

ARIZONA DRIVER

THE ENTHUSIAST'S GUIDE TO LIFE BEHIND THE WHEEL

VOLUME 10 NUMBER 6
NOVEMBER-DECEMBER 2011



MAZDA3 SKYACTIV
AUDI A6 3.0T QUATTRO
CHEVROLET CRUZE ECO
MERCEDES-BENZ C-CLASS
CAMARO 2SS CONVERTIBLE
LEMAY MUSEUM GALA EVENT
ARIZONA MOTORSPORTS PARK
BONNEVILLE SALT FLATS
MILLER MOTORSPORTS PARK
VINTAGE JAGUARS AT MONTEREY

IRON CHEF MARK DACASCOS
DURING NEW TRACK SURFACE TESTS
AT PHOENIX INTERNATIONAL RACEWAY

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COVER: Mark Dacascos, TV's Iron Chef, gets ready to take some of the first laps on Phoenix International Raceway's newly resurfaced (and slightly modified) track during Goodyear tire testing before this season's opener. **Photo: Randall Bohl.**

Photo: Greg Jarem

Photo: Joe Sage

Photo: Randall Bohl

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Photo: Joe Sage

Photo: Kristin Sharp



Vehicle launches and special events have had us on the run. Mercedes-Benz launched its 2012 C-Class in New England, starting in Maine, then scaling New Hampshire's famous Mt. Washington in thick fog and drizzle. From there, it was Portland-to-Portland, as our next stop was the LeMay Museum in Tacoma, first picking up a new 2012 Camaro 2SS convertible and taking side runs to southwest Washington's beaches and Puget Sound's lesser known islands. A third corner of the US was closer to home, as we were among the first to try out Mazda's new SKYACTIV technologies in their 2012 Mazda3, running from Hollywood into the high mountains of Southern California.

Closer to home, **Randall Bohl** covers two major racetrack developments, with Phoenix International Raceway finalizing their new surface and modified course by running extensive Goodyear tire tests (bringing in NASCAR's best plus a couple of celebrities to do the running), while Arizona Motorsports Park performs thorough vehicle sound analysis, to predetermine who can and cannot race there while keeping the neighborhood peaceful. We also dashed to northern Utah, for World of Speed at Bonneville Speedway, a must-see-it-sometime destination. Near the Salt Flats is the Wendover Airfield, undergoing a restoration effort to elevate it to its proper historic landmark condition, but with plenty to see right now. And between Bonneville and Salt Lake City is Tooele, home to Miller Motorsports Park, an amazing private endeavor that is North America's largest racetrack.

We also spend time right here on Arizona's roads behind the wheel of the new Audi A6 3.0T quattro and the best-selling Chevrolet Cruze Eco, both tackling rising fuel prices, each in its own distinctive way.



Tim and Kristin Sharp report from Monterey, where Tim drove in the Rolex Monterey Motorsports Reunion and they spent time with Arizonan Terry Larson and his fabulous collection of vintage Jaguars. Enjoy the ride.

Joe Sage - Publisher/ Executive Editor

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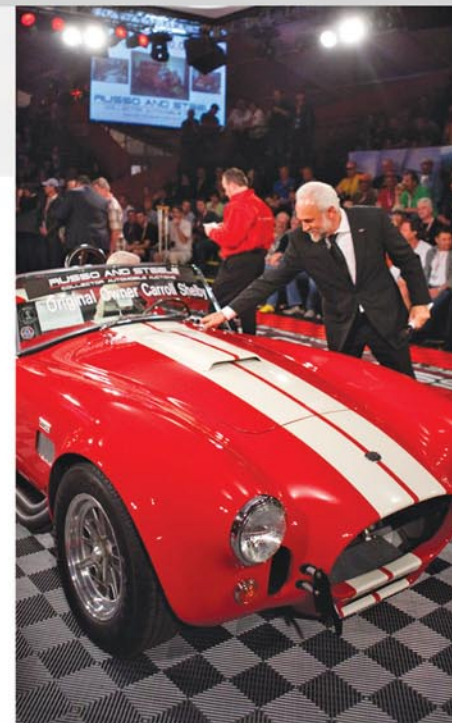
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Arizona International Auto Show: Thanksgiving Weekend

Phoenix Convention Center
Thanksgiving Weekend:
November 24-27, 2011

Hundreds of the latest vehicles will take over the floors of the Phoenix Convention Center for the 2012 model year Arizona International Auto Show this Thanksgiving weekend, offering an up-close look at the newest cars, crossovers, trucks, hybrid vehicles, electric vehicles and more. Visitors will have a chance to get behind the wheel and test drive several hot new rides. From high-end sports cars to interactive family entertainment, the Arizona International Auto Show offers something for everyone.

Manufacturers' representatives will be on site to answer questions and provide information on the latest vehicles. The Arizona International Auto Show is owned and presented by the Valley Auto Dealers Association and produced by Motor Trend Auto Shows, LLC.

DATES AND TIMES

Thursday, Nov 24 (Thanksgiving).....9am-7pm
Friday, November 25.....9am-9pm
Saturday, November 26.....9am-9pm
Sunday, November 27.....9am-7pm

LOCATION

Phoenix Convention Center
100 N 3rd Street, Phoenix AZ 85004

TICKETS

Adults.....\$10
Seniors (62 and older).....\$ 6
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DISCOUNTS AND MORE INFORMATION

Discount coupons and advance E-tickets are available at: www.AutoShowPhoenix.com. ■



BARRETT-JACKSON

41ST ANNUAL COLLECTOR CAR AUCTION EVENT
Sunday-Sunday, January 15-22, 2012
WestWorld - FLW Blvd at AZ Loop 101 - Scottsdale

The Jimmy Richardson Collection—27 vehicles—will cross the block at No Reserve, a mix of muscle and classics, all with speed in common. Galpin Auto Sports and SPX will auction a special edition Ford Mustang inspired by the 1969 Boss 429, with custom widebody nine inches wider than stock. Proceeds go to the St. Jude center for pediatric cancer and disease. Barrett-Jackson raised nearly \$4 million for charities last January. The event starts with a charity Family Value Day, then has auctions, food, booths, displays and events all week. One-day, multi-day or full-week passes are available; early-purchase discounts and special rates for evenings, seniors, students, military and children. ▼ Barrett-Jackson hosts annual auctions in Scottsdale, Palm Beach, Orange County and Las Vegas. www.barrett-jackson.com

GOODING & COMPANY

5TH ANNUAL SCOTTSDALE AUCTION
Friday-Saturday, January 20-21, 2012 (viewing 19-21)
Fashion Square - E Camelback Rd and N 68th St - Scottsdale

Gooding & Company continues to have great success at Scottsdale, where 121 cars last January brought nearly \$35 million, an average of \$289,090 per car. Viewing is from 9am to 6pm on Thursday and Friday, and 9am to 5pm on Saturday, at the west end of Scottsdale Fashion Square. The auction starts at 11am both Friday and Saturday. An auction catalog for \$80 admits two to the viewing and auction. General admission to the viewing and auction can be purchased at the tent for \$30 per person. Children under 12 are admitted for free. ▼ Gooding & Company is the official auction of Pebble Beach Concours and has an auction during Amelia Island. www.goodingco.com

RM AUCTIONS

13TH ANNUAL AUTOMOBILES OF ARIZONA
Thursday-Friday, January 19-20, 2012 (preview 18-20)
Arizona Biltmore - N 24th St and E Camelback Rd - Phoenix

Last January, RM Auctions sold an astounding 96 percent of the cars that crossed their block at the Arizona Biltmore Resort and Spa, for a total of \$30.8 million, a record for RM's dozen years of Arizona auctions, at an average of \$293,090 per car. With their early start on the calendar, RM remains a bellwether on the collector car calendar, attracting enthusiasts and collectors from around the world to Phoenix each January. Now in its 13th year, the 2012 event will again feature highly desirable and historically significant motor cars of impeccable provenance. Admission requires the purchase of the official auction catalog for \$120, which admits two and must be presented at the entrance. ▼ RM Auctions is the official auction of Amelia Island Concours and hosts auctions worldwide. www.rmauctions.com

RUSSO AND STEELE

12TH ANNUAL SPORTS & MUSCLE IN SCOTTSDALE
Wednesday-Sunday, January 18-22, 2012
N Scottsdale Rd and E Mayo Blvd at AZ Loop 101 - Scottsdale

The locally-based Russo and Steele event promotes a For Enthusiasts By Enthusiasts™ philosophy and a boutique-style, theater-in-the-round setting. The principals at Russo and Steele actively participate in concours d'elegance shows, road rallies, vintage racing and other collector car events all year long, in addition to attending auctions nationwide to keep a close eye on market movements. Last January, Russo and Steele's sales exceeded \$21 million, and a 1970 Plymouth Hemi 'Cuda convertible at \$17.1 million was the fifth-highest among some 2500 sold here that week. ▼ Russo and Steele hosts annual auctions in Scottsdale and Monterey. www.russoandsteele.com ■



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Exhibit Days: Tuesday, Nov. 1 - Friday, Nov. 4, 2011
Education Days: Monday, Oct. 31 - Friday, Nov. 4, 2011

PORSCHE 911: ALL NEW AND A 7-SPEED MANUAL, TOO

Debuting at the Frankfurt Motor Show, the seventh-generation 911 Carrera has a sleek new stretched silhouette. Even with a 3.9-inch longer wheelbase and shorter stance for a fresh more athletic appearance, the Porsche styling is still only evolutionary. Like all new Porsches, performance is better, and so is fuel economy thanks to features like a Start Stop function and the world's first seven-speed manual transmission. For improved economy, the twin clutch Porsche Doppelkupplungsgetriebe (PDK) transmission has the ability to 'sail' or coast at highway speeds when conditions permit. A new 350-hp 3.4-liter boxer engine powers the 911 with a 400-hp, 3.8-liter boxer engine for the 911 Carrera S. Zero to 60 times are 4.4 seconds and 4.1 seconds respectively and launch control with the PDK cuts another 0.2 seconds. Top-track speed for the 911 Carrera S and 911 Carrera is 188 mph and 179 mph, respectively. Cars arrive at US dealerships in February 2012. The new 911 Carrera Coupe has a base MSRP of \$82,100, (excluding destination) and \$96,400 for the 911 Carrera S Coupe. ▼

2012 Porsche 911 Carrera



Jeep® Wrangler Unlimited Mojave

JEEP EXPANDS WITH MOJAVE EDITION

▲ Jeep® has added a new Mojave special edition trim package to popular Wrangler Sport and Limited models. The exterior includes a body-color hardtop and fender flares, "Mojave" and lizard decals on the hood and rear, and side steps from the Sahara. Jeep Wrangler Mojave also offers an aggressive Wrangler Rubicon tire and wheel package, with mineral gray 17-inch wheels shod with 32-inch tires. Exterior finishing touches include a black fuel filler door and taillamp guards. Inside, Mojave's seats are dark saddle leather with a lizard logo embossed on the front seats. Driftwood trim surrounds vents, front-passenger assist handle, steering wheel spokes and door-handle inserts. Mopar® tread pattern slush mats and overhead grab handles complete the package. The Jeep Wrangler Mojave Sport model is priced at \$29,945, including destination charge.

THE PORSCHE SHOPPING AID

Shoppers kicking tires at the Porsche dealership after everyone goes home, or shunning sales staff during the day, can now get information about the vehicles without asking for help. Porsche Cars North America is adding mobile tags and smartphone tag readers to all their cars, allowing shoppers a "high-performance, personalized shopping experience." Each

scan opens a micro website utilizing the phone's built-in web browser and features specific product information about the exact car being browsed, including vehicle videos, leading press reviews and even the unique sound of the Porsche model's engine. A customer can also provide contact information for fast followup by a Porsche sales professional, or can browse anonymously. A pilot program launched in early June; 184 dealers will participate. Visit www.Porsche.com/usa.

AUDI TT RS IS COMING TO AMERICA

The king of the hill for Audi performance enthusiasts is any model wearing the RS badge, which taken from German stands for RennSport and translates to "racing sport." The much-anticipated Audi TT RS arrived this summer at a base price of \$56,850, plus destination charge. It is powered by the award-winning 360-hp, 2.5-liter turbocharged five-cylinder engine mated to a six-speed manual transmission with standard quattro® all-wheel drive. An automatic transmission is not available. The Audi TT RS accelerates from 0-60 mph in only 4.1 seconds, making it the fastest in its class. A magnetic ride system is standard, allowing suspension characteristics to be actively altered, adapting to the current driving situation. A sport mode stiffens the mag-

netic ride, enhances throttle responsiveness, and activates a more striking engine sound via flaps in the exhaust system. Aluminum and steel hybrid Space Frame technology, also found on the TT and TTS models, reduces weight while helping increase rigidity and safety, while keeping weight to only 3,306 pounds.

BOOKS: "MY FIRST CAR"

Ever wonder what Jay Leno's first car was? Or how about Bob Lutz or Sir Stirling Moss or Danica Patrick? Matt Stone, long-time editor of *Motor Trend Classic* magazine and senior editor of *Motor Trend Magazine*, has done his homework and put it into a fascinating book called *My First Car*. The book is filled with racers, film stars, musicians, journalists, auto industry icons and athletes: *My First Car* has stories about 65 interesting characters and their first cars. The book is a great trip down memory lane with each of these people, who are well known in their industries, as they talk about their early experiences behind the wheel and the car that started it all. In 224 pages, with 95 color and 29 black and white photos, Stone provides an interesting glimpse into the early lives of some very interesting people. *My First Car* is pub-

KEEP RIGHT >>

Nissan Leaf NISMO RC



lished by Motorbooks, a division of Quayside Publishing Group, and is available for \$25 in bookstores or online from the publisher at www.motorbooks.com.

THE NISSAN LEAF NISMO RACECAR

▲ Strip down a Nissan Leaf electric car by taking away the rear doors, rear seat, trunk, audio system, navigation and most of the other convenience appointments. Add a massive adjustable rear wing that says Nissan Leaf, and a bunch of safety equipment, and what do you have? The Nissan Leaf NISMO RC (Racing Competition). The purpose-built RC brings new meaning to the term "Racing Green." Its powertrain is a 100 percent zero emission advanced lithium-ion battery design, just like in the Leaf being sold throughout the US. Nissan is looking at the racing world as a way to draw attention to the seemingly untapped potential of electric vehicles. The new electric race vehicle has been making a series of special demonstration appearances at motorsports venues, with the company exploring a pioneer zero emission competition spec series in future years. In preliminary testing, the NISMO RC produces 0 to 62 mph acceleration in 6.85 seconds and a top speed of 93 miles per hour. It is projected to have a running time of around 20 minutes under racing conditions.

CELMET: ELIXIR FOR ELECTRIC CARS?

A new material, Aluminum-Celmet™, may be used in batteries to increase capacity by as much as 200 percent. That means a Nissan Leaf could have a range of more than 200 miles, and a Tesla Roadster more than 700 miles. This could make electric vehicle "range anxiety" disappear just like \$1-per-gallon gasoline. Celmet is a porous metal made from nickel or nickel chrome alloy. The manufacturing process involves applying an electro conductive coating to plastic foam, followed by nickel plating and then the plastic foam is removed by heat treatment. As a high capacity alternative to Celmet, Sumitomo Electric Industries, Ltd., a manufacturer of optic fiber cable and electric wire, has developed new Aluminum-Celmet. This porous metallic material has up to 98 percent porosity, and it's easy to process into various shapes by cutting and stamping. The new material offers lightness and greater electrical conductivity, both desirable traits for making the positive electrode current collector in hybrid vehicle nickel-hydrogen batteries. Sumitomo has set up a small-scale production line at Osaka City, Japan, to accelerate development efforts toward mass production of the new material. Battery manufacturers have yet to embrace the new material, but if it is as good as it sounds, we may

soon read about new extended-range batteries for hybrids and electric cars.

FUELING UP WITH OLD NEWSPAPERS

A team of Tulane University scientists has discovered a bacterial strain, they call "TU-103" that breaks down newsprint to produce butanol, a biofuel that can serve as a substitute for gasoline. According to David Mullin, an associate professor of cell and molecular biology at Tulane, this is the first bacterial strain found to produce the butanol directly from cellulose. Normally oxygen kills butanol-producing bacteria. Mullin says TU-103 is the only known butanol-producing clostridial strain that can grow and produce butanol in the presence of oxygen. The team first identified the bacteria in animal droppings and then developed the process to produce butanol. Unlike ethanol, which requires changes to gasoline engines, Butanol can be used without modifications to the engine. It can also be transported through existing fuel pipelines because it is less corrosive. Butanol also contains more energy than ethanol so theoretically it could get better fuel economy than vehicles burning ethanol. A patent is pending but the process is still untested for market viability.

