserts on long stretches of dusty trails where the suspension can show off its full potential. The front end is also lifted to level out the stance from front to back with the new front shocks. The Ultimate Edition

also got some under armor protection via 1/4" aluminum front skid plate emblazoned with an oversized TRD logo. Unlike the thin metal of the "shovel" skid plate on previous Trail Team Editions, this new skid plate is made to take some considerable hits.

Under the hood, the Ultimate Edition has the standard V6 4.0-liter engine first produced on the 2010 FJ Cruiser. A proven power plant off-road, the dual overhead cam, 24 valve engine produces 260 horsepower and 271 ft-lbs. of torque. We were surprised to learn that an FJ dubbed Ultimate Edition would not be sporting a TRD Cold Air Intake or exhaust system. Although the prototype we drove did have a fancy chrome exhaust tip—waiting to be crushed by a boulder on the trail.

The FJ TT Ultimate Edition reminded us how fun an FJ is in its stock form—before adding weight via aftermarket bumpers, armor, suspension, roof racks, roof-top tents and various interior accoutrements to our rigs. It's spry on the trail and we had plenty of fun pushing it through S-turns in gravel and riding whoops. It's fun. It's reliable. It's an FJ through and through and this new Ultimate Edition will carry on the FJC legacy like no other. Toyota should be proud knowing that they designed and produced the first and last FJ Cruiser in a form that's truly inspired by the grandfather FJ40. We've already seen a list of people on the FJ Cruiser Forums getting ready to receive their new FJ Ultimate Editions with much fervor and anticipation. It's one last hurrah to Toyota's proud heritage of capable off-roaders. We look forward to seeing it in the wild surrounded by its FJ brothers in dirt, and yet we wonder, what's next for Toyota Off-Road Vehicles? 🇺🇸





CHASING THE MUSIC: In Search of Kokopelli

By Stan Wright • Photographs by Stan Wright and Jonathan Harris

I never really considered myself to be an impulse decision maker. I'm as spontaneous as the next guy I suppose, but I'm also a responsible husband and father. Every decision I make affects my family. So when registration opened up for Cruise Moab 2013, I did what any responsible father and husband would do. I signed up without consulting my wife at all. Surely she would understand, right? In my responsible, think of others first mentality, I also signed on for the 3-Day Kokopelli Trail expedition prior to the start of Cruise Moab. Once I reached the "pay now" portion of registration, I paused.

I called my wife and explained how epic this trip was going to be. Would she mind staying home with the kids while I traveled the back country of Colorado and Utah? "I'll only be gone for 5 or 6 days," I said sheepishly. "What about us?" she asked. I promised her that next year we'd do Moab as a family—complete with comfortable accommodations, indoor plumbing and hot showers. This year however, I need to get away on my own. It's important for a man to venture out into the wild on occasion and it's refreshing to know such places still exist in this country. But was I prepared? Was my vehicle ready? This isn't a trip to the store. It's 150+ miles of backcountry expedition travel. It was time to take a hard look at what I needed.

The Kokopelli Trail was established in 1989 by the Colorado Plateau Mountain Bike Trail Association (COPMBA). The name Kokopelli

is synonymous with the hunchbacked flute playing figure that has become so popular throughout the Southwestern United States. A little research on Kokopelli reveals many dichotomies on who or what he was. Dating back over 2000 years he's been linked to everything from a fertile deity, a prankster and healer to a traveling showman complete with music to play, stories to tell and wares to sell. Some believe that Kokopelli's flute playing signaled the ending of winter and beginning of spring. How apropos that we'd be traveling this trail in the last few days of April, after the winter snows had given way to spring flowers and warming winds.

Today, you can find Kokopelli symbols on everything from dishware to shower curtains. But the real place to see him is on the pictographs and petroglyphs of the American Southwest. The first time I remember seeing this symbol was on a painted rock I purchased from one of the Native American vendors at the Four Corners Monument. I traveled all the way from New York only to find that the Four Corners was nothing more than a tourist trap, and the one-of-a-kind rock painting I purchased was nothing more than a novelty act. That was back in 1995. Little did I know that nearly 20 years later I'd be traveling that namesake trail in the driver's seat of a 2004 Toyota Land Cruiser. Surely, this was no tourist trap, and this time I wouldn't be fooled by novelty rocks. This was the real thing and I could almost hear the subtle tones of a flute playing as we started off on the trail.

Kokopelli Trail Cruise Moab 2013

Tracks & Waypoints Courtesy Jonathan Harris



See videos in our App



Download on the
App Store

water system would be great. Should I tent camp, or sleep in the truck? Now would be the perfect time to buy that rooftop tent I've been wanting. I have a dual battery system in my truck, complete with a 1500-watt power inverter, so I can bring a coffee pot but do I need one? Boiled water from a camp stove will make instant coffee just fine. I decided to see what kind of room I would have after I started packing. This is supposed to be an adventure, but I still wanted to pack some of the extras that I enjoy.

As for water, I'd like to have 2-3 gallons to drink plus 6 or 7 gallons for washing up. I started researching shower bags, on-board shower systems and portable showers. The only water we'd see on the Kokopelli was from the Colorado and Dolores rivers, but they would both be muddy from winter runoff. I'd have to carry my own fresh water. 10 gallons of water weighs nearly 85 lbs. If I decide to carry a rooftop tent, gear and water on my roof rack, I'm looking at adding 250 lbs. to the top of my vehicle. That's a lot of added weight up high on a tall SUV. I had to determine if tipping over was a real concern on some of the more extreme portions of this trail. I also had to consider that once I arrived in Moab, I had 2 more days of trails to run. What would I do with all the unneeded gear for those trails? I kept telling myself to take only what was needed and not everything I wanted. Pack smart.

In the end, I went simple. I removed the second row of seats in my truck and built a new floor complete with tie downs for my fridge, equipment and tools. Plus, I created an area for sleeping. I could lay fully stretched out on a makeshift mattress in a comfortable sleeping bag. I carried 5 gallons of water in a solar shower bag on my roof and another 7 gallons in an aquatainer inside the truck. I packed a small 12 inch-propane stove for cooking and filled my fridge with mostly pre-made food and drinks. **Simple.**

Getting Ready

One of my first considerations about doing this, or any trail, was the readiness of my vehicle. I would be spending a considerable amount of time traveling the 150 off-highway miles to complete this trip. Altitudes on this trail range from 4,000 to 8,500 feet above sea level. I needed to consider gear, food, fuel, spare parts and most importantly, water. Both for drinking and cleaning up after long dusty days. I'm no stranger to sleeping on the ground or crawling into a tent with the dust of the trail still clinging to my body. I've traveled the El Camino del Diablo in Arizona twice, and the dust and sand from that trail will surely rival this one. However, that was over 15 years ago and those days are behind me now. I appreciate clean sleeping quarters whenever I can have them.

Maintenance wise, my vehicle was ready. Logistics wise, I had my work to do. How do I bring what I need and still leave room for some of the comforts that I want? There's a lot to consider. Do I want to be able to take a hot shower every day? An on-board hot

Beginning the Trail

The scheduled meeting time for the Kokopelli Expedition was between 9:00–9:30am at the Rabbit Valley exit off I-70 in Colorado. This exit is about two miles from the Utah border. There are no services, it's just an exit to nowhere—or everywhere, depending on what your plans are. This is where I'd be meeting the group I would spend the next three days with. I left Denver at 4 a.m. to make it there on time, but I was still the last one to pull into the rendezvous site. Most of the others had arrived very early or camped out the previous night—some from as far away as San Francisco and Central Canada.



It's always an interesting dynamic when meeting up like this. Would we all get along? Was everyone prepared? There were 11 vehicles and 17 people, including two children. We also had three friendly dogs on the trip. Except for the two friends that were part of the group, I

had never met any of these folks personally. We had all been doing our introductions via a Kokopelli thread on IH8MUD. In any case, it took less than five minutes to realize we had a special group. Before we even kicked up dust we were laughing and joking with each other. I knew this was about to be a once in a lifetime trip. The excitement to start rolling was close to boiling over.

Cruise Moab is an annual event hosted by the Rising Sun 4x4 Club in Denver, CO. The Kokopelli Trail expedition was being hosted by Book Cliff Cruisers out of Grand Junction, CO. This was their backyard; they knew the area well. Jonathan Harris, the trail leader, called us together for our drivers meeting just before 10 a.m. Of all the participants on this expedition, only Jonathan and his co-leader Ace Brown had run this entire trail. I think that's what added to the camaraderie of the group, we were all excited to see something new. As we stood in a large circle making introductions, Jonathan told us that Book Cliff Cruisers would be hosting dinner in camp that evening, and breakfast the following morning. Little did we know what was in store. Jonathan gave the universal sign of "lets go" by

raising his hand in the air and drawing a circle in the sky. Time to roll.

It's a good feeling to start off for the unknown under sunny skies, warm temperatures and open windows. It had been far too long since I'd traveled through the desert. Although we all carried CB's, almost everyone in the group was a HAM radio operator as well. HAM makes communication on the trail so much nicer. As we rolled through the wide open country, we spoke about the abundance of wildflowers, the beautiful view of the snowcapped La Sal mountain range, and how nice it was to finally be on the trip that was five months in the planning.

Soon after starting out, we approached the first obstacle, a series of step down ledges that everyone cleared with no trouble. It was obvious that we had a good group of drivers and capable vehicles. There were four trailers being pulled on our first day as well. One of the trailers was filled with all the cooking supplies and food for our dinner that night. Matt Burrmaster, a fishing guide from Aspen and also a Book Cliff Cruisers member, was pulling the trailer behind his built 3rd gen 4Runner. His nickname quickly became "Cookie" since he was our camp chef and the trailer was aptly named the "Chuck Wagon."

As we weaved along the shelf roads of the Kokopelli Trail, a call came over the CB that one of the 80s had cut a tire on a sharp rock. The first sign of synergy amongst the group was about to present itself. I was part of the front four vehicles and the cut tire happened behind us. We parked at a small pullout with amazing views of the valley and the mountain bike portion of the trail. The rest of the group stopped to assist in swapping out the cut tire for a fresh one. In just a matter of minutes, the crew was rolling again. A team effort of one guy on the Hi-Lift, one removing the tire and another removing/installing the spare made it seamless. After we all regrouped and had a quick lunch, we were rolling again as



a complete group. We rolled through some fantastic landscape—dirt roads, loose rock,

rough terrain and one long portion of two-track that looked just like the Serengeti. The only downfall, was the wind. It had really picked up and we were seeing gusts around 50 mph. A byproduct of that

wind was the dust we were creating. It was really flying. Most of us had the option of rolling up our windows, but there was one open top FJ40 amongst the group. Richard and Kim, a fantastic couple from Vail, CO were relishing in the fact that they were the only 40 in the group, and the dust wasn't bothering them one bit. "It's part of being a 40 driver," they said. Eventually, we convinced them to move up front where the dust was minimal and everyone's sympathy turned to jealousy as we could see the allure of spending all day soaking in the sun under an open top.

At around 4pm we rolled into our first camp. Fish Ford is a vast expanse of riparian land along the Colorado River with free range

cattle roaming amongst the scrub brush and cottonwood trees. It was open enough to fit three or four vehicles in each small area, but confined enough that we all felt like camp neighbors with little subdivisions separated by scrub brush fences. The wind settled down enough for everyone to quickly set up camp and reach into their fridges for a cold drink. We were within earshot of the Colorado River and a few of us herded to the water's edge like thirsty cattle. A quick dip in the cold water was just enough to wash the dirt and dust away. We had only been together for about eight hours, but it already felt like we knew each other for years.

Cookie, our camp chef, was already hard at work preparing an unbelievable meal. He had ovens, griddles and grills all working at the same time. Fresh fruit and appetizers were spread all over the tables. He doubled as a bartender mixing drinks après-ski style. The next few hours were spent in this fashion. Beers from around the world were shared, and stories told. Everything from religion, to education, to camp coffee was discussed. Our first day was epic and our first night ended long after the sun went down. Each of us slinking into our sleeping quarters eager for what the second day would have in store.



TAKE CONTROL OF YOUR ADVENTURE

WITH THE NEW SPY LIGHT SYSTEM



Check out the full specifications

LED bar sold separately

>> CONTROL YOUR LED BAR WITH THE TOUCH OF A SWITCH

Live the Adventure at: www.BajaRack.com



A Perfect Long Day

The next morning broke with the grass still wet from the previous night's storm. Unbeknownst to me, heavy rain and winds blew through some time after we turned in. The sleeping platform I constructed inside my Land Cruiser made it possible for me to sleep fully stretched out inside of the truck, doors and windows closed—oblivious to the world around me. The others in roof top tents or ground tents were awoken by wind and rain. I woke up feeling fully rested.

As I made my first cup of camp coffee I could smell the unmistakable smell of bacon and sausage frying. Cookie was at it again, and from the looks of it, breakfast was going to be just as good as dinner. I thought to myself, "I could get used to this lifestyle." After a meal fit for a king, we were all packed, cleaned and ready to go. Day two would be our longest day. We left Fish Ford with 55 degree temps and about half the wind of the previous day.

Our ultimate destination on the second day was near Robert's Bottom and the famous Dewey Bridge. Travel was more of the same—beautiful views and fantastic trails. On this route, we actually made it to camp by mid-day. But the real fun was only just beginning.

