APRIL 2010 • VOLUME 3 • ISSUE 2

# Lone St+r **Toyota Jamboree**

DFF ROAD 101: COILS EXPLAINE



FJ Cruiser Cleaning Expedition Wheeling:

TOYOTA

Emergency!





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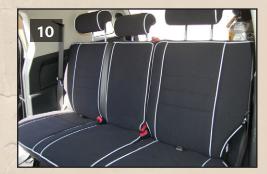
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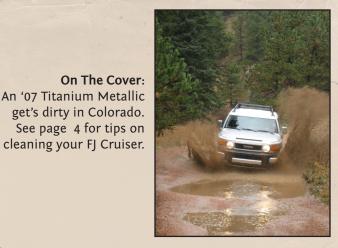








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It is said that "what doesn't kill me makes me stronger", but that doesn't mean it leaves you happier or able to do everything you once could. However, we at Disabled Explorers believe that there is a peace and joy to be found in the wilderness, and regardless of physical mobility issues we want to help get you out there!

Our goal is to create a resource for vehicle based back country access by the disabled. Our motto is Adapt, Overcome, Explore and we are working to live up to that motto in the following ways:

Adapt: Vehicle modifications, equipment reviews, recovery methods, driver training, and more.

**Overcome:** Feature stories of those who are out there already, from amputees to those with spinal cord injuries

**Explore:** Trail ride-along events to introduce the disabled to the outdoors, presenting at land meetings to fight against trail closure, adapted trail guides and more.

For those of you who are currently able bodied, we could use your help with many of our activities while providing you with a chance to learn how to wheel with the disabled. Our desire is not to change the trails that already exist, but to keep them open so that people with mobility impairment can enjoy the same wilderness access that the able bodied have.

To find out how we can help you, or how you can help us, go to our website (www.disabledexplorers.com), email us at info@disabledexplorers.com, or call 602-451-6079.



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#### FROM THE STAFF In just a few days a new device

will be released that may be revolutionary. It's called the iPad, and unless you've been on an extended adventure for the last few months, you've heard of it. While Apple touts the iPad as an e-mail, web surfing, book reader, movie watching device; we see a much broader future for this gadget.

While there is no 'central' magazine store for the iPad (yet), we can't wait to deliver FJC Magazine on the device. In fact, we're currently developing an application that will allow anyone with an iPad to read any issue of FJC Magazine at no charge. We also look forward to reading our other favorite publications on the iPad as well. We really think it will revolutionize the magazine industry. We're certainly glad to be in the digital publication business in 2010!

The final (and perhaps most exciting) reason we can't wait for the iPad relates to our hobby of off road driving. For years we've searched for the best way to experience off road trails from the comfort of our FJ Cruiser (and Jeeps before that). We've gone from statewide Gazetteers to off road guidebooks to handheld GPS units to our current favorite, our in-dash Kenwood unit with custom topographical maps. All of these solutions have worked to varying degrees, and our 7120 is certainly a great way to experience trails. With the iPad though, there's an opportunity to truly revolutionize off road driving.

Our parent company, Zaxyn Media, LLC has started development on an application specifically for the Apple iPad (though it will work in the iPhone too) that will bring off road driving into the 21st Century. By the time the FJ Summit is here, we expect to demonstrate a prototype of our Off Road Trail Maps application for the iPad. This application will allow any iPad or iPhone user to download map sets for certain areas that will combine the best features of GPS Maps, off road guidebooks, and trail information sites into one system. Some of the features of this application will include:

- Detailed topographic trail maps for the most popular trails in an area (downloaded to the device for offline use)
- All trail maps include descriptions, photos, GPS Coordinates and other trail information
- Historical information for ghost towns, mines, and other points of interest along the route
- Fully GPS enabled so you'll always know where you are on the trail
- Link to external navigation apps for driving directions to the trailhead
- Ability to add custom markers/favorites to any trail map
- Information on towns in the area, to include Lodging, Dining, and Shopping Points of Interest as well as links to online reviews

So as you can tell we simply can't wait to get our hands on an iPad and get to work. We've setup a website so you can signup to be notified when the application becomes available. You can signup at http://www. offroadtrailmaps.com and we'll keep you updated on our progress.

If you're going to the FJ Summit, track us down for a preview of the application

do not represent endorsement of said product by FJC

Magazine, it's editors, or publishers.

as well. We look forward to seeing you!

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



Get a printed copy

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Opinions and information on the best way to clean your FJ Cruiser is plentiful and varied. We each have our own products, methods, and traditions that we're used to. Before we discuss what's worked best for us, we should say that if you're happy with what works for you, stick with it. Hopefully you'll find some of these tips helpful. If you have tips that we haven't covered here, send them to info@fjc-mag.com and we'll add them to the Readers Thoughts section on the website.

Most people that look at your FJ see the exterior, so why not keep it looking great? We understand that many FJ's are meant to be used and therefore will never look like they did brand new, but taking good care of the exterior will help your truck last longer. During and after events, we generally use a pay wash to get the mud & gunk off our truck, but when it's time for a hand washing, there are plenty of options available.

It seems that every manufacturer claims that their car wash is the best, get's off the most dirt, and is all around...amazing! In our experience though, a car wash is a car wash. Buy a quality brand that you've heard of and you should be OK. We like either Meguires NXT or TurtleWax ICE for a basic car wash. If you do choose to use a drive-through car wash, make sure it's the "No Touch" variety. Automatic washes that use fabric brushes can leave tiny swirl marks or scratches on your truck.

