

# TCT MAGAZINE



WINTER 2017 • VOLUME 10 • ISSUE 1



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Destination:  
Toroweap  
Overlook

Photo by  
Christopher  
Mann



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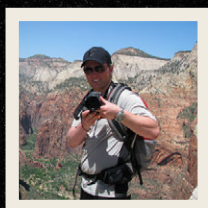
# EDITORIAL STAFF



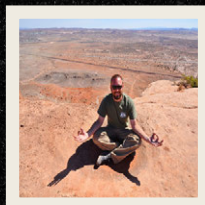
Shane Williams | Publisher  
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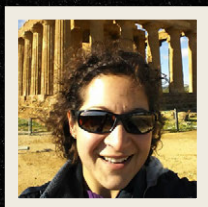
Beau Johnston | Editor In Chief  
1998 4Runner | 1969 FJ-40  
Casper, WY



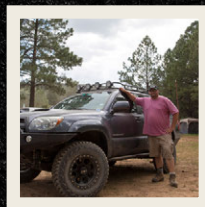
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2007 FJ Cruiser TRD SE  
Denver, CO



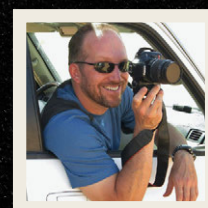
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Grand Junction, CO



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1998 4Runner | 1969 FJ-40  
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2007 4Runner | 2006 Tacoma TRD  
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1993 80 Series Land Cruiser  
Denver, CO



Dennis Lloyd  
2010 FJ Cruiser  
Eagle, ID





## FROM THE PUBLISHER

A little over 10 years ago I was inspired by a forum post on FJCruiserForums.com (aka The Blue Room). The post showed an FJC put on to a mock magazine cover, and it gave me an idea.

After a few discussions with my better half, Angie, I put together a spreadsheet to better understand what the options were. At the time there was one Toyota Magazine, but it was more of a rock crawler mag and didn't feature the content we enjoyed. There was Overland Journal, and amazing (but expensive) publication focused on the types of adventures we enjoyed, but almost nothing about the FJ Cruiser.



Keep in mind that in 2007 I didn't know anything about magazine publishing. I could write(ish), and Angie was the primary photographer in our family. Here's what we DID know:

- We knew that we wanted to create great content for FJ Cruiser owners to enjoy.
- We wanted to produce a free digital magazine in PDF format, which saves trees and keeps our production costs down.
- We encouraged readers to print the PDF for reading at home. At only 34 pages (at the time), that made sense to us.
- We wanted to publish our PDF articles to the website so they would be easily searchable for years to come.

It's now 2017, and we've evolved a bit. I know a little bit more about magazine publishing. We no longer encourage you to print copies, since most readers have a large phone or tablet to read the magazine. We also publish via a native app on both iOS and Android devices. We now try to cover the most amazing Toyota Adventure on the planet.

Most of all, we've built a team of editors and contributors that are second to none. Our articles, design, and community reach are far beyond anything I could have imaged back in 2007. I thank everyone that is involved with this publication for their hard work over the past 10 years.

A hardy thanks also goes out to our readers. Whether you enjoy the magazine online, in the app, or via the original PDF version – thanks for your support, we look forward to serving you for many more years!

Finally, we literally could not publish a word without our sponsors. From Toytec Lifts, who has been with us since the very beginning, to our long time friends from Toyota/TRD, Baja Rack, COMEUP, ARB, and Specialty Products. It's a pleasure to work with you and help build your reach within the Toyota community.

Enjoy this issue, and we look forward to seeing you during future adventures!

*Shane*

Colorado Springs, CO 80908

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# New & Noteworthy

## Rokmen Personalized Big Hawse Fairlead

Rokmen Off Road has announced a customized Hawse Fairlead! These are perfect for clubs, groups, or companies that want to add a special look to their front bumper.



We're excited that Rokmen has produced 10 custom Toyota Cruisers & Trucks Fairleads! Some of these will be installed on TCT's fleet, but several will be given away this summer.

### Details on these awesome fairleads:

- CNC milled from 6061 billet aluminum
- Anodized black finish for corrosion protection
- 1-1/4 inch thick with large radius front
- Larger radius is better for your synthetic winch line as less stress and longer life
- Saves 8 pounds vs. a roller style fairlead
- Grade 8 mounting hardware included
- Can be used with all standard fairlead mounts, synthetic line, and hooks
- Personalized for your club, group, or company with engraved logo on top face of fairlead
- Unique branding and marketing tool that can be utilized in many different ways
- Packaged and ready for shipping to customer or club members.



For pricing, production time, and details for these amazing fairleads - contact Jeff at Rokmen Off Road:

**303-907-6303**

**Jeff@rokmen.Com**





## Sneak Peek: Air Coupler Mounting Brackets from Wits End



Land Cruiser parts maker Wits End has announced custom Air Coupler Mounting Brackets. These will be ideal for bumper mounting or anywhere you need an extra air connector.

These brackets will be made of 316 stainless steel: a very hard steel and is very corrosion resistant to pretty much anything you can throw at it.



Brackets will be available by themselves or as a ready made kit that includes bracket, mounting hardware, bulkhead fitting, air coupler, 3/8-inch push to connect fitting, 15 feet of 3/8-inch nylon 11 tubing and air coupler dust cap.

Another option will combine the Air Coupler and Anderson SB50 power connector into one bracket!



This bracket secures and protects both the Air Coupler and Power Connection. Since this is for the SB50 connector it's limited to 120A.

Pricing & Availability haven't been determined yet, but check out <http://absolute-wits-end.com> for the latest on these great new mods!

## ARB Air Systems: Accessories for Your On-Board Air

As we all know, ARB is one of the leaders for on-board air needs and their compressors are second to none.

From airing up to operating pneumatic tools, or simply providing air to an Air Locker, the complete line of ARB compressors has a model to fit every need.

ARB has announced a new line of Air Systems products that supplement the line of air compressors by introducing complete vehicle-specific solutions for enthusiasts looking to equip their vehicles with compressors and accessories.

The product range will include items such as air fittings, various lengths of stainless braided PTFE hose, and air chuck mounting solutions.

Together, these will provide all the necessary components to fit a complete air compressor system to a 4wd, allowing a vehicle to be outfitted front to back with on-demand air.

To learn more, visit <http://ARBUSA.com> or contact your local ARB dealer.







# GX-470

## The Best Kept Secret

By Dan Kunz

**“Is that a Lexus?”**

**“Are you lost?”**


**“You should turn back!”**

These are the standard greetings I receive when I use my 2003 GX470 for trail duty. It's okay; I am used to it after almost eight years. I have learned to retort with witty humor to diffuse the clear shock of these folks; “My GPS told me the outlet mall was at the end of this road.” It's all in good fun.



As she sits today.





Speaking of good fun, the GX470 is the best-kept secret in the off road and expedition community today. A bulletproof full-time 4WD system with a 4.7L Toyota V8 coupled with a very advanced ATRAC system and a true manual lever 4L capable transfer case. It is a V8 4R (or Land Cruiser Prado 120, or an FJ) in sheep's clothing. Parts are easy to source for maintenance and repair because of the family membership with so many other rigs as per above. Break a CV? Local auto parts stores have them to get you home (even though you should have a spare).

So why build a Lexus, and what did I do with mine?

Simple: They are cheap to purchase used (yes, really). They are easy to work on if you are in the Toyota family now and have any IFS Toyota from 2003-2009. They have power, capability, comfort, and quiet. They have more sound deadening than almost any other model.







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- Icon S2 secondary shocks on Total Chaos secondary hoops
- Icon 3-inch Expedition springs (rear)
- Icon 2.5 long travel remote reservoir CDC rear shocks
- Iron Man 4x4 Prado 120 front deluxe winch bumper
- Iron Man 4x4 12,000 lb. winch with wireless remote
- Custom rear bumper and sliders by ACC Garage
- ASFIR aluminum skid plate set
- Nitrogear 4.56 front and rear, ARB lockers (and compressor) for the front and rear
- Iron Man 4x4 Prado 120 snorkel
- 34x10.50x17 BFG AT KO2s on Method wheels
- Removed the plastic trim, filled clip holes, and bed lined two tone colors
- Remote mount HAM radio antenna (front bumper)
- ARB Prado 120 rear storage solution with drawers and wings
- MSA drop-down fridge slide
- ARB fridge (hoping to get the first stainless outdoor one in the US)
- Handheld HAM mounted to panavice arm in the cab
- Aftermarket stereo (Alpine, JL Audio) with iPad USB input
- iPad mini mount to dash for music, GPS, and GoPro streaming
- CO2 tank mounted in the back, along with all the recovery and camping gear
- Eno hammock system including wheel mounts, rain fly, and padding







Elephant Hill,  
Canyonlands Utah, 2013

This truck has seen Ouray (FJ Summit X), Cruise Moab (10th anniversary in 2013), and most of the off road parks in the southeast. Plans are to make the 20th Cruise Moab this year, the 30th Rubithon next year, and attempt Baja and Alaska in the following years.

It is an amazing platform that is smaller, more agile, and amazing off and on road. I was one of so few at the beginning, but through social media and forum posts the community grew, and now I am proud to say that the GXOR community on Facebook and the 120 series forum on ih8mud.com have taken off and become the center of the "GX Rising" movement.

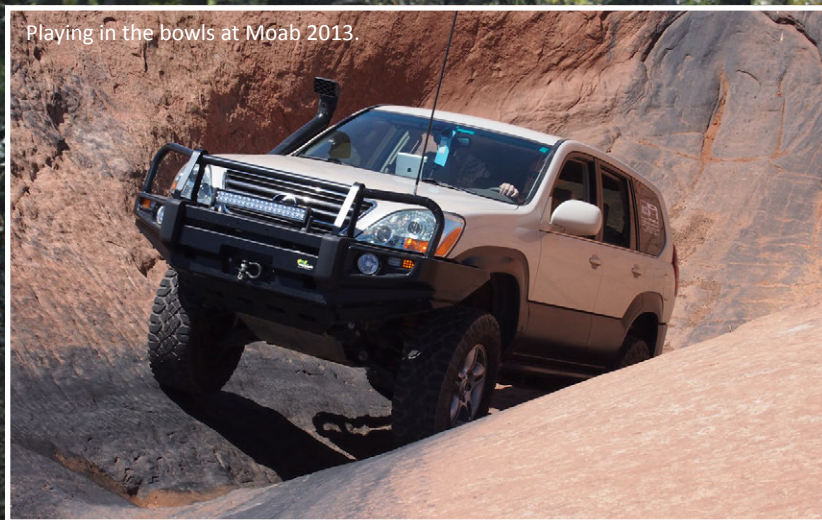
Vendors are picking up the trend as well. MetalTech4x4, Southern Style Off-road, ARB, Iron Man, and HeftyFab all have bumper and slider options, with more



vendors creating their visions of the GX. BajaRack and Gobi are joining in on the roof racks, and storage and overland vendors are starting to kit out their stores with GX gear.



