THE ENTHUSIAST'S GUIDE TO LIFE BEHIND THE WHEEL MARCH-APRIL 2011 IS: LUNCH WITH JOEY LOGANO- LUCAS OIL OFF ROAD RACING SERIES AT FIREBIRD - PIR TRACK UPDATES - FIREBIRD SCHEDULE S AND COLLECTORS: ARIZONA JANUARY AUCTION REVIEW - AUCTION AND COLLECTOR PANEL DISCUSSIONS - NEW AUTOMOTIVE MUSEUM ITS AND ATTRACTIONS: 4TH ANNUAL WHEELS OF WELLNESS: RACING SUPERSTARS ON THE FRONT PORCH MERCEDES-BENZ CLS63 AMG (SAN DIEGO) - CHEVOLET VOLT (SANTA MONICA) - FORD FOCUS (HOLLYWOOD) INFINITI QX56 - VOLVO S60 T6 AWD - LEXUS ES 350 - TOYOTA RAV4 LTD - HONDA CR-Z CHIP YATES AND THE SWIGZ.COM PRO RACING ELECTRIC SUPERBIKE ... AND MORE ..

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COVER: The 2012 Mercedes-Benz CLS63 AMG cockpit. Photo courtesy Mercedes-Benz.

FROM THE PUBLISHER: START YOUR ENGINES..

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START YOUR ENGINES: FROM THE PUBLISHER

t's been another busy couple of months. January included so much: three exclusive press launches, each of considerable significance, all mercifully handy, in Southern California. First up was the groundbreaking Chevrolet Volt, the first primarily electric-powered mainstream sedan (it has a backup gasoline engine to provide more electricity, not to provide drive). Next was the latest from AMG, taking the luxurious four-door-coupe Mercedes-Benz CLS Class and creating the CLS63 AMG rocket ship, while improving fuel mileage by 32 percent in an overall drive to sustainability even for the powerful. Third was the Ford Focus, a car that can fill more niches than its niche might suggest, with a range of models and body styles, and truly a global car, the same one we've wanted out of Europe for some time. We had several other vehicles here in Arizona for a week at a time, as well.

January is also, of course, auction season in Arizona, when the world comes to our doorstep to buy and sell the most collectible vehicles on earth. As a rough economy continues to play out, we find big signs of recovery in the results. **Larry Edsall** also covers a panel discussion by auction, insurance and other industry reps, on the state of best buys.

Edsall also covers a panel discussion by the highest-profile race drivers, as we attend the 4th Annual Wheels of Wellness, with attention to **Lyn St James**' Women in the Winner's Circle program.

In other motorsports, **Randall Bohl** meets with NASCAR's **Joey Logano** for lunch at **Alice Cooper**'s downtown Phoenix restaurant, and **Tim Sharp** covers the Lucas Oil Off

Road Racing Series as it brings stadium-style dirt racing to Firebird. **Chip Yates**, meanwhile, sets records with an electric vehicle of another sort: the SWIGZ.com Pro Racing electric superbike.

Enjoy the ride.

Joe Sage - Publisher/ Executive Editor



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MOTORSPORTS: FIREBIRD 2011 SCHEDULE • PIR TRACK IMPROVEMENT AND REPAVING PROJECT

Firebird Raceway 2011 Schedule

Elevation of NHRA Arizona Nationals to Playoff Race and two Lucas Oil Off Road Races highlight busy 2011 calendar

ong the star of Firebird International Raceway's early season, the 2011 NHRA Arizona Nationals moves to fall, ensuring the race a spot in the six-race Points Countdown—the sport's equivalent of championship playoffs.

After its Firebird Raceway December debut on a newly remodeled off-road track, the Lucas Oil Off Road Racing Series returns in March for the first of two 2011 races at Firebird. The year also includes two Lucas Oil Drag Boat Series events, the annual Monster Trucks event, and the Super Chevy Show, which returned to Firebird in 2010 after a nearly eight-year hiatus. The action begins in early February and continues all year.

February 17-20: NHRA Division 7 Series Opener

Teams look for early-season momentum at one of the largest events in the country, in classes from Alcohol Funny Cars to Gas, Super Street and more.

March 19-20: Lucas Oil Off Road Racing Series

Short-course off road racing with West Coast influence, LOORRS brings intense four-wheel door-to-door action.

March 27: BUGORAMA

April TBD: AHDRA Nationals

All-Harley Drag Racing Association: 15 different classes from 230-mph Top Fuel bikes to ET class.

April 30: NAPA Auto Parts Monster Truck NationalsOne of Arizona's largest fields of Monster Trucks, com-

peting side-by-side in all-out freestyle competition, plus some of the world's fastest jet cars at almost 300 mph.

May 27-29: Lucas Oil Drag Boat May Fest

The liquid quarter mile at Firebird Lake plays host to the first of two visits from the Lucas Oil Drag Boat Series.

October 14-16: NHRA Arizona Nationals

A critical Points Countdown race toward determining

2011 world champions, with Top Fuel, Funny Car and Pro Stock divisions. NHRA's motorcycle class also debuts.

October 29-30: The Super Chevy Show

Hot rods and customs, a huge vendor midway, hundreds of show cars, and awards from *Super Chevy Magazine*.

November 17-20: NAPA Auto Parts World Finals

Firebird Lake hosts the end-of-season showdown in the Lucas Oil Drag Boat Racing season as Top Fuel Hydros, Top Alcohol Hydros, Pro Modified, Pro Gas Flats and more battle it out at nearly 250mph.

December 10-11: Lucas Oil Off Road Racing SeriesAfter opening their season at Firebird, the daring competitors of the LOORRS will end their season at Firebird as well. Championships are decided as the dirt flies.

For more information, visit firebirdraceway.com.





Phoenix International Raceway track paving project follows February races

NASCAR facility's first major project since 1990 "to make a good thing even better"

Phoenix International Raceway is undergoing the NASCAR facility's first major track paving project since 1990. Construction begins in March with the removal of the facility's current racing surface and the subsequent installation of a new surface to go with a series of changes designed to promote side-by-side racing. While maintaining the integrity of PIR's oval—including the 1-mile distance—the slight configuration changes will produce a racier track with average speeds expected to increase two to three miles per hour. The project is slated to conclude in September.

The project includes removal of 684,000 square feet of asphalt from the current surface, followed by installation of a new four-layer asphalt and aggregate surface including 7,000 cubic yards of concrete, 600,000 pounds of metal reinforcement, 70,000 cubic yards of import fill and 23,000 tons of new asphalt. Other adjustments include: • Widening the front stretch from 52 to 62 feet; • Reconfiguring pit road with the installation of concrete pit stalls; • Pushing the dog-leg curve between Turn 2 and Turn 3 out 95 feet; • Tightening the turn radius of the dog-leg from 800 to 500 feet; and • Implementing variable banking to ensure the immediate use of two racing grooves, including 10-11 degree banking between Turn 1 and Turn 2; 10-11 degree banking in the apex of the dog-leg; and 8-9 degree banking in Turn 4

Favorite moments on the old pavement: In honor of this major upgrade, motorsports media nationwide were asked to pick the top six defining NASCAR events at PIR. Fans were asked to choose their own own top moment, with the winning memory to be announced during February pre-race ceremonies. The final media selections were as follows, with #4 announced as the fan favorite just as we went to press:

- **1. The Intimidator takes Phoenix: Nov 4 1990:** Dale Earnhardt brought the No. 3 GM Goodwrench Chevrolet to PIR's Victory Lane for the first and only time with a narrow .53-second win over Ken Schrader in the 1990 Checker 500.
- **2. Martin wins closest race in PIR history: Oct 31 1993:** Mark Martin won the closest Sprint Cup event in PIR history on Halloween, edging Ernie Irvan by .19 second to win the Slick 50 500.
- 3. Hamilton brings the 43 back to Victory Lane: Oct 27 1996: The late Bobby Hamilton won the Dura Lube 500, taking owner Richard Petty's iconic No. 43 car to Victory Lane for the first time since the King's final Sprint Cup win in 1984.
- **4. Fan Favorite: Gordon ties Earnhardt: Apr 21 2007:** Jeff Gordon opened the 20th season of NASCAR racing at Phoenix with a thrilling win in the SUBWAY Fresh Fit 500™ that tied him with Dale Earnhardt on Sprint Cup career wins at 76. Gordon celebrated with a victory lap while holding a "3" flag out of his driver's side window in honor of Earnhardt.
- **5. Johnson dominates the desert: Nov 15 2009:** Jimmie Johnson won his third consecutive Chase for the Sprint Cup event at Phoenix and fourth race in five tries at PIR, propelling him to a then-record fourth consecutive Sprint Cup.
- **6. Edwards sweeps away the competition: Nov 14 2010:** Carl Edwards owned the November 2010 NASCAR weekend in Phoenix, setting a Sprint Cup qualifying record before sweeping both the WYPALL* 200 Nationwide Series race and the Kobalt Tools 500 Sprint Cup event. He celebrated not

only with his traditional back-flip (twice), but also partied with fans in PIR's Bryan Grandstand.

Buy a collectible chunk of the old pavement: After demolition, genuine pieces of PIR's old racing surface will be available for fans to purchase. Visit PhoenixRaceway.com/repave for details. ■



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AUTO NEWS UPDATE

2012 MERCEDES-BENZ SLK: HIGHLY UPDATED STYLE AND FEATURES

As Mercedes-Benz unveils the latest rendition of the SLK-Class sports car, we will see bold, new styling evocative of larger, more expensive Benzes, with significant improvements in comfort and a new level of safety standards introduced over the past couple of years farther up the manufacturer's lineup. Impressive new safety equipment includes a drowsiness detection system and an innovative Adaptive Brake system, which keeps the car from rolling backward on an incline or at stoplights without the brakes being applied. The system also applies light pressure to the brake pads when the driver abruptly releases the accelerator as a precautionary measure, and it does the same in wet conditions to help keep the discs dry for better stopping power. The Distronic Plus and Pre-Safe ® systems work together to maintain a distance from a vehicle ahead, and can bring the SLK to a complete stop, when in bumper-to-bumper traffic, and then automatically accelerate again when traffic starts moving again. \blacksquare





NEXT-GEN NISSAN GT-R: MORE GRRRR

▲ Nissan has upgraded their GT-R supercar for 2012 with a new look, wheel design, colors and more power. There is also a new "Black Edition" with special seats, interior colors and different wheels. The 2012 Nissan GT-R's 3.8-liter twin turbo V6 is now rated at 530 hp with 448 lb-ft of torque. The 45-hp improvement was made by modifying the boost pressure of the turbocharger, valve timing and air mixture ratio, and enlarging both the air intake and exhaust pipes. Body changes improved aerodynamics to a low 0.26 coefficient of drag. Stability is improved by enlarged fascia and grille openings, which also help reduce air resistance inside the engine compartment. The GT-R Premium model arrives at official "GT-R certified" Nissan dealers early this year with a price tag of \$90,950, including destination charge. The "Black Edition" is priced at \$96,100 and will arrive later in the model year.

VW MAKING MUSIC WITH FENDER

A big name music company and one of the world's largest automobile manufacturers have joined forces to make music. Fender Musical Instruments, makers of the famous Fender guitars, is making a new sound system for select Volkswagen models starting in 2012. The new Jetta GLI will be the first VW model in dealerships this spring featuring the all-new Fender Premium Audio System, developed exclusively for the Volkswagen brand. It will be available in all other Jettas later and in the new 2012 midsize sedan and 2012 Beetle in the fall. Now drivers can have Volkswagen's German engineering matched with top quality sound. To develop the best possible audio system for VW, Fender formed a partnership with Panasonic that combined Fender's 64 years of expertise in sound and sound amplification with Panasonic's 68 years of experience with mobile audio systems.

INFINITI M HYBRID: 360 HP, 30 MPG

Infiniti is getting into the hybrid business for the first time, with a hybrid version of the flagship M sedan. Due this spring, the M35h is being touted as the first true luxury performance "driver's" hybrid. The M Hybrid is powered by Infiniti's 3.5-liter DOHC 24-valve V6 engine, mated to a 50 kW electric motor, which together produce 360 horsepower. The Infiniti M35h features the all-new Infiniti Direct Response Hybrid™ system. It uses an advanced one-motor, two-clutch parallel hybrid design that combines precise, highspeed motor control technology, which allows power to be delivered directly to the vehicle's 7-speed automatic transmission. The M35h can drive on electric power alone at speeds up to 62 mph and can travel on electric propulsion for up to 1.2 miles at a time.

DRIVERLESS CARS GETTING CLOSER

With rapid urbanization, aging populations and more demand for personal mobility, General Motors engineers are looking into the future with vehicles like the Electric Networked Vehicle, or EN-V. Combining vehicle-to-infrastructure communications technology pioneered by OnStar with vehicle-to-vehicle communications, EN-V users could benefit from real-time rerouting to avoid congestion while advanced sensing technology could allow autonomous operation privately or as part of vehicle-sharing programs. As part of a public sharing network, a user could summon an autonomous vehicle to his or her location using a smartphone application and then sit back and relax while being whisked off to a destination. The sensing technology, derived from the winning vehicle in the 2007 DARPA Urban Challenge, allows EN-V to detect other vehicles, obstacles and pedestrians, virtually eliminating crashes. For those who prefer to drive, the light, nimble, funto-drive EN-V offers full manual control.

KEEP RIGHT >>



VERTREK: A WORLD OF FORD STYLING

▲ Unveiled at the North American International Auto Show, the Ford Vertrek shows cutting edge styling, good fuel economy and new technologies. Vertrek was also picked by the writers of AutoWeek magazine as the best concept of the Detroit show. Ford planners anticipate that the 1.6-liter EcoBoost™ gasoline engine in the concept will produce bestin-class fuel economy. The concept also previews the Ford Auto-Start-Stop system, which contributes further to fuel efficiency and lower emissions. The concept will easily handle the 2.0-liter Ford Duratorg® TDCi (turbo diesel common-rail directinjection) engine, which will probably only be sold in foreign markets. Industry insiders say the Vertrek should be available in the US in late 2012.

SMALL CHEVY NEW FROM NAME UP

The next Chevrolet Aveo will be new from the ground up, including its name. The North American version of Chevy's newest small car will take on the fresh name of Sonic starting in 2011, when the 2012 model debuts. The small car will carry the Sonic name in Canada, Mexico and the US, but will still maintain the Aveo name in other foreign markets. Production of the Sonic begins this year at GM's Orion Assembly Center in Michigan, which re-

ceived a \$545-million investment in upgrades and retooling, and will help restore approximately 1,000 jobs in the metropolitan Detroit area.

BUY A CORVETTE, GO TO SCHOOL FREE

One perk of spending over \$112,000 to buy a new Chevrolet Corvette ZR-1 was free admission to the Bob Bondurant School of High Performance Driving here in the Valley, or the Ron Fellows Performance Driving School at Spring Mountain Motorsports Ranch outside Las Vegas. Through February 28, 2011, people purchasing *any* new Corvette model, from the Coupe and Convertible to the Grand Sport and Z06 models, got that same added benefit. The Bondurant School normally charges \$1,650 to \$2,795 for a one- to two-day Corvette Z06 driving experience.

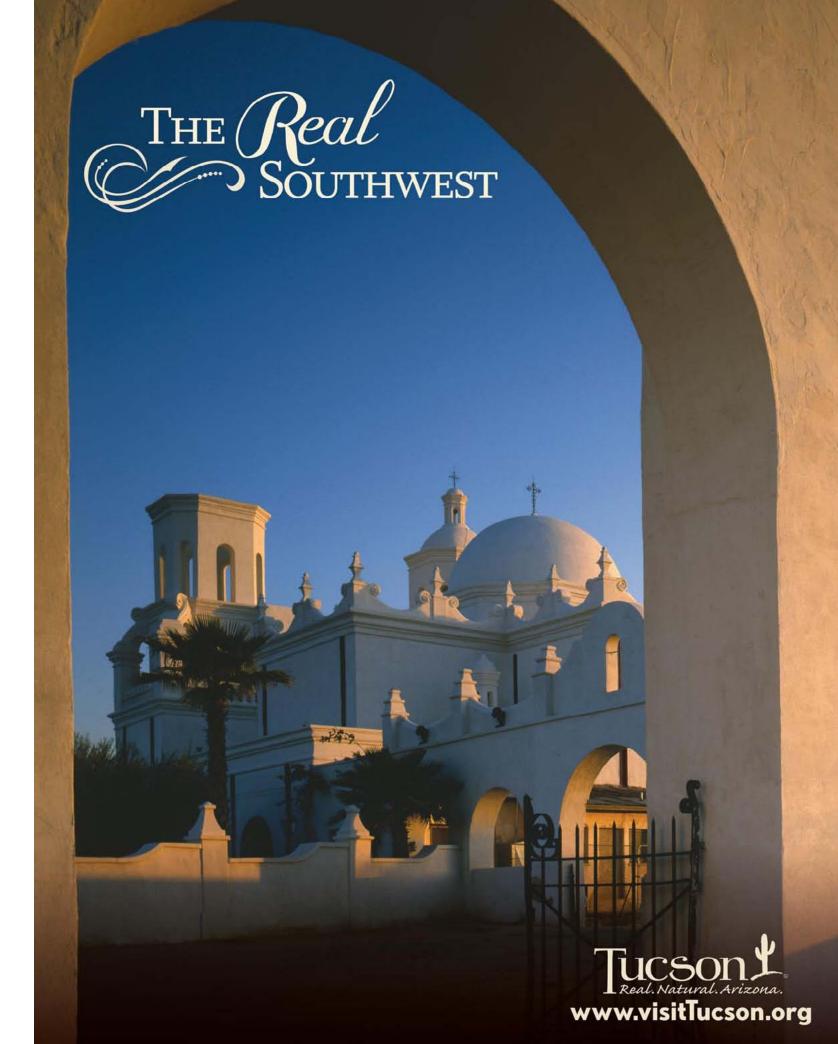
STYLISH MULTI-ACTIVITY FORD C-MAX

Ford has also shown a new small sevenpassenger multi-activity vehicle called the C-MAX. It offers flexible seating, spacious interior, sporty performance and best-inclass fuel economy. The C-Max introduces unique features including an industryexclusive hands-free power-operated rear liftgate, versatile 5+2 seating with five seats in the main cabin and two smaller seats in the third row, twin sliding doors and active park assist that automatically steers the vehicle into parallel parking spaces. C-MAX will be the first application of Ford's all-new 1.6-liter EcoBoost™ I-4 engine in its North American C-class vehicles. At 178 inches long, the C-MAX is similar in size to the original minivans from the 1980s or a current Honda CR-V. Already on sale in Europe, the C-Max arrives in the US late in 2011 or early 2012.

BACKUP CAMS MANDATED BY 2014

The National Highway Traffic Safety Administration (NHTSA) will be phasing in a requirement that all cars, pickups and SUVs be equipped with a rearview camera. Under a law passed in 2008, the NHTSA has until early 2011 to issue a rule to be phased in by 2014. The ruling comes from legislation passed in 2007, called Cameron Gulbransen Kids Transportation Safety Act, which evolved from a tragic accident where a 2-year-old boy was killed, when his father accidentally backed over him in the family's driveway. The ruling requires that drivers must be able to see directly behind the vehicle whenever the vehicle is shifted into reverse. The rule will phase in over the next four years, starting with 10 percent of new cars sold expected to comply with







the mandate by September 2012, 40 percent by September 2013 and 100 percent by September 2014. As with all mandates, the rearview camera will increase the price of new vehicles, especially the lower price models that have not yet offered such safety equipment. On the other hand, it may reduce the cost in cases where it's been a costly option.

CADILLAC AERA WINS DESIGN TROPHY

The LA Design Challenge for 2010 was to design a 1,000-pound car. Cadillac's Aera concept vehicle, while tying with Smart entry, got the nod from a panel of design experts giving General Motors its third win in five years. This year designers were asked to envision the "1,000 lb. car" and tasked to imagine an efficient fourpassenger vehicle that maintained comfort, safety, driving performance and style while not exceeding the weight requirement. Aera is powered by compressed air via a highly efficient Pneumatic Drive System that has a 10,000-psi composite air storage tank with capacity for a 1,000mile range. Aera's body utilizes a 3D lattice, mono-formed frame that was designed to be similar to configurations found consistently in nature. The structure is formed from unique, alloy-utilizing, semi-solid freeform manufacturing, creating a naturally strong, extremely

lightweight frame. All major body parts, including interior components, are essentially "grown" into a single part lattice structure. Read more about the Aera and see photos at www.iveho.com.