#### **Exterior Wax**

Most detailers recommend waxing your truck at least twice a year, maybe more depending on your climate. We usually wax the FJ once in the fall & once in the spring. If we notice that water is no longer beading up on the paint we'll sometimes have a quick wax done at a detail shop. We've always used Mothers Carnuba Cleaner wax for full wax jobs and have never been disappointed. For this article, however, we wanted to compare a few different products. Autoglym is a well known car care product company in Europe that has recently expanded to the US. They sent over a few items for us to include in our comparison: The Perfect Palm applicator, their High Definition Wax, and their Vinyl & Rubber Care (see below). For good measure, we also included Turtle Wax ICE Synthetic spray on wax in this comparison.



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The three waxes included in this comparison: Mothers Carnuba Cleaning Wax Autoglym HD Wax TurleWax ICE Spray ON Wax Autoglym's High Definition wax is a blend of durable polymers, Carnauba and microcrystalline waxes, hydrocarbons, and oils that applies easily and goes a long way. The HD wax kit comes with two applicator sponges, a 5.3oz can of wax, and a microfiber buffing cloth. We found that a little of this wax covers much more area than traditional waxes, which means less time applying wax to the FJ. The included application sponges are more comfortable than a regular wax applicator, and their design allows you to get into smaller areas. We also tried the Perfect Palm Applicator from Autoglym, and it works great for larger areas (like the hood), but in the small tight areas it wasn't flexible enough to apply wax properly. We also found that after extended use the Perfect Palm caused a little cramping in our hands.

#### **Black Plastic Trim**

One of the other major areas on the FJ that needs regular attention is all the black plastic. After a few trips in the mountains, the associated quick washes, and general weathering, the black



trim pieces end looking up gray at best. To address this problem, Autoglym also sent us a bottle of their Vinyl & Rubber care product. We've used always 303 Aerospace Protectant and Mother's Back

to Black to take care of our black trim, so let's see how the three compare.

As it turns out, 303 Aerospace Protectant is great for the interior (see below), but isn't the best product for the exterior plastic. In our comparison picture it's clear to see that the Autoglym product and Back to Black really bring the plastic back to life. While these two products are very close, in our opinion the Back to Black makes the trim pieces 'pop' a little more. Still, we applied the Vinyl & Rubber care to the drivers side of the FJ, so we can test the long term durability. In the past we've noticed that Back to Black can wear off in a few weeks. We'll update you on how the Autoglym product holds up. Here are some other products we've heard good things about to help clean your exterior:

#### Meguires NXT Product Line Goof Off to get the wax off of plastic

#### Editor's Note:

One paint care option we're not covering in this article is using a clay bar treatment. Many people use this method to remove all surface contaminants from your paint completely, so the new wax will protect your FJ better. While this method is very common among show vehicles, we find that many FJ Cruiser owners don't use a clay bar very often. Still, if you're looking for the absolute best wax shine, using a clay bar will help out immensely.

#### **Interior Care**

Depending on how you use your truck, you may very rarely touch the interior of your FJ. We're on the other end of that spectrum and really prefer our interior to be clean and dust free as much as possible. We use the basics for cleaning our interior: soap & water. A couple of drops of dishsoap in a spray bottle of water easily get the dirt & dust off the dash and all the plastic parts. We then follow it up with a coat of 303 Aerospace Protectant to protect against UV rays and keep everything looking sharp. We've also tested Autoglym's Vinyl & Rubber care on our interior plastic to see how it performs, and so far it's matching the 303 Aerospace very well. We'll keep you updated on how it holds up over the long term. For applying these products, we've found a clean microfiber cloth works best and doesn't leave lint behind.

For the seats, we usually vacuum them well and use the same soap & water spray to get any spots out. Hair from our dogs always gets embedded in the seats, so it takes quite a bit of vacuuming to get it out. We've just added the Wet Okole seat covers (page 10), and we'll be reviewing the Clazzio seat covers in the July 2010 issue. We'll update more on both of these options in future issues.

For cleaning the glass in our FJ, we use a non-ammonia based cleaner we picked up the last time we had the windshield replaced. It's very high grade and isn't cheap (about \$7/can), but it's streak free and won't harm any of the UV protection on our windows. Again, we use a microfiber cloth for a lint and streak free cleaning.

#### Continued on Page 17







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#### Article & Photos by Stacey Knight Knight Scenes Photography

With an invite from our friend Steve Wilson (WILSON) to attend this year's 5th Annual Lone Star Toyota Jamboree, we couldn't resist the opportunity to wheel with a good friend and to check out the Texas trails.

After a nine hour drive from Tennessee, we finally checked in at the Barnwell Mountain Recreation Area in Gilmer, Texas on that Friday. We were greeted by Steve and several other members of the Toyota Trail Riders who quickly helped us get signed in and went over the schedule of events for the weekend. While the usual parking lot meet-n-greet and mod comparison was taking place outside, I was inside purchasing 100 tickets for the big raffle.

I finally managed to pull Terry and Digger of Outrider Off Road apart from their three hour conversation and we made our way to Rover Camp. I knew from the start that this was my kind of park when you actually have to drop it into 4 low to get to your campsite. Once camp was set up it was time to head back to the staging area for the vendors meet-n-greet and chili dinner.