Playing in the bowls at Moab 2013.



Southern Cruiser  
Crawl from 2015.

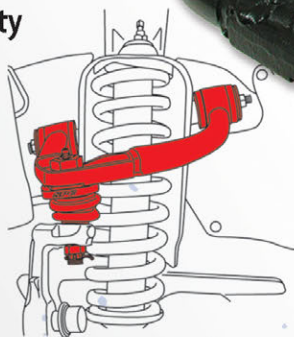


Long story short, the GX is prime to be the next big movement in off-road and overland vehicles, and I have eight hard years of building and miles on the trail to prove that it is indeed a Land Cruiser under all the luxury, and should be in the running with anyone planning a build in the near future. 🍷

# GOT LIFT? ADJUSTABLE CONTROL ARMS

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IT'S ALL ABOUT THE BALL JOINT

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# Yakima CoreBar Review

By Beau Johnston

I am of the opinion that aftermarket roof racks, like those sold by Yakima, are an under-rated system that really should get a lot of respect from the offroad community. Sure I often dream of installing a full-length platform on our 4Runner, but truth be told, a set of aftermarket cross bars can be a great, low-cost, way for many entry-level offroaders and travelers to equip their pickups and SUVs for outdoor adventure.

I have been running their CoreBar cross bars on the 4Runner since I included them in our Spring issue's New & Noteworthy section and I am here to say they have lived up to the hype in their marketing material. Not only have they produced a solid rack system but they have solved the issue associated with their old round crossbars—wind noise. Noise has plagued these types of round and square crossbars since they debuted on the market. Although each manufacturer sells wind fairings, these devices only serve to divert air over the first cross bar and don't do anything to solve the problem—turbulent air traveling over the profiles.

Yakima's new streamline profiles attack the issue of turbulent air head-on by incorporating aerodynamic profiles into their crossbar options. I know this design shift sounds like a no-brainer but, considering the company has been selling rack systems like hot cakes since Steve Cole and Don Banducci purchased Yakima Industries back in 1979, I can see why they wouldn't want to rock the boat. But, rock the boat is exactly what they did by introducing not one but two new crossbar profiles.

The new CoreBar cross bars are the first aerodynamic crossbars on the market to be manufactured from galvanized steel. Each bar is individually wrapped in a durable black nylon coating. Best of all, a pair of 50-inch CoreBars has a max dynamic load rating of 220 lbs., all thanks





to its roll-formed construction. As with Yakima's other cross bars, the CoreBar is available in 50, 60, 70, and 80 inches. We found the 50-inch bars to work perfectly on June, our 1998 4Runner.

Testing the new crossbars was fairly straight forward. Knowing crossbars are really just the platform on which accessories are mounted, Yakima also sent along an updated LoadWarrior basket and the new FrontLoader bike rack to round



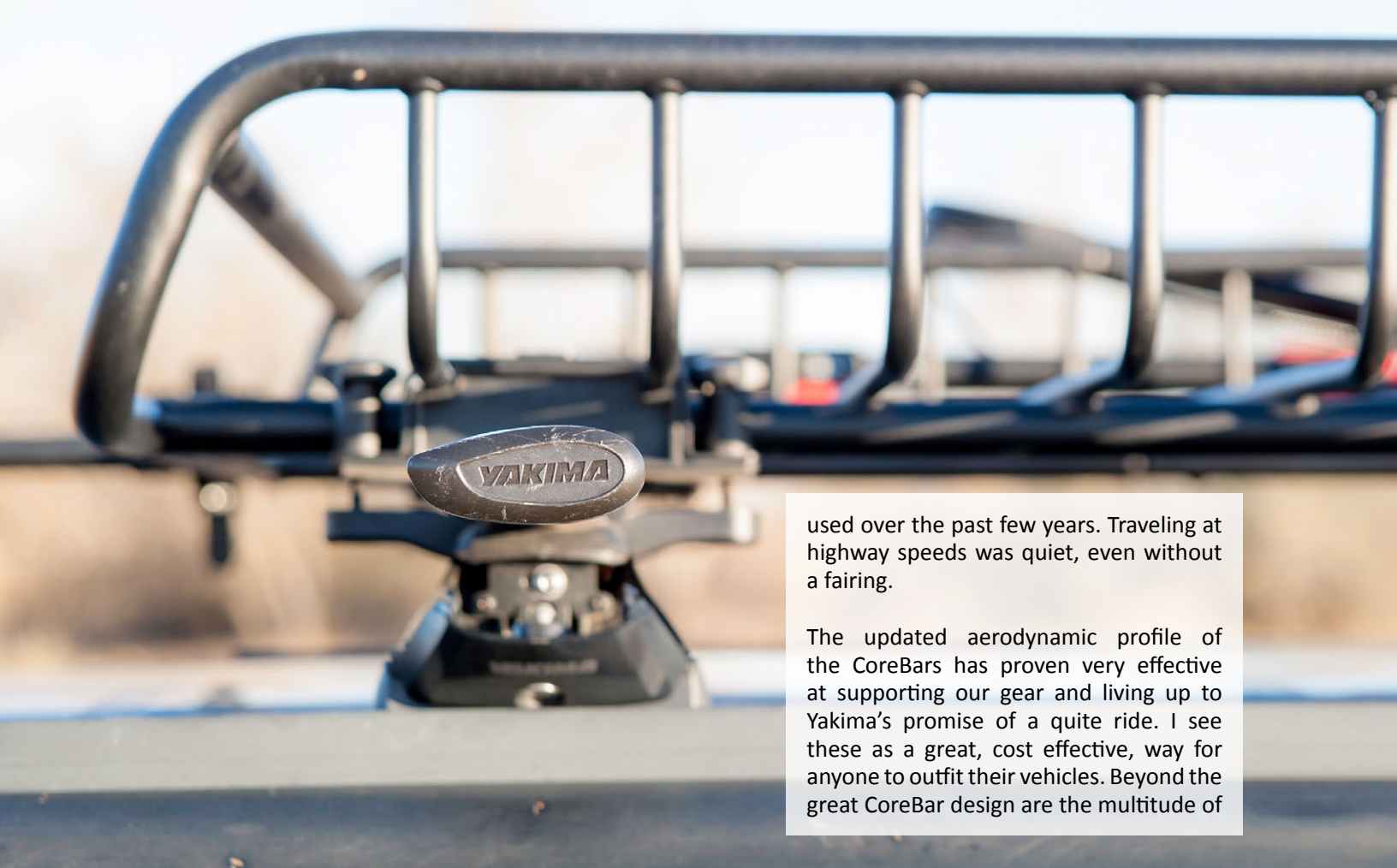




the setup out. To test the new crossbars' overall strength, we loaded up a LoadWarrior with camping gear and our inflatable paddleboard, tossed our mountain bike on the FrontLoader, and headed for the hills. To test the crossbars' effectiveness reducing wind noise, we stripped everything off and hit the interstate.

I am happy to say that both sets of tests, which included several trips each, proved incredibly successful. Not only were the CoreBars able to securely handle the weight of our camping gear, but they were also able to support my weight without any noticeable deflection. I am also happy to report a dramatic reduction in wind noise over both the round and square load bars we have





used over the past few years. Traveling at highway speeds was quiet, even without a fairing.

The updated aerodynamic profile of the CoreBars has proven very effective at supporting our gear and living up to Yakima's promise of a quiet ride. I see these as a great, cost effective, way for anyone to outfit their vehicles. Beyond the great CoreBar design are the multitude of



baskets, cargo baskets, bike and ski racks, and kayak cradles available to customize any adventure. I wouldn't hesitate to recommend the CoreBars, or the other Yakima accessories we tested, to anyone looking to customize their Toyota pickup or SUV for adventure. You can pick up a pair of CoreBars, starting at \$119, online or from many bicycle and ski shops. 📍



# 6 Days on Hema Map Patrol

## Part 2

By Shane Williams

Our inability to cross the Continental Divide via Union Pass outside of Pinedale, WY had us a little disappointed. However, after three hard days on the trail, we were happy for a nice night in a soft bed.

### Day 5: The National Parks

Day 5 began bright and sunny, so even though we couldn't get over the pass, we decided to explore the Pinedale area before hitting pavement toward Grand Teton and Yellowstone National Parks.

Our inability  
to cross the  
Continental  
Divide via Union  
Pass outside of  
Pinedale, WY  
had us a little  
disappointed.








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The fire was caused by lightning and burned over 16,000 acres but is a reminder to always be very safe with campfires in the backcountry.

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The still smoldering fire outside of Jackson Hole.

The route from Pinedale to Jackson Wyoming, where Teton National Park begins is fairly uneventful pavement. Until, of course, we reached the area of the Lava Mountain Fire just outside of Dubois, WY. Although the fire was over 90% contained when we passed through, the burned mountains were clearly visible, and we even saw smoke still rising from the hills. That fire was caused by lightning and burned over 16,000 acres. Just another reminder to always be very safe with campfires in the backcountry.



Grand Teton National Park.





The Continental Divide in Yellowstone.

Our family had never been to Grand Teton or Yellowstone national parks. The fact that we were scheduled to burn through both parks in one day (during the middle of summer) did not have us very excited. For the un-initiated, Grand Teton sees over 2.5 million visitors per year, and Yellowstone hosts over 3 million. Almost all of those visits come during the summer season (June–August), so it's not exactly the best time to explore these amazing parks. Still, we managed to fight the traffic through both parks and arrive at Old Faithful for a 6 p.m. showing. Another major traffic jam leading out of Yellowstone caused us to arrive at our campground on Henry's Lake, Idaho just after dark. It was a gorgeous day of exploring but was very long.