We only stopped at camp to drop off trailers and grab a quick lunch. We were heading right back out to tackle the Top of the World trail. This trail is almost non-stop obstacles from bottom to top including ledges, steps, climbs, descents, large rocks—it's all there. The trail is named for the unbelievable viewpoint at the far end, from this vantage point the views are literally breathtaking. If you (cautiously) look straight down from the edge, you can see over 2000 feet below to the Fisher Valley floor. You can also see hundreds of miles in any direction.

The natural beauty and striking colors of the distant landscapes make for wall hanging pictures. It's a view that will remain etched in my mind forever. The trip back down to camp was just as fun as the climb. The setting sun still warming the air promised another great night around the campfire. It was nice to raise glasses and toast with my new friends after a day like that. I tried my best to stay up with the group, but the long day got the best of me and I retreated into my cocoon for a very deep slumber.





**BULLY
DOG**

TUNED

GT T⁺

Works on Toyota
'07-'13 Tacoma & Tundra

Up to 25Hp and
30 ft.-lbs. of Torque*
* Dependent upon application



MAXIMUM
POWER GAINS



UNMATCHED
ECONOMY



VEHICLE
MONITOR



for more information go to:
www.bullydog.com

Toyota® is a registered trademark of Toyota Motor Corporation. Bully Dog's GT product is not sponsored by, associated or affiliated with Toyota®. Not legal for sale or use in California on pollution-controlled vehicles

Finishing Kokopelli

Day three would be our final day together. It would also consist of the most difficult portions of the trail. Before heading out, I was low on fuel and it was time to add the four gallons I was carrying which was just enough for me to make it to Moab. By now, everyone was getting used to the beauty around us and chatter on the radios turned to a more personal note: families, hobbies, vehicle mods and life in general.



We talked on radios until we reached the first obstacle—a tight off-camber right turn down a steep portion of the trail that seemed too narrow for the FJ40 and all but impossible for my whale-sized 100 Series. With a granite wall on the left and a steep drop-off on the right, I put all my faith in my spotter and kept

my attention on him. The entire group made it through without a scrape, but the real challenge was about to begin. Our next stop was atop the infamous Rose Garden Hill. I had done some research on Rose Garden Hill and the pictures looked relatively tame. Standing at the top and looking down I wondered if I had been looking at the wrong pictures online. This trail was very intimidating and it looked to be nearly straight down for one-quarter of a mile. The ledges looked as tall as a full grown man. I worried about spraining an ankle just trying to walk down. I'll never forget the feeling of cresting the edge of the first ledge and starting down this hill. I was filled with excitement and nervousness at the same time. This is the most difficult portion of the entire Kokopelli trail. Once you clear the first ledge, feel the bash of your sliders and the bump and scrape of your rear bumper, the rest of the steep hill just flows by. Once again, faith and trust in your spotter goes a long way to safely clearing this section.

There is a large parking area at the bottom of Rose Garden Hill. We regrouped there and



told our own personal account of how the hill treated us. One FZJ80 in our group nearly rolled over and it was easier to laugh and joke about it now that all four wheels were firmly parked on solid ground. We still had a lot of miles to cover so we hit the trail for the final push into Moab. This final day takes you through Hideout Canyon and Fisher Valley—two beautiful areas complete with 2-track roads and small scattered obstacles. From the valley floor, the trail climbs into the Manti-LaSal National Forest and up to an elevation of 8500 feet. It's a stark contrast from the previous two days. Red sand and rock is replaced with green from ponderosa pines and depending on the time of year, pure white snow. There is a good chance the dust you've accumulated over the previous 125 miles will mix with mud from the snowmelt and runoff from the mountain range as well.

The last portion of trail is along Sand Flats Road, which is the gateway to famous Moab area trails like Hells Revenge, Fins and Things and Porcupine Rim. For some members of our group, this was their introduction to the town of Moab, UT. What a grand way to arrive in the most famous 4x4 town in America. Upon completing this epic 3-day expedition there is a sense of accomplishment and most of all, a sense of synergy amongst the group that traveled together. By this point, we all felt like we'd known each other for years. It was a strange feeling knowing that once we hit town, we'd all be going our separate ways. Some would be camping at Cruise Moab headquarters, some would be heading for their hotels and a few were even heading back home. Their goal was to complete the Kokopelli Trail, and that goal was reached.

As for me, I went straight to the Chinese restaurant in town and ordered myself a full meal—take-out of course, because I was dirty, dusty and tired. I brought it back to my hotel room and left it on the table while I took my first shower in almost four days. I wanted to slowly re-enter the world after spending so much time away from the hustle of a town, traffic, or busy streets. It takes a little adjusting even after only three or four days away to re-establish yourself to the fast paced style of everyday life. I have spent nearly two weeks backpacking and fishing in Montana with my brother as the only other human to interact with. It's always hard for us to go into town after that trip

and see so many people. Everything seems so fast and so loud. That's exactly how I felt after finishing the Kokopelli. For the last 150 miles the only vehicles I had seen were the ones in our group. We were all moving at the same speed and in the same direction. During Cruise Moab, the town is completely filled with Toyotas, all models and sizes, all coming and going in different directions. It was overwhelming and retreating to my hotel room allowed me the time to readjust to normal life.

It's amazing what a hot shower and a good meal can do for your spirits. After cleaning up and finishing my Chinese food, I went right back out to Cruise Moab headquarters. I met back up with some of our group and we walked into the main tent feeling like Lewis and Clark after returning from the Corps of Discovery Expedition. What a great feeling it was to recount the last few days with my new friends. I also met up with many old friends and heard about their own trail stories from Cruise Moab's first two days. There are not too many places where a trip of this magnitude can be done so easily—a full 3-day expedition through some of the most spectacular scenery in America. The Kokopelli Trail is truly a bucket-list item and any adventurer should make it a priority on their list. Whether on mountain bike, off-highway vehicle or even two feet, it's an adventure of a lifetime.

As I write this, I'm preparing for my third time on the trail. This year, I will be assisting Jonathan and Ace with trail leader and tail gunner duties as well as representing Rising Sun 4x4 Club as a trail host. When we all meet up for the first time next month, I can look around and know exactly what the first timers are feeling as we prepare to set off on the trail. I know they'll hear the subtle tones of Kokopelli's flute as we make first tracks in the Colorado sand, bound for Utah, three epic days away. 🇺🇸





Lone Star Round Up 2014

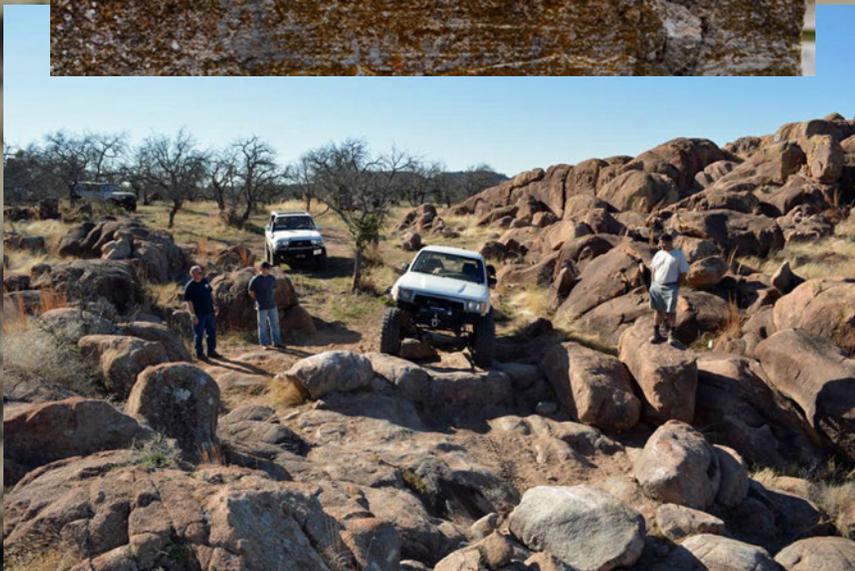
Beginning the second decade.....

★ By Perry Lowery ★



For those of you not familiar with this event, allow me to give you some background info. 2014 was the 11th annual Round Up held by Lone Star Land Cruisers, which is an event open for all. Our rules are simple: be safe and have fun. Katemcy Rocks near Mason, Texas offers the perfect venue and a very unique opportunity for fun in the heart of Texas. The park consists of granite outcrops offering all types of wheeling from the crazy "I got this..." picture opportunities to rock obstacles and trails that offer challenge, but little chance of damage. You can hop on a trail and run the obstacles or simply take off across the ranch in search of a playground fitting your rig and level of driving expertise. The event has developed a following that routinely draws rigs from coast to coast. This year included a half a dozen rigs from California and Nevada. There were also rigs from Oklahoma, Louisiana, Mississippi, Georgia, Tennessee and of course Texas.

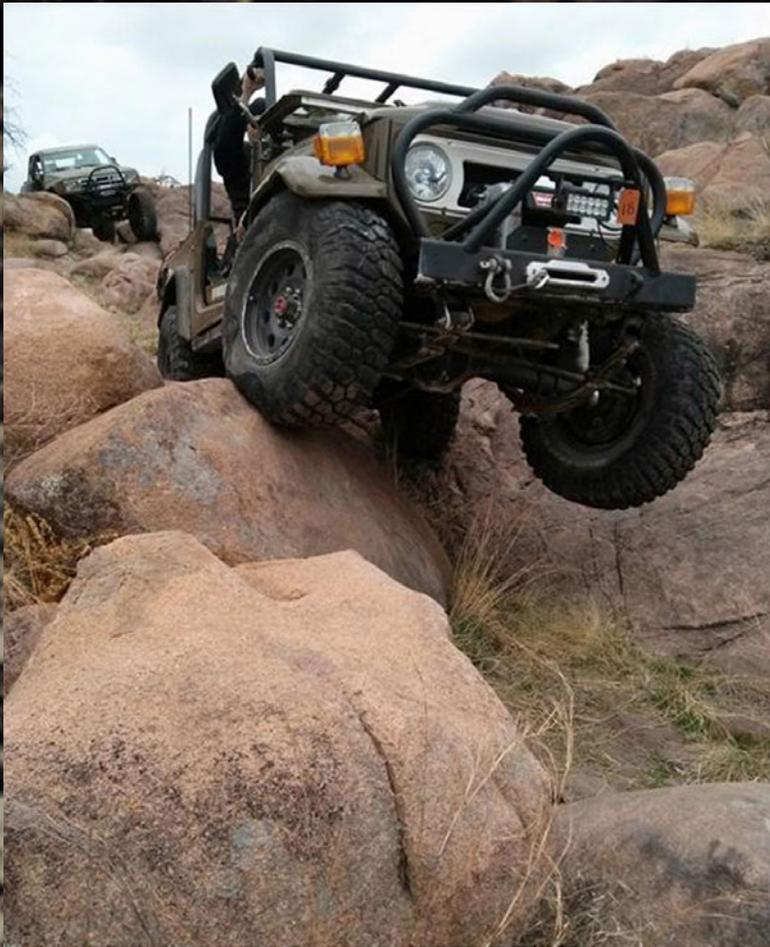
This year's event theme came from Texas history. Texas was once a part of Mexico, during which time the Government of Mexico



gave a cannon to the citizens of Gonzales (a city in south Texas) to defend themselves against Indian attacks. After unrest developed between the Mexican authorities and the Texas settlers, the Mexican army came to retrieve the cannon. The citizens of Gonzales refused and raised a flag with an image of the cannon and the phrase "come and take it." The cannon remained in the settler's hands and fired the first shot in the battle for Texas independence.

Round Up is a family oriented event. We offer all types of activities for the whole family which have varied from bicycle races for the kids; shopping excursions to Fredericksburg; and of course the group excursions to local BBQ attractions. On Friday evening we have a traditional pot luck dinner for all, a free





children's raffle; a driver's raffle and a general raffle for all attendees. It is important to support all the vendors who build and install great products for our Toyotas. We would like to thank all the vendors who supported this year's Round Up:

Platinum Level Sponsors

ARB, Baker Tire, Cool Cruisers of Texas, Iron Pig Off Road, Marlin Crawler, Metal Tech and Valley Hybrids

Gold Level

4 Plus, 49 Tire, 4x4 Labs, American Efficiency Solutions, Baker Oil and Gas Exploration and Consulting, CK Customs, Cowboy Toyota, Cruiser Solutions, Cruiser Specialist, Cruiser Yard, EMS, Frisbee Auto, Front Runner, Rancho Suspensions, Ruff Stuff Specialties, Slee Off Road, Toyota of Dallas, Toyota of Lewisville, White Knuckle Off Road and Yeti Coolers.

On Saturday in addition to the open wheeling throughout the park, we continued the County Road Tour thru Mason County. This 5-hour excursion takes the rigs thru the scenic Texas Hill country on primarily dirt ranch roads with

Ricochet

- Offroad Armor -

Tackle any trail with confidence with our complete bumper to bumper kit.

