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CONTENTS





FEATURES

14 10 Hot Spots to Escape Winter's Chill

If Jack Frost is nipping at your nose, pack up your RV and head to a place where summer is still in full swing

20 West Texas Oasis

From a distance, visitors wouldn't suspect that the rugged peaks and desert flats of the Guadalupe Mountains are a national park filled with grassy meadows, maple and pine forests — and a birder's paradise

26 Cajun Charm

Meander along the 180-mile Creole Nature Trail in southwest Louisiana for a spicy taste of appetite-inducing eateries, untamed coastal wetlands and marshes, remote gulf beaches and wildlife refuges

Guadalupe Mountains National Park is an island in the Texas desert. Page 20

32 Big Country 3150RL

Living large in the well-appointed Heartland 35-foot fifth-wheel

37 Lifeblood Lesson

Oil is what keeps an engine alive and running strong. But how much do you really know about it?

44 Clean Machine

For do-it-yourselfers, installing InterVac's central vacuumcleaner system can streamline housekeeping for years to come

49 Don't Lose Your Cool

BD Diesel Performance's replacement intercooler can reduce exhaust gas temperature and handle increased turbo boost pressure



Basic knowledge of oil helps ensure an engine will perform and last for the long haul. Page 37

DEPARTMENTS

4 Driver's Seat Follow the Sun

6 Letters Readers respond loud and clear

9 Around the Bend News, events, places and trends

12 RV Resolutions *Trailer Life* is your referee

54 New Products Goodies to improve the RV lifestyle **56 Performance Corner** Tech, accessories and news

60 Hands On Husky Brute electric A-frame jack

63 RV Clinic Answers from the *Trailer Life* tech team

72 10-Minute Tech Now why didn't I think of that?

74 America's Outback Fredericksburg, Texas

On the cover: Relaxing alongside the Big Country 3150RL at Lake Casitas Recreation Area and Park near Ojai, California. Photo by Scott Hirko



Follow the Sun

After the leaves fall from the trees and the weather gets colder, it's time to head for the warmth of snowbird country

F unny how the human mind works when it comes to weather. It really wasn't that long ago that I was counting the days until summer. After a late-August trip to a favorite haunt, where the temperatures hovered around the mid-90s every day, I was really ready for fall and winter.

Fall is a great time to travel, especially since the crowds thin out and it's easier to book into RV parks that are otherwise slammed during the summer vacation season. I'm passionate about chasing the autumn landscape. Every year it's a guessing game whether we'll catch the brilliant autumn leaves after the first hard frost — a perfect time, when the chilly and clean morning air gives way to afternoon warmth and the motivation to enjoy the outdoors. But the weather is getting more unpredictable every year, making it difficult to plan a trip to catch the turning colors at the peak time. Still, it's fun to visit our favorite stands of aspens, even if it's not absolute prime time.

Fall is also the time to get together with friends and family for the holidays. Some of our most memorable trips were to the eastern side of California's Sierra Nevada and Sequoia National Park to celebrate Thanksgiving. Our first attempt at cooking a turkey in an RV oven was quite a spectacle. After countless hours of baking in high altitude, the turkey had the consistency of a basketball. We laughed our way through copious amounts of popcorn that night. Not exactly a good substitute for a turkey feast, but in the true spirit of the holiday, it sure made us thankful for what we had.

Although we also like to travel in winter and enjoy tackling the challenges nature dishes out during bad weather, following the snowbirds is getting more practical as our bodies reject the cold temperatures. Obviously, the birds figured out long ago that the south is more comfortable to hang out in during winter than the north. Looking for warm-weather places to visit this season? Check out our 10 hot spots for winter travel, scattered from coast to coast, featured on page 14.

The biggest migration usually happens right after Christmas, and the best places fill up fast. As a shoulder season, fall offers great travel opportunities as you follow the sun.

- Bob Livingston, publisher

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gen.honda.com





¹Requires two parallel-linked EU2000i generators. 'Warranty applies to all Honda GX Series Engines and GX Series-powered Honda Power Equipment, 100cc or larger, purchased or put into rental service since January 1, 2009. Exceptions apply. See full warranty details at honda.com. Does not apply to EU1000 models. Please read the owner's manual before

Wherever Adventure Takes You

If the October issue's photo contest coverage left you wondering why Don Koupal's Lost Dutchmen State Park photo (directly below) looked like Michigan's Upper Peninsula and Julie Christiansen's Porcupine Mountains Wilderness State Park photo (bottom) resembled Arizona's Superstition Mountains, it's because we switched two of the three runner-up captions. Sorry for the confusion. — Editors



No worries about the photo mixup, although my fans are going to be confused — just kidding! Well, just my mom. **Don Koupal, Cameron Park, California**

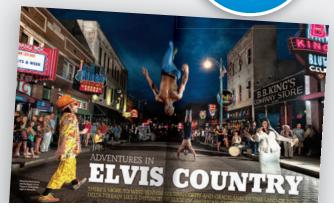
I'm honored to be the recipient of the grand prize — thank you so much! We love going on camping trips in our beautiful state of Washington. Leslie Dorn, Anacortes, Washington

The Powerhouse 2000Wi generator is a great runner-up prize, and we will be able to put it to good use. Thanks! **Roger Maier, El Paso, Texas**

Wow! My thanks to the panel of judges for selecting my photo as an honorable mention. Thank you, also, to the sponsor who supplied the Coleman SunForce solar panel kit as the prize. Randy Kightlinger Cooperstown, Pennsylvania

Beale Street Boogie

Very good story about Memphis by Irene Middleman Thomas in the September issue. I love the opening photograph showing the action on Beale Street. Wish I'd taken it. James Richardson Oakland, Tennessee



Back to the Future

Regarding Kristopher Bunker's September article about the Starcraft Autumn Ridge trailer, I wasn't aware that aluminum-sided trailers are regarded as throwbacks to the past. We've had six campers of this type and enjoyed them all. Of course, we use them for camping, not trying to impress someone else. **Roger Stilley, Marion, Illinois**

Coast with the Most

September's "Great Lake Escape" Fun Fact that "Michigan has the longest coastline of any state other than Alaska" isn't so much "fun" (or truth) after all. By Michigan DOT's own admission, the state has 3,126 miles of coastline. Maine has 3,478 miles, and, depending on how it's measured, some say Maine's coastline goes as high as 5,400 miles, including all of the bays, inlets, peninsulas and islands. **Michael Gleason, Bangor, Maine**

The state's official website, Michigan .gov, uses the World Book Encyclopedia as its source for claiming the Lower 48's longest coastline. "Disputed coastline claims tend to run in two directions," says Mike Norton of Michigan's Traverse City Tourism: "People who don't believe freshwater shoreline is a real "coast" (they ought to come here and look at the Great Lakes), and people who want to include all bodies of water, including rivers, small lakes and marshes, in their calculations." — Editors

King of the Hills

In September's Letters, Samuel Murdock replied to Scott Simianer's "Beyond Mount Rushmore" article in the July issue that the statement "Harney Peak is the tallest point in North America east of the Rocky Mountains" was incorrect because Casper Mountain, near Casper, Wyoming, is taller. Casper Mountain is part of the Laramie Mountains, which are in the Rocky Mountains. **Rick Rothermel**

Belle Fourche, South Dakota

Samuel Murdock opened a considerable can of worms with his comment regarding Harney Peak's claim to be the highest point east of the Rockies. Where the Rockies end is difficult to define and highly contentious, but the boundary can be broadly located along Interstate 25 in Wyoming and Colorado and along the Pecos River in southern New Mexico and Texas. There are several peaks higher than both Harney Peak and Casper Mountain east of the boundary, and the highest is Fishers Peak, rising more than 9,600 feet near the southern border of Colorado. However, the very existence of such a

high peak at this location is sufficient evidence for many that it must be in the Rocky Mountain province. **Dale Meyn, Fredericksburg, Virginia**

Parking in Prescott

I was recently given a copy of a letter you printed in your September issue from C. Worley. We also received a letter from Mr. Worley, which was investigated by Prescott's chief of police. It was determined that Mr. Worley was issued a parking citation not because his vehicle was too close to the lines but because his very long vehicle extended into the traffic lane and obstructed the flow of traffic on a busy street, creating a dangerous situation. There are several signs along the block warning drivers of oversize vehicles not to park in this location if their vehicle extends into the traffic lane.

I hope your readers understand that there are two sides to every story. We look forward to welcoming them. Don Prince, Prescott Tourism Director Prescott, Arizona

Two Thumbs Up

In reference to Emily Fagan's August article on Montana ghost towns, we visited Virginia City, Montana, a couple of years ago. The highlight was going to the town's opera house to see the Illustrious Virginia City Players. They present vaudeville acts and plays that let you experience what entertainment was like in the late-19th century. The music, costumes and entertainment are professional — highly recommended! Danny and Wanda Scruggs Shelby, North Carolina

Bright Idea

I cannot say enough positive remarks about Cabin Bright LED lighting products, featured in June's Products section, and the service they provide. The use of LED lights is new in the RV industry and somewhat of a mystery. The traditional design of bulbs is to emit light in a 360-degree path. In RVs, many ceiling lights are the pancakestyle fixture designed to direct light downward in a 180-degree half circle. I was considering replacing the incandescent bulbs in my RV with similarly styled LED bulbs. At Cabin Bright, owner Joe Brignold took the time to coach me in choosing the best lights for my RV's fixtures. He reviewed pictures of the fixtures and recommended using LED wedge-base light boards and not the traditional-style bulbs. I was able to upgrade all the ceiling lights in less than 30 minutes. The result exceeds my expectations. **Bob Stinson, Cazenovia, New York**

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Steinbeck's Salinas

Birthplace of the Nobel Prize-winning *Grapes* of Wrath author, this city on California's central coast has the charm of time gone by

article and photos by James Richardson

It's called the Salad Bowl of the World and Steinbeck Country. The Salinas Valley of central California is this and more. The fertile valley is bordered by two mountain ranges that help make the climate ideal for the first claim. And John Steinbeck spent much of his life in and around Salinas.

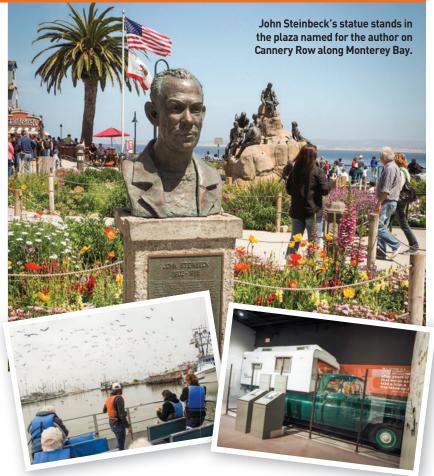
Steinbeck wrote a lot about the Salinas Valley. Many characters in his books are based on real people he encountered during his life and travels. This year marks 75 years since the writing of one of his most famous works, *The Grapes of Wrath. Cannery Row*, set in nearby Monterey, just

CAMPGROUNDS IN THE AREA

Marina Dunes RV Park (11 miles north of Monterey in Marina), 831-384-6914, www.marinadunesrv.com

Moss Landing KOA Express (in Moss Landing near the Monterey Bay National Marine Sanctuary and the Elkhorn Slough, one of California's largest coastal wetlands), 800-562-3390, www.koa.com

Salinas/Monterey KOA (10 miles north of Salinas in Prunedale), 800-541-0085, www.koa.com



(Above from left) A wildlife cruise in Elkhorn Slough finds harbor seals, sea lions and many species of birds. John Steinbeck's specially designed truck camper (named Rocinante after Don Quixote's horse) he took crosscountry for writing his *Travels with Charley*.

south of Salinas, concerns the sardine canning industry, which he participated in during his early career.

Salinas' National Steinbeck Center (open seven days a week) celebrates the life and times of the Nobel Prizewinning writer with interpretive displays. One of his lesser-known works, *Travels with Charley*, tells of his cross-country trip with his dog in a custom-built truck camper that's on display at the center.

Outdoor activities like whale watching, kayaking the coastal waterways and hiking in the nearby mountains are popular. Pinnacles National Park, America's newest national park, has unique topography and diverse avian life, including being home to the California condor, the largest bird in North America, with a

.....

wingspan of 9½ feet. The Salinas area is also well-known for its vineyards and many wine-tasting rooms.

Museums and restaurants add to the attraction of the Salinas Valley. Visitors should not miss the Monterey Bay Aquarium on Cannery Row where you can touch rays, watch sea otter and penguin feedings, walk through a tunnel in the wave-crash exhibit and view hundreds of sea creatures.

For More Information

National Steinbeck Center 831-775-4721, www.steinbeck.org

Pinnacles National Park 831-389-4486, www.nps.gov

Salinas Information

831-435-4636 www.destinationsalinas.com

November 2014 TRAILERLIFE 9



Retro Shasta Trailer

Shasta RV has reissued the 1961 Airflyte, a travel trailer complete with throwback "wings," Hehr jalousie windows and wide white sidewall tires wrapped around colormatched wheels. The Airflyte is available in three color choices inspired by the original 1960s line with polo white as the main color; the lower sections are painted in matador red, buttercup yellow or seafoam green. Inside, the two-tone 16-foot-3-inch-long trailer has plywood cabinet doors finished in birch with a shellac coating, a dinette that makes into a 54- x 76-inch bed, three-burner range, microwave, a rear-lounge gaucho couch that pulls out for sleeping, and coordinated color blending throughout. There's storage under the dinette with outside access. The Airflyte's body width is 7 feet, and it weighs 2,400 pounds. Standard are a 5,000-Btu air conditioner and 20-gallon water tank. Lighting inside and out is from

12-volt DC LED fixtures, including the ornamental two-position "gas

lamp" mounted on a cabinet

above the table. MSRP is \$17,000 to \$17,200, plus freight.

Shasta also manufactures the Oasis travel trailer in lengths from 21 to 30 feet, weighing 4,188 to 5,670 pounds, which can be towed by half-ton trucks and SUVs. MSRPs range from \$12,000 to \$19,000. Tipping the scale on the other end is the Shasta line of Phoenix fifth-wheels offered with one to four slides, residential-grade furniture and vaulted ceilings. Floorplans range from 27 to 35 feet, and MSRPs range from \$34,000 to \$47,000. Shasta RV, 574-825-7178, www.shastarving.com

NEWSWIRE



NPS Awards \$200,000 to Protect Civil War Battlefields

The American Battlefield Protection Program is one of more than a dozen programs administered by the National Park Service that provide states and local communities technical assistance. recognition and funding to help preserve their own history and create closeto-home recreation opportunities. NPS Director Jonathan B. Jarvis announced that more than \$200,000 in grants will go to projects to help preserve land threatened with damage or destruction by urban development at the South Mountain, Maryland, and Appomattox Court House, Virginia, battlefields. "These grants will help states and local communities safeguard and preserve Civil War battlefields as symbols of individual sacrifice for present and future generations," said Jarvis.



Passing of Camping World Founder David Garvin

David Garvin, who founded the retail chain Camping World in 1966, passed away on August 30, 2014 at age 71. Garvin was a pioneer in the RV industry. At the age of 23, he opened a small store and mail-order business that sold camping products and supplies. While visiting his father's Beech Bend Amusement Park in Bowling Green, Kentucky, he saw a market for RV accessories among campers. Today, Camping World has expanded to more than 100 RV supercenters across the United States. Garvin was inducted into the RV/MH Hall of Fame in Elkhart, Indiana, in 2009. His philosophy of "No unhappy customers - not even one" helped him change the face of the RVaccessory business. His headstone reads, "It's Been Fun."



Best-Ever Attendance at Germany's Caravan Salon

Caravan Salon, held in Düsseldorf, Germany, reported 192,000 visitors — the most ever — at its August 30 to September 7 event this year. According to Joachim Schäfer, managing director, the turnout demonstrated the exceptional international position of the event within the European RVing sector. The trade fair's own campsite recorded more than 28.000 vehicles. Said Schäfer, "Given the current market climate in Europe, it is also particularly pleasing that some 25,000 foreign visitors found their way to Düsseldorf." The show featured 580 exhibitors from 25 countries, and visitors were particularly interested in the numerous new models. The 54th Caravan Salon Düsseldorf will be held August 28 to September 6, 2015.