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METROPOLITAN TUCSON CONVENTION & VISITORS BUREAU



2012 Ford F-150 Harley-Davidson Edition

F-SERIES HARLEY-DAVIDSON EDITION

▲ Ford has created one of the most dramatic models ever, for the 14th annual marriage of their F-Series truck to Harley-Davidson motorcycle. The 2012 Ford Harley-Davidson™ F-150 flaunts snakeskin accents, stylized bodyside graphics and new colors. The exterior has a bold front fascia, six-bar billet-style bright chrome grille and Harley-Davidson™ bright chrome badging. The truck is lowered and has new 22-inch machined-aluminum wheels with painted accents and Harley-Davidson bar and shield logo on center cap. The paint selection is classic Harley-Davidson: Tuxedo Black or White Platinum Tri-Coat (this is the first year white has been offered). Interior trim panels have a high-gloss Tuxedo Black paint, with the center console lid and upper steering wheel dressed in snakeskin-pattern leather. Scuff plates feature brushed aluminum with snakeskin texture. The Harley-Davidson edition Ford is powered by a 411-hp 6.2-liter V8 gasoline engine with six-speed SelectShift automatic transmission.

CHEVY SONIC WITH HILL HOLD

Almost everyone driving a car with a manual transmission has faced the uneasy or sometimes terrifying feeling of rolling backward when starting on a hill. While a hill-holding feature is often included on

upper-level vehicles, it is seldom on entry-level models—until now. Hill-hold technology is standard on the 2012 Chevrolet Sonic with manual transmission. Acting almost like an extra foot when the Sonic is stopped on a hill, the hill-hold feature will hold the car in place for up to two additional seconds after the driver takes his or her foot off the brake pedal. This allows the driver plenty of time to move their foot to the accelerator and gently release the clutch without the car rolling back. A pitch sensor detects the tilt of the body when the car is stopped on a slope, which triggers electronically controlled brake hardware to keep the wheels clamped the extra time. Subcompact Chevy Sonic pricing starts at \$14,495 including \$760 destination charge.

FORD AND TOYOTA TECH PARTNERSHIP

A chance meeting between Ford CEO Alan Mulally and Toyota CEO Akio Toyoda in an airport lounge appears to have resulted in an agreement for the two companies to jointly develop a new gas-electric hybrid fuel system for pickups and sport utilities. The two companies announced they have signed a memorandum of understanding on the product development and expect to ink a formal agreement on the pack next year. The plan is to develop a new full hybrid

powertrain that will give drivers of the larger rear-wheel drive pickups and SUVs some of the same fuel efficiency benefits enjoyed by smaller passenger cars. As the world's largest producer of pickups and the largest builder of hybrid vehicles, Ford and Toyota believe they can collaborate to bring hybrid technologies to market sooner and more affordably than either company could do alone. The two companies also agreed to work together on enablers to complement each company's existing telematics platform standards, helping to bring more Internet-based services and useful information to consumers globally.

100M SMALL BLOCK CHEVY ENGINES

It all started in 1955, when Chevrolet introduced its first small-block V8 engine. Built at the rate of nearly 5,000 engines per day since then, the engine production odometer was set to roll over "100 million built" during 2011. From 1929 to 1955, Chevy only offered six-cylinder engines, but with growing demand for performance, chief engineer Ed Cole set out to design a Chevrolet V8 that was powerful, lightweight and affordable. His solution was elegantly simple: a compact, efficient 90-degree V8 engine, featuring overhead valves, pushrod valvetrain, and 4.4-inch on-center bore spac-



Cadillac ELR

ing. When it debuted, the Small Block delivered 195 horsepower with an optional four-barrel carburetor, and outperformed most anything then on the market. On the track, the Small Block has made Chevrolet the most-winning name in NASCAR history, and it powered the Corvette Racing team to seven class wins at Le Mans between 2001 and 2011. On the street, the modern Small Block powers Chevrolet's full-size trucks, such as Silverado and Suburban, as well as performance cars including the Camaro and Corvette.

CADILLAC TO BUILD ELECTRIC CONVERJ

▲ Shown first as a concept at the North American International Auto Show, the striking Cadillac Converj electric car is coming to life and to showrooms. Powered by technology similar to the Chevrolet Volt, the luxury coupe will be the Cadillac interpretation of an extended-range electric vehicle called the ELR. The drivetrain consists of a T-shaped lithium ion battery, an electric drive unit, and a four-cylinder engine-generator. It uses electricity as its primary source to drive the car without using gasoline or producing tailpipe emissions. When the battery's energy is low, the ELR seamlessly switches to extended-range mode to enable driving for hundreds of additional miles.

Production vehicle details and prices are still unannounced, but industry rumors suggest posh appointments, a close approximation to the initial concept design and a price tag in the mid-\$50,000 range. Speculation is just shaping up as to how long Cadillac will take getting the ELR into showrooms.

GM & LG TO MAKE ELECTRIC VEHICLES

The company we know for making high-quality consumer appliances like flat screen televisions and refrigerators, LG, is going in partnership with General Motors to develop electric vehicles. The GM-LG relationship began when LG started to supply the cells for the battery pack of the Chevrolet Volt and Opel Ampera. It expanded in 2010 with work on a demonstration fleet of Chevrolet Cruze electric vehicles. The new agreement will help GM expand the number and types of electric vehicles it makes and sells by using LG's proven expertise in batteries and other systems. For LG, the arrangement represents a widening of its portfolio as an automotive solution provider. The success of the extended-range propulsion system in the Volt and Ampera led to exploring other collaborations in the electrification of the automobile. Teams of LG and GM engineers will work on key components, as well as vehicle structures and

architectures. Vehicles resulting from the partnership will be sold in many countries including the US.

THE 7TH GENERATION TOYOTA CAMRY GIVES MORE FOR LESS

When you've had the best-selling car in America for 13 of the last 14 years, you don't want to stray too far from the winning combination, and that's the approach Toyota has taken. The 7th-generation Camry is the same size, with evolutionary design changes, more interior room, better driving dynamics and quieter ride. This will be one of the first Toyotas to offer the Entune multimedia system, which uses a mobile smartphone to integrate access to navigation, entertainment and information services. Safety enhancements include 10 airbags, Toyota's Star Safety System, OnStar-like Safety Connect and a new Blind Spot Monitor. Powertrain options include a 2.5-liter four-cylinder base engine, 3.5-liter V6 and Hybrid Synergy Drive powertrain that achieves 43 mpg city / 39 mpg highway. Offered in six different model grades, Camry prices are from \$200 to \$2,000 lower than the prior year, with the LE starting at \$22,500 and the XLE Hybrid at \$27,400. ■

Auto News Update is compiled from a variety of industry sources for *Arizona Driver Magazine* by BILL AND BARBARA SCHAFFER of *Auto Digest*.



Tamping down the amps

GOING TO GREAT LENGTHS TO BE A GOOD NEIGHBOR

Story and photos by Randall Bohl

Arizona Motorsports Park is a gem of a road course track you may well not have heard about, though it's been in existence since 2003. This is a 2.25-mile 16-turn road course that can be divided into two separate 1.13-mile (9- and 7-turn) courses. The track, designed by Alan Wilson who also designed Miller Motorsports Park, in Utah (see elsewhere in this issue), as well as (Skip) Barber Motorsports Park, in Alabama, is located on Camelback Road just west of Litchfield Road, directly

off the south end of Luke Air Force Base.

Owned by driving enthusiast Dan Maloney and managed by Jim Baus, surprisingly this prime location has until now actually been the track's Achilles heel, due to noise levels. Thus, they held their first Sound Certification day on Saturday, September 17—a plan devised by track officials and representatives of Maricopa County to certify vehicles (cars or motorcycles) to participate in track events with a 94-decibel noise limit. Once

a vehicle is certified, a tamper-proof sticker is applied.

The track was completed in March 2003 and played host to a successful SCCA regional event. It has been used for ride and drives by automotive companies Honda and Porsche. And it was a testing site for 2003 CART Champion Paul Tracy.

At the time the closest homes were in the Pebble Creek neighborhood, where eyebrows were being raised about the sound levels coming from the new racetrack, and this became a topic for the HOA. Arizona Motorsports Park operates under a 30-year Special Use Permit, and although "unofficial" negotiations were underway between the homeowners and track officials, the County revoked the original permit in early 2004, after a little less than one year in operation.



Baus says of the ever practical Maloney, "Dan was infuriated, but in his infuriated kind of way, so we had to get some lawyers and see what we could do."

Six years passed while today's program was developed. Some facility improvements were done to stay within County guidelines, such as building a permanent restroom facility (which we might add is five-star). "In the meantime," says Baus, "Dan would come out once in awhile and drive some laps. You know it is his property, it's desert, you can ride your quad on it. Or he'd have family out on Thanksgiving afternoon, things like that. But he didn't even do that for awhile because he was worried. He didn't want anyone to say anything. It was a long time just biding time."

MAKING THE MEASUREMENTS

Fast forward (or slow) to August 2010, when the track's SUP permit was reinstated. Working with a representative of the County, the track has created microphone locations throughout the facility to monitor decibel levels. For this fall's road course testing, two were located 50 feet off the straightaway on the east track portion. One was located directly off the end of the runway at Luke Air Force Base, the other near the source of contention, the neighbors. There are also set microphone locations for other events on the 800x800-foot driving area and the skid pad.

The basic rules of the game are: the County considers anything over 99 decibels (db) a noise violation or "accidence." Arizona Motorsports Park has set the limit at 94 decibels due to the fact that if you have multiple vehicles in close proximity (i.e. racing), this number will push up to 97 or 98 db easily. The microphones are hooked to Cirrus decibel meters, which are time-synchronized and record every second, from the start of the day's events until shutdown. This data is downloaded at the end of the day and sent to a special website the County has set up for review of the day's decibel level recordings. For 12 violations, the track is put on probation. Then, for every three violations, the track can be shut down or more importantly the track, club or event organizer can be levied a \$10,000 fine.

Here's where the time-synchronized microphone monitoring of Luke Air Force Base comes into play. What happens to Luke if they create an accidence? "Nothing—and they can blow 107, 112, 113 all day long," Baus tells us. So the importance of that third microphone is that if Luke has an accidence at the same time as the vehicles on track—"give or take as much as 15 seconds"—the violation/accidence on track is cancelled out. A gimme or mulligan of sorts.

CERTIFICATION DAY

On this Saturday morning, about 30 cars and a half-dozen motorcycles were registered to test. Because the day's recordings of anything over 99 db would count as accidents, track officials had to do what we'll call an "earball" tech inspection in the paddock. We witnessed two Corvette ZR6s fire up. One was not allowed onto the track, as it was obvious it would be in violation. So we suggest using good judgment before making the trip out to test your own vehicle. One thing we saw was a Radio Shack handheld decibel meter, in use by Tyler Smith of XCEL Trackdays, that was quite accurate. This could be used for a little home testing to avoid disappointment in the paddock. But most drivers were quite pleased to get certified and viewed the laps as free track time.

Most of our observations in the metering tent were in the high 80s and low 90-decibel range, including BMWs, Porsches and a couple of Ford Mustangs, one of which was an ex-Bondurant School car. The only accidence we observed was by a Buell motorcycle, and you could hear it coming from the first turn. 102 decibels at the microphones and out came the black flag to avoid a second violation. After this, there was concern about sending any more motorcycles out on track, but Tyler Smith convinced officials to allow him a run with one of his superbikes, with his crewman trackside with the aforementioned Radio Shack meter. He passed with flying colors (and he was flying). One curiously quiet driver was asked to do a second three-lap run when his Mazda registered 77 and 78 decibels. There was concern the driver might be sandbagging a bit. Three more laps with a smile and the same readings confirmed that low-RPM rotary power and a huge aftermarket muffler make for a quiet race car.

READY TO ROCK

Operating with this system in place, Arizona Motorsports Park hopes to begin bringing in club events, corporate ride and drives again (although some higher-end performance cars will not pass certification, even in their OEM configuration), and drivers' training such as the T.E.A.M. Arizona motorcycle school and Team Safety Driving School.

Dan Maloney is passionate about his project. "Anybody else might have pulled the plug long ago," says Baus, "but he's funded the whole thing. He just really wants it to work. He has this vision. He loves driving. He loves when kids come out learning to drive. He told me a long time ago, if one kid comes out here and learns to drive and (it) saves one kid's life because he learned a maneuver or something to do (in an emergency situation), it's all worth it."

For more information on Arizona Motorsports Park, including additional Sound Certification Days and upcoming events, go to www.arizonamotorsportspark.com.



We start at the Maine Coast and conquer Mt. Washington, as the new Mercedes-Benz C-Class aims to conquer a segment

BY JOE SAGE

The introduction of a new Mercedes-Benz C-Class is a combination of big news and simple evolution. But even the elements of simple evolution add up to big news. The smaller the vehicle size, the more the segment is on fire these days, between fuel prices and the economy in general, so news in the Mercedes-Benz compact executive class is guaranteed to be significant. And there is lots of news.

A new two-door C-Class coupe marks the first time Mercedes-Benz has offered a traditional coupe (a three-box, not a hatchback) in this segment, and it makes a splash with AMG-based styling and a standard "panorama" sunroof. The company figures the new C-Class coupe will cannibalize its competitors, not their own sedan sales. The sedan has also been highly restyled, bringing cues from the E-Class and even the S-Class to

this affordable yet potent niche. The new C-Class has some 2,000 new parts, including new bumpers, headlights, grille, an aluminum hood, LED taillights and a new interior with new-generation telematics.

MEET THE C-CLASS LINEUP

There are many variations within the new C-Class lineup, but they form a simple matrix. First, the powertrains:

The C-Class coupe and sedan are each available in four different versions based on engine: the C250, powered by a new direct-injection 1.8-liter four-cylinder turbo (201 hp, 229 lb-ft of torque); the C350, with a new direct-injection 3.5-liter V6 (302 hp, 273 lb-ft); and the high-performance C63 AMG with a normally aspirated 6.3-liter V8 (451 hp, 443 lb-ft, plus MCT multi-clutch transmission; or with an optional AMG Development



**THIS CAR CLIMBED
MT. WASHINGTON**



A sampling of the 2012 C-Class lineup (right, top) reveals clues to its variables: the two sedans (left two cars) are Sport and Luxury, identifiable by the more aggressive two-bar grille and flat emblem on the Sport versus the more elegant three-bar grille and standing emblem on Luxury. Note also the AMG rocker panel on Sport, plus a wider air intake in the lower front fascia. These Sport elements are all present in all C-Class coupes (right two), with the AMG receiving a single-bar grille and an immediately recognizable AMG hood with creased bulges.



Package, the C63 AMG jumps to 481 hp).

The C-Class sedan (but not the coupe) is also available in a fourth configuration: the C300 4MATIC, with standard all-wheel drive and a carryover of its familiar 3.0-liter V6 engine (228 hp, 221 lb-ft).

C250 and C300 sedans have an option of Luxury or Sport trim (recognizable by their grilles and front emblems, their interiors, and the Sport's staggered-width, five-spoke 17-inch wheels). The coupes are all Sport. Sport models include firmer shocks, springs and stabilizer bars, with over a half-inch reduction in ride height, as well as standard AMG styling, with deeper front and rear aprons and sculpted rocker panels. Inside, Sport models are equipped with a flat-bottomed three-spoke steering wheel and metallic trim, while Luxury models come with a four-spoke steering wheel, comfort headrests, Nappa leather and burled walnut trim. (Luxury models have standard body styling and equal-width tires, front and rear.)

Fuel mileage for the new engines approaches 30 mpg (28-29 highway) for the V6 and surpasses it (31 highway) in the 4-cylinder turbo. The carryover engine in the C300 4MATIC hits 25 mpg on the highway. The performance C63 AMG is rated at 19 mpg highway and 13 mpg city, while the others are all in the 18-21 mpg range, city.

ON THE ROAD IN NEW ENGLAND

Decisions, decisions. We had a couple of dozen shiny new C-Class alternatives to choose among: sedans or coupes, Sport or Luxury, 4-, 6- or 8-cylinder C250, C350 or C63 AMG versions, as well as the AWD C300.

With so much momentum in the marketplace for not only smaller models but smaller engines—with economical but potent new 4-cylinders replacing V6s and sixes replacing V8s from many manufacturers—and eager to learn how Mercedes-Benz has tackled this challenge, we were intrigued by the new turbo 4. So we opted for the C250, the one with the new 4-cylinder powerplant. Again, the C350 with its V6 delivers 50 percent more horsepower, at a loss of only one or two miles per gallon, but that slight difference puts the C250 in "thirtysomething mpg" territory versus "twentysomething" for the C350 (21/31 city/highway for the C250 in either body style, 20/29 for the C350 sedan, 19/28 for the C350 coupe). Anyone who is hard set on shopping for over 30 mpg will want to try to new C250. We had no passengers or packages, and we latched right on to the AMG styling and Sport trim touches of the coupes. (In sedans, with Sport or Luxury as options, Sport has represented 90 percent of US sales, which has suggested to



KEEP RIGHT >>

MAINE TRAVEL NOTES AND MOUNT WASHINGTON AUTO ROAD

It's an old punchline in these parts: "Well... you can't get theah from heah." Our destination was Kennebunkport, on the lower coast of Maine. (Or maybe that's the upper coast, when you're Down East, one of those tricks to reveal the outsider, like upper and lower Cape Cod) You could fly nonstop to Boston and start driving north. Or you could fly to very convenient (to Kennebunkport) Portland ME, but from Phoenix that involves a connection—in our case, O'Hare eastbound and Newark on the return. (We were due in Portland, Oregon, the next day—see LeMay Museum in this issue—but resisted a big temptation to fly Portland-to-Portland, opting instead for a luggage change in Phoenix overnight.) Flights were on United, but via the Star Alliance, we were able to post our miles to US Airways, use the express security lane, and even park at the less expensive Terminal 2 without needing the shuttle to 4—good things to know for Arizona frequent flyers. With flight time, connections and three hours on the clock, it does take all day. Not a problem, except that we missed lunch at the Lobster Shack on the Maine coast the first day.