2012 VOLKSWAGEN GOLF R DUE IN US

▲ Volkswagen confirmed plans to bring the European Golf R to the US in 2012. The high-performance R model is powered by a 2.0-liter turbocharged fourcylinder engine rated at 256 hp, which makes it the most powerful Volkswagen sports performance vehicle ever built. The R is equipped with the 4th generation Haldex 4Motion all-wheel-drive system, larger brakes, 18-inch alloy wheels and upgraded sport-tuned suspension. The special Golf will be offered in both twoand four-door configurations, but only with a manual transmission. Special model badging, door sills and front and rear fascia with dual center mounted exhausts set it apart from other models.

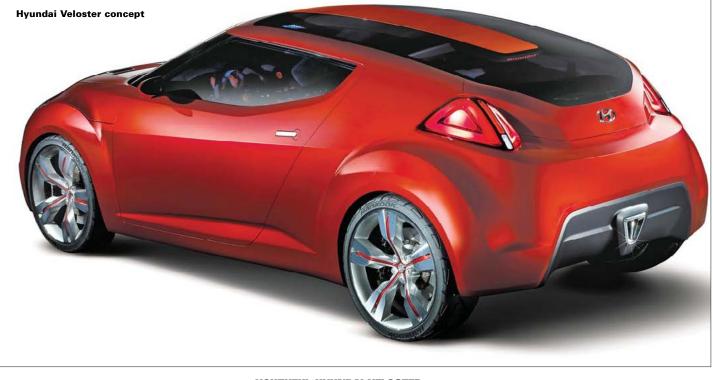
INFINITI HYBRID: PEDESTRIAN SAFETY

When running on electric power alone, hybrid vehicles are a potential danger for pedestrians because they are too quiet. Infiniti is the first hybrid maker to offer an audible warning system, called Approaching Vehicle Sound for Pedestrians (VSP), which uses a range of distinctive sounds to

help ensure the safety of other road users. VSP automatically works from startup to approximately 20 mph, cutting back in at approximately 15 mph as the vehicle slows. The computer-controlled system links an in-car sound synthesizer with a speaker built into the front bumper. Instead of just a single tone, a range of high-low sounds at different volume levels was chosen after an extensive research program to find the most effective but least intrusive noise. VSP is loudest at startup to give a clear indication the vehicle is beginning to move, while an intermittent tone is used when reversing both sounds calculated to ensure the Infiniti M35h cannot surprise pedestrians or the visually impaired as it approaches.

NISSAN TO ENTER BIG VAN BUSINESS

After 75 years of building commercial vehicles worldwide, Nissan will move into the commercial van business in the US for the first time, this spring. The Nissan NV is a full-size van built on a strong body-onframe chassis and is offered in both traditional roof and high roof configurations. The high roof version is tall enough to allow most users to stand, walk and work in the cargo area. Three models will be offered: the NV1500 with standard 4.0-liter V6 engine, the NV2500 HD with a choice of 4.0-liter V6 or 5.6-liter V8, and



the NV3500 HD with standard 5.6-liter V8—plus there are two trim levels, S and SV. Pricing starts at \$24,590 plus destination charge for the NV 1500 standard roof, S trim and V6 engine. The NV3500 with SV trim and V8 engine starts at \$32,190.

HONDA CIVIC 9.0

At the Detroit debut of the Honda Si Coupe and Sedan concepts, spectators saw showcases with steeply raked windshields, wide stances and pronounced character lines. A lower character line on both models broadens toward the rear fenders to enhance a dynamic feeling of forward energy. The diverse Civic range includes conventional gasoline models, two sporty "Si" performance versions, along with hybrid and natural gas alternative-fuel variants. The Civic's family of engines with "intelligent" Variable Valve Timing and Lift Electronic Control (i-VTEC®) technology is more fuel efficient. Most upcoming Civic models receive Honda Eco Assist™ technology already available in the CR-Z and Insight hybrids. All 2012 Civics are equipped with standard Vehicle Stability Assist™. Additionally, the ninth-generation Civic continues to provide Honda's exclusive and innovative Advanced Compatibility Engineering™ (ACE™) body. The new Civic goes on sale this spring as a 2012 model.

YOUTHFUL HYUNDAI VELOSTER

▲ Designed to evoke the sporty characteristics of a classic 2+2 coupe, the Hyundai Veloster uses futuristic styling cues to help project a high-tech image. Hyundai's goal was to create a radically new car for Gen-Y, catering to the tastes of a 20-something first-time buyer. Veloster combines simple, iconic design with good value and robust construction to appeal to young consumers. Powered by a 1.6-liter gasoline direct-injection engine teamed with a dualclutch transmission, developed by Hyundai, it is expected to achieve a 40 mpg highway fuel economy rating. The car will have the new Blue Link telematics system, which operates through a central touchscreen offering services such as automatic crash alerts, roadside assistance, voice-totext message capability and other infotainment applications. Veloster is scheduled to debut this summer, with prices starting at around \$17,000.

NEW CHRYSLER 300: NEW LUXURY

Chrysler gets back in the game with an allnew version of the popular 300. The reardrive luxury sedan displays a new level of refinement, innovation and value. It will also be the first of the new Chryslers outfitted with the company's new eightspeed automatic transmission. The profile of the all-new Chrysler 300 features the

distinctive proportions of its predecessor with a more tailored appearance. Interior upgrades consist of soft touch materials, premium interior trim, available heated and ventilated Nappa leather seats, and real wood appliqués on the instrument panel, doors, center console and steering wheel. A new instrument cluster has two large gauge faces with sapphire blue illumination and chrome ring accents.

SEE YOUR BMW X3 BEING BUILT

You can now go online and watch your customized new X3 being built in BMW's Spartanburg SC manufacturing facility. "Customization is essential to the new BMW X3. With more than 10 million distinct configurations available, we wanted to get customers excited about the birth of their unique vehicle," said Trudy Hardy, Manager BMW Marketing Communications and Consumer Events. Customers can view footage by creating a My BMW account on bmwusa.com and entering their X3 order number or VIN. Seven cameras in the plant track the vehicle through various stages of final assembly. The video does not have an expiration date, giving consumers 'round-the-clock access to the assembly footage.

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

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Lunch with Joey Logano

Three-time champ by age 10 and major NASCAR contender at age 20

ne of NASCAR's rising stars—and its youngest Rookie of the Year (in 2010)— Joey Logano visited with a select group of fans at Alice Cooperstown in downtown Phoenix on February 2 for a luncheon, sponsored by Coca-Cola, designed to promote the upcoming SUBWAY Fresh Fit 500 running on February 27 at Phoenix International Raceway. The event included radio and television interviews in front of about 40 fans, selected to attend through a social media promotion. These fans also had the opportunity to partic-

ipate in a Q&A session with Logano.

We arrived to find Logano in Alice Cooper's Dungeon below the restaurant, conducting private media interviews while autographing diecast #20 Home Depot Toyota Camrys—and at the same time eating a burger and fries from a basket atop the pool table. He said he's quite used to eating on the run—and rated the Cooperstown burger "great."

Still wearing his jacket, he commented "I almost didn't bring this, coming to Phoenix. It was 50 degrees when I left Charlotte this morning." The

temperature would only reach 44 that day—a record low/high for Phoenix in February. We were sure Joey would be bringing a jacket (and gloves) when he returned in two weeks for the race.

Soon it was time for his first trip upstairs, to meet the fans and do a radio interview with Big Shoe Stew of KMLE Camel Country radio, which involved a fair amount of discussion as to why he doesn't have a NASCAR accent just yet. Logano was born in Connecticut and started his racing career at age 6 in Quarter-Midgets (yes, that's a 14-





year career for a 20-year-old), then spent the first four years of his racing career winning Eastern Grand National Championships at three different levels of Quarter-Midget competition (yes, that's three Championships by the age of 10).

Back down to Alice's Dungeon for more interviews and a few now cold french fries, while the fans have a relaxed lunch.

There are also a couple of special fans, invited to the Dungeon for a photo-op with Joey. One young lady (13) had talked her parents into driving from San Diego to meet him—Joey shows great appreciation for this. And there was a special winner from the social networking promotion: four-year-old (going on five during race week!) Nathan Druszcz who was kind enough to bring his mother Julie along. Nathan got his #20 Home Depot hat and shirt autographed, as well as receiving a diecast car. Joey, not being shy about his own age, said, "So you're turning five—that was only three years ago for me!"

Upstairs, television cameras awaited with Paul Horton, meteorologist from KPHO Channel 5, handling the fan Q&A. Logano's first response to Horton's introduction was, "Wow, I've never been interviewed by the weatherman before." Fan questions centered largely on what Joey thought about the different NASCAR tracks. His favorites? Phoenix, where every turn is different with the dog leg out there; Charlotte; and Daytona, just because it is Daytona. Most challenging (he says, surprising even himself) is Loudon (New Hampshire) Motor Speedway, even though he got his first win there and it's been his home track. He least likes road courses, stating that they become a "traffic jam" as the cars just aren't made for them—naming Sonoma, Watkins Glen and Montreal. His preference is certainly for oval racing.

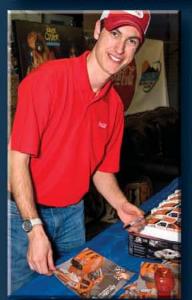
And as he finishes his lunch we inquire as to his favorite tailgate food. "Burgers on the grill," he says, "because that's all I know how to cook."

On changes to the point system and Sprint Cup Chase this year—there will be a Top Ten plus two wild cards to be determined by "wins"—Logano thinks this is going to create some craziness in the final lap of races as having that "win" on your record could mean getting into the Chase as a wild card if you don't make it on season points. Expect even more havoc than usual on the last lap?

As Joey prepared to fly back to Charlotte, we asked a favorite *Arizona Driver* question ,"What's your daily driver" when you get back to the airport tonight? He's ready. With a big grin he said "I just got a new Lexus IS-F."











STAR-STUDDED FRONT PORCH

BY LARRY EDSALL

American racing specials, those home-built, V8-powered sports racers that challenged the likes of Jaguar, Ferrari, Aston Martin and Porsche on race tracks in the late 1950s and early 1960s, were the featured cars at the fourth annual Wheels of Wellness historic race car show that kicks off Arizona classic car auction week each January. But the stars of the show were the race car drivers who came to see those cars and to talk about their lives and their racing.

ach year, The Wellness Community of Phoenix, a center which provides free support for people suffering from cancer and for those who care for those people, hosts the Wheels of Wellness as a fund-raiser that helps pay for some of those programs. Each year, a few drivers are invited to sit for a panel discussion about historic and contemporary auto racing.

The drivers are not paid, but they like the event so much that this year so many of them showed up they had to have two panel discussions to fit them all in.

The first panel featured two-time Indianapolis 500 winners Arie Luvendyk and Dario Franchitti, two-time 24 Hours of Daytona winner Didier Theys and world GT2 and Le Mans 24-hours winner Justin Bell, with former racing team owner Harley Cluxton III as moderator.

The second panel included Franchitti; Indy winner

Bobby Rahal: Danica Patrick: the only woman to win an Indy car race; Desire Wilson, the only woman to win a Formula One race; and Denise McCluggage, who raced sports and rally cars in the 1960s against the likes of Carroll Shelby, Stirling Moss, Phil Hill and others, and who won her class in the 1964 Monte Carlo Rally. Moderator for that panel was former Indy 500 rookie-ofthe-year Lyn St. James.

But even then, there wasn't enough room on the front porch of the Wellness Center for all the celebrities in attendance. Drivers Billy Boat (Indy cars) and Darren Law (sports cars) and author and car collector Clive Cussler also were on hand.

One driver who had planned to attend was missing. Three-time Indy 500 pole winner Tom Sneva serves as crew chief for his grandson's quarter-midget racing program. Since his grandson had a race to run at the South Mountain quartermidget track, Sneva has to bow out of Wheels of Wellness.

After the contemporary drivers talked about the importance of racing teams, McCluggage mesmerized the audience with her story about the 1961 24-hour race at Sebring. She owned a Ferrari 250GT that she drove both on the track and on the streets of New York City, where she lived and worked as a journalist.

She drove the Ferrari to Florida, raced it for 12 hours at Sebring—she and her codriver finished 10th overall and first in their class— and then she drove the Ferrari to Chicago for another race before driving it back to

While McCluggage raced before the advent of major racing teams as we know them, Wilson raced during the

transition from cars raced by private sportsmen to cars raced with corporate sponsorship, or sometimes by drivers who secured financial backing and bought their rides.

Wilson, who earned her rides solely on her driving skill, told of being promised a spot on the Brabham Formula One team as teammate to Nelson Piquet, who would go on to win the 1981 World Championship. However, just as the season was beginning, Wilson discovered that her car would be driven instead by

She approached team owner Bernie Ecclestone and asked why the change had been made.

"He has really good hands," Ecclestone told her.

Wilson looked at her own hands and asked what was wrong with them.

"His write really big checks," Ecclestone responded.



Justin Bell, Didier Theys, Harley Cluxton III, Arie Luyendyk, Dario Franchitti.



L TWO: Lyn St. James, Dario Franchitti, Desire Wilson, Bobby Rahal, Denise McCluggage, Danica Patrick.











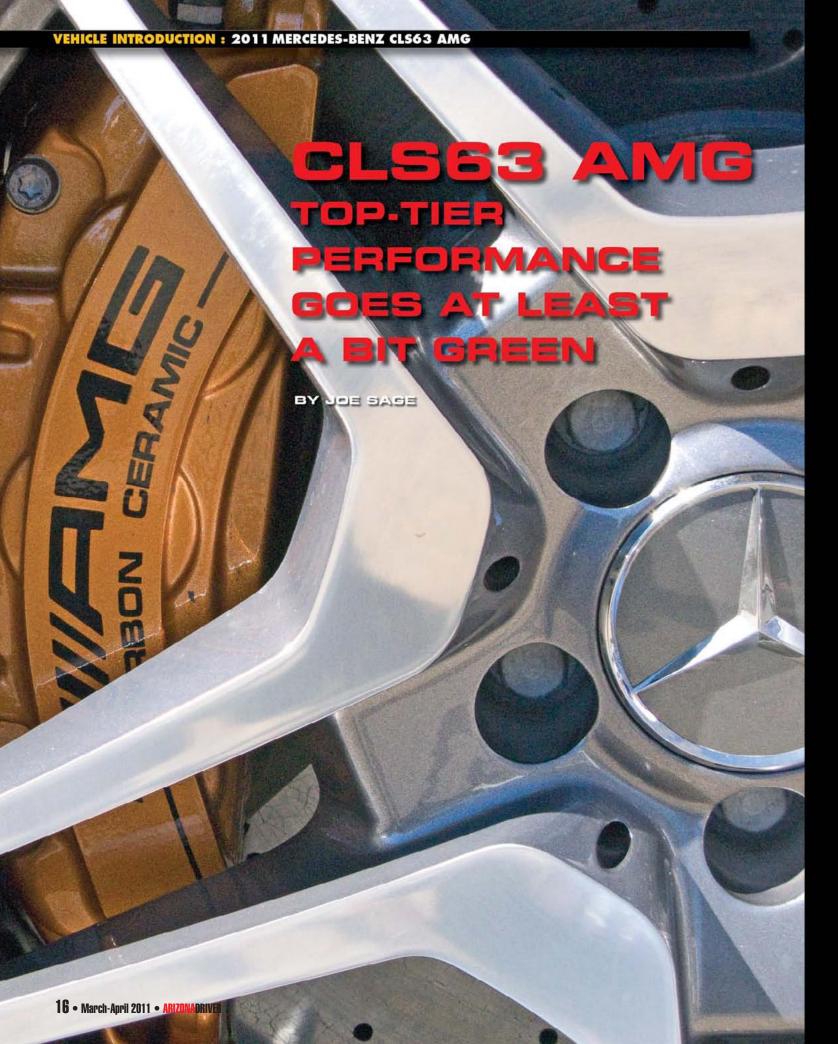














As the AMG crew buffed the dew off our cars, we chose among the basics: Performance Package? ceramic composite brakes? and color. We chose Palladium Silver, a stealthy choice, with package and ceramics.

GmbH is a private subsidiary of Mercedes-Benz, as quattro GmbH is with Audi, and similarly joined to its parent company by the hip. Its purpose is also similar: to engineer extremely high performance via advanced technologies, providing Mercedes-Benz with an über-lineup of luxurious and very fast vehicles. Not everything in the Mercedes lineup gets the AMG treatment, but quite a few vehicles do. The new CLS four-door coupe is a prime candidate, and here's the result.

The AMG group serves a purpose: performance above all. Within the greater framework, that's it. But as a quasi-independent entity with its own broader view, they are sensitive to a full range of considerations—including issues of sustainability, use of materials, fuel consumption—all while delivering the top performance the name implies.

Are these at odds? It could seem so. Is the goal worthy? Inherently, of course. Is it primary? No. Just as the Toyota Prius would not be pushing its performance credentials, AMG is entering new terrain when pushing its green credentials. But the difference is clear: whereas the Prius is never going to be a hot rod, any and every vehicle has room for improvement in emissions, fuel economy, materials use and so on—and, in fact, having a crack engineering team on the job makes it all not only possible, but appropriate.

POWER AND EFFICIENCY

Why do we start an AMG piece with this green message? Well, because they did. AMG Director of Vehicle Development Tobias Moers opened our orientation by stating that performance continues to be the AMG trademark attribute. But he adds a clear emphasis on responsibility. Such high-end engineering is inherently deeply involved in fuel, and he points out that AMG will be cutting all CO₂ emissions 30 percent by 2012 and another 20 percent by 2015. Thus their combined goal: dynamic power with the highest efficiency.

A regular Mercedes-Benz CLS 550 pumps out

420 hp and 443 lb-ft of torque, already impressive. The CLS63 AMG pushes these up to 518 hp and 516 lb-ft. Yet, while doing so, they've increased fuel mileage by 32 percent over its predecessor. At 16/21 MPG city/highway (against 16/24 for the CLS 550), you get a 0-to-60 time of 4.4 seconds (against 5.1 for the CLS 550). Top speed also bumps up from 130 to 155 mph.

Not bad for a car that weighs over two tons (the CLS 550 weighs 4168 lbs, while the CLS63 AMG has been shaved to 4114). Like the SLS AMG, the CLS63 AMG uses deep-drawn aluminum for its doors, while hood, front wings, rear deck lid, parcel shelf, various support sections and major parts of the chassis and engine are also made of aluminum.

Proof of product is in this fact: the CLS63 AMG has fuel economy that keeps it clear of any gas guzzler tax. The CLS63 AMG is surely not the greenest of the green, but who would really want or expect that in this rocket? What they've achieved is remarkable and commendable.

DRIVETRAIN-SUSPENSION

The CLS63 AMG is powered by a 5.5L direct-injected biturbo V8 and shifts via the fabulous AMG Speedshift MCT 7-speed sport transmission. AMG Ride Control sports suspension has an electronically controlled damping system, new front axle, new electromechanical AMG sports parameter steering, and an optional AMG high-performance ceramic composite braking system.

An AMG-spotter's detail is the brake calipers. The basic set are in a medium grey tone; choose the Performance Package and get red calipers; or opt up to race-tested ceramic composite calipers and show them off in a rich copper color (see lead photo).

The AMG Speedshift MCT 7-speed transmission—an AMG exclusive—does away with the torque converter of a conventional automatic, instead operating like a manual with a compact, wetstartup clutch. The engine and transmission are

KEEP RIGHT >>

CLS63 AMG SCRAPBOOK

















The Julian Pie Company was the center of attention as we all invaded and locals drove by for a better look at the hardware. A straightaway between the high country hills-either and any gave a great drive in the CLS63 AMG.

programmed with four modes of operation. A standard stop/start function is active in the basic Controlled Efficiency (C) mode, which turns the engine off when the car comes to a stop. C mode also gives a softer accelerator response with early shifts, usually starting in second gear. A green "ECO" symbol in the instrument cluster shows this function is active.