Constructed with 1/4" Aircraft Aluminum

Mounts easily with no modifications

Kits for FJ Cruiser, Tacoma, and 4Runner

We also offer armor kits for over 500 models of ATVs, UTVs, & Dirt Bikes



Reinforced Heavy Duty
Bash Plate & Engine Skid

Leading Name in High Quality Aluminum Armor for over 30 Years

Stand out in a crowd with a customized anodize color



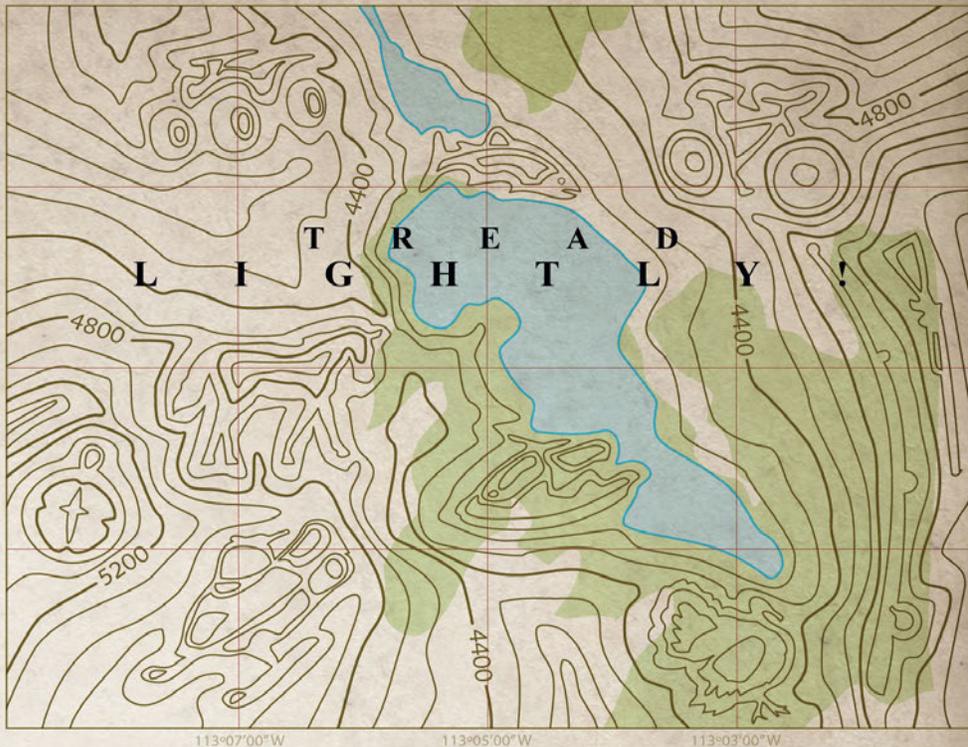
ricochetoffroad.com

1-866-273-1197



a stop for lunch in a small hill country town. There were several opportunities for wildlife viewing, river crossings and a break on the scenic Llano River. This will be the site of the overnight excursion camp next year. Saturday evening continued with the annual BBQ dinner catered by the onsite restaurant (another advantage of Katemcy Rocks, excellent facilities and a great food service.) After dinner, another great Round Up tradition: a lively concert. This year's musical guest was Statesboro Review, who have been featured prominently on CMT. They put on a great show and I highly recommend you catch them when they come to a town near you. After the show, there was some guitar picking and singing (I use that term loosely) until the wee hours of the morning.

Thanks to everyone for coming out this year ... no one took me up on the money back guarantee, so I'm sure we will see some new faces again next year, along with our old friends as we ask ... RU12 ... Round Up #12, March 2015. 🍷



CONSERVING RECREATION
ACCESS AND OPPORTUNITIES
STARTS WITH YOU!

STAY IN DESIGNATED
AREAS AND ON
DESIGNATED ROUTES

AND REMEMBER
RESPECTED ACCESS IS
OPEN ACCESS.



LOOK CAREFULLY!
YOU HAVE A PLACE
IN THE GREAT OUTDOORS.

For more information, visit www.treadlightly.org



Bushmaster 2.0 Installation

By Bob Holliday

In the world of aftermarket bumpers for Toyota Tacomas, the available options for consumers are expanding every year. So when it came time to take my build to the next level with a high clearance bumper, built to suit my overlanding needs, I had a good selection to choose from.

On the top of the list was the Bushmaster 2.0 from CBI Off Road Fabrications out of Idaho Falls, ID. Over the years, CBI has been making a name for themselves as a high quality fabricator of aftermarket armor for many Toyota models. Hand built in Idaho Falls, the Bushmaster 2.0 is specifically for the 2005+ Toyota Tacoma and offers many customizable options.

Although the high clearance design of the Bushmaster requires cutting of the fenders, the bumper bolts directly into existing mounting holes within the Tacoma's frame. Made primarily of 3/16" steel with 1/4" mounting brackets, the Bushmaster is built to take a beating. A built-in receiver hitch now comes standard on all Bushmasters with a hinge license plate holder allowing access to the receiver. I opted to include the tire swing arm to mount my spare tire (and Trasharoo), Rotopax mounts to hold more gas, and I had to include their fold down table built into the swing arm (I love this feature)! Other options include: recessed reverse light housings, extendible camp light, CB mounts, and most anything else you can think of, they will do their best to fit your build design.

For installation, you can expect to take 1-3 hours, and can be done with simple tools and a cut-off wheel. CBI includes all required mounting hardware. The bumper will reuse a factory license plate light and the 7-pin adapter.

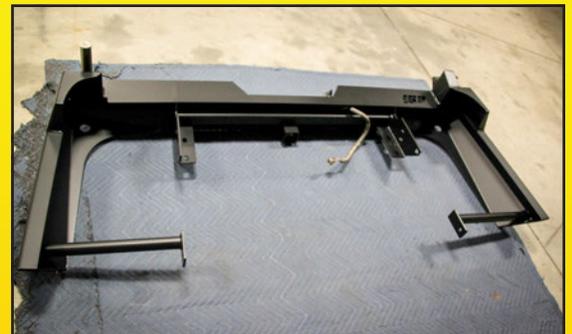
TCT Recommends all installs be accomplished by a certified mechanic with proper equipment. Always take great care in performing vehicle modifications and have a mechanic check all work.



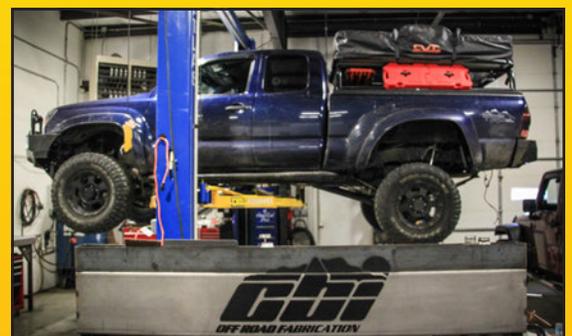
CBI Bushmaster 2.0 is ready to be installed.



Laser CBI cut logo is proudly displayed.



The Bushmaster 2.0 has 1/4" mounting plates aligned to the factory bumper mounting locations as well as utilizing existing holes in the frame for side support.



Blue Betty is ready for surgery by the trusted hands at CBI Off Road.



With the existing bumper removed, fender modification can begin.



Angle the cut down as you go below the bumper.



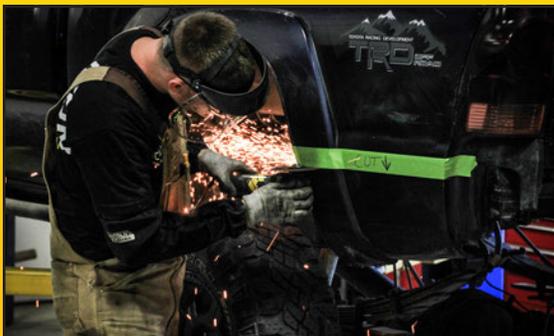
Cleaning the area will help with the application of the tape used to mark the cut line.



Mark the cut line approximately 4.5" below the tail light.



Prepare to cut!



Take your time and make a nice clean cut along the fender to make way for your new bumper.



Here you can see the angled cut below the tail light.



Grind down the edges.



Use edge trim to cover and protect the cut fender and your bumper.



Install factory 7-pin and license plate light.



I opted to include their tire swing gate to hold my spare tire, Rotopax and fold down camp table.



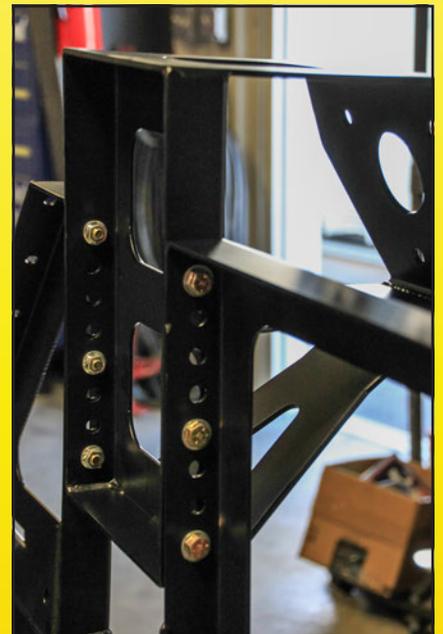
Slide the bumper in place and loosely fasten some bolts to hold the bumper in place.



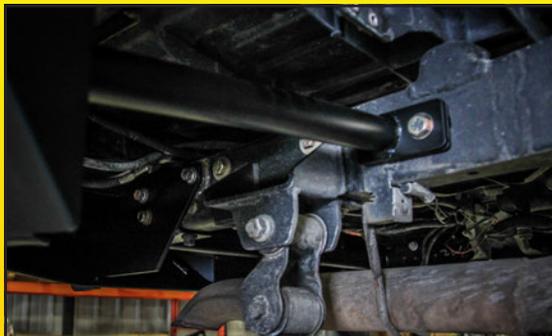
The swing arm is secured using the provided hardware.



Make sure to use an anti-seize to make sure you can easily remove the bolts later down the line.



Attach the adjustable spare tire mount at the desired height.



Here you can see the side support and frame mounting location. In applications with a shackle flip such as mine, take extra care when fitting the bumper in place.



Wheel studs are included and easily attached.



With the bumper mounted, it is time to put on any accessories you may have.



Finish attaching the remaining accessories.



Check out the optional fold down table.

I cannot thank Nathan and his crew enough for their top notch customer service and second-to-none craftsmanship.

For more information on the Bushmaster 2.0 and many other products offered by CBI Off

Road Fabrications, check them out online at <http://www.cbioffroadfab.com/> or visit them on Facebook, and tell them TCT Magazine sent you! 🍕



Getting out to Hell's Half Acre south of Idaho Falls to check out the local trails and test out the new armor!



FJCRUISER FORUMS.COM



The Largest FJ Cruiser Forum on the Net!

- Discussions •
- Photo Gallery •
- Owner Blogs •
- Buy/Sell/Trade •
- Contests •

» Recent Threads		Rating	Last Post	Replies	Views	Fa
Factory Skid Plate			11-16-2010 01:16 PM	0	1	Want to Buy (F...
front locker			11-16-2010 01:15 PM	7	181	4x4 / Off-Road...
big news. Toyota CJ Cruiser in the			09-16-2006 08:46 PM	2,078	313,718	Picture/Media P...
2010 Slider Spacing Question			11-16-2010 12:34 PM	7		General Discuss...
285 70 17 All Terrain - Who's got the best Deal on 5 of them?			11-16-2010 01:03 PM	3	84	Wheels and Tire...



Free Membership!

4
Runner

Father and Son 1985 4Runner Rebuild Project Part 2

by Phillip Jones

When we last left off with the Williams' 1985 4Runner project for 16 year-old Blake, the new engine from 22RE Performance was running and upholstery completed. Jeff reported that, "the new engine has exceeded our expectations. It runs perfectly—not a single issue after the install. I think that gets back to using mostly OEM parts."

For audio entertainment, the 4Runner was equipped with an upgraded audio system featuring a Pioneer touchscreen receiver, Bluetooth, and satellite radio. For sound delivery, they chose an Alpine amp and installed four new speakers.



The 4Runner now rests on Skyjacker Hydro Shocks at all 4 corners. To aid with rear visibility, a pair of rear facing 2x2 lights were mounted below the rear tube bumper that came with the truck. For front bumper, the Jeff went with the tube bumper made by Addicted Offroad for the first generation 4Runner.



Blake's 4Runner became his primary source of transportation to his suburban high school. With its aggressive stance, large tires, and peppy new engine, Blake was anxious to get this rig off the pavement. On a sunny and cool Sunday afternoon, Blake, Jeff, and this author ventured over to the nearest off-road park to introduce Blake to what his 4Runner can accomplish.



Northwest OHV Park is operated by the city of Bridgeport, TX, just northwest of Fort Worth. Bordering several rock quarries, this park offers numerous hilly and rugged trails at all levels of difficulty, making it a great place to learn to off-road. The large ProComp 35-inch tires provided the 4Runner with superb traction up the steep dirt trails, over small boulders, and through the mud. The axles flexed as expected in various flex zones, and the new engine pushed the 4Runner up steep slopes with ease. For the more challenging areas, Jeff took the wheel and relived his youthful days of off-roading in his former '83 Toyota pickup.

The Williams' changed out the brake master cylinder to 1-inch diameter for increased braking. They replaced the majority of weather stripping in the doors and rear tailgate, and replaced the rear glass due to the old one being badly scratched. Future modifications include front and rear lockers, rock sliders, front and rear springs, front winch, and a light bar across the top of the cab.

