



Tackling the trail to Mission Santa Maria de los Angeles in Baja California, Mexico is a test for any vehicle. It is touted as one of Baja's roughest trails by Baja expert David Kier*. With *Icon* Stage V Suspension, shod with P255/85R16 *Cooper* Discoverer ST Maxx tires, and armored up bumper to belly, our heavily modified 2011 *Toyota* Tacoma struggled to climb back from the oasis, about a mile beyond the mission and some 15 miles and four rugged hours from Baja California's Highway 1. We were equipped with stock 3.73/1 axle ratios and the factory E-locker. With a few resets and some controlled spinning here and there, we managed to shake loose from the grasp of this ancient desert byway.

That was last year. Since then we have learned a lot and the truck has been through a thorough evaluation of its overlanding prowess and more than a few significant improvements.

Here's what worked and what we found needed tweaking after seven years and 86,000 miles.

It's Not a Motor Home!

Friends have joked with me, "You're building a motorhome!" I ignore them as I shut off the pressurized spray from my 30-gallon onboard water tank supplying the *EccoTemp* tankless water heater. If they persist, I let go a blast of high-pressure air from the 145-psi, three-gallon system with its air fitting mounted next to the water valve. An *ExtremeAire* Magnum six-CFM compressor sits tucked in the corner of the customized rear passenger compartment beneath the home-built toolbox rack holding recovery tools on one side and mechanics' tools on the other. I'm sensitive to any comparison because the capability of this machine is far above that of the average motor home...albeit a bit more cramped in creature comforts. Some people just don't understand.

Birth of a Dream

The idea for the truck originated in September, 2011 while I sat with a riding buddy in a coffee shop in downtown Crested Butte, Colorado. Fall colors were ablaze as I spoke by phone to my wife back home in Oklahoma, describing the scene. We both lamented her not being with me on the motorcycle. Her words were music to my ears: "Can we build an overlanding rig?" What husband in his right mind would miss this opportunity?

"Of course, sweetheart. Anything you say."

Most days our family business has more to do with motorcycles than trucks. I teach aspiring adventure riders to manage their big-bore, dual-sport motorcycles off road. My weapon of choice is the mighty *BMW* R1200 GS or "Gelande Strasse," which is German for land and street. We intended our new overlanding rig to possess many of the same multi-use characteristics of what has become the Swiss Army Knife of motorcycles, hence the idea for the Tacoma GS was born.

The Beta Test

We selected a new 2011 Tacoma Double Cab TRD as our build platform. The TRD wasn't really necessary because most of the off-road components would be replaced, but the truck was a hold-over as the 2012s had just been released and the price was right. First to go was the *Bilstein* suspension, stock on the TRD. It was replaced with an *Icon* Stage V 2.5" lift which includes billet aluminum upper control arms, 2.5" coil-over remote reservoir shocks and remote reservoir rear shocks to match.

We wanted to build a tough truck, but still keep it reasonably light. To that end, we used thick, resilient aluminum for the bumpers and the forward skid plate. 600-lb front springs would sup-

port the *Aluminess* front bumper and *Warn* 9.5 CTIs winch, the "s" for Spydura, a lightweight, synthetic cable. A *Factor* 55 Pro Link Shackle Mount capped off the cable end. *All-Pro Off-Road* aluminum front, and steel center and rear skid plates cover the IFS, transmission and transfer cases. The rock rails are *All-Pro* Extreme Duty from their APEX line, made in America, as are many of the protective add-ons, from domestic steel. The rear bumper is also *Aluminess* with a single-sided swing-out tire carrier and fold-down table. *Toytec* stainless steel rear brake lines were installed to allow plenty of freedom of movement for the rear axle after the lift installation.

We mounted P255/85R16 Cooper Discoverer Maxx STT tires to American Racing Mojave Teflon wheels for a tall, narrow footing that would tuck inside the wheel wells, and Bushwacker fender flares for their coverage, appearance and durability.

Interior Improvements

Inside the truck we added a *Tech Deck* Ultimate Gadget mounting system from *Bird-Dawg Industries*, which utilizes *Ram* mounts to hold our GPS, cell phone and two-way radio systems. With all the tangle of flight deck bars and bolt-ons, this simple, well-designed beauty is a breath of fresh air.

A Cobra 75 WX ST remote CB and Rugged Radio's remotely mounted RM 50 UHF-VHF handle comm duties without overly cluttering the cab. Removal is a snap with this set-up, making it easy to tidy things up when we aren't overlanding, and the clarity of the UHF-VHF frequencies makes it easy to stay "logged on" with our friends in the next vehicle all day long.