In several ways, the dinner felt like a mini FJ Summit meet with all of the vendors that were in attendance. This year that list included All-Pro Off-Road, ARB, BudBuilt, Demello Off Road, Marlin Crawler, Outrider Off Road, and TRD Parts 4U,



Gonzo in his SandStorm FJ

along with many others. Once the dinner was over we went back to Rover Camp to enjoy some more Texas hospitality and to try and get some sleep.

Saturday morning came with a wakeup call not of sun but a downpour of rain, which did not let up for the entire day. At the morning meeting we were informed that all trails had been ungraded due to the rain and expect to use your winch. To our surprise we were volunteered by Sean (TheKeeper) to lead a group, which we found funny since we had never even been to this park before. We gathered our group which consisted of five FJ's including Jon B. of All-Pro and two FJ40's and made our way to the trails. We ran Omega, Linda Gail, Solihull St., and On Any Sunday which were all slick and sloppy.

Next up on the agenda was lunch and group photo back at the pavilion along with a rock crawl and ramp competition. With the rain giving us a brief pause, we decided to go break camp down while we had the chance. Once packed up we ran into our fellow Rover Camp buddies and decided to run some more trails before dinner. With Matt (GottaGetOne) leading and Sean (TheKeeper) spotting, we ran JP Express, L & B Turnpike and my favorite, Politician. These trails provided more off camber moments and rock ledges than the previous trails and provided me with some awesome shots.



TennesseeSquire in his TRD

Tired and ready for dinner, we braved the pouring rain and dropping temps to stand in line for some great Texas BBQ. After dinner followed the moment we had all been waiting for, the raffle. Who was going to be the lucky winner of the TRD Supercharger? While I was hoping it would be me, I also had my eye on the Baja roof rack and some ARB goodies. Af-



Landy in "SpeedKiller" his VooDoo Blue FJ

ter what seemed like hours, my ticket was finally called and I was the proud owner of a new set of rock rails. It seems Chuck (Miata2k) was in need of some rails and while we were negotiating a price for them, his number had been called for the supercharger. In shock and disbelief he didn't know quite how to respond except for a big smile on his face. With the event coming to a close and knowing that we had a nine hour drive in front of us, we said our goodbyes and reluctantly climbed back into the FJ and headed for Tennessee.

It is rare that you attend an event were you have so much fun that you hate to leave. I want to thank everyone from Toyota Trail Riders, Barnwell Mountain Recreation Area, Texas Motorized Trails Coalition and the Lone Star Toyota Jamboree Planning Committee for hosting such a wonderful event. We will

be back for next year's 6th Annual Jamboree.

Known to most as MrsTennesseeSquire, Stacey has lived in Nashville, TN all of her life. She is a proud owner of a 2007 TRD SE FJ. She's also a founding member of the Smokey Mountain Cruisers established in 2008. a member of the Southeast Toyota Land Cruiser Assoc., and a moderator on the FJCruiserForum. com. You can find more of Stacey's work at Knight Scenes Photography.



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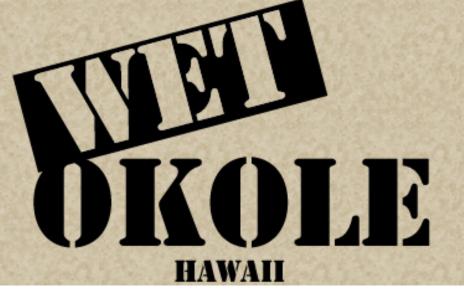
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We've been thinking about adding seat covers to the TRD for quite a while. The nearly 50,000 miles we've put on our FJ have begun to wear the stock seats, and they're getting harder and harder to keep clean. While there are many options for seat covers available for the FJ Cruiser, the two major players in custom fit covers are Wet Okole and Clazzio (See our Clazzio install & review in the July 2010 issue). Wet Okole is currently the standard aftermarket cover in the FJ Cruiser community, so when we contacted them about our comparison (coming in the July 2010 issue), they were excited to show us their latest covers.



For those that don't know, Wet Okole covers are made of waterproof neoprene. Invented in Hawaii, they were originally meant for surfers (and other beach lovers) to add a waterproof barrier to any stock seat. The neoprene covers are available in just about any combination of colors you can imagine, including many special design options. To match the black/white



The covers match the TRD interior perfectly

theme of our FJC TRD, we opted for the basic black covers with white piping.

The install itself is not terribly difficult, but it's not the easiest mod you'll ever do. It took us about 2 hours from start to finish, but just like anything else now that we know what to do it would take much less time in the future. Wet Okole doesn't ship the covers with any instructions, but a quick visit to their website yielded 'universal' instructions that worked out OK. While they do have detailed instructions for some vehicles, they have yet to include the FJ Cruiser in that list. We were able to use the universal instructions for the headrests and front bucket seats, but we didn't find any matching instructions for the rear, so we had to figure it out.

Wet Okole shipped our set of covers with the optional (\$34.95/ side) heaters built in. We expect these to come in very handy on cold Colorado mornings. Each seat heater (bottom and low-

er back) requires it's own 12v power supply (cigarette lighter style). If you want to use this feature often, it may be wise to hard-wire the leads to a switch on the FJ panel.