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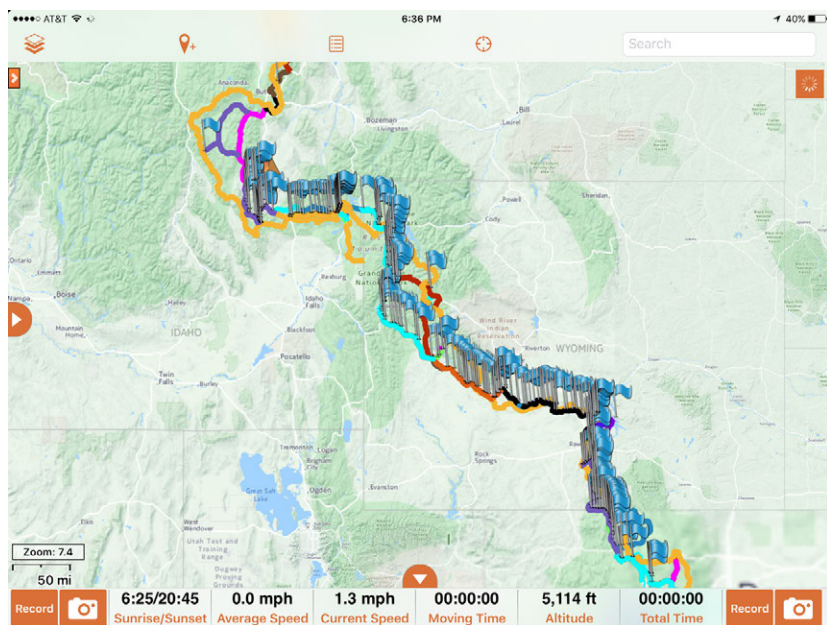
It was a gorgeous  
day of exploring  
but was very long.

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The solitude of America's most popular attraction.






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We had crisscrossed the divide dozens of times, but this short 10-mile section of amazing forest road traversed the actual divide.

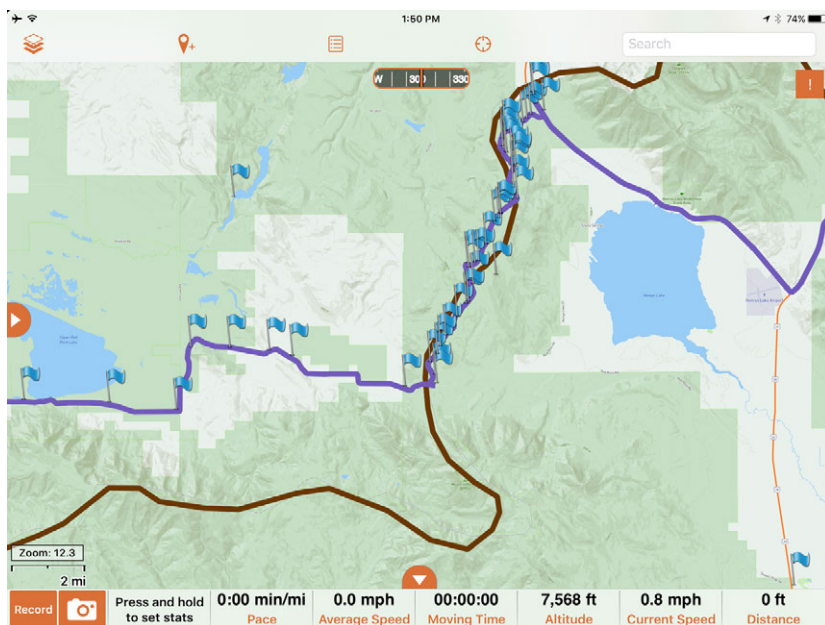
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Heading out of Yellowstone.

## Day 6: Now THIS is Exploring!

During our brief stay at Henry's Lake, and after a full day of pavement through the National Parks, Angie and I decided to find some really great areas to explore along the Idaho/Montana border. With our trusty Benchmark Atlas on the picnic table by lantern light, we found just the ticket. Only a couple of miles north of our campground, a small road climbed into the hills and along the Continental Divide. I mean RIGHT along the divide. Heretofore we had crisscrossed the divide dozens of times, but this short 10 mile section of amazing forest road traversed the actual divide. In this area the CD is also the border between Idaho and Montana, so every time Brenden asked which state we were in, he got a different answer. It was quite confusing for a six year old.





This little route, known mostly as NF-056, provided everything an overland or off-road explorer is looking for: Complete solitude, challenging terrain that's not dangerous, amazing views, and that perfect feeling of discovery. Also, of course, we found more cows. The days of traversing vast areas of Wyoming and fighting crowds and traffic in the National Parks completely paid off. We emerged from this little trail right on the Continental Divide at Red Rock Pass, then pressed West.

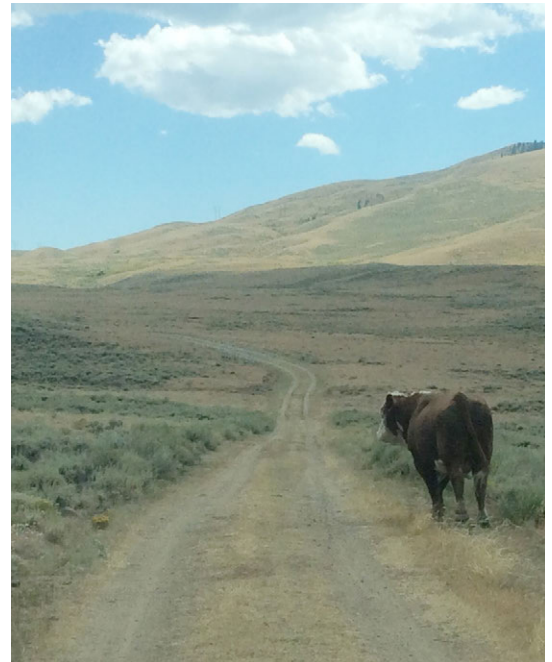


The prefect CDR view.



Starting with a nice drive right along the divide.

The next three hours or so were spent traversing first Red Rock Lakes National Wildlife Refuge, then past Lima Reservoir toward the blink-and-you-miss-it Monida, Montana. The ridge of the CD to our south beckoned along the 65+ miles of spirited, dusty driving. A few miles of interstate took us to our next jumping off point, where we once again pointed the Map Patrol 200 Series west into the hills.



Plenty of company.

We arrived at an intersection after passing through a very nice canyon along Big Sheep Creek. During our planning, we chose this spot as one of the last chances to "touch" the divide before our portion of the Expedition was completed, and now it was decision time. The children were content enough in their car seats, the little one was about to nap, and we had a little extra time for once. We chose to push south and touch the divide at Bannack Pass.

Luckily the weather cooperated since the trail, while not terribly difficult, would have been nearly impassible if it were raining. The ~12-mile round trip added a little over an hour to

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This little route, known mostly as NF-056, provided everything an overland or off-road explorer is looking for: Complete solitude, challenging terrain that's not dangerous, amazing views, and that perfect feeling of discovery.

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our day's journey but was worth it. In this area of southern Montana, you get the feeling that you're alone, and wouldn't be surprised to see a covered wagon around the next corner.



BannackPass

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In this area of southern Montana, you get the feeling that you're alone, and wouldn't be surprised to see a covered wagon around the next corner.

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# Living Overland

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We also managed to find a little dirt strip to explore, followed by a short hike to Coolidge, MT—an old mining ghost town named after President Coolidge.

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After the side trip, we continued north along Big Sheep Back Country Byway in Beaverhead National Forest. This long, quick section of dirt once served as the freight road between Corrine, UT and Bannack, MT. Today it's ranchland as far as the eye can see. Day 6 ended near Dillon, MT for more R&R before our final push to Butte, MT.

### Day 7: Our Adventure comes to an end.

I know the title is six days on Map Patrol. That was intentional even though we technically were on dirt (mostly) for seven days. Our last day ended up being a half-day. On the highway, it only takes about an hour to drive from Dillon to Butte, however that wouldn't suit a Map Patrol—so we found another fun little scenic byway to traverse. Pioneer Mountains Scenic Byway is a paved section that passes through Beaverhead National Forest from just south of Polaris, MT up to Wise River, MT. We also managed to find a little dirt strip to explore, followed by a short hike to Coolidge, MT—an old mining ghost town named after President Coolidge. This great track and hike were the perfect way to complete our portion of the expedition. It brought us to Divide, MT and the highway just south of Butte.



Coolidge Ghost Town, MT

We aired up the Land Cruiser for the last time, turned on to the interstate, and a couple of hours later arrived at the drop-off point in Bozeman, Montana. Six (and a half) days on Map Patrol, the Williams Family not only survived but also learned about the best (and worst) parts of mapping routes that thousands of explorers would be able to enjoy.

While we're excited about the next amazing mapping journey, hopefully, the pace will be a bit more ... leisurely. 🍷





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# Astrophotography from Your Campsite

Story and photos by Phillip Jones

Examining the night sky on a clear evening while camping far from light-polluted skies will captivate your inner sense of wonder. It is an incredible experience to sit in awe of the vastness of space. Capturing the endless array of stars has become an easier feat due to

camera technology evolving rapidly. Between sensor design improvements and smarter built-in noise reduction software, cameras are performing at ISO settings of over 10K and producing usable results.

If you have ever wanted to capture a celestial night sky scene with a camera, but didn't know how, or wanted to improve your technique, keep reading. We will cover the following topics:

- Night-sky targets
- Ideal camera settings that are common for DSLR, Mirrorless, and Micro Four-Thirds cameras
- Lens options
- Controlling the camera remotely
- Tripod and tracking mount options
- A few processing steps in Adobe LightRoom

## Night Sky Targets

Photographing the night sky is known as *astrophotography*, and using a camera and lens configuration is referred to as *widefield astrophotography*. While the Milky Way arm visible to us Earthlings is the most common object photographed, the Orion Nebula, Pleiades, and Andromeda Galaxy are also ideal targets for a camera and lens. Need help locating these objects? Try using one of the many planetarium apps available for smartphones and tablets. Or use the tried and true classic method of learning the constellations and navigating the night sky with a star map.



Milky Way captured from the Lincoln National Forest in New Mexico at 8,000 ft. elevation.

Summer Milky Way straight overhead features a lot of emission nebulae.



Orion Nebula is the only nebula visible to the naked eye in northern hemisphere dark skies.



Is the night a bit hazy? If so, this is an excellent time to photograph constellations. Thin clouds and moisture will cause bright constellation stars to look larger than usual (e.g. the Big Dipper or Orion), thus defining the constellation in contrast against the smaller stars.