Winnebago Minnie Down Under

Winnebago Industries announced that it is shipping its Minnie travel trailer to Australia as part of an agreement with Australian-owned Winnebago RV Pty Ltd., a wholly owned subsidiary of Apollo. Apollo CEO Luke Trouchet and Executive General Manager of Operations Paul Truman inspected the first Minnie trailer to be delivered to Australia on a recent visit to Winnebago Towables in Middlebury, Indiana.

"It's a real privilege to represent Winnebago in Australia and New Zealand, and we know the market is very keen to at last have access to this iconic brand," Trouchet said. "We're absolutely delighted to see the first Minnie caravans heading Down Under, and we are sure they will be out on the road in no time."



New York Camping and Kid-Friendly Websites

The New York Department of State has designed a Kid's Room website to help parents create low-tech games for children. The site provides information on New York history, emblems, maps and symbols, and has a host of creative

ideas to hold kids' interest. The site has a crossword puzzle, coloring book, word search and fun facts like how a bill becomes a law.

When you're in camp, you can keep kids entertained by putting together a hiking treasure hunt or game of I Spy using New York state symbols (pictured on the website) such as a rose (state flower), bluebird (state bird) and sugar maple (state tree and main source of maple syrup). Next time your kids tell you they're bored or there's nothing to do, check out the website. Better yet, go to New York and see the historic sites and museums for yourself after reading up on all the fun facts!

www.dos.ny.gov/kids_room

Search for New York RV parks on the Campground Owners of New York website. You can narrow your search by clicking on the "Explore NY" link to read about the state's different regions, events, attractions and campgrounds. www.nycampgrounds.com

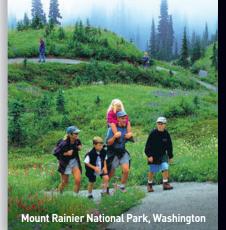


Outdoor Therapy

It's no secret that exercise is not only good for your body, it's good for your mind and well-being. Congressman John Sarbanes (D-Maryland) joined National Park Service (NPS) Director Jonathan B. Jarvis and Washington, D.C., Park Prescriptions champion Dr. Robert Zarr to learn about an innovative program where doctors prescribe time spent in nature to their patients as a way to help treat chronic diseases, including obesity.

The Park Rx initiative is part of the NPS Healthy Parks Healthy People movement that recognizes the physical, mental and spiritual benefits gained from spending time outdoors. "National parks have always been loved for their symbolism and scenery, but we want to increase the awareness of their role in preventative medicine and therapy," said Jarvis. "The park prescriptions partnership is an example of how national parks can help people lead healthier lives."

America is fortunate to have many national parks filled with natural treasures and wonders that reflect America's pride. Said Sarbanes, "We know that engaging citizens — particularly young people — in outdoor activities not only increases their connection to the environment around them, but it can also improve their health outcomes." So go outside, explore nature and take a hike!



The Joneses were seasoned RVers, so they knew something wasn't right when their new trailer shifted unexpectedly in the campground:

➤ My husband and I purchased a 2013 Keystone Laredo in April 2013. It was our fourth trip with the Laredo that led us to ask for your help. We were sitting in our living area when the entire RV shifted. My husband went outside to try to locate the problem but was unable to find it. When we returned home, he did a more complete inspection and discovered that a stabilizing jack had cracked.

He contacted our dealer, Northgate RV in Ringgold, Georgia, to request help, as it was still under warranty. Keystone determined that we had overloaded the RV and informed the dealer that they would not cover the repair. I contacted the manufacturer of the jack, Lippert, and received an email stating the same thing.

We believe this problem was not a result of our use of the stabilizing jack and should be covered under the warranty. Any help you can provide will be greatly appreciated. **Michelle Jones, Hixson, Tennessee**

RV Resolutions reached out to both Keystone RV and Lippert Components on the Joneses' behalf and received the following good news from Lippert's customer service coordinator:



THE COMPANY RESPONDED

Keystone and Lippert initially denied warranty coverage because the information provided indicated the rear stabilizer jack bent because of possible misuse or overload. When Lippert received the letter from RV Resolutions, additional photos clearly showed torque damage to the bolt-on bracket. The photos also showed the holes drilled to install the bracket, done by Keystone, as Lippert does not bolt any items to our frame. I contacted a representative at Keystone and reviewed these photos with him. Keystone has agreed to reverse its denial and reimburse the Joneses directly.

Michael Lock, Lippert Components, Goshen, Indiana

Furnace Fix

When the freezer in his new trailer went on the fritz, a North Carolina reader asked RV Resolutions to help thaw things out with the manufacturer:

▶ On October 30, 2013, we purchased a Heartland North Trail trailer from Camping World in Garner, North Carolina. On January 1, 2014, we returned to the trailer after going home for the holidays and did not have any heat. Camping World said we would be out-of-pocket for the travel time for a technician to come out. The trailer was at an RV park at Topsail Beach for the season and per county law had to be secured. We spent \$900 doing so and were not going to remove the trailer.

The Camping World technician told us the heater had been installed incorrectly at the factory. You could see holes where the person installing it did not have it aligned properly. To add insult to injury, Heartland designed the trailer so the furnace is inaccessible. The cabinet under which the furnace sits had to be cut in two to fix it. We paid the technician, but I don't feel we should have had to spend anything to fix the furnace on a brand-new \$30,000 trailer. **Charles Batterson**

Holly Ridge, North Carolina

After mailing a petition to Heartland Recreational Vehicles on behalf of Charles Batterson, RV Resolutions received the following letter from the manufacturer's customer service department:

THE COMPANY RESPONDED

This unit was purchased with a one-year warranty. Our warranty dictates that the RV has to be taken to a servicing facility to have repairs made. If the customer chooses to have a service center come to them, they are responsible for the service fees the dealer charges to drive to their location. Heartland will pay for all parts and labor to have the issue resolved, but we will not pay the additional expense for the service tech to travel to their site for repairs.

James Fenner Heartland Customer Service Elkhart, Indiana 🗭

NEED HELP? W Resolutions is a forum for the settlement of conflicts between consumers and RV dealers and manufacturers, accessory suppliers and service providers. After exhausting all other resources without success, please send a typed letter to *Trailer Life* RV Resolutions, 2750 Park View Court, Suite 240, Oxnard, California 93036. Include copies of appropriate bills and correspondence as well as a self-addressed, stamped envelope.

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LOGAPE WINTER'S CHILL

If Jack Frost is nipping at your nose and your RV is left out in the cold, pack up your home on wheels and head to a place where summer is still in full swing

ou may be weathering the chill that's frosting your area this month and hunkering down to enjoy the holiday month of December. While some RVers stick it out through seriously cold temperatures, come January many of us just can't take the cold. That's the time to leave those winter blues behind and chase the sun's warmth. We've put together a list of 10 temperate hot spots where RVers will find plenty of sunny skies and outdoor activities so you can leave that winter parka behind!

ARIZONA

With 350 days of sun a year, Tucson and much of Arizona, including cities like Phoenix and Yuma, make perfect spots to weather what may be a long, hard winter in your hometown. Tucson, in the Sonoran Desert, has one of the most diverse ecosystems in the United States. And it's the most southern U.S. city where you can ski and snowboard in the mountains, while the rest of the city experiences a beautiful desert "winter." Unique activities include a drive on the Mount Lemmon Scenic Byway, an enriching visit to the Pima Air and Space Museum and an appreciation for Spanish colonial architecture at Mission San Xavier del Bac, a recently restored adobe church from the 1700s.

If you're looking to experience all that nature has to offer in the area, visit the Arizona-Sonora Desert Museum with 2 miles of walking paths on 21



acres. The Sonoran Desert is the only place on earth where the majestic saguaro cactus grows. The saguaro, and many other species of cactus, can be found on the museum grounds. A thrilling museum presentation sends native birds of prey aloft untethered in the open desert with visitors on their return flight path.

Many RV accommodations welcome winter RVers to the greater Tucson area; here are just a few:

Far Horizons Tucson Village RV Resort

800-480-3488, www.tucsonvillage.com Prince of Tucson RV Park 520-887-3501 www.princeoftucsonrvpark.com Rincon Country East RV Resort 888-401-8989, www.rinconcountry.com

CALIFORNIA

Many parts of California make ideal spots to weather the winter in a mild climate. One region in particular worth considering is the wide-encompassing central coast. Extending through the counties of Santa Cruz, San Benito, Monterey, San Luis Obispo, Santa Barbara and Ventura, the central coast has more than 300 days of sunshine every year. Winter is an ideal time to enjoy crisp, clear days and what locals describe as the most beautiful sunsets of the year.

Santa Barbara is a hot spot for shopping, wine and cuisine, but the city itself and surrounding region provide much for the outdoor lover who enjoys hiking in the mountains or spending the day at the beach. El Capitan State Beach, 17 miles west of Santa Barbara, and Los Padres National Forest, stretching from Ventura to Monterey, are both easily accessible from the city. Public campgrounds at El Capitan and Refugio state beaches host RVs (www.parks.ca/gov), and commercial campgrounds offer a full-range of facilities in the area:

Ocean Mesa Campground at El Capitan 866-410-5783, www.oceanmesa.com Rancho Oso RV and Camping Resort 805-638-5686, www.ranchooso.net Santa Barbara Sunrise RV Park 805-966-9954, www.santabarbararv.com



FLORIDA

Florida, with its sunny beaches, warm temperatures, theme parks and endless options to laugh Old Man Winter in the face, is one statewide destination that's pretty much perfect for RV travel between December and March. One hot spot that we found especially intriguing for RV travelers is Florida's Historic Coast.

Midway between Jacksonville and Daytona Beach, this stretch of northeastern Florida coast encompasses beachside gems such as St. Augustine and Ponte Vedra. This winter will be an amazing time to visit St. Augustine, as the nation's oldest city celebrates its 450th anniversary in 2015.



With dozens of RV campgrounds and resorts, including the following three in St. Augustine and St. Augustine Beach, the region is ideal for snowbirding RVers:

Anastasia State Park 904-461-2033 www.floridastateparks.org/anastasia North Beach Camp Resort 800-542-8316, www.northbeachcamp.com Ocean Grove RV Resort 800-342-4007 www.oceangroveresort.com

GEORGIA

With average daytime highs between 54 and 65 degrees from December to March, northern Georgia's metro Atlanta area offers a mild and enjoyable environment for weathering the winter months. The area is home to renowned historical landmarks and outdoorsy activities alike for recreation-minded travelers.

Thirty minutes from downtown Atlanta, Stone Mountain Park not only possesses the world's largest piece of exposed granite rock but offers 3,200 acres of natural beauty and a fun winter wonderland experience with activities like snow tubing. Closer to the city, Chattachochee Bend and Panola Mountain state parks provide hiking and cycling trails and places to fish and paddle. Travel north of the metro area to discover more of the state's natural beauty, from the tumbling waters of Amicalola Falls State Park in Dawsonville to the rolling vineyards of the Georgia Wine Highway to the rustic charm of Georgia's Blue Ridge Mountains.

Atlanta metro area RV campgrounds include three popular destinations:

Atlanta-Marietta RV Resort

770-427-6853, www.amrvresort.com Jones RV Park 770-923-0911, www.jonesrvpark.com Stone Mountain Park Campground 800-385-9807 www.stonemountainpark.com

GA

10 HOT SPOTS TO ESCAPE WINTER'S CHILL

MISSISSIPPI

If you're looking for a place where winters are mild and there's plenty of nightlife and fun ways to spend your time affordably, consider the Mississippi Gulf Coast and its 62 miles of sandy shoreline. Golf tops the list of recreational activities in the region, ranked one of America's top 10 golf destinations for value by a *Golf Digest* survey and nicknamed the Golf Coast. Twelve area casinos, with many restaurants and energetic nightlife, also attract an RVing audience, with special deals for seniors and frequent visitors.

Outdoor activities in this equally serene and happening place range from guided river tours to kayaking and canoeing on pristine rivers and the calm waters of the Mississippi Sound, as well as hiking along nature trails at Gulf Islands National Seashore.

Mississippi Gulf Coast's RV accommodations include the following campgrounds in Biloxi and Gulfport:



Baywood RV Park and Campground 888-747-4840 www.southernrvparks.com/baywood Cajun RV Park 877-225-8699, www.cajunrvpark.com Parker's Landing RV Park 228-392-7717 www.parkerslandingpark.com

NEW MEXICO

Albuquerque, the largest city in New Mexico, is very much the wintering RV traveler's paradise for its golf courses, abundance of nightlife and tourist attractions, outdoor beauty and cultural roots. Old Town is a destination in and of itself, giving visitors an authentic experience of



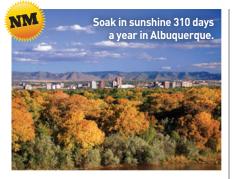
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From the RV Sanitation Expert



what it means to be a local in Albuquerque. If you have a few days or more to spend in this Southwestern city, consider experiencing the scenic beauty of the Rio Grande Valley from the sky (hot-air balloon flights are a top choice among tourists) or the summit of Sandia Peak via the aerial tram.

These elements — plus the pop culture draw of Albuquerque's role in the AMC series *Breaking Bad* — make for an entertaining stop on your escape from winter.

Plenty of places accommodate RVs in and around Albuquerque, including

the following full-service campgrounds, the third of which is part of a casino complex:

Albuquerque Central KOA 505-296-2729, www.koa.com/ campgrounds/albuguergue-central American RV Park 800-282-8885 www.americanrvpark.com Isleta Lakes and RV Park 877-475-3827 www.isleta.com/camping



SOUTH CAROLINA Beyond the temperate climate, there are many reasons why Myrtle Beach is

such a popular RV spot for snowbirds. With winter temperatures in the low 60s. affordable activities and accommodations, and a coastal location less than a day's drive from many Eastern areas, who wouldn't want to cozy up by the waterside that Myrtle Beach offers all winter long?

If you're in town during any weekend in December, visit Brookgreen Gardens as it comes to life with the glow of more than 5,500 hand-lit candles and countless sparkling lights during the annual Nights of a Thousand Candles celebration. For runners, the winter months offer February's Myrtle Beach Marathon and March's BFF (Breast Friends Forever) Pink Ribbon Run. At Broadway at the Beach, the state's largest festival entertainment complex, you'll find a 1.2-mile beach boardwalk and more than 23 restaurants and 100 specialty shops.

The Myrtle Beach area has no shortage of RV parks, including Ocean



www.thetford.com

10 HOT SPOTS TO ESCAPE WINTER'S CHILL

Lakes Family Campground, the largest RV campground on the East Coast, which hosts the popular Beach n' Boogie Weekend, February 13 and 14, 2015.

Lakewood Camping Resort

877-525-3966 www.lakewoodcampground.com Ocean Lakes Family Campground 877-510-1413, www.oceanlakes.com PirateLand Family Camping Resort 800-443-2267, www.pirateland.com



TENNESSEE

TX

At the heart of the music industry, Nashville is another Southern city we recommend on your RV winter tour. Nicknamed Music City, Nashville is the place to immerse yourself in the region's musical heritage. Be sure to visit nationally known sites like the Country Music Hall of Fame and Museum, Music Row and historic RCA Studio B, where Elvis recorded more than 200 songs. Don't miss Honky Tonk Highway, lined with such spots as Tootsie's Orchid Lounge, Legends Corner, Second Fiddle, Bluegrass Inn and Robert's Western World. Other worthwhile stops include Gaylord Opryland Resort, Belmont Mansion (the state's largest house museum) and Andrew Jackson's home and plantation, the Hermitage.