Alternatives are the S (Sport), S+ (Sport plus) and M (Manual) modes, in any of which the stop/start function is turned off. In these three modes, engine management partially sup-

presses the cylinders, as calibrated interruption of ignition and injection under a full load provides even faster shifts. We never noticed anything but power, strong performance and excellent sound effects in any mode.

An AMG Ride Control sports suspension, with steel struts in front and air struts in the rear, plus automatic level control, is enhanced further by an electronically controlled damping system; it automatically adjusts the damping characteristics depending on the driving conditions and reduces the roll angle of the body. The result: lightning-fast adjustment between optimum driving comfort and the best possible agility. The driver can switch between the three suspension modes of Comfort, Sport and Sport Plus at the press of a button.

OUR CLS63 AMG DRIVE

You couldn't pick a better drive route than the one AMG had laid out for us this day. You also couldn't pick better weather. (In fact, our beautiful spring day in Julian and the high country was replaced by blizzard conditions and extensive highway closures just a couple of weeks later.) Rancho Santa Fe is already out of the thick of it, inland from the traffic and congestion of I-5, railroad and beach town corridor of north San Diego County. The hills and curves start immediately, as we wind our way toward Escondido, which we skirt along its south side, powering over the mountains past the San Diego Wild Animal Park toward Ramona. We hit the convenience store there, which caused a bit of a stir: this car made it clear we weren't from around there, and pulling out a camera didn't help matters much.

We made fantastic time to Julian. This car is a screamer—a luxurious and comfortable one, but a thrill nonetheless. Despite its two-tons-plus mass and four-door-full-back-seat nature (which we didn't need that day), it flies. Simply adding horsepower to weight is not enough: the AMG formula of suspen-



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AMG TRAVEL SCRAPBOOK













We flew US Air to San Diego (with full TSA patdown at both airports). Lodging was in a casita at the Auberge Rancho Valencia in Rancho Santa Fe. We drove to Julian for pie, south to the Mexican border, then worked our way to lunch at the Andaz Hotel in down town San Diego, where we caught up with colleagues doing the Fiat 500 launch. From there, freeway time back to Rancho Valencia.





Top: our test CLS63 AMG, in Palladium Silver metallic with Performance Package and ceramic composite brake option added. Above: Diamond White metallic (\$795) with standard brakes, still a potent cruiser.

sion helps, the well-balanced Mercedes-Benz basis helps and the AMG application of aluminum helps, not only by saving weight—which we've just identified as not being the whole game-but in redistributing it a bit. On top of that, we have the electronic engine management and suspension options to play with, and play we do. The stop/start feature doesn't come into play much, as we're doing serious highway time, so we move into the Sport, Sport Plus and Manual modes. Bliss. If ignition and injection are being managed, we don't notice a thing.

It turns out we made such good time to Julian by missing a whole loop of the route, so rather than start our pie mission early, we double back on that section, and we're glad we did. Highway 79 to the south is where we have some of our favorite driving, with open stretches of two-lane straightaway between challenging tight hills and climbs. It's also a great spot for photos and video. From there, we drove back into Julian, where the cars were also creating a pretty good level of curiosity, with probably more AMGs out front than pies inside. Make this stop: Julian Pie Company pies are second to none.

We headed south again, from Julian, this time hitting one short stretch of I-8 at Laguna Pass (1235 feet), then south to the Mexican border, following the fences near Tecate. Plenty of Border Patrol here, but they seem to have figured out whatever we had up our sleeves wasn't on their list. One word to the wise: turn off your cellphone before

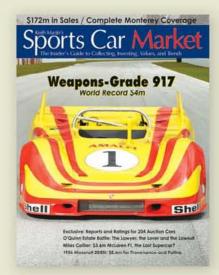
you even get close to the border—a mistaken signal is pricey. We spent significant time arguing our nationality with not the Border Patrol but AT&T.

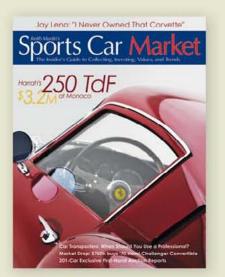
We could have cruised those border highways indefinitely, but were due in downtown San Diego for a bite to eat with the troops. The transition from roaring two-lane to freeway driving was painless.

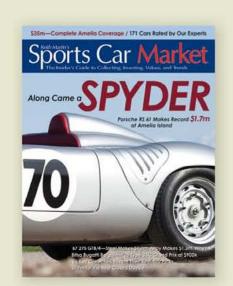
That's the proud AMG motto and would drive our shopping decisions as far as budget would allow. The CLS63 AMG is the one CLS model for now, though the CL has a 65 also. Is this in the wings for CLS? We're scheduled to drive the 2012 CLS 550 and CLS63 AMG later this spring, but with no mention at this point of any such thing.

The launch drive was held in January, with the first of the year coming after press materials were created. Everything referred to "the new" CLS63 AMG. A few image files were dated 2012. Yet online today, it is clearly a 2011. AMG production is in limited numbers, so we'd guess they're essentially the same; you may get a relative bargain now.

The regular Mercedes-Benz CLS 550 starts at \$74,000 and can easily be optioned up to about \$89,000. The CLS63 AMG starts under six figures, at \$99,050. Fully loaded, it can hit just over \$125,000. If you can afford the one, the odds seem good that you can at least look at the other. Give the AMG a spin, don't hold back and don't look back.

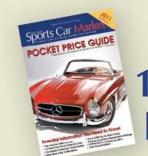






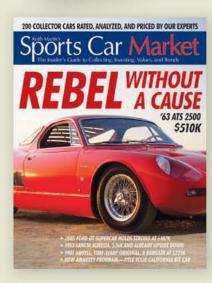
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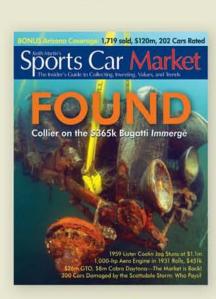
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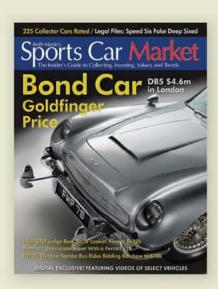


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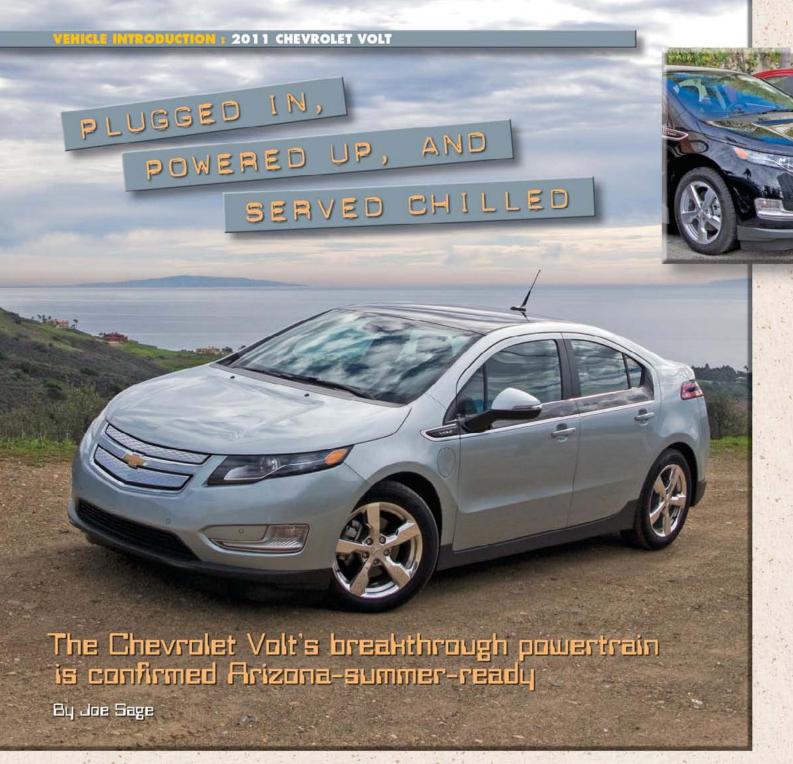








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ange anxiety is the buzz-phrase we've all been hearing when it comes to electric vehicles. What if the power runs out before we get where we're going, or far from home? Doesn't matter with the Chevy Volt, at least not much. After all, they're the ones who got the term out in front of the public, so they could be sure to preempt the discussion with their extensive reassurances. Doesn't matter to us much this day, either, as we take the Volt on its maiden launch drive through the hills of Southern California. We know they've planned a challenging route, to demonstrate both the car's ability and its range, but we know someone will be at hand, if need be, if the juice runs out. Of course it never does.

When GM's Bob Lutz first pushed for an electric car, it was in response to the wicked-fast Tesla Roadster, a

and range—truly a game-changer for the developing mindset of the time, concerning alternative powertrains and electric cars in particular. The Volt Concept was introduced on the show circuit in 2007, and it had major wow factor. Low and lean, it resembled a yet-to-be-seen new Camaro at halfway-to-Corvette dimensions. We were disappointed when the production Volt first came to Phoenix for a visit a couple of years ago, as it had morphed into a much more ordinary form. However, this makes sense when you think of it in terms of the anxiety range issue: not only could a four-door sedan appeal to a broader audience, but the more normal the car seemed, well, the more normal the car would seem. And GM has been determined to develop alternative drivetrains with-

two-seat sports car with incredible acceleration, power

out scaring their customer base. All in all, this is probably wise. But we look foward to that coupe one day.

.HYBRID OR ELECTRIC?

Chevrolet presents the Volt as a range-extended electric vehicle. The onboard gasoline engine does not power the drivetrain directly. Some sources refer to this setup as a plus-in hybrid, others as a series hybrid (or both), as opposed to the Toyota Prius, for example, which is a parallel hybrid, in which both a gasoline engine and an electric motor are connected to the drivetrain, with excess gasoline power and regenerative braking energy providing additional charge to the electric motor, which assists in drive to varying degrees throughout the process. GM avoids the hybrid moniker for the Volt, and

each day, then back to the plug, you can live a 100 percent electric-vehicle life with it. In most conventional hybrids, this would be good for about a mile, and/or at speeds under maybe 10-15 mph.

If you drive more than the estimated 40-mile range of

we can't blame them. Electric is the big news. And if you drive your Volt in certain usage, for instance just to work

electric-only power, then the supremely frugal (yet more than adequately powerful) gasoline engine kicks in. Again, this is not to drive the car, but rather to act as a generator, providing additional juice to the electric system. (See drivetrain highlights in the sidebar on the previous page.) Chevrolet lays out four scenarios:

SINGLE-MOTOR EV DRIVING: In this mode, the primary

traction motor provides all propulsion at lower speeds and hard accelerations, drawing all energy from the battery. The ring gear is locked, and the generator/motor is decoupled from the engine and gear-set. The traction motor can use up to 111 kW of power and deliver 273 lbft of torque for quick and strong acceleration.

TWO-MOTOR EV DRIVING: As speed increases, the ring gear is unlocked and coupled to the generator/motor. This allows the two electric motors to work in tandem to provide blended electric power output with higher efficiency. This let the engineers extract up to two extra miles of pure electric highway range.

single-motor extended range driving: Once the battery has reached its minimum state of charge, the 1.4-liter gasoline engine is coupled to the motor/generator via the third clutch. At lower speeds and hard accelerations, the Volt is propelled by the traction motor alone, with the ring gear locked. The engine-driven generator and battery provides electricity to the traction motor via the inverter. Since the most efficient way to charge the Volt's battery is to plug it in, the generator is only used to maintain minimum battery state of charge. If the battery is drawn down below the minimum level during acceleration or when mountain mode is engaged below about 45 percent charge, the generator will charge the battery up to its minimum state of charge and then maintain it there.

TWO-MOTOR EXTENDED-RANGE COMBINED DRIVING: The blended two-motor electric propulsion strategy for higher-speed EV driving has been adapted for extended-range driving. The clutches that connect the generator/motor to the engine and ring gear are engaged, com-



CHEVROLET VOLT POWERTRAIN

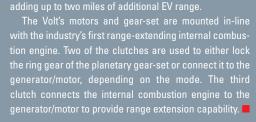
t the core of the Chevrolet Volt's engineering is its battery pack, a lithium-ion assembly that powers the vehicle solo for up to about 40 miles. A small onboard gasoline engine does not power the wheels, but rather can power the battery pack when and if available, or when necessary after that 40± miles, providing a combined extended range of up to 350 miles. The 16 kilowatthour (kWh) rechargeable energy storage system is enclosed in a 5.5-foot-long T-shaped module that sits atop the frame, built from a grass-filled polyester composite structure with aluminum thermal radiation shielding and steel case. Total weight of the module is 435 pounds.

LITHIUM ION BATTENY PACK. Developed by GM with LG Chem and built at a new \$300-million plant in Holland, Michigan, this is one of the first lithium-ion packs engineered into a high-volume production vehicle. The Volt battery features an 8-year/100,000 mile warranty. The pack is positioned in the center tunnel of the Volt, protected by ultra-high-strength steel, and is part of the body structure. It comprises nine linked modules containing 288 prismatic Li-ion cells, each the size of a 5x7-inch photo frame, less than 1/4 inch thick and weighing about a pound. Li-ion packs 2-3 times as much power as nickel metal hydride (NiMH), in a much smaller package.

sitive to temperature changes, the Volt pack is climate-controlled via an exclusive active liquid control system that continually monitors and maintains battery pack temperature for optimum performance and durability. Circulating liquid (coolant and distilled water) passes through a series of internal heat exchangers in the battery modules. This is designed to provide reliable operation, when plugged in, at temperatures as low as -25° C (-13° F) and as high as 50° C (122° F). In cold weather, the battery is preheated during charging to provide full power capability. In hot weather—the most challenging environment for any battery—the Volt's battery is chilled during charging. (See sidebar, next page, for more on this in Arizona's heat.)

INFORMSTICA. The Volt's battery management system continuously monitors safety and performance in real time. More than 500 diagnostics run 10 times per second, keeping track of the pack. 85 percent of the diagnostics ensure the battery pack is operating safely, while the remaining 15 percent track battery performance and life.

THE MOTORS AND THEME. Unlike most battery electric vehicles, which use a single motor with a fixed reduction gear that steps down the motor speed to synchronize with the wheel speed, the Chevrolet Volt uses a unique electric drive unit to boost efficiency. The efficiency of any electric motor always drops off as it approaches its maximum rotational speed. The Volt drive has two motors, three



otors. This reduces battery drain at highway speeds,







CHEVROLET VOLT AND ARIZONA SUMMERS

o what about us? Is this daring new technology up to the challenges of an Arizona August afternoon? To find out, we talked to William J Wallace, Director of Global Battery Systems for the General Motors Vehicle Engineering Center in Warren, Michigan, who joined us for lunch in the California foothills and our drive back to Santa Monica. We'd been told the refrigerants used to maintain a range of vehicle operating temperatures had an engineered cap of 90° F, so we wanted to know how it would work in a Valley of the Sun summer, where nighttime lows may not drop below the mid-90s and garage temperatures climb extremely high. Everything that goes to market of course gets tested not only here but in Death Valley, where temperatures of 50° C (122° F) are routine. We're curious how long the whole apparatus can remain cool.

Wallace tells us the strategy begins with thoroughly insulating the whole package, with the key being to keep out daytime energy peaks. As BTUs will constantly transfer between any two items of differing temperatures, Wallace agrees the refrigerant's ability to remain cool will last "not forever, but you look at one day's temperature profile—up, down and back—you look at the mean temperature, and we can hold the battery at that average, so the key is how to get rid of the peaks, off that." He reminds us that the battery is designed to last for the lifetime of the car, so this is an endeavor the team takes very seriously.

"We realize the insulation system can't do it all on its own—that's a fact," Wallace continues. "But we have active cooling. Primarily, we cool it while you're charging. In the hot climates, if you look at our documentation, it recommends that especially in hot climates, you leave the car plugged in even if the charge is complete. The system will continue to condition the temperature of the battery even after that point, pulling the temp down below 32° C (90° F), so once the car is unplugged, we can get through the heat of the day without rising above our target."

Is there a practical minimum to cool the refrigerant down to, in a climate like ours? "Well," says Wallace, "practical is not to use more than energy than necessary, but a limit might be 25° C (77 $^{\rm p}$ F)."

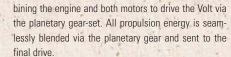
So, we ask, if your refrigerant is at 25° C (77° F) and ambient temperature is 45-50° C (113-122° F), it depends on load and how long you run it, but...? "Yes, we've run those tests," Wallace confirms. "Just sitting, it takes 10-12 hours to rise to its limit. The charger is very closely monitored and shuts off, but the refrigerant system is all electric, so the engine doesn't have to run to do any of it. The car runs all that equipment off the grid, so all is available while you're driving, while you're plugged in, and we even have a mode for when the car is sitting for a long period of time in a very hot climate. In this case, it will actually draw energy out of the battery, run the refrigerant system and cool the battery while it's sitting." They call this the "Sky Harbor Airport mode," as in how long could you park your Volt at the airport, not plugged in? "Indefinitely," says Wallace. Will it do undo damage at some point? or fail to start at some point? "No," says Wallace, "it will always start." Well, sooner or later, if your battery core gets to be 130° or something? we ask. Wallace assures us the battery will work and the car will start, but it's a question of life over time. The longer you expose the battery to extremely high temps, the faster it wears out just sitting there. Actually, though, heat is a benefit. "At high temperature, it has very high power, and it's simple to start the car," Wallace explains. "We really don't want people parking at the airport all summer for ten years, that would not be a good thing."

So are they ready for Arizona's challenges? Will they stock showrooms in Phoenix like everywhere else? "Oh yeah, we want to sell them there," he confirms. "We developed a test case called Phoenix Abuse. We took normal driving in Phoenix, then invented a test cycle that represented what might not be bad for a human, but bad for a battery, then basically designed the system around that scenario to make sure we could achieve our warranties. And everybody else benefits from it. Everything's stronger and better. "In a temperate climate, our battery will last 25 years—way longer than you'd ever keep the car."

We mention the early-adopter conundrum: that so many new ideas will be in play by the time that 25-year span is ever used up. "Yes," says Wallace, "that's where residual value of the battery becomes important. When you buy the Volt, you own the battery. We don't own it; you do. By the end of the Volt's life, you hopefully can sell that battery for money, that's our goal. If we can create a viable market for post-vehicle batteries, that drops the cost of ownership."

The Chevrolet Volt is ready for Arizona. Bring it on.

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Regardless of which mode is in play, the Volt's drivetrain is always propelled by electric power from the traction motor. The engine cannot propel the Volt unless the traction motor is also running. In order for a planetary gear-set to transmit torque, at least one of the three main elements (ring gear, sun gear, or planet carrier) must be able to be locked or held. There is no clutch to lock the sun gear, so the traction motor is required to provide reaction torque for propulsion.

This unique propulsion architecture allows the Volt to achieve 10-15 percent better efficiency at highway speeds than would have been possible by using only the single traction motor. At the same time, the Volt always delivers a solid electric driving experience, even in extended range driving, utilizing the large battery for full electric launches even during brisk accelerations.

. MORNING TECH TOUR

We started out with a tour of the Volt's drivetrain (see sidebar on first spread), where Chevy's representative said it was the biggest collection of Volts he had ever seen. Us, too, having never seen more than one at once. Battery engineer Bill Wallace (see Arizona summer sidebar) has been living with one for personal use for some time now, and he tells us it has changed his whole perspective on driving. (He also emphasizes once again that this is a 4-person electric vehicle with extended range, or EREV—not a plug-in hybrid.) His personal best has been 379 miles. Wallace reminds us that the Volt "can run forever on no fuel, or can run forever on only fuel," though it will have "generator-like behavior most of the time." Any hybrid, he points out, can be converted to create a plug-in hybrid; but the Volt is a new concept from the ground up. As he continues his tech presentation, he stresses that "everything I'm showing you here, I hope you don't even notice when driving; it should be basically invisible to the driver." And that's the key.