To capture star trails, place the camera on a tripod, aim the camera north, set the shutter speed to 30 seconds, with 1-second interval between each photo. Later in this story, I advise you to shoot in camera RAW. Shooting star trails is the one time you don't want to shoot RAW, as you will capture between 600 and 800 photos, depending on how long you allow the camera to shoot. Shoot star trails in JPG only. Download the free computer application from [startrails.de](http://startrails.de), as this will allow for you to select all of the star trail jpeg files and combine (stack) them for the star trail result.



Star trails with a scenic foreground make for a delightful image.



## Ideal Camera Settings

Set the camera mode dial to M for Manual, so you are in control of the aperture and shutter speed settings. Set the ISO to 1600. Shoot the photos in camera RAW so they can be processed easier. Shooting JPG only means the camera is doing the processing and compression. Thus much of the data depth is lost.

When using a tripod and regular tripod head, the biggest challenge is star movement. Shoot a 30-second exposure with a wide-angle lens, and the result may look great on the LCD viewing screen. When viewed on a computer monitor, the star movement will become obvious. One thing to keep in mind is the shorter the focal length of the lens, the less effect star movement will have on the photo. For example, a 20-second exposure through a 14mm lens will display less star movement than through a 24mm lens.

A couple of rules can help choose an exposure that will reduce star movement:

Full-frame Camera: divide the number 500 by the focal length of the lens to obtain the exposure in seconds (e.g. 500/20mm lens = 25 seconds)

APS-C Camera: divide the number 300 by the focal length of the lens to obtain the exposure in seconds (e.g. 500/20mm lens = 15 seconds)

For aperture (aka f/stop), set the f/stop to the biggest opening, which is the smallest number (a 24mm f/1.4 lens is wide open when set to f/1.4). Now, adjust the aperture up a half to a full stop, e.g. f/2 or f/2.8. That slight adjustment will add some depth of field and thus correct for curvature issues are common in wide-angle lenses. You can certainly shoot at the biggest opening, but be aware that the stars at the edge of the photo may be distorted. Increasing depth of field will help offset this.

While shutter and aperture are more absolute in their performance, across all makes

and models of camera gear, ISO can vary significantly. The higher the ISO setting, the more detail you pick up, and the more noise you introduce into the photo. More recent cameras can shoot at an ISO of 4000 to 6400 and produce far less noisy results than cameras that are three or four years old. What is ISO? Most photographers describe it as increasing the sensitivity of the camera chip. Another way to describe it is the increase amplification of light. Your camera may introduce noticeable noise as low as ISO 1250 or as high as 6400. As suggested earlier, start with ISO 1600.

## Lens Options

The rule of thumb is, the longer the focal length of the lens, the less tolerance for star movement. Wide-angle is usually better standard camera tripod use. Not all wide-angle lenses make for great astrophoto lenses. Many lenses will distort the stars near the edge of the photo. The Rokinon and Samyang lenses usually outperform the Canon and Nikon lenses for capturing stars. These lenses are affordable in comparison to the bigger brands, but part of the reason is these lenses are manual focus only, which is what you want for astrophotography. Cameras cannot use autofocus on stars because the stars are too small. Fixed focal length lenses are almost always better performers than zoom lenses, as the former keeps stars smaller. A list of tested low coma lenses can be viewed here:

<http://intothenightphoto.blogspot.com/2016/07/more-low-coma-lenses-for-nightscape.html>

## Tripod and Tracking Mount Options

Telescopes are great for astrophotography but require large tracking mounts. Camera lenses can be used in conjunction with small tracking mounts that attach to the typical camera tripod. Battery-operated solutions from SkyWatcher, AstroTrac, and iOptron are easy to use and affordable trackers. Just angle the tracker, so it is facing the north star, and your camera will track in parallel with the earth's spin.



Telescopes and telescope mounts are costly tools for capture deep sky objects. While the cost is steep, the results are rewarding.



Sky-Watcher offers a mount with counterweight system for cameras and larger lenses.





The iOptron solution is small, lightweight, and ideal for use with a wide-angle lens.

## Controlling the Camera Remotely

This is very important, especially for star trails. By triggering the shutter remotely, the chances of camera vibrations are reduced significantly. Many remotes are intervalometers, and the off-brand models are very affordable and easy to find on eBay. An intervalometer is a mechanism for programming the shooting sequence, e.g. the 30-second exposures with 1-second intervals for star trails.

Another option is to use a laptop and control the camera via a USB cable. For Canon and Nikon owners, the BackyardNikon and BackyardEOS software products are designed specifically for astrophotographers. APT—Astrophotography Tool is another low-price software option for camera control.



AstroTrac is a popular lightweight solution.





The intervalometer makes for a great camera remote since it can be programmed for long exposures and intervals for star trail and timelapse photography.



A red-dot finder with flash shoe mount adapter will help with aiming the camera at the desired target.



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This is the ideal DSLR astrophotography setup: an iOptron iEQ30 Pro mount, a Hutech camera rotator to achieve the desired angle, 50mm f/1.4 lens, a guidescope and autoguider-CCD camera mounted on top, with a red-dot finder for aiming at the object.

## A few processing steps in Adobe LightRoom

By shooting in camera RAW, adjustments in LightRoom will be more powerful than with a jpeg file. This is also an excellent way to remove any tainted colors caused by light pollution. Notice the sliders for exposure, contrast and vibrance are moved to the right. This helps the Milky Way to stand out. Adjust the temperature to bring out more of the browns in the stardust. If you haven't tried the graduated filter, this will be the time. There are plenty of online video tutorials for how to utilize this powerful LR feature. When part of your sky is green, this filter is the perfect mechanism for fixing the color issue.

## The Next Step

After getting your starry nights captured, you may want to achieve a higher level of astrophotography. Shooting with small telescopes and an autoguiding system will provide even better results. Autoguiding requires the use of a small telescope and small



BackyardEOS and BackyardNikon are powerful camera remote control applications for the laptop. Here the camera is being used to capture the Veil Nebula.

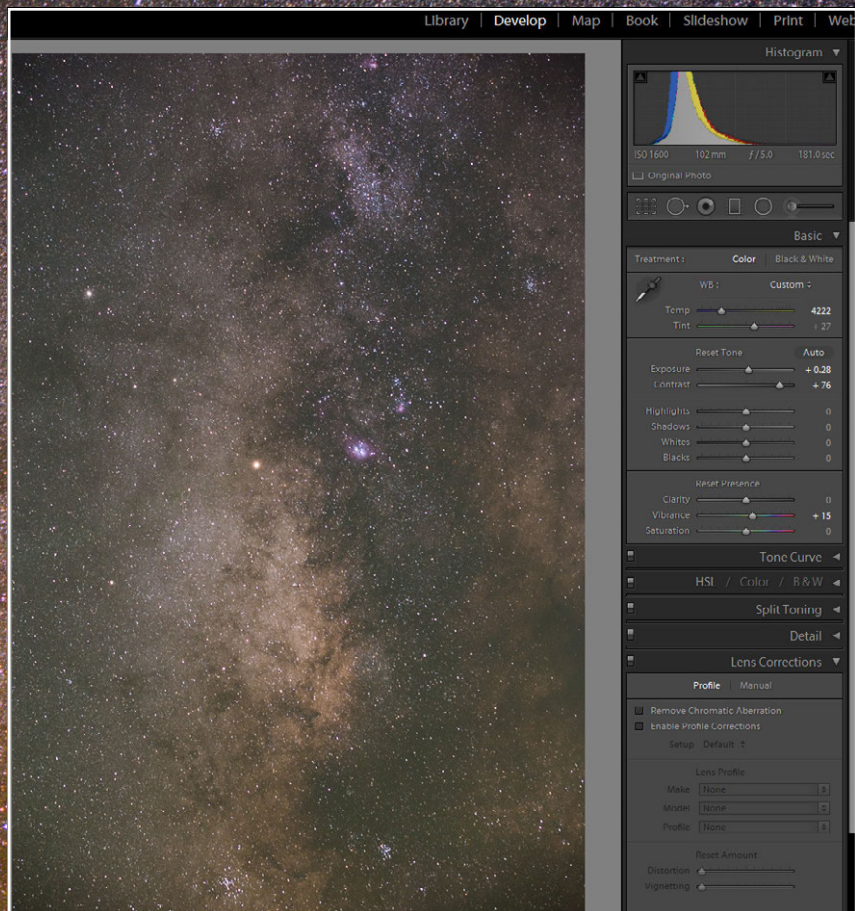


digital camera controlled by a laptop. The guide camera captures a photo of a designated guide star every three or four seconds and sends a correction command to the mount. The Sky-Watcher mount mentioned previously has a guider port for this very purpose.

Modified cameras, where the IR cutoff filter has been replaced with a filter that cuts the red spectrum at a higher value, are great for capturing red emission nebula. Both Canon and Nikon offer modified cameras in their product lineup.

To explore the options for astrophotography, CloudyNights.com is a great online community for learning more. Small telescope packages that don't take up much room can be put together for your overland adventures. 🚚

Slight adjustments in LightRoom can bring the Milky Way to life.



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# 2018 TRD Sport Tundra and Sequoia



## Tundra TRD Sport

Today Toyota announced upgrades to both the Tundra and Sequoia models for the 2018 model year.

The new TRD Sport Tundra and Sequoia models join a new Adventure Package for the RAV4 compact SUV.

*Read about the RAV4 updates on Buck The Commute.*

While some rumors pointed to an all-new generation of Tundra, for 2018 the truck gets a refresh which includes a new grille on some models, and perhaps most importantly all Tundra trucks will now come with Toyota Safety Sense™ (TSS-P) as standard equipment. This advanced active safety suite bundles a Pre-Collision System with Pedestrian Detection (PCS w/PD), Lane Departure Alert (LDA), Auto High Beams (AHB) and Dynamic Radar Cruise Control (DRCC). You can view the status of TSS-P through an upgraded Multi-information Display.

The new Tundra TRD Sport includes some really cool, albeit mostly cosmetic features:

- Color-keyed mirrors, front and rear bumpers
- Color-keyed hood scoop
- 20-inch alloy silver sport wheels
- LED Headlights with smoked chrome bezel, Daytime Running Lights (DRL), and LED Fog Lights

- Mesh grille with body color surround
- TRD Sport bedside graphic
- TRD Shift Knob
- TRD Sport floor mats

In the performance column, the new TRD Sport Tundra will include specifically Tuned Bilstein Shocks and TRD front and rear anti-sway bars.