Lodging was at Hidden Pond, a resort campus of individual cabins on 60 wooded acres, thoroughly modern though offering a second outdoor shower—along with a big stone fireplace to warm up and dry out after that.

Hidden Pond's official vehicle is a handsomely restored 1956 Ford Country Sedan 8-passenger station wagon. We mentioned to the owner that we had—surprisingly—seen not one, not two but three more very clean '56 Fords for sale along the roadside, and he confirmed that indeed someone in the area specializes in restoring them. ■

Opened in 1861—when Lincoln was president, there were 34 states, and electricity was well in the future, not to mention the internal combustion engine—the Mt. Washington Auto Road (originally known as Mt. Washington Carriage Road) is "America's Oldest Manmade Tourist Attraction." We were fortunate enough to ascend it during its 150th birthday. Mt. Washington is the highest peak in the northeastern US, at 6288 feet and, as such, has always attracted the adventuresome: the oldest auto race in the US, the Mt. Washington Hillclimb Auto Race, was first hosted on the auto road in 1904.

Today's travelers experience not only the area's scenery and history, but also Mt. Washington's famously wild weather—often extreme and always unpredictable. As we approached through a variety of normal early fall weather—sunshine, a bit of rain, moderate temperatures—we were aware that things were supposed to change around this mystical mountain, and change they did. As we approached lunch at the base lodge, heavy clouds loomed overhead. The gate to the Auto Road itself reported 40-degree temps (we had left 103-degree Phoenix the day before), 41-mph winds and visibility of 50 feet. The higher we climbed, the narrower the road became, the steeper the drop-offs, pavement came and went—and visibility dropped. By the time we reached the summit, 50-foot visibility seemed to be a matter of what you count as visibility. ■

the brand that they increasingly pursue a youthful demographic, which reportedly has been asking the dealers for such a car for a long time.) Put it all together, and the C250 Coupe was our first choice for tackling the roads.

Our route from Kennebunkport, Maine, to the base of Mt. Washington, in New Hampshire, took us along a variety of great two-lane roads. We zig-zagged across the state line many times (gaining altitude as we went). The difference in road surface quality between the two states is striking in spots, and we hit some serious patches of rain. But the traction and stability features of the rear-drive C-Class always came through. Come wintertime, we might think about the 4MATIC, of course (and we'd be keeping one eye open for a probable newer version at some point, with the newer engines.)

The buzz as we go to press is all about Apple's new iPhone 4S, with Siri, its voice-response system. We got a kick out of the C-Class's nav, though, as it said, "Please turn right in 500 feet, at the end of the road onto River Street"—it seems we had Dr. Seuss on board.

After lunch at the highway summit—the base of the Mt. Washington Auto Road—we had a vehicle change. The V6 offers 302 hp to the C250's 201. The C350 also costs some six or seven grand more than the C250, of course, which starts bringing its price closer to the mid-grade E-Class. And if it's power we want, the AMG weighs in at 451 hp. The AMG models, though, were already spoken for (and crawling up the mountain). We also knew we'd be required to lock the car into first gear on the climb. So we took another C250 coupe, moving from red to white, still in Sport trim (as with all coupes), but with some Luxury options, notably its burled walnut interior.

The Mt. Washington Auto Road starts like many a mountain park—smooth, narrow, winding and steep. But as we continued, the mountain's reputation for weather kicked in, with conditions becoming foggy to

the point of near-zero visibility. In the thick of this, the road became narrower, turned to dirt and started to feature some extreme dropoffs—and there were a couple of dozen C-Classes on the road, as well as innocent tourists, including one Alabama motorcyclist soaking it all in on a Suzuki V-Strom. The dirt stretch included some really rough beyond-washboard conditions, but the C-Class suspension—as on some of the rougher paved roads, earlier—was superb: smooth, solid, flat in the turns, with great feel for the road surface while delivering total comfort—everything you would want.

Heading back to the Maine coast after a very full day of driving, we found we were in the comfort zone. Looking across the C-Class interior, we had the simultaneous feeling that it is a little bit smaller than the E-Class, which we've been in quite a bit, while at the same time confirming that, all in all, it felt more than ever like the E-Class, which in turn has felt for a couple of years now more and more like the S-Class. The DNA is definitely flowing down the lineup (though not at the expense of models upstream—the mission is to expand the brand overall). The full Mercedes-Benz lineup is in fine shape for your choice based on size, budget, fuel mileage needs and general urges—but not at the expense of style, features or general prestige.

EXPANDED STANDARD INCLUSIONS

When the new E-Class was introduced in late 2009, it brought technical inclusions exceeding an S-Class of just a year or two earlier, but at half the price. The new C-Class continues this evolution, bringing most of the same into its new models, at less than the E-Class's price (or compare to the S to really get the point).

The 2012 C-Class includes thirteen new standard equipment features and five new safety systems. Attention Assist warns drivers when they get drowsy; a HOLD feature for the Adaptive Brake system lets you

remove your foot from the brake pedal at a stop; optional Blind Spot Assist provides lane-to-lane warning on the freeway (when you signal); Lane Keeping Assist alerts you if you drift from your lane (without the turn signal on); the PARKTRONIC system can find right-size parking spaces and guide maneuvers in the instrument panel. Adaptive Highbeam Assist uses video to sense headlights and taillights, gently transitioning between high and low beams to avoid blinding other drivers (and the headlights' range can be varied from 220 up to 1,000 feet. Agility Control provides benefits of both soft and stiff shock absorbers: each twin-tube shock has a hydraulic by-pass piston to dampen normal road noise and vibration, while on rough roads this is bypassed for the steering and handling response of a stiffer shock absorber.

All 2012 C-Class models (except the C63 AMG) feature a new seven-speed automatic with an advanced torque converter lock-up clutch for better fuel mileage, more responsive driving, quieter operation and increased durability. New planetary gears, bearings and internal seals work with the latest low-viscosity ATF transmission fluid (blue instead of red), to create less friction, improving fuel mileage.

The interior has had what Mercedes-Benz calls a "transformation," with its new wheels, soft touch materials, redesigned vents, a new 5.8-inch color display at the top of the console, Bluetooth interface for audio streaming and hands-free phone, an FM phase-diversity twin tuner, HD/AM/weatherband radio, an MP3-compatible CD drive and a USB port in the center console.

GATEWAY? OR A GREAT DESTINATION?

Todd Grieco, C-Class Product Manager, says this car is the "gateway to the brand" (and responsible for major sales volume in the US). The C-Class does make a great first impression, but it's also perfectly suitable as an end-all-be-all. This is a very complete machine.

Pricing for the 2012 C-Class is almost unchanged from 2011, despite the many upgrades it receives. Models that carry over (the C300 4MATIC, C350 sedan and C63 AMG sedan) are only a few hundred dollars higher than last year. Prices range from \$35,675 (including \$875 destination charge) for the new C250 Sport sedan to \$43,245 for the C350 coupe, or all the way to \$62,305 for the C63 AMG coupe.

For perspective, a C350 sedan starts at \$41,450, compared to \$51,365 for an E350 sedan. However, the C250 Sport sedan, at \$35,675, is a full 30 percent less expensive than that lowest E350. The C63 AMG sedan is 33.3 percent less expensive than the E63 AMG sedan (\$59,805 vs \$89,775). There are many reasons for choosing vehicle size, beyond price, so if you have some of those in mind, the C-Class is a big win-win. If you don't have those reasons, but just seek bang for the buck, the C-Class remains a solid win.

Given what you can get in the new Mercedes-Benz C-Class—AMG styling almost across the board, Sport styling and features across the board in the C-Class coupe, and a choice of efficient engines—as well as favorable pricing—while including so many features of its larger siblings and becoming visually hard to distinguish, for the average layman—we find the new Mercedes-Benz C-Class a highly motivating option. ■

C63 AMG BLACK SERIES

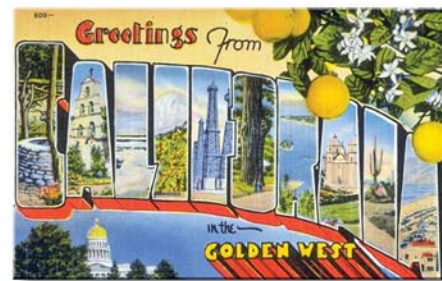
If the fact you can get a C-Class coupe or Sport sedan with much of the style and form of the AMG makes you feel slighted as a potential C63 AMG customer, fear not: the same 6.3-liter V8 engine that produces 451 hp in the C63 AMG (or 481 hp with the AMG Development Package) will be boosted to 510 hp in the 2012 Mercedes-Benz C63 AMG Coupe Black Series, making it the most powerful C-Class of all time, capable of doing 0-to-60 mph in under four seconds. The engine is backed by the same high-performance AMG Speedshift MCT-7 transmission driving the rear wheels. The body is low, wide and muscular. It's underpinned by an adjustable AMG coil-over sports suspension and AMG high-performance composite brakes. The C63 AMG Coupe Black Series features outstanding driving dynamics, along with a full complement of excellent active and passive safety equipment. The C63 AMG Coupe Black Series debuted at the Formula 1 German Grand Prix on the Nurburgring in July and will have its US launch during early 2012. Pricing will be announced closer to the launch date. ■



LIGHTER, SMOOTHER, ZOOMIER

THE FUEL EFFICIENT NEW
MAZDA3 SKYACTIV

BY JOE SAGE



There is much new with the Mazda3 for 2012. For starters, it's been lightly restyled. "It's not quite as happy to see you," says David Matthew, Mazda vehicle line manager for product planning and strategy. The new front fascia has evolved to present a more sporting look, augmented by body-colored finishes in the rear fascia all the way down the line and new 16- and 17-inch aluminum alloy wheels with a canted five-double-spoke design to impart a sense of motion.

The interior is also redone, with new trim finishes and new cloth seating material, plus an updated information display, which now features clean white lettering. Gauge displays are color-keyed by model, with meters receiving neutral illumination on the general lineup, red on the MAZDASPEED3 and blue on SKYACTIV models.

The SKYACTIV model is also recognizable on the exterior by a blue headlight ring and a rear badge, and under the hood by its blue engine cover. (And in many cases, you'll also recognize the Mazda3 SKYACTIV by its distinctive available Sky Blue Metallic Clearcoat paint.

And what is this SKYACTIV we refer to? It is the reason we have traveled to Southern California—a massive undertaking by Mazda to develop a detailed reengineering of their cars starting with a near-blank slate.

MATCHING THE MARKETPLACE

The SKYACTIV name derives from a multipurpose Japanese phrase suggesting "the sky is the limit" and "open your mind." Positive statements in their own right, they are intended to convey the comprehensive approach taken in this collection of major new engineering feats. Referenced within are a green message, a lifestyle message and a performance message. These comprise the brand's engineering goals, and it doesn't hurt that these dovetail well with their demographic and sales goals.

Mazda North America's VP of sales Ron Stettner points out that the Mazda3 represents one third of the brand's global sales and a full 40 percent in the US. As the company puts supply-chain repercussions of last spring's devastating Fukushima earthquake behind them, they report September year-over-year sales increases of 37 percent overall, including 13 percent for the Mazda3 and 70 percent for their crossovers (the CX-7 and CX-9). They're even more excited about next year.

In the past, the 5-door Mazda3 has been outfitted and marketed differently from the sedan—it has had a bigger engine and attracted a premium buyer. The introduction of their SKYACTIV series creates an opening to broaden these offerings: SKYACTIV technology will be available in both Mazda3 bodies. They expect this to bring new Mazda3 customers in the door. A CX-5



crossover will arrive in 2013, built on essentially the same platform with the same powertrain, but Stettner says sedan and 5-door customers aren't interested in a crossover. What's more, he points out that 40 mpg (as available in the new Mazda3 SKYACTIV sedan with automatic) is great, but 39 mpg in the 5-door hatchback is unmatched by any crossover—so far—and it offers much of the same functionality.

Half of Mazda3 sales in the US are in the Northeast (28 percent) and West (22 percent). Whereas a strong leasing program seems to be a big factor in Northeast sales, Mazda sees the West—where a collapsing real estate bubble has hit Phoenix, Las Vegas and Southern California particularly hard—as a prime market already showing high interest in this stylish and upbeat new car with breakthrough technology and great fuel economy.

Mazda communications director Jeremy Barnes point out that "more Mazdas are road-raced than any other vehicle, on any given weekend." What's more, he adds, they had recently beaten "all the big teams with big engines," and had gone on to receive trophies not only for race wins, but for their combination of "environment, efficiency and performance."

Kenichiro Saruwatari, Mazda executive officer from Japan, points out that 3 million Mazda3s have been sold since 2003, with a rate of 100,000 per year in the US. Those are healthy numbers, but they are looking ahead. The new Mazda3 has to deliver not only fuel efficiency, but excitement in a sport compact package. A solid driver experience is a consistent Mazda goal, so they aimed both to deliver precise driving dynamics (matching driver input) and to eliminate distractions and improve driver concentration. The team's challenge was to determine what must change and what could remain the same.

This process did not happen exclusively in the engineering labs. Mazda sought measurable data, enlisting 17 customers to provide feedback, through normal conditions of both work week and weekend, and both local and distance driving, logging about 282,000 miles total.

SKYACTIV TECHNOLOGY

SKYACTIV is a brand, a marketing plan, a philosophy and a set of engineering projects, all rolled into one. The engineering projects will permeate the whole brand, but they are not happening all at once. The Mazda3 SKYACTIV, however, delivers a strong head start.

For 2012, the Mazda3 features its new SKYACTIV

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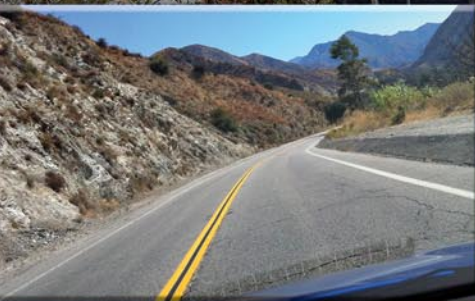


"If you want to remove 100 pounds," automotive engineers have long said, "you'll have to find 1600 places to do it." Each ounce counts, and Mazda has made extensive innovations to shave them in their next-generation chassis (above left), the SKYACTIV inline-4 engine (top right), SKYACTIV 6-speed automatic transmission (near right) and next-gen 6-speed manual transmission (far right). Shown below are the old (upper) and new SKYACTIV (lower) crankshaft, piston and connecting rod.



The 2.0-liter SKYACTIV-G gasoline engine in the new Mazda3 SKYACTIV has had every piece reexamined and reengineered, with unified goals of achieving ideal combustion and low weight, which in turn deliver a combination of better fuel economy, lower emissions, higher low and midrange torque, and a light and lively driving response. This potent inline-4 achieves 155 hp at 6000 rpm and 148 lb-ft of torque at 4500. Fuel economy is 28/40 for the sedan with an automatic transmission or 27/39 with manual, while the hatchback hits 28/39 auto and 27/38 manual (city/highway).





gasoline engine, as well as new transmissions (see sidebar). New chassis and body engineering are well along in development (ditto a SKYACTIV diesel engine), but this first model instead improves the chassis by adding a brace bar and crossmember, plus more weld points, resulting in a more rigid body for a more active yet quiet ride. Quietness is also improved through increased steering dampening—overall, road noise is reduced by four percent. Fuel efficiency and driving dynamics are also complemented by a full aerodynamic treatment on the underbody.

The interior of the new Mazda3 is designed to be more integrated as well as sportier. Gone are excessive silver-painted surfaces, replaced by rich blacks and soft-touch materials. The goals were not only cosmetic, but instrumentation and controls were refined with an eye toward lower driver distraction. Results are impressive: drivers tested in the new Mazda3 had response times improved by 0.15 second and made 20 percent fewer errors. This is welcome, as feature-complexity has been doing just the opposite in many new vehicles.

Safety features abound. Any vehicle includes or offers ABS, ESC, brake assist, active headrests and other mandated technologies, but the availability of Blind Spot Monitoring (BSM) in the Mazda3 is a segment exclusive.

ZOOMING IN THE MAZDA3

Our test route dished out everything. We started in a Mazda3 SKYACTIV 5-door hatchback on the streets of Hollywood, then headed north, hitting the freeway within a mile or so. Controls were straightforward and cabin visibility was very good in tight traffic. We headed north on US 101 and I-5, crossed over to I-210 south, and exited at Sunland and Tujunga, over the ridge and mountain parks from Burbank and bordering the Angeles National Forest. From here, we hit Big Tujunga Canyon Road, a real winner of a test road, with steep climbs, sharp turns and great scenery to boot (as well as fun tunnels and cliffs, though those weren't really performance factors). Power was ample and steering was crisp. We concentrated on the transmission: our car was equipped with the new SKYACTIV-DRIVE® 6-speed automatic.

Dave Coleman, of Mazda research and development, had told us all about this transmission's benefits. The manual is updated, too, but as Coleman said, there is little room for further development in those; the automatic, though, is "a little more revolutionary." Or a lot.