You don't have to head far from the city for outdoor adventure. Nine miles from downtown, the Warner Parks span nearly 2,700 acres with hiking and equestrian trails, a dog park, scenic drives, golf courses and natural conservation areas. Enjoy water activities within 15 miles of Nashville on the Harpeth River and Percy Priest, home to the area's largest lake and more than 265 miles of shoreline.

Nashville RV accommodations let you sample the Music City and experience the great outdoors:

Nashville KOA

615-889-0286, www.nashvillekoa.com Nashville Shores Lakeside Resort 615-889-7050 www.nashvilleshores.com Two Rivers Campground 615-883-8559 www.tworiverscampground.com

TEXAS

Whether your time in Austin is for a short trip or a long stay, this central Texas gem will not disappoint. The capital city is full of legendary music, unique culture and a wide selection of up and coming restaurants. With 300 days of sunshine and an average temperature of 68 degrees, Austin attracts many outdoor enthusiasts.

Visitors and residents enjoy stand-up paddle boarding, waterbiking, competitive rowing and leisurely canoeing and kayaking. If you're into walking or running, try the 10-mile off-road Lady Bird Lake Hike and Bike Trail in the heart of the city. Another must-try spot is Barton Springs Pool, a spring-fed watering hole that's 3 acres in size and a constant 68 degrees. Be sure to seek out the city's unique foodie scene, which includes both traditional sit-down restaurants and the opportunity to try nearly 2,000 mobile food trucks and trailers.

A number of campgrounds host RVs here, including the following three resorts plus one dealer-owned property that's part of Austin's Crestview RV dealership:

Austin's Lady Bird Lake lures paddlers to its waters, while runners, walkers and cyclists gravitate toward its shoreline trails. Austin Lone Star RV Resort 800-284-0206 www.austinlonestarrv.com Crestview RV Campground 512-282-3516 www.crestviewrv.com La Hacienda RV Resort 888-378-7275 www.lahaciendarvpark.com Oak Forest RV Park 800-478-7275 www.oakforest-rvpark.com



VIRGINIA

If you aren't looking to stray too far south during the colder months, consider Virginia Beach, with mild temperatures and a flurry of festive celebrations that make it an ideal winter destination for RV travelers. Outdoor recreational activities are in full supply, from fishing, boating and hiking to anything else you can enjoy in a seaside setting.

Virginia Beach's cultural and educational offerings include the Adam Thoroughgood House, one of the oldest brick homes in America; the Military Aviation Museum, born from a passion for World War II-era aircraft; and the Virginia Museum of Contemporary Art, which frequently hosts new exhibitions by national and international artists.

RV parks in the area provide both a place to stay and a gateway to outdoor fun, including the most visited state park in Virginia:

First Landing State Park

757-412-2300 www.dcr.virginia.gov/state-parks Holiday Trav-L-Park 866-849-8860 www.campingvb.com **P**



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article and photos by **Donna Ikenberry**

WEST TEX

Hiking the Guadalupe Peak Trail can be strenuous, though rewarding. From the top, the highest point in Texas, you are treated to outstanding views of the surrounding mountains and desert.

AS OASIS

From a distance, you wouldn't suspect that the rugged peaks and desert flats of the Guadalupe Mountains are a national park filled with grassy meadows, maple and pine forests – and a birder's paradise

uadalupe Mountains National Park, designated in September 1972, is many things. It's a beautiful 86,416-acre oasis, an island in the desert. Some say it is the most beautiful spot in Texas. If you sit on top of Guadalupe Peak, at 8,749 feet, the highest point in Texas, you'll probably agree. It's also a safe haven for wildlife and plants, and it has much to offer in the way of trails for hiking and exploring. It can also be a very windy destination. Most important to me, it is the place where I found my husband — Mike and I met on the top of Texas in 1997.

Guadalupe Peak Trail may look like a daunting climb, but it's one of those hikes where it seems like no time at all has passed before you're standing on top. Although the hike is not above the tree line, much of the 3,000-foot elevation gain offers outstanding views of the surrounding mountains, deserts and plains.

A memorial marker stands on the summit, placed there by American Airlines on the centennial of the Butterfield Overland Mail Trail. Carrying passengers and U.S. mail, the Butterfield Stage Line passed near this site for the first time on September 29, 1858, en route to San Francisco. The memorial proclaims that it is "dedicated to the airmen who, like the stage drivers before them, challenged the elements through this pass."

The Guadalupe Mountains are remote, even by west Texas standards. The range extends 50 miles, running north to south and straddling the Texas– New Mexico border. Formed beneath an inland sea 260 to 270 million years ago, the Guadalupe peaks that rise nearly 9,000 feet into the heavens were an ancient reef. Geologists from around the world come here to see one of the world's best examples of Middle Permian geology.

Congress designated nearly 47,000 acres (more than half of the park) as wilderness, and it is the largest wilderness area in Texas. Backpacking is a great way to experience the Guadalupes, but the hard part is the lack of water. You have to carry all the water you'll need. Day hikes are easier.

If you have the time and the legs, I recommend a hike along the 8.4-mile-roundtrip Permian Reef Trail. It ascends 2,000 feet and offers much in the way of fossils. If you hike the steeper trail to Guadalupe Peak, also an 8.4-mile round-trip, you'll see many of the same kinds of fossils. Hike the less strenuous McKittrick Canyon, 2.4 miles one way, and you'll see travertine dams along the creek and lots of Texas madrone with bright-red berries.

(Below from left) Bigtooth maples line some of the park trails in the fall. Apache plume is a small deciduous to semievergreen shrub with shredded bark and white flowers that blossom in the spring and sometimes again in the fall. Texas madrone berries.



WEST TEXAS OASIS



(Above from left) Calcite crystals and mollusk fossils are found along the Guadalupe Peak Trail.

Keep your eyes open for all sorts of treasures.

In the fall, usually around late October, red, orange and yellow bigtooth maples line many of the trails. Anytime of the year, a hike in the canyon reveals sotol, which is similar to some yuccas but a member of the lily family, as well as Faxon yucca, also called Spanish bayonet because of its stiff, pointy leaves. We also saw prickly pear cactus, cholla, agave, chinkapin oak and



the awesome alligator juniper, named for its checkered bark.

We picnicked near the old Pratt Cabin, built in the early 1930s, and were amazed at the mostly stone building, especially the limestone roof. Volunteers open the cabin on occasion for a peek inside, so check with park officials to see if the cabin is open during your visit.

The park has 58 known mammal inhabitants, including elk, and more than 260 kinds of birds, including wild turkeys and turkey vultures. Eight species of amphibians and 44 kinds of reptiles make their home in the park, including the red-spotted toad, collared lizard and three species of horned lizards. Be cautious of tarantulas and western diamondback rattlesnakes, and give them the respect they deserve. The snakes try to avoid people, and tarantulas are slow-moving and nearsighted, and thereby easy to avoid.

Upon arriving in the park, Mike and I always walk the Pinery Trail. It's a great

Camping in the Guadalupes

The first two campgrounds are within Guadalupe Mountains National Park and are first-come, first-served RV sites. Just over the New Mexico border, a commercial RV park offers the closest RV sites to Carlsbad Caverns National Park.

Dog Canyon

At 6,280 feet, this secluded national park campground has four RV sites and no hookups or dump station. Restrooms have sinks and flush toilets. www.nps.gov/gumo/planyourvisit/ camping.htm

Pine Springs Campground

Near the Pine Springs Visitor Center, this national park campground has 19 RV sites with no hookups or dump station. Potable water, flush-toilet restrooms and utility sink. www.nps.gov/gumo/planyourvisit/ camping.htm

White's City RV Park

Privately owned campground with 150 RV sites near Carlsbad Caverns. Full hookups, dump station, laundry facilities, clubhouse and swimming pool. Pets allowed. No reservations. 575-785-2291



El Capitan, located within Guadalupe Mountains National Park, is the eighth highest peak in Texas, rising abruptly out of the Chihuahuan Desert.

little hike where visitors can learn about native plants and how ancient people used them. For example, consider rhus microphylla, also known as littleleaf sumac. It's a shrub that grows in the area and is about 10 to 15 feet high. A member of the cashew family, in which poison ivy belongs, the plant has some surprising uses. What I didn't know is that some people make refreshing drinks from the globular reddish-orange fruits. After the fruits are steeped in water for 30 minutes and sweetened with honey, the liquid is poured over ice to make a sort of lemonade, or more properly, rhus-ade. Hot tea brewed from the fruit is said to bring relief for sore throats.

We always visit the ruins of the Pinery or the Pine Spring Stage, located at 5,534 feet atop Guadalupe Pass. Built of local limestone in 1858, it was the highest station on the Butterfield Overland Mail Trail, which stretched from St. Louis to San Francisco. The stagecoaches that stopped here traveled an average of 5 miles an hour around the clock and averaged 120 miles a day. The Butterfield contract made semiweekly runs, covering 2,800 miles in no more than 25 days. The line was abandoned in 1859, after 11 months of service. when it was shifted to the Davis Mountain Route.

Another fun, easy trail is the Smith Spring Trail, a 2.3-mile loop that begins at Frijole Ranch, a great place to search for birds and other wildlife. Next comes Manzanita Springs, with its beautiful view of Guadalupe Peak in the background. Continue on, and you'll enjoy Smith Spring, a beautiful oasis in lush riparian woodland. Here you'll find ponderosa pine, Texas madrone and bigtooth maple.

Before leaving the park, be sure to drive out to the Salt Basin Dunes; at 3,640 feet, they are the lowest point in the park. Located west of the peak, these 100-foot-high gypsum dunes are some of the largest in North America. Check at the visitor center for more information and a gate key to access the area, which is 90 miles round-trip from the visitor center.

While you're at the visitor center, enjoy the videos, exhibits and free Wi-Fi. The RV campground is located nearby



New Mexico's Underground Treasure

Carlsbad Caverns National Park is one of more than 1,000 World Heritage Sites around the globe. Recognized for its importance to the common heritage of all humanity, Carlsbad was designated as such in 1995 and is one of 22 World Heritage Sites in the United States.

Named a national park in 1930 (it was a national monument first), the caverns were created and bejeweled drop by tiny drop. The park consists of 46,766 acres and has more than 100 other caves in addition to the caverns.

Both of the self-guided routes through the caverns are well worth walking. The natural entrance offers a 1¹/₄-mile paved route that descends 800 feet in 1 mile. Wear sturdy footwear!

The last time Mike and I visited, we saw many swallows flying around the natural entrance and returned in the evening to see a small group of bats fly out. We were visiting in October when most of the bats had migrated south, but we still saw a couple of hundred of them. If you're interested in seeing thousands and thousands of bats in flight, visit between Memorial Day and mid- to late-October when the bat population is at its highest and ranger-led bat-flight programs are given 30 to 60 minutes before sunset.

In addition to the possibility of seeing swallows and bats, the natural entrance leads to such highlights as Bat Cave, Devil's Spring, the Boneyard and Iceberg Rock, a gigantic 200,000-ton boulder that fell from the cave ceiling a long time ago.

The Big Room is a self-guided 1¼-mile paved and fairly level route that is a must-see. This free tour moseys past some famous features like the Bottomless Pit, Rock of Ages and Painted Grotto.

Several other tours are available for a fee. Kings Palace is a favorite fee tour and lasts one-and-a-half hours. The tour descends via a paved trail to the deepest portion of the cavern, dropping 830 feet beneath the desert. Note that you'll have to descend and ascend a hill comparable to an eight-story building. Beautiful natural cave decorations include draperies, columns and soda straws, also known as tubular stalactites.

WEST TEXAS OASIS

on a paved surface, separate from tent campers. Vehicles longer than 55 feet are not recommended. Camping is also allowed at Dog Canyon, but it's a long way from headquarters and has only four RV sites. Dog Canyon, with its array of maple trees, is a beautiful place to hike in the fall.

The wind can really blow in the Guadalupe Mountains. On those days we sometimes head to Carlsbad Caverns National Park, which is about 42 miles away over the border in New Mexico but in the same mountain range. Both Guadalupe and Carlsbad Caverns national parks are in the Chihuahuan Desert. (See "New Mexico's Underground Treasure" on page 23.)

During our tours of Guadalupe Mountains National Park and Carlsbad Caverns, we experienced everything from the highest point in Texas to complete darkness in a cavern 750 feet below the earth's surface. We come back time and again, since this area holds a special place in our hearts.

For More Information

Whites City, New Mexico, is the nearest place to gas up when heading to Guadalupe Mountains National Park. Carlsbad, New Mexico, offers more in the way of amenities.

Carlsbad Caverns National Park 575-785-2232, www.nps.gov/cave Road conditions: 800-432-4269 **Guadalupe Mountains National Park** 915-828-3251, www.nps.gov/gumo Road conditions: 800-452-9292



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article and photos by Dave G. Houser

GANUN GI

Meander along the 180-mile Creole Nature Trail in southwest Loui inducing eateries, untamed coastal wetlands and marshes, remote

ood reasons abound for paying a visit to Louisiana — touring, gaming, hunting, fishing, boating and birding, to name a few. But regardless of what brings you to the Pelican State, it is food — that tangy, tasty mix of Creole and Cajun cooking — that will steal the show. Take my visit there last fall, for example, when I pulled the Winnie into Lake Charles for the purpose of poking about on the Creole Nature Trail All-American Road.

While it wasn't quite lunchtime as I approached Lake Charles from the west on Interstate 10, I was enticed enough by an appetite-inducing string of Cajun eateries to exit and seek out a snack in the neighboring community of Sulphur, aptly named for the mineral once mined there.

Nothing satisfies such an urge better than boudin (say *boo-dan* in Cajun). Louisiana's favorite finger food, it is a sausage of sorts made up of pork meat (some recipes include liver), rice, onions, parsley, garlic, red pepper and other seasonings.

Savoring a couple of freshly made links at B&O Kitchen and Grocery, I spoke with proprietor Jeff Benoit, who makes boudin from a family recipe created more than 50 years ago by his grandmother, Coritta.

"Boudin," says Benoit, "follows in the tradition of most Cajun food, made up of whatever could be sourced from the soil, swamps and marshes, then mixed together and spiced up to bring out the taste."

Well sated now and set to join the Creole Nature Trail, I drove up to the Lake Charles/Southwest Louisiana Visitors Bureau on Lakeshore Drive, just off I-10 at Exit 29, to pick up a GPS Explorer, a nifty handheld device enabling me to enjoy a self-guided video tour of the 180-mile route. Folks with smartphones can download a free app from iTunes or Google Play, but for those of us still using stupid phones, the visitor center provides the Explorer unit on loan at no charge.

There are two entrances to the trail from I-10, one east of the visitor center in Lake Charles on Highway 397 (Exit 36), and one in Sulphur at Highway 27 (Exit 20). I'd reserved a space at A-Plus Motel and RV Park, a few miles south of Sulphur on Highway 27. Intending to tour the trail (which loops around to the east entrance) in a counterclockwise direction, I backtracked to the park.

Family owned and operated in combination with a motel,

siana for a spicy taste of appetitegulf beaches and wildlife refuges

this is an exceptional park, as evidenced by its Good Sam Club 10/10*/10 rating. It is meticulously maintained and loaded with amenities, including a pool and cabana, a fishing pond, a gym and recreation room, a playground and a dog run.

I settled in poolside for a quick dip and to sort out the operation of my GPS Explorer. Later, as you might guess, I returned to Sulphur for a platter of succulent boiled crabs at Seafood Palace, and then hit the bunk in preparation for a dawn departure on the Creole Trail.

One of the first routes to be designated a National Scenic Byway by the U.S. Department of Transportation in 1996, the Creole Nature Trail was reclassified an All-American Road in 2002, achieving elite status as one of just 31 such routes in the entire country.

Once beyond the interstate, this route enters a vast wilderness of fertile prairie, marshland, swamps, bayous, several National Wildlife Refuges and a pristine 26-mile stretch of Gulf Coast shoreline, often referred to as Louisiana's Outback. The area sits at the convergence of the Central and Mississippi Flyways, and each year hundreds of thousands of migratory birds and waterfowl find it an inviting





The coastal swamps, bayous and marshlands along the Creole Nature Trail offer plenty of wildlife-spotting possibilities from gators to roseate spoonbills.