All Tundra models will also see a new grille for 2018. The Limited & 1794 models get a new billet style grille, while others will arrive with a mesh style grille.

## Sequoia TRD Sport

For the 2018 Sequoia, a new TRD Sport model is also in the works. We were hoping the Sequoia would finally be



updated to the Tundra body upgrades, but it looks like that will wait for the new full-size generation in 2020 (estimated).

- Like the Tundra, the Sequoia is unchanged mechanically, but several new features distinguish the TRD Sport model:

- New front grille and bumper grille insert

- Metallic black mirror caps

- 20-inch alloy black sport wheels

- Darkened rear tail light housing

- Black satin finish TRD Sport badging on the front doors and a Metallic black and chrome Sequoia badge on the liftgate

- Standard black fabric seven-passenger seating

- Optional Black leather captain chair seats (part of the optional Premium Package)

- TRD shift knob
- TRD Sport floor mats
- TRD Sport sill protectors

Even though we were hoping for something brand new, the new updated are certainly interesting if you're in the market for a new full-size Toyota. 🇺🇸



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# *Off the Beaten Path* **New Zealand's Coromandel Peninsula**


By Krista Johnston, Photos by Beau Johnston



The promise of sleepy beach towns, pristine and secluded beaches, geothermal features, and misty rainforests drew us to visit The Coromandel Peninsula (The Coro, for short) toward the end of our latest visit to New Zealand. The Coro is located on the North Island, an hour and a half drive or a ferry ride east across the Firth of Thames of Auckland, yet it is a world away from the hustle and bustle of the country's largest city. With no agenda and a limited list of places we had to see, we kept our two days planned for the area open to exploring anything that caught our fancy.

Driving northwest into The Coro from Tauranga, our Toyota Fortuner eased us through the non-stop windy roads up through dense forests and rugged landscape that used to be gold mining territory. We first bailed out of the Fortuner to watch the surfers brave the crashing waves in Whangamata. In the Māori language, the "Wh" is pronounced like an "F"; Whangamata and Whitianga roll off the tongue fairly easily, but town names such as Whakapapa sound a bit off to our English ear at first.





There is peace that only comes to me when near the water, so frequent stops along the shore for this current in-lander were a necessity. Continuing to head north through the mountains, our next stop was Whitanga (Whiti, for short). Whiti sits along the pristine waters of *Te-Whanganui-o-Hei*; this area was inhabited by the Māori for nearly 1,000 years before it was discovered by Captain Cook and coined it Mercury Bay. The air of the region's timber exporting and boat building past could be felt while walking along timber sidewalks and maritime vibe. Visiting Whiti in March (the equivalent to early fall in the Northern Hemisphere) made this sometimes-busy beach town of 5,000 residents seem sleepy and quite inviting. Almost every hotel, motel, and B&B had a vacancy, so we chose a modestly priced motel just a few steps from the beach as our base camp.

Following an obligatory sunrise beach walk, we jumped into the Fortuner and headed north toward Whangapoua and New Chums Beech. Knowing that getting to and from New Chums Beech during lowish tide was necessary, we parked and made the 30-minute hike along a rocky coastline and through the periphery of a rainforest to a vast and very secluded beech. The waters were calm and inviting, and we had it almost all to ourselves. After spending a couple of hours enjoying the sun and sand, we left so that we wouldn't be stranded on the beach until the next low tide!

Over the mountainous interior of the peninsula from Whiti lies Coromandel Town and, supposedly, a to-die-for restaurant. Looking at our trusty map and remembering there were two ways to Coromandel Town, we flipped a coin and decided to take Dotted Line Road through the rugged interior as opposed to the Solid Line Road. The clouds were high in the sky, but the trees and foliage creeping into the narrow dirt road kept us from viewing the vista we suspected to be around nearly every corner. Every so often we could peer down into a deep canyon and see a hundred different shades of green and in addition to native flowers we had only seen in store-bought flower arrangements. Dotted Line Road seemed to take us further and further from civilization and deeper into areas where no one would notice a vehicle had plummeted off the hillside. Our trusty Fortuner handled the road like a champ, especially in the damp and muddy areas, as we made hairpin turns alongside cliffs. Along the route we found a lesser known waterfall and grove of Kauri trees that we enjoyed all to ourselves; we didn't have any other souls during our two hours of exploring the alternate route. Dinner was delicious, and because it was getting late, we drove Solid Line Road back to Whiti; while this road was paved, it still offered the spectacular scenery.



We are not the type of travelers that go on guided excursions, except when we are unable to reach a destination without being part of a tour. This was the case for visiting some sea caves and Cathedral Cove (you can hike to the cove, but not the caves). Departing from Whiti, a small group of us took a zodiac boat and entered several breathtaking sea caves. At first, we only saw the creepy small crabs walking up the walls of the cave, but the crystal-clear water revealed an abundance of colorful fish. Crystal Cove was even more beautiful than it appears in photos, and my only regret was that we didn't bring our swimming suits and follow the snorkel trail.



Trees" are covered with red flowers. The hillsides were grassy and the trees were less dense, so we could constantly view the rugged coastline. Wanting to get some photographs of the Fortuner in action, Beau asked me to take the wheel. Though my heart raced a bit, it was my first time driving a manual transmission right hand drive vehicle, and it just so happened to be along a steep cliff.

Before arriving, we had planned to leave the Coromandel after our second day there, but we enjoyed the area, wanted to hike into Cathedral Cove, and do more exploring, so we extended our accommodations for two more nights. Our plans were thwarted by a torrential rain storm that settled into Whiti early the

That afternoon we drove back Solid Line Road, passed through Coromandel Town, and traveled along the western coast on our way to the northern-most point on the peninsula. The scenery along this route was beautiful, but quite different from the areas we were previously. In areas Pohutukawa trees draped over the road, creating a tunnel. This would be a spectacular sight during the southern hemisphere summer when these "Christmas







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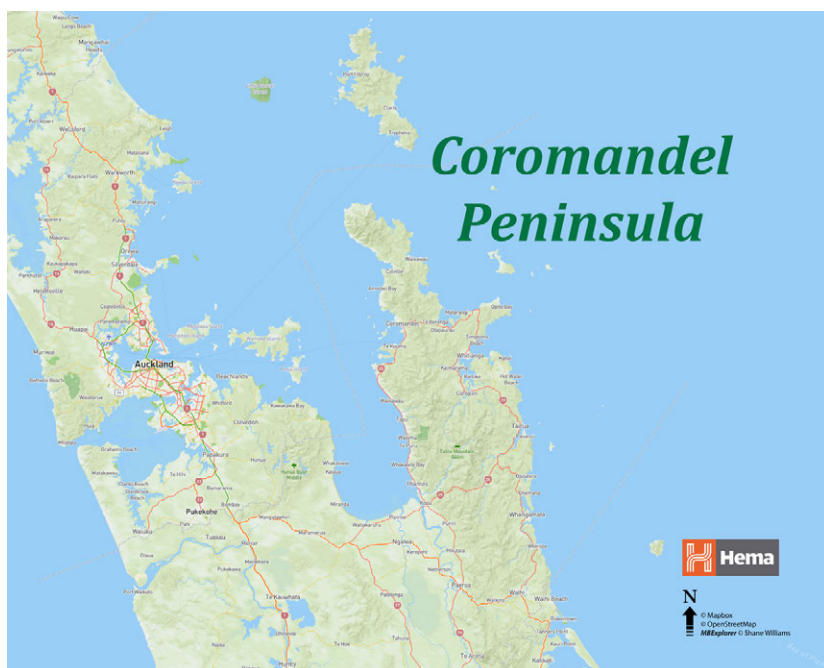


next morning. Over seven inches of rain fell in a few hours leaving roads flooded and no way out of town, so we spent the day catching up on sleep, reading, planning our adventure for the following day, assessing the localized flooding, and eating delicious Thai food. Though we planned to hike into Cathedral Cove early the next morning, the storm had stirred up the water which left it murky which is not conducive to snorkeling. Instead, the day was spent meandering through lush rainforests, hiking to waterfalls, scouring deserted beaches for shells and sea glass, exploring tide-pools, and touring a small macadamia nut orchard.

Will I go back to The Coromandel—absolutely! Even though the size is relatively small, one could spend ages exploring all The Coromandel has to offer.

\* \* \*

We would like to take a moment to thank a few companies for making our trip to New Zealand Possible. First, we would like to thank Toyota New Zealand for hooking us up with their new Fortuner for our time on the North Island. We also need to thank Exofficio and Hi-Tec for providing clothing and footwear to keep us comfortable during our travels and Eagle Creek for providing the luggage to haul our gear half-way across the world to New Zealand. 🇳🇿







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Valley of the Gods , Utah  
Beau A. Johnston





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*f/8 1/125s 60mm*







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f/9 1/320s 85mm



Members of Lone Star Scenic Expeditions line up in Big Bend National Park to enjoy the sunset colors on the mountains of Mexico. | Photo by Christopher Mann





Don Mclean enjoying an evening under the stars at Pismo Beach. | Ioana Palade





FRAMED

*f/4 25s 18mm*







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*f/4.5 1/1250s*





Grand Teton National Park During the Hema  
Maps CDR Expedition, 2016. | Shane Williams



# Mexico Run via 4Runner

Story and Photos by Joseph Casarez



A year ago, I flew to Merida, Yucatan in Mexico to visit Progreso. For this 7-day trip, I rented a car and visited Progreso and Merida. As I was driving around and seeing the different areas, I determined the area to be an awesome destination just to explore and see Mayan ruins, cenotes (fresh water caverns), and everything this place offers. After my week in the Yucatan, I started considering the different options I had from shipping my vehicle to driving it to the Yucatan. I came across a blog where a family from San Antonio did the same trip. I carefully read their story and made the decision to pursue this adventure.



Taking a ferry in Mexico.

I obviously wanted to have my vehicle in good condition for this journey. Despite keeping the 4Runner well-maintained, I had it looked over and did a round of preventive maintenance. I drive a 2005 4Runner Limited with 4.7L V8, 4x4, 4.88 Gears, and Shrockworks front bumper.



For suspension, I went with ToyTec Boss 2.5 coilovers with rear HD springs. The 4Runner rides on 285 KM2 tires with SCS SR8 wheels. Even though I traveled with a 7-gallon RotoPax for fuel, I never had to use it.

Travel Tip: to drive through Mexico, you need Mexico-based auto insurance. If you're going over the border for a few hours, you'll be alright. For multi-day trips, I would highly recommend the insurance, which is cheap. Full coverage for six months cost me \$318.