Coleman pointed out that most people have become resigned to the idiosyncracies of a traditional torque converter automatic, its lurches and gaps, and most notably disconnected feel. Such things were set to be banished in the SKYACTIV program, with an all-new automatic that not only delivers high efficiency (as with all SKYACTIV components, via reductions in weight and friction), but quick, smooth, responsive shifting similar to a manual, with special attention paid to a smooth and powerful launch. Healthy torque is one factor in this, but the transmission's engineering introduces a new trick.

Coleman had compared Mazda's goals with the other three automatic transmission technologies available, pointing out how each falls short in some areas. A dual-clutch automatic is good for efficiency and a connected driver feel, as well as quick, smooth shifting, but falls short on launch and low-speed control, notably on

inclines. CVTs can handle that, but are less efficient at high speeds and short on a connected feel in most cases. A conventional torque converter is adequate at launch and high speeds, but disconnected in feel and response, plus inefficient at lower speeds. The Mazda solution is a hybrid of a different sort, incorporating both a torque converter and clutch (as in DSG), with the torque converter providing optimum launch and speeds to 5 mph, then transitioning smoothly to a clutch for the balance of operations. Redesigned hydraulics provide quick shifting.

In short, we found it effective. Most of our driving was at speed, and the clutch mechanism performed as intended, as we were able to concentrate on a great road and not suffer any shifting oddities. The torque converter came into play at stop signs, a less obvious reason we were given this great route off the highways. Not only is this a neat drivetrain solution from a performance and feel standpoint, but Mazda claims a seven percent boost in fuel economy from the system.

From the high mountain roads, we emerged to the north at Canyon Country, California, midday.

There, Mazda provided a full range of competitors, to sample on a steep and twisty two-lane mountain road. Included were C-segment offerings from Ford, Honda, Hyundai, Chevrolet and others tackling the combination of small size, economical purchase and reduced fuel consumption with new technologies. We had driven all but a couple before, and we gave those a spin this day. Comparisons based on this would not be very definitive, but suffice it to say the Mazda3's main bragging points—spirited handling and a very smooth automatic transmission—came through well. (We also took the 6-speed manual sedan on this run.)

Our return drive was via state highway and freeway, affording an opportunity to prove that you don't have to push the performance and dynamics envelope at all times to enjoy this car—it was a fine highway cruiser, comfortable inside and capable in fast traffic.

TRANSFORMATIVE. AFFORDABLE

Many people ask whether—given past-until-very-recent relationships—Ford shares any of these technologies. The answer is no. SKYACTIV technologies were developed solely by Mazda, having no joint development with any other companies. This is Mazda's new crown jewel.

The directive for the SKYACTIV development team at Mazda was to "start with a blank slate, ignore what you think the limitations are, set goals and engineer your way past them." The transformative design that has resulted puts a staggering amount of new technology in your driveway. With fuel consumption down and driving dynamics up, the Mazda3 delivers both green and a grin.

There are ten Mazda3 models (not counting the MAZDASPEED3). The lineup starts at just \$15,200, for a base MZR 2.0-liter engine with 5-speed manual. Three of the ten are SKYACTIVs. There is a SKYACTIV Touring with manual or automatic (at \$18,450 and \$19,300). Our test car was the Mazda3 SKYACTIV Grand Touring model (these are automatic-only). A Technology Package providing BSM, Sirius satellite radio (with 4 months free), perimeter alarm, rain-sensing wipers, auto-leveling bi-xenon headlights, pivoting adaptive front lighting and auto headlights added just \$1400. With destination charge of \$795, the total was \$24,495. ■

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CHECKING OUT THE NEW TRACK

TIRE TESTERS AND SCREEN STARS PUT PIR THROUGH ITS PACES

Story and photos by Randall Bohl



GOODYEAR TIRE TESTING ON NEW TRACK SURFACE MONDAY-TUESDAY AUGUST 29-30

PIR has been very busy with their track paving project, but it seems that finishing was just the beginning. Once the surface was complete, things really started getting busy. It was time to lay down some rubber and see how it all worked.

The first NASCAR action on the slightly reconfigured and newly repaved surface at Phoenix International Raceway consisted of two days of Goodyear tire testing. Goodyear invited a few select NASCAR drivers to do laps and consult with engineers: Jimmie Johnson (five-time and current Sprint Cup Champion), brothers Kurt and Kyle Busch, Carl Edwards and Tony Stewart. Goodyear was also running their own "test mule" cars, with their drivers doing limited laps with extreme amounts of data recording gear onboard.

The first surprise of the day was that the NASCAR cars, normally wrapped in sponsor colors, were running this day only in primer, with just their numbers to identify the drivers, with the exception of the Busch brothers still running wraps. The second surprise of the day was when Kurt Busch unfortunately became the first driver to test the new safer barrier off turn 1, ruining the sponsor wrap on his No. 22 car, along with a lot of sheet metal. This was the only incident in two days of testing, and Kurt was fine for media interviews in the afternoon where the press didn't bother asking what happened. It was a given—fresh track, not enough rubber down yet.

Goodyear, not wanting to reveal any trade secrets, allowed photography only on-track—no cameras or recorders were allowed in the paddock area. We did wander through the paddock, less the tools of our trade—realizing that without a technical advisor, we couldn't pass on a secret if we saw one. Piles of Goodyear racing tires had odd grease pencil markings, and data recording devices looked perfect for a Hollywood sci-fi set. Folding tables were covered with laptop computers, surrounded by drivers, crew chiefs and Goodyear engineers, all sharing their thoughts and information—quietly.

JIMMIE JOHNSON

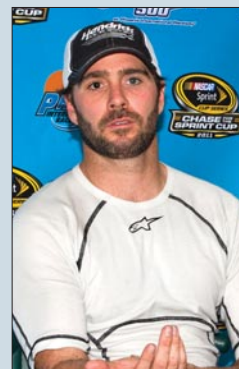
Jimmie Johnson shared his thoughts on the new track. "The first part of the day, we just really spent time working rubber in and trying to get the dirt out of the area," said Jimmie. (The track had been washed, but overnight the desert re-dusted the re-pave.) "It was slick for a long, long time. We've got a groove in now. Unfortunately we don't have a second groove, so it's hard to say what the racing will be like. We can't really explore yet but hopefully we can help Goodyear make a good decision on the tire and bring the right tire back for the open test. When we have 50-90 cars, we can start widening out the race track.

Changes in the track's shape were designed to promote side-by-side racing. While maintaining the integrity of PIR's oval—including the one-mile distance—the slight configuration changes are ultimately expected to increase average speeds by two to three miles per hour. On the first test day, though, they were about 1.5 seconds off last year. "The track will pick up some speed,"



Jimmie surmised. "I'm surprised we're not any faster than we are. Goodyear has a softer combination we might try once they marry construction and compound from everybody's opinions today.

"I don't know if the track's a little longer now," Johnson continued (it's still exactly one mile—Ed.), "but it sure seems different from this end (pointing) around the way the kink or dogleg, whatever it's called. Maybe



it's actually more than the old distance and that's where some of the speed lies? We all expected to go faster.

"Tomorrow will be a better day for sure. Goodyear is bringing us more tires to give us more options. I was just at a big pow wow with Rick Campbell, Kyle Busch, his engineering staff and my engineering staff as a group to feed Goodyear with the information they need, and I see that going on all around, so I think tomorrow we'll come back with much more as a group."

Since this was all being done under the extremely hot Arizona August sun, we asked about cooling systems in these testing cars—were they the same as in the cup cars? How bad was it today?

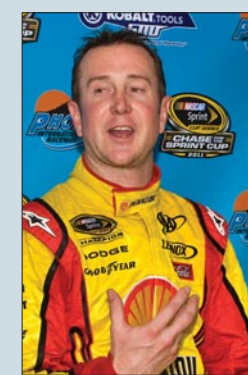
"They just put my normal stuff in so I had air to my helmet and some fans blowing air into my back," Jimmie noted. "It's actually decent on track, when there's air flowing through the car. Sitting in the garage waiting to go back out is the toughest part. We saw different failures today with mechanical parts and even electrical components, because when we came off the track nothing would cool down. We put heat strips all over the car to see how hot things got and every single heat strip on the car is pegged."

Johnson was definitely aware of the changes to track shape. "It is dramatically different," he said. "To me, it's turn 1, then the dog leg is almost a turn 2 situa-

tion." (He explains with hands wide on 2 then turning inside, basically cutting the dog leg off.) "You get to the gas much earlier and opening up the steering wheel, where in the past you were still rolling and trying to get the car to point before you ever got to throttle. I mean it's a lot different now." So does he like that? "It's fun to drive. We have a few elevation changes. It's tough to say on race day what it's going to be like from just this one groove. (For this test session, it's single file, to work for Goodyear's purposes). When we come back with everyone, we'll be able to widen things out."

KURT BUSCH

Kurt Busch offered an additional description of the race-track and some details on temperatures during testing. "The groove itself is a whole different feel," Kurt noted.



"It's exciting to feel something new like this, to have that exhilarating back straightaway. I don't know what words to use, but it's like a rollercoaster—drive up the banking off turn 2, you drop down, you actually see the most compression, the most

load in the dog leg, and then the car comes back up out of the hill into turn 3 and it's a nice light feeling when you get up top. So a real interesting back straightaway."

As for the heat, "What we're doing today is the hard work and the research for Goodyear. This is extreme heat, 164-degree track temperature, the engine 240-260 degrees, the ambient air is 110, inside the cockpit the coolest thing I could find was 123! So it's very extreme heat, and it's going to be tough to gauge the right tire due to that. We maybe needed to do this test at night, but still at night, I got in the rental car last night when I



MARK DACASCOS THURSDAY SEPTEMBER 1

Two days after the Goodyear sessions, actor Mark Dacascos—The Chairman on Food Network's *Iron Chef America*—dropped in for a visit. After a stop in the winner's circle, Dacascos took the wheel of PIR's Chevrolet Camaro Pace Car (above left) and hit the track for several laps, topping 100 mph, with his manager riding along as copilot. Emerging with a wide grin, Dacascos told PIR communications team Paul Corliss and Nicole Scheider what a great thrill it was. "Now I get it. I've driven the Autobahn," Mark said, "but it was like... (acts out steering flat-out)...but this place was meant for it!"

Having had so much fun himself, Mark insisted that his manager Brian drive. After a couple of conservative laps with now-copilot Dacascos, Brian eased the car back in. Corliss quipped, "You took what we call the low line." The new driver defended his pace by stating, "I don't want to kill the talent." But his smile revealed just how much fun they both had had.

RON PERLMAN SUNDAY SEPTEMBER 11

A week and a half later, the track was active with an ESPN film crew and actor Ron Perlman (above right) of *Beauty and the Beast*, *Hellboy* and *Sons of Anarchy* fame hard at work. ESPN was shooting a Sprint Cup Chase promotion, and we paid another visit to the winner's circle with Perlman. Production was on a tight schedule and the track was covered with camera and lighting gear, so no there was no opportunity for celebrity hot laps this time, but backstage activity during the taping and shooting was almost as exciting. ■

KEEP RIGHT >>

Where the roads are dry and the cars are slick.



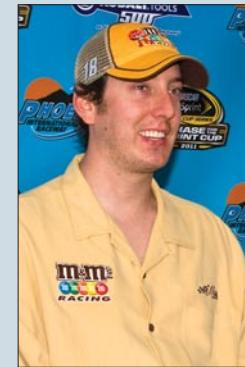
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KYLE BUSCH

Following Kurt, younger brother Kyle—who had been doing an interview with SPEED network—joined us and offered his own take on turn 2 and the dogleg.

"It's fun," said Kyle. "You know it's going to add a new element and a bit different racing than we've seen here in the past. Seems like there's more room to race over there off turn 2. Maybe that means there's more area to pass. And certainly through the dogleg it's a little flatter than we expected, considering how much banking there is through turn 2 and then again in turn 3. So you know it's definitely added some new excitement."

As for the heat, Kyle noted, "It's hot out, that's for sure. It's not a refreshing day, by any means! But you know I'm a Vegas rat, so I'm from this kind of condition."



Being able to get some test laps here today helps us and allows us to take some information back to the guys at the shop, at Toyota, Joe Gibbs racing, and help ourselves out a little for when we're able to get back here.

"So doing some testing today and tomorrow, picking up some ideas for the racetrack that we can apply to the race when we come back, is good."

We asked Kyle whether the progressive banking had had that second groove come in, as intended. Could he get a sense of that? "Not yet," said Kyle. "It's so dirty out there, but where grooving it in and it's gotten a lot better. You know once we develop that groove, we seem to produce better speed and better comfort. You know it's just so hard for Goodyear to make a tire that will withstand the conditions, the heat and coefficient of friction. After about three to five 'ice cream sessions'—what I like to call it—you know it'll certainly get racy."

BOTTOM LINE

Overall, the drivers thought the new PIR track was fun, though after only one day of testing none would commit to predicting speed. They were all looking forward to putting some traffic on the track during wide-field October testing and the Kobalt Tools 500 on November 11-13. Meanwhile, as Kyle Busch said, Goodyear was learning to make a tire that won't melt. For PIR information and tickets, visit www.phoenixraceway.com.



Jimmie Johnson



BRAD KESELOWSKI MEETS THE FANS AT THE ARIZONA BILTMORE WEDNESDAY SEPTEMBER 14

No. 2 Penske Miller Lite car Sprint Cup driver Brad Keselowski (above left) was in town in mid-September, for a whirlwind media tour to promote the upcoming Kobalt Tools 500 NASCAR Sprint Cup Series Race at Phoenix International Raceway on November 11-13—and, as it turns out, to do his own evaluation of the newly resurfaced PIR track using a Dodge Caravan airport rental.

A fan appreciation breakfast was scheduled for 9:30 am at the Biltmore, but we turned on the KPHO CBS 5 News at 6:30 am to see Keselowski already being interviewed live in studio. His day had obviously started early and would probably run through the evening news cycle. At the Biltmore this morning, he would be interviewed by Richard Saenz of Fox 10 News and take questions from fans.

Having broken his left ankle on August 3 in a crash during testing at Road Atlanta, Keselowski was obliged to immediately answer questions about that and assure fans that his ankle is well on the mend. In fact, the broken ankle may have been a huge motivator in his run to qualifying for the chase. He went on to win at Bristol on August 28 and then clinched his spot at Road Atlanta on September 6 with a 6th place finish.

This actually brings to mind a quote from teammate Kurt Busch at the Goodyear PIR tire testing a few weeks earlier. When asked about the Dodge's chances in the chase, Busch said, "Brad Keselowski's been on fire, and it's good to see. I mean, who know that a broken ankle would put you into the mindset of 'this is what needs to be done to get into the chase'? For us on the No. 22 car, we've got a different set up than Brad so we might need to circle back around to get the feel that he's got in his race car."

When asked what his single favorite fan moment was, Keselowski says it came during that

win at Bristol. "Unlike other sports, where you can hear the fans, in NASCAR you can't," Keselowski points out. "But during that race, when my spotter opened the radio to give me a clear after passing Kyle Busch, I could hear the roar of the fans cheering my pass through the radio! It was thrilling."

His goal would seem obvious, to win the Sprint Cup (he's in sixth place as of this writing), but it is apparent from his passion when speaking of the car and the team that it's not about *his* winning it, as much as winning it for Roger Penske. He wants to deliver the first cup victory for the No. 2 car and the first Sprint Cup for Penske Racing.

As for his private run on the new Phoenix International Raceway surface the evening before, he stated flatly that "it was dark," and then smiled. "The track is as smooth as Kurt (Busch) had told me," Brad said, "and the back straight does seem narrow out of the dogleg. Kurt said that may get exciting back there and I agree, where the accidents are likely." He also notes that the Caravan had a lot of tire chatter over 80 mph. Ah, rental cars. We wish we could have been there. ■



Kyle Busch

landed, and it was 104 degrees. I think we're doing the right thing by being here at 6:30 in the morning and running until 2 pm, just trying to get a read for Goodyear."

Aside from giving input on the tire compound, did the drivers who were testing gain any sort of advantage for the Chase? "We do," said Kurt, "but we have to take it with a grain of salt. Goodyear could come back and change the compound on us before October. We could find all different types of scenarios. Yes, we get a feel for the racetrack and we get to use our data recording systems so you can't complain, but we're the ones trailblazing a new path." Being part of the test process was welcomed by Busch, though. "You want to be involved in as many tests as you can find. You know I've evaluated the cars here today. Of the teams that are going to be in the Chase, only RCR, Kevin Harvick is the only one who is not going to have information. What I mean by that is you have Jimmie Johnson, and he gives information to Jeff Gordon. Tony Stewart gives information to Ryan Newman. Kyle's here, my little brother, and he can give information to Denny Hamlin, and so forth. Any time you're doing tire testing for the initial time you just, it's like juggling all the balls in the air. You're grooming in the new track, figuring out the line for yourself, and you're helping Goodyear research which tire's going to be the best moving forward. So it's a lot of work in one day. We'll have a better picture on October 5th, which will be the second day with all the cars, fourth day total."