We're brought up to speed on Normal (best economy), Sport (more torque with less pedal deflection), Mountain and Low settings. We'll be headed up the coast through Malibu, then into the hills, where the Mountain mode can keep more capacity in the battery, due to the lack of weight of a big engine. High speed and mountains will be our biggest challenges. "Anyone building any blended engine will have this challenge," Wallace points out. If our battery becomes depleted and it will, as our course is well more than 40 miles even before our mountaintop lunch turnaround spot the gasoline engine is enabled. "Battery leads, engine follows," he reaffirms. The battery delivers full kWH even at low charge, then as the engine comes into play, it backcharges the battery. This approach makes the Volt feel like an electric car even when recharging from

GM reps point out the Volt's other attributes, "tech beyond the battery," which include touchscreen interfaces, Bose sound system, airbags galore and much

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VOLT TRAVEL SCRAPBOOK













Santa Monica is one of our SoCal favorites, from the pier to the palm-lined volleyball beaches to a very pedestrian-friendly core. We flew to LAX on US Air, had clear views of Catalina Island and snow-capped peaks, stayed at the Fairmont Miramar Hotel, oceanfront, and walked through the evening's street entertainment to Zengo, a fun and tasty restaurant we'd revisit in a heartbeat.



more. The Volt has been carefully developed to be a normal 4-door sedan—with a great trick up its sleeve.

Recharging the Volt takes about 10 hours from a 120v circuit (more when very hot or very cold), and only about 4 hours from 240v (a recommended upgrade at just \$490 or so, installed). The cost? About \$1.50 to recharge.

EPA mileage? This is completely new territory, and the full explanation could fill a page, but the EPA's methodology has anointed the Volt with a "93 MPG equivalent" rating (or 37 MPG gas-only city/highway combined). Expect some debate and further evolution as additional innovations come into play, but for now, the Chevy Volt has displaced the Prius as numero uno.

.COAST TO HILLS AND BACK

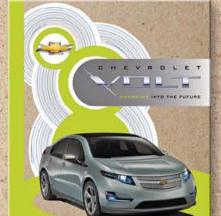
From our hotel base in Santa Monica, we headed north on the Pacific Coast Highway through Malibu, where the Volt had to hold its own with such clichés as a trophy bride piloting a three-ton Bentley up the wrong side (and the right side, intermittently) of the road at about 70 in a 45. No problem. Power, brakes and control were all superb. On our climb through the mountain park highways of Los Angeles and Ventura Counties, we had to make a point of noting when our electric-only propulsion was depleted (an assignment we all had), as performance was indeed seamless at that point. We had driven normally, which means relatively aggressively, and had

achieved somewhere between 35-40, a great and pretty common result among the group. We dutifully tried the Mountain setting on the upper twisties, though we weren't able to A-B that against others as readily as we'd like for an in-depth comparison. Suffice it to say that it served its purpose and was a clever inclusion.

. POWER IN PERSPECTIVE

- The 16-kWh Chevrolet Volt battery could power an iPod nano for 112 years of nonstop music.
- Fully charging the Chevrolet Volt battery five days a week for a year will use about 2730 kWh—less than a quarter of an average household's annual total.
- To travel 1776 miles from Austin TX to New York City in a Volt would take 28 hours of constant driving and stops to refuel. The same trip would take 10 days of constant driving and recharging in a battery electric vehicle with 100-mile range and 12-hour recharge.

Alternative drivetrains will continue to develop, including extended-range EVs such as the Chevy Volt. The crystal ball does not reveal how it will all shake out, but on a playing field of quicksilver, GM is to be commended for this enormous effort to advance the ball. The car they've produced is worth a serious look for its technical prowess, but will be a seamless modern experience for most owners—with bragging rights included.



CHEVROLET VOLT: THE BOOK

Even before the new Chevrolet Volt started rolling into dealerships, Larry Edsall's book, Chevrolet Volt: Charging into the Future was rolling off the printing presses. Chevrolet Volt, the book, was officially licensed by GM, giving Edsall unprecedented access to the people who made the Volt happen, from Bob Lutz to the designers, engineers and even assembly line workers. In 144 pages, with 236 color photos, Edsall takes the reader on an adventure through the creation of one of the most revolutionary new cars in recent history. For your copy (\$30) go www.motorbooks.com, amazon.com or bookstores nationwide.

—Bill and Barbara Schaffer





Russo and Steele

11th Annual Sports and Muscle in Scottsdale

A year ago, Russo and Steel Collector Car Auctions was eager for its 10th annual event in Scottsdale. But the festivities came crashing down—literally—when a tornado-like storm decimated the auction site, causing what Russo and Steele founder Drew Alcazar later termed "the most catastrophic disaster to ever befall a collector automobile event "

Hundreds of cars sustained millions of dollars in damage. It took two days to clean up the debris and restart the event, and by then many cars were gone and many potential bidders already had headed home. In the aftermath, there were those who wondered if Alcazar and his company would survive.

They did, but then just weeks before the 2011 event, there was another setback. Alcazar thought he had done a deal to move his auction to a new site in Scottsdale, but another auction—Barrett-Jackson, where Alcazar used to work before he launched his own eventclaimed it needed the location for overflow parking.

Alcazar's anticipated move didn't happen. He was right back where he started.

But he was back with some 600 cars up for bidding yes, Russo and Steele's consignors returned despite the damages last year—and that bidding didn't take place in an ordinary if large tent. This year, Russo and Steele's auction-in-the-round arena-style layout was set up in a nearly 50,000-square-foot temporary structure from Losberger, a German company that provides similar

structures for Olympic venues and military bases.

Blessed by perhaps the best Arizona auction week weather in a decade, the 2011 Russo and Steele auction at Scottsdale not only rebounded from 2010 but, in Alcazar's words, "we knocked it clean out of the park and ripped the cover off the ball."

With the disaster last year, Russo and Steele didn't report 2010 results, but in 2009 its Scottsdale event enjoyed total sales of \$17.1 million. This year, it reported more than \$21 million in business.

Not only did Russo and Steele sell a 1970 Plymouth Hemi 'Cuda convertible for \$1.705 million, but that figure ranked fifth-best among the 2500 or so cars sold at all auctions in Arizona in January. Significantly, rival Barrett-Jackson had no vehicle in the million-dollar category. In fact, Barrett-Jackson's highest vehicle sale for a car not benefiting charity was \$368,500 for a 1956 De Soto Fireflight convertible.

In addition to the million-dollar muscle car, Russo and Steele got \$704,000 for a 1955 Mercedes-Benz 300 SL "gullwing" coupe.

Other top sales at the event were \$335,500 for a 1965 Shelby Cobra 427, \$236,500 for a 1970 Plymouth 'Cuda 440/6 and \$194,700 for a 1957 Cadillac Eldorado Biarritz.

Barrett-Jackson

40th Annual Collector Car Auction Event

Ask people what justifies Barrett-Jackson's proclamation of being the "world's greatest classic car auctions" and the answers likely would include such things as:

There is no doubt that Barrett-Jackson, which celebrated its 40th anniversary in January, is the largest of the classic car auction companies, but what most distinguishes its events from others isn't just attendance, size, TV, celebrities or even money. Well, it is money, but in this case it's money raised for charity.

The 2011 40th annual Barrett-Jackson auction sold 21 vehicles and one General Motors "crate" engine to benefit charities. Those sales, on which the auction company waives all consignment and bidder fees, raised nearly \$4 million for 20 charities.

Even before there was a Barrett-Jackson Auction Company, the Barretts and the Jacksons were staging car shows to generate funding for Scottsdale's library and arts center.

The company's generosity shows, with bidders often going well above a vehicle's value when they know the money is going to charity. For example, a one-of-a-kind 2012 Ford Boss Mustang Laguna Seca coupe brought \$450,000 for the Juvenile Diabetes Research Foundation, and a 2011 Chevrolet Camaro convertible Indy pace car raised \$225,000 for the David Foster Foundation.

The Darrell Gwynn Foundation, founded by an injured drag racing champion to provide specialized wheelchairs for children who need them, got several hundred thousand dollars from the sale of a street-legal version of the 1974 Mercury Montego David Pearson drove in the 1976 Daytona 500 and a replica of Gwynn's 1990 Coors Extra Gold Top Fuel dragster.

Nearly \$300,000 was raised from a 1993 Chevrolet

Corvette and a 1965 Shelby Cobra 4000 for the Barrett-Jackson Cancer Research Fund in Memory of Russ (Craig Jackson's father) and Brian Jackson (Craig's brother).

Other charities benefiting from the auction included the American Heart Association, Levine Children's Hospital, the Paralyzed Veterans of America, Chidhelp, Victory Junction Gang Camp, the Child Safety Network, and St. Jude Children's Research Hospital.

RM Auctions

12th Annual Automobiles of Arizona

"We may buy collector cars at home [from private owners or classic car dealers], but the auctions set the tone. We all watch the numbers. This weekend sets the tone '

That from Corky Coker, who follows the classic car marketplace about as closely as anyone. Not only is Coker a collector, but he is the head of family-owned Coker Tire, which produces new tires that fit—and look period correct—on classics of all eras.

Based on the results of the first complete event among the major annual classic car auctions in January in Arizona's Valley of the Sun, the tone for the classic car hobby for 2011 was upbeat, with RM Auctions selling an astounding 96 percent of all the cars that crossed the block at the Arizona Biltmore Resort and Spa and for a total of \$30.8 million, the highest amount generated in any of RM's dozen years of Arizona auctions, and at an average of \$293,090 per car.

"We are thrilled with the results from this week's Arizona sale," said RM founder and CEO Rob Myers. "The offering attracted strong interest from collectors around the globe, with numerous lots exceeding expectations. It is a great start to the new year and paints a very positive forecast for the auction season ahead."

Although it wasn't the biggest-dollar sale of the auction, perhaps the most remarkable bidding focused on a 1955 Mercedes-Benz 300 SL "gullwing" coupe. The car's pre-auction estimate was \$700,000-\$800,000. But with bidders from Europe and the Middle East going at it, the hammer didn't fall until the price had climbed to \$1,375,000, a record amount for a steel-bodied Mercedes aullwing.

The day before that Mercedes sold, Drew Alcazar, who heads the Russo and Steele classic car auction company, participated in a panel discussion and suggested that it was time to buy gullwings before they hit the million-dollar mark.

So, is the gullwing at RM the new standard or an anomaly? Classic car market experts say we won't know until the next three cars sell

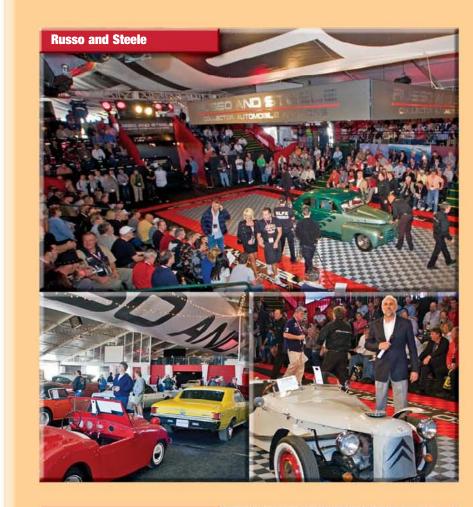
One of those three—a 1954—sold later in the day at RM. Estimated to be in the \$450,00-\$500,000 range, the car brought a very healthy \$544,500.

The top sale at RM was \$1.87 million for a 1949 Ferrari 166MM barchetta with bodywork by Touring.

A 1933 Packard Twelve sport phaeton went for \$1.76 million, and a Dietrich-bodied Duesenberg Model J dual cowl phaeton brought \$1,237,500.

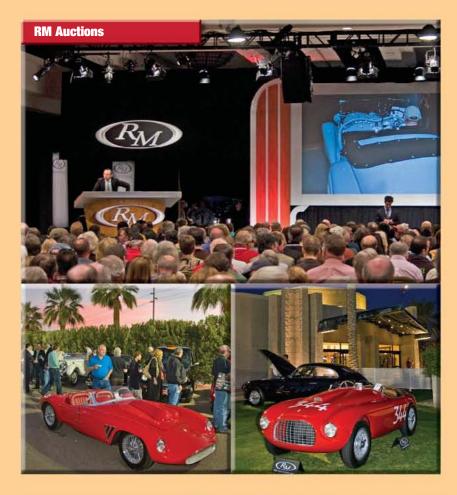
Just missing the million-dollar mark were a 1965 Ferrari 500 Superfast for \$935,000 and a 1939 Bugatti

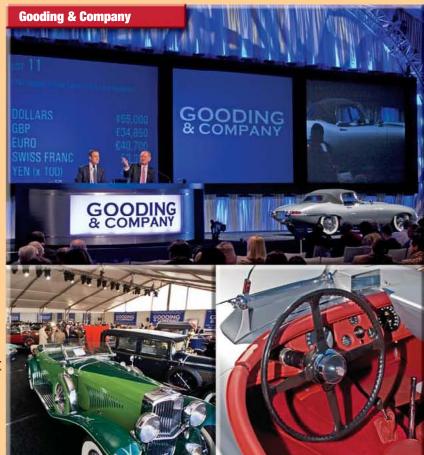






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Type 57C three-position drophead coupe that brought \$913,000. A 1973 Ferrari 365 GTB/4 Daytona Spyder owned for some 20 years by baseball Hall of Famer and car collector Reggie Jackson, and before him by Evel Knievel, sold for \$880,000.

Gooding & Company

4th Annual Scottsdale Auction

Scottsdale Fashion Square is the hub of upscale shopping in one of the nation's most upscale cities. Each January, two large white tents are raised in one corner of the shopping center parking lot. A press release calls the tents "glamorous," which might seem an overstatement until you walk inside and see the huge chandelier hanging high overhead.

The tents house the Gooding & Company Scottsdale Auction of classic cars, though until the bidding begins, walking around inside the tents is more like visiting one of the finest car museums on the planet.

Take the Gooding auction held in mid-January. Even before you enter the main auction tent, you walk past an historic Porsche 904 race car and a Tucker that set speed records on the Bonneville Salt Flats, then was locked away for some 50 years.

Inside, there's the Shelby 289 Cobra that was Carroll's factory demonstrator, still in its original paint. Just a few feet away and beneath the chandelier is a pair of Ferraris, and just beyond them several men are under the hood, in the driver's seat and even on the floor examining a "gullwing" Mercedes-Benz 300 SL up close and personal.

And it goes on and on, inside and even outdoors between the big tents. Duesenbergs and Ferraris (17 of them this year), Packards and Rolls-Royces, Cadillacs and Aston Martins and so many others that you might expect in a museum or on the lawn at the Concours d'Elegance of America or Eyes on the Classics, but here they are, and all are for sale.

All for sale, though not all will sell, because at such high-end car auctions, those consigning their cars can specify a reserve, a dollar amount the bidding must reach before the car actually can be hammered "sold!"

But at Gooding, not only are the cars of high quality, but so are the bidders and their budgets. This year, 121 of 129 vehicles that crossed the block sold, including every car on Saturday, the finale of the two-day event.

Those 121 cars brought nearly \$35 million, an average of \$289,090 per car, more than \$115,000 per car higher than the other high-end auction held during Arizona Auction Week and more than five times per car as much as the nationally known Barrett-Jackson

Gooding has been coming to Scottsdale for four years, and each year it has posted the highest dollar sale of the week. This year that car was one of only 30 Ferrari FXX sports racers from the personal collection of the late Benny Caiola, a son of immigrants whose real estate management company started with a 26-unit apartment building in Manhattan. Caiola became Ferrari's best customer in the United States.

The FXX brought \$2.09 million. Eight other cars sold

KEEP RIGHT >>

PANEL DISCUSSIONS: AUCTION EXPERTS OFFER BUY-SELL-HOLD ADVICE

When asking for advice about what classic car to buy, collector car enthusiasts often are told simply to buy what they like. In other words, just buy a car that has personal meaning—perhaps the car they wanted but could not afford back in high school or a car they will enjoy driving and taking to local car shows.

And yet, through the years, classic cars have proven to be pretty decent investments that can increase significantly in value, so you can't blame people from seeking expert advice on what to buy, what to hold, and what to sell.

Hagerty, the world's largest insurer of classic cars, hosted an inaugural Global Auction Summit at the Penske Racing Museum in Scottsdale during Arizona's annual classic car auction week. The summit featured a panel of experts from eight major auction companies, including two based in England.

After answering various questions about the state of what is a hobby for car collectors but an industry for companies involved in restoration, insurance and auctions, each panelist was asked what car to buy, what car to hold, and what car to sell.

Cars receiving BUY recommendations included the Porsche 356, fun-to-drive and still stunning to see XK-E Jaguars, "gullwing" Mercedes-Benz 300 SLs-while they still can be had for less than \$1 million—but also increasingly popular (and now apparently only slightly less expensive) 300 SL roadsters, and earlier coach-built Ferraris from the era when Enzo Ferrari was in his prime.

Mitch Silver of Silver Auctions suggested the 1966 or even 1965 Pontiac GTO "Tri-Power" convertible and 1953-55 Oldsmobile, Buick or Pontiac convertibles. Donnie Gould of Auctions America by RM noted that the 1966 Shelby Mustang (with a four-speed manual transmission) costs about half of what a '65 model brings, but is basically the same car and thus is a great buy.

The experts said to *HOLD* the cars that bring you the most enjoyment, and also to hold muscle cars, which have slipped some in value in recent years but figure to make a comeback.

What to SELL? Clones, re-creations and "tribute" cars. Why? "It may have been your dream when you built it," said Simon Hope of Britain's H&H Classics Unlimited. "But don't expect it to be someone else's."

Drew Alcazar of Russo and Steele said he considers clones and tributes to be what he calls "title in the glove box" cars. He explained that these are cars the original owner may enjoy, but at some point he or she needs to simply park the car at the side of the road, say "well, I've had my fun," and walk away. In other words, don't expect your re-creation to create big monetary rewards when you offer it at auction.

One other category of cars which have been fairly hot in the market in recent years but were consistently rated as a SELL by the experts was 1955-57 Ford Thunderbirds, the first-generation, two-seat cars. Except for those '57 models equipped with superchargers, the experts said there are so many of these "baby 'Birds" available that you can sell yours with confidence that should you ever change your mind, you'll easily be able to replace it at a reasonable price.







(Above) A panel with Scott Brandt of St Louis-based MotoeXotica, racer emeritus and renowned writer Denise McCluggage and classic/collector price guide publisher/appraiser Dave Kinney spoke to the Phoenix Automotive Press Association earlier in the week at the Phoenix Art Museum. (Below) The Hagerty Global Auction Summit at the Penske Racing Museum.









Mitch Silver Max Girardo Silver Auctions



Donnie Gould







Rod Egan Worldwide Auctioneers Simon Hope H&H Classic Auctions

Gullwings (and roadsters) take flight

David Swig

Drew Alcazar

Russo and Steele

If you were among those following that advice and seeking to buy a classic 300 SL—gullwing or roadster—during Arizona auction week, you needed a little more cash than expected because prices were up on both versions.

Although it wasn't the biggest-dollar sale of the auction, perhaps the most remarkable bidding at RM focused on a 1955 Mercedes-Benz 300 SL "gullwing" coupe. The car's pre-auction estimate was a substantial \$700,000-\$800,000. But with bidders from Europe and the Middle East going at it, the hammer didn't fall until the price had climbed to \$1,375,000, a record amount for a steel-bodied Mercedes gullwing.

But was the gullwing at RM the new standard for what has been the gold standard of international car collecting, or was it merely an anomaly? The classic car market experts say we wouldn't know until the next three sold.

And sell they did:

At RM, a '54 brought \$544,500.

At Russo and Steele, a '55 went for \$704,000.

At Gooding & Company, a '56 got \$858,000.

Granted, the quality of the cars varied, but considering that coming into Arizona, excellent gullwings were typically considered to be in the \$650,000 price range, those totals were more than just good.