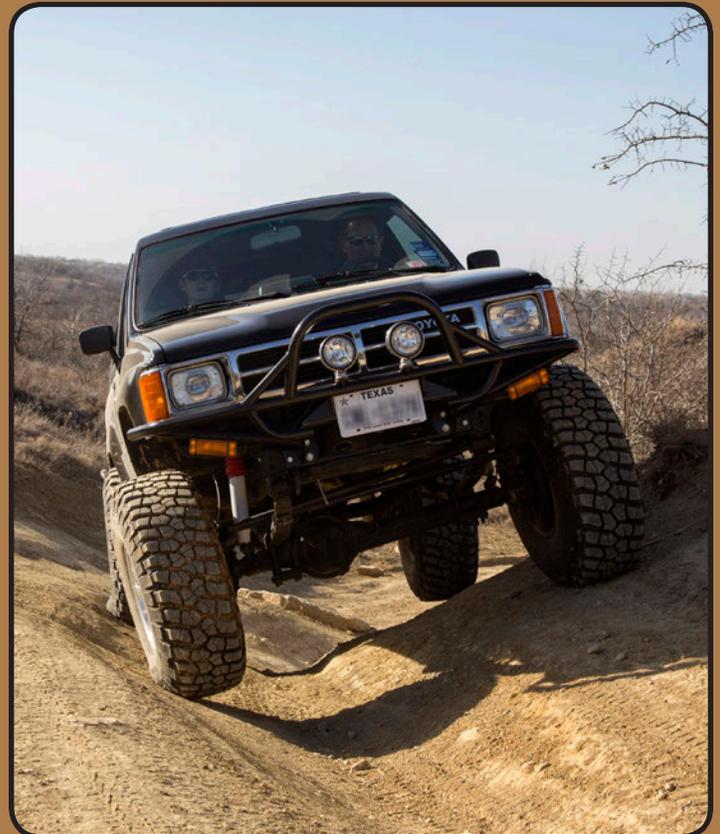




With more experience, Blake will grow comfortable with what his very capable 4Runner can do on the trails. Learning the truck's capabilities, proper articulation, and gaining confidence in his truck will come with time.



At the end of the venture, Jeff and Blake headed to the mud pit where Blake repeatedly was able to turn his black truck into an earthen brown as the large tires spewed mud high into the air. The day was finished off with massive burgers at Rock City Co. in Bridgeport.





See the slideshow in our App



A few weeks later, Blake posed his cleaned-up 4Runner on a farm field next to his father's 1983 FJ40. It was a nostalgic moment seeing these two 1980's Toyota 4x4 trucks side-by-side. Even more significant are the memories Blake will have of his experience of rebuilding his 4Runner with his father. 🇺🇸



Copyright © 2014 - Warrior Products Inc. All rights reserved.

INTRODUCING

FJ CRUISER PLATFORM RACK



NEW!



Come Join the Warrior Nation!

Rack Systems • Bumpers • Pre-Runner Light Bars • Body Armor
Rock Bars • Tube Flares • Hi-Lift Jack Mounts
Lift Kits • Shovel & Axe Mounts • Adventure Tube Doors



warriorproducts.com



**Land
Cruiser**

100-Series LabRak Expedition Roof Rack Long Term Review

Adam Aceino, AdamAceino.com

A year ago, I ordered my LabRak Expedition Roof Rack from a Mexican honeymoon suite—the first of many marital mistakes. It's moved couches, hauled hundreds of pounds of gear and even survived a truck totaling accident in Death Valley. But at the price of a used Land Rover, is the LabRak worth it?



Loaded up in Death Valley moments before the accident. Photo by Paul Gardner



The official LabRak test truck. Photo by Shane Walters



The LabRak roof rack after the truck totaling accident. Photo by Adam Aceino

What it Is

The LabRak Expedition Roof Rack is an American-made, extreme-duty, modular roof rack utilizing extensive T-Slotting for infinite mounting possibilities and named after the owner's Labrador.

The LabRak sports enough innovation to catch the bigger players with their pants down—innovations like a rigid aluminum extrusion frame with full-length T-slotting on all sides, CNC cut Logic Track-style quick-release tie-down rails along the top, and CNC cut hardware drop-in slots for easy accessory installation and removal. Each rail features Logic Track-style quick-release tie-down rails CNC cut right into the top, and the roof mounts are fully boxed. Everything from Hi-Lift jacks to LED light bars mount below the top of the rack to retain an OEM rack height. This design allows roof top tents to unfold without accessory interference. The awning mounts work with LabRak, Thule or Yakima crossbars. The Quik-Fist mounts cleverly bolt onto the Hi-Lift, and all the accessory mounts are also compatible with competitors' racks.



T-slotting on all sides allows infinite tie down and mounting options. Photo by Shane Walters



Logic Track-style quick-release mounts are cut right into the top rail.
Photo by Adam Aceino



The Hi-Lift jack mount uses redundant arms and locking knobs for extra safety when mounting and un-mounting. Photo by Shane Walters



Fully boxed, stainless steel 100-Series roof mounts with hardware.
Photo by Shane Walters



Rain gutter mounts with Thule/Yakima mounts and reversible awning mount. Photo by Shane Walters



Each corner features two nutserts top and bottom for more quick-release tie down mounts. Photo by Shane Walters



The Quikfist mounts cleverly bolt to the Hi-Lift beam. Photo by Shane Walters



Accessories mount below the top of the rack to facilitate roof top tent opening. Photo by Shane Walters

LabRak Uses Only the Best Materials

Everything is American-made, locally sourced, stainless steel or aluminum, and powder coated satin black. All the hardware is stainless steel or custom yellow zinc coated. Even the Hi-Lift mount is 3/16", powder coated & stainless steel. It makes other Hi-Lift mounts look like a downright liability.



Both the stainless steel corner pieces and aluminum rails are powder coated for extra corrosion resistance. Photo by Adam Aceino



All of the mounts attach to the T-slots using 5/16-18 stainless steel carriage bolts. Photo by Adam Aceino



Even the key chains for the locking Hi-Lift jack knobs are powder coated stainless steel. Photo by Shane Walters

Review

The rack arrived well packed in several "Made in the USA" labeled boxes. Some of the hardware was missing, but Shane overnighted the missing bolts. Two hours, 36 bolts and some text messaged directions, and I was standing on top of my new roof rack. Despite the "some assembly required," everything stayed tight, and corrosion-free over thousands of miles.



LabRak orders ready to ship out. Photo by Shane Walters



There is a ton of hardware. But it's all stainless steel or yellow zinc coated. And all of the nuts utilize lock washers or nylock nuts to prevent vibration loosening. Photo by Adam Aceino



The Expedition Roof Rack looks quite naked without accessories bolted up. Photo by Adam Aceino

With a diffuser or fairing, the rack's thin 1.5-inch profile is nearly silent and barely noticeable at the gas pump. But the rack's modular design will have you scouring the garage for things to bolt to it. In "Full Expo-mode" with a Hi-Lift, axe, shovel, 8-ft awning, 40-in. light bar and 50-in. fairing, my mileage dropped substantially.



"Full Expo Mode" Photo by Adam Aceino

Nothing short of a trailer will provide as much cargo room and as many mounting options as the LabRak. It looks like it was built to FAA crash standards and makes competitors' racks feel flimsy by comparison. But this mil-spec construction comes at a cost other than its high price. The 100-Series Roof Rack weighs 75 lbs.—half the factory recommended roof load. Add a few accessories, and it'll easily tip into the triple digits. All that weight makes you wonder just how strong a roof rack needs to be.

So is the LabRak's top-notch quality worth its top-notch price? Yes. If you want the best of the best, this is it. Whether you actually need the best is another question entirely.

Pros:

- Modular design allows custom setup for each trip.
- Corrosion proof, corrosion proof, corrosion proof.
- Nuclear reactor proof hardware.
- 1.5-in low profile.
- Retains stock rack height.
- Complete range of accessories.
- Manual assembly insures a perfect fit for every roof.

Cons:

- Expensive. \$1,250 for base frame.
- Heavy. 75-lbs before accessories and crossbars.
- Installation is labor intensive and time consuming.
- Possibly more rack than you need.



The LabRak found a new home on the silver totaled truck's white replacement. Photo by Adam Aceino

SOURCE: LabRak.com



Adam owns a 2000 100-Series Land Cruiser and hails from Santa Monica, CA. You can find him at AdamAceino.com or "KlausVanWinkle" on IH8MUD.com 🇺🇸

Dreaming of your next adventure?



We sure are.

The Toyota Land Cruiser Association is a club dedicated to bringing Toyota 4-Wheel Drive enthusiasts together. Visit us at www.tlca.org to learn more.



TLCA membership includes a subscription to **Toyota Trails** magazine, featuring in-depth tech and trail articles, event listings, TLCA merchandise and Land Cruiser classifieds.

Toyota Land Cruiser Association
P.O. Box 230, Verona, KY, 41092
(800) 655-3810 • www.tlca.org



Keeping Your Cooler Cold

By Beau & Krista Johnston, LivingOverland.com



We are big proponents of using relatively inexpensive coolers to store our perishable food while on trips. In fact, for the last two years we have been teaching cooking classes at Overland Expo out of our inexpensive cooler. We have experimented with various forms of ice, trying everything from bags of ice-cubes to freezing cans of beer. This experience has led us to develop these simple tricks for keeping your cooler longer. Here is our short list of the best ways to keep your cooler cold on extended trips.

Ice-cubes are probably the easiest way to keep coolers cold. They are readily available at just about any convenience store or hotel lobby (for free) but they offer a challenge as they have a relatively high surface area to volume. This results in an increased melting rate when compared to say a block of ice with the same mass. We have all been there; we run to the closest gas station, grab a bag of cubed ice, toss it in the cooler, and before we know it our food is swimming in ice water. To combat this, we began storing our ice-cubes in plastic containers. We have found that an 8-quart plastic container will hold, roughly, five pounds of ice. The plastic containers keep the ice, and subsequent ice water, contained in one location and leaves your food dry. Keeping the melt water with the ice helps to insulate the ice and will actually help the ice last longer.

Solid blocks of ice are the best form to keep coolers cold; they have a lower surface area to volume than the same mass of cubed ice. The lower surface area reduces the melting rate and helps the ice last longer. Buying ice blocks at convenience stores can pose the same problems with water in the cooler as ice cubes. Containing this water is also important and why we recommend making your own blocks of ice at home. While many choose to use freeze water in used milk jugs; our favorite method uses the recycled Mylar bladders from Starbucks' Coffee Travelers. These bladders can easily be removed from their cardboard covers, filled with water, formed to various shapes, and frozen. We recommend allowing at least 24 hours to for the ice to completely form. This is our preferred method for shorter trips; the downside to freezing your own ice blocks is the lack of being able to replenish the ice on longer trips.



Another great option for extending cooler life is freezing a portion of your food prior to the trip. We recommend this option for trips over five days, keeping at least two days' worth of food thawed for use. Some of our river-rafting friends have even gone as far as freezing beer for multi-day trips. A few years ago we experimented with different canned beers to determine if this technique really worked. We tested four different beers against each other and

against blocks of ice in 90°F outside temperatures. Our rather unscientific study showed a cooler filled with frozen beer stayed approximately 4°F

cooler than an identical cooler with a block of ice. At the end of our experiment, all of the beer had thawed, while only 2/3 of the ice had thawed. Freezing beer does separate the water out of the beer solution and, when thawed, produces a 'high octane beer' and water mixture. If allowed to sit for a couple of days, the water will reincorporate back into the beer solution. We feel that given the effects freezing beer has on flavor, we would not readily recommend this technique for shorter camping trips. However, we think this technique does show some merit when it comes to extended travel, as this allows the alcohol in the beer to become reincorporated into the solution.

While coolers may not be the most luxurious way to keep your food cold, we feel they are still a viable option for many camping trips. We continue to use coolers on many of our outings with great success. By combining these techniques, with a well-insulated cooler, we hope you are able to make the ice last a little longer on your next trip. 🍷



FRAMED

f/8.0 1/125s 32mm





Crowsnest Pass Alberta, Canada | Addison Rickaby



Comanche Springs Astronomy Campus, Crowell, TX | Phillip Jo

FRAMED

f/13 1/320s 16mm



nes



Grand Valley, CO | Jonathan Harris



FRAMED

f/8.0 1/125s 32mm



Holy Cross, CO | Bob Holliday

FRAMED

f/3.5 1/250s 10mm

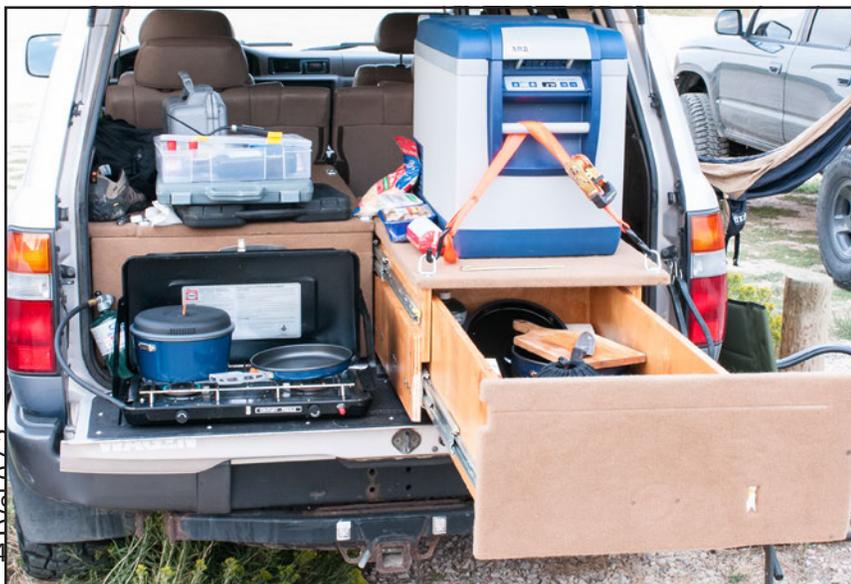




Determining the Right Fuel for Your Stove

By Beau & Krista Johnston
LivingOverland.com **Part 2**

Three factors should be addressed when choosing a stove that is right for you. In our January article we discussed the importance of knowing how the types of meals you will be preparing affects the selection of a camp stove. We learned how stoves are designed for specific styles of outdoor cooking and how flame control and burner size affects the types of meals you can prepare in the field. This article will be discussing the most common types of fuels used in modern camp stoves and how they should be factored in when purchasing the stove that is right for you. Each fuel type comes with advantages and disadvantages that must be weighed when deciding on the stove that is right for you.