Tony Stewart

Audi A6 trims down, techs up, hits 0-60 in 5.3 and gets 28 mpg

The Audi lineup has changed a great deal over the past decade or so, with the addition of the A3 in the US, the Q7 and then Q5 as Audi arrived late to the SUV game, the R8, A5 and A7, and the TT (for a bit longer). Coming soon will be a Q3 and probably an A2. One thing that stays the same is the A6. Others are the A4 and the A8. But do they really stay the same?

To briefly review how far the brand has come in the US, flash back first to the '70s and early '80s, the age of the ill-received Audi Fox. The arrival of the tech-leading and rally-dominating quattro coupe brought big changes to Audi's mindshare, and the arrival of the 4000 quattro sedan, at about 30 percent the cost of the quattro coupe, brought market share. Add a 5000, and the brand had a two-vehicle US presence by the mid-'80s. By the late

'80s and into the early '90s, they had taken on European numerology, as the 80/90 and 100/200. Not only did the model designations change, but those were slightly smaller cars than the 4000 and 5000. For those who thought the 100 was a little too small after the old 5000, the Audi V8 joined the lineup. The three-model lineup was now solidified, but this nomenclature only lasted a few years, as the A4, A6 and A8 names took over.

But along the way, the cars started to grow. This is not unique to Audi. But dovetail this with the fuel economy rollercoaster, as well as the real economy rollercoaster, introduce more models, and in some ways the A6 was back where the 5000 was some 15 years prior, big enough and well-enough appointed to be the flagship car, though now still with an A8 positioned above it.

Maybe it's because we were reviewing this during the baseball playoffs, a statistician's dream, but we were compelled to see just how much the A6 had grown. We had a hunch the A4 had grown toward prior A6 territory, the A6 toward prior A8 territory, and the A3 was surely bumping up against the niche of the earlier A4. Yes? Partly. We found some confirmation and a few surprises.

Charting the changes

With hundreds of individual data points available to us, we zeroed in on a few. Weight is an obvious benchmark, though it is skewed by the increasing use of lightweight materials. Audi pioneered aluminum construction in the A8 years ago and is now applying it judiciously throughout the lineup. Smaller and more fuel-efficient engines

reduce weight without necessarily reducing size (or power). We were somewhat surprised to find that as length grew on some of the cars, width often shrank. With occupant space a priority, some of this is attributed to newer weight-saving side impact beams and more compact airbags—or they may have indeed been sized down.

The A4 is the highest volume seller, at about 300,000 units per year worldwide in recent years. The A6 hovers closer to 200,000 (as does the A3, though much of its volume is overseas). Positioning a lineup is always challenging, balancing a desire to give buyers a bit of what they get in larger models, without cannibalizing the siblings' sales. Since people generally aspire up and not down, this also spurs size increases.

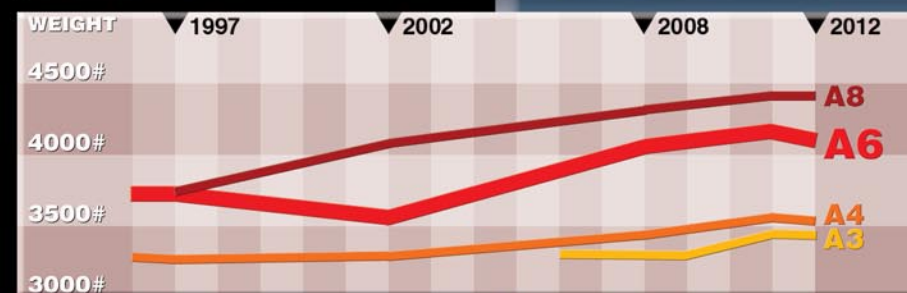
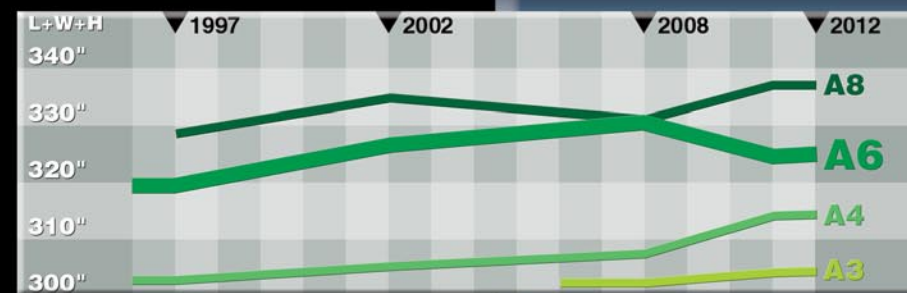
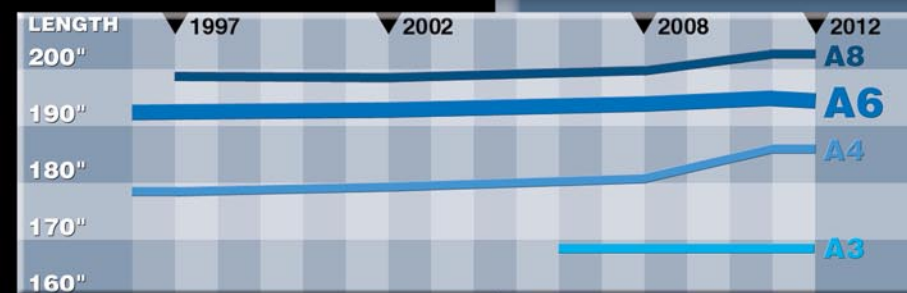
The charts at the right demonstrate some of the highlights. (Not all years were incorporated, and various assumptions were made on engine and drivetrain comparisons, but the trends are clear.) The bottom chart shows that today's A6, even with weight reduction for 2012, is indeed heavier than the larger A8 was 15 years ago, matching the A8 of about 10 years ago—even after the A6 went on a diet in the early 2000s. That low point in the A6's weight is roughly matched by the current A4. The A3 stays comfortably just below the A4, though it is gaining on it and exceeds the weight of the A4 at the time the A3 arrived just a few years ago. The A8 remains the heavyweight champ.

We expected to see the same with exterior dimensions. Length, wheelbase, width and height can be compared, but we started with length, for simplicity (top chart). Unexpectedly, we did not find the same eclipsing of prior larger models by current smaller ones, although the A4, clearly growing the fastest in recent years, comes closest.

The middle chart adds length, width and height together. Heights are pretty consistent year-to-year for each model, so the clear difference between the upper and middle charts is attributable to wild fluctuations in width, while the lengths were so consistent. Watching the A8 slim down through much of the 2000s, with the A6 matching it in 2008 overall, gives insights into the wakeup call this may have been at Audi, as the A8 then makes rapid gains while the A6 falls off. In 2008, the A3 and A4 were alone in the small world, and the A6 and A8 in the large. Today, they are very evenly spaced.

Our biggest surprise was that the 2012 A6 we were driving had not continued to grow, as we had suspected. Instead, its width in particular had slimmed down (though it grew again a little bit this year). Overall, these four models seem to have been spaced out to better accommodate the arrival of the A5 and A7, whether by intent or not.

The A4 is the one that climbs the most in size (though moderately in weight). This suggests that its popularity has driven the manufacturer to create more of a car by making it larger. Since the A3 is so much smaller, that may misread the segment. An A4 the size of a few years ago may have been exactly what so many people wanted, to make it so dominant in sales. For more of a car—meet the A6.



Mostly bigger, but lighter and slicker

Audi's big updates stairstep across the years by lineup, and this is a big year for the A6, following the introduction of the new A7. Overall length of the new A6 is down from 2011, by just a half inch, but its wheelbase is up by almost three, continuing the trend of pushing the wheels toward the vehicle's corners, nice for aesthetics and even better for handling and for interior space. Width increases by 0.8", height by 0.4". Creature comfort dictates some



by Joe Sage





of this, but the wind tunnel also comes into play: the new body reduces drag coefficient by over ten percent, from 0.29 in 2011 to 0.26 in 2012.

Efforts didn't stop with the wind tunnel. The new A6 has 20 percent aluminum content, with an aluminum body on a steel frame, plus aluminum suspension (reducing weight and improving ride and handling). The result: a significant reduction of 78 pounds, despite increases in width, height, wheel-base and track.

More taste, less filling

All that aluminum and steel is wrapped around Audi's 3.0-liter V6 turbo, which generates 310 horsepower, up from 296 hp in the prior-generation 3.0T, but way up from the old 3.2-liter's 252 hp and even moreso from the old 2.8-liter's 217 hp. It even compares well with the prior 4.2-liter's 345 hp, considering this 3.0T still has 325 lb-ft of torque, accelerates from 0-60 in 5.3 seconds (up from 5.9 in 2011) and achieves an estimated 28 mpg highway fuel mileage rating (19/28/22 city/hwy/combined).

Power and efficiency are also boosted by an eight-speed Tiptronic transmission, Audi drive select (adjusting steering, throttle and transmission settings) and the Audi Innovative Thermal Management and Energy Recuperation System.

Despite all the weight-shaving, this big sedan does include all the equipment required for its quattro all-wheel-drive system, which features 40/60 asymmetric rear-biased torque distribution sending 60 percent of power to the rear wheels.

Interior, technology and safety features

Audi holds a well-earned reputation for top-notch interiors and instruments. Standard seats have been redesigned for a balance of comfort and ergonomics plus performance support, combining elements that are too often a tradeoff. A full range of climates can be accommodated with heated front seats, plus an available cold weather package including heated rear seats and steering wheel, and optional ventilated seats. Climate control feeds three zones, with an optional four-zone

system. (In our test vehicle, in over-100-degree conditions, we had the a/c kick off several times, blowing warm air. This was only for a second or two, but it certainly got our attention. We suspect this is a correctable service item.)

The MMI (Multi Media Interface) knob, button and screen combo presents Audi's usual clear array of functions for audio, navigation and vehicle individualization. With the addition of optional Audi connect (just one element in a comprehensive array of add-ons in the \$6,880 Prestige package on our test car), you add Google Earth and Google Local Search, with real-time traffic and weather, news and even fuel updates; WiFi with a rolling hotspot for up to eight users; and a feature within Google Maps called myAudi Destinations, which can hold information on 50 downloaded destinations. Subscriber services apply to some of these.

The audio interface includes SiriusXM Satellite Radio (with three months free), MP3 connectivity, CD player and dual SD card slots. Our test car included a superb 14-speaker, 630-watt BOSE Surround Sound system (part of the Prestige package), but if that's not sufficient, you can go for the 15-speaker, 1300-watt Bang & Olufsen option.

Audi started introducing stylish, power-saving LED daytime running lamps and taillights some four or five years ago; the new A6 adds available full LED headlights. Strong but light in weight and low on power consumption, we expect this to catch on widely within the next few years.

Other Audi technologies include ESC and a collision pre-sense system—using information from both front and rear—with adaptive airbag and seatbelt functions factoring in occupant size and height. An available pre-sense plus system adds adaptive cruise control with a stop-and-go function for smooth freeway commuting, a night vision assistant, head-up display and Audi side assist.

Hitting the sweet spot

We appreciate the efficiency of the A4's (and A3's) size, and we love the A8. But the A6 remains the Goldilocks package, a full 8.3 inches shorter than the A8, better as most people's daily driver.

In 1995, an Audi A6 measured 192.6 inches long, weighed 3363 pounds, and had a 2.8L V6 generating 172 hp and 177 lb-ft of torque. Starting price was \$30,600. The S6 from the same year put out 227 hp and 258 lb-ft from a 2.2L turbocharged inline-5, at \$45,270. The S6 was the top dog, hitting 0-to-60 mph in just in 6.2 seconds and still promising 23 mpg, both very good figures for that era. Flash forward to 2012. Despite much change along the way, the new A6 3.0T is 193.9 inches long, weighs 3682 pounds, and puts out 310 hp with a 0-to-60 time of just 5.7 seconds—easily outstripping even the early S-car. (The BMW 5 Series has grown similarly, from 185.8 inches and 3560 pounds at \$36,500 in 1995, to 193.1 inches and 3814 pounds at \$45,040 in 2011.)

Our highly-optioned test 2012 A6 3.0T quattro had a base price of \$49,900, plus Prestige package, Sport package, special paint, LED headlights and Audi side assist, totalling \$61,530. ■

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By Joe Sage

If you want to take a good road trip, you already know we live in the heart of some incredible terrain. Southern California, northern Mexico, New Mexico, southwest Colorado, Nevada and Utah are all an easy and well-worthwhile drive from Arizona.

Southern Utah is well known for its spectacular national lands: Zion, Capitol Reef, Bryce Canyon, Canyonlands and Arches National Parks, the Grand Staircase-Escalante National Monument and more. In the north are Dinosaur National Park and Flaming Gorge National Recreation Area. Arizona is well known for its own parks, but don't stop at the state line. These lands were made for driving, and there is much to see.

In fact, all that scenery in southern Utah is one great reason to take a drive to northern Utah. We recently headed there, but by air instead of road. Salt Lake City, with easy air service from Phoenix, sits on I-80 along its run from southern Wyoming to Reno, making it the perfect gateway for a focused trip to several highlights of the region. Motorheads, night owls, sunrise hounds and



nature buffs will enjoy the Bonneville Salt Flats and Bonneville Speedway, especially if fortunate enough to visit during Bonneville Speed Week, as we did. En route from Salt Lake City to Bonneville is the Miller Motorsports Park, an incredible private operation with activities open to the public, including a museum and challenging multipurpose track. And Wendover, which straddles the state line and is your best bet for lodging in the area, is home to an Air Museum of unparalleled significance. Buckle up, and let's check out all three.



BONNEVILLE SALT FLATS

One look at this area, and you can tell its history is measured in epochs and eras. The cars and bikes are fun, but both geological time and US westward expansion are inescapable. Lake Bonneville, a huge body of water once trapped in the high reaches of today's Great Basin, is said to have evaporated and reformed almost 30 times in the past 30 million years. Today, it comprises the Great Salt Lake and, to its west, the Bonneville Salt Flats.

The Bonneville name, though associated with such all-American images as Utah and Pontiac, is French in origin, after Brigadier General Benjamin Bonneville, born in France but serving in the US Army. Though he explored extensively in the Oregon Territory and Great Basin, he never saw the lake that bears his name. Field Lieutenant Joseph Walker explored and mapped the area in 1833, and in a custom of the times named it after the boss. (We all say Chevrolet, but nobody says "Bawn-VEE-lya." Thanks again to the French, though, for the Louisiana Purchase and the Statue of Liberty.)

At its highest, some 17,000 years ago, Lake Bonneville was over 1,000 feet deep. The old waterline is still clearly visible on the surrounding mountains. As the lake evaporated, huge mineral concentrations remained, including potash (used today as fertilizer) and halite (used as table salt). The Bonneville Salt Flats today are about 90 percent salt. Shallow groundwater picks up dissolved minerals that percolate to the surface. In the hottest months, the water evaporates quickly, leaving behind the famous salt crust. (In winter and spring, several inches of water build up over the flats.) The stratified layers of the Salt Flats are almost five feet thick near the center, but only an inch or two near the edges. At over 46 square miles, the Salt Flats contain about 147 million tons—or 99 million cubic feet—of salt.

BONNEVILLE SPEEDWAY

It didn't take long, even on the remote American frontier, for motorsports to hit the Salt Flats, with the first recorded events in 1912 and the first land speed record runs in the 1930s. For decades, the Utah highway department took care of track preparation, annually marking out a 10-mile straightaway for land speed records and a 10-to-12-mile oval for distance records. (Then, as now, details depended on salt conditions year-to-year.) The Utah DOT has ceded this job, and for the past 20-25 years, track prep has been performed by event organizers. The straightaway used to be marked by one big black line, but that would wear away too quickly, so now you will find flags and cones along the outer edges. Exact distances are professionally surveyed before events begin.

Bonneville Speed Week, run by the Southern California Timing Association (SCTA), runs in August, on three tracks. In September, the Utah Salt Flats Racing Association hits the Flats for World of Speed. SCTA returns in October for the World Finals. We visited during World of

▲ Speed in September.

Wendover, Utah and the Bonneville Salt Flats are about 650 miles from Phoenix, taking about 12 hours with a stop or two. With all the parks and sights in between, you may want to figure a lengthier and more complex trip. Flying takes about 75 minutes, PHX-SLC, and the drive from Salt Lake Airport to Wendover is about 115 miles, so under two hours. Wendover, Utah offers only minimal lodging, so we did what most do,



grabbed a room at a casino hotel across the line in West Wendover, Nevada. Don't get too comfortable and don't stay up too late, as the day starts pre-bright and very early—you want to be out on the Flats before the sun even comes up. You'll find a great Mexican café at the exit off I-80, but predawn it is not yet open. Hit it for lunch or dinner. Heading out to BLM lands, there are a great many who forgo the casino hotel and camp in their RVs for an early start. Although the sun is blazing hot during the day, the Salt Flats are at an altitude of over 4200 feet, so bring a good jacket.

Access to the Speedway area and the event was sur-

KEEP RIGHT >>





prisingly open—we drove out to the edge of the action with other participants and spectators (some of whom were working on their own speed records). Park with everyone else, and you'll have a chance to mingle with the racers as they prep their cars, trucks and motorcycles, as well as to hit vendor tents with food and mementos. The racers are envelope-pushing enthusiasts and hobbyists who are generally not at all bothered by those who want to get a good look at things.