Security is handled by a *Lock'er Down* Console Safe, made in the great state of Texas. *Lock'er Down* uses 12-gauge domestic steel and we selected the four-digit combination lock for easy access.

Cover King Tactical seat covers and Weather Tech front floor mats protect the interior, and the Molle system on the seat cover backs provides additional mounting for a host of essentials like rain ponchos, head lamp, first aid kit, walkie-talkies and more.

Likes and Dislikes

Since the initial build, we have traveled much of the American West and the Baja California peninsula. We've learned a lot about the Tacoma's GS-like capabilities and componentry over the past 86,000 miles. Here is an overview of what has stood up and what needed improvement.

The Cooper Discoverer tires lasted about 35,000 miles before we had chunked them up enough to replace. They have always remained quiet and, with one or two exceptions, balance has not been an issue. Traction both off and on road has left nothing to be desired and total mileage, had we chosen to continue running them with the rock damage, should have exceeded 50,000. Our Hibdon Tires lifetime warranty front end alignment was helpful in getting the most from our tires.

Except for a few rock scrapes, the *American Racing* Mojave wheels have kept their finish and the Teflon coating is a snap to clean.

The All-Pro Off-Road belly protection and skid plates have been superb. They are relatively easy to remove for servicing and even the aluminum front skid has prevented damage to delicate components; plus, it's easy to hammer back in shape.

Our Aluminess bumpers have been awesome with the exception of the latching mechanisms on the stowage lids sticking, and the

















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swing-out tire carrier attach points, which began to rattle after several thousand miles of rough off-road travel. For serious use they should be a little more robust. But, overall, we love the light weight and durability of the *Aluminess* products.

Ring Gear Failure and Locker Upgrade

We suffered a ring gear failure on the original rear differential. Warranty balked at replacement because of the larger-than-stock tires and lift, but our dealer, Fowler Toyota of Norman, Oklahoma, went to bat for us, not only paying for a portion of the repair themselves but also getting Toyota to step in. Lesson learned, however. With our routine of long-distance, rough-country travel, we decided to upgrade to a more robust set-up, switching to a factory 8.4" open rear differential equipped with ARB air lockers front and rear. A gear swap from original 3.73s to Nitro Gear 4.88s from Just Differentials was the icing on the cake. The difference in off-road capability is off the scale, as is our confidence in the stronger set-up. Fuel mileage was not noticeably affected, perhaps a slight increase actually, but our zero-to-60 time went from 12.8 to 11.8 seconds and 70 mph rpm went from a lugging 2,100 to a perkier 2,750. Throttle response is much improved for passing, pulling hills and towing. This was perhaps the most important upgrade we've done to date. We also installed ARB's differential breathers to help with fording capability.

Spring Upgrade

With the added weight of hard parts, liquids and overlanding gear, the 600-lb. front coil and rear add-a-leaf springs were insufficient. We swapped out the rear springs for All-Pro's 11-leaf Expedition series and Timbren Active Off-Road bump stops to help manage the payload, which typically well exceeds 1,500 lb. Although much better than before, when loaded we still found the springs a bit soft. Since a significant portion of a pick-up's payload is determined by suspension, we needed stronger springs. Our Icon Stage V shock absorbers have never leaked and have proved themselves worthy, but we chose to have them overhauled as part of the upgrade. Icon suggested switching to 700-lb. springs up front, and adding Hellwig air bags with DayStar cradles to allow articulation seemed like a good solution to handle the variable weights we would carry in the bed. The original Icon upper control arms showed very little wear, but we upgraded to their latest iteration with Polytetrafluoroethylene (PTFE), which essentially means tough and slippery, Uniballs, instead of the more common and often squeaky polyurethane bushings. We have found that the extra travel and smooth bump and droop operation of this combination is well worth the investment. The 700-lb. front springs have improved the ride substantially over the softer 600-lb. units originally installed, and Icon's proven damping characteristics make the truck flow like molasses over some of the roughest roads.

We also installed *Hellwig*'s upgraded stabilizer bars front and rear. It is hard to imagine a fully loaded overlanding rig being so nimble and stable. The heavy-duty air bags provide ride height and lateral leveling corrections to the non-adjustable leaf spring set-up we've been using all these years. The *DayStar* cradles center the airbags under compression and allow full extension without damage. Now, even with the stricter cross-rut management of the stabilizer bars, the truck performs flawlessly off pavement.

Lighting

Rigid lights went on this truck from the outset and we've never looked back. A 30-inch combination light bar mounts to the BajaRack luggage rack with two D2 driving beam lights beside the bar facing slightly toward the ditches. Another pair of D2s











JustDifferentials.com



Toll Free: 877.788.7904 International: 509.888.2953 are mounted as fog lamps in the front bumper. These lights have taken rock strikes, rain, sun and ice for more than 80,000 miles, yet every LED still glows as brilliantly as when new.