Propane (Liquid Petroleum Gas)

I believe propane has become the most popular fuel for modern camp stoves sold in the United States. It is incredibly convenient, with the little green bottles of propane able to be found in nearly every sporting goods store in the country. Adapters can be purchased to run these stoves off of the larger, barbeque-style, bottles while on longer trips. Propane's popularity as a fuel source allows for a wider range of stove styles to choose from.

Propane is limited because of its physical properties. At atmospheric pressure, propane has a boiling point of -43°F . This means propane has a high vapor pressure at ambient temperatures. To make it economical for consumers to store



and transport propane, it is sold in its liquid form. While its liquid form reduces the propane's volume, it does require a heavy steel container for storage. As the outside temperatures drop and the propane temperature approaches its boiling point, the pressure inside of the bottle also drops. This can cause a reduction in fuel reaching the burner and, therefore, a reduction in heat generated. A second factor to consider in buying a propane stove lies, again, with the fuel bottles. The threads which connect the stove to the bottle can vary between countries, as the standards between countries can be slightly different. Luckily adapters can be purchased when traveling overseas.

Propane contains between 84,950 and 91,410 Btu/gallon¹ of energy and weighs approximately 4.20lb/gallon²; giving it an average energy to weight ratio of 20,995 Btu/lbf.



Propane Blends

To overcome the propane's high vapor pressure and resulting need for heavy fuel storage tanks, isobutane and/or N-butane is added to raise the boiling point. Raising the boiling point lowers the vapor pressure at typical ambient temperatures and results in thinner-walled storage tanks and overall weight reduction. These fuels are popular with backpackers as they offer similar energy to weight ratios to that of propane without the need for heavy containers. These blended fuels are limited in cold weather as their boiling points tend to be at or around 0°F. As with propane though, once the temperature drops so does the fuels ability to perform.



1 http://www.afdc.energy.gov/fuels/fuel_comparison_chart.pdf
 2 http://www.npga.org/files/public/Facts_About_Propane.pdf

Gasoline/Petrol

Gasoline is probably the most readily available fuel type for modern camp stoves sold around the world; able to be purchased from any auto-fueling station in the world. Its physical properties allow it to be stored at lower (atmospheric) pressure and this results in gasoline stoves having the ability to function at much lower temperatures than their propane counterparts. The fuel tanks on these stoves require pressurizing to force the gasoline through the vaporizing tube and into the burners. As fuel is consumed by the burners, the air pressure in the tanks will lower and result in the need for subsequent re-pressurizing.

A less popular fuel source than propane, you are limited in the range of gasoline stoves on the market. Most gasoline stoves are geared toward the backpacker with Coleman® being the only company making multi-burner gasoline stoves for sale in the United States. The composition of gasoline also fluctuates throughout the year, with different blends being used to improve engine performance during the winter months. This changing of fuel blends affects stove performance, with winter fuels tending to foul burner components. Winter can also be tough on pump components; I was



recently in Yellowstone and attempted to make dinner in 0°F outside temperature. The cold had caused the pump gasket to contract, resulting in an inability to pressurize the tank. After a few minutes sitting on the floorboards with the heater running, I was able to get the pump to work. Once working, the stove produced enough heat to make some fabulous shrimp tacos!

Gasoline contains between 116,090 and 124,340 Btu/gallon¹ of energy and weighs 6.3lbf/gallon¹; giving it an average energy to weight ratio of 19,081 Btu/lbf.

White Gas

Commonly referred to as Coleman® Fuel, white gas is a highly-refined type of liquid petroleum-based fuel. Unlike its cousin, gasoline, white gas does not contain additives used in the combustion engine cycle and therefore does not fluctuate with the seasons. The lack of combustion engine additives also allows white gas to burn more cleanly, and white gas fueled stoves are more commonly available than those fueled by gasoline. Most manufacturers recommend burning white gas in multi-fuel stoves to ensure long component life.

White gas has an energy to weight ratio of 19,121 Btu/lbf.²

1 http://www.fueleconomy.gov/feg/contentIncludes/co2_inc.htm

2 <http://www.optimusstoves.com/seen/technical-support/faq/fuel-faq/>

The Others

So what about kerosene, diesel, alcohol, and wood stoves? While I believe each of these fuel types offer certain benefits over some of the one listed above, there are fewer commercial options for these types of stoves. I, for one, would love to see a two-burner camping stove that can burn diesel. The drawback to diesel, along with kerosene, is a rather dirty-burning fuel for camp stoves and tends to coat the cookware with soot. Alcohol and wood stoves are gaining popularity among the ultra-light crowd, these fuels offer little flame control and are better suited to rapidly boiling water.

In our first article we discovered that stoves are not created equal, so too it's clear that fuel types are not created equal. Propane offers the highest average energy to weight ratio but its high vapor pressure requires heavy storage tanks. Blended propane fuels



reduce the vapor pressure but have limitations at colder temperatures. Gasoline and white gas are more stable fuels at ambient temperatures but are limited in the number of stoves that burn these fuels. In the next issue we will be wrapping up our three-part series by discussing how a stove's

overall design can affect how we are able to cook in the field. 🍲



An Adventure Travel Series...
The Alaska / Yukon
EXPEDITION



Follow the Adventure
xoverland.com



THE EPIC:

Leg 3 Part 2—Never Ending: Peaks and Memories

By Monte Nickles

Photos by: Monte Nickles, Ben Springli, Mike Digirat

We pick up our tale of adventure just outside of the end of Poughkeepsie Gulch trail where we had just conquered the obstacle The Wall and I was still limping my truck along partially—the memory of its wound fresh in everyone’s mind. As we came to Animas Forks however, we were quickly caught up in the amazing Colorado scenery.

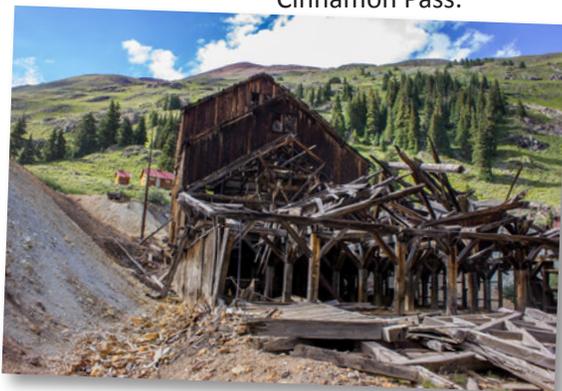


Animas Forks is really just a stretch of trail that connects you to other trails. The first fork is right out of Poughkeepsie with two options, Hurricane pass, California pass, and Corkscrew Gulch to the right, and Cinnamon pass, Engineer pass or Silverton to the left. We opted for the left. It is a very tame road, it almost felt maintained. Our rigs made very quick work of the road,

eating up the miles. The remnants of the huge mining operations here were larger than ever. Eventually we came to our destination of Cinnamon Pass.



Due to our side adventure of hectic repairs on Poughkeepsie, we were a tad later than we wanted to be when looking for a camp site. Eventually we came onto a nice spot on the North Fork Henson Creek. Upon arrival we noticed a very loud clunk coming from our companion Dave’s 2nd Gen—the only 2nd Gen left on the trip. Turns out his adapter nut for his rear 5100 had come off. After we settled into camp the tools were brought out and for the second time that day, we repaired a truck on our team. That was a campfire of many accomplishments that night with many laughs and drinks to go around.



I was again blown away with the lush green peaks as far as the eye could make out, with not a tree in site as once again we were at the 12,000’ mark.

The next morning was very exciting for me personally. As our main trail for the day was one I had been looking forward to for a long time—Engineer Pass. The photos I had seen of this trail were absolutely mind blowing. I could



not wait to live it myself and my god, it did not disappoint. From Lake City you ascend up and up riding among the peaks till once again, you end up at a whopping 12, 800 feet. It also is one of the only places I noticed you can manage to escape the vast peaks and view the valleys far far away. But only just. Pictures hardly do it justice.



From here we continued on Engineer and hit every side road we could. There were at least three that we did and each one was different and brought us someplace very unique and interesting. Engineer Pass from Lake City comes back into the same area as the beginning of Cinnamon where we had started the day before. This time we continued on to Silverton.

What a cool little town it is. Old Main Street is still nothing but dirt! After we had refueled and picked up a few groceries, we went and ate at a local pizza place—talk about good homemade pizza! Of course it could have been that it was our first full meal in almost a week that we hadn't cooked over a fire or camp stove that helped make it so great. Either way, I highly recommend it if you're there! It made us happy, as you can see.



Finding a camp spot proved trickier than we had originally thought coming out of the peaks to Silverton as most of the land in the area was private. I envy the owners, but they could at least let us camp next time! We finally found a lovely spot far up the canyon and had a wonderful last night around our campfire.



THE EPIC:



We moved much slower in the morning knowing it was our last day together as a crew. Eventually we got back on the road and hit Animas Forks again back toward California pass, Hurricane pass and Corkscrew gulch.



California once again delivered vast lush green meadows as far as we could see and this time, the mines were bigger. Much bigger! We could not help ourselves, so we pulled next to them to get out and explore them. Out of all the abandoned buildings I have been in, these seemed like they didn't want to die. There was not a creepy odd feeling with these. The mood felt more like they wanted only to be used again, fighting off all the crushing snow they face every year. The buildings deserved to be used. Alas, they weren't, but they made for great exploring and photos.



Before we started up Hurricane, we ran into a group of Land Rovers that were in the area for their annual international meet up. However, one had been blown out his clutch on Poughkeepsie and was



being towed by a fellow Rover. That would not make for a fun day on the trail. They graciously allowed us in front of them before the ascent up into Hurricane.

See the Video in our App

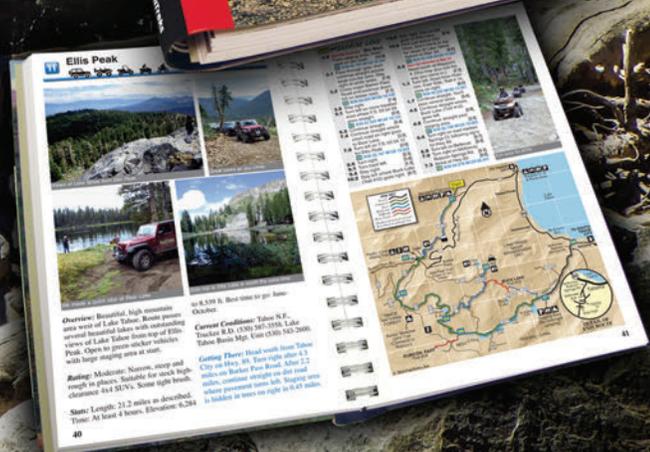
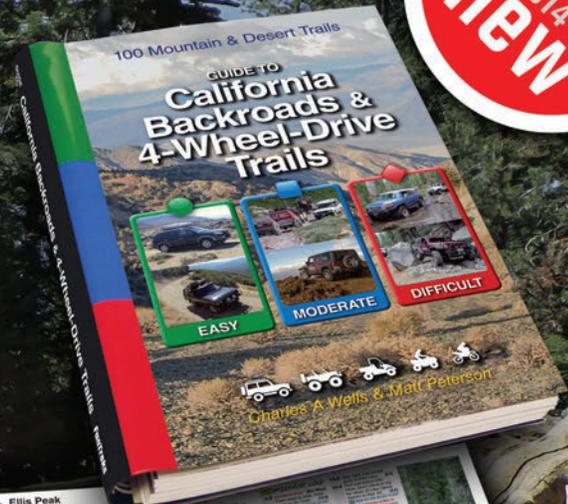




Hurricane offers some of the coolest views I think we saw. The green valley down below looks like it has rivers of gold flowing from the peaks. Someone else had caught wind of this and had started a mining operation at the bottom. The gold was a mere hint of what Corkscrew would be like.

California Trails

Free sample online at www.funtreks.com



FunTreks
Guidebooks
Adventure Responsibly

THE EPIC:



At first I thought this pass was mis-named and should be Cinnamon, look at those peaks exploding with reds and browns. It wasn't until we started down it that we understood the real name. There were so many switchbacks on this pass we lost count.