We headed to the starting line of the land speed runs and found much the same—the crowd is simpatico, and the racers don't mind the attention. You can stand right by the cars as they prepare to launch down the straightaway. (It was noteworthy to see how much attention was drawn from the import tuner crowd, as huge American V-power on steroids would fire up for the run.)



In all, 26 new Bonneville Class Records were set during the World of Speed event, including Skip Hedrich in the fastest car (#992, the eagle on this page and also our lead photo) at 336.064 mph in C/GS class (12.60 or more lbs. per cubic inch gas supercharged class), Mark DeLuca on the fastest bike (#3182 APS-F), at 237.664 mph, and in a nod to gender separatism, Rhonnie Vesco at 310.981 mph (#444 D/GS).

Land speed records at Bonneville include Sir Malcolm Campbell at 301.129 mph in 1935, Craig Breedlove in Spirit of America at 407.447 mph in 1963 and in Spirit of America Sonic 1 at 600.601 mph in 1965. Mickey Thompson was the first American to break the 400 mph mark, in 1960, and Gary Gabelich hit 602.407 mph in the Blue Flame, in 1970. Pushing the envelope with newer fuel systems, Roger Schroer hit 314.958 mph in his electric

Buckeye Bullet in 2004, and Andy Green hit 350.092 mph in his JCB Dieselmax Streamliner in 2006. A day on the Bonneville Salt Flats, even as a spectator, is definitely bucket list material. The World of Speed race dates for next year are September 8-11, 2012.

THE ENDANGERED SALT FLATS

The Bonneville Salt Flats are a Registered National Landmark, a place like no other, and its history—and fun factor—are unparalleled. Whether for racing, gawking or quiet contemplation, this area is so broad and flat you can see the curvature of the earth. And the surface is unmatched for motorsports. Unfortunately, the Flats themselves are disappearing, so significant efforts are afoot to try to reverse this. This is not your typical green movement: fully 20 racing and motorcycle organizations have formed the Save The Salt Coalition, in an effort to gain essential BLM and Utah state support.

By the early 1960s, Salt Flats racers began to notice subtle changes in the surface—it seemed to be getting weaker and it was shrinking, with track length typically down to seven miles or less. Analysis led quickly to the mining industry on the south side of I-80, which covered about 50 square miles of the Salt Flats. Industrial operations were shifting large amounts of salt accumulation to their settling ponds. Industrial canals crisscrossing the Flats fed more and more into evaporation ponds for potash extraction, removing about 850,000 tons of salt from the Flats each year. A formerly reliable 18-plus inches of salt had become so fragile that the race courses had to be moved farther and farther east. The long International Race Course had to be abandoned.

By 1989, the mining operation had been sold and was granted a new 20-year lease. The racers' goal seemed simple: to return that salt to the Speedway, and the Save The Salt Organization was born. The new potash operator agreed to mitigate conditions from 1997 to 2002, pumping brine water back to the north side, adding salt at the rate of 1.5 million tons a year. From the beginning of the pumping project, racers began to notice improvements in the surface, and by the end of five years, they were back to running on the old International Course. Though not as long, there was a noticeable difference in the hardness and durability of the race courses, and on a few occasions they were able to lay out as much as an 11-mile track. Tests confirmed that their aquifer was also regenerating. But the program ended at that time, and

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BONNEVILLE SALT FLATS

Utah Salt Flats Racing Association (USFRA)
www.saltflats.com

Southern California Timing Assn. (SCTA)
www.scta-bni.org

Save The Salt
www.savethesalt.org
(also linked via USFRA or SCTA)

Lodging in Wendover / West Wendover
www.wendoverfun.com
800-537-0207



another new owner took over.

During our visit, we heard the story over and over, from organized efforts in tents, to various race organizers, timers and general enthusiasts. The track is typically even shorter now, and thinning is becoming alarming and treacherous in spots, at times. Today's Save the Salt Coalition is seeking reinstatement of the 1997-2002 program, or an initiative that restores the salt at an equivalent rate. Their goals are to bring those mass quantities of salt back to the Bonneville Salt Flats over an extended period of months, to replenish with as much salt as is removed, or more, given the years of attrition, and that this salt be of the same quality as, or better quality than, that which was removed, and, most ambitious of all, that no more salt be removed from the Bonneville Salt Flats region.



The Save the Salt Coalition is still working with both the BLM and current potash plant owner Intrepid Industries. "While there is still a lot more to be done," they say, "our vigilance appears to have paid off, not just for the racing competitors but also by preserving this historical natural treasure, the Bonneville Salt Flats, for future generations." On the ground at World of Speed, though, the urgency of the situation remained a hot topic.

WENDOVER AIRFIELD MUSEUM

Wendover, Utah has another site of national significance—Wendover Airfield. Its claim to fame is rooted in a combination of pride and controversy, so funding has been light and many are unaware of its existence. The Airfield was quickly (and comprehensively) built during World War II, and it is where crews were trained in loading and delivering the world's first nuclear bombs, the ones dropped on Hiroshima and Nagasaki.

Wendover is the only remaining field from that time and still has over a hundred of the 668 structures built on over 3 million acres—the largest military reserve in the world—from 1940 to 1945: hangars, barracks, a control tower, mess hall and operations buildings. Favorable desert air and low traffic due to low awareness, plus a general lack of development in Wendover, have kept much of the facility intact. At the height of operations, Wendover Airfield hosted a population of 20,000 on base. One B-29, eight B-17 and twelve B-24 bombing groups were formed and trained there. The enormous hangar shown at left was built in record time to house the Enola Gay for secret modifications to haul its heavy payload, while Manhattan Project crews test-dropped over 150 prototypes in the desert.

Wendover Airfield has received a Preserve America's Communities planning grant, and its buildings are listed on the National Historic Register. Additional fundraising efforts are underway to raise the facility's profile and perform upgrades. Restoration work is beginning already, with the hangar due to receive a reskinning of its roof. Efforts are being coordinated through a partnership between the private Historic Wendover Airfield organization and Tooele County.

Wendover operates for general aviation and a regular run of commercial flights bringing gambling enthusiasts to the gateway of West Wendover, Nevada.

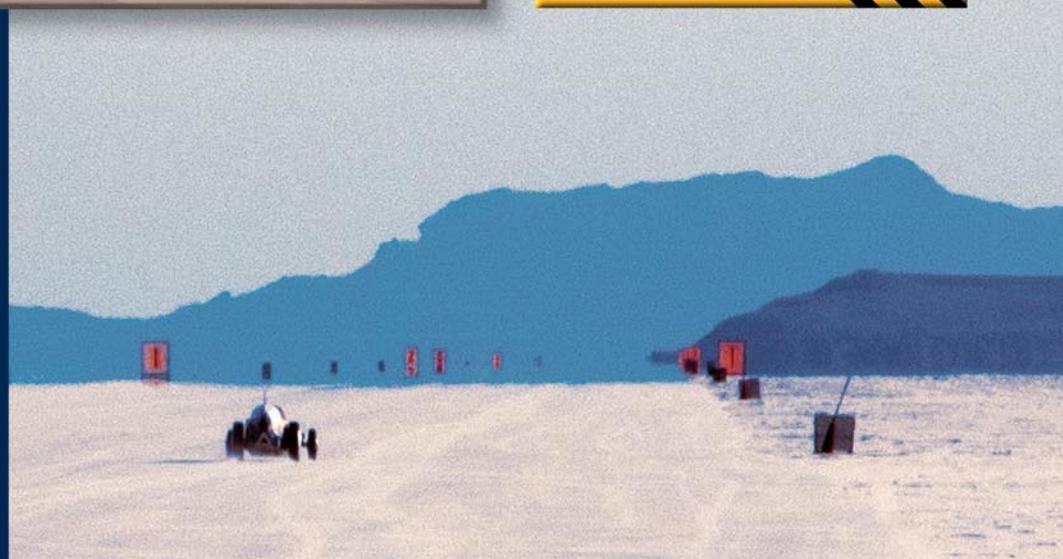
The control tower building includes a growing museum and low-key gift counter, while various test, control,

KEEP RIGHT >>

WENDOVER AIRFIELD MUSEUM

Wendover, Utah is just two or three miles west of the exit to the Bonneville Salt Flats. Wendover Airfield is on the south edge of town, in Utah, on the Nevada state line.

Historic Wendover Airfield, Inc.
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801-571-2907
www.wendoverairbase.com
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MILLER MOTORSPORTS PARK

People like Henry Ford or Steve Jobs can make even the most accomplished individual marvel at how much one person can achieve in one lifetime. The same can be said

and service job at an auto dealership was his gateway into the Larry Miller dealership empire.

Miller Motorsports Park began as a personal quest: Larry Miller and some of his buddies needed a place to drive. Starting with a budget of \$5 million, the project generated so much interest, it grew into an \$85 million project. A handful of personally interested enthusiasts thus built a racetrack on a par with—or exceeding—many a professional racetrack.

The main racetrack is a clever split layout. The full track is a 4.486-mile 23-turn circuit—the longest road-racing track in North America—which can be divided into two separate and complete tracks, each 2.2 miles long, which can host events simultaneously. The front straightaway easily accommodates speeds of 200 mph. The outer course hosts AMA superbike events running at over 100 mph. (MMP also hosts the time trial stage of the Tour de Utah bicycle race.)

A 20-acre paddock features 220 team garages, 40 day garages, 27 Grand Prix garages along the hot pits, an on-site medical facility and helicopter pad, a vintage car museum, and a five million dollar Club House.

We started our tour at the museum, guided by the facility's John Gardner, who we knew from his days as ad director at Vintage Motorsports Magazine (in Florida) some years back. The museum is somewhat reminiscent of the Penske Racing Museum in north Scottsdale, in that it's largely based on Larry Miller's personal circle of experiences and acquisitions, though the common thread is "vintage" as much as "racing." Prepare to spend a good hour in here, or more depending how much specific detail you want to get into. Every car, poster and piece of memorabilia in there has a story.

From the museum, we drove the entire perimeter, ending up at the Club House (some of which is a big of a museum in its own right.) With dining facilities and an outside deck overlooking the track, this is a primo spot to watch the races. Membership has its privileges.

MMP also has a kart track, 0.89 miles long, and though we didn't know it was on the agenda and hadn't eaten all day, we ran a full ten-lap race there with several other media types. Our group included Québécois Grand Prix racer Simon Dion-Viens, who beat the rest of us handily (just a tick off a track record without even trying), but a serious run was made by all.

To decompress, we then took a ride on the facility's Zip Line, a hair-raising backwards climb in a light double seat to its 150-foot height, with a quick release and rapid descent along its 700-foot length.

The kart track at Miller Motorsports Park opened in September 2005 and the main track in April 2006. Sadly, Larry Miller passed away in February 2009, at age 64, but his sons are ensuring continuity of operations. Whether to race, be a spectator, tour the museum or perhaps house your vehicles in this cool high-altitude climate, Miller Motorsports Park is a must-see destination. ■

of Larry Miller. You'll recognize his name from his auto dealerships: he had 41 in total throughout the western US, many of them in Arizona. Miller also owned the Utah Jazz basketball team and the Triple-A baseball Salt Lake Bees, high-profile real estate and business holdings including shopping malls, Megaplex Theatres, KJZZ-TV, the EnergySolutions Arena, a chain of sports apparel stores, an advertising agency and more. Miller and his wife Karen were also well-known for their philanthropy. They raised five children and had 26 grandchildren.

Miller's early life included heavy involvement in softball, drag racing and construction. (He raced actively from 1963 to 1970, from about age 19 to 26.) A parts

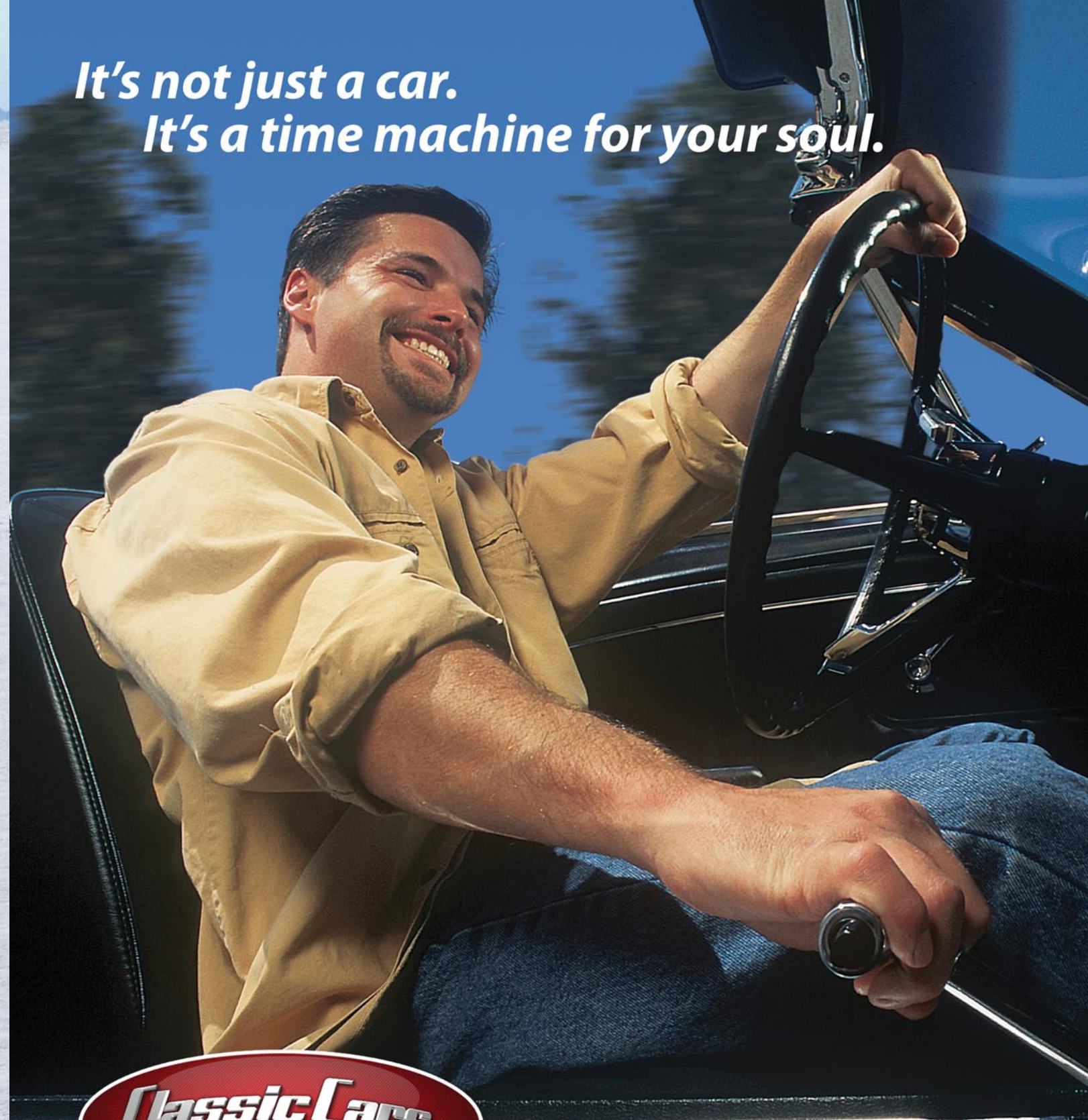


MILLER MOTORSPORTS PARK

Miller Motorsports Park is just 30 miles from Salt Lake City Airport, an easy stop en route to the Bonneville Salt Flats, or an easy flight up and back for a day on the track. Over a dozen events run per year; a season pass is just \$110 through December.

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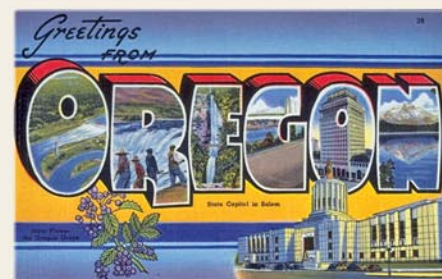
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WE TOUR THE PACIFIC NORTHWEST IN CHEVROLET'S RED-HOT CAMARO SS CONVERTIBLE AS LEMAY—AMERICA'S CAR MUSEUM OPENS ITS DOORS FOR THE FIRST TIME WITH A BIG SPLASH

BY JOE SAGE



Sometimes life hands you an irresistible convergence. We had had the LeMay Museum's first big event, the Hard Hat & High Heels gala, on our radar for months. We looked forward to seeing the roof sealed and the lights on at America's Car Museum, having most recently gotten a peek at progress while driving through Tacoma over 4th of July weekend. As the date loomed, we learned we would be in Maine that same week, for a new vehicle launch. The idea of flying from Portland, Maine, to Portland, Oregon, was even harder to resist. Through careful scheduling, we were able to book the two trips back to back, though we ended up in Phoenix overnight on the westward leg, a chance to transfer images, files and paperwork between trips, and of course to warm up and dry out between the coast of Maine and the Pacific Northwest, what with the Valley still in triple digits.