These covers literally just slip on to the stock FJ seats, with a couple of exceptions. The covers won't slip over the armrest on the seats, so you'll need to remove them before you can install the cover. This also makes it easier to install the armrest cover, so it's pretty painless. The universal bucket seat instructions mention that you should remove the plastic moulding along the bottom of the seat, but we weren't comfortable popping that piece off (it seemed to take too much force & we didn't want to break anything). We were able to loosen the plastic by removing the screw at the back of the seat (on the drivers side), and pushing the cover back behind it. After tightening the seat down the result is a very good fit.



Standard 12v connector for the heaters

A quick note about the rear seats. Since the FJ has a rear shoulder belt in the middle of the seat, the preferred method of installing the covers is to unbolt that belt and run it through the pre-cut holes in the cover. We tried to remove that bolt, but without an impact wrench it wasn't budging. We took the opportunity to mod the cover by cutting the flap that velcros to the back of the cover. This worked very well for us and doesn't effect the fit of the cover at all.



The only other issue we noticed with the install is that on the front seats the cover bunches slightly where the top flap hooks to the bottom of the seat (see photo). This part of the top seat cover has hooks

that you pull tight and hook to the underside of the seat, since there are only two hooks the middle of the cover bunches slightly. It's not a big deal, just something to be aware of.

We've only had the covers on for a few days, but so far we really like the fit and finish. They're sharp and make the stock FJ seats much more comfortable. We haven't had our dogs in the truck yet, so we're not sure how the dog hair will work on these seats.

### We asked our friend Tomas Dawson from MyFJCruiser.org his thoughts on the Wet Okole covers:

"I installed Wet Okole seat covers in my FJ Cruiser in January of 2009. The seat covers have been holding up well. We have 2 dogs that travel with us and their claws have not damaged the covers. My only issue is with the driver's bench cover which has a tendency to shift right and left."

#### Regarding dog hair:

"They do get dog hair in them. However this seems to be a problem with most seat covers. I use a Bissel cleaner on them." You can read more about Tomas & his FJ Cruiser at www.My-FJCruiser.org.

We're excited to be able to include the Wet Okole seat covers in our upcoming comparison (July 2010 issue). There's no doubt that the durable waterproof neoprene design will help them withstand anything we can throw at them.

Do you have a seat cover that you really like (or don't like)? Checkout this story online at www.fjc-mag.com and leave your thoughts in the comments section.

#### **Contact: Wet Okole Hawaii**



# Expedition Wheeling: Escape Pod!

Article & Photos By Lance Blair www.disabledexplorers.org

The Zombies are coming!" someone yells, or maybe it is the heat of a raging wildfire, or even the roar of the flood waters breaking over a dike wall, but whatever the reason you need to hightail it out of town and now. How will you deal with fallen trees, deep water or worse, TEOTWAWKI (The End of The World As We Know It)? I know as an expedition style traveler, I am more than prepared to run the zombies into the ground.

We live an a dangerous world, earthquakes in Haiti, mudslides in California, flooding in the midwest, simple house fires and more. All prove the point that in only minutes you could find yourself leaving behind your home and everything inside it. However, if you are an overlander with an expedition style built 4x4, then you are well setup with extra water, shelter, food, and security.

Often times I hear people talk about spending time after a trip unloading their rigs, dumping out unused water and packing away the gear. I preach the opposite approach, top off the water supply, refill the food boxes, make sure the clothes are in place and you can be ready at a moments notice to jump in your escape pod and go. Sure you suffer a bit in mileage driving a fully packed rig everyday, but that loss will pale in comparison to

## Campsite or emergency HQ, working is groups is always a good idea



standing in the street with nothing but your bathrobe to keep you warm. Let's take a moment to look at some of the common expedition style

build elements and see how they translate into an emergency situation.

That fridge many of your buddies made fun of you for buying. Well look who is laughing now as you have a supply of perishables, and if you are medication dependent, this is a great place to store a backup supply. Depending on how much time you have to get out of the house, you might even save some of the food in your home fridge. This becomes a factor in something as simple as a power outage.



Even in survival mode the penthouse suite is sweet

Your camping kit is another element that crosses over into emergency prep really well. You have a setup that covers shelter, sleeping, hygiene and bathroom needs for remote areas. This same setup will serve well in an urban setting when an earthquake or fire has moved you out of your home.

In addition, your water filter, stove, cups and other kitchen kit items can help make water safe and provide hot meals which always boost spirits after a natural disaster.

The tools, recovery gear, winch and other items that you take along in the backcountry to get you out of a pickle can serve equally well to help snowbound neighbors, remove fallen trees, and clear the path you might need to escape an area. All those nifty antennas and mics easily reachable from the drivers seat can not only keep you informed in an emergency but can also make you a key player. Many amateur radio operators find that their 4wds and radios combine as a re-

source for assistance during wildfires, floods and weather disasters. Many radio folks join groups like RACES and ARES just so they are trained and ready to help. This can also provide access to areas that would normally be blockaded in a disaster.



Your border crossing document lockbox can serve as a place to keep a thumbdrive with scans of vital paperwork, some cash, and backup id's. While this does present a security issue should your vehicle get stolen that is a matter of balance between the likelihood of a disaster in your area (i.e. California high, Arizona low).



First Aid kits are First Aid kits no matter what. the difference is, in an emergency you will be glad you have more than some bandaids and triple ointment. Since you have a vehicle with a bit of space and since a wise overlander takes a Wilderness First Aid or First Responder class, you not only should have a well stocked kit but also the knowledge to improvise solutions.