After Corkscrew we pulled into Ouray to say our goodbyes. Several were going to stay an extra night. It was the parting of the main group and saying goodbye to people you love spending time with. We had our adventure—once in a lifetime that we will cherish till our dying days with hundreds of miles on dirt roads and trails, thousands of miles on pavement, and newly dealt scars on our rigs from

Southern Montana to Southern Colorado. It had been an extraordinary two weeks. This was the type of trip you never want to end.

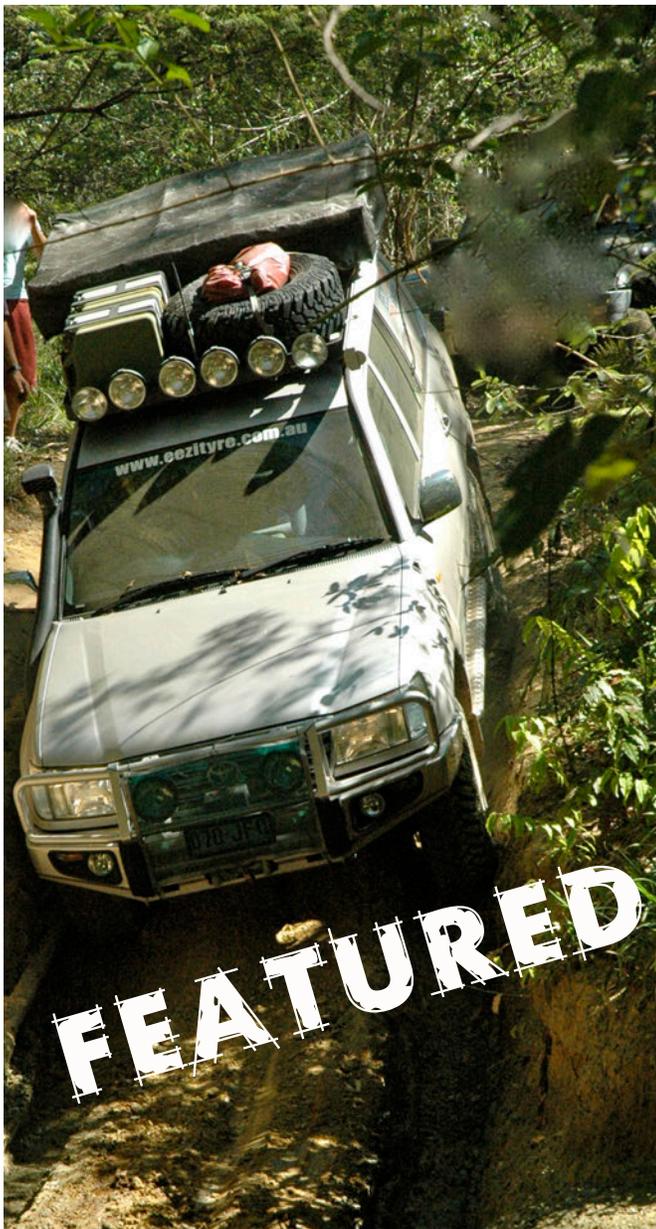
We said our goodbyes and headed back to reality. So ends the tale of our great adventure. I hope you have been inspired to get out and go to these places or find gems like this in your own area. They are out there. All you have to do is get out and look, and before long, you'll be writing your own story and calling it... The Epic ❤️



Land Cruiser | Toyota Trucks | 4Runner | FJ Cruiser | LX/GX/Prado
Outdoor Lifestyle | Overland | Toyota International | Events



TCT MAGAZINE



**Stephen Haughey's
2005 Toyota LandCruiser 100 Series
GXL 4.2TD A/T from Australia
<http://xdrive.com.au> | Driver Training**

- ARB deluxe bar, 12000lb Warn winch, 2x IPF spotlights & fog lights
- ARB Front / Rear air locker & ARB air compressor
- Double bash plate with recovery hooks and 4.5t D shackles
- Safari Snorkel
- 6 x Cooper STT 285/75-16 tyres 33"
- EFS 2" raised suspension front and rear with strengthened and modified lower control arms
- Roof Rack with 2x metal 20lt Jerry cans 2 x 20lt Plastic water cans
- Double fuel tanks 145lt total fuel 185lt Total Range approx. 1800km
- EEZITYRE tyre snake
- 6 x Hella spotlights
- EEZI awn roof top tent with annex room & EEZI awn side awning
- 2x sets Maxtrax self-recovery tracks
- 2x UHF radios and 5w Hand Held UHF radio
- Garmin Quest GPS
- Garmin GPS linked to rear view mirror with reverse camera
- Modification of Central Diff lock to manually switch on/off in high and low range
- RCVE Custom Rock sliders/side steps
- Fourth battery in rear compartment 'ARK PAK' charged from DC to DC charger
- Engel 40lt fridge freezer & Wae-co 50lt fridge freezer
- Bubba Rope Kinetic Recovery rope
- Gas hot water cooking system with gas shower attachment pump pipes shower rose etc
- EEZITYRE spare air kit & EEZITYRE tyre repair kit
- 2.5t Tirfor Hand Winch with 30m steel cable & additional 30m steel cable
- Long Handled shovel, Axe, Hi-lift Jack
- And some other things I have probably forgotten



FIGURE 6

4Runner DIY Tip: Low-cost Shovel Mount for Aftermarket Roof Racks

by Phillip Jones

Aftermarket roof racks are a popular outfitting modification for 4Runner owners. One of the benefits is the ability to mount essential extraction tools to the rack for ease of access. Shopping for a shovel or axe mount system that fits the rack securely can be a bit daunting. There is a way to make a perfect fit, and to do it all for around \$15.

The idea is to use basic items from a hardware store to mount a pair of Quick Fist rubber tool holders to

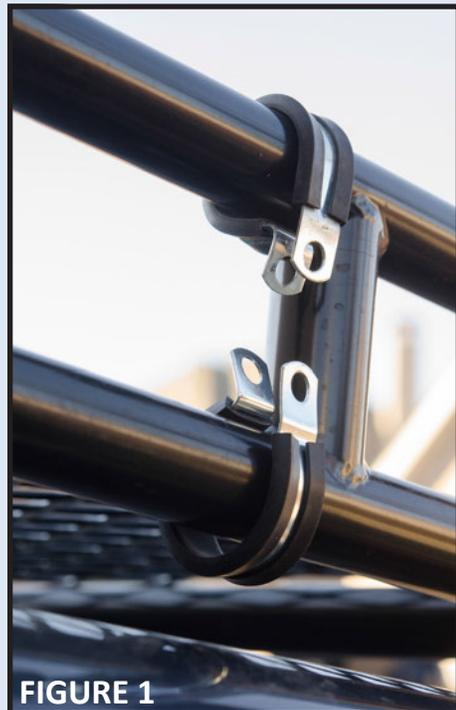


FIGURE 1



FIGURE 2

the rack. Besides a pair of Quick Fist holders, here is what's needed from the hardware store:

- 4 stainless steel cable clamps with rubber housing
- 1 metal strip about 1-inch wide and 8 to 10-inches long (e.g. a strip of aluminum)
- 4 stainless steel 1-inch bolts that will fit through the cable clamp holes, 4 nuts, and 6 washers

Tools needed:

- Drill and a bit that fits through the cable clamp holes
- Screw driver
- Wrench or socket for the nut
- Snips for cutting the metal strip

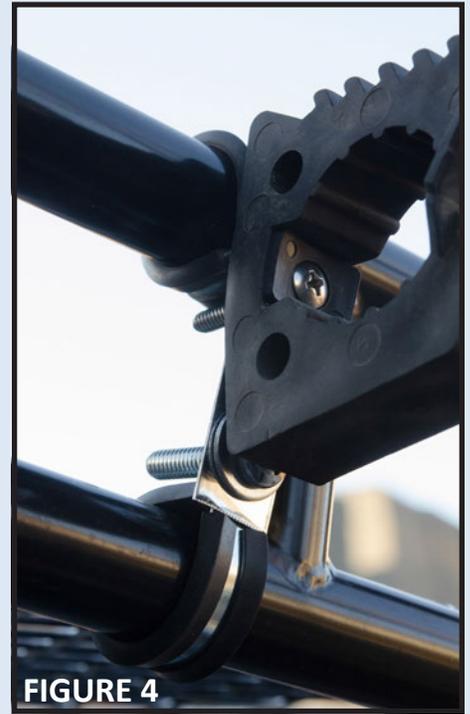


FIGURE 3

After assessing where the shovel will rest, attach the cable clamps to the tubing as seen in **Figure 1**. Hold the metal strip up, as seen in **Figure 2**, to determine how much of the strip will be used. Snip the metal at the desired length (**Figure 3**). Now determine where the holes need to be drilled to align with the holes in the clamps. After drilling, you are ready for the install.

Place the Quick Fist screw hole next to the upper cable clamp hole, while inserting the metal strip between the clamp and the Quick Fist. Insert screw and tighten down the nut. Add the next screw to the bottom clamp and hole in the metal strip. Result should resemble what's seen in **Figure 4**.

The shovel should rest securely and high enough as to not damage the vehicle (**Figures 5 and 6**). Why not just use cable clamps on the upper rack tube only? While the rubber grip on the rail can be tight, off-roading will cause the weight of the shovel or axe to rotate the clamps to a position that will cause part of the tool to rest on the roof. Attaching the bottom cable clamps and strips of metal are what prevent the top clamps from rotating from vibrations. 📌



[FORUM](#) | [REVIEWS](#) | [LOGISTICS](#)





FJ Cruiser Lighting Upgrade

By Shane Williams

Our 2007 TRD SE FJ Cruiser will turn 100,000 miles any day now, and it's served us very well for hundreds of adventures. Although we installed a dual-battery system in 2012, we're still working on lighting upgrades as part of the Extreme Makeover: FJC project we started last year. For our latest project we decided to replace our headlights, side lights, and tail lights with upgraded versions.

ANZO USA now makes LED lights for the rear and side markers, as well as a projector headlight with halo in a fully OEM-compatible package. The housing for all three components is nearly identical to the OEM hardware, so we're sure the quality will be amazing. What's great about the LEDs is that we'll never have to worry about changing bulbs again.

Front Headlights/Side Marker Lights

One benefit of having nearly 100k and dozens of mods (all written up for the best Toyota magazine on the planet) is familiarity with the front-end of our FJ Cruiser. We've had the bezel and various other front end-parts out so many times it's amazing any of the plastic clips still work. So needless to say getting things ready for the headlight and side marker light swap wasn't difficult.

Swapping these lights is one of the easiest mods to do, and the different look on the front of our whited-out TRD SE really makes this a worthwhile project, despite the ??? cost (Amazon.com).

1. Remove the bezel and bolts holding the headlight assembly in

- Carefully pop the small bottom fascia out, it's under the headlight



NOTE: 100k makes these clips very brittle... we snapped the passenger side clips and are awaiting a replacement part

- Remove the blinker bulb from the side marker lights, and remove the bulb from the holder.
- Remove the headlight assembly by removing the bolt holding it in and carefully popping the remaining plastic clips. A removal tool or flathead screwdriver make this a little easier.



- Turn the OEM assembly over and remove the three nuts holding the side marker lights to the headlight.



- Mate the new side marker and headlight assembly using the three nuts you just removed.

- Lay the new assembly on your bumper so you can work on wiring:

- The side marker plug and headlight use the OEM harnesses.



- For the Halo, wire it to a switch, or if you'd like it to come on with the headlights, wire it to the red/blue (top wire) on the headlight connector.
- Mount the relay boxes for the side marker and halo anywhere that makes sense.
 - Re-install the assembly by pressing firmly until all the clips engage.
 - Re-install the bottom fascia.
 - Re-install the bolt holding the assembly in.
 - Repeat steps 2–11 for the other side.
 - Re-install the bezel.

Rear LED Lights

Since we've seen these lights in FJCs for years, we figured this very common mod wouldn't be too difficult to accomplish. Apparently we were mistaken.

The theory of this install is simple enough: remove a panel or two, disconnect wiring, remove nuts, replace the light, re-install everything. Sure, except for that ONE nut on the outside of the assembly is nearly impossible to reach with a ratchet or a wrench. So be prepared to spend 1–2 hours working on two nuts (one on each side). Here we go:

See the video in our App

Download on the
App Store

1. Locate and remove the access panel to get to the wires.



2. Remove the bolts and rack (or holders) on the side panel and prop it open.

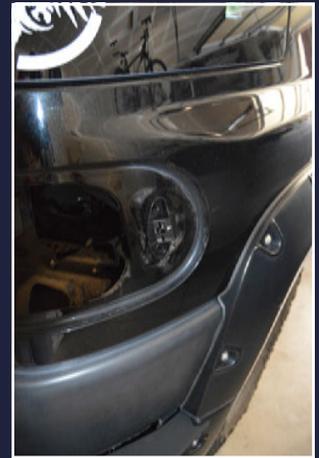


NOTE: Sorry, we don't have many photos for some of these steps.

3. Remove the bulbs from the OEM assembly, safeguard them and note which hole each color came from.
4. Use a wrench to remove the three nuts holding the OEM assembly in. Note that these nuts are on a long shaft so you won't be able to use a standard ratchet. This pic



shows the outside where the third nut is located.



The furthest outside nut is exceedingly difficult to remove, you have to reach behind the side panel to get to it, in the blind. Keep trying, you'll get it.