BIG PROGRESS AT LEMAY—AMERICA'S CAR MUSEUM

It's every contractor's dream (or every contractor's customer's dream) to be on time and under budget. In fact, it's usually a running joke. But in this case, they have come through in a big way. We joined the crew chiefs of JTM Construction, the general contractor, at our dinner table during the Hard Hat & High Heels gala—the first event to take place on the Museum's nine-acre campus—and they were rightly proud of their achievement. All was in place for the gala, and all is on track for completion in time for the spring 2012 Grand Opening event.

Encouraged to dress in "construction chic," attendees had costumes ranging from nothing at all (well, suits or gowns), to safety vests, hard hats and boots, to—well, imagine the Oscars or a royal wedding, but with all that hat creativity applied to protective construction headgear, and you start to get the picture.

The official "guest of honor" for the event was the Museum's 1927 LaSalle 303 Roadster, though the evening was actually emceed by television personality Rob Weller of *Entertainment Tonight* fame, and Museum President and CEO David Madeira gave the keynote speech. "The reaction has been tremendous and gratify-



The metal roof on LeMay—America's Car Museum is almost complete as we visit in late September (facing page and above right). The top went up and down many times on our 2012 Camaro 2SS convertible, as showers and blue skies took turns. Above top, we take the Camaro to Anderson Island, accessible by county ferry.

ing for our team, which has been working for years to get to this point," says Madeira. "We still have a lot of hard work to do in the next nine months, but this was an important milestone because it signifies 'we're open for business—now!'" Although the grand opening is next year, the Museum is ready to host meetings, conventions, parties and other events. Madeira noted there were events already scheduled from this fall into 2014.

Madeira also announced that the Museum would soon have its Certificate of Occupancy from the City of Tacoma. As JTM finishes the final phase of building construction, focus will shift to the installation of the museum's interior elements and exhibitry, and to moving in the cars. ACM gave the sold-out crowd of members, benefactors and board members what was for most of them a first look inside the four-level, 165,000-square-foot facility. By opening day, it will be filled with 500 cars and a wide range of exhibits and facilities. (For a lot more detail, see our May/June issue.)

The Hard Hat & High Heels event included a reception, dinner, silent and live auctions, plus tours inside the facility, which showcased some of ACM's 500-plus automobiles, including the 1927 LaSalle and the most recent acquisition, a 1965 Lotus 35 Formula 1 race car donated to the museum by ACM board member and Tacoma native John Dimmer and his wife Marilyn.

The Hard Hat & High Heels event was part of ACM's \$12 million "Race to the Finish" campaign, a 2-year

drive to raise funds supporting collection preparation, exhibit development, educational programming, student internships, library acquisitions and archive development. More than 650 partygoers attended the fundraiser. In addition to ticket sales, the auction of some 130 items raised over \$550,000 for the Museum.

THE 2012 CHEVROLET CAMARO 2SS CONVERTIBLE

Through the luck of the draw (and from a different press pool), we had a brand new Camaro SS convertible for this trip. Larry Edsall had the same car a few months earlier, which he reported on after a classic northern Arizona Route 66 drive (see the July/August issue). Well, it wasn't exactly the same car—his was in fact a 2011 while ours was a 2012—but any variables between the two are negligible, as they were both 2SS six-speed manuals. (There is a horsepower boost for 2012 on the SS automatic.) The main differences were [a] that his trip was in the dry high desert while ours was mostly at sea level in the wet Pacific Northwest, and [b] while he was able to pack wisely with the car at hand, we packed for a multi-faceted air trip without consideration to the trunk we were about to encounter. Luggage and the convertible top were inseparably entwined.

Edsall noted the pros and cons of this at the time. "Let's get the least impressive things about the 2011

HARD HAT & HIGH HEELS

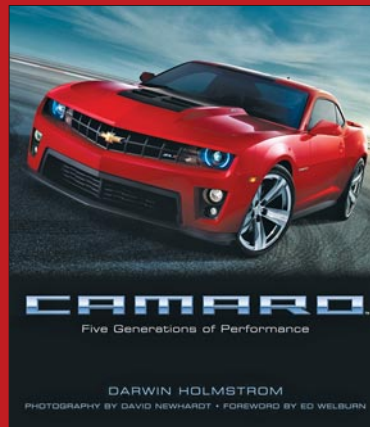
We first met the gang from LeMay—America's Car Museum last January during Arizona's collector auctions. The project was so compelling, we flew up there several times to tour it and check progress (see the May/June issue), from fresh concrete, to the first roof arches, to the installation of the roof sheetmetal. The grand opening is not until spring 2012, but it was time to show off progress to the movers and shakers of Tacoma and the members who have made the new museum possible. The Hard Hat & High Heels gala in September was part formal affair and a large part costume funfest. Funds were raised for the museum through ticket sales and auctions. Though not yet set in cement, we even found our own commemorative brick. Order your own brick, or become a member, at lemaymuseum.org.



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NEW CAMARO BOOK

It took GM a couple of years to react to the tremendous success of the first Ford Mustang, but when they did, they did it in style with the Chevrolet Camaro—and the pony car battle began. Author Darwin Holmstrom and photographer David Newhardt capture Camaro history from that beginning right up to the dramatic fifth generation. Their 348-page hardcover book with 280 full color photos, *Camaro: Five Generations of Performance*, documents the story of the race to capture the emerging youth market in the 1960s and Chevy's efforts to out-muscle the Mustang. Historic photos from GM illustrate how the designs and concepts were created, along with the advertising. The book covers all the Camaro pace cars and even aftermarket modifications of Callaway. The 9"x 10.3" book is on sale at bookstores or from the publisher, Motorbooks, a Division of Quayside Publishing Group (\$29.99). For more information or to order, visit www.motorbooks.com. ■



NEW: MOST POWER EVER

Chevy engineers have finalized numbers for the 2012 Camaro ZL1 at 580 hp and 556 lb-ft of torque, making it the most-powerful production Camaro ever. Ensuring the supercharged 6.2-liter ZL1 will handle the power are advanced powertrain and chassis technologies, including exclusive Performance Traction Management with five modes. Suspension is third-generation Magnetic Ride Control, which can be set for Tour, Sport or Track. The ZL1 will be offered with a six-speed manual or six-speed automatic transmission. The Tremec manual features 30 percent more torque capacity than that in the Camaro SS. Similarly, the Hydra-Matic 6L90 automatic has been strengthened to handle the power, plus has three drive modes: an economical Drive setting, an aggressive Sport mode and a Manual setting with total manual control for maximum performance and no automatic shifts. ■



The Long Beach Peninsula coast is officially a Washington state highway—you can drive on it. This looks wet to us, but it has been a dry year, so the sand is largely impassable other than to big low-torque trucks. Luggage logistics are limited: pack wisely. Southwestern WA has a surprising variety of good Mexican restaurants.

Chevrolet Camaro convertible out of the way quickly," he wrote. "The top needs about 20 seconds to power itself up or down, which may seem an eternity in this day and age. Nonetheless, don't overlook the fact that, at long last, you can buy a Camaro with a TOP THAT POWERS ITSELF UP AND DOWN." Well, there is that. Larry continues, "Let's see, what else? Well, the trunk isn't huge, and when the top goes down it takes some of the available space. But once again, don't overlook the fact that THE TOP POWERS ITSELF DOWN so you can enjoy not only the open road but also the open air." Bingo. We had to put a larger-than-usual roller suitcase in the back seat. We might have benefited from a system to belt that in, but without any traumatic experiences from flying luggage, and when the Pacific Northwest rain let up (the overall majority of the time), we could indeed forget about that while driving with the top down. Nice. When we stopped for lunch or overnight, though, we had to jockey back and forth among the back seat, the convertible top controls inside, and the aforementioned trunk, until luggage was securely stowed for security in our absence. There is more than one possible scenario for all this, though the overall situation applies to things other than luggage, as well.

ON THE ROAD IN THE CAMARO SS CONVERTIBLE

So here we were in not one but two other states, and passing through any number of small towns and medi-

um-size cities, in a bright Inferno Orange 426-horsepower convertible. We had heard stories, but we did not get arrested. Cruise control and a well-executed head-up display helped.

We did make a few notes. The most recurrent topic was the luggage and convertible top conflict. When you buy your Camaro SS convertible, make sure to grab a couple of flexible duffles, if you don't have them already. That will solve everything.

Arizona's beautiful, smooth highways may be the explanation, but while Larry had found that "the cockpit is amazingly quiet and unwindblown when the top is down," we noted lots of road, tire and wind noise, though we also noted an improvement on a newer stretch of asphalt. Tires are always a variable, and we noted that this set's hum could be exhausting on a long trip, even with the top up (more insulation would help).

But that's a characteristic of performance tires, and performance is the name of this car's game. Another characteristic of the tires was a bit of darting and wandering at high speed. Stay alert.

When we drove the new Camaro coupe last year, we confirmed what's apparent from the outside, that visibility is limited and the cabin can feel mildly claustrophobic. Is this cured in the droptop? To a degree, yes, though the very small windshield and very big A-pillars

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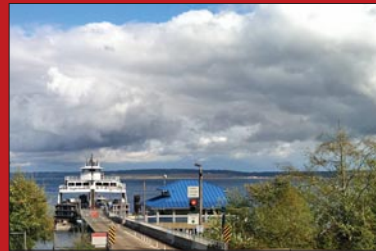
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PNW TRAVEL NOTES

On most trips to the LeMay Museum, we fly to Seattle and Tacoma is our southernmost point. For our most recent prior trip, we flew to Seattle but drove southwest to the Washington coast and also northeast to the North Cascades, making Tacoma the center point. For this trip, we flew to Portland, Oregon (one day after leaving Portland, Maine). We drove west, grabbed dinner in Astoria OR, then crossed over the Columbia River and drove to Long Beach on the southwest Washington coast. This time, Tacoma was our northernmost point. In Tacoma, we finally visited the Washington State History Museum and the Museum of Glass, which, along with the Tacoma Art Museum, form the Museum Corridor LeMay joins, and took the Pierce County Ferry to Anderson Island. Our return flight was also out of Portland. ■



The 2012 Camaro 2SS convertible on Anderson Island. As fate would have it, our Camaro hooked up with a hardtop overnight back in Tacoma. The coupe was up from Oregon, as were we in this case, though our Camaro had California plates, so popular (not) up that way. Deep forests provide some topdown shade.

still leave you hunkered down and peering out through that front slit at a traffic light.

Nitpicks. Overall, the photos tell the story: it's a Camaro SS convertible—what's not to like?

THE WIDE-RANGING CAMARO LINEUP

The Camaro lineup includes 1LS, 2LS, 1LT, 2LT, 1SS and 2SS models (with a ZL1 on the way; see sidebar). The LS and LT models have a 323-hp 3.6L V6, with base prices ranging from \$23,200 to \$28,350 for the coupe. The SS models are powered by a 426-hp 6.2L V8, with base prices of \$31,850 and \$35,450 for the 1SS and 2SS, respectively, and again for the coupe. That's about 32 percent more horsepower for 25 to 37 percent more cost; whether the SS wins the bang-for-the-buck comparison depends upon the exact comparo.

Your own comparison may well also factor in fuel economy. The V6 is rated at 17/28 mpg city/highway (20 combined) with a six-speed manual transmission, or 19/30 (22) with a six-speed automatic. The V8 in the SS is rated at 16/24 mpg city/highway (19 combined) with a manual transmission or 15/24 (18) with an automatic. Those numbers are close enough overall to be negated, or even overlap, depending how much lead you have in your foot. Interestingly, the V8 rates higher mileage with a stick, which to us is a win-win. Whether the V6 buyer will be after the manual shift, or maximum fuel economy, or both, that decision is a little harder to

make, as the V6 with automatic is clearly the mileage champ. On the other hand, if your main goals are power and manual control, the decision is easy, if budget allows: go with the SS.

The other combined emotional-and-budget decision involves the convertible top: whereas a V6 coupe starts at \$23,200 for the 1LS, the base convertible is a 1LT starting at \$30,100 (the base for a 1LT coupe is \$25,200). Apples and oranges. If budget rules, the 1LS coupe wins. If it's a ragtop-coupe decision, then 1LT-to-1LT is a closer game. If you're also comparing the SS models in convertible form, their base prices are \$37,900 and \$40,600 (1SS/2SS).

An overall price range from about \$23k to \$41k offers something for everybody, on the one hand (part of the original pony car formula from the '60s), while offering some headscratching calculations to anyone starting the process with a blank slate.

Our Camaro SS convertible in the Northwest was loaded to the gills, with four columns of features included in the base price. Add an interior accent package for \$500 (the kind of thing that would cost thousands on a European car) and an RS package for \$1350 (HID headlamps with LED rings, 20-inch specialty wheels) and Inferno Orange Metallic paint (\$325), plus \$900 destination charge, and this one is out the door for \$43,675. For that—at least until the ZL1 arrives—you will find yourself at the pinnacle of the Camaro lineup. ■

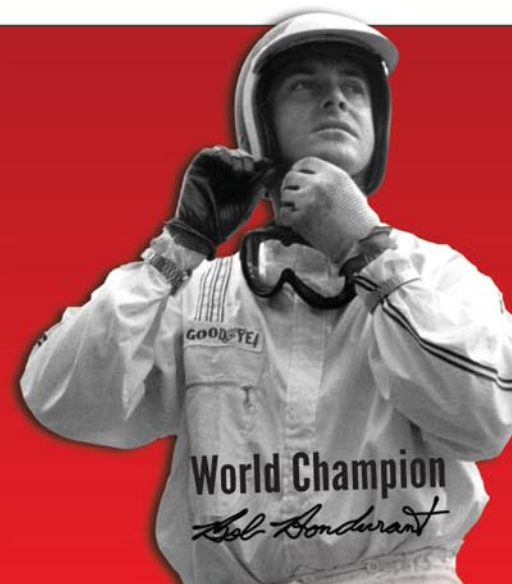
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ARIZONA JAGUAR TEAM SHINES

AT THE ROLEX MONTEREY MOTORSPORTS REUNION

STORY BY TIM SHARP
PHOTOS BY TIM AND KRISTIN SHARP



In recognition of its fiftieth anniversary, the Jaguar E-Type was selected as the honored sports car at this year's Rolex Monterey Motorsports Reunion. As the successor to the legendary C-Type, D-Type and XK120 Jaguars of the 1950s, the XK-E had a proud racing heritage to defend. The E-Type did this admirably, with scores of race victories in Europe, Australia and America. The XK-E also became the iconic symbol of English pop style during the British Invasion of the 1960s, often adorned with a Union Jack. However, Jaguar traditionalists still preferred British racing green.

One might assume that fastidious Jaguar owners would ship their vintage race cars to England for restoration. However, many American and British Jaguar owners choose to send their cars elsewhere. They ship them to Terry Larson's shop in Mesa for restoration and race preparation. Yes, race fans, they send them here to Arizona. As one of the top experts in the world on racing Jaguars, Larson not only restores Jaguars, but he also wrote the *The C-Type Register*, which chronicles the lineage and race history of Jaguar's earliest race cars. Having raced virtually every cat made

from the post-war era through the 1960s, Terry also understands the handling characteristics and mechanical quirks of each vintage racing Jaguar. Currently, Larson owns a Jaguar SS 100, C-Type, D-Type, XK120 and Lister-Jaguar.

During the celebration of the fiftieth anniversary of the XK-E at the Mazda Raceway Laguna Seca circuit, Terry and his mechanics—Ken Shutze, Dave Walls, Greg Nell and Chris Ewing—had a very busy week. They not only had to prepare the vintage Jaguars for the races, but also for the concurrent Pebble Beach Concours d'Elegance and for track displays. It was Jaguar's year to shine, and the deep green cats sparkled like emeralds.

Terry and Darlene Larson were also joined in their pits by Mike Silverman of Scottsdale, who raced Terry's latest acquisition. This black cat is a 1954 XK 120 infamously known as "The Raider." Formerly raced on the West Coast by Hap Richardson in the fifties and sixties, this machine is believed to be the winningest racing Jaguar on the planet. Far into the 1960s, Richardson was still beating Corvette Stingrays with his antiquated 1954 Jaguar.

THE CATS ON THE TRACK

It is one thing to look good in the pits and quite another to do well on the track. Fortunately, the Jaguars performed flawlessly on the twisty Laguna Seca circuit. In the 1981-1989 FIA and IMSA GTP Class, the Group 44 Jaguar XJR machines took the first two podium spots, followed by a Mazda RX7-92P. Former professional driver Rick Knoop won, with Doug Smith taking second and Weldon Munsey finishing third.

In the 1947-1955 Sports Racing and GT Class, John Buddenbaum led most of the race in his Jaguar Special, only to be passed late in the race by Rob Manson's Ford V-8 powered Manning Special. (Apparently, Manson did not get the memo that a Jaguar was supposed to win.) However, Jaguars did take the next three places. Bernie Juchli finished third in the Hagemann Jaguar Special, Terry Larson was forth in his C-Type and Mike Silverman finished fifth in Larson's black XK 120 roadster. Alex Curtis, another Arizona driver, finished sixth in his sleek Mercedes 300SL.

There was also a Jaguar Invitational Class, which featured E-Types exclusively



—early six-cylinder E-Types, not the later twelve-cylinder cars. Art and Bob Hebert took the first two podium positions in their lightweight silver 1965 Jaguar E-Types. Jack Busch was third in his 1962 XK-E.