Your rig itself is not to be forgotten as a emer-

gency asset, transporting your family to a secure area, getting yourself or your spouse to work, the ability to get your kids from school, or even be a community resource transporting healthcare workers or others in extreme weather. These are



things that are only possible when you combine a well prepped rig and a competent driver.

The last bit of this vital kit is the "nut behind the wheel", and keep that one tight and well watched. Your time in remote areas, planning for fuel and food resupply, navigating in unknown areas, and dealing with weather and changing trail conditions will help keep you stay calm, confident and focused in an emergency. If you have ever seen a vehicle recovery gone to chaos, you know the value of having calm and controlled leadership. Things like clothes washing, water filtering, cooking, showering, and such are the same skills regardless of your location.



# In Colorado, We Stay the Trail

www.staythetrail.org

#### Some thoughts on what to keep in your rig

- Spare clothes & shoes
- (1 change per family member)
- Wool blankets insulate even when wet
- Food supply of freeze dried packs, drink mixes and rotate out energy bars
- Water Filter setup or water purification method and water storage setup
- First Aid Kit, well stocked and meds rotated regularly
- Camp Kitchen even a tablet stove, sierra cup and spork is a start
- Communications SPOT Satellite Messenger, Ham Radio, CB, Family band
- Power Management Solar, dual batteries, cell phone car chargers, small inverter
- Porta Potty & Wag Bags
- Tarp and paracord (at least 50ft)
- Fridge or cooler for food & med storage





Serendipity is defined by Webster as "the phenomenon of finding valuable things not sought for." Serendipity comes into play as Brad Pugmire arrives on the FJ Cruiser scene. You see, Brad was a happy owner of a 1996 Toyota 4Runner. If it wasn't for a thrown rod, then Brad would never be the owner of a beautiful 2008 FJ Cruiser. And if Brad didn't own an FJ Cruiser, then the FJ world wouldn't have Ricochet skid plates! As Paul Harvey would say, here's the rest of the story...

Ricochet Off-road manufactures custom aluminum skid plates for the motorcycle, ATV and UTV market. Their relationship with local motorcycle retailers in Salt Lake City is so strong that brand new models arrive at Ricochet before they hit the dealer showroom floor. From the arrival of a new model, Ricochet measures, fits, re-measures, refits, and so on until a fabulous piece of aluminum graces the underside of said motorcycle protecting its vital parts.

To piece the whole story together, Brad is the shop foreman at Ricochet. He is a master at the whole measuring, bending, and fitting process. When Brad's 4Runner decided to kick the bucket, he knew the FJ Cruiser was just the vehicle to replace it. After shopping around, Brad decided on a 2008 Black Diamond 6 speed with very few options. He knew the mod bug would bite him and he didn't want to spend money on options he would modify later.

Seeing the weak protection that Toyota puts on the FJ Cruiser, and using the fabulous know-how that he has, Brad started to fabricate skid plates for his FJ-to protect the vital parts just as the Ricochet skid plates protect motorcycles. Through some of the process, Brad thought that others might just enjoy protecting their FJs as he has....and voila; a new product line for Ricochet is born!

Ricochet employs some very high-tech machinery and process flow to get the finished product out. Much of the work is also done by the hands of skilled artisans! To give you a idea of the technology involved, let's examine what CNC really is.

CNC, or Computed Numerically Controlled machine tools have revolutionized the design business. In the past, all creation of individual parts was done "by hand" and handwheels, levers, or some sort of rudimentary machining process. In fact, it was in the 1940's and 1950's when existing tools were

#### Article & Photos by Bob Blakely

modified with motors to move the controls to follow points fed into the system using a punched paper tape. From the world of punched tape, designing new products moved to analog computers, then to digital computers, and finally a system where the whole process is computer controlled.

In modern CNC systems, component design is highly automated using CAD/CAM (Computer Aided Design/Computer Aided Manufacturing) programs. The programs produce a computer file that is interpreted to extract the commands needed to operate a particular machine, and then loaded into the CNC machines for production. At Ricochet, the complex series of steps needed to produce any part is highly automated and produces a part that closely matches the original CAD design.

Brad was nice enough to give FJC Magazine a tour of the facilities at Ricochet Off-road and here are the pictures and story.

After a part is designed by measuring fitting, trial and error methods, a computer file is produced for input into the CNC machine. The CNC that is used by Ricochet employs water jet cutting. Here's the water jet in action:



The CNC machine cuts out precise flat aluminum skid plates that will undergo further some special "Ricochet treatment"



This is a close-up of the plate coming out of the CNC process. Doesn't quite look like aluminum.... The finished plate gets washed down. Aluminum sediment had covered the plate during the CNC process. By washing it down, that sediment is removed and goes to the bottom of the CNC tank. About 3 or 4 times a year, Ricochet cleans out the tanks and recycles all the aluminum sediment.



The skid plates are 🗾 punched out of the CNC'd sheet and then all sharp edges are removed with a deburring machine. This machine also puts a fine grain, or texture, on the aluminum to give it a "finished" look.





The next stop in the process is the heavy press. Here is where precision custom bends are put into the material to assist in fitting





The next step, if needed, is aluminum welding. This is not your typical steel welding job--aluminum requires special ability. Truly, Ricochet welders are fine craftsmen!