And it wasn't only the much heralded gullwings. Mercedes 300 SL roadsters did extremely well, too. In fact, they went for what had been considered gullwinglike prices:

At Gooding, a '62 roadster (an unrestored car with very low mileage) brought \$951,500, and a '60 model went for \$627,000.

At RM, a '60 roadster sold for \$572,000.

— Larry Edsall

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for more than \$1 million, and a 1971 Lamborghini Miura P400SV missed that mark by a mere \$10,000.

Gooding & Company is led by David Gooding, whose father was an auto museum curator. David Gooding worked for the prestigious Nethercutt (classic car) Collection, which was founded by a Merle Norman Cosmetics heir, and then for auction company Christie's and for three years was president of RM Auctions before launching his own company.

GRG International Auction

Inaugural Classic Car Auction

The temptation is to call them the new kids on the (classic car auction) block. However, Leo Gephart is in his early 80s and "Cactus" Jack Gartley is just a couple years younger, and their involvement in classic car sales dates back at least 40 years.

In fact, Hemmings Classic Car, a magazine that is part of the Hemmings Motor News organization that has been reporting on vintage vehicles and those who buy them since 1954, has called Gephart "the architect of the collector-car hobby."

Gephart was among the first in the country to operate a dealership that specialized in collectible cars and, according to a long article published in *Hemmings Classic Car* in 2008, he was among those who encouraged Russell Kruse, who had been doing estate and farm equipment auctions in Auburn, Indiana, and Scottsdale car collectors Tom Barrett and Russ Jackson to stage the first major classic car auctions.

Although his day jobs were primarily in mobile home sales and for many years in casino and hotel development in the western United States and Costa Rica, Gartley has been associated with Gephart for several decades. They comprise the "Gs" in GRG, which on January 1-2 celebrated the grand opening of the GRG Scottsdale International Auto Museum and Scottsdale Museum Club Event Theater by staging the first GRG International Classic Car Auction.

The "R" in GRG is Tommee Ranger, who is several decades younger than his partners. Some simply describe Ranger as a "promoter," but that's a term he doesn't like. He describes himself as someone whose business is "connecting the dots," putting people together with projects he anticipates will be profitable while also producing benefits for the surrounding community and its charities.

The museum and event theater are housed in what had been the empty shell of a former Mervyns Department Store in the Scottsdale Pavilions shopping center.

Although GRG had been working on the museum for several months, it was less than a month before the grand opening that Gephart decided to open with a classic car auction. He called on many of his long-time friends and customers to make available 210 vehicles that crossed the auction block January 1-2.

Although only 40 or so of those vehicles sold, those unsold—and several of those that did sell—remained in the museum throughout the month of January. GRG anticipated those vehicles will benefit from good exposure as people arrived for the Barrett-Jackson, RM Auctions, Gooding & Company, Russo and Steele, and other classic car auctions in the Phoenix area.

Those cars not only provided the bulk of the first set

of vehicles on display at the museum, but those that didn't sell at the auction remained open for on-line bidding and what are known as after sales.

Moving forward, the plan is to fill the 75,000 square feet of museum space with a rotating display of collector vehicles, some owned by Gephart and his friends, others on loan from a variety of car enthusiasts.

Silver Auctions at Fort McDowell

14th Annual Arizona Auction

Mitch Silver was a car collector who went to an auction in the 1970s and realized that by running his own auction company, he wouldn't have to chase after cars—they'd be coming to him. He launched Silver Auctions, based in Spokane, Washington, in 1979 and stages a dozen or so events each year in the western United States and Canada. Silver's biggest auction is held in conjunction with Hot August Nights, a huge classic car gathering each year in Reno.

Silver is considered an entry-level collector car auction focusing on cars in the \$20,000 to \$100,000 price range.

The annual Silver event here in Arizona is held at the Fort McDowell Resort and Casino east of Scottsdale near Fountain Hills. In addition to a three-day auction that sold nearly 200 cars and took in \$3.4 million, a week later Silver staged a "Last Chance" event that included 80 vehicles that either didn't sell at the earlier auctions or that buyers decided they just couldn't fit in their garages back home.

MotoeXotica at Manheim

Inaugural Phoenix Auction

MotoeXotica's inaugural Phoenix Classic and Exotic Car Auction sold some 100 of the 240 cars available and did some \$1.5 million in business at the Manheim wholesale auction facility in Tolleson.

The top price paid was \$70,000 for a 1965 Pontiac GTO.

"We put the event together in 90 days," said Scott Brandt, who staged his first auction at his MotoeXotica dealership in St. Louis, Missouri, in 2008. That auction proved too large for the dealership, so the general manager of the local Manheim facility suggested Brandt move the event to Manheim in 2009. That was the start of a relationship between the two companies that launched the Phoenix auction this year.

(Manheim, with facilities across the country, is the nation's largest wholesale auto auction company, dispersing used cars and former rental fleet vehicles on a weekly basis.)

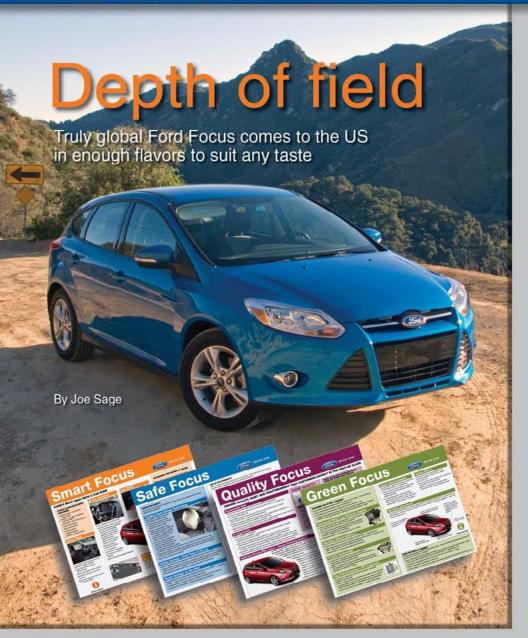
Brandt said he'll be back in Phoenix in 2012, and already is talking with Manheim about classic car auctions at other Manheim facilities as well. ■

After working as a sports editor for daily newspapers in Michigan, LARRY EDSALL was on staff for 12 years at AutoWeek, most of it as managing editor. He has driven more than half a million miles testing cars on four continents. He helped launch www.izoom.com and also helped found PAPA, the Phoenix Automotive Press Association. His books include Masters of Car Design (Genius), Miata 20 Years and his eleventh, Camaro: A Legend Reborn, all available at amazon.com.





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he all-new 2012 Ford Focus is making news almost faster than anyone could record it. Just in the couple of weeks since we drove it at its US press launch in southern California, absorbing all the technical and marketing marvels of this new small car from the team who created it, more news has poured in, about an upcoming EcoBoostTM version (see sidebar), a long-expected Electric Focus (ditto), more use of recycled and other sustainable materials, the launch of the Focus Rally America (which we test ran), EPA certification at 40 MPG and much more. This true world car has been long anticipated, and Ford has given it deep resources; it's no wonder it's been such a newsmaker.

With the recent new Ford Fiesta (we've driven and covered both four-door and hatchback versions), you could forget everything you ever knew about Fiestas past. The same holds true with the new Ford Focus. Maybe moreso, as the Focus also represents a major leap toward truly global distribution of a single vehicle that's optimized for every market—certainly for the US.

FOCUS RALLY AMERICA

We found out straight away that we'd be driving the new Focus a bit differently from most new vehicles. Instead of being taken first to our hotel or the starting point of our drive, we headed to a staging area at a hotel near LAX, where we were each given an iPod Touch, preloaded with a Q&A about the Focus. And we received a preliminary presentation on the car. Based on the Focus Rally America that others would run during a highly consumer-involving launch event, we would answer the questions at predetermined points in the trip.

The actual Focus Rally America runs as follows. The rally has six teams of two, driving the all-new 2012 Ford Focus, competing against each other to complete various challenges and tasks as they drive cross-country. Teams play to win the ultimate prize of \$100,000 and a brand new 2012 Ford Focus. The six teams began their adventure at a Super Bowl kickoff party in Miami on Friday, February 4. The first video webisode of the rally posted on www.Hulu.com the next evening. Two Super





Bowl commercials that Sunday invited viewers to participate in the campaign at www.focusrally.com (a third ad featured the new Ford F-150 with EcoBoost™ engine). Interactive social media elements allow everyone to not only follow along in real time, but to virtually participate in challenges during the rally and in some cases impact how the game plays out. Focus Rally America teams could rely on friends, fans and followers to help complete challenges during the cross-country road rally. World Cup and Olympic gold medal winner Jonny Moseley serves as the host of the event, which runs for five weeks. Fans get involved in several ways. They can view the nightly video webisodes on www.Hulu.com to see highlights of that day's rally. At www.focusrally.com, they can follow live and interact with rally teams while on the road. And they can join in the competition by registering as a supporter of one of the teams and then assisting that team to complete tasks and challenges throughout the rally. Registered "virtual team members" earn points through daily interaction on www.focusrally.com, and some fans are rewarded with a chance to ioin in the rally personally along the way, through a process similar to how the six were chosen for Miami. And if all that fun weren't enough, there are multiple chances to win a new Ford Focus: eight cars are being awarded to fans and followers through the rally.

Jumpstart, Focus Follower and Checkpoint Challenges are released daily. The team with the highest percentage of correct answers receives an advantage in the challenges on the following day. With Checkpoint Challenges, drivers are stuck at a checkpoint until they solve their puzzle, or 30 minutes elapse, whichever comes first. Focus followers complete an online challenge to reveal a hint that will help the drivers solve







their puzzle and get back on the road.

For every point earned, participants get one entry into each of the Focus Rally prize drawings. For example, 500 points equals 500 chances to win one of the prizes that will given away throughout the rally. Virtual participants earn points for just stopping by, or for changing their profile picture, answering trivia and completing challenges. The more you play, the more points. Enough points will fill a Points Bar at the top of the page and raise you up a level. The higher the level, the more daily votes you get, which can be used for surprises and rewards for the drivers, thus having a direct impact on the event.

Participants win a prize if their name is drawn during ten prize drawings over the course of the rally. Chances of winning a prize are directly related to points earned on www.focusrally.com.

Our media version followed much the same process, without the 30-minute holdups (nor the chance to win the car). We were pleasantly surprised, though, to find we did have a chance to score some loot at an evening event following the drive: third-party suppliers of Ford's many technologies contributed prizes, points were tallied, and it turns out there were four journalists tied for first place. The tie was to be settled by a slot car race. "Glad that's not me," thought your correspondent, who hadn't run a slot car since maybe age ten. But your correspondent was indeed among the four. And we went to bat for you, our readers, prevailing in four heats and taking home a new 42-inch GoogleTV from Sony. It's not common to have something like this, as we are untainted by any such persuasions. But if we were to say more about the GoogleTV from Sony, with its capabilities of surfing the web, loading apps, watching TV or Blu-ray videos, or all these at once, we're sure you'd understand.

THE FORD FOCUS LINEUP

We had a chance to swap vehicles at the halfway point, and did, though we just scratched the surface. There are four levels of Focus right now (with at least two more on the way; see sidebar), and there are two quite different body styles: a four-door sedan (in four trim levels) and a five-door hatchback (as with the new Fiesta) in three.

BASE PRICES/INCLUSIONS	SEDAN	HATCH
S Sedan	\$16,270	na
• Base S has 2.0L VCT direct-	injection inline-4	l engine,
5-speed manual and 15-inch st	teel wheels with	covers.

SE Sedan/Hatchback\$17,27018,065

• SE adds 16-inch steel wheels/covers and MyKey®.

SEL Sedan/Hatchback\$20,27021,065

• SEL adds 6-speed PowerShift™ automatic with Select-Shift™, plus Ford SYNC®.

Titanium Sedan/Hatchback\$22,270......22,765

 \bullet Titanium includes SYNC and adds MyFord Touch $^{\text{TM}}\!.$

The very affordable base S model includes front disc brakes with ABS, sport-tuned suspension with independent rear including stabilizer bar, manual seats, black finish for door handles, mirrors and grill, but still power mirrors, power locks and front windows, a/c, storage and safety galore, AdvancTrac® with ESC® stability control, a 110-watt four-speaker AM-FM-CD-MP3 audio system, capless fuel filler, tach and rear defroster.

The SE adds body-colored door handles and mirror, more armrests and mats, fog lamps, auto headlights, MyKey®, more instruments including compass, outside temp, trip computer, steering-wheel-mounted audio

KEEP RIGHT >>

FORD FOCUS TO GET ECOBOOST™





The Focus ST will be the first Ford with the new 2.0-liter EcoBoost 247-hp 4-cylinder engine. Compared to the 2.0L EcoBoost planned for other Fords, the Focus ST unit features redesigned intake and exhaust systems and unique engine calibration for power and responsiveness. The lightweight, all-aluminum engine combines three technologies-highpressure direct injection, turbocharging and twin independent variable camshaft timing (Ti-VCT)—to create an advanced combustion system for performance and fuel efficiency. With direct injection, a state-of-the-art turbocharger ensures virtually lag-free operation at all engine speeds, spinning up to 195,000 rpm and designed for a life of 150,000 miles or 10 years.

FOCUS ELECTRIC YET THIS YEAR



Ford plugged in the Focus Electric at the Detroit auto show, signaling the company's first all-electric models due to launch later this year. The zero-CO₂, fuel-free Focus becomes the leader of Ford's growing fleet of hybrid, plug-in hybrid and all-electric vehicles rolling out by 2013. Range is designed to cover the majority of daily US driving conditions.

—Bill and Barbara Schaffer

FOCUS TRAVEL SCRAPBOOK













Where better for a world premiere than Hollywood? US Air to LAX, a Rally briefing at the Custom Hotel, lunchwagon, ice cream truck and tech talk at the Hyatt Westlake Village bookended our coast and hills drive. A high-potency evening at the Andaz West Hollywood included Rally results, with a fourway tie settled on the slot car track and your home team winning a GoogleTV from Sony.



controls, rear power windows, 16-inch wheels and—on the hatchback (not available at the S level), a rear spoiler, rear wiper and 60/40 split second row seats.

Jump to the SEL, and audio goes to six speakers. rear brakes become disc, the grille goes from black to classy piano black and a chrome beltline molding is added, climate control becomes dual-zone, the interior picks up metallic trims, the side mirrors add marker lamps, back seats have 60/40 split as in the hatchback, alarm, overhead console and other storage are added, along with 16-inch painted aluminum wheels, some SYNC® features, and a 6-speed PowerShift™ automatic with SelectShift™ capability.

An ST model with EcoBoost™ turbocharged engine is yet to be released (see sidebar), but the current top of the line is the Focus Titanium, adding a host of features including 10-speaker Sony audio with HD Radio™, additional trim, leather and ambient lighting upgrades, an 8inch touchscreen display for MyFord Touch™ features along with SYNC®, rear spoiler even on the sedan and 17-inch aluminum sport wheels.

It sounds like quite a jump from the base S sedan to the Titanium, and in features and technologies it is, yet though it climbs past the \$20k mark, the Titanium is only 36.8 percent higher than the S model. If, on the other hand, you want a manual transmission, you'll stick with the S (sedan) or SE (sedan or hatchback)—both of which are also available with automatics—and upoption from there. You'll find you can build quite a car this way, with tech and style packages rivaling the higher models, and vou'll still be able to shift.

The first half of our complex drive course was made in a Focus Titanium four-door sedan, and the second in a Focus SE 5-door hatchback.

The Titanium sedan had the more exciting course, up the coast through Malibu and into the hills, along Mulholland and other challenging twisties, ending up back in civilization at the Hyatt Westlake Village for lunch. The sport suspension and 17-inch wheels gave us a great ride, though we found legroom lacking on the front passenger side. As we saw one of our compatriots drive by in another sedan, followed by a hatchback, we noted the sedan's styling as far less distinctive; however, as we reviewed our own photos, we found each equally appealing in its own way. No matter how you slice it, you can recognize the new Focus immediately, and this was in fact one of Ford's goals: as surely as a Mustang shows its recognizable face from a distance, in an instant, they created a Focus that, even in a crowded market and among a very complete Ford lineup, can be



spotted coming, by virtue of its combination of grille opening, lights and trim. This works. Despite being the top model, the Titanium still had manual cloth seats. though in a sport style. Our codriver, who drove first. endured brief torture getting the manual seat set right, but did prevail. We'd welcome power here.

The displays are informative, complete and easy to operate. One mixed blessing is the trip odometer, a video display between the primary gauges and above two needle gauges for engine temp and fuel. Since two of us help each other navigate against a route book, it was handy to have this odo so visible from the passenger's seat: however, it could encourage back-seat (or sideseat) driving in general use. Either way, we commented that we had never seen one that worked so well.

After extensive technical presentations from a full range of specific engineers at Westlake Village, where we also enjoyed lunch from a taco wagon and dessert from an ice cream truck—perfect Southern California touches to the day— we changed to the SE hatchback, to try not only the other body style but also the 5-speed manual transmission. We noted the difference in its lower-grade audio system, but we found that both the driver and front seat passenger seemed to enjoy considerably more legroom in the hatchback.

Perhaps we got it a little backwards, driving the automatic up the Pacific Coast Highway and through the hills, then the manual on surface streets and freeways. back to West Hollywood. Or perhaps this was for the best, as the inverse of that would border on the more obvious. Either way, we found plenty to love in both body styles, two of the four trim levels and both transmissions, under a wide variety of driving conditions, from open road to thrilling road to daily highways.

Check your budget, choose your model level (factoring in the transmission option if need be), decide whether you prefer the format and function of a sedan or the attention-inducing hatchback, and pick your poison. It's quite a lineup, and none will disappoint.

2011 Rod & Custom Association

EVENT SCHEDULE-

MARCH

March 11, 12 & 13 - Scottsdale, AZ * 2" SPRING NATIONALS

WestWorld of Scottsdale. Rods, Customs, Classics, Muscle Cars & Trucks thru '72. AutoCross, Vendors, Swap Meet & Car

March 18, 19 & 20 - Ft. Worth, TX 🛕 * 1" SPRING LONE STAR NATIONALS

Texas Motor Speedway, Rods, Customs, Classics, Muscle Cars & Trucks thru '72. AutoCross, Vendors, Swap Meet & Car Corral.

March 26 & 27 - Pleasanton, CA 29th ALL AMERICAN GET-TOGETHER

Fairgrounds - Pleasanton, All years American Powered Cars & Trucks. AutoCross, Vendors, Huge Swap Meet & Car

APRIL

April 1, 2 & 3 - Del Mar, CA * 11" MEGUIAR'S DEL MAR NATIONALS

Del Mar Fairgrounds. Rods, Customs, Classics, Muscle Cars & Trucks thru '72. AutoCross, Vendors, Swap Meet & Car Corral.

171:17

May 20, 21 & 22 - Nashville, TN A * 6th BRIDGESTONE NASHVILLE NATIONALS

LP Field, Tennessee Titan Stadium, Rods, Customs, Classics, Muscle Cars & Trucks thru '72, AutoCross, Vendors, Swap Meet & Car Corral.

JUNE

June 3. 4 & 5 - Loveland, CO 🔔 * 14th COLORADO NATIONALS

The Ranch Events Complex. Rods, Customs, Classics, Muscle Cars & Trucks thru '72. AutoCross, Vendors, Swap Meet & Car Corral.

June 4 & 5 - Pleasanton, CA 🛕 18th SUMMER GET-TOGETHER

Fairgrounds - Pleasanton, All years American Powered Cars & Trucks, AutoCross, Vendors, Swap Meet & Car Corral.

June 24, 25 & 26 - Rhineheck, NY * 20" EAST COAST NATIONALS

Dutchess County Fairgrounds. Rods, Customs, Classics, Muscle Cars & Trucks thru '72. Vendors, Swap Meet & Car Corral.

July 1, 2 & 3 - Des Moines, IA 🔔 * 20" HEARTLAND NATIONALS

Iowa State Fairgrounds. Rods, Customs, Classics, Muscle Cars & Trucks thru '72. AutoCross, Vendors, Swap Meet & Car Corral.