CAJUN CHARM



place to stop for food and rest — much to the delight of nature lovers and photographers. Fall and winter months are the peak migration period.

As a reminder, this is a lightly settled region where services are limited. So be sure you're fueled up and check your stockpile of essentials, including water, snacks (i.e., boudin and maybe some crab gumbo), batteries, bug spray and sunscreen. There is a gas station, a couple of cafés and an RV park, which I'll describe later, at Cameron, about halfway along the route, but not a whole lot else in the way of services.

I drove the route in one day dawn to dusk — allowing time to take in the major highlights but not to fully experience all that there is to see and do along the trail. In retrospect, I wish I'd divided the trip into two days, overnighting in Cameron. I strongly suggest doing the same — and if you're really into photography, shelling, hiking, biking, kayaking, hunting or fishing, you'll need even more time.

(From top left) Fishing is great in the swamps and bayous of Louisiana's Outback. The annual

Rouge et Blanc festival in Lake Charles draws food and wine lovers to the festivities. A variety

of exhibits awaits visitors at the Cameron Prairie National Wildlife Refuge Visitor Center.

Those planning to fish or hunt will need a license. To learn about that as well as seasons, limits and other regulations, contact the Louisiana Department of Wildlife and Fisheries at 888-765-2602 or www.wlf.louisiana.gov.

Motoring down Highway 27, the first point of real interest to me came

as I crossed over the Intracoastal Waterway on the Ellender Bridge. Familiar with the waterway in my home state of Florida, I didn't realize it continued along the Gulf Coast all the way to Brownsville, Texas, providing a vital shipping lane, which was busy with barge traffic as I passed over the bridge.

Not far beyond Hackberry, a commercial crabbing, shrimping and fishing outpost nestled alongside Calcasieu Lake (locals call it Big Lake, and it is that, measuring 77 square miles), is Sabine National Wildlife Refuge. You can try fishing or crabbing

One of the first National Scenic Byways, the Creole Nature Trail was reclassified an All-American Road, achieving elite status as one of just 31 such routes.

South of Lake Charles, visitors hike a boardwalk through marshland near the Cameron Prairie National Wildlife Refuge Visitor Center, a key point of interest along the Creole Nature Trail.



at a couple of recreation areas here. By all means stop for a short hike on Blue Goose Trail, which leads to an observation deck that affords great views over the marshland and is often frequented by flocks of geese and other migratory birds. At the southern edge of the refuge, Wetland Walkway provides a 1½-mile handicap-accessible walk right into the heart of the marsh. Keep an eye out, too, for alligators, which are common to all wetter areas along the trail.

Holly Beach is next, and with it comes your first look at the Gulf of Mexico. This is a great beach for picnicking, shelling, swimming and surf fishing. The beach was substantially replenished by the Corps of Engineers in the wake of hurricanes in 2005 and 2008, and is sufficiently hard-packed to allow you to drive on it. You can camp here as well, providing your rig is selfcontained. From this point, an extension of the trail, the Western Spur, continues along Highway 82, where in about 12 miles you'll encounter Peveto Woods Bird and Butterfly Sanctuary, open year-round for self-guided excursions.

Continuing eastbound on Highway 27 toward Cameron, you'll board a ferry for a quick (and free) crossing of the Calcasieu Ship Channel, which connects the Intracoastal Waterway to the Gulf. The ferry operates continuously at roughly 30-minute intervals



and can accommodate travel trailers and motorhomes of any size.

At Cameron, a community of about 400 hardy souls and home to a variety of services, including gas and eats, there's an RV camping facility that I mentioned earlier. It's located just south of Cameron proper on Davis Road and is essentially a gated limestone gravel parking lot with 37 RV spaces, each with hookups for electric and water. It adjoins a fishing pier said to be a good spot to cast for redfish, drum and speckled trout. Details and contact in-

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Prior to the point where the main trail (Highway 27) bends north, you'll have the option of continuing on Highway 82, past Rutherford Beach (especially good for shelling), through the small community of Oak Grove, and along the trail's Eastern Spur to Rockefeller Wildlife Refuge. This refuge is the scene of an extensive foundationbacked scientific study of indigenous wildlife and fauna. The Price Lake Nature Drive on the refuge is open from March to December.

Hustling northbound along the eastern leg of the trail to see as much as I could before nightfall, I happened upon what I consider to be the most engaging and informative features along the 180-mile route.

Shortly after entering Cameron Prairie National Wildlife Refuge, watch for signs on your right for the Pintail Wildlife Drive. This is a 3-mile selfguided drive on a well-kept gravel road that offers a diversity of wildlife-sighting possibilities. During fall and winter months, you'll be greeted by thousands of ducks and geese — and most anytime by roseate spoonbills, egrets, herons, ibis and cormorants. I spotted alligators, whitetail deer and nutria (aka coypu), a large semiaquatic rodent. River otter and swamp rabbits are often seen here as well. Follow the raised boardwalk for the best viewing opportunities.

I had a chance encounter with a local fishing and outdoor guide, Captain Sammie Faulk, who was showing a group of journalists around the refuge. Turns out he helped the visitor center introduce and promote the Explorer GPS Video Tour several years ago, the script for which he said was being updated.

My final stop of the day entailed a visit to the Cameron Prairie National Wildlife Refuge Visitor Center, 3 miles north of the Pintail Wildlife Drive. The building is surrounded by a manmade



Boudin, a favorite Louisiana sausage, is served in a variety of dishes.

pond that is home to a number of gators large and small. There's an observation pier with a spotting scope, making it easy to safely photograph the creatures, which seem rather unconcerned about the presence of visitors.

Inside the center are a series of interpretive exhibits and a clever animatronic diorama featuring an authentic looking old Cajun couple, T' Maurice and Tante (Auntie) Marie, who tell stories about life in the Louisiana Outback.

Exiting the trail in Lake Charles, with my mind reeling from the day's experiences and too tired to stop for dinner



(ah, but I still had some boudin and a bag of greens in the fridge), I headed to Twelve Oaks RV Park, situated in a quiet wooded area just a mile north of I-10. This is the city's newest RV park, with all the bells and whistles, including a comfy clubhouse with a patio and outdoor kitchen, where I warmed up and consumed the last of my boudin.

Before hitting the sack, I recalled an invitation I'd filed away from the friendly ladies at the Lake Charles Visitors Bureau to join the Rouge et Blanc food and wine festival, to be staged the following day on the grounds of the city's historic 1911 City Hall. So I rallied in the morning and attended the big fest.

While munching on a crab roll, I couldn't help musing at the fact that my Louisiana adventure was coming to an end pretty much as it started — with me feasting on one kind of Cajun delicacy or another — this time with wine in hand. As they're prone to say in these parts: Laissez les bons temps rouler! (Let the good times roll!)

RV PARKS

A-Plus Motel and RV Park

Located 2.1 miles south of Sulphur, Louisiana, on Highway 27. Full hookups, cable and Wi-Fi at 134 concrete sites. Current daily rates for Good Sam Club members is \$30 to \$33, holidays \$33 to \$36. 337-583-2631, www.a-plusmotel.com

Cameron Jetty RV Facility

Located at the jetty on Davis Road in Cameron, Louisiana. Parish-administered park in gated compound with 37 spaces, water and electrical hookups only. Stays limited to five days. No tents or pop-up campers. Current daily rates are \$25. RV spaces must be reserved and paid for in advance. 337-775-5718, www.parishofcameron .net/parksrecreation

Twelve Oaks RV Park

Located on Conoco Street, 1 mile north of I-10 (exit 33) in Lake Charles, Louisiana. Full hookups, including Wi-Fi. Current daily rates are \$30. 337-439-2916, www.twelveoaksrv.com









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TEST

article by Chris Hemer photos by Scott Hirko

Tales From the Heartland

Living large in the Big Country 3150RL

S maller fifth-wheels have become big business. At a time when fuel prices can escalate 50 cents or more at the drop of a hat, consumers are understandably concerned about hauling a 40-plus-footer. Then there's the issue of hauling around a trailer this big — you have to choose your fuel stops carefully and plan your trip accordingly to make sure the campsites or RV parks you visit can accommodate a large trailer. Reducing the length of a fifth-wheel to around 35 feet solves many of these issues, of course, but then how do you pack in all the features fifth-wheel owners have come to expect?

That's the rub, especially when you consider that the current trend is toward luxurious living areas with theater seating, grand entertainment centers and electric fireplaces. But Heartland Recreational Vehicles has given it a go with its new Big Country 3150RL, a well-appointed fifth-wheel that measures just longer than 35 feet, making it one of the smallest fivers in the eight-floorplan lineup.

The Big Country follows the current trend of tan fiberglass with graphics and frameless windows (optional dual-pane on the test unit) for a striking visual appearance. Heartland also goes the extra mile by applying Correct Track alignment to its heavy-duty 7,000-pound axles, which are cushioned by Dexter



The living and kitchen areas are well-appointed and offer a modern take on a country theme with features like faux plank flooring and parchment-tone lampshades over the kitchen island.

EZ Flex suspension with shock absorbers and fitted with aluminum wheels.

Packing for a weeklong trip on the California coast, we were delighted when we opened the front exterior storage, which Heartland claims is the largest in its class. Not only is this area tall enough to sit up in, it is one of the best-finished storage compartments we've seen. The floor and walls are fully carpeted, the ceiling is covered by a vapor barrier, and the area is heated as well. The only negative we noticed is that the control panel for the optional Level Up hydraulic leveling system was on the curb side; the street side would be a more userfriendly place for this feature.

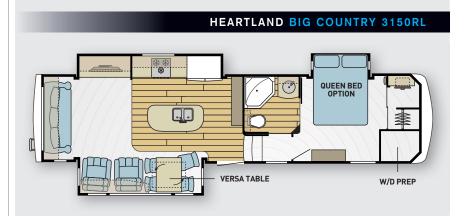
When we arrived at the park, we disconnected. leveled the trailer and stepped inside to open up the living area. Heartland fits its trailer with a slide mechanism that deploys the living area slide rooms in sequence — simply hold one button to deploy both living area slides. A second switch deploys the bedroom slideout. Some of our staff liked the speed and simplicity of this feature, while others preferred that the slides be deployed one at a time in the event that the predetermined sequence would not be convenient for some reason. Fortunately, Heartland offers optional hydraulic selector valves that allow you to change the order of slide deployment, but we'd prefer individual controls.

We would also like to see a much better organized and clearly labeled utility center. The city water and blacktank flush connections are not clearly marked, and to confuse things further, there is a sticker on the right side labeled City Water Connection and another on the left labeled Freshwater Connection. But that's not the worst part. The closest point to the Freshwater Connection label was actually the black-tank flush. You can already see where we're going with this. Looking straight into the cabinet, we connected to what appeared to be the freshwater connection and minutes later heard screams emerging from within the trailer. Blue water from the blackwater tank (which thankfully had not been used yet) began to flow into the

kitchen sink. We don't know how this could even happen, since the gray- and black-water systems are supposed to be completely separate — and just in case you're wondering, yes, all the dump valves were closed at the time. Indeed, there is a schematic that shows you how everything is supposed to be connected, but it's on the left wall inside the plumbing center — so you almost have to stick your head in to see it, where it's then too close to read. Obviously, Heartland needs to rethink the plumbing center design.

After recovering from (and cleaning up after) our initial blue-water drama, we found that the living and kitchen areas were truly elegant. An abundance of handcrafted Bordeaux Cherry cabinetry is nicely finished and feels solid, and is complemented by neutral tones throughout the space. Faux wood Beauflor flooring is used in the kitchen, the living area is carpeted, and the rear couch and curbside rockers are upholstered in authentic-looking simulated distressed leather.

Surprisingly, we found that the furniture wasn't as pleasing to use as it was to look at. For example, the recliners appear thickly padded and comfortable but are actually quite firm, and when they recline the footrest can barely hold the weight of your legs. Moreover, the recliners are just too large for their allotted space in the slideout and are jammed up against the dinette, requiring you to move one of them onto the living area floor at mealtime. The dinette itself is tiny, and in sharp contrast to the cabinetry in the







rest of the trailer, was not well made. Its painted brown finish began flaking off almost immediately. We should note here that a booth dinette and theater seating are both available options, and we would recommend investigating these as possible upgrades.

The couch is okay for short periods but could use some improvement. It essentially forces you to sit upright, and the seat cushions aren't very wide, so you feel like only half of your legs are supported. We were pleased to find the couch was equipped with an honest-togosh spring-assisted bed like you'd find in most residential couches (instead of a segmented trifold or, worse yet, an air mattress). It's nothing fancy and seemed a bit on the springy side but should work fine for overnight guests.

Directly across from the recliners in the streetside slideout is the entertainment center, which is dominated by a Samsung flat-screen television and, in the case of our test unit, an available electric fireplace. There's plenty of storage here for DVDs and other items, and above the TV are two cabinets with frosted panel inserts, one of which contains a Sony entertainment center that functions as both a DVD player and

The living area furniture looks great but isn't very comfortable and requires one recliner to be moved when you want to sit at the dinette. We recommend checking out the available booth dinette and theater seating.

(Above from left) The bedroom features a comfortable queen bed and a mirrored closet but could definitely benefit from nightstands. The bathroom has an attractive vessel sink and solid-surface countertop but could use more storage space for towels and other necessities.

radio receiver. Sound and picture quality are decent inside, but we found the outdoor system lacking. Small speakers are located close together near the front of the trailer, and they're controlled by a common car stereo head unit located in the front compartment. As you might have guessed, this arrangement doesn't produce very good sound. Upgrades would be easy enough, but we don't think that should be necessary in a fifthwheel like this.

Preparing for dinner in the evening, we found that the kitchen was not only

great looking but well conceived. The centerpiece is an island with a large solid-surface countertop, double-bowl stainless sink and a residential faucet with pullout sprayer. There's plenty of space for chopping or serving here, and if you need more room you can employ one or both of the solid-surface sink covers. Storage space is provided by three large drawers and one small one at the top that would be a good place to keep miscellaneous knickknacks. We liked that there is a huge amount of under-sink storage — more than



SPECIFICATIONS

enough for a trash can — but we felt like this area could be improved upon with a shelf of some kind that would allow storage space for things like cleaning supplies. You could, of course, add something like this yourself, if desired.

Across from the island on the street side is a stainless-steel gas oven and a three-burner cooktop with stainlesssteel cover. We liked that there is lots of food-prep space on either side of the cooktop, as well as additional cabinets and drawers for anything a traveling chef could want to bring. We also appreciated the full-size stainless-steel microwave and the large four-door refrigerator with wood panels to match the cabinetry.

On the forward wall is a large pantry/storage area. Opening the top two cabinet drawers reveals an interesting organizer of sorts with a solid-wood spice rack affixed to the right door and another one directly in front that slides from side to side on fixed rails. Behind this are two shelves that are infinitely adjustable, so we can see this as a good place to keep an ambitious spice collection, as well as small bottles of items that don't require refrigeration. Beneath this is a larger, deeper cabinet that could be a good place for canned items, and the shelves here are easily adjustable as well. To the right of this cabinet is a shallower space with adjustable shelves that could be used for more food or just miscellaneous storage.

All the way to the right of this same cabinet is a small shelved area and a control panel consisting of the tank monitors and switches for the water heater, interior lighting and the aforementioned slideout switches. This panel also had switches for the optional Yeti extreme weather package, which provides heat to the water-pump lines and includes heating pads for the holding tanks, neither of which we had occasion to use during our summer test. One detail we found very thoughtful was a decal inside the cabinet door with factory-direct phone numbers for all of the trailer's vendors, including Lippert, Norcold, Atwood, Suburban, etc., which will save a lot of time in the event something goes wrong.