Welding is used when a plate needs to match up against a radius. This is a textbook perfect aluminum weld!

skids.

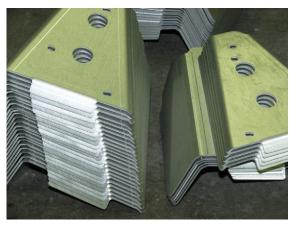
FI

low-

control

skids,

design precise



Lower Control Arm protection, anyone?



A sheet of punched out skids. This sheet will be recycled into new aluminum for Ricochet!

And here is the beast that gives Brad his inspiration!



All in all, Ricochet is a top-notch company providing a great product and filling a great need within our FJC community. Many thanks to Brad Pugmire and the rest of the Ricochet family for the fabulous tour!

Bob Blakely absolutely loves to go off-road and has owned three different Toyota 4WD trucks (the originals--1979, 1981, 1983), a Suzuki Samarai, a Tacoma, and now the best of them all, the 2008 Black Diamond FJ Cruiser. Contact Bob via email at bob@ fjc-mag.com, especially if you are coming to Utah!

#### **CONTACT: Ricochet Off Road**



Ricochet also utilizes computer controlled lathes to manufacture parts.



#### FJ Cleaning Continued ... Under the Hood

While some people are very meticulous about cleaning their engine bay, we lean more toward the 'once a year whether it needs it or not' side. With that being said, this article would not be complete without comparing a couple of engine cleaning options. Please keep in mind that when we clean our engine, we give it the good once over, so it will always have some dirt left. For those that wish to have a perfectly clean engine bay we recommend several brushes of varying sizes.

Like all other cleaning products, there are dozens of engine cleaning options at your local auto parts store. We decided to go with two popular options for our test: Black Magic 2 in 1 Engine Shine, and good old Simple Green. We've never used Simple Green on our engine before, so when we read online that it worked very well, we had to give it a try.

Here's a shot of our engine bay just after both products were applied (Simple Green on the left, Black Magic on the right):



are many different engine cleaning options, so read before deciding which one to use.

We also want to mention a couple of key points when cleaning your engine:

1)It's better to clean a WARM (but not HOT) engine than a cold one.

2)After you apply the product, let it stand in the shade for 15-20 minutes (see directions for the product you're using)

3)Be cautious of your belts, alternator, and any aftermarket wiring you've installed. Too much water can damage these components.

4)ALWAYS use LOW PRESSURE water. High pressure can get where it's not supposed to and really make a mess of things 5)Clean your engine at your own risk. Failure to follow directions on the product you're using can cause damage.

It's interesting that after we spend the better part of a day getting our FJ Cruiser detailed, it usually stays that way for less than a week. We love how our TRD looks when it's clean, but these trucks really need to be dirty. Do you have any before/after or dirty/clean pics of your FJ? Send them to pics@ fjc-mag.com & we'll add them to this article. You can also tag your pics with "FJCMagazine" on Flickr for them to show up in our photostream.

#### **Resources**:

Autoglym Mothers Back to Black Black Magic Great Detailing Tips And after sitting for 20 minutes and a low pressure rinse



It's pretty clear to us that for a no-brushing, noscrubbing engine cleaner solution, the foaming action of the Black Magic 2 in 1 Engine Shine works better than Simple Green. While Simple Green was able to get some dirt out, it left more residue than the Black Magic. Again, there all product labels carefully

#### FJ Cruiser Roll-top Console Cover

PRNAMINT - brushed black aluminum door (pictured)

SORREGO - satin silver aluminum door

URBRIN - ABS plastic door

Stainless Steel Locking Optio Available on all models



www.roll-topcover.com

Expedition Wheeling continued...

If you are setup for harsh desert areas or other remote travels then you are setup to survive



and make the weekend about making sure your setup is functional for fun or disaster.

Another fun option is to try driving a route out of town that replicates the major highways being blocked, or bridges flooded. Or try setting up at home for a weekend and think about how you will deal with clothes washing, showering and those day to day mundane chores that become major events in an emergency. In the next issue, we will deal with even more disaster when you figure out what to do if your rig is burning or destroyed. Get your "ditch bag" ready.

Lance Blair is an overlanding enthusiast, expedition leader, and Tread Lightly trainer. He's also the founder of Disabled Explorers, a non-profit group dedicated to helping mobility impaired outdoor enthusiasts gain access to the backcountry. He's a regular contributor to FJCruiserForums.com, the Expedition Portal, and of course FJC Magazine. Lance can be contacted through the Disabled Explorers website.

Beyond the kit is the best part of the equation, and that is the need to practice and prepare. So next time you are putting together a weekend getaway, make sure to treat it as a mock emergency. Take off from work around lunch time on Friday, grab the kids from school early, give yourself no more than 15 minutes at home to grab stuff and move out. Use your ham radio, envision where you will go



Practice for fun so you are ready when it is for real



# ALUMINUM BUMPERS ROOF RACKS & ACCESSORIES

# off Road COILS

For this installment of Off Road 101, we wanted to briefly discuss the technical details of a key aspect of your suspension: coil springs (or just springs).

When you lift your FJ Cruiser (unless you're going with a spacer lift), you'll be adding aftermarket springs to all four corners of your truck. In the front, you'll replace the 'coilover' with a new spring and possibly new shocks. Depending on the option you choose, your new front suspension may be adjustable, meaning you can adjust the amount of lift by spinning the spring seat up or down. Yes, this is a simplified explanation, but it will do for our purposes.