July 8, 9 & 10 - Columbus. OH 🛕 🎟 🕮 * 14" GOODGUYS PPG NATIONALS

Ohio Expo Center, Rods, Customs, Classics, Muscle Cars & Trucks thru '72. Friday Nite Drags, AutoCross, Vendors, Swap Meet & Car Corral.

July 22, 23 & 24 - Puyallup, WA * 24" PACIFIC NORTHWEST NATIONALS

Puyallup Fair & Events Center. Rods, Customs & Classics thru '72. Friday Nite Drags, Show 'n Shine, Vendors & Swap Meet.

AUGUST

August 12, 13 & 14 - Joliet, IL A MY MAIL * 5" PEAK CHICAGOLAND NATIONALS

Chicagoland Speedway. Rods, Customs, Classics, Muscle Cars & Trucks thru '72. AutoCross, Vendors, Swap Meet & Car Corral.

August 19, 20 & 21 - Spokane, WA

* 10" GREAT NORTHWEST NATIONALS Spokane Fair & Expo Center. Rods, Customs, Classics, Muscle Cars & Trucks thru '72, Vendors, Swap Meet & Car Corral.

August 26, 27 & 28 - Pleasanton, CA * 25" WEST COAST NATIONALS

Fairgrounds - Pleasanton. Rods, Customs, Classics, Muscle Cars & Trucks thru '72. Vendors, Swap Meet & Car Corral.

SEPTEMBER

September 2, 3 & 4 - Kansas City, KS * 10" MID-WESTERN NATIONALS

Kansas Speedway. Rods, Customs, Classics, Muscle Cars & Trucks thru '72. AutoCross, Vendors, Swap Meet & Car Corral.

September 16, 17 & 18 - Indianapolis, IN A

* 1" WIX FILTERS SPEEDWAY NATIONALS

Indianapolis Motor Speedway. Rods, Customs, Classics & Trucks thru '72. Show 'n Shine, Vendors, Swap Meet & Car Corral.

OCHTOBER

Sept. 30, Oct. 1 & 2 - Ft. Worth, TX * 19th LONE STAR NATIONALS

Texas Motor Speedway, Rods, Customs, Classics, Muscle Cars & Trucks thru '72, AutoCross, Vendors, Swap Meet & Car Corral,

October 28. 29 & 30 - Charlotte. NC 🔔

* 18" SOUTHEASTERN NATIONALS

Charlotte Motor Speedway. Rods, Customs, Classics, Muscle Cars & Trucks thru '72. AutoCross, Vendors, Swap Meet & Car

NOVEMBER

November 12 & 13 - Pleasanton, CA 🔔 22" AUTUMN GET-TOGETHER

Fairgrounds - Pleasanton. All years American Powered Cars & Trucks. AutoCross, Vendors, Swap Meet & Car Corral.

November 18. 19 & 20 - Scottsdale, AZ * 14th SOUTHWEST NATIONALS

WestWorld of Scottsdale, Rods, Customs, Classics, Muscle Cars & Trucks thru '72. Vendors, Swap Meet & Car Corral.

November 25. 26 & 27 - Del Mar. CA 🔔 * 1" FALL DEL MAR NATIONALS

Del Mar Fairgrounds. Rods, Customs, Classics, Muscle Cars & Trucks thru '72, AutoCross, Vendors, Swap Meet & Car Corral



Goodguys Schedule as of 10/20/10. All dates subject to change

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or race drivers, stadium off road racing is the ultimate form of motorsports combat. Stadium tracks have colossal jumps which launch the race machines into the stratosphere and then slam them back to the earth, just in time for the drivers to pitch them into the turns.

For the fans, there is also no type of racing quite as exciting to view in person. These race machines catch so much air, you wonder why they don't put ads on their bottoms. The race trucks lean on each other so hard that most are fenderless at the end of

This is AMA Supercross racing, only on four wheels. This is midget racing, but with wicked jumps. This is NASCAR racing, only with more contact. This is the Lucas Oil Off Road Racing Series, and it recently established its winter home in the Valley of the Sun. If you don't attend at least one of these races in 2011, you will miss some of the best racing in Arizona.

Let's turn back the clock to the 1980s. Do you remember Ivan Stewart? He raced for Toyota, and Ivan was the king of off road racing. This was in the heyday of stadium off road racing when race promoter Mickey Thompson packed the LA Colosseum and San Diego Stadium to capacity. This was the era when the Mears brothers' Nissans ran headto-head with the Toyota factory trucks. This was the golden age of stadium racing. But then, tragically, Mickey Thompson and his wife Trudy were assassinated at their estate in Southern California, and the sport has not been the same since.

However, recently, the sport has been revived.

Forest Lucas, owner of Lucas Oil, has resurrected stadium off road racing, and two of the five race tracks on the 2011 Lucas Oil Off Road Racing Series schedule are here in Arizona: Firebird International Raceway in Chandler

and Speedworld Off Road Park in Surprise. Yes, race fans, seven of the 22 fifteen races on the 2011 Lucas Oil schedule will be run in the Valley.

Of course, you can

LOORRS schedule.

view the Lucas Oil Off Road Racing Series races on Speed. CBS, Vs. or MAVtv, but these races are far more exciting to see live. Our suggestion: go to lucasoffroadracing.com to view the 2011

What Is It Like To Race In A Stadium Off Road Race?

Being a road racer for most of my career, I have competed in just two desert off road races and only one stadium race. However, I must admit that the most fun I have ever had in a racing machine was in that singular stadium race. Driving by the seat of your pants and power sliding around the track, stadium racing is the ultimate high.

Attending the Lucas season finale race at Firebird International Raceway brought back vivid memories of just how exciting it really was. I learned that, even today, there is nothing to compare with the extreme action of stadium off road racing.

Strolling through the pits, I spotted a Pro Unlim-

ited Buggy with "Fortin Racing" on the side. Could this car possibly belong to Doug Fortin, a kart racer who grew up with me and my brother Steve in San Diego County? Inquiring minds needed to know.

> Yes, it was Doug Fortin, and we visited in his pits. He and his son Doug Jr had won the Baja 1000 a half dozen times, but they were now totally embroiled in the Lucas Oil Off Road Racing Series. I learned that Doug Jr was currently third in points and that he had won the stadium racing series a few times before. Great-now I had someone to cheer for.

After reminiscing for a while in Doug's motorhome, it was time to find a good place to watch the races and take some action photos. Per Fortin's suggestion, I proceeded to the top corner of the

Fortunately, I sat next to Ernst Renezeder, father of the current master of stadium off road racing, Carl Renezeder. Ernst was a wealth of information about the Series, and his son has won more stadium races than any driver in the past decade. Carl is the logical successor to Ivan Stewart's crown as the king of stadium racing. Now I had two drivers to cheer for.

Unfortunately, Carl had experienced a number of mechanical failures in 2010, so the best he could finish was third in 2010 Series points. Nevertheless, Carl dominated his race until he experienced a mechanical failure. Fortunately for Carl, there is always this next season, and the first race of the Lucas Series is at Firebird on March 19.



2010 Lucas Oil Off Road Racing Series Results

On Saturday, Rick Huseman entered the final points race, of the season with an edge over both Kyle Leduc and Carl Renezeder, each driving 800-hp Pro 4 Unlimited trucks. Holding nothing back, Huseman put in a brilliant drive and locked up the 2010 Lucas Championship. Leduc was second and Renezeder finished third in series points.

In the final Pro Lite Unlimited race of the season, Marty Hart held off challengers Chris Brandt and Brian Deegan for the Lucas Series Championship. But the points championship was somewhat closer in this class than in the Pro 4 Unlimited Class.

The Pro 2WD Unlimited truck series championship was won by veteran Rob MacCrachen. Carl Renezeder was second and Bryce Menzies finished third in Series points. Yes, these nasty beasts also sport 800-hp engines, but they transfer their titanic torque to the ground using just two tires, not four. It was the ultimate slide fest.

Cameron Steele edged out Larry Job and Doug Fortin Jr for the Pro Buggy Unlimited Championship. With 649 points, Steele had a mere 13-point lead over Job and edged Fortin by just 39 points. If the fans came to see a nail bitter, they certainly got their wish with this season points finale at Firebird.

But Wait. There Is More

How could Lucas Oil possibly top the exciting points finale races on Saturday? Easy—they would race the agile-yet-fragile Pro Unlimited Buggies against the massive Pro Unlimited Trucks on Sunday.

"But that is madness," you protest. "You cannot

put the little 250-hp buggies in with the massive 800hp trucks." Nevertheless, Lucas did it. Then they went a step farther. Lucas reversed the grid, making Saturday's fastest vehicles start at the back of the pack. Beyond madness? Absolutely, but it created some very exciting racing.

Starting in 20th place, Doug Fortin Jr's chances seemed to be somewhere between slim and none. But talent, experience and opportunism are a powerful combination. In addition, Fortin Racing built Doug a very fast buggy to make his run to the front.

"It took some luck for Doug to make his way from the back of the pack to first in just 18 laps," Doug Sr remarked after the race. In reality, it was more skill than luck. Fortin carved through the pack like a surgeon. He let the race trucks lean on each other, and he took advantage of every opportunity to pass the heavier trucks on the inside. Quite simply, this is exactly how Fortin earned his \$20,000 first place prize money.

The Pro 4 Unlimited Vs Pro 2 Unlimited truck race, Sunday's heavy-metal event, was equally exciting. Off road racing fans always wonder whether the 4WD or 2WD trucks are faster, but the two classes rarely race together during the regular season. Today they did, and this race was an all-out war.

With 26 trucks on a track just 8/10s of a mile long, the fans got exactly what they wanted: Serious body slamming and lots of passing. When the checkered flag fell, only 14 competitors remained. Kyle Leduc's Pro 4 Unlimited defeated Bryce Menzies' Pro 2 Unlimited truck and Carl Renezeder's Pro 4 Unlimited truck in this shootout for \$35,000.

Try It, You Will Like It

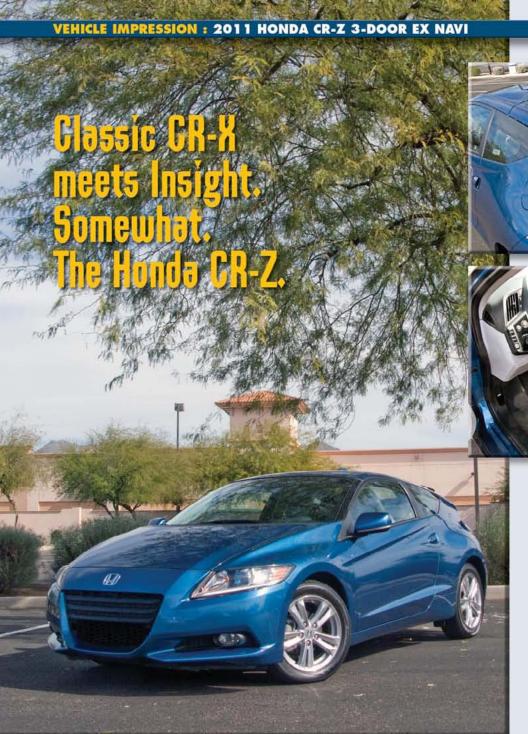
You must attend a Lucas Oil Off Road Racing Series race in person to truly understand what stadium racing is about. It is about racing buggies soaring above your head as you watch in amazement from the stands. It is about heavy-metal trucks running three wide into the corners. It is about skilled race drivers who are in it for the action rather than the big bucks.

Nobody understands grassroots racing better than Forest Lucas, the founder of the Lucas Oil Company. Almost single-handedly, he has resurrected short track off road racing in America. Moreover, he is also a sponsor of the Lucas Oil Motocross Series, NHRA, ARCA, NASCAR, Tractor Pulling and the Lucas SuperClean Modified Series.

In difficult economic times, when corporations talk a good game about "giving back," Forest Lucas actually delivers. Kudos to the Lucas Oil Company for resurrecting stadium off road racing in America and for bringing this exciting sport to Arizona.

TIM SHARP is former National Marketing Manager for Toyota Racing Development USA, the company which built the engines for Ivan Stewart's and Cal Wells' PPI Toyota race trucks. That is where he gained his affection for stadium off road racing. While principally a road racer and race driving instructor for much of his life, Sharp also raced off road buggies and 4WD machines in California and Baja. He is a regular contributor to Arizona Driver, Grassroots Motorsports and Classic Motorsports magazines. He is a member of the Motor Press Guild (MPG) and the Phoenix Automotive Press Association (PAPA).

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ne look at the Honda CR-Z, and you have a pretty good idea who its parents are. On one side, you have the Honda CR-X, a frugal yet generally sporty little hatch from the '80s that was instrumental in launching the pocket rocket tuner craze. This is apparent in everything from its guirky split rear glass, to its 2-passenger capacity, to its name. On the other side is the 30-or-soyears-younger Honda Insight, an affordable, light, also somewhat sporty-looking hybrid launched last year.

Honda has known how to make a very small car right, for a very long time. They've known how to achieve high fuel mileage for a long time. And they have also been making hybrids of various types for years now. Types of hybrid drivetrains in play now are extensive, but this one is simple, using a compact, lightweight Integrated Motor

Assist (IMA) system; see sidebar for more on this. With its small gasoline engine plus the IMA system, the CR-Z achieves 35/39 MPG fuel economy, city/highway.

Our high-end EX NAVI model came with an automatic CVT (with paddle shifters), but a sport-focused sixspeed manual transmission is also available—a first for any hybrid. A new three-mode drive system allows the driver to configure responsiveness for Sport, Normal or Econ driving modes. Eco Assist and Eco Scoring can help drivers track the efficiency of their driving styles while also comparing economy achievements to previous trips and over the life of the vehicle.

Honda describes the CR-Z's body as a "one-motion wedge," providing a sporty style with low hood and aggressive wide stance, plus high aerodynamics. As way between the Toyota Prius and the CR-Z. The Insight seems similar to the benchmark shape of the Prius, and it could take a second glance to appreciate the difference. The CR-Z nails its own style more effectively.

we're positing parentage, the Insight now seems half-

OUR TEST HONDA CR-Z 3DR EX NAVI

ENGINE......1.5L i-VTEC 16-valve 4cyl: 122hp, 123 lb-ft .with Integrated Motor Assist (IMA) ...CVT (continuously variable) DRIVE ..Front-wheel drive ADDTL TECH: Idle stop feature, electric rack-and-pinion steering, creep aid, Sport/Normal/Econ 3-mode system, ECO assist system, theft immobilizer, AT-PZEV rating. SAFETY: Front, side, side curtain airbags, door beams: ABS and brake assist; EBD, VSA, tire pressure monitoring, front/rear crumple zones, ACE body structure, more. INTERIOR: Nav with voice recognition, 360-watt 7-speaker premium audio, leather-wrapped steering wheel with wheel-mounted controls, MP3-USB-Bluetooth interfaces, filtered automatic climate control, mesh sport seats, PW, PL, tilt/telescope, aluminum pedals, cruise, exterior temp, storage, extra lighting, mats and more. EXTERIOR: 16"x6.0" alloy wheels, intermittent wipers. rear wiper-washer-defroster, heated power mirrors with turn signals HID headlights remote entry and more

tarri digitalo, Filb floadingrito, fornoto o	may and more.
Base price	\$ 23,210
Full tank of fuel	n/c
Destination charge	750
TOTAL	\$ 23,960
Note: The base model CR-Z with MT st	arts at \$19,200.

We get in, close the door, and it *thunks* like a Rolls-Royce. The CR-Z greets us with a blank blue display, but







once running offers three modes, each reflected in instrument lighting: Sport (red), Normal (blue) or Econ (green, of course). Econ is blue until you're in motion and proving your frugality; as it turns out, Normal can also change to green when you're well behaved. The meter quickly (and questionably) shows we are getting 100 MPG. All part of the fun. We notice considerably more drivetrain noise in Sport. The car seems to set itself back to Normal when shut off, so we stick with that quite a bit; but when power bordered on qutless, we punched Sport, and it gave us just the little afterburner effect we needed

Settings for mirrors and instruments are simple. The seats are comfortable and, though manual, easy to adjust. Ditto the tilt/telescope wheel. The CVT shifter couldn't be simpler: PRND and that's it. We're surprised to have a navigation screen but no backup camera. We suspected the split rear window and sloped roof would limit visibility. The inside mirror gives a slim view, sort of a double peephole, but over-the-shoulder 3/4 visibility is not that bad, considering It's more than adequate, all in all. Finding the hatch latch was finicky, and when raised, it was a stretch to bring back down, even at 6'2". The manual, however, warns against not having it fully raised, at risk of a sudden drop.

First impressions are of straightforward performance. We barely notice there are no shift points in the CVT and don't care. The CR-Z is peppy on surface streets and a freeway ramp. Our first freeway merge presents us with an Escalade and an aggressive BMW jockeying for available space. We give the CR-Z a little gas and feel its torque right away; we continue through the CVT's seamless curve and gain our spot easily.

An over-the-shoulder parking lot glance reveals a small car with tons of appeal: a cool little size, cool little shape and a sporty nature overall. Its 16-inch wheels make a world of difference: we wonder why it's taken small car designers this long to figure out what a difference that makes in look and feel.

We had the CR-Z for a mix of weather: when it was hot, and the engine self-killed at a red light, the cool air kept flowing; but at 31º one morning, the heat would quit immediately. The cool air was probably not refrigerated, so we are left with some concern that engine management might cut off vital a/c during stops in an Arizona summer.

The idle-stop feature proves somewhat disturbing to us. The gasoline engine is a little rough coming back to life sometimes, too. We're not sure whether this gets better or worse the longer you have it, but a dead engine at a red light is disconcerting.

When compared to all 2010 models in the US (the most recent data available at press time), the 2011 CR-Z's combined EPA rating of 37 mpg for the CVT model would place it among the top five of all models (along with the Civic Hybrid and Insight).



HONDA CR-Z POWERTRAIN

ased on the system introduced in the original 2000 Honda Insight, and now in its sixth iteration, the simple and compact Integrated Motor Assist (IMA) system is a parallel hybrid powertrain that increases efficiency through electric power assist, energy regeneration and idle-stop capabilities. The CR-Z's gasoline engine provides primary power, for responsive performance, a broad torque band and a sporty engine note. A 10-kW ultra-thin electric motor works in tandem to provide additional power and electricity generation as needed. Electricity is stored and delivered through a compact, lightweight 100.8-volt battery and power control system. The CR-Z offers a pro-rata degree of what any electric does: instant torque at low RPMs. Its broad torque band contributes to quick acceleration and fewer shifts with the manual transmission, while

the CVT on our test car offers more fuel economy. The 3-mode Normal-Sport-Econ drive system can maximize either performance or economy. Sport mode enhances power delivery from the IMA system. Combined, the gasoline engine and electric motor produce a peak output of 122 hp at 6000 RPM and 128 lb-ft of torque at 1000-1750 RPM on manual transmission models (123 lb-ft at 1000-2000 on CVT-equipped models). Individually, the gasoline engine produces 113 hp (84 kW) @ 6000 RPM and 107 lb-ft of torque at 4800 RPM. The electric motor can add a maximum of 13 hp (10 kW) at 1500 RPM and 58 lb-ft of torque at 1000 RPM. Peak outputs for the gasoline engine and the electric motor occur at different RPM ranges, resulting in a broad power curve and a wider range of performance than

cle or an electric-only vehicle. Since peak output for the CR-Z's gasoline engine and electric motor occur at significantly different RPM ranges, the combined rating for horsepower and the combined rating for torque represent the operational capability measured at the output shaft when the two systems are functioning together as a single system. Therefore, combined power ratings for Honda hybrids represent peak power deliv-

a similar-sized conventional gasoline-powered vehi-

ery in real-world operating conditions and take into account the unique RPM when each peak occurs. Combined power numbers are not simple addition of the peak numbers for the gasoline engine and electric motor. This is why 112 hp (gasoline engine) plus 13 hp (electric motor) equals a combined output of 122 hp (not 125 hp combined).