The bed and bath areas are adequate for their intended use, but it seemed like the designers started losing inspiration once they got to the front of the trailer. There are the standard porcelain toilet. medicine cabinet and one-piece fiberglass shower with a glass door. We liked the lavatory with its glass vessel sink and solid-surface countertop. But the area seems to suffer from an overall misuse of space; there is no shelving underneath the sink, no linen closet and the toilet paper roll is mounted inside the lower cabinet door where it is nearly out of reach. Also, the unit uses sliding pocket doors for entry to the space from either the bedroom or hallway; we'd prefer a standard door with a lock for the hallway entrance.

The design issues continue in the bedroom. First, we thought it odd that a king bed comes standard with a queen as an option. The test unit was equipped with the latter — and although there is adequate room on both sides of the bed for nightstands, there were none. We think you should be given a choice between a big bed and no nightstands or a smaller bed with nightstands. On the upside, the bed was one of the most comfortable we've ever slept on in an RV, and there is storage underneath with gas struts that did a commendable job supporting the weight of the mattress.

At the foot of the bed is a chest of four drawers, and the test unit had a flat-screen television located above and center, perfectly situated for viewing from the bed. There is no overhead vent in this space, which can be viewed as a positive or negative. On one hand, the bedroom can be kept very dark by pulling down the standard MCD blackout shades (provided throughout the fifthwheel) and shutting the doors; on the other. there's not much ventilation if the air conditioner is turned off. In our case. we liked the dark bedroom and stayed comfortable, thanks to standard 50amp service and an optional second air-conditioning unit in the bedroom.

All the way at the front is a wardrobe that isn't cedar lined but does feature another chest of drawers,

HEARTLAND BIG COUNTRY 3150RI

HEARTLAND BIG COUNTRY 3150RL	
Exterior Length	35' 4"
Exterior Width	8'
Exterior Height	12' 11"
Interior Width	7' 12 ¹ ⁄2"
Interior Height	8' 4½" living area 6' 4" bedroom area
5" laminated roof, bl 3%" seamless floor	Double-welded e 2" laminated walls, ock-foam insulation, ⁻ decking, high-gloss coated exterior walls
Freshwater Cap.	75 gal.
Gray-Water Cap.	90 gal.
Black-Water Cap.	45 gal
LP-Gas Cap.	14 gal.
Water-Heater Cap.	10 gal.
Refrigerator	12.7 cu. ft.
Furnace	42,000 Btu
Air Conditioner (2)	15,000 / 13,500 Btu
Converter	80 amp
Battery	Dealer supplied
Tires	ST 235 / 80R16 E
Suspension L equaliz	eaf springs, EZ Flex. er, shock absorbers
Weight (water and propane full, no sup	plies) 12,500 lbs.
Hitch Weight	2,260 lbs.
Axle Weight	10,240 lbs.
GVWR	15,500 lbs.
GAWR (2)	7,000 lbs.
Cargo Carrying Cap	. 3,000 lbs.
MSRP, base	\$62,249
MSRP, as tested	\$78,338
Basic Warranty	1 year
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a compartment for shoes, a Dyson vacuum and hanger rods of varying heights. The test unit also had a washer/dryer-ready cabinet that could be used to store more hanging clothes, if you didn't opt for the appliances.

Overall, we think Heartland's newest Big Country floorplan is a success. It packs in a lot of standard features, offers abundant options and is the right length for the growing midsize fifthwheel market.



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LIFEBLOOD LESSON

Oil is what keeps an engine alive and running strong. But how much do you really know about it?

lot of people refer to engine oil as "the lifeblood of an engine," and that's really not an exaggeration. Anyone who has let an engine run too low on precious oil has learned the hard way how much damage can be caused. But as important as oil is, most of us don't know that much about it, other than it has to be checked periodically and changed on a regular basis. Oil is, in fact, an extremely complex subject if you really dig into it, but basic knowledge is all you need to make sure your tow vehicle lasts for the long haul. And, with a new diesel engine oil specification coming our way in 2016 (temporarily called PC-11), we thought it might be a good time to talk about engine oil and what it does for your vehicle's engine.

Crude Facts

Engine oils are not just simply straight crude oil. They are sophisticated blends of heavier, thicker base oils (usually petroleum-based from crude oils but sometimes synthesized chemical compounds) that include hydrocarbons, polyalphaolefins and poly internal olefins. Additives are included in the oils to improve their performance characteristics. Not all base oils are the same, as some contain more or less sulfur, oxygen, nickel, zinc and other components compared to their competition.

Engine oils are grouped by viscosity, commonly referred to as "weight." Technically, the term "viscosity" is a measure of the internal molecular friction resisting flow.

Castrol has been getting some attention lately with a media blitz featuring rally driver and Internet sensation Ken Block promoting the new Castrol Edge with Titanium, which contains a patent-pending liquid titanium molecule that reportedly increases motor oil strength.

THE 3,000-MILE MYTH

If you get your vehicle's oil changed at a quick-lube shop, chances are they put a little sticker on the windshield telling you to change the oil again in 3,000 miles. In the earlier days of carburetors and distributors, this was probably a good idea, as imprecise fuel mixtures and incomplete combustion caused engine oil to break down more quickly. That's all changed in modern engines, yet quick-lube shops still recommend a 3,000-mile interval. Why? The simple answer is to make money. It's no coincidence that a major oil company owns one of the leading quick-change lube chains.

The reality is, none of today's auto manufacturers recommends changing the oil every 3,000 miles, especially with the quality of oil we have today. The average interval for 2010 cars, for example, is around 7,800 miles. Many



auto manufacturers state in the owner's manual that the oil change frequency should be 7,500 or even 10,000 miles.

Think about it. The oil companies have been making great strides in the development of oil in the past few decades, and by changing the oil too soon, you aren't even letting it do the job it was engineered to do. Not to mention that you are putting oil back into the recycling arena far more frequently than required. The California EPA even ran a campaign to raise awareness about too-frequent oil changing. If in doubt, having the oil analyzed every 3,000 miles makes a lot more sense than just blindly changing it.

SAE 5W-30

MOTOR OI

LIFEBLOOD LESSONS



Amsoil's oxidation testing lab is just one example of the types of testing that go into producing a high-quality synthetic engine oil.

In simple terms, the lower the viscosity number, the better that oil will flow when it's cold. (See "What's in a Donut?" on page 40.)

Your vehicle's owner's manual will tell you exactly what viscosity should be run in that particular engine. Typically, it is recommended that you stick with the oil grade recommended by the manufacturer, but this is not always the case. Bear in mind that the manufacturer's recommendation is based on a new or as-new engine operated in a typical environment; a high-mileage engine or one operated in extreme heat or cold may be better suited to a different oil grade. Moreover, oils have a temperature operating range, so if you're in a jam and need to add a guart or two of oil to the engine, but the grade isn't available, it's fine to select a different grade. For example, the American Petroleum Institute (API) cites 5W-20, 5W-30, 10W-30, 10W-40 and 20W-50 as being suitable for passenger cars operated at temperatures no lower than 32 degrees Fahrenheit.

Synthetic Intelligence

Synthetic engine oils were first developed in the late '30s and early '40s by German scientists because they lacked enough crude oil for their military needs. An additional benefit of the synthetic oil was its ability to continue to operate in subzero temperatures. Later, in the '50s, synthetic engine oils were coveted in jet-engine use for their ability to withstand high operating temperatures without breaking down. In the '60s, Albert J. Amatuzio experimented with synthetic oils in auto engines, and in 1972, his company, Amsoil, was the first synthetic engine oil to meet API requirements.

Interestingly, synthetic oil isn't really synthetic — it still uses a petroleum "base stock," which is transformed using a process known as organic synthesis. When the petroleum oil base stock undergoes organic synthesis, a uniform molecular structure is achieved, and a "perfect" oil is created. This offers a number of benefits, including greater film strength (for better wear protection), a lower pour point (for easier pumping in cold weather) and greater lubricity, which can result in reduced operating temperature, improved fuel economy and more power.

Synthetic oil's ability to work well in both cold and hot environments is one of its many advantages. Synthetic oils also

IT'S A DIRTY JOB What oil does for the engine

Separate and Lubricate: One of the most important jobs of engine oil is to prevent the moving components in an engine from coming in contact with each other. The thickness, or viscosity, of an oil must be thick enough to keep the metal parts from touching each other yet thin enough to flow throughout the engine and not get bogged down in cold-weather conditions. A thin film is all that's needed to provide a cushion and allow the metal parts to slide or rotate without ever actually touching. This reduces wear and ensures the parts live for a long time.

Keep It Cool: Another important job for engine oil is keeping the engine components cool. When a bath of oil runs through the hot engine, it carries some of the heat away from the metal parts as it travels. Modern engines are using higher combustion temperatures to get better efficiency, so good cooling qualities become even more important. The top piston ring in a gasoline engine, for example, can see temperatures around 320 degrees Fahrenheit, while in a diesel engine, temperatures are about 600 degrees Fahrenheit (depending on load, throttle position, etc.).

Clean It Up: Removing and suspending dirt and other contaminants in the oil until it reaches the oil filter (or gets drained out with an oil change) is another increasingly important role of modern engine oils. Most good oils have a detergent additive to keep internal engine components free of sludge that can block oil passages and collect dirt. In diesel applications, the oil can even remove and trap soot that is formed during combustion.

Prevent Oxidation: Oxidation, which leads to corrosion, is a problem that modern oils address. By clinging to metal components, the oil doesn't allow oxygen to get to the metal and start the process of oxidation.

Increase Fuel Economy: Additives that the manufacturers include in their oils can make the oil slipperier (a characteristic known as lubricity) and make the engine turn with less effort. Less drag takes less power to move the same amount of mass, and that leads to better fuel economy. It's not a lot, but auto manufacturers need every advantage they can get when they are trying to meet mileage standards. This is why you are seeing lower viscosity levels being recommended by manufacturers, compared to the past. have a longer service life, so some synthetic oil suppliers recommend oil changes only every 15,000 miles — even longer, if the oil filter is changed and more oil is added.

The rise of synthetic oils led to some confusion and myths that should be dispelled with right here. First, synthetic oils will not cause oil leaks. Initial reports of oil leaks came from owners of old, high-mileage engines that were essentially sealed by their own crud and varnish. The higher detergent quality of synthetic oil washed this away, "creating" oil leaks. Engine seals are perfectly fine with petroleum-based or synthetic engine oils. Engines *can* be broken in with synthetic oils; mineralbased and synthetic oils can be mixed, if necessary (for instance, to top off the oil when no synthetic is available). Finally, no vehicle manufacturer (save for Mazda's rotary engines of old) has ever said that using synthetic oil would void your warranty.

The only real disadvantage of synthetic oils is that they cost more, but this is mitigated somewhat by their higher change interval. Amsoil proved that synthetic was more capable than petroleum-based oils. Now, every major engine oil manufacturer also makes synthetic engine oil, and many vehicle manufacturers specify it for their engines right from the factory.

Changing Diesel Standards: PC-11

In 2010, the National Highway Traffic Safety Administration (NHTSA) announced regulations designed to reduce the level of greenhousegas emissions and mandate fueleconomy improvements for mediumand heavy-duty engines and vehicles.

Back in the '50s and '60s, there were only single-grade oils, i.e. 50-weight, 30-weight and so on. But as emissions standards became the norm, oil had to change. Oil consumption, in particular, had to be reduced. In 1988, the first new category of multigrade oil (CE) was introduced, and oil consumption was in fact reduced by a reported 30 percent. Soon after, engine manufacturers found new ways to improve combustion efficiency, and one of them was with heat. Consequently, a new category of oil had to be developed to handle the higher temperatures, oxidation and soot. Continued reduction in emissions using a diesel particulate filter (DPF), selective catalytic reduction and exhaust gas recirculation (EGR) forced other improvements in oil quality, and new categories were created along the way.

Currently, the vast majority of

the U.S. market uses SAE 15W-40 oils in diesel engines, but there is an increased use of SAE 10W-30 oils. Lower viscosities are known to provide better fuel economy, but they have to work under increasingly higher combustion temperatures.

The newest category expected to debut in January 2016 is yet to be named, but the working title is PC-11. It will be the eighth new category introduced to the diesel oil market.



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LIFEBLOOD LESSONS

In addition to reduced greenhouse gases and better fuel economy, the new oils are expected to have improvements in oxidation stability and shear stability, resistance to aeration and biodiesel compatibility. The possibility of two new categories is being discussed, one for 15W-40 and one for 10W-30. If that happens, it would be a first. The 40-weight oils would be "backward compatible" for all diesel engines, while the new 30-weights would be used only in engines designed for it. Oil industry experts expect that the heavy-duty off-road equipment companies that do not have a fuel-economy standard will go with the SAE 15W-40 oil, while on-road truck builders will want the fuel savings of the new SAE 10W-30 oils.

If you omit the technical details of refining and testing, understanding today's engine oils isn't difficult. Use the recommended oil for your application, keep the fill level up and change it when necessary, and motor oil will serve you (and your vehicle's engine) well for many years to come.

WHAT'S IN A DONUT?

Just about everything you need to know about an oil is on the American Petroleum Institute (API) "Donut" on the back of the bottle — if you know how to read it. At the top, you'll see the words "API Service," followed by two or more letters. Letters beginning with S (such as SN, SL, SJ) are service or sparkignition categories designed for gasoline-burning engines. Letters beginning with C (such as CJ-4, CI-4, CH-4 and CG-4) are commercial or compression-ignition categories designed for diesel applications. In the center of the Donut are the numbers that you're most likely concerned with, the viscosity grade of the oil. Put simply, viscosity is a measure of an oil's thickness, typically expressed in numbered grades ranging from 0 (thinnest) to 50 (thickest). Originally established by the Society of Automotive Engineers (SAE), oil viscosity was initially a single grade, or "straight weight," but that changed when the SAE added winter grade designations, indicated by a "W" after the viscosity grade (i.e. 10W).



The evolution of motor oil took another big step a short time later, when advances in petrochemical engineering led to the development of viscosity enhancers that made it possible for a single oil to serve double duty in low and high temperatures. These became known as "multigrade" oils, hence the oils we're all familiar with: 10W-30, 10W-40, etc.

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A central vacuum cleaner simplifies a frequent RV chore. For do-it-yourselfers, installing InterVac's remote-mounted system can streamline housekeeping for years to come

hether you're parked in a low-dust, paved campground or the middle of an off-road racing pit, dirt always manages to find a way inside your RV. Keeping your home on wheels clean also helps keep it functioning, since dirt wreaks havoc on many appliances and accessories. There is an abundant selection of cleaning supplies and specialty items (think "As

Seen on TV") for home and RV use, not to mention the huge varieties of specific-purpose cleaning machines. Out of all these choices, the vacuum cleaner reigns king for handling most messy situations.

Quite often when dealing within the confined living quarters of an RV, storage space for a full-size stand-up house vacuum cleaner — or any vacuum, for that matter —



(1) InterVac's RMH model kit comes with all the components necessary for a remote installation. (2) A great option for the InterVac system is the VacPort inlet that's installed in the wall at floor level in a convenient location, where there is no carpeting. (3) The inlet valve for the main vacuum system can be installed in a central location; multiple valves can be used if necessary. (4) For this installation, an unused floor-level compartment was put into service to mount the vacuum housing and necessary hoses and fittings. (5) An accurate template is provided with the kit for determining the location of the fasteners that hold the vacuum housing in place. Here, the screws were driven through the paper. (6) Two 20-gauge wires are routed from each valve port to the yellow wires in the bottom of the vacuum housing.

can become a bit of an issue. To the rescue is InterVac Design, a company that has made a longtime commitment to developing small-scale, high-power central vacuum systems. The company put itself on the map over the years as a leading manufacturer of permanent remote-mounted vacuums for home, boat and RV use.