In the rear, you simply add springs to provide lift for your FJ. Since the stock FJ suspension has a natural 'rake' (it leans slightly forward) most lift kits also have the effect of leveling your truck. The most popular kits provide 2" of lift in the rear and 3" of lift in the front, known simply as a 3" lift kit.

Ok, now that we have the basics covered, let's get into springs. When you order your lift kit, you usually have an option of which spring rate you'd like. Your choices are most likely "Stock" "Me-

dium" or "Heavy" (in the case of Old Man Emu (OME) lifts). But what do these rates really mean?

The 'rate' (or strength) of any spring is determined by a number of factors:

- Diameter of the wire used to create the spring
- Length of the wire used
- Diameter of the finished coil
- Number of coils

To explain further, a 'heavier' spring will either have a larger diameter wire, more coils, etc. When you buy an OME Medium spring for your FJ, for example, it is meant for approximately 110lbs more weight on the front of your truck (a steel bumper, for ex-



Icon Springs are guaranteed not to sag .

ample). If you have even more weight (a very heavy front bumper + winch), you may opt to go with a heavier rate spring.

The problem with heavy (or sometimes even medium weight) springs is that you sacrifice ride quality. A spring that's built to handle significantly more weight will (generally) make the ride of your FJ Cruiser stiffer and (some say) less comfortable.

Some manufacturers have springs that are specifically designed to perform like the stock springs for ride comfort, yet handle additional weight. By optimizing the wire diameter, number of coils, and other factors, companies like Toytec Lifts and Icon Vehicle Dynamics have created 'super" coils that offer the best of both worlds. We recently installed a set of Toytec's Superflex coils on our TRD FJ, so we'll report back on how they perform in future issues.

So which spring is right for you? The only way to know that is to answer some basic questions:

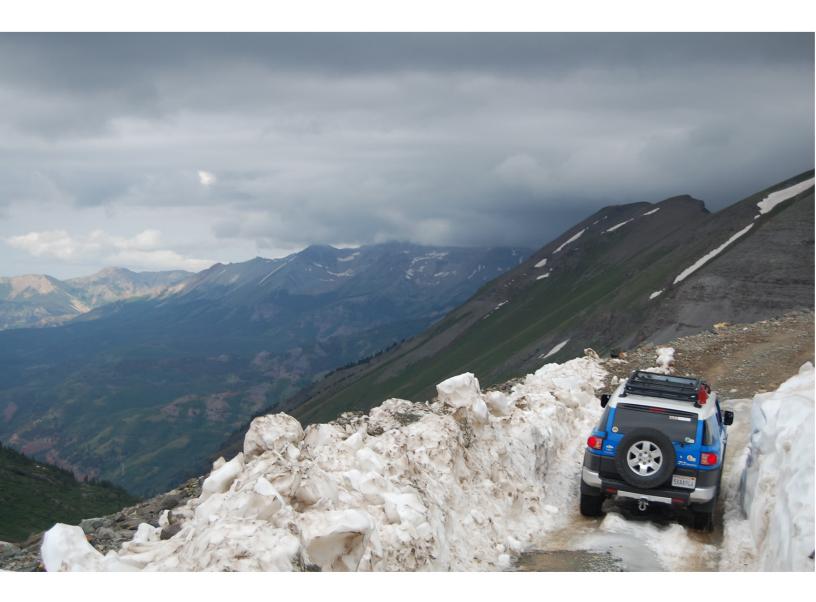
- How much lift do I want? ~ Heavier springs usually give more lift.
- What will my payload be? ~ You'll want to match your springs to the cargo (and mods like bumpers) you'll be carrying.
- How much do I care about the 'stock' FJ ride? ~ Any modification will affect the ride of your

FJ, so make sure you know all the pro's and con's before you decide which way to go.

Do you have a testimonial (positive or negative) about your aftermarket springs? We'd love to hear about it! Checkout this article online and let us know your thoughts in the Comments section.

Resources

# FLASHBACK



A VooDoo Blue FJ Cruiser pushing through the snow on Black Bear Pass at the 2008 FJ Summit in Ouray, Colorado.

Officials managed to get Black Bear Pass open just in time for the FJ Summit.





With the birth of our son (Brenden) a few weeks ago, we realized that in order to properly serve our readers in providing the best FJ Cruiser coverage possible, we would need some help.

We asked a few great FJ Cruiser enthusiasts to join us and form the FJC Magazine Trail Team. You can expect to see Athena, Bob, and Stacey on the trails this summer snapping photos and covering as many events as possible. Also look for great FJ Cruiser articles from all of these awesome enthuisasts.

#### So make sure you smile for the camera when you see any of our Trail Team this summer.

Athena Innis is one of the most well known FJ Cruiser owners in the community. Her 2007 Black Cherry (Man Purple) FJ Cruiser is unique and cannot be missed on the trail. Athena hails from Idaho Springs, CO and opens several well known Colorado trails every year. Along with her husband (and world famous spotter) Bill, Athena can be found in Moab or on any of the most challenging trail in Colorado on most weekends. Athena has been a regular contributor to FJC Magazine & we're excited to have her on the Trail Team.