TOP PERFORMANCES FROM ARIZONA

Brilliant drives were also put in by other Arizona racers at the Rolex Monterey Motorsports Reunion. Ross Thompson and Les Betchner, both former Bob Bondurant School of High Performance Driving instructors, finished second in their races. Chris Orosco was the runner-up in his class.

Thompson's 1973 Corvette pressured Ken Epsman's 1976 Monza AAGT for most of the race until his heavier machine overheated its tires. Betchner was impressive during his first time on the Laguna Seca circuit. Driving a Chevy-powered 1958 Devin SS, Les was the runner-up to Donald Orosco's 1958 Lotus 15.

Chris Orosco, Donald's son and a Phoenix resident, also finished second in the 1955-61 Sports Racing Cars Under 2000cc Class, in his superb handling 1959 Lola Mark 1. Chris was edged out by Ed Nigro in a similar Lola Mark 1 machine.

Congratulations to all the Arizona drivers who put on a remarkable show for the vintage racing fans. A special thanks to Terry Larson and his team for making this a memorable year for Jaguar. We are certain that the HMSA and Laguna Seca Raceway appreciated Larson's efforts, as Terry was awarded the prestigious "Spirt Of Monterey Trophy" for his driving performance and preparation work at Monterey.

A PERSPECTIVE ON VINTAGE RACING

If you have ever raced cars for championships and prize money, it may be difficult to grasp the notion of vintage racing. Most vintage racers receive nothing for winning their race, save the admiration of the fans and the respect of their fellow competitors. However, for most vintage race drivers, this is more than enough.

"The car is the star" is an expression frequently heard in vintage road racing. Vintage sports cars are rolling works of art which provide us a nostalgic link to our past. They amaze us with their innovative and quirky engineering. They

Jaguars of every type were the stars at the Rolex Monterey Motorsports Reunion. Opposite page, Terry Larson takes a turn in his No. 28 Lister-Jaguar. Bottom right, Art Hebert wins the E-Type race in his silver No. 63.



KEEP RIGHT >>



Many vintage Jaguars arrived via Reliable Transport and their owners by motor coach. Shown above are Larson's lineup, Group 44 Team's XK-E V12 roadster on display and Terry Larson's No. 100 C-Type on the track.



bring smiles to the faces of children who sit in their cockpits and pose for photos. They bring joy to race fans who remember when these cars competed "back in the day."

"If the car is the star, then isn't vintage racing really an on-track car show?" one might ask. Absolutely not. Former professional drivers like Bobby Rahal or Brian Redman still like to win their races, and the amateurs who compete against them are intent on denying them the victory. However, when you are racing three-million-dollar Jaguars or Ferraris on the track, you tend to make safe passes and avoid body contact. You will never see the intentional take-out moves NASCAR drivers frequently use, but you will see some exciting passes and very close competition.

While it is interesting to view vintage sports cars in a museum, there is nothing like watching them compete on the

race track as they did in their prime. Whether you prefer pre-WW II Grand Prix cars, Trans Am muscle cars or Le Mans prototype machines, you will see them all race at the Rolex Monterey Motorsports Reunion. It's not too early to start planning now, to catch the historic races in Monterey next summer.

MISSED THIS YEAR? PLAN FOR 2012

If you would like to attend the Rolex Monterey Motorsports Reunion, Pebble Beach Concours d' Elegance, auctions by Bonham's, Gooding & Company, Mecum, RM Auctions and Russo and Steele, the Gathering at Quail Lodge, or any of the other exciting events held during Monterey Auto Week in mid-August, check out these websites for more information:

ROLEX MONTEREY HISTORIC RACES:

www.mazdaraceway.com

PEBBLE BEACH CONCOURS D'ELEGANCE

www.pebblebeachconcours.net

MONTEREY AND PEBBLE BEACH AUCTIONS:

www.bonhams.com/quail

www.goodingco.com

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www.rmatauctions.com

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Joe Sage



Number one in sales. Just as with computers, hamburgers and much else, that has not always meant the best you can possibly buy. Then again, as with cell-phones and MP3 players, sometimes it has. As we received the 2012 Chevrolet Cruze Eco for a test week, the Cruze was occupying the number one spot in US sales, and the Cruze is Chevrolet's biggest-selling model worldwide. In this case, these king-of-the-hill claims are backed up by quite a product, at quite a price.

GM's stylists have taken a shot of adrenaline over the past several years, in all segments. Gone are the days of "you don't really want this one" styling on small cars, inside and out. And features abound. For a good decade now, most any automotive writer would tell you that you just about can't buy a bad car anymore: build quality and ride have improved across the board. We would add that as this decade gets rolling, you just about can't-not-get a very complete set of features, options and electronics. Many cars in this price category now have features that, in a car at four or five times this cost, might come in an option package that costs as much as this car itself.

There is considerable value in the purchase of the Chevrolet Cruze. But there is also remarkable value in its ownership and operation.

WANT 30 MPG? HOW ABOUT 42? (OR 51?)

One strong trend in the industry right now is the development of powertrains with what are generally considered alternative power sources. (The more that come to market, the less these will be considered alternative.) But a corollary trend is toward maximizing the efficiency of the reliable, affordable and familiar internal combustion engine. And Chevrolet is wringing quite a bit out of the turbocharged 1.4-liter ECOTEC® in the Cruze. Add other Eco touches such as optimized aerodynamics, minimized weight and reduced rolling resistance, and with a six-speed manual (with Eco overdrive), the Cruze achieves 42 mpg (estimated highway). A Cruze Eco with an automatic transmission is rated at 39 mpg.

We're bullish on the availability of a manual transmission, and even moreso when it has the better fuel economy of the two (not always the case).

At that benchmark 42 mpg, the Chevrolet Cruze Eco sits among the most fuel-efficient non-hybrid vehicles sold in the US. (Chevrolet has confirmed that this number could grow to as high as 51 mpg with a diesel engine option starting in the 2013 model year. GM sells a diesel Cruze in Europe and Australia, but the engine is being reengineered to meet US emissions standards.)



Automakers are facing potential mandates to increase fuel economy to 35.5 mpg by 2016 and perhaps 56.2 mpg by 2025. The diesel GM already has waiting in the wings can be a major step toward this.)

MIDDLE DOG OF FIVE CRUZE MODELS

The non-Eco Cruze LS starts at just \$16,720 (with a non-turbo 1.8-liter ECOTEC engine achieving 36 mpg). Both the 1.8-liter non-turbo Cruze and the 1.4-liter ECOTEC turbocharged Cruze (1LT, 2LT and LTZ models, as well as Eco) are rated at 138 hp, but the turbo delivers more torque—148 lb-ft compared to 123 on the base LS.

Pricewise, the Cruze Eco sits in the middle, with a base price of \$19,245. Lose the aero features, but add more leather, chrome, upgraded instrumentation and such, and the 2LT or LTZ come in just over \$20,000 and at \$23,110, respectively. The LTZ comes with automatic only, and the weight of its options is one factor in its 36 mpg fuel mileage rating. The full lineup doesn't vary tremendously, so you'll have some fun working through the decision points for your own best goals.

The Eco nameplate is a harbinger of more to come. In model year 2013, watch for the Malibu Eco, which feature eAssist™ light electrification technology, expected to deliver an estimated 38 mpg highway, the highest for a midsize sedan in Chevrolet history. The eAssist system will use a state-of-the-art lithium-ion battery and electric motor-generator to enable regenerative braking electric assist and start-stop functionality, working with a 180-hp 2.4-liter ECOTEC direct-injection four-cylinder engine and six-speed automatic. But it will cost more—about \$5000 more, based on 2012 Malibu pricing.

The Cruze promises the amenities, quiet ride, roominess, infotainment and safety features of a larger car, in a compact car, at a compact price, and it's available now.

The 2012 Chevrolet Cruze is the only car in its class with 10 standard air bags, receiving an overall maximum possible five-star safety rating from the NHTSA.

ECO-CRUZIN': UNDER 20 GRAND, OVER 40 MPG

The 2012 Chevrolet Cruze Eco we spent a week with had the max-economy manual transmission, so it was max-rated at 28 mpg city and 42 mpg highway. The only add-



on to the \$19,245 base was an Eco Driver Convenience Package, at \$495, which added 6-way power adjustment to the driver's seat, plus rear parking assist. With destination charge of \$750, the test car stickered at \$20,490.

Traction control, StabiliTrak ESC with rollover protection and ABS are standard, as is rack-mounted electric power steering, which saves fuel by removing a steering pump from the engine's burden. Hydraulic ride bushings and an isolated engine cradle create a quiet cabin.

The Cruze Eco had a great engine-driveline note that gives a feeling of strength, noted at times as bordering on Shelbyesque. This backed up our initial impression: a solid car, stylish outside and in. The car has guts.

It felt less powerful on a freeway access ramp, but pretty potent at freeway speeds. On surface streets, the gearing of the manual transmission let us nail corners; though the suspension and tires a bit less so. The full Cruze lineup has a MacPherson strut front suspension, and most have an advanced Z-link rear suspension setup, but the latter is not included on the Cruze Eco with manual transmission. Too bad. We noted the difference in rear suspension performance several times.

The Cruze has a huge trunk, 15.4 cubic feet—bigger than an Audi A8 or BMW 7 Series. Interior size was generally fine, though we caught our toe on the hood release every time we got out. Our logbook states that if the ignition key didn't have a key fob on it, we might not notice that our knees were a bit crowded, but with a key fob, we noticed it constantly. An easy fix, of course.

The Cruze's instrument display gives you refreshingly straightforward information: to adjust fan speed, you get three little icons; to tune audio, you get a surprisingly usable selection for a small screen (though it takes longer to master). It's very clever: the smaller screen keeps this affordable compact car's positioning intact, while providing a wealth of top-notch interface. Audio quality, even after working deep into the controls, was nothing special.

The wheels punch beyond their weight. Interior styling is clean, controls are simple yet quite advanced. The new Cruze Eco is not likely to beat a Ferrari, but it will surprise a lot of people with its performance. The basic stats are inescapable: a price under 20 and fuel mileage over 40, all in an attractive package. ■

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THE INSIDE TRACK: BRIEFS & RUMORS



■ **GMC** will build the Granite, unveiled as a concept at the 2010 Detroit show. The subcompact will compete with the Scion xB and Kia Soul and others in the trendy urban crossover category, bringing a new kind of clientele into GMC dealerships. The concept had a 1.4-liter turbo and six-speed manual, but there are now other engines in the GM arsenal that might be better suited for the smallest GMC ever. It is two feet shorter than the Terrain compact crossover, but its open interior is spacious and flexible to fit the needs of active people. Granite's four doors open wide, with no pillar between, making the Granite easier to enter, exit and load. Generous cargo space and unique flipping/folding seats allow even a mountain bike to be loaded completely inside with the tailgate closed.

■ The "Infiniti Personal Assistant" takes owner services a step further than most by offering owners an anytime-anywhere personal assistant to provide information for travel, shopping, entertainment and help during emergencies. Owners have unlimited access to live professional help 24 hours a day, accessed primarily through the owner's mobile phone, synced through Bluetooth® voice command, but is also available anywhere outside the vehicle, too. Infiniti is the first luxury automobile brand to offer this type of service nationally in the US. The service is also available via e-mails, text messaging and online portals. The Infiniti Personal Assistant is offered at no cost for the first four years of Infiniti ownership.

■ The all-new, fourth-generation **Honda** CR-V is set to go on sale in the US by the end of the year. Honda has uncharacteristically revealed its CR-V Concept, with a more aggressive stance and bold new styling, with deeper sculpting of the bodylines plus a bolder front fascia. The CR-V's signature vertical rear taillights remain for 2012 but with a more three-dimensional style that wraps further into the vehicle. The all-new 2012 CR-V will feature a more fuel-efficient engine and reduced body weight. The 2012 CR-V will also have an all-new interior with more spacious design and a lower cargo floor.



■ We have all heard of a car handling so well, it was "like riding on rails." Now **BMW** is taking that expression literally. DesignworksUSA, the design consultancy subsidiary of BMW Group, is taking the lead role in the redesign of the BART (Bay Area Rapid Transit) system in the San Francisco Bay Area. DesignworksUSA and BART will work together to create the "Fleet of the Future," a new generation of train cars to enter service by 2017, delivering a premium passenger experience. The DesignworksUSA assignment includes the train cars' exterior, with unique signature expression, to the exterior passenger information system. DesignworksUSA will create the main interior design features and incorporate



controls in the design of the operator's cab. BART, which launched in 1972, presently operates the oldest fleet of train cars in the US.

■ The **Audi** Urban Concept, a technical study revealed at the Frankfurt show, combines elements of a racing car, a fun car and an urban car into one far-reaching concept. The Audi is a 1 + 1-seat ultralight car created for use in congested urban spaces. A sleek carbon fiber-reinforced polymer body rides on 21-inch open wheels, each surrounded by protective plates. The design conveys motion even when standing still. The roof and doors slide back allowing access to the interior. Inside there is room for two people, their position slightly staggered at a sporty, low level. Minimal controls and interior appointments are part of the ultralight construction in order to ensure a unique, sensory allure. It is powered by two e-tron electric motors and a lithium-ion battery, with powerful acceleration.

■ New York Fashion week kicked off with the introduction of a Gucci limited edition **Fiat** 500 and Fiat 500 Cabrio. The new black or white Fiat 500 and 500c Gucci models are inspired by neo-classic black-and-white films, finished in glossy pearl-glass paint. A Gucci green/red/green web stripe runs along the bodyside perimeter on the coupe and across the length of the power-retractable cloth top on the cabrio. 15-inch aluminum wheels have "GG" hubcaps and brake pads, lacquered in Gucci green, and the interior has two-toned seats in Frau® leather with Guccissima print. The 2012 Fiat 500 by Gucci will be available in December 2011.

■ **Chrysler** plans to use their ZF eight-speed automatic in 2012 Chrysler 300 models with the new 292-hp 3.6-liter Pentastar V6 engine. Three more gear ratios reduce gaps in upshifting and downshifting. The new transmissions will also be used in the Chrysler 300's all-wheel-drive system, to improve fuel economy by up to 5 percent. The system transitions seamlessly between AWD and rear-wheel drive, automatically disconnecting the front axle to maximize fuel economy with fun-to-drive rear-wheel-drive performance and handling. The eight-speed will soon find its way into six-cylinder models of the Jeep Grand Cherokee and Dodge Charger. An inside source said the company is also working a nine-speed automatic for use in front-wheel drive vehicles.

■ The current **Mazda6** sedan will be pulled from the US at the end of the current cycle. A joint operation with Ford in Flat Rock, Michigan started in 1985, with



the Mazda6 built there since 2002—the first Mazda to personify the Zoom-Zoom brand message. US sales of the Mazda6 have declined recently, though it is still being built at the Hofu plant in Yamaguchi Prefecture, Japan (where it is known as Atenza) and the plant in Changchun, China.

■ Despite millions of dollars of advertising and hundreds of news stories and reviews, a majority of consumers still do not know who builds the Leaf and Volt electric cars. A recent independent market research study indicated that nearly 70 percent of shoppers had no idea that the Leaf was a **Nissan**, and about 55 percent of those in a market for an electric car did not know that the Volt was a **Chevrolet**. Both Nissan and Chevrolet have said they expect to win new customers to their

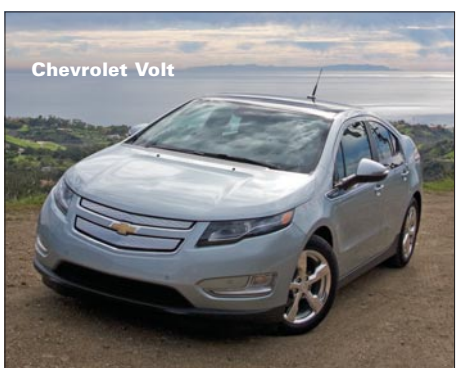


respective brands by the halo effect of their electric cars, but apparently their brand awareness has some lag time before they benefit from the full effect.

■ **Ford** has found a good use for old carpet that has been destined for our landfills. During 2010, Ford reclaimed 4.1 million pounds of carpet from waste and used it



made from 100 percent recycled carpet. The EcoLon material, from Wellman Engineering Resins, offers an eco-friendly, high-quality alternative to a typical cylinder head cover. The cylinder head covers, the first automotive product of their kind from post-consumer recycled nylon, are made by Dana Holding Corporation. ■



Briefs & Rumors is a summary of auto news from industry sources, trade journals and consumer magazines compiled for *Arizona Driver Magazine* by **BILL & BARBARA SCHAFFER** of *Auto Digest*.

UPCOMING FEATURES

2012 Porsche Cayman R



Richard Petty Driving Experience at PIR



Photos: Randall Bohl Photography

Goodguys 14th Southwest Nationals



LA Auto Show



Photo: Joe Sage

2013 Lexus GS 350, GS 450h



Active Lifestyle of the Year ride-and-drive



Photo: Brenda Priddy & Company

Coronado Speed Fest



Salt Lake's new City Creek Center



Photo: Joe Sage

Rockford Fosgate 24/7



RYAN SIPES
STAR RACING YAMAHA
SUPERCROSS
IT'S WHO I AM 24/7

Photo: Joe Sage

Photo: Kristin Sharp



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