THE ENTHUSIAST'S GUIDE TO LIFE ON TWO WHEELS

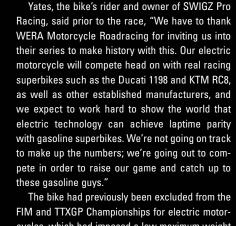
hip Yates made history on January 9 at the Auto Club Speedway in California, on the first electric bike to go head to head against conventional gasoline powered race bikes in a professionally organized roadrace.

Developed by SWIGZ.COM Pro Racing in the US, this is the world's most powerful and technically advanced electric superbike and has become the most powerful road racing motorcycle of any kind being actively campaigned.

Chip Yates and the SWIGZ.com Pro Racing Electric Superbike

SHOEL

Take a former Boeing advanced aerospace engineer with a passion for motorcycles and racing, add the massive torque of an electric drivetrain, and you have the formula for a powerful new challenge



The bike had previously been excluded from the FIM and TTXGP Championships for electric motorcycles, which had imposed a low maximum weight limit of 250 kg (550 lbs) for the 2011 season. "Our bike weighs in at 266 kg", said Yates. "Clearly, these championships are more concerned with promoting scooter development, and our bike is so much faster than the electric competition that we feel far more inclined to push our bike's unique technology platform forward in the ultimate competitive environment of gasoline bike racing."

The SWIGZ Racing machine has a power-to-weight ratio slightly better than 600cc gasoline bikes, and began the 2011 season by competing in the WERA Pirelli Sportsman Heavyweight Twins Superbike class, where its power-to-weight ratio put it in the middle of the field. To be competitive against these heavyweight twin cylinder superbikes going forward, the bike has since benefitted from a more than 20 percent increase—to its current 194 hp—after that first race weekend in January.

Yates explains, "Our scheduled power increase (made) our electric superbike more powerful than a MotoGP bike and (brought) us extremely close to power-to-weight parity with the best 1000cc Japanese superbikes. Those two facts are a simply outstanding reflection of the potential in electric power."

Ahead of the WERA Pirelli Sportsman Series race weekend in January, the bike had been invited by Infineon Raceway, a motorsports leader in green performance and sustainability, to be put through its paces at race speeds for the first time

ever on December 15, 2010, with Chip and the team enjoying private use—with media invited—of the world-class Infineon road course for the day.

And at Auto Club Speedway in January? The SWIGZ.COM Pro Racing team scored two podiums with the electric superbike against gas superbikes in WERA racing action, hitting 158 mph in race 2. Yates credits crew chief Jimmy Summers and Program Electrical Engineer Robert Ussery.

SWIGZ Racing will soon announce additional race dates where the electric superbike can be seen competing directly against gasoline bikes in the WERA championship series, including Miller Motorsports Park, Las Vegas Motor Speedway, and other major venues across the US.

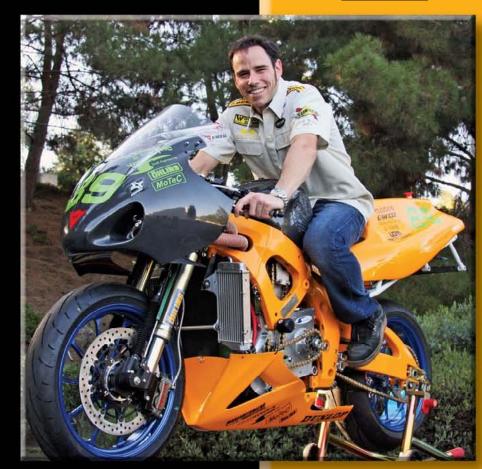
ALL ABOUT....

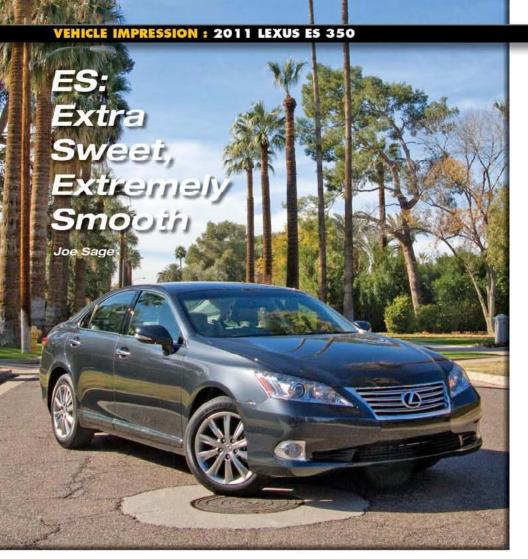
WERA MOTORCYCLE ROADRACING, INC.:
At 37 years and with over 3000 licensed racers, WERA is one of the oldest and largest national motorcycle race sanctioning bodies, with races at Barber Motorsports Park, Virginia International Raceway, Miller Motorcycle Rocketter (1988).

orsports Park, Road Atlanta and more.
Series include the WERA/Michelin
National Challenge Series, Pirelli/WERA
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National Endurance Championship, the
Grand National Finals, and seven regional championships. www.wera.com

SWIGZ.COM: Made in Orange County CA, SWIGZ® is the world's first dual hydration sports bottle, so athletes can carry two drinks in one bottle. www.swigz.com.

CHIP YATES: Chip Yates is an engineer with a master's degree in business from USC. Before turning pro racer later than many, Yates was a Boeing executive in charge of transitioning advanced aerospace technology and patents to other industries, such as automotive for racing and OEM applications. He personally holds 7 US patents on automotive drivetrain and other technologies. Chip has raced in the AMA Pro Daytona Sportbike series and the FIM World Supersport series and owns SWIGZ.COM Pro Racing. www.chipyates.com





f you're shopping for a Lexus sedan (not counting specialty hybrids HS 250h or CT 200h), you have four basic choices: the IS, ES, GS or LS. (Both the GS and LS are also available as hybrids.) The IS is the smallest and least expensive, positioned to take on the BMW 3 Series and starting at \$32,645. At the other end, the LS starts at \$66,230 and climbs from there (the LS hybrid starts at \$111,350). We have covered all but the ES (see arizona-drivermagazine.com > vehicle features) and found much to like in all of them. The big LS is killer, no question. For the GS, we compared its size and power (96-97 percent that of the LS), fuel economy (10-14 percent better) and price (30+ percent less than the LS in gas, almost half off the LS hybrid, a tricked-out long-wheelbase model). We concluded that if you want the prestige of the LS, fine, but the GS is an incredible bargain by comparison.

Enter the ES, and the comparison is only moreso. Its base price of \$36,025 is just 54 percent that of the LS. And its style is much closer to the LS—so close that we sometimes look twice at the badges, in traffic. The LS has a 380-hp V8 and 8-speed automatic, with a 0-to-60 time of 5.4 seconds; the ES has a 268-hp V6 and 6-speed automatic, hitting 60 in 7.0 seconds. The GS comes with either V8 or V6 and either 8-speed or 6-speed, achieving 0-to-60 in 5.4-5.8 seconds, its engines retuned to 303-342 hp to position between the LS and ES.

Yet ES power and acceleration are close to top-performance Germans of ten years ago—not bad at all.

OUR TEST LEXUS ES 350

Base price	\$ 35,525°
Intuitive parking assist	500
Ultra luxury package	3,53
Navigation/audio package	4,06
Cargo net	64
Trunk net	73
TOTAL	\$ 44,63

One comparison of major note is that the ES is front-wheel-drive, while the GS and LS are rear-drivers with all-wheel-drive available (and the IS is a front-driver with AWD available). A conundrum. Normally, we'd favor rearor all-, but the value of the ES is inescapable, and for many, front-wheel drive is a non-issue or even a benefit. This reveals another thing about the Lexus lineup: there are multiple iterations of the IS, GS and LS, but only one ES 350 with one drivetrain. We suspect the ES is prepared very efficiently, just to hit this market segment. And from that, we conclude its bargain status is confirmed.

OUR TIME WITH THE LEXUS ES

In our last issue, we reviewed another manufacturer's sedan and stated that we actually preferred its simpler



controls to the overly complex premium controls of that brand's premium-badged brethren. But the Lexus ES is done right: though it offers much more than the Toyota, as we set climate controls, audio, seats and mirrors, we find the Lexus controls straightforward. We avoid saying "plain and simple," as they present every sophisticated feature, but they're well organized and easy to operate.

We started in the Sport setting, tried generic D on a frontage road, then quickly went back to Sport on a freeway ramp. With highly decent fuel economy numbers of 19/27 MPG city/highway, we figure there's enough headroom to take advantage of Sport.

The 6-speed automatic is very, very smooth. Other than typical minor lags on surface street cornering, running quickly between 1st-2nd or 2nd-3rd, shifts are like silk, with no power loss. At our first red light, we see an absolute twin drive by, and it is very handsome.

Our ES has a premium 14-speaker Mark Levinson audio package, but it doesn't knock our socks off. For a middle-of-the-road listener it will seem above average, but for an audiophile, not awesome. A plus is that it has separate equalizer settings for different inputs, e.g. you can boost settings a bit for subpar satellite audio quality. The interface allows all settings to be seen and set at once, a rarity. Further adjustments to the sliders during the week did improve sound quality a bit.

We rate the suspension "near perfect," tracking nicely, no wallowing, firm and smooth on turns, surface streets, freeways, even the driveway curb. Overall, we were happy in this car. It has a nice degree of luxury and style, a nice degree of simplicity, a nice balance.

What about that front-wheel-drive factor? We note that in challenging higher-speed freeway traffic, we do feel torquiness, and lane changes feel a little unsure, but the ES is sufficiently powerful to overcome that, threading bottlenecks like a champ. Power, though by the numbers far less than the LS V8 and a bit lower than the GS with the same basic V6, is there aplenty: we could always put this car where it needed to be. Over and over, our logbook notes a smooth ride, not cushy or wallowing , rather a firm "personal luxury car" feel. It's so smooth and comfortable, we found ourselves at one point driving considerably faster than it felt like, making the car a good candidate for use of cruise control.

The logbook notes that "our last drive was a sweet one," and there you have it. Don't shop Lexus sedans without trying this one on for size and budget. And if the urge is still there to spend twice as much, you won't be sorry if you buy an LS. But might we suggest buying two his'n'her ES sedans instead?

PEBBLE BEACH AUCTIONS

SATURDAY . AUGUST 20 SUNDAY . AUGUST 21



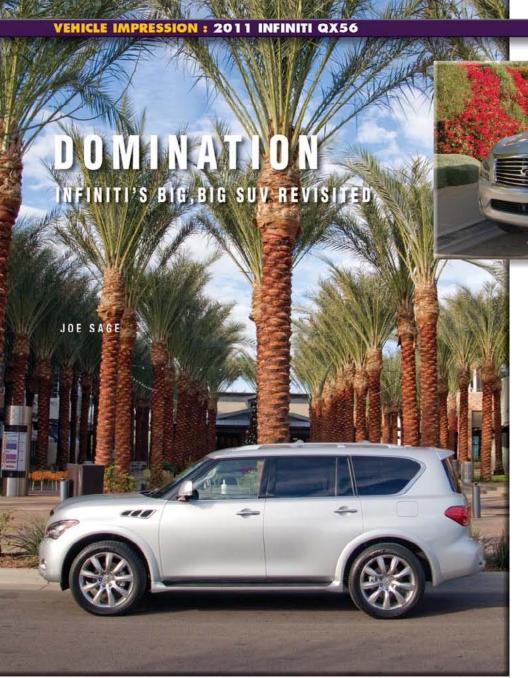
FCA Platinum Award and Pebble Beach Concours d'Elegance Class Winner The 1954 Torino Motor Show 1953 FERRARI 375 AMERICA COUPE Coachwork by Vignale

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hen Infiniti was ready to freshen their big SUV, the OX, they had to analyze a shifting market. We had driven the OX56 at launch (JulyAugust 2010 issue), and they had addressed this then: 2009 had been a dismal benchmark for vehicle sales, yet Infiniti had posted a year-over-year increase of 46.2%. Figures for the OX were far more dramatic: first-quarter sales were up a whopping 216% year-over-year. The buying public had voted for the OX with their wallets, and dealers were reporting a very high interest level in the OX. Sure, we're all watching gas prices, and smaller vehicle segments are blossoming, but the big SUV still has legs.

The stated premise of the Infiniti QX56 is that it provides its occupants with the experience of a private executive jet. It's a nice benchmark, and whereas we'd take the jet, we're confident its pilot would feel very satisfied deplaning and getting back in the QX.

We had already pushed the vehicle toward—if not quite to—its limits at the launch drive in Kentucky

(which included near-tornadic weather on winding riverside roads and through horse country hills). Safety features are extensive, including some extremely high-tech specialties—for example, a tire monitoring system that provides an audible beep when you're down by the wheel trying to re-achieve perfection, or a brake system that is supposed to stop you before you hit someone, a system we were interested in but didn't take to its limits.

Creature comforts are tops, as is fit and finish. The vehicle looks big on the road—and it is—yet, inside it feels right-sized, even trim and compact, especially in its side-to-side dimensions. Comfort reigns supreme.

Technology extends to Infiniti's All-Mode 4WD® and optional hydraulic body motion control, though we felt a surprisingly light front end at times, at lower speeds.

Yes, the QX's technology is rampant. Our logbook notes, which can tend toward the Andy Rooney side, frequently mentioned instances of tech features that weren't fully intuitive, and we visited the manual many

more times than typical. In such cases, though, we are aware that an owner with a commitment over time will master it all, and we would anticipate plenty of joy in the features. All with seven passengers and their gear along for the ride, if need be.

OUR TEST INFINITI 0X56

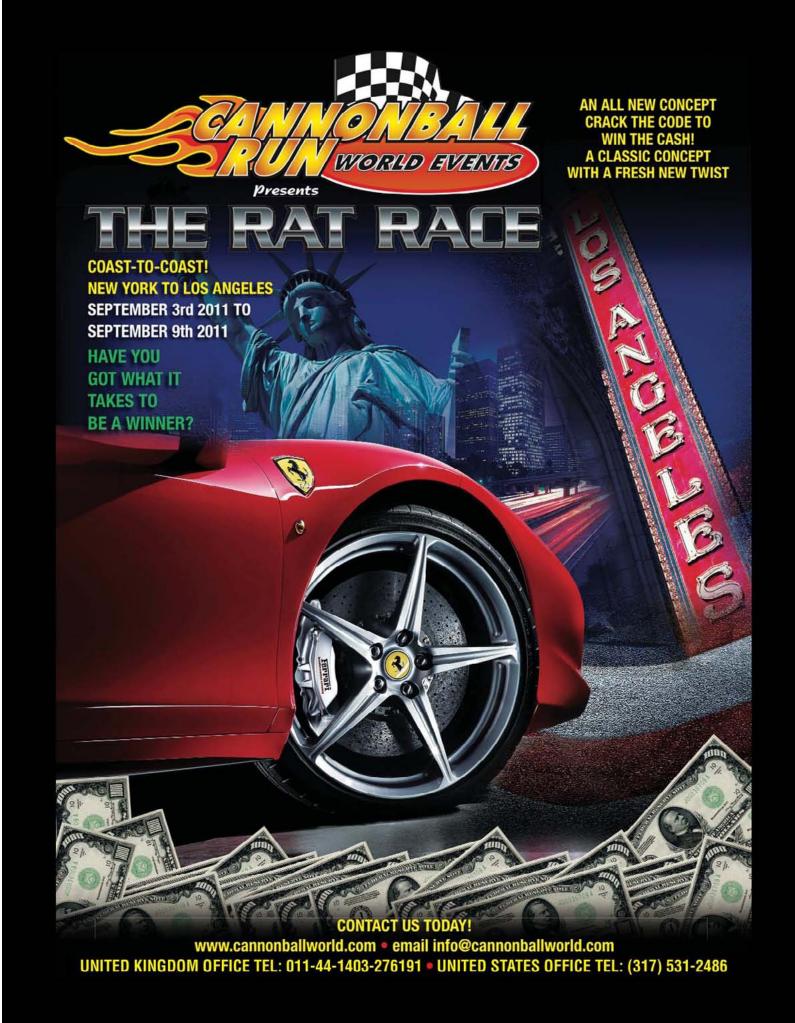
ENGINE5.6L DOHC 32-valve V8: 400hp, 413 lb-ft TRANSMISSION7-speed automatic DRIVEAll-Mode 4WD® SAFETY/SECURITY: Airbags galore, rollover sensor, advanced seatbelts, active head restraints, child seat fittings and rear door locks, 4-wheel ABS, brake assist, brake distribution, dynamic and traction control, individual tire pressure monitoring and inflation indicator, zone body construction, vehicle security system and more.

COMFORT/CONVENIENCE: Extensive seat features, individual smart keys, entry/exit assist, huge console, burl trim, tricked out steering wheel, tricked out audio with voice recognition, front/rear monitors and sonar, tri-zone climate, sequential welcome lighting and more.

EXTERIOR: HID xenon headlights, rain-sensing wipers, deicer, power folding mirrors, running boards, roof rails, 20-inch wheels, power liftgate, class IV towing, more.

Base price\$ 59,800
Roof rail crossbars320
THEATER PACKAGE: Two 7-inch displays, wireless head-
phones/remote, aux A/V input, 120V outlet2,450
TECHNOLOGY PACKAGE: Intelligent cruise, blind spot and
lane departure warning, distance control, brake assist,
forward collision warning, front pre-crash seatbelts,
adaptive front lighting, auto-leveling headlights2,850
DELUXE TOURING PACKAGE: 22-inch wheels, body motion
control, heated/cooled front seats, remote-tilt heated
2nd-row seats, upgraded leather, burl, climate control,
2nd-row footwell lights, headlight washers5,800
Illuminated kick plates390
Destination charge950
TOTAL\$ 72,560

The Infiniti OX56 delivers what it promises: a spacious, thoroughly modern, highly featured personal yet 7-passenger vehicle with extremely high road capability. Its V8 is a top performer, and the engine's rumble and roar will delight. Though the OX56 provides a posh experience overall, our favorite logbook note may have been: "Hoo wee! This sucka has some power!"



t wasn't our idea to call this Volvo naughty. Volvo uses this term—and attitude—to promote the vehicle. And apparently it works, based on comments we received on the street and on our Facebook page. Volvo indeed has a lingering stigma as a solid but staid set of wheels. We've had good spins in several newer Volvos over the past few years, particularly enjoying the C70 hardtop convertible, with its inline-5 engine and all-wheel drive. We picked the concept S60 as one of our favorites at the North American International Auto Show in Detroit a year ago. Now it's in production, and we're behind the wheel.

T6 TURBOCHARGED INLINE-6 ENGINE

The spirit of the S60 is in its sheet metal and creature comforts, but the heart of the best is its T6 turbocharged inline-6 engine. Delivering 300 hp and 325 lb-ft of torque (at a low 2100 rpm), the engine delivers fuel economy of 18/26 mpg city/highway (21 combined). The T6 powerplant is on the list of Ward's 10 Best Engines for 2011.

The first T6 engine appeared in the 2009 XC60, but for 2011, it was heavily reworked to reduce internal friction, for both better performance and fuel economy. The new T6 matches the torque of Volvo's V8, but its 2100-rpm power point compares to 3950 rpm for the eight, and the T6 is 17 percent more fuel efficient than the V8. (The T6

is also available in the Volvo S80 sedan and the XC60 and XC70 crossovers.) Fuel economy was also improved with new engine management software and remapping the six-speed Geartronic automatic transmission.

VOLVO S60 BODY AND CHASSIS

There's no mistaking the evolution of Volvo away from the box of yore, to more curvaceous shapes. The S60 joins the growing pantheon of 4-doors seeking to project a coupe-like profile. Rear door height and back seat headroom are largely intact, but a coupe is insinuated by a continuous body curve from the C-pillar to the taillights. Contoured sheet metal arching above the front wheels, as well as aerodynamic wraparound headlights, create a smooth flow from front to rear.

The interior is roomy for five occupants, but very driver-centric, with neatly clustered instruments easily accessible and slightly angled toward the driver. Our test car came in black leather, with Shimmer Graphite aluminum inlays; two wood inlays are also available.

Information from audio, navigation and other systems is presented on a seven-inch high-definition color display in the center stack, while the driver has access to the same functions via steering wheel controls.