Bob Blakely absolutely loves to go off-road. It probably derives from his upbringing in Idaho where he went fishing with his father and friends in their International TravelAll. Now, Bob, his wife Leesa, and their four children (Kyler, Kaden, Kaylee, and Kenzie--notice a pattern?) love to travel the highways and byways of Utah. Bob has owned three different Toyota 4WD trucks (the originals--1979, 1981, 1983), a Suzuki Samarai, a Tacoma, and now the best of them all, the 2008 Black Diamond FJ Cruiser. Bob's favorite vacation? Why--it's the FJ Summit in Ouray, Colorado! Contact Bob via email at bob@fjc-mag.com especially if you are coming to Utah!

Known to most as MrsTennesseeSquire, Stacey has lived in Nashville, TN all of her life. She is the proud owner of a 2007 TRD SE FJ. A founding member of the Smokey Mountain Cruisers established in 2008, a member of Southeast Toyota Land Cruiser Assoc., and a moderator on the FJCruiserForum.com. Stacey has been married to Terry for almost 16 years and they have a 14yr old daughter (Makayla). Stacey recently started her own business, Knight Scenes Photography and is loving every minute of it.



# New Products!

A newcomer to the FJ Cruiser accessory business, Drake Off Road has over 30 years of experience in manufacturing quality parts. They've just released a full line of Billet Aluminum accessories for the FJ Cruiser.

All of these new products are precision machined from 6061-T6 billet aluminum, so they'll last a lifetime.



Each part is easy to install and will bring a distinctive style to any FJ Cruiser.

The list of products available include: Automatic & Manual Shift Knobs Transfer Case Shift Knobs Pedals for both auto & manual FJ Cruisers Climate Control Knobs Grab Handles Information Center Bezels Caps for all engine bay bottles Battery Hold Down Clamp



We look forward to seeing these parts in action in the near future. We can say for now that if you're looking for a distinctive style for your FJ, these parts certainly fit the bill!



#### **Contact: Drake Off Road**







#### -SKIDS-

STANDARD WEIGHT STEEL LIGHT STEEL (EXPEDITION WEIGHT) STAINLESS STEEL

#### -SLIDERS-

STANDARD .120" HREW TUBING THICK .187" DOM TUBING (LIFETIME WARRANTY)

NEW!! DIAMOND PLATE TOP STEPS





CUSTOM PROTECTION: FJ CRUISER! TACOMA TUNDRA 4RUNNER



## Call Bud at 828-572-1202



#### 702 FJ Crew http://702fjcrew.net

- ATL FJ's http://www.atlfjc.com
- AZ FJ's http://www.azfj.org
- Aloha FJ's http://s6.invisionfree.com
- Colorado FJ's http://www.coloradofjs.com

SoCAL FJ's http://www.socalfjcruisers.com

UAE FJ Group http://www.uae-fj.com FJ Bruisers http://www.fjbruisers.org

Sin City Wicked FJ's http://www.sincitywickedfjs.com

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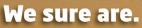
FJ's Ontario http://www.fjcruisersontario.com

FJ's Quebec http://www.fjcruiserquebec.com

NWFJCC http://www.nwfjcc.com

FJ Northeasters http://www.fjnortheasters.org

# Dreaming of your next adventure?



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





Mud N Yer Eye Frolic Dates: April 23-25, 2010 Location: Hollister Hills, California Contact: Mountain Transit Authority

2010 Cruise Moab Dates: April 28 - May 2 2010 Location: Moab, UT Contact: CruiseMoab.com

#### **Spring Mudfling IV**

Dates: May 29-31 2010 (Memorial Day Weekend) Location: Winchester, VA Contact: FJ Bruisers

22nd Annual Rubithon Dates: June 15-20, 2010 Location: Rubicon Trail, California Contact: Rubithon.com

Coal Mine Cruiser Classic Dates: July 8-10, 2010 Location: Rausch Creek Off-Road Park, Joliett, PA Contact: Gotham City Land Cruisers Great Smoky Mountain Trail Ride Dates: July 7-13, 2010, Location: Golden Mountain ORV Park Sparta, Tennessee Contact: www.upstatecruisers.net/gsmtr

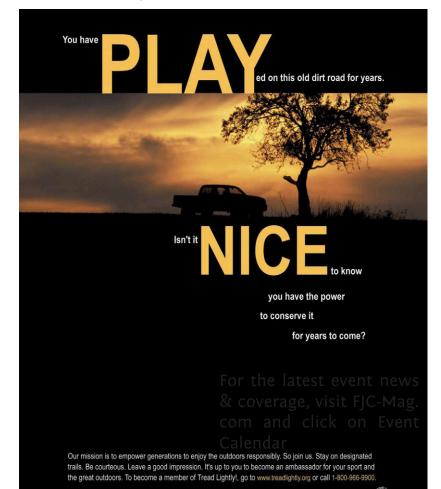
Black Hills Cruiser Classic Dates: July 14-17, 2010 Location: Black Hills, South Dakota Contact: Dakota Territory Cruisers

#### 2010 FJ Summit

Dates: July 21-25 2010 Location: Ouray, Colorado Contact: FJ Summit Website

#### 2010 Thrill on the Hill

Dates: Sept 3-6 2010 (Labor Day Weekend) Location: Cloudcroft, NM Contact: Thrill on the Hill Website



tread lightly!

For the latest event news & coverage, visit FJC-Mag.com and click on Event Calendar







# Have a great pic of your FJ? E-mail a high-res version to pics@fjc-mag.com