InterVac Design vacuum systems consist of a rugged polycarbonate-plastic power unit weighing around 9 pounds and measuring $9\frac{1}{2} \times 8\frac{1}{4} \times 3\frac{15}{16}$ inches. Of course, this is no ordinary plastic box; inside is a small, yet powerful, 12-amp, 120-volt AC motor creating impressive suction that makes the RMH model (remote mount hanging) practical for RV installations. The vacuum uses an internal five-layer hypoallergenic filtration bag to catch and contain all debris. The company also backs up its fully American-made products with an astounding sixyear guarantee.

Without a doubt, the best attribute of the InterVac is its chameleonlike ability to adapt to nearly any situation. No matter what style or shape your RV, the InterVac has an application that will suit just about any installation configuration. This is especially notable for the RM series, if you're seeking a truly custom remote-mounting location. The unit is designed for mounting in a basement or outer compartment. However, just because this particular model is primarily intended for a basement installation doesn't limit the installation possibilities. With a little imagination, the unit can be installed in any area deemed dead space, which is exactly where we installed this vacuum.

Most InterVac models can be mounted by securing to a floor, flush mounting or hanging on a wall, as long as there's enough "breathing" space for the machine. To begin this install, the



(7) Romex wire was routed from a power outlet box in a nearby compartment to the area where the vacuum housing was mounted. (8) A new power outlet was installed next to the vacuum housing, which has a pigtail with a standard plug that can be connected directly to the outlet. The vacuum can also be hardwired into the 120-volt AC system.



(9) The inlet valve picks up power from the vacuum housing. When the flap is lifted for inserting the hose, the motor starts automatically. (10) The backing plate for the inlet valve provides a seal between the hose and plumbing to the vacuum housing. (11) Configuring the pipes requires the use of PVC cement to make necessary connections for routing the hoses from the vacuum housing to the inlet ports, including the VacPort. (12) The whole works fits nicely in the compartment, and there is easy access for changing the dust bags and filters. (13) A 30-foot hose provides good reach to all points inside the RV. Standard-type tools for cleaning carpets, floors, window coverings, etc., attach to the end of the hose and are included in the kit. (14) When the door to the VacPort is lifted, LEDs illuminate the area where debris can be swept into the opening without bending down.

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CLEAN MACHINE

most important step is to find an ideal location to suit individual needs. Making sure there's a good 120-volt AC power source that can be tapped into via a plug or hard wiring is one of the primary requirements. We used some completely out-of-the-way space under drawers that was not being utilized and had access to a power connection relatively close by. If it's necessary to route power to the vacuum housing, a receptacle and Romex wiring can be directed to the appropriate area.

After locating a home for the vacuum housing of the RMH, the install procedure relies on the well-written instructions, which have all the necessary mounting templates, which are very accurate. Tape the cutout template to the chosen mounting surface and begin by marking the four screw positions with a pointed tool, like an awl. Since the template will likely not be needed again, just drive the screws right through it and remove it once all four screws have been set, leaving about ½ inch of the screw head sticking out.

The next step involves hose and duct routing, which is ultimately dependent on the number of inlet valves used (for connecting the hose) and where they are located. In our case, we installed one valve in a central location. Use of the backing plate provides a proper seal between the hose and plumbing. At this point it's a matter of configuring the 2-inch PVC pipe and connectors (using the appropriate glue and primer) and any other items to facilitate the install such as cable ties and hose clamps. As mentioned earlier, unleash your imagination and creativity when designing the installation.

We also opted to install a VacPort, an inlet that is installed floor level at the base of a cabinet. It takes a little more effort to integrate this component into the system, but it allows debris to be swept close to the port and sucked into the vacuum bag without using the hose. The kit comes with the correct cutout pattern and a selection of flex hoses, elbows, T's, Y's and pipe that can be run between the vacuum and valves. When the flap on the VacPort is lifted, a pair of LEDs illuminates the area, the vacuum motor starts, and the debris is sucked away as it's swept into the opening. Obviously, the VacPort is best mounted where there is no carpeting. The vacuum is also activated every time any port door is lifted for inserting the ultra-user-friendly lightweight hose that stretches to 30 feet.

Pretty much all that's left to do is the wiring. In most cases, when using the RMH (the model with the attached power cord and plug), no serious wiring is needed, as it simply plugs into a receptacle. For this particular install, we opted to run Romex wire from another outlet to a new one we had mounted on the floor right beside the vacuum housing. Coincidentally, the plastic outlet box was also mounted in such a way to help lock the RMH in place and allow it to be removed quickly for any servicing such as replacing an exhaust filter.

Aside from finding the most suitable 120-volt AC power source, the only other wiring necessary is to the square and VacPort inlet valves. Two 20-gauge low-voltage wires are routed from each valve to the two yellow remote power wires located in the bottom side of the vacuum housing.

Once the installation is completed, using the InterVac RMH takes no more effort than plugging in the stretch hose along with your favorite tool from the convenient and highly functional attachments, which are part of the included kit that offers all the basics. Additional tools and accessories are available. Dust bags can be purchased from the manufacturer or from online suppliers and can be replaced by removing the door on the vacuum housing, pulling out the full bag and tucking the collar from the new bag over a pipe.

The RMH model, part of the RM-120 series, can be found at Camping World and on the Internet for around \$265; the VacPort is another \$37. Both make great tools for streamlining cleaning of any RV while conserving precious storage space.

InterVac Design 888-499-1925, www.intervacdesign.com



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BD DIESEL PERFORMANCE'S REPLACEMENT

INTERCOOLER CAN REDUCE EXHAUST GAS TEMPERATURE AND HANDLE INCREASED TURBO BOOST PRESSURE

ouring the changing countryside has always supplied plenty of adventures, smiles and unique experiences, but it's also important to keep our tow vehicles happy, since they're what make the trailering lifestyle possible. It could be argued that the most popular tow vehicle these days is a ¾-ton or 1-ton pickup on a turbocharged diesel platform. For any of these modern diesels to really perform to full capability, exhaust gas temperature (EGT) should be monitored regularly to avoid exceeding temperature limits, especially when making tuning modifications.

One method of achieving lower EGT is to improve the flow characteristics of the air charge going into and out of



BD Cool-It intercooler end tanks have a 3¹/₂-inch diameter and use larger spring clamps.
 The grille is attached to the hood on this Dodge Ram truck, which provides plenty of clearance for the intercooler swap.
 The factory intercooler is situated behind the air-conditioning condenser.
 Bolts are removed from the brackets holding the air-conditioning condenser in place.
 Once the air-conditioning condenser is out of the way, the path is cleared for access to the factory intercooler.
 Clamps that hold the intercooler to the tubes are loosened and removed.

DON'T LOSE YOUR COOL

the turbo — most importantly, from the turbo to the engine's intake. Switching out the factory intercooler with an upgraded unit from an industry-leading diesel performance company like BD Diesel Performance can drastically improve the intake-flow characteristics, while resulting in reduced EGT. All this is easily achievable due to design, construction and sheer size differences.

Several factory-issue intercoolers are assembled using a combination of build materials such as plastic end tanks (aka end caps) and the inlet and outlet coupled to a series of aluminum cooling rows that are often referred to as "stuffed tubes." This is especially true for the 2005 5.9-liter Cumminsequipped Dodge Ram test subject. Aside from the stuffed tube design having lower boost capabilities in the 20- to 40-PSI range, building the intercoolers in this manner may make them sufficient for a stock application, but once performance enhancements such as a tuner, bigger injectors, etc. are



(7) Access to the clamps holding the passenger-side boot is a little tight but can be handled easier with air tools.
(8) The upper bolts that secure the factory intercooler are removed.
(9) Once the bolts are removed, the factory intercooler can be pivoted up from the lower U-shaped isolators.
(10) The two upper rubber isolators are retained and installed on the new BD Cool-It intercooler.





added, the original intercooler may lack adequate cooling efficiency.

It's for this reason that BD Diesel produces its Cool-It intercooler using all-aluminum construction. The Cool-It intercooler starts with extra-thick cast end tanks welded to a large rectangular radiatorlike housing containing several rows of BD's specially designed micro-extruded tubes. These tubes are capable of withstanding boost pressure of up to 100 PSI while also providing up to a 95 percent heat-conductivity transfer versus the stock 82 percent. (11) The intake pipe can be separated from the intake manifold to make a little bit more room for reaching the intercooler boots. (12) New boots and clamps are installed to accept the placement of the BD intercooler. (13) The stock intercooler (front) has plastic end tanks and a stuffed tube design; the BD unit has extra-thick cast end tanks welded to microextruded tubes. (14) The BD kit uses high-quality boots designed for long-term durability.

The result of the BD intercooler installation is lower EGT and the ability to handle higher boost pressure. It all comes down to pressure management. Lower boost-pressure drop across the intercooler from inlet to outlet results in a higher volume of flow. The higher the flow volume, the lower the EGT because of increased efficiency. What's involved in installing such a creature? For a seemingly complicated component, installation is a fairly straightforward job with very few connecting parts or other obstructions that can get in the way. In fact, the intercooler sits directly in the front portion of the engine compartment just behind the grille.



DON'T LOSE YOUR COOL

With the hood open (in this Dodge Ram truck, the grille goes with it), the process starts by removing the plastic air-conditioner-line protector. With the cover out of the way, four bolts will be revealed, which secure the air-conditioning condenser to the front of the factory intercooler. Once all four bolts have been removed, the condenser can be carefully rotated up about 90 degrees toward the passenger's side to clear the factory intercooler, providing access to its boots and clamps.

While in this position, it's best to take a minute to tie the air-conditioning condenser to the opened hood using steel wire or a coat hanger. (You can also solicit the help of two people to lift and hold the condenser during the intercooler removal.) While prepping other parts in the BD Diesel Performance Cool-It kit, the condenser can rest gently on the frame.

After the condenser is stable, the original boot clamps are loosened from



(15) With the new boots installed, the original rubber isolators are put in place before bolting the BD intercooler into position. (16) At this point the intercooler should be resting on the U-supports on the cross member. (17) The last step is repositioning the airconditioning condenser, followed by the line protector. (18) Spring clamps must be tight enough to make a good seal between the tubes and the new intercooler.



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the intercooler side, allowing freedom of movement for removal of the factory unit by extracting four retaining bolts from the radiator support area. The original equipment intercooler was completely disconnected from the boots. We found that it was practical to separate the intake pipe from the intake manifold near the cylinder head and push it out toward the front of the truck a little bit to make reaching the intercooler boots a far easier task.

From here, the original boots and clamps are dismantled, making sure to remember the location of the clamp on the driver's side, as it will need to be installed properly to avoid foreign contact.

The original boots and clamps are then replaced with the supplied pieces from BD, mounting the clamps on the boots before installing the new intercooler. This is also the time to install the original rubber isolators into their corresponding locations. With the hose clamps tightened, the new intercooler can be maneuvered carefully into the new boots and rested on the U-supports on the cross member. At this point you have the option of using the new or factory hardware; either will do the job, but the original stuff will help retain a stock appearance.

With the new intercooler bolted in place, the boots get their final adjustment and are then secured, making sure the spring clamps are tight enough to make a good seal. If you loosened the intake pipe from the intake manifold, don't forget to retighten it. The last step simply involves reattaching the air-conditioning condenser to the Cool-It Intercooler, followed by the line protector.

The upgrade to BD's Cool-It intercooler immediately displayed significant signs of improvement over the factory unit. Right off the bat, there were large drops in EGT, easily surpassing more than 200-degree differences while under load. On top of that, there was noticeably smoother acceleration, not to mention a minor power gain, which was felt in the seat of the pants.

Besides the improvement in EGT, this upgrade has other potential gains and improvements. Foremost is the added strength. Switching to an intercooler of this caliber eliminates the associated weakness of plastic end tanks and their inherent nature to rupture with added boost. The Cool-It intercooler also has the added benefits of increased longevity of the turbo and engine, and the potential for higher power output if other aftermarket parts are added.

For a one-time investment of around \$1,200 and a couple of hours of labor (using common hand tools), the addition of the Cool-It intercooler is a good option, especially for owners pulling large trailers and running aftermarket performance upgrades.

BD Diesel Performance 800-887-5030, www.bd-power.com







Curt Gives You a Brake

Curt Manufacturing recently introduced its TriFlex proportional brake control. so named because it uses a triple-axis accelerometer to sense the inertia of the tow vehicle, allowing it to accurately apply the appropriate amount of power to the trailer brakes. The brake control is easy to install, can be mounted at various angles and is ready to use in fewer than 10 minutes, according to the company. The sensitivity adjustment feature allows the user to customize the brake control based on varying trailer loads or driving conditions. It is compatible with advanced multiplex electrical systems and electric-over-hydraulic braking systems, and can be used on trailers with up to four axles.

MSRP: \$136.38

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Trilogy Tonneau

Leer has introduced a folding hard tonneau named Trilogy. The Trilogy's aluminum truck bed cover is constructed with a special alloy hardener and treated with a UV-resistant fluorocarbon for dent resistance and a colorfast finish. A pair of LEDs illuminate the interior of the truck bed, making it easy to see stowed gear and latches. At folding points, extruded aluminum hinges are double sealed to channel water to the outside edges of the bed, keeping gear dry. Adjustable tie-down straps hold the cover securely in place when folded back, leaving two-thirds of the bed open and accessible. The new Trilogy tonneau is available exclusively through Leer dealers.

MSRP: Starts at \$989

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A Faster Screwdriver

RVs are made up of a lot of screws. Now it's easier to tighten or remove them with the new 4V Max lithium rechargeable pivot screwdriver by Black & Decker. An included micro USB wall charger supplies the screwdriver with a 400-milliamp charge rate, and the tool's handle rotates 90 degrees to allow for pistol grip or inline orientation. In addition, the screwdriver accepts any micro USB-to-USB charging cable (not included), so it can be charged from a variety of ports. The lithium battery holds a charge for up to 18 months, according to the company, and the state-ofcharge display allows you to keep tabs on battery condition. Bits and accessories are included.

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Modern Fuels

After the purchase of your RV, the next largest expenditure is probably fuel. It takes a lot of energy to move all that weight around, which can be costly — regardless of the type of RV you choose. So it's important that we understand at least the basics of the fuel we use and how to choose the right type for the best value.

Diesel

Diesel fuel is a thicker and lowerpetroleum distillate than gasoline and contains more energy. Diesel fuel contains about 129,500 British thermal units (Btu) of energy per gallon, compared to approximately 114,000 Btu for gasoline, which works out to 13.64 percent more energy content. This is a significant part of the reason why diesels get about a 30 percent improvement on fuel economy than gasoline engines.

For the 2007 model year, the U.S. Environmental Protection Agency (EPA) made diesel emission standards stricter, reducing the allowable sulfur content from 500 parts per million (PPM) down to 15 PPM. To meet the stricter regulations, ultra-low sulfur diesel fuel (ULSD) was mandated for 2007 and newer diesel vehicles. That's because ULSD enables advanced emissioncontrol systems.

Pre-2007 models can also use ULSD, and as a result, almost all diesel fuel now sold is ULSD. Refiners put lubricity additives in ULSD to make up for the loss of sulfur, but some owners have concerns that it isn't enough. Lubricity additives are available at most truck stops and auto-parts stores.

Many diesel engines now also require a special diesel exhaust fluid (DEF) that must be put in a separate tank on a regular basis. This water-andurea-based additive allows the selective catalytic reduction (SCR) emission control system to scrub the exhaust and dramatically reduces harmful oxides of nitrogen. Special detection sensors prevent owners from cheating and adding plain water to the tanks.

Instead of the octane rating used for gasoline, diesel fuel has a cetane number (CN). Basically, cetane is a measure of the time from the beginning of fuel injection until the start of the pressure rise due to combustion. A higher cetane fuel lights off faster than a lower cetane fuel.

After an initial delay, diesels "knock" when the fuel injected into the cylinder ignites suddenly. By

reducing this delay, there's less raw diesel fuel at the start of combustion and less knocking. Therefore, diesel fuel with a higher cetane

Many fuel treatments are available to combat the effects of ethanol. Older vehicles and those that aren't used often are more likely to develop fuel-related problems. rating allows engines to run more smoothly and quietly.