5. Once you have the assembly out, get your new LED assembly ready.

I modified the outer shaft on my LEDs to allow for easier re-installation. I cut the shaft by about 1.5" so I could get my wrench on the nut easier.

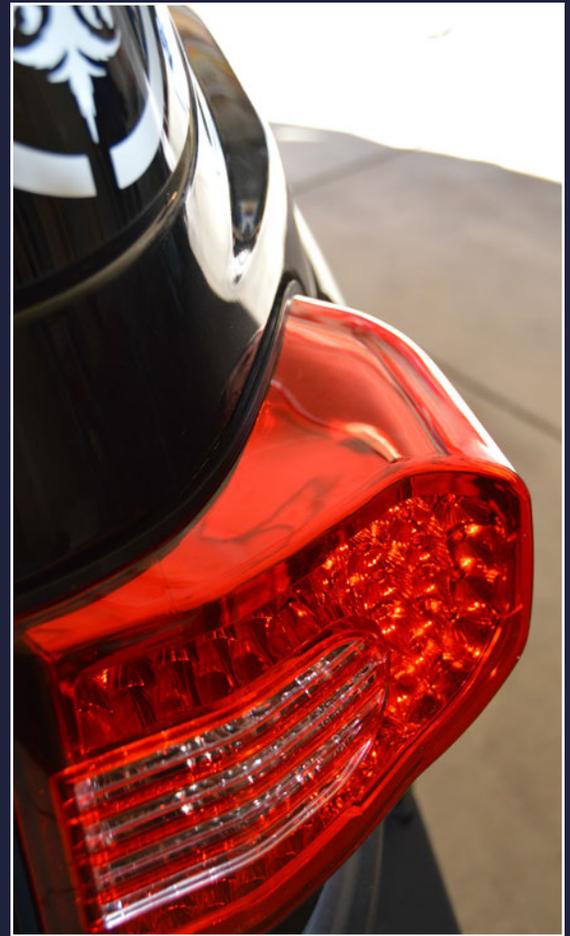


6. After installing the new assembly, add the new relay into the wiring harness according to the directions, and install all the wires.
7. Make sure you check turn signals, brakes, and reverse lights to make sure no wires got crossed.

If you're looking for a dramatic upgrade to the look of your FJC, consider a full lighting package swap. It's not inexpensive though:

- Headlights with Halo: MSRP: \$540/pair
- Side LED Marker Lights: MSRP \$332/pair
- Rear LED Lights: \$397/pair

The new lights really change the look of our not-quite-new FJC. The LEDs draw less power and you'll likely never have to worry about lights burning out, so it really is a nice upgrade. The projector lights are not HID so the brightness is about the same as OEM, but the look is really interesting with our white bezel. ❤️



Living Overland

Gourmet Cooking · Travel · 4WD

www.LivingOverland.com



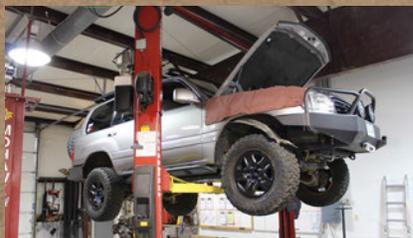
The gourmet recipes and equipment reviews you need to make your overland trip a success.



TJM Locker & Nitro 4.88 100 Series Install

By Josh Lassiter

My introduction to the Land Cruiser lineage was my 1972 FJ-40. Wanting to continue with the tradition with something larger, my wife and I decided on a 2002 100 Series for our all-around 4x4. We planned on building a camping and exploring vehicle that was as comfortable on the road as it was capable off-road with plenty of cargo space. I knew the front differential was the only weak point on the 100 Series. After learning about its capabilities I thought we'd be fine. This is true to a point, but if you actually wheel your 100, you are taking a chance on a blown front differential each time you take it out. We didn't buy the 100 to be a rock crawler, but we know situations arise on the trail and eventually you are going to push the limits. There have been many discussions on blown gears and other trail carnage with the ATRAC system and lack of wheel travel on the 100. When a wheel is lifted into the air and then comes back in contact with the ground it can violently gain traction—this is where the differential gives out. It simply cannot handle the sudden force that comes through the axle shaft after the tire abruptly regains traction.



Due to the expense, one of the last large modifications to our Land Cruiser was going to be the locker installation and re-gear and we began budgeting for it in advance. We had hoped to complete it before Cruise Moab in the spring. Unfortunately, my breakage happened before I could get to it, on a Rising Sun trail run in October where we ran into snow and ice. We were second to last in the group and the trail had become snow packed and icy. To keep the 100 from sliding out of control and hitting a tree, I resorted to putting the transmission into reverse while sliding down a steep icy section. With all four tires spinning freely on the ice, my passenger front tire suddenly gained traction on a rock under the snow and “snap,” the dreaded blown diff sound—not a good night wheeling. After a few choice words, we got out and checked everything and debated how bad it was. We were not in a good place to start wrenching, so

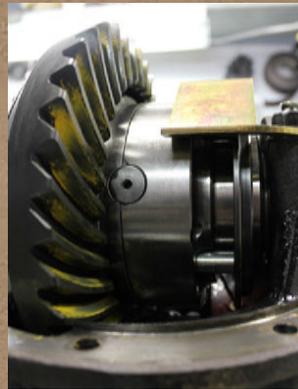
we continued limping down the trail. With every clunking rotation of the ring gear, I hoped it would stay intact enough to get to the trailhead. Once there, we pulled the drive flanges and disconnected the front driveshaft so I could get it home.



I knew I could save money if I did the repair myself. I also knew it would be a long-term commitment and would have to invest in some specialized tools and supplies which would quickly add up. Installing the lockers is fairly straight forward, but with the addition of new gears, I wanted to ensure it was done correctly. Attaining the correct pinion depth, backlash measurements and carrier bearing preload was key in not having to do this again. I made a few phone calls to Christo at Slee Off-Road and Carl at Just Differentials to see what I was in for. After speaking to the experts, I decided to let them take care of this project.



The Pro Locker features a strong iron case, large hardened pinion gears, hardened 4 pin cross shafts, a hardened internal lock ring that yields 10mm of engagement over the side locking gear and a limited lifetime warranty.



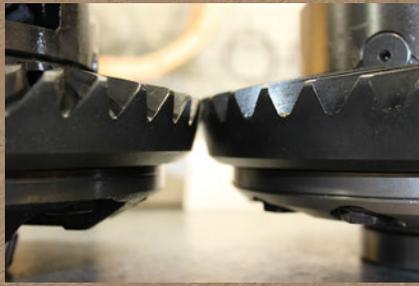
TJM has been in the off-road market in Australia for over 40 years. They began in 1973 selling bull bars to the local emerging 4x4 community and have since expanded to selling a diverse selection of 4x4 accessories. They extended their global reach into the U.S. in 2010 and opened their North American headquarters in 2011. TJM USA now calls Riverside, California home servicing both North and South American off-road enthusiasts. It is good to see the increasing aftermarket options for the 100 Series.



With the emergence of TJM back into the U.S. market and their new locking differential design, I thought I would try a newer product. The new TJM Pro Locker is an air-locking differential that features an external actuator, which bolts through and to the bearing main cap with a bracket. I really liked the design of the new piston style actuator, which eliminates the possibility of oil being pumped into the airline potentially destroying your air compressor. There is also no seal, which has proven to be a weak point in other designs so it is not prone to failure over an extended period and is essentially maintenance free. TJM has been producing the Pro Locker in Australia since 2005 and it is available for many different vehicle platforms. No carrier modification is required for the Pro Locker, other than to drill and tap a bulkhead fitting for the airline.

Now that I knew which lockers I was going with, I needed to figure out the gearing since mine were not salvageable. I called Carl at Just Differentials to talk about the project and verify pricing. A fully built 100 Series is going to weigh in over 7,000 pounds, depending on your set up and what you are carrying. With the differentials already opened for the lockers, I opted for Nitro's 4.88, 29 spline gear ratio upgrade from the stock 4.30, 27 spline

for better performance and strength, especially at the front where I sheared mine.



You can see the carrier thickness difference between the 4.30 and 4.88.

There are no 100 Series full-float rear differentials in the states. The 100 Series has a 9.5-inch rear and 8.5-inch front differential, so the 4.88 gear ratio set is max for an unmodified 3rd member housing. The quality in Nitro's gear sets is unmatched; their precision machining, heat-treatment and computer controlled lapping process provides for excellent contact patterns. They are the strongest, quietest gear setup available. Carl is a 100 Series owner and Just Differentials has over 60 years in the business, so these are the guys to talk to.



Fortunately, I live near Slee Off-Road in Golden, Colorado and they are my go to shop. I spoke with Christo Slee who ordered all the parts through Carl at Just Differentials and I reserved a couple days in the garage. I knew having a reputable shop do the work that I had the assurance the job was going to be done correctly. Slee Off-Road stands behind the products they sell, so if there are any issues after the install, it is easier for a dealer to contact the manufacturer to rectify the situation. Christo and the technicians at Slee Off-Road are some of the most knowledgeable 80/100 Series guys around and I looked forward to beginning the project.



On a 100 Series, Slee recommends taking the knuckles off for ease of removing the front diff. This is a good time to check other components for wear. They recommend checking the CV axle, axle seals, spindle bearings and bushings, lower ball joint and the wheel bearings. I replaced my passenger CV axle as the grease was rusty, it had worn splines and the outer stub shaft was showing signs of wear. My bearings and bushings showed grease contamination, so these were replaced as was the lower ball joint.



Joe at Slee Off-Road keeps track of all the differential rebuilds. During the install he noted that the pinion shim consistencies between Nitro gears is very reliable and the tolerance is excellent. When removing the Nitro gears from the box, you can tell how much stronger and thicker they are compared to the stock 4.30s. After cleaning all the parts and getting the cosmoline off the gears we heated them. Toyota recommends boiling the gear in water and letting the metals expand slightly, which allows it to slide over the carrier easier.



It is noted in the instructions from Nitro **not** to use the bolts to draw the ring gear onto the carrier. Joe uses a small oven at 212 degrees until hot to drive the gear into place, which is probably easier than

See the slideshow in our App

Download on the
App Store



using a large dead-blow hammer. After bolting on the external actuator for the locker and attaching the bracket to the bearing main cap, we ensured the tube routing was not touching anything inside the housing. This then is routed through the bulkhead fitting port that was installed after the housing was drilled and tapped. We then installed the pinion, then the carrier and ring gear assembly.



With the crush sleeve in place, obtaining the correct pinion bearing preload is one of the most critical steps. If it is too tight, you will burn your bearings and if it is too loose the pinion depth will change. You have to slowly crush the preload spacer to about 12–15 inch-pounds. When using the dial indicator, Nitro recommends measuring the indicator needle perpendicular to the drive side of the ring gear teeth.



We measured in a few spots for variance. Once this was in place, we finalized backlash measurements on the ring gear checking for contact patterns on the teeth. They should be centered between the face and flank. The contact pattern indicates the pinion depth in relation to axle centerline. We reassembled the differential housing and tested for air leaks. The same procedure is followed for both front and rear differentials.



After the differentials were installed, we ran the airlines and then the locker switch on the dash was installed. TJM uses a 6mm airline hose with a 90-degree swivel fitting at the solenoid. This is much better than a fixed fitting as it allows for some movement. I opted to run the TJM lockers by an ARB high output air compressor, so I could air up tires on the trail.



I can't say enough about the professionalism, knowledge and customer service from both Slee Off-Road and Just Differentials. Carl is a wealth of knowledge when it comes to differentials and can answer all your questions. I was really impressed that Slee tries to use Toyota replacement parts wherever they can, even down to the 80 Series dash differential locking switch. Thanks to the fast shipping from JT's and the knowledge at Slee, this project only took two days. 🇺🇸





Innovation and Quality = SCS Performance Wheels

By Eric McKercher

If you are searching for a wheel that is unique and is designed to specifically fit your Toyota, then you need to check out Stealth Custom Series. SCS is a wheel company dedicated to sleek, dynamic, and modern wheel design. SCS was founded by a group of off-roading enthusiasts in 2011 in Northern California that focuses on limited-production and premium wheel models. Their wheels are engineered, manufactured, and inspected by one of the most respected alloy wheel producers in the world. All SCS wheel models adhere to industry safety standards and are approved by JWL, JWL-T, and VIA to ensure uncompromised quality. The wheels are hub-centric and are specifically designed for Tacomas, FJ Cruisers, 4Runners, and Tundras.

To get scoop on this up and coming wheel manufacturer that has Toyota owners everywhere drooling, I caught up with Vin at SCS.

Q: What are some of your goals as a company? What sets you apart from other wheel companies in today's market?

Everyone at SCS is passionate about creating killer wheel designs that will stand the test of time. The design process usually involves looking at classic wheel designs, listening to our customers, reworking sketches and staying on top of visual trends. We might spend most of our time creating desirable products, but what sets us apart might be the fact that we take pride in giving our supporters the best customer service experience. Our goal as a wheel company is simply to continue to excite the off-roading community with our innovative and premium wheel designs.



Q: What are some of the hardest things to overcome as a wheel producer in this market?

We are committed to quality over quantity so the toughest part of starting the business was choosing a manufacturing partner who shares the same values as our company. We spend an extensive amount of time in the studio on the design of our wheel models so we needed a partner who's invested in the details and quality of the final product as much as we are.