My original plan was to enter through Reynosa, but I was informed that is not as safe and I should enter through Laredo. I entered through Laredo/Nuevo Laredo 85/85D. Upon crossing the border into Mexico, I was asked several questions: my destination, vehicle contents, why I'm going, and what do I do for a career. After about three minutes, I could continue.

I didn't think I needed to have my vehicle registered with a Mexico temporary registration. About 45 minutes out of Nuevo Laredo, I encountered a checkpoint where papers were being checked. They asked me for my temporary registration. I told them I didn't think I needed it. They informed I did and that I had to go back and get it. I had to drive 45 minutes back to the border to a registration station. After 30 minutes, I was handed a form for the vehicle, along with a holographic sticker to put on the windshield. I headed south and returned to the checkpoint, only to find no one was there!

My first destination was Monterrey. The highway resembles U.S. highways, with some parts rougher than usual. With a temperature of 60 degrees, Monterrey was cooler than I expected. I stopped at Pemex for fuel. This appeared to be the only fuel supplier in Mexico. They have a great monopoly game going on!



Taking in the scenery surrounding the road to Monterrey, Mexico.

I encountered another checkpoint about 30 minutes out of Monterrey. The official requested vehicle papers and passports. Same questions as at the border: destination, where I'm coming from, how do I know the person that's with me, what's in my luggage, etc. Once all that was out of the way I wanted to know about the security in the area. He told me that from Monterrey to the border north, be careful because sometimes the cartel sets up fake checkpoints. South from Monterrey is safe.

We set out for San Luis Potosi. The mountainous scenery was nice, hilly and wide-open ... we could see far off. We used Airbnb to find a nice BnB place and found the hosts to be amazing. Luckily, they both spoke English.



San Luis Potosi, Mexico City, Vera Cruz, Highway 57, 57D, 75D, and 150D.

We woke up to an amazing breakfast, complete with fresh orange juice. We filled up with fuel and kicked the tires! We arrived in Mexico City that evening in the rainy 60-degree weather. We couldn't see much, but I could tell that we were going up in elevation because my ears kept popping and my Suunto watch was going off like crazy. This drive was smooth and without issues. We arrived in Vera Cruz at about midnight.



We could tell the climate changed due to the palm trees, humidity, and the smell of the ocean in the air. This is what I was waiting for. We checked into the Holiday Inn in the downtown area. The hotel has private parking, so the 4Runner was safe there.



Habitacion Doble Casa Goo BnB.

Our plan the next day was to head towards Campeche and stay the night. Again, the drive was smooth ... nothing crazy other than my debit card not working at ANY of the gas stations, so I switched to using a credit card. We arrived into Campeche late and dined at Chili's. When I started searching for a hotel, I realized we were only about four hours away from our destination of Merida.



Scenes from Laguna de Terminos, Ciudad de Carmen.

About one hour into the drive, we encountered another checkpoint. Two officers asked the routine series of questions. While I'm talking to one officer, the other officer is talking to my girlfriend, who speaks fluent Spanish, and he's telling her that there is an issue with my 4Runner

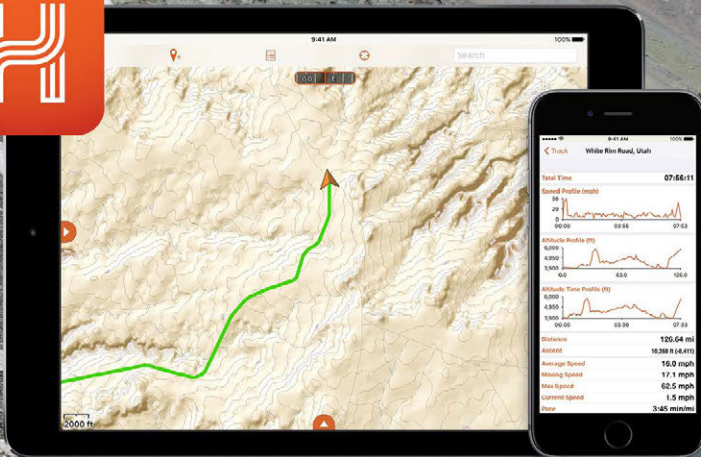
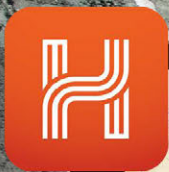


not having a front license plate and an issue with the rear seats being down. They refer to a ticket and infraction. The officer advises us on our options: I can either pay the ticket with him now, or they are going to take my license plate, and I should pay the ticket when they open the next day. They claim the infraction fine is 2,000 pesos, which is roughly \$100 USD. After further back-and-forth discussion, I ask how much they want to let us go. We settled on about \$60 USD.



The Venustiano Carranza building in Vera Cruz is an actual lighthouse.

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Inside the Piedra De Agua Hotel, Merida, Yucatán Mexico.





Chacchoben is an area full of altars and ruins.

With this delay now behind us, I started traveling at a higher rate of speed. Supposedly they don't issue speeding tickets in Mexico. We finally made it to Merida at about 2 a.m. We drove to the Center where I still remember it from my previous visit: cobblestone roads and vendors on the side of the road selling food. We checked into Piedra De Agua, which I highly recommend. I also recommend the Presidential Suite ... you can thank me later. ❤️

*In loving memory of Andrea Patino Rojas.*



The author and his traveling companion.





# Destination: Toroweap Overlook

Story and photos by Christopher Mann

I have been very fortunate in the number of truly amazing natural wonders I have visited: Mauna Kea, Maze Overlook, The Doll House, Copper Canyon, The White Pockets, and Bisti. There are many other scenic destinations I have yet to see, and in some cases, maybe I've waited too late. Why too late? I wish I had seen them before they were taken over with commercialization, traffic jams, full parking lots, and campsites booked many months in advance. For example, a hundred people a day apply for the 12 daily passes to access The Wave in Northern Arizona. One guy we met remembers a dozen years earlier camping in the Wave all alone. He even had a campfire there. Nobody knew about the place. What is going to be the next Wave? Last year I learned about an awe-inspiring place that is still relatively undiscovered: Toroweap Overlook.



It is extremely rare to be able to see the Colorado River from the rim of the Grand Canyon. It's 3000 feet, straight down.

Later in the year, Bob Devereux (FJ80 Land Cruiser), Kim and Dave Aurzada (Toyota FJ Cruiser), and my old friend Brad Beasley and I ('85 FJ60) were eating breakfast in Kanab, Utah one fine morning,



planning our “assault” on Toroweap Overlook. The weather forecast was calling for cold weather, wind, and mixture of rain and snow. We knew from experience that sometimes the weather predictions are wrong. Four years earlier at The White Pockets, I remember setting up my tent with dread in my heart while it was snowing horizontally at 40mph. By the time we set up camp and lit the lanterns, the blizzard stopped, and the stars and moon came out to greet us. So, at the cafe in Kanab, we tipped our waitress, topped off our tanks and headed south. Glad we did. The weather turned out to be great. If anything, the dire weather predictions kept out the less resolute visitors.



There are three approaches to the Toroweap Overlook. All are approximately 60 miles of washboard roads. We chose the one that was supposed to have fewer ruts and holes. When we turned off the highway to the Toroweap road, the scenery was just okay, but it became more mountainous as we went deeper into the *Arizona Strip* (a part of Arizona completely cut off from the rest of the state because of the Grand Canyon). Six miles before our destination, we stopped at the ranger station in the tiny former mining town of Tuweep. There's not much to it—a barn, and a house. No one was there, except a sign warning visitors that reservations are required to camp, and to arrive before sunset. We had plenty of daylight, so we kept heading south to the Overlook.

About four miles from the Overlook, we had to stop and put our trucks in 4-wheel low. Our road had become twisty and rocky, with short climbs and descents. It was good to slow down, roll down the windows, and allow our vehicles to do what they do best.

Anticipation builds, as we leave downtown Tuweep in our dust. Headed south to Toroweap!



Our campground is just beyond and below my truck. Almost there!



We pulled in to camp with great anticipation. The campground was beautiful, with awesome views and it afforded protection from prevailing winds. It only had one camper, who left the next morning. We hurriedly set up camp, as we were anxious to hike 20 minutes to the big payoff: the Overlook at sunset.



I do not have to ask David and Kim Aurzada to smile for me. Nor could I have gotten them to stop!

The Toroweap Overlook on the North Rim of the Grand Canyon is the only place on the rim of the Grand Canyon where you can hike to the rim, and look straight down, 3,000 feet down, to the Colorado River. The colors of those sheer canyon walls at sunset are flush with yellows, reds, oranges, and maroons. They contrast nicely with a blue sky and purple horizon. The beauty of the view draws you to the canyon edge like a light draws in a moth, but you don't want to be like the moth and get "burned" by getting too close. One false step on a 3000-foot ledge would be a horrific way to go.



We were snuggled in next to some rocky cliffs to protect us from the weather. Perfect campsite.

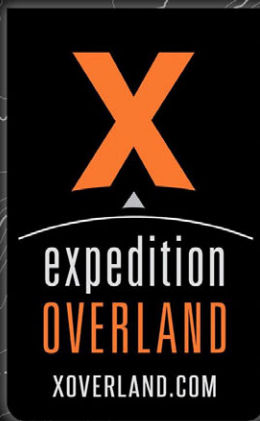


Standing on the North Rim at the Toroweap Overlook on a pretty calm day with your friends is so peaceful. Few words are spoken. We just stand, breathe, and take it all in. We all savor it together, well aware moments like these are so rare. This is why we come here. THIS is recreation—as in RE-creation. We feel ourselves being recreated not just by the beauty, but the serenity, remoteness, and the journey.

You have to be willing to rough-it to experience Toroweap and you have to have a four wheel drive high clearance vehicle to get through the very rough and rocky roads. There's no electricity, no water, and no cell service. The only amenities provided are compost toilets. Compared to places we usually visit, that one amenity made it pretty plush. We are used to being totally self-sufficient. We gladly give up all park provided conveniences to experience something so beautiful and so unburdened with the tourist trappings found in Yellowstone or the South Rim.



Bob Devereux has taught me so much about my old Land Cruiser and how to utilize it for overland-style travels.



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What is there to do? We stayed four nights and three full days. I spent the first day just relaxing. The second day we all went for a 10-mile hike on the Tuckup Trail, which is a relatively easy hiking trail that winds along the canyon rim and affords many spectacular views. The third day we left camp and drove west over a pine-forested mountain and visited a rock garden full of petroglyphs called Nampaweap. We went down a rocky and winding road to the Whitmore Canyon. At the end of the road is another amazing overlook of the Grand Canyon. We saw a lot of barrel cactus and extinct volcano cones along the way.