Diesel engines generally run best on fuels having a cetane rating between 40 and 55. The higher the cetane rating, the more quickly and readily the fuel ignites in the engine. Igniting faster after injection allows more time for combustion and the necessary pressure rise to occur during the power stroke. Hence, modern higher RPM diesel engines run noticeably better on higher cetane fuel.

California diesel fuel has a minimum cetane rating of 53. Most other states go by diesel fuel standard ASTM D975 and set the minimum cetane number at 40; typical fuels range between CN 42 and 45. Biodiesel made from vegetable oils typically has a CN range of 46 to 52, whereas biodiesel made from animal fats ranges from CN 56 to 60. The majority of diesel engine manufacturers permit the use of B20 biodiesel (which contains 20 percent biofuel and 80 percent petroleum-based fuel), while many older models were approved to use only up to B5 (5 percent biodiesel). This should be listed in the operator's manual.

You may also find premium diesel fuel for sale. It typically claims to have extra lubricity additives, water dispersants and more detergents to clean injectors and minimize soot and carbon formation. However, no official standards for premium diesel fuels exist; therefore, additives and cetane ratings vary by supplier.

The color of diesel exhaust smoke can tell you what's going on in the engine. White smoke is from incomplete combustion and misfiring; it should go away as the engine warms up. Heavy black smoke may be caused by faulty injectors, restricted air filters or intakes, heavy loads or excessive fuel delivery (such as aftermarket racing kits). Blue-gray smoke is caused by burning engine oil and typically is a sign of a worn engine or faulty turbo seals.

Regular warm-weather diesel fuel



is called No. 2. During cold temperatures, No. 2 diesel may thicken and gel or form wax in fuel filters, etc. Although some engines come with fuel heaters to aid cold starts and operation when temperatures are expected to drop to about 10 degrees Fahrenheit or colder, No. 1 diesel fuel should be used in very cold climates. It is less viscous and flows easier in low temperatures, but there are drawbacks. No. 1 diesel fuel contains about 5 percent less energy than No. 2 fuel, and mileage is correspondingly less. No. 1 diesel also offers less lubricity for injectors and fuel pumps. Special cold-weather additives (found at truck stops) also can be used to improve winter fuels.

Diesel fuel can be stored for about six months to a year without significant degradation if it's kept clean, cool and dry. Fuel stabilizers and biocides should be added to the fuel before storing to prevent degradation and microbial growth.

Gasoline

Gasoline vaporizes rapidly, which allows for quick cold starts but also results in fuel entering the atmosphere from refueling operations and storage (fumes escape from tank vents into the atmosphere). Reformulated gasoline was introduced years ago in certain areas to help eliminate this problem and continues to be used in many regions. Its volatility (measured as Reid vapor pressure or RVP) is adjusted to match anticipated temperatures. During warm seasons, gasoline is blended to evaporate more slowly, while cold-weather blends are designed to be more volatile for easier cold starts.

Regular grade gasoline is generally 87 octane, although some high-altitude regions use 85 or 86 octane as regular, which performs similarly to 87 octane near sea level . Midgrades are typically 89 octane, while premium ranges from 91 octane in California to 92 or 93 in the rest of the country.

An octane rating measures a gasoline's resistance to detonation. Detonation is abnormal, premature fuel combustion, occurring prior to the spark plug igniting it. Detonation



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(which occurs when an engine is under load) sounds like metallic rattling or "pinging" and stops if you ease off the accelerator pedal. If detonation continues for an extended time, severe engine damage such as broken pistons may occur.

Most computer-controlled gasoline engines have "knock sensors" that "listen" for the characteristic sound frequencies of detonation. Engine controls then retard spark timing until detonation stops. With these systems, drivers may not hear detonation, but when ignition timing is retarded, power and fuel economy both decline. Selecting the correct octane for the engine's operating conditions (without getting more than needed) can save money.

Octane requirements vary continuously according to the engine's temperature, load, speed, air-fuel ratio, air pressure and temperature, and other variables. Most gasoline engines used for RVing have relatively low compression and are designed to run on regular gasoline. Under extreme conditions, such as a heavy load on a long, steep climb on a very hot day, even engines designed to run on regular grade may ping when using it. Therefore, owners must consider all factors when selecting the proper octane for expected conditions.

Thanks to crafty advertising, many motorists believe that premium gasoline has more energy per gallon than lower grades and that it makes more power, thanks to stronger combustion. In fact, higher-octane gasoline ignites slower and is more resistant to combustion.

Some drivers also think they're giving their vehicle's engine a special treat if they buy a premium grade, even if their engine doesn't require it. The truth, though, is that when a higher octane isn't required, you're wasting money on premium gasoline.

Ethanol

Most gasoline sold at U.S. filling stations is actually a blend of 90 percent gasoline and 10 percent ethanol, along with trace additives.

Recently, the EPA ruled that E15 (15 percent ethanol, 85 percent gasoline) may be sold to the public if the fuel manufacturer meets various conditions, which include a plan for minimizing the potential for E15 to be used in vehicles and engines not covered by the partial waivers. A number of additional factors, including requirements under other federal, state and local laws, may also affect distribution of E15. Some companies have met all Clean Air Act requirements related to E15 and may sell the fuel. The following vehicles may use E15 blends: flexible-fuel vehicles (FFVs), model year 2001 and newer cars, light trucks and SUVs.

Fuel labeled E85 contains 85 percent ethanol and 15 percent gasoline, and should be used only in engines designed specifically to accommodate it. A vehicle designed to run on E85 typically will be labeled Flex Fuel. Be sure to verify this before filling up with E85, which is often less expensive than other blends of gasoline, so it's tempting to buy.

Ethanol contains about 30 percent less energy per gallon than gasoline. Therefore, E10 contains about 3 percent less energy per gallon, while E85 contains about 25.5 percent less energy than straight gasoline.

Gasoline deteriorates during storage, with the more volatile fractions evaporating, and the chemicals oxidize and break down, forming gummy and hard deposits. Ethanol may also cause material failures, such as corrosion and deteriorated rubber hoses and parts in fuel systems. Ethanol blends also suffer from phase separation, which occurs when the fuel absorbs moisture from the air (such as condensation) and results in the alcohol pooling in the bottom of the tank.

Gasoline generators contain tiny carburetor jets that are subject to clogging from stale gasoline. Sometimes this occurs within a few months during storage. Fuel additives such as Sta-Bil can prolong the life of fuels and should be used when an engine will be out of service for more than about a month. These products are available in RV and auto-parts stores.

Considerable savings can be achieved by price shopping for fuel. It's possible to check online for fuel prices, and there are even phone apps available. Try searching www.find fuelstops.com, www.gasbuddy.com and www.gaspricewatch.com. For those who want ethanol-free gasoline, go to www.pure-gas.org for the locations of stations that sell it.



Volant Performance Air Intakes

Volant Performance has introduced two new closed-box air-intake systems for 2012 to 2014 Ford F-150 pickups equipped with the 3.5-liter EcoBoost engine, including the F-150 Tremor. The Volant Pro 5 and PowerCore systems protect the intake from high engine-compartment temperatures characteristic of turbocharged engines. A cooler, denser air charge decreases turbo lag, delivers better fuel economy and enhances towing performance.

The Pro 5 (part 19435) is engineered with Volant's high-performance fivelayer air filter made of textile media that's pleated between a top and bottom aluminum screen. Made to last for the life of a vehicle, Pro 5 filters should be cleaned and re-oiled every 10,000 miles, or as needed, using Volant's two-stage cleaning kit.

The PowerCore (part 194356) is designed with Donaldson PowerCore filtration technology featuring advanced Ultra-Web nanofiber filter media, which captures submicron contaminants on the surface of the media, promoting lower airflow restriction and longer filter life.

Volant's air-intake and exhaust systems are available for a variety of truck and SUV applications. For more information and a list of retailers, visit www.volant.com.



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Brute Strength

Husky's electric A-frame jack with remote control makes easy work out of hitching and leveling a travel trailer

DIFFICULTY		1	2	3	4	5
TIME TO COMPLETE		30-	45 I	MIN	IUTI	ES
TOOLS NEEDED	SOCKET SET/WRENCH, WIRE CRIMPER					



Standard issue manual A-frame jacks are not that convenient and consume a lot of energy while cranking by hand. Husky's Brute 4500R electric jack is a direct replacement.

nyone who tows a trailer knows that setup, breakdown and leveling are not always fun for those who have to crank a manual A-frame jack. A staple of conventional trailers, the basic manual jack is a pretty crude piece of equipment that can require enough effort to bring on a good sweat, even on a not-so-hot day. If you've got a toy hauler, the amount of effort is usually greater due to the length of travel required to clear the ball on many models, not to mention the hefty hitch weight.

Electric A-frame jacks are the solution for those who want to streamline the hitching and unhitching process, but not all are created equal. Husky Towing Products offers a heavy-duty electric jack that takes convenience a step further by including a remote-control key fob. The Husky Brute 4500R is a truly heavyduty jack (rated to 4,500 pounds) that uses a 2.25-inch steel tube and a ball screw assembly, which allow ball bearings to roll through the shaft's threads and nut versus the more

ENERGY SAVER 》 The Husky Brute electric A-frame jack is designed to lift up to 4,500 pounds, which will handle just about any trailer. Ball bearings reduce friction and amp draw while increasing the projected life of the jack.

standard ACME screw that's used on many other brands. By using ball bearings, the jack benefits from less resistance because it's subject to rolling friction instead of sliding friction. This allows the jack to draw less amperage while reducing wear, heat and noise — and increasing the projected life of the jack and motor. Take all this and add an awesome remote-control feature, and you've got the ultimate A-frame jack.

Having the remote option allows for much simpler and faster hookups. When it comes to leveling, the user no longer has to make multiple trips to the side of the trailer to check on attitude; all one has to do is push buttons until fore and aft positioning are correct. On top of the convenient remote abilities, the Brute 4500R also comes equipped with three LEDs and an industry-exclusive connector storage bracket — at last, a place for the trailer pigtail when in camp or storage.

Installation of the Brute 4500R requires very little mechanical expertise since it's a direct replacement for the crank-up jack and only a single wire needs to be connected. After chocking the tires and safely supporting the Aframe on jack stands, the three bolts holding the original jack are removed and the assembly is pulled away. The Brute 4500R is bolted up in minutes; nuts are not needed if the coupler structure is threaded. Husky doesn't include new bolts and flat washers but does provide three star washers necessary for digging into the paint on the mounting plate to ensure a good electrical ground. If, for some reason, the old bolts are in poor condition or just too short, they should be replaced with grade-5 bolts with matching flat washers (and nuts if needed).

From here, the only remaining assembly portion is wiring. Take the included circuit breaker and find a suitable location for it somewhere in or near the battery box, which should be only a short jaunt from the new jack. Next, run the appropriate wire (labeled "load" on the circuit breaker) to the jack's single 10-gauge lead



(Top) The key-fob-style remote for controlling the electric jack shaves a lot of time off the hitching and leveling processes. (Above) An adjustable extension adds 6 inches to the 18-inch leg provided by the electric jack.

wire and the other wire from the breaker directly to the positive post on the battery.

The Brute 4500R performed flawlessly, and the adjustable down leg offers an additional 6 inches of travel to the jack's 18-inch stroke. A SmartStop feature shuts down the power to the motor before the hard stopping point, which reduces stress on the jack. The model with the remote-control key fob sells for around \$280.

While standing at a distance to

view the side of the trailer, the Brute had no problem responding to the remote control. Finally, no more sore arms from cranking a manual jack and the associated energy expended when hitching and leveling. This is a great upgrade for anyone looking for a high-quality electric A-frame jack, especially for those who hook up or level solo on a regular basis.

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TUNDRA FUEL SUPPLY

I have a 2007 Toyota Tundra 5.7-liter 2WD shortbed with the towing package. The problem is that the fuel capacity for this truck as a tow vehicle is drastically inadequate. Currently, fuel mileage is 14 to 16 MPG at 70 MPH on open highway without the trailer. I'm looking for suggestions for improving the range of the vehicle. I understand Toyota has a large-capacity gas tank on the newer Tundra. Is this an option to extend the mileage on my current truck, or are there any additional solutions to extend the range, such as a Bully Dog GT Tuner or alternative product?

Bill Ehler, Helotes, Texas

A Retrofitting the new fuel tank to your truck would be an expensive proposition, even if it would fit, Bill, so the aftermarket is your best source in this situation. Aftermarket fuel tank manufacturers sell products designed specifically for your truck, and they're also made for the easiest possible installation. It doesn't help fuel economy, but at least a larger tank would improve the range. Transfer Flow (800-442-0056, www.transferflow.com) is a good source for tanks of this type.

If your truck is equipped with a towing package, it probably has a 4.30:1 rear axle ratio, which could cer-



tainly affect highway MPG. Depending on the weight of your trailer and your truck's tow rating, you may consider stepping down to a higher (numerically lower) gear ratio that would improve highway fuel economy at the expense of some low-end pull.

There are indeed numerous aftermarket engine chips, air intake, performance exhaust systems and the like that could help your truck, but each represents only an incremental potential fuel-economy increase.

There are so many variables when using such products that no one can make a solid guarantee of a given amount of improved fuel-economy performance. Your best bet is to browse the user forums for such products and see what other Tundra owners are saying about their results. That's the kind of real-world feedback that can help you determine what's best for your situation. — Jeff Johnston

FUELING AND PROPANE SAFETY

In September's RV Clinic, Marc and Katherine Pickard asked about leaving the propane on when fueling, and I remember the answer from years past. However, there is one question that I don't remember seeing anything written about it. I realize that some of today's RV refrigerators can also run on DC power, but what is the practice for older vehicles traveling with the freezer full and the propane selected to keep things cool? A It doesn't matter how old your RV is; the same rules for safe fueling and propane use apply. When you shut down the refrigerator at a gas station, it's off for only 10 or 15 minutes, tops. Restart it when you hit the road, and you're good. Those few minutes of shutdown time are not going to dramatically affect the temperature inside the refrigerator. — J.J.

HOT CONVERTER

The converter in my RV stays hot. Is this normal? Should the converter be cool after the battery is charged when nothing in the trailer is on? Jerry Polasek, La Grange, Texas

A Regardless of power consumption, Jerry, the converter always has its circuit powered when the trailer is plugged in. That usually includes the electronics plus a large power transformer (or two), and those parts run warm even if they aren't supplying any extra juice to the trailer's components. As such, it will always feel warm to the touch. Unless it gets really hot, there's nothing to worry about. — J.J.

PIN BOX FLEX

F32SB2 with a MOR/ryde RPB72-765-06 pin box. Weight on the pin box is 2,920 pounds. When I lower the Cameo onto the truck's fifth-wheel hitch, the pin box will flex up ¹/₄ inch when all weight has been removed from the

Don and Debbie King

Buzzards Bay, Massachusetts



THE TECH TEAM

KEN FREUND: Ken is a former ASE Certified Master Technician, service manager and shop owner who has authored numerous books on automotive repair.

JEFF JOHNSTON: Jeff served as technical director of *Trailer Life* for 19 years and has been an RV enthusiast, mechanic and writer since he could hold a wrench.

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RV CLINIC

landing gear. This measurement was taken from the top edge of the pin box to the bottom edge of the front cap.

I dropped the chin metal — the metal skin on the trailer that covers the components — and checked all the welds, gussets, cross braces and main frame braces, and found no cracked welds or cracked frame members. I then used laser lights and measured pin box/frame movement. I found that the pin box moved up $\frac{1}{4}$ inch, and the front cross member where the pin box crossed it also moved the same amount. In each front corner, where the front cross member attached to the side frame, there is ¹/₈-inch upward movement. The front cap does not move, and there is no pulling apart of the front trim caulking, nor is there any wall bulging, buckling, movement or cracking.