External Load Support

Up top, a versatile BajaRack Standard Basket Rack supports our lightweight Alu-Boxes and whatever else won't fit inside the bed or cab. It also holds our Eezi-Awn Series 100 awning, shovel and axe for quick access and deployment. The BajaRack was one of the first accessories to go on the truck and it has never let us down, despite a world of back country abuse.

Over-bed support of our *Eezi-Awn* Series 1400 rooftop tent was first handled by a Front Runner stanchion system, which proved too flexible to properly manage our tent and it was too low for the other upgrades planned in the bed. We switched to an aluminum, Leitner Active Cargo System to carry the tent, a gear pod, our Hi-Lift jack and the water pump and accumulator for our pressurized water system. The primary rack without accessories weighs in at only 65 lb. yet totes 250 lb. off road, 500 lb. on road and holds 1000 lb. static load. This system is unique in that it not only handles the load and a host of accessories, but by design it actually strengthens the sides of the bed, where many systems rely on the bed walls to stand up to the extra load without aid.

We also added a Decked Cargo Drawer system to carry and hide gear below the raised, main deck area. With their form-fitting D Boxes, this system has helped significantly in organizing our gear.

An Eezi-Awn Fridge Buddy drop-down fridge slide sits atop the Decked system, allowing us to easily lower our tried and true Engel MT 45 fridge to a useable height, even for my 5'3" wife.

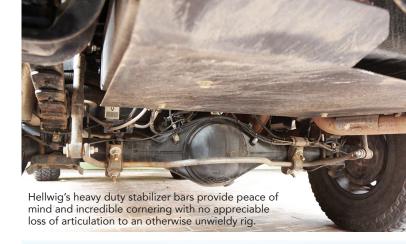
The South African-made Eezi-Awn S 1000 aluminum-housed awning and Eezi-Awn 1400 series rooftop tent have proven reliable, even in light of all the newer models now appearing on the market. After every overlanding adventure we pitch, clean, inspect and occasionally replace a loose rivet in the tent. It still looks and works like new. The awning's simple yet durable construction makes it a pleasure to deploy, retract and forget.

Any time we expect to be challenged on the trail we bolt on our Maxtrax recovery boards and breathe a little easier. These ingenious and inexpensive devices are worth their weight in gold.

To increase range in Baja and for other extended off-road applications, we installed a custom-built, 20-gallon auxiliary fuel tank. This system has lowered stress considerably by allowing us to easily transfer fuel when needed, effectively doubling our range.

This year as we scramble up the same boulder-strewn canyon at Mission Santa Maria we marvel at how easily this nimble, tidy overlanding package we call the Tacoma GS makes the climb. All the jokes about a motor home build and chest puffing from friends with giant rigs become worth it when the Tacoma slips through, beneath or around obstacles that a larger machine would sacrifice metal to negotiate. With the ARB lockers front and rear, the new 4.88 gears and Hellwig air bags and stabilizer bars, the truck simply picks its way over and around all obstacles without a whimper. It seems we have truly created a four-wheeled iteration of the mighty BMW Gelande Strasse and now, we can see those fall colors together, along with countless lonely beaches, desert landscapes and mountain hideaways. 💥

*www.bajabound.com/bajaadventures/bajatravel/mission_santa_maria





The following manufacturers, vendors and shops were instrumental in assisting with the build. Without them we would be grinding out home-grown bits and pieces and suffering the consequences of good ol' boy R&D.

All Pro Off Road:

allprooffroad.com

Aluminess:

aluminess.com

American Racing Wheels & Cooper Tires, Hibdon Tires:

hibdontire.com

ARB USA:

arbusa.com

BajaRack:

bajarack.com

Bushwacker:

bushwacker.com

Cobra:

cobra.com

Cover King:

coverking.com

DayStar:

daystarweb.com

Decked:

decked.com

Eezi Awn & Alubox:

equipt1.com

Engel:

engelcoolers.com

ExtremeAire Magnum

Compressor:

extremeoutback.com

Factor 55: factor 55.com

Fowler Toyota:

fowlertoyota.com

Hellwig:

hellwigproducts.com

iconvehicledynamics.com

Just Differentials:

justdifferentials.com

Leitner Designs: leitnerdesigns.com

Lock'er Down:

lockerdown.com

Maxtrax: maxtrax.com

Ram Mounts: rammount.com

Rigid: rigidindustries.com

Rugged Radios:

ruggedradios.com

Tech Deck:

birddawgindustries.com

Timbren: timbren.com **ToyTec:** toyteclifts.com

Warn Winch: warn.com

Weather Tech:

weathertech.com



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