Q: How extensive is the SCS Performance line of wheels?

SCS currently caters to Toyota's 6-lug bolt pattern in the truck and SUV segment. Our current selection of wheel models are the 16" F5 and the 17" Stealth 6. With the success of the Stealth 6, we will soon offer this model in a 20x9 size that will cater to the 2nd gen Tundra community. Look for this to release around early May 2014.



The response for the F5 and Stealth 6 from the off-roading community has been so positive that our new wheel design has big shoes to fill. Named the Stealth Runner 8 or the **SR8**, this new model will feature a concave spoke design to create a deep dish effect. The SR8 will showcase a simulated beadlock look with removable screws. Our initial offering will be for the Toyota 6-lug pattern in 17x8.5 and 16x8 sizes. The target release date for the SR8 will be late April, early May 2014.

To keep our line of products fresh, SCS introduces unique wheel finishes in limited edition throughout the year. Look out for our new matte dark bronze finish for the SR8 and F5 models this spring.



Stealth 6 Specs

- Size: 17x8.5/20x9
- Bolt Pattern: 6x139.7
- Backspacing: 4.30"/5.50"
- Offset: -10mm/+12mm
- Weight: 23lbs/28lbs
- Hub-centric: Yes
- Max load: 2100lbs



F5 Specs

- Size: 16x8
- Bolt Pattern: 6x139.7
- Backspacing: 4.50"/3.50"
- Offset: +0mm/-25mm
- Weight: 19lbs
- Hub-centric: Yes
- Max load: 2100lbs



SR8 Specs

- Size: 16x8/17x8.5
- Bolt Pattern: 6x139.7
- Backspacing: 4.00"/4.30"
- Offset: -12mm/-10mm
- Weight: 21lbs/24lbs
- Hub-centric: Yes
- Max load: 2100lbs



1,850 ACRES OF TRAILS
 LARGE GENERAL RAFFLE
 FREE KIDS RAFFLE
 SATURDAY NIGHT DINNER
 FRIDAY NIGHT VENDOR MEET-N-GREET / DINNER
 GREAT VARIETY OF BEGINNER TO EXTREME TRAILS

MAY 1ST - 4TH 2014

Q: Does SCS have a personal favorite wheel that they have produced so far?

We love the F5 and Stealth 6 models equally, but based on the amount of positive feedback we've received for the SR8, we think this might be our best work so far. We're just as excited about this design as is everyone in the off-roading community.

Q: How do you see SCS evolving in the future with the current changes in Toyota's line up?

As Toyota continues to evolve their line of trucks and SUV's, we are taking notes. We will continue to offer wheel models that complement the overall look and feel of the lineup, but always with an off-roading edge.



The entire SCS wheel line up has sparked excitement in the Toyota Off-Road community. I personally share in the excitement that Vin and Team are building on at SCS with the highly anticipated release of the new SR8. I have been running factory TRD Off-Road wheels since I bought my Tacoma in 2007 waiting for the right wheel to come along. SR8 is more than I had hoped for and I cannot wait to place my order later this month.

If the Stealth Custom Series wheels are for you, then make sure you check out their website and place your order today!

www.stealthcustomseries.com

Email: info@scs-performance.com 



THE **SR8** MODEL



LAST GREAT ROAD TRIP

OFF ROAD ADVENTURES | TECH | PICTURES | VIDEOS

WWW.LASTGREATROADTRIP.COM

BECOME PART OF THE ADVENTURE ON FACEBOOK - FACEBOOK.COM/LASTGREATROADTRIP

4
Runner



INSTANT *Classic* GRILLE

by Matt Hayward

The *Santoshi* grille, named for its originator, is a popular aesthetic modification among late model Toyota enthusiasts. The gist of the mod includes removing the original equipment plastic mesh and/or grille slats and replacing them with steel mesh. Diamond mesh reminiscent of the Land Cruisers of yore is typically used, but many unique options exist among those who like to think outside the box. This article will detail the steps necessary to modify an early 4th generation 4Runner grille with diamond mesh and a 1980s FJ60 emblem. The process is similar across vehicle models and grille styles and some techniques used for other grilles will be discussed as well.

Note: Fiberglass, body filler, and aerosol paint should be applied in an area with proper ventilation, use of a respirator is recommended as well.



After removing the grille, unbolting the metal sub-frame, and removing the emblem and additional components, you're ready to start hacking. I find it easiest to use a multi-tool with a flush cut blade but a body saw, rotary tool, or even a hacksaw blade will do the trick. Note: the grille shown in the first two pictures is a 2006 4Runner grille being modified to fit a 2003 model, trimming the lower bar away from the upper U is not necessary for most applications.



Once you've removed all of the inner pieces, you will get a glimpse of how the finished product will look. The remaining material on the inner lip of the grill should be sanded smooth starting with coarse paper and gradually moving toward finer paper until the lip is smooth to the touch.



This step can be skipped on most models, though recommended for a cleaner look, but is imperative on the '03-05 4Runner grilles. After trimming, there will be openings in the grille surround that should be backed with fiberglass, filled with body filler, and sanded smooth. Shown here is a template I made from a couple of pieces of cardboard covered by aluminum foil to prevent bonding. The template was necessary due to the large opening; it holds the fiberglass cloth in place and form close to the OEM lines.



The first layer of cloth was clamped to the top and resin brushed on. For subsequent layers, the cardboard template was removed and the glass laid on the underside of the grille.



The empty slats on the sides were also patched with fiberglass; a template was not necessary to fill these smaller gaps. You can see the ragged edges of the hardened fiberglass here. Use a minimum of three layers of fiberglass; more will strengthen the structure.



A Dremel tool with a cutting disc was used to trim the rough edges to essentially the same shape as the factory plastic. Being precise is not necessary in this step, as the edges will be cleaned up later. It's often easier to wait until after applying body filler to perform this step as the extra material makes it easier to smooth the edges.



After the fiberglass hardens for a few hours (I usually allow it to dry completely overnight) body filler should be mixed, preferably in small batches as it dries very quickly, and applied to fill all gaps. Getting it smooth while soft can make for less sanding, but playing with the drying filler material for too long can lead to small holes that mean another layer will need to be applied later.



Once the body filler has hardened completely, usually under an hour, you can begin sanding away the excess material until the filler is flush with the plastic. If you aren't happy with the texture, another layer of filler can be added and smoothed down.



It is often difficult to see imperfections in the body filler until a layer of primer has been applied and all material is the same color. Here you can see an area that appeared smooth, but after a coating of self-etching primer imperfections stand out. Another layer of body filler must be added and smoothed before re-applying primer.

side and four to six on the top and bottom. The ends should be trimmed with a cut-off wheel to reduce visibility.



A template like the one shown here helps tremendously with bending the mesh to properly fit the grille. A jigsaw was used to cut this template from plywood after tracing the inside of a trimmed grille.



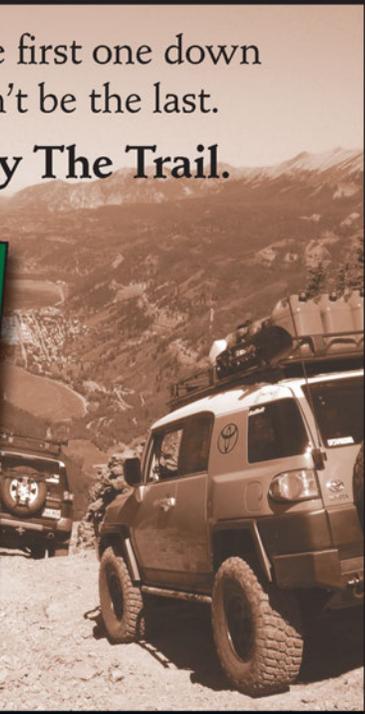
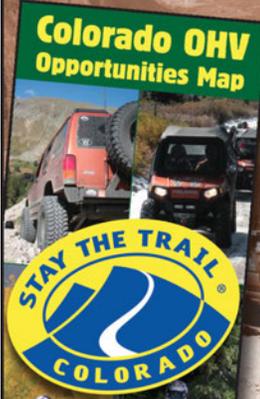
Here's the final product after spraying the mesh matte black and color-matching the rest. An emblem can be added for effect. I chose a late 1980s FJ60 emblem. Although satisfied with the outcome, an upgrade to 2006 headlamps necessitated replacement with the 2006 modified grille shown in other photos.



After placing the mesh up inside the grille, holes should be drilled for stainless machine screws and nylon locking nuts. It is best to drill only a couple of holes at a time so you can be sure the mesh follows the shape of the grille as the screws hold it since the holes in the mesh are larger than the screws. After you've tightened all screws, use two on each

You're not the first one down this trail. Don't be the last.

Always Stay The Trail.



Keep Your Wheels Where They Belong® with your free Colorado OHV Opportunities Map from Stay The Trail. Discover all the challenging off-road adventure Colorado has to offer. More information and detailed trail maps available online at www.staythetrail.org



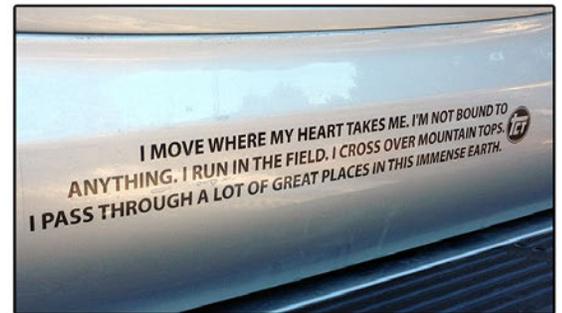
From the backside, you can see the unpainted fiberglass. This angle also shows how the FJ60 grille emblem was later mounted with SS fender washers, nuts, and a short sheet metal screw. The method shown here retains the factory secondary hood latch, but some styles require removal or modification of the latch.



The grille in this picture fits '06-09 4Runners and has recessed mesh instead of the protruding as previously shown. Rather than using machine screws and lock nuts, the mesh was bent around the edges of the grille and secured with epoxy. 🇺🇸



| **Maps**
| **Training**
| **Stickers**



www.way2tread.com

**Vehicle Based
Survival Course**



Oval & Custom Stickers



**RoutePlanner
Waterproof Maps**



The Final Word

By Clay Croft



Authenticity, it's a word that the world is scrambling to reconnect with. Our lives are digital, our relationships are virtual, our "experiences" are so often composed from an image or video we wish was our own. It's a sad state really, and even though the world is losing its tangible connections, all is not lost. The good thing is that the world is still waiting: it hasn't gone anywhere. The fact is we still move through it. Whether we engage in it or not is up to us.

I can imagine that for many people, reading this magazine serves merely as a quick fix. A way of buying time to settle our adventurous fevers before we head out again. I know it is for me. Some of you may be new to the world of adventure based vehicles and are just now discovering what they can do for you. Whoever you are, I would encourage you to reflect on your vehicle as a vessel: a tool to expand your horizons.

A map will reveal new places, a camera will document them. A vehicle can get you there. However, you're only snapping that photo from your truck at this magnificent location because you decided to take action.

It wouldn't surprise me to learn that some of you have an adventure ready rig in your driveway that hasn't seen a whole lot of legit dirt. The fact is a stock Tacoma, 4Runner, Landcruiser, or other Toyota Truck are all adventure ready rigs. All too often we make our vehicle the adventure, not the adventure itself. This can serve its purpose for a short time, but in the end if you fail to act on that capable tool in the driveway you're flirting with disaster. Becoming the common taboo poser. Worst case scenario, you begin to portray yourself out there as someone who thinks he has something to say, no-body likes a poser turned troll.



This person generally reveals himself as someone who has more answers than questions! I'm not saying that you have to become the next Sir Shackleton or world traveler extraordinaire. What I am saying is that you need to take steps to act on the reason you have that piece of machinery in your garage in the first place. I believe that there is a strong desire in each one of us to explore and push ourselves to find new things.

Curiosity is the gateway drug to this potentially life changing endeavor. An endeavor to find out new things about the world around us, other people, or ourselves. I also believe that deep down we all want to make our own decisions and be our own people. Pursuing this desire is respectable and it makes us individuals. Adventure is at its best when it breaks us down through struggle and challenge and builds us up to be influential contributors to the very world that's shaping us.

One might think that's a little heavy handed when describing your weekend trip. But...is it? Maybe...

However, if you take in your collective experiences of traveling, overlanding, or wheeling, it amounts to something...right? I would venture to say it has contributed to your opinions, work ethic, or values in some way. By doing all this you now have something tangible to share with the world. You might have just sat next to your buddy for weekend and built something rewarding: A real relationship!

If you haven't yet found your adventure, I urge you to look at all that is before you. A world of wonder and discovery awaits. I encourage you to take the red pill, kick your potential poser self out to the corner and let courage jump in. Trust me, you'll like him better. But the only way to know this for yourself is to get out there and do it. I guarantee that you will experience something genuine that will contribute to your life. It might even make you someone who is authentic. And that is something everyone else seems to be looking for.

Clay-



Pentecost River.
Gibb River Road, Kimberley, WA
Australia
From Rob



Wyoming
FJ tackles a water crossing
From Colter Larsen



Arizona
Prescott NF
From Corey



Nevada
FJ's crawling down a challenge
From Tyler

YOUR RIGS