I have researched this and asked several employees at RV centers. I have gotten answers ranging from no movement at all to up to 1 inch is OK. My question is, is there a problem? And if so, is there a remedy? **Chuck France, via email**

I don't believe there is a problem, A Chuck, so there is no remedy if there's no problem. Every mechanical structure will experience some deflection or movement variance between an unloaded and loaded state. This is especially true with something like a fifth-wheel pin box that's cantilevered or angled between its loading point and its support point. In this case, $\frac{1}{4}$ inch of movement is next to nothing. That movement can be accounted for by simple torsional flexing of the steel frame structure. The fact that you've found no cracks, bad welds, seam splits or other flex-related side effects indicates that your trailer is fine.

The amount of flex will vary greatly between trailer manufacturers. Some use commercial frames, others build their own frames in-house, and each builder loads the frame down to a different degree. You should have nothing to worry about, but keep an eye on those seams and joints to monitor the structure. — J.J

POP GOES THE CHASSIS

Just took our 2014 Forest River Wildcat on an 8,000-mile trip. While driving, we heard a loud "pop." We stopped and checked the fifth-wheel, and did not see anything out of the ordinary. Since then, the fifth-wheel portion of the trailer moves up and down $\frac{1}{2}$ to 1 inch when it is hooked or unhooked - not just the hitch, but the whole front quarter of the trailer. There are now gaps in the moldings, between the fireplace and wall, and a ³/₈-inch bolt has come out from the upstairs. It is currently at the dealership, who says it was just a couple of screws that broke out under the outside front molding. Does this sound correct? What steps should we take now?

Eddie Bryant, Clarksville, Tennessee

From your description, Eddie, it seems as if your trailer made the "pop" noise loudly enough for you to hear it while you were driving. See the previous letter; in your case, it seems pretty serious. That ¹/₂- to 1-inch movement in itself is something to look at, and the gaps in the moldings and the wall, and the loose 3/8-inch bolt indicate something major has broken. One 3/8-inch bolt by itself would not do this, and neither would a couple of screws under the molding. This is a structural problem and is important. It could be a major break in a weld or frame component that's allowing all that flex. Have the dealer open the skin in front or do what they need to do to inspect all the major frame joints near the entire raised part of the trailer up front and the frame components. They'll probably find a significant failure that needs repair. This could be expensive, so you're lucky your Wildcat is under warranty. — J.J.

LED LIGHT FEEDBACK

I installed LEDs in the bathroom and over the dining table, and they work great. But when I turn the light on in the bathroom, we lose most of the television stations on the TV. We use the antenna all the time but have to remember to shut off the light with LEDs. The trailer is a 2012 Forest River Flagstaff. I'm guessing that the antenna wire is run close to the bathroom light and that's why it's losing the signal to the TV. What can I do, short of putting the old bulbs back in?

Bob Hines, Southgate, Michigan

Even though they're a great accessory idea, those LED lights aren't infallible, Bob. They include a small circuit board to power the lower-voltage LED bulbs from the RV's 12-volt DC power supply. That circuit board could be defective and providing some type of strange interference with your TV signal. Turn on the TV that's impacted by the questionable light. Remove that one bulb and see if the signal reception improves. If so, try swapping in another LED bulb from elsewhere in the RV and see if you still get the same type of interference. If not, you know that one LED unit is probably bad. If you get the same interference, try visiting your local RV-accessory dealer and asking if you can try an LED fixture from a different manufacturer. That may also solve the problem. — J.J.

ERRATIC SLIDEOUT BEHAVIOR

In September's RV Clinic, Don Scheibe detailed his RV's problem with the slides working sporadically. I experienced similar problems with my system two different times. One time was a loose connection on the solenoid relay on the hot side. Loose connections will heat up and cause this type of problem. Also, he should check to make sure the grounding is adequate. It's a good idea to remove and clean the ground wire, as this was the cause of the problem one of the times this happened. A low battery is also a potential cause. Remember to disconnect the power source charging the battery when checking the battery's state of charge. If you check the voltage with the charger on, it will always test at 12-plus volts. Roger Endo, Monkey Island, Oklahoma

Really enjoy reading the questions and answers in RV Clinic! Regarding Don Scheibe's September letter about slideout (continued on page 70)



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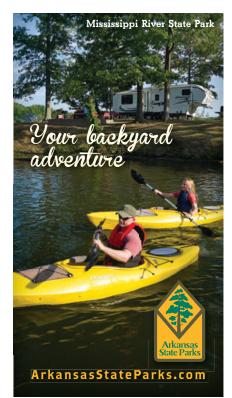


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Classifieds					
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144 DISH Network					
Dealers & Destinations					
105 Desert Gardens RV Park 29					
113 Firestone Industrial					
Products Co					
116 GMC Sierra76					
Good Sam RV Loans					
Good Sam Roadside Assistance 62					
Good Sam Travel Assist55					
Good Sam Visa8					
Harbor Freight Tools47					
117 Heartland Recreational					
Vehicles, LLC13					
118 Hensley Manufacturing Inc 19					
102 Highland Ridge RV, Inc 7					
120 Honda Generators5					
131 iBall Hitch Cam71					
124 Lance Campers 24					
128 Maxxis International 30-31					
136 Monochem46					
106 New Horizons RV Corp 65					
129 Northwood Mfg19					
130 NuWa Industries52					
Phoenix USA Inc70					
132 Progressive Insurance					
135 RVdirect.com59E					
112 RVRoof.com 71					
RV Marketplace66-67					
137 Sea Eagle57					
107 Starcraft Recreational Vehicles2					
138 Sunbrella Brand Fabrics75					
Smokey Bear48					
139 Thetford Corporation 16-17					
108 Torklift International 53					
Trailer Life TV 64					
141 Transfer Flow Inc 65					

EDITORIAL PRODUCT INDEX					
RS#	ADVERTISER	PAGE#			
148	Black and Decker	54			
146	Curt Manufacturing	54			
145	Heartland Big Country	32			
147	Leer Trilogy Tonneau	54			
149	Rand McNally	54			

While every effort is made to maintain accuracy and completeness, last-minute changes may occasionally result in omissions or errors. (continued from page 65) problems on his Keystone Challenger, I encountered a very similar problem on our '07 Keystone Big Sky. I was about to pull my hair out and finally remembered some F-16 Fighting Falcon anomalies I encountered in days gone by. *Grounds*! I chased down the ground connections, cleaned them and ensured good metalto-metal contact, and the intermittent issues went away.

Chris Whitsitt, Granbury, Texas

A Thank you for the suggestions, gents. A seemingly simple matter like corroded electrical contacts can waylay an electric-powered machine in a hurry, so checking these connections is your first and least-costly line of defense. — J.J.

SLIDEOUT GEARBOX LUBE

RV's slideout motor gear mecha-



nism. What grease should I use? The nylon gear is between two metal gears. Jimmy L. Siron, West Bethesda, Maryland

A Heavy-duty bearing grease can be used on internal gears within the gearbox. I recommend synthetic grease. — Ken Freund

PICKUP SAG

I have a 2014 Ford Super Duty F-250 2WD with a maximum payload weight rating of 3,640 pounds, and I tow a fifth-wheel that has 1,950 pounds pin weight in the bed. The truck has about 8 inches clearance from the top of the wheel to the lip of the rear fender. When I hook up to the fifthwheel, the clearance is 4 inches. Do I need to add an air-bag system to reduce this sag to 2 inches or less? **Charlie Holbrook, Marietta, Georgia**

A With a 4-inch drop in ride height, the driveline angularity may be affected. Sometimes this results in launch shudder or vibration at highway speeds. There also isn't much suspension travel before the rear axle bottoms out on the stops if you go over a bump or dip in the road. Therefore, you'll probably find that air bags will improve the ride and feeling of stability. **— K.F.**

RUBBER ROOF BUBBLES

I have a 2002 Arctic Fox travel trailer and noticed while washing the roof that there are two spots where the rubber roof is starting to lift. The bubbles are about 6 inches in diameter, although the roof hasn't leaked. Overall, the roof looks to be in very good condition and doesn't appear to be dried out. I store my trailer indoors in my shop and don't normally camp in the rain. Do I need to totally reroof, or can I simply repair it? **Rob Guerra, via email**

A This type of bubbling is quite common, although that doesn't make it right or acceptable. If it's only two spots, you don't need to reroof your Arctic Fox. If it gets larger, you might consider spot repairing those two areas, as the bubbles might open and cause leaks. If there's a tear in the membrane, pick up an Eternabond repair kit at Camping World or your local RV center and follow the instructions. — **K.F.**

LIFT KIT QUESTION

I currently use a 2005 Chevy Silverado with a 5.3-liter V-8 and a 3.23:1 gear ratio to pull a Jayco Jay Flight with a dry weight of 4,950 pounds, loaded to around 6,000 pounds. I use a weight-distributing hitch. I am thinking about getting a 2- to 4-inch lift on the truck (but not changing tire sizes) but am concerned about losing towing capacity. What affect will lifting the truck have on its ability to pull the trailer? Jon Raduns, Elizabeth City, North Carolina

Adding a lift kit does not affect towing capacity, but it might necessitate other changes. The amount of lift you mention is fairly minor, and many trucks out there tow with even more lift. However, the higher you raise the truck, the higher the center of gravity will be. A higher center of gravity can reduce stability, particularly when towing.

Also, the increase in height will change the driveline angularity and put more stress on U-joints. You might encounter more vibration at highway speeds and should have the truck checked and adjusted by a 4x4 shop, if the lift is installed. Angled shims can be installed between the leaf springs and axle pads. A good quality lift kit manufacturer will include components and instructions on how to correct any such driveline angle problems.

You'll also need to readjust the hitch height to a lower position so the truck and trailer still tow with the best level front-to-back positioning. Drop-down ball mounts are readily available from most weight-distributing hitch manufacturers to specifically address this type of hitch mounting. — **K.F.**

CHANGING A SOFA BED

had a query, "Changing a Sofa Bed." Please tell her to keep the sofa bed and dump the mattress. Get an Air Dream mattress, and I'm betting her brother will sleep like a baby. I have one in my RV, and it truly is a dream to sleep on. It deflates and folds back up into the sofa bed (bed linens and all) with no problem. Filling the air chamber is also very easy, and he can make it as firm or soft as he likes. The website is www.airdream.net.

Carolyn Putterman, St. James, New York

A Thanks for writing. I hadn't heard of this one before, but according to the website, the mattresses are available in a number of sizes. The company can be reached by phone at 877-924-7376. This is sure to help a number of readers with similar situations. — K.F. **\$**

HAVE A QUESTION?) Email our experts at RVClinic@trailerlife.com or write to RV Clinic, 2750 Park View Court, Suite 240, Oxnard, California 93036. No phone calls, please.

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Screen Lock Solution

We have enjoyed RVing for more than 40 years but have always wondered why RV screen doors come without a secure lock. We often leave the main door open to get fresh air, most often at night. Our solution involved a trip to a hardware store for three packages that include an Everbilt sash lock and nuts and bolts, a drill bit and a screwdriver. We attached the sash lock to the screen door, and the problem is solved! We've found that having a secure lock on the screen door comes in handy, especially when traveling with animals and young children. Our trailer has three steps, and with our 10-minute quick fix, we no longer worry about the kids or pets falling out of the trailer. I'm sure this will also give others peace of mind. **Burke Grilione, Fresno, California**





Magnetic Memories

We like to collect magnets from places we visit and, like many RVers, we didn't have a metal surface for displaying these keepsakes in our fifth-wheel. To solve this problem, we zeroed in on the wall next to our stove and paid a visit to a local hardware store. There, we bought a quart of Rust-Oleum magnetic primer and a quart of paint to match the interior (we took a piece of seam tape from the wall to the hardware store, and they computer-matched it as close as they could). I taped off the surrounding area with blue painter's tape and applied five coats of magnetic primer to the wall with a brush (the directions call for three coats, but I found it needed the extra two). Then I applied two coats of color over the primer. Another idea would be to cover the primer in whiteboard paint to double as an area to write notes, shopping lists, etc. Total cost was around \$40. **J. Richter, Lawrenceville, Georgia**

To send your submission, write to 10-Minute Tech, 2750 Park View Court, Suite 240, Oxnard, California 93036 or email 10minutetech@trailerlife.com. Please include an illustration or photo, if applicable. *Trailer Life* will pay \$35 for original 10-Minute Tech ideas.

QUICK FIX

Back It Up Safely

We recently purchased a new pickup that has a camera mounted high on the tailgate to aid in backing up to our travel trailer's A-frame coupler. To provide enhanced visibility of the coupler while backing, the top 4 inches of it has been painted white using a 95-cent can of spray paint from a Menards store. We've also found that it is helpful to clean the lens of the backup camera before attempting to back up!

When not hooked up to the trailer, we keep the hitch ball on the pickup covered with an aluminum soda can that we have cut off at about ½ inch below the top. The can is wrapped with red reflective tape and placed on the ball to alert people in parking lots that the ball mount sticks out from the truck's rear bumper. Len Enger, Newnan, Georgia

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by Bill Graves

Veterans Day in Texas

As Americans honor those who served in the armed forces this month, a Hill Country museum memorializes World War II



Veterans Day is celebrated more widely in America now than it was, say, a decade ago. It's a day that involves all Americans, not just veterans and those close to them.

It's because of this new generation of soldiers, sailors and Marines who have come back from Afghanistan and Iraq — and still are. In their quiet

and modest way, they have raised our awareness of the sacrifice veterans of all wars have made for our security and our freedom.

These new vets have sensitized our appreciation and maybe even our guilt. We now realize that these young men and women — only 1 percent of the population — and their families have carried the full load of our wars for the past 10 years. Unlike World War II, when we all contributed to winning it, these modern wars ask very little of the rest of us.

And to our credit, we are now expressing our gratitude.

"Thank you for your service." That's a piece of verbal sentiment that is new to the vernacular of our society. I hear it often and say it myself when I meet a person in uniform or a person who once wore one. When did we start doing that? I couldn't tell you, but I can tell you when we didn't do it: when our guys came back from Vietnam. Thankfully, we have worked through that and now are and making up for it.

Veterans Day is observed on November 11. It was initially called Armistice Day, and still is in many countries of the world. It marked the end of World War I that ended at the 11th hour on the 11th day of the 11th month of 1918.

Last Veterans Day I was at the National Museum of the Pacific War in Fredericksburg, Texas. Along with families assembled in the museum's Memorial Courtyard were veterans of all our wars since 1941. A color guard opened the ceremony at precisely 11 a.m. The courtyard, part of this 6-acre complex, is surrounded by limestone walls that bear plaques honoring individuals, ships and units that fought in the Pacific — 1941 to 1945.



(Top) One of the four propellers from the aircraft carrier USS *Essex* (CV-9) that fought in the Pacific during World War II is displayed at the National Museum of the Pacific War and surrounded by plaques dedicated to units and individuals who served. (Above) A color guard of active-duty military personnel at the annual Veterans Day ceremony at the museum.

Other World War II museums in the United States, including Guam, cover the war in the Pacific, but none in such detail. Here they had a head start. They began collecting artifacts in the 1960s and recording interviews with those who fought in the Pacific. The museum covers not just the history of the Pacific War but also American and Japanese culture of the time.

The reason that it is in the Hill Country of Texas is because Fredericksburg is the boyhood home of Fleet Admiral Chester W. Nimitz, commander in chief of the U.S. Pacific Fleet during World War II.

Shortly before the admiral's death in 1966, a local group approached Admiral Nimitz to build a museum in his honor. The site would be Fredericksburg's landmark Nimitz Hotel, built by his grandfather in 1852. The Admiral said that he would approve the request but only if the museum was dedicated to all those who served with him in the Pacific.

And so it came to be in 1968. Since then, the museum has expanded greatly. In 1991 President George H.W. Bush, himself a Navy pilot in the Pacific War, cut the ribbon to the adjacent Bush Gallery. The complex is now known as the National Museum of the Pacific War and is the only one like it in the world.

Welcome to America's Outback. 🗭

NEXT MONTH

Bill will be in Missoula, Montana. To connect with Bill, email him at roadscribe@aol.com

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6