Underneath it all is Volvo's most dynamic chassis ever,

with a choice of three designs. The standard Dynamic Chassis optimizes control and agility while maintaining a comfortable ride. For a smoother ride on rougher streets, there is a Touring Chassis, a no-charge option. The major difference is in dampers and front and rear subframes. A self-adjusting FOUR-C (Continuously Controlled Chassis Concept) active chassis (included on our test S60 at just \$750), has sensors that continuously monitor the car's behavior and adjust the dampers in fractions of a second to suit the current driving situation. The driver can select from three different settings: Comfort, Sport and Advanced. On all three, engineers improved steering and applied stiffer springs and more damping. All-wheel-drive software has also been pushed to the sportier end.

SAFETY AND HANDLING TECHNOLOGIES

Volvo's Pedestrian Detection system is a world first: it can detect pedestrians who walk into the road in front of the car, warn the driver and automatically apply full braking power if the driver does not respond in time, completely avoiding a hit up to 22 mph. Related Collision Warning and City Safety systems apply brakes if the car detects an impending collision with a vehicle or object in front. Driver Alert Control detects and alerts a tired or distracted driver. Blind Spot Information System detects vehicles in the offset rear blind spot on both sides, and Lane Departure Warning alerts the driver if the car runs across lane markers without the turn indicator on.

Adaptive Cruise Control maintains a set gap to the vehicle in front, but now operates at speeds below 19 mph, all the way down to standstill. The S60 can be equipped with parking sensors front and rear and a Park Assist camera at the rear. An optional camera in the front grille has a 180-degree field, able to see around a corner to help negotiate blind exits and parking.

ACCOLADES FOR THE VOLVO S60

The all-new Volvo S60 has received a fistful of awards since its introduction in production form at the Geneva and New York auto shows last spring. In addition to its Ward's 10 Best Engines recognition, the S60 is an *Automobile Magazine* All-Star, has had its Pedestrian Detection with Full Auto Brake feature recognized by *Popular Science* as the Smartest Safety Feature in its annual Best of What's New Auto Tech category, and has had its low-speed collision-avoidance technology awarded the American Traffic Safety Achievement Award at the World Traffic Safety Symposium in New York.

OUR TEST VOLVO S60 AWD

..3.0L turbocharged inline-6: 300hp, 325 lb-ft INDIPPIMENTAL ...6-speed Geartronic automatic w/ Adaptive Shift Logic ..AWD w/ Instant Traction DRIVE. SUSPENSION/CHASSIS: Dynamic chassis, advanced stability control, corner traction control, driver-selectable speed-sensitive steering, front independent struts with anti-roll bar and anti-dive geometry, fully independent rear multi-link, 4-wheel power disc brakes with ABS, EBD, EBA, RAB, 18-inch alloy wheels, all-season tires. SAFETY/SECURITY: Five high-tech seatbelts, traction control, high strength safety cage, airbags galore, whiplash protection (front), adaptive steering column, perimeter lighting system, intelligent driver information, alarm system with battery backup, child safety locks, trunk release, tire pressure monitoring, rear foglight and more. COMFORT/CONVENIENCE: Keyless 2-step entry, 7-inch LCD monitor, sport seats with leather seating surfaces, 8-way power driver's seat, tilt/telescope leather steering wheel, graphite inlays, dual zone climate. Bluetooth™, 60/40 folding rear seat, electric parking brake, cruise, rear center armrest, heated mirrors, rear defroster and more. AUDIO: 4x40 watt 8-speaker system with single-CD and DVD player, WMA and MP3 capability, HD radio, USB and AUX inputs, illuminated steering wheel controls. SERVICE: Complimentary factory scheduled maintenance for 3 years or 36,000 miles. PREMIUM PACKAGE: Power glass moonroof, power passenger seat, dual xenon gas discharge headlights with active bending light (ABL).. TECHNOLOGY PACKAGE: Adaptive cruise, collision and pedestrian warning with full auto brake, distance alert, driver alert, lane departure warning Metallic paint (Flamenco Red Metallic)... FOUR-C chassis 750 Destination charge .. 850 ...\$ 43,450

OUR WEEK WITH THE VOLVO S60 T5 AWD

Driving a Volvo sedan (with NJ plates) made it fun to surprise people with the car's agility and performance: we could always hop on it and go. The S60's performance skills revealed themselves repeatedly, in normal driving. Heading toward a freeway on-ramp, we had a lucky break as a large stake-bed truck veered to the surface road, giving us about an eight-car gap against the other ramp lane. We were able to take them all, starting with an Escalade. We figured the Volvo surprised them all, and we felt like king of the pack. The S60 corners well: it's smooth, it goes where you point it, it maneuvers quickly and accurately. (A downside was somewhat abrupt shifting at times, as we cornered on surface streets.)

A front-wheel-drive S60 with T5 inline 5-cylinder engine starts at \$30,975.

Our logbook did contain a few frustrated moments with controls and switches for radio tuning, heated seats, headlights and dual climate zones. We were disappointed to have keyless entry but then to need to key, to insert in the dash, to use the stop/start button. We also found the car unforgiving in its shutdown sequence, requiring you to put it in park before turning it off, or forbidding your exit. Or so it seemed. An owner's luxury of more time with the manual should reveal all. On the positive side, the design ethic of Volvo seems to put many functions out of mind, so you can concentrate on the task at hand and enjoy the drive. Instrumentation is sparse but functions are extensive. With its center stack pad concentration and vital controls on the wheel, it's not overly complex, while other things seem to be automatic and mostly just leave you alone.

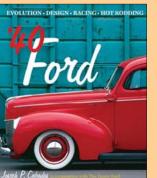
The Comfort-Sport-Advanced settings arrived at our offices set to Sport. Differences among the three felt subtle to us, so we checked the book. Comfort: a somewhat softer ride and the transmission shifts gears at lower RPMs, particularly suitable for long distance highway driving. Sport: in this mode, the vehicle's body sway is reduced during cornering and steering response is more immediate, the transmission shifts at higher RPMs for sportier driving. Advanced: body sway in curves is minimal and steering response is very direct, gear shifts are at higher RPMs in each gear. Sport and Advanced describe very similarly, and our driving experience was also similar, but the presence of FOUR-C active chassis control surely reveals itself regularly, whether it's noticeable or not. Unless fuel economy is highly compromised, we'd probably stay in Advanced.

Yes, the Volvo S60 is being promoted as naughty, at least a little bit naughty, at least against perceptions from the past. The rest of the world may perceive things much as they thought they used to be. But the proof is in the performance, and when you put the pedal to the metal, you'll know this car is as naughty as you want it to be.

BOOKS: '40 FORD • US AUTO INDUSTRY

'40 FORD: EVOLUTION-DESIGN-RACING-HOT RODDING

by Joseph P. Cabadas: Notable for streamlined style and deco details, the '40 Ford has gained in popularity among classic car nostalgists and hot rodders who



remember the models as monsters of the drag strip and as the affordable first cars or hot rod platforms of their youth.

Motorbooks and The Henry Ford Museum have teamed up to deliver an unprecedented celebration and history of the 1940 Ford. In this illustrated history, auto historian Joe Cabadas delves into the archive of The Henry Ford in Dearborn, Michigan, to offer a complete history of the '40 Ford: the design and production process that led to the car; its various body styles; motorsports



(both circle-track and drag racing); and hot rodding.

Sidebars feature key figures within Ford, the car in popular culture, significant contemporary automobiles from competitors and more. Two hundred rare photographs and illustrations from the collections of The Henry Ford and from photographers around the country marvelously illustrate the iconic automobile. The book hits bookstores March 24.

ABOUT THE AUTHOR: Born in Detroit, Joseph P. Cabadas

is a longtime automotive reporter and the award-winning author of Motorbooks' *River Rouge: Ford's Industrial Colossus* (2005) and *The American Auto Factory* (2003). He lives in Dearborn, Michigan.

WITCH HUNT: ESSAYS ON THE US AUTO INDUSTRY AND THE BLITHERING IDIOTS WHO ALMOST KILLED IT

by Peter De Lorenzo: Peter De Lorenzo has dubbed the American auto industry a "seething cauldron of brilliance punctuated by flat-out incompetence." In *Witch Hunt*, De Lorenzo follows Detroit through the auto industry's most volatile time.



As Toyota stumbles, and GM and Chrysler are gutted by politicians and management both, De Lorenzo blisters paint with his prose, as his love of good cars and the true believers who build them alternates with his contempt for those he considers to stand in the way of good product and sensible business practices.

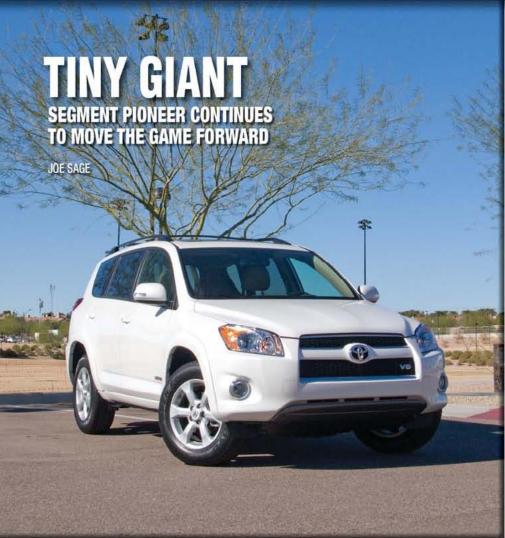
Witch Hunt is more than an analysis of a dysfunctional industry; it's a call to action demanding that what De Lorenzo sees as obstructionists in Detroit, Washington and beyond step aside and let the pride in our country's automotive industry be restored.

For information, visit www.witchhuntbook.com.



ABOUT THE AUTHOR: Peter De Lorenzo is a national columnist who founded <u>autoextremist.com</u>, a website devoted to news, commentary and analysis of the auto industry. His regular reports are nonpartisan, car-centric, and adamantly pro-American. Whether demystifying the buzz surrounding Tesla, or delivering the high-octane truth about Ford's success, De Lorenzo blends industry insight

and powerful prose on his widely-read blog. De Lorenzo also wrote *The United States of Toyota*. He is often quoted in national and international news outlets and has appeared on MSNBC, BBC, CNN, CNBC, CBS, Fox Business News, "Autoline Detroit," SPEED channel and numerous national radio programs to talk about the automobile industry and motorsports.



t's likely unfair that we got straight into the RAV4 at the airport, after flying back from the launch of the 500-hp Mercedes CLS63 AMG. And it's likely unfair that we were subjected to snickers from a neighboring car at the very first traffic light. One unfair advantage may have been the RAV's pure white-on-white dress.

As we drove up the freeway to the office, lo and behold, we had a twin in the next lane: this one driven by a college girl with ASU and sorority stickers on the back. Bingo. If only she pulled off where we pulled off, we might have the perfect interview on this vehicle, from its perfect demographic.

Or so we thought. But she didn't.

Nonetheless, as the AMG's horsepower faded in our rearview mirror, and as we drive the new Toyota RAV4 Limited in its own right, the stigma faded away. Mostly.

The poor little Toyota. Looking back, we last drove its 4x4 Sport iteration, reviewed in our NovemberDecember 2009 issue, suffering a similar fate, sharing the issue with (and cowering behind a cover featuring) the thenbrand-new Chevy Camaro SS. We could make it feel like Rodney Dangerfield about now, except that Rodney was a pretty hardy party animal, and the RAV4 has more of a "good provider" personality. And that is certainly is.

It did get a good review in 2009, with a preview of all that would be new in 2010. And here we are in 2011:

OUR TEST RAV4 LIMITED

Erronteo.oc Borro Z IV Vo dudi VVI I. Zoonp, Z io ib it
TRANSMISSION5-speed electronic automatic
DRIVEfront-wheel drive
SAFETY/SECURITY: Stability control, traction control, ABS
with electronic distribution and assist, smart stop
airbags galore, safety headrests and child anchors/teth-
ers/locks, tire pressure monitor.
EXTERIOR: Halogen headlamps, spoiler, spare tire cover
color keyed mirrors w/ turn signals, intermittent wipers
fog lamps, privacy glass, roof rack.

COMEORT/CONVENIENCE: Dual zono climato, AM-EM-CD

ENGINE 3.5L DOHC 24v V6 dual VVT-i: 269hp 246 lb-ft

CUIVIFUNI/CUINVEINIEINCE: Duai Zuile cilillate, Aivi-rivi-GD,			
cruise, smart key, PW/PL, fold-flat second row, more.			
Base price\$ 26,835*			
Auto-dim RV mirror w/ integrated backup camera475			
Special color220			
PREMIUM PLUS VALUE PACKAGE: Mucho audio, leather,			
moonroof, heated power seats and more3,480			
Tow prep package (radiator, fan, alternator)160			
Carpet floor mats, cargo mat199			
Destination charge810			
TOTAL\$ 32,179			
Extreme Value Package MSRP discount 2,000			
TOTAL after discount\$ 30,179			

*Online, this is now \$30,035 base; 4WD adds \$1400. A front-wheel-drive 4-cylinder base RAV4 starts at \$22,025.



TOYOTA, TESLA PREP RAV4 EV

Toyota unwrapped its second generation RAV4 EV and announced plans to build 35 of the vehicles for a demonstration and evaluation program with their new electric vehicle partner. Tesla Motors. Toyota planners have targeted an operating range of 100 miles in actual day-to-day driving patterns and in a variety of climates and conditions. Tesla was responsible for building and supplying the battery, as well as other related parts. Toyota was responsible for development and manufacturing leadership as well as the seamless integration of the powertrain. The RAV4 EV received several distinct exterior styling changes including a new front bumper, grille, fog lamps and headlamps. The interior received custom seat trim, multimedia dash displays, pushbutton shifter and dashboard meters. The RAV4 platform brings a 73-cubic-foot cargo area with rear seats folded down - no cargo space was lost in the conversion to an electric powertrain.

—Bill and Barbara Schaffer

OUR WEEK WITH THE RAV4 LIMITED

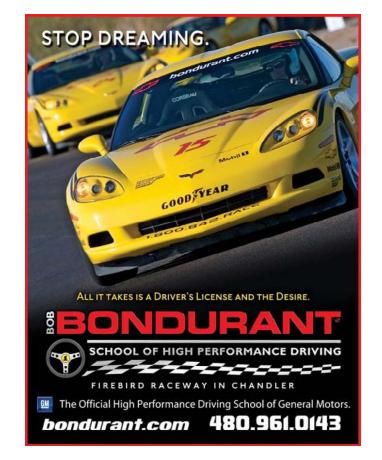
The 269-hp V6 RAV4 has lots of pep in a small package. In the southeast Valley, we were up against Hondas, Priuses, minivans and such, and it held its own guite well. In the northeast Valley, where competition is stiffer, we were able to keep up with the lane changes and merges necessary for survival, more than adequately. We were impressed by its lack of torquiness, especially as a front-driver. The RAV4 doesn't feel high-centered yet offers great visibility and good command of the road.

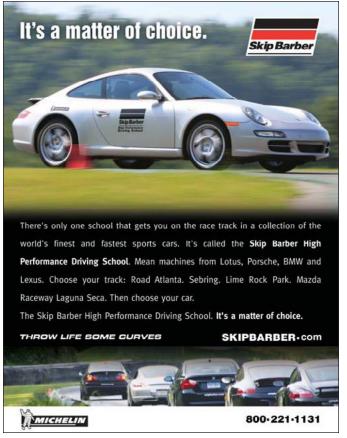
The Limited is well appointed inside, instrumentation was user-friendly, and we like the combined mirror/camera. Add keyless entry and start, dual climate zones and full power seats, and the RAV offers great value.

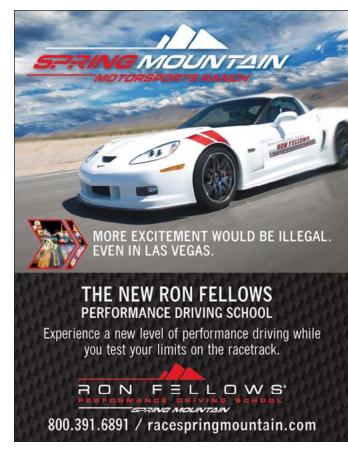
Steering wheel controls are manual but easy to operate; seats weren't the most comfortable, audio controls weren't as friendly as the rest, and the sound system, an upgraded one, might disappoint that college girl (or us).

Ultimately, we conclude that the reworked front fascia and grille are attractive and maybe even masculine to a degree; perhaps we just need a different color. By our last day, we'd made fast friends with the RAV4, concluding that whatever anyone might think about its gender—and that may be a factor for some—it has plenty of power, easy access/egress, features galore, and we could live with it indefinitely on its own merits.

PERFORMANCE DRIVING SCHOOLS RESOURCES:









THE INSIDE TRACK: BRIEFS & RUMORS



The hot, V8-powered Pontiac G8 built by the General Motors Holden division in Australia may be getting a second life in **Chevrolet** showrooms. According to GM

sources, the rear-wheel drive Pontiac will return with minor sheet metal changes and a Chevrolet badge. The high-performance sedan has already gone through all the certification and engineering work required to convert the Holden Commodore into the G8 so the do-over as a Chevrolet should be relatively inexpensive. The car is mechanically identical to the long-wheelbase Caprice being built exclusively as a police vehicle. The last G8 model was a 2009 vintage,

which was powered by a 415-hp, 6.2-liter engine in the top model, the GXP. If the G8 does come to Chevy dealers, it will likely be in limited numbers.

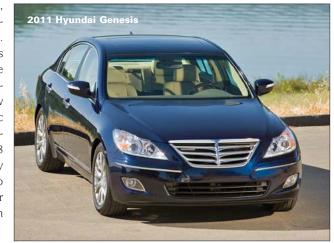
The flagship **Hyundai** Genesis sedan

gets freshened for 2012, with new lower front fascia and new trim pieces. However, the big news is under the hood where the mid-size entry luxury sedan gets a new eight-speed automatic transmission and an allnew 5.0-liter, 429-hp V8 engine. The naturally aspired V8 is rumored to get two percent better fuel economy along with better acceleration.

Martin Winterkorn's effort to make VW the world's largest auto company by 2018, there is a rumor that a NASCAR



race car may be in the cards. According to *AutoWeek* magazine, the carmaker is considering jumping into stock car racing by the middle of this decade. The magazine says a NASCAR official has confirmed meetings are scheduled with VW.



How to Design Cars Like A Pro, by Tony Lewin and Ryan Borroff pulls back the sheet metal and reveals the inner workings of modern automotive design. The 208-page, large format paperback **book** includes interviews with leading designers from Ford, BMW, GM, Jaguar, Nissan and others. The latest trends and concepts reveal a fascinating mix of the art and science in creating a new automobile, plus historical perspective of the business. The book, with 337 color and 66 black and white images, is available for \$29.99 online through www.motorbooks.com, a division of Quayside Publishing Group.

Amid the glamor and shine of the North American International Auto Show

in Detroit in January and all its upcoming concepts, **Volvo** was showing an "after" concept—the results of a 40-mph crash in an electric-powered Volvo C30. Keeping the high voltage batteries and cables intact after a collision is vital for safety as battery-powered vehicles become more popular with buyers. Volvo's crashtested C30 Electric in the Volvo stand demonstrated

how it can be done. Even when the car had been subjected to a demanding 40-mph offset frontal test, the key electric components were undamaged.

The State of **Texas** recently raised a little revenue for the general fund—auctioning license plate numbers. According to the myplates.com web site, about a thousand Texans witnessed history at Cowboys Stadium January 14 at the firstever event. My Plates is a Texas-based company that was awarded a contract by the Texas DMV to design, market and sell new specialty license plates in Texas. The auction sold 33 plates for a grand total of \$138,650. Of that, My Plates estimates \$78,422.50 goes to the state general revenue fund. The plate "FERRARI" set the record for most expensive plate ever sold in Texas, at \$15,000.

Ferrari released the first information and photos of its first four-wheel-drive model, the FF or Ferrari Four. The FF,

Early spy shots of the 2011 **Chevrolet** Camaro Convertible brought criticism from Camaro enthusiasts because of an



which debuts at Geneva in March, replaces the Ferrari 612