Bob camped under what looked like huge chocolate truffles.

I have always felt like obstacles are a good thing. Whether it be distance, remoteness, lack of necessities, challenging trail or road conditions, these challenges keep the casual tourists to a minimum and preserve the serenity for us hardy, more adventurous tourists. One obstacle to consider on this trip is dealing with the reservations system the NPS Grand Canyon Back Country Permit Office has in place for this part of the park system. Until a few years ago, there were no permits needed to camp at Toroweap. But things are changing in the four corners area of our country. More and more people are seeking these places out.



On the fifth day, with a little melancholy in our hearts, we head out.

## Points to remember when reserving a campsite at Toroweap

You must obtain permits in advance. We made ours about three months in advance.

There are about six individual campsites (1-6 people, 1-2 vehicles each) and one group campsite for 3+ vehicles (7-11 people). A group of fewer than seven people cannot reserve the group campsite.

The park encourages people to carpool when going here. They are trying to "safeguard the highest quality backcountry experience."

The Grand Canyon Backcountry Permit Office does not understand why four people would each want to drive their vehicles to go camping and to experience the backcountry. They only understand enthusiasm about the destination, and not about the journey getting there.

Three or four vehicles, 3-12 people, cannot reserve two or more campsites if there is ANY association between them, even if it is just friendship. Thus, no groups, unless you book the one group site.

You cannot reserve the group campsite for, say, four vehicles if you have less than seven people. Six people at the group site are not enough.

There are other rules and regulations too numerous to mention, but readily available on the internet.







We only saw two other campers the whole time we were there, so we had the place all to ourselves and never saw a park ranger except when we stopped to chat at the Tuweep Ranger Station on our way out.

I highly recommend this destination for those of you who tow off-road campers. The NPS has a rule that says the total length of the towing vehicle and towed vehicle cannot be over 22 feet.

If the photos in this article inspire you to look over the Toroweap Overlook yourself, I suggest you get out there sooner than later. The regulations the NPS currently has in place are there because they are preparing this special place to become much more popular in the near future. 🍷



Chris Mann is a professional photographer and avid outdoorsman." PHOTO BY BRAD BEASLEY



# Brazil TLC

## A Curiosity in Paradise

By Robb Pritchard

As a contributor to this fair publication, I get to see, and even sometimes drive, some very special off-roading creations ... so it's not that often that I get stopped in my tracks by a Land Cruiser. It was only an hour after my first coffee, so admittedly my mental faculties are not at their most trustworthy at this time of day, but several of my senses worked together to convince me that what I was seeing was real. Land Rover has their 127 and 130 crew cab pickups, but Toyota doesn't have an equivalent, at least, I didn't think so ... but here on the streets of a little village in Brazil, was what looked like a double-cab 40 series driving towards me. Full of people in the back they were obviously going on some grand, off-road safari! The driver mistook my bewilderment in his car for interest in a tour and handed me a leaflet. A phone call later and we arranged to go on a trip in the surrounding jungle the next day. Easy.

I was in Paraty, a delightfully pretty little place and nestled on the stunning



Brazilian coast between Rio and São Paulo. Because of its excellent location, it attracts a good number of visitors and a small but vibrant industry taking people into the nearby jungle in African style safari jeeps has sprung up. 130s and battled BJs ply the dirt roads in the hills, but with the best looking and prepared vehicle by



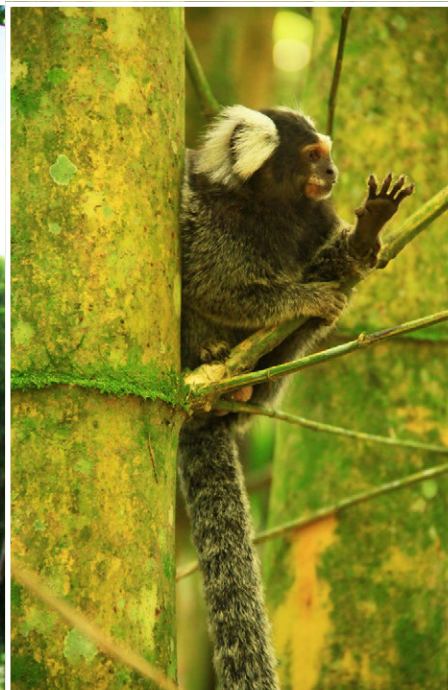


far is Fernando Bradok of Elite Tours. At 11 a.m. sharp, he pulled up. I was hoping for a bit of a discount in exchange for sharing my photos, but the car was empty. Fernando had spent the last evening looking at the last issue of the magazine and liked it so much he wanted me to do the full story without the distraction of other passengers!

Just a couple of kilometers up the tarmac we turned up a steep road that soon became compact dirt and the leaves of the jungle touched the wing mirrors. The first stop was a waterfall in a little nature reserve. People in the other 4x4s that pulled in at the same time head off to the entrance gate, but not one to follow the crowd I took the opportunity to take a closer look at the Land Cruiser.



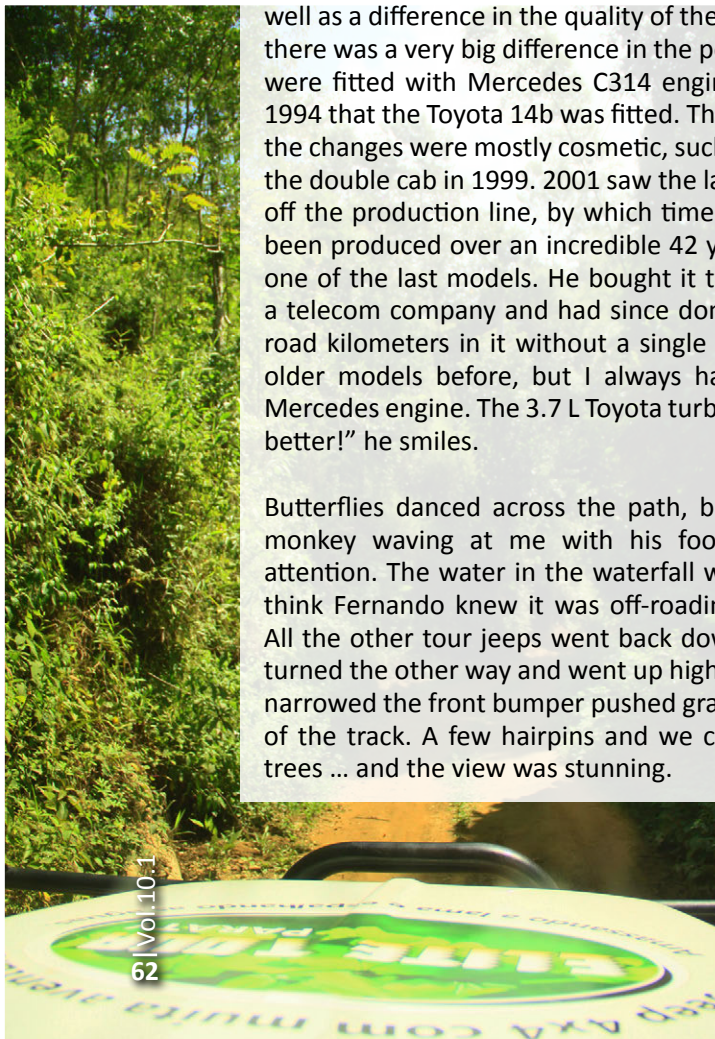




In Brazil, Land Rovers have the Santana made on the license but another long lasting partnership Bandeirante have been making Land Cruisers in Brazil since 1959 and until there was one in front of me the day before I'd never heard of it. At first, it was only an assembly line here, but after a few years, all parts were produced in the country. As well as a difference in the quality of the locally made parts there was a very big difference in the power plant, as they were fitted with Mercedes C314 engines. It wasn't until 1994 that the Toyota 14b was fitted. Throughout the years the changes were mostly cosmetic, such as the addition of the double cab in 1999. 2001 saw the last Bandeirante roll off the production line, by which time 100,000 units had been produced over an incredible 42 years. Fernando's is one of the last models. He bought it two years ago from a telecom company and had since done over 10,000 off-road kilometers in it without a single breakdown. "I had older models before, but I always hated the noisy old Mercedes engine. The 3.7 L Toyota turbo-diesel is so much better!" he smiles.



Butterflies danced across the path, but it was the cute monkey waving at me with his foot that caught my attention. The water in the waterfall was gorgeous, but I think Fernando knew it was off-roading I wanted to do. All the other tour jeeps went back down the hill, but we turned the other way and went up higher. The tracks soon narrowed the front bumper pushed grass from the middle of the track. A few hairpins and we came up above the trees ... and the view was stunning.







Standing by the car, Fernando told me how he came to own the nicest 4x4 in the village. "I started working on the tour company, just selling jungle adventures because I always like nature," he said. "But I always wanted to start a project myself. One company bought a couple of luxury mini-buses with A/C and nice seats, but it didn't work as people don't want to be closed away behind tinted windows when they came out here to the jungle. They want to feel the fresh air on their faces. So I had the idea to do something in the middle; the nicest 'rough' experience. I have rows of nice car seats in



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the back, not just hard, uncomfortable benches. And I designed the frame myself. It's very strong. If anything happens, the passengers will be safe. I want mine to be the best vehicle and Elite Tours to be the best company."



Next was the lunch stop, a wooden cabin beside the river. People jumped in the pools and slid down the rocks on a natural slide and the cool air from the waterfall was glorious. I had come to Brazil at the invite of Genius tyres and hadn't expected anything special from the country but Paraty and the unspoiled area around are an absolute traveler's paradise. The town is enchanting, so much so I stopped there and never made it to Rio, the coast is divine and the jungle pristine. If you have business in São Paulo or Rio, or a few days to kill, you need to put Paraty on your "must visit" list. You will not be disappointed!

Another place Fernando wanted me to take photos was down near the river. I waded in, changed the



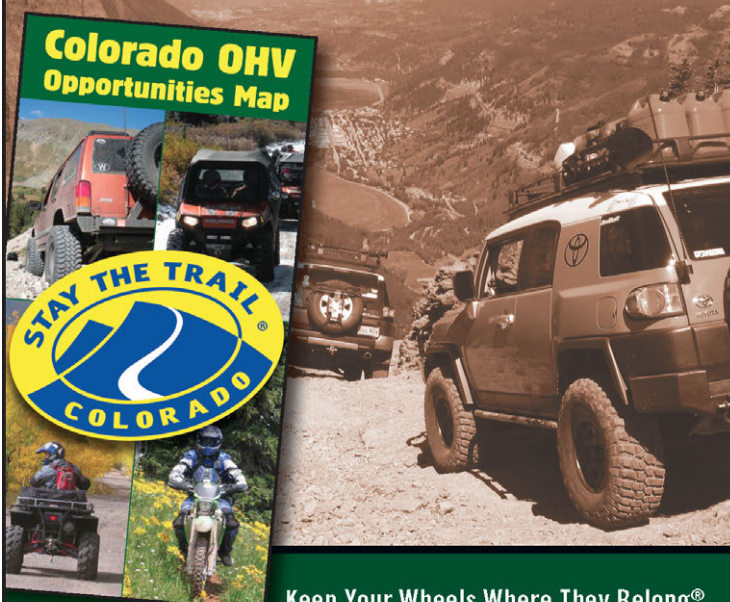




camera settings for the dusk light and waved him to come in. "I can't drive in there," he said with incredulity written all over his face. "What's the snorkel for?" I asked, and that was the only invitation he needed. The smile on his face as the bumper made little bow waves was precious. The day was over far too quickly ... just like my stay in this special part of the world. One day I will be back! 🇧🇷

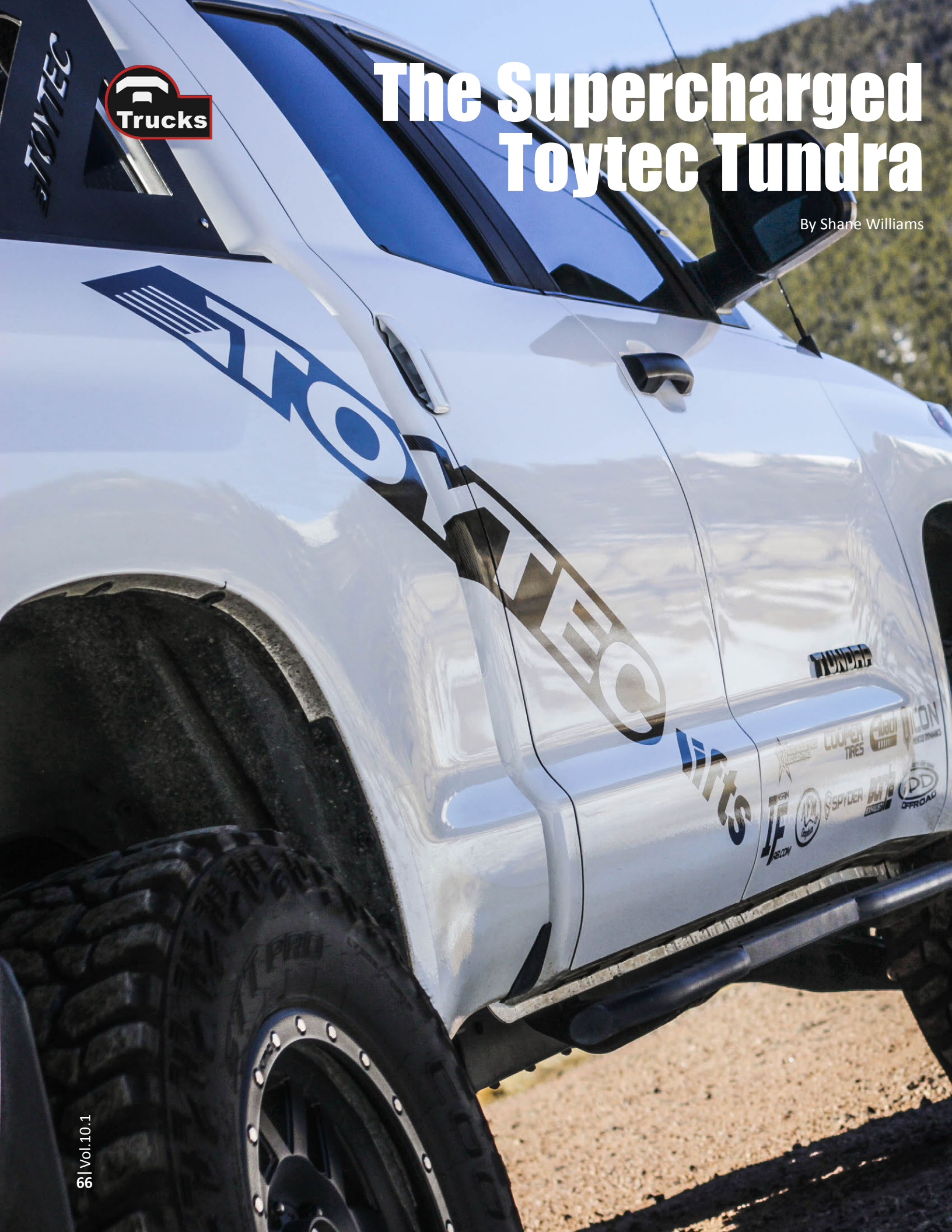


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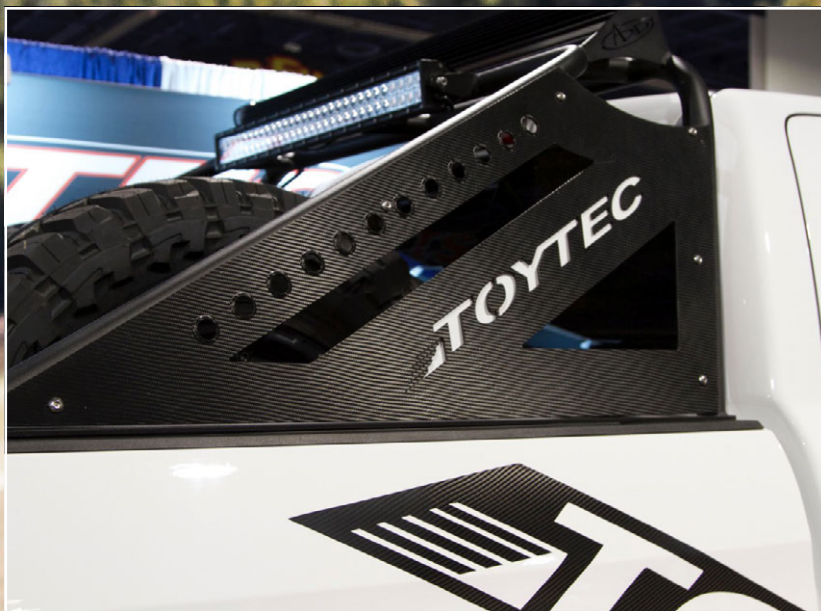
# The Supercharged Toytec Tundra

By Shane Williams



Our TCT Explorer Tundra just rolled 40,000 miles. It has been a fun two years ☺. Our move to the Tundra platform was inspired in large part by the Toytec Lifts 2014 Tundra, so I thought it was the time we give that truck a little more attention.

Last week I sat down with Doug Gosh, owner of Toytec Lifts, for a quick chat about how he build this amazing specimen.







**TCT Magazine:** Doug, Toytec has been a leader in lift and suspension kits for over ten years, but this is your first Tundra. Why was 2014 the right time?

**Doug Gosh:** We originally built the 2014 Tundra because it was one of the Toyota models Toytec didn't have many options for lifting; it was the test vehicle for our Boss suspension 2.0 series coilovers and shocks

**TCT:** What products has it been the test mule for recently?

**DG:** We designed our rear lift shackles and remote reservoir rear shocks for the '07-17 Tundra using the Tundra.

**TCT:** One reason we chose the Tundra was for its hauling and towing use. Does your truck get the chance to pull or haul?

**DG:** After we built our long travel 4Runner in 2015 the Tundra became a great tow rig for long trips, including the off-road expo in Pomona, SEMA 2014 and 2015 and the FJ Summit in Ouray, CO in 2015. The truck was also displayed at the Overland Expo in 2015.



In 2015, the Tundra hauled the long travel 4Runner to the Las Vegas convention center for the SEMA show. Then the trucks were both displayed in premium outdoor locations at the show, while our freshly built 2016 Tacoma made it's first appearance in Toytec's indoor space.

**TCT:** I'm sure the supercharger makes towing a little more fun.

**DG:** We love the truck in the mountains with the supercharger. It runs really good. It's even been at the local dragstrip for their Truckfest the last few years too.

**TCT:** I think I saw a video of your truck on the drag strip.

**DG:** It's always a fun day! The Tundra is also my favorite daily driver, the power is great, and it gets better MPG than our 2016 Tacoma or 2015 4Runner.

**TCT:** It sounds like I need to save my pennies for a Supercharger then. ☺ Thanks for your time, Doug. Do you have a full build-list we can publish?

**DG:** Since the truck is a bit of a test mule, it's always changing. The current mod list includes:





## Supercharged Toytec Tundra Specs and Mods

### 2014 Tundra SR5 Double Cab 5.7L 4x4

#### Performance:

- TRD Supercharger
- TRD intake
- Unichip Programmer
- Borla Catback Exhaust

#### Suspension:

- ToyTec BOSS 2.0 front coilovers
- Total Chaos upper control arms
- ToyTec BOSS 2.0 Remote Reservoir rear shocks
- ToyTec 1.5 inch Signature Series blocks

- Firestone Ride-Rite Air bags

#### Wheels and Tires:

- 18'-inch KMC-XD Series (XD128)
- 305/70R18 Cooper STT PRO

#### Exterior and Armor

- Addictive Desert Designs Venom front bumper
- Addictive Desert Design Venom chase rack
- InSain Fab dual tire carrier and jerry can holder
- RCI 07-17 Tundra Heavy Duty Side Steps

#### Additional Mods:

- Rhino Linings Bed Liner
- Rigid 50-inch E2 series HyperSpot light bar
- Rigid 30-inch E series flood light bar (reverse facing)
- Rigid Industries Tundra gille with 20-inch' E series Combo and Dually D2 Hyperspot driving lights
- Rear Flush mount Rigid Dually D2 flood lights mounted in bumper
- Spyder Headlights with HID conversion + Spyder Taillights. ❤️



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Getting the Toyota dirty in  
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From Denise Arthur



1993 FJ73 Land Cruiser in  
Medellin, Colombia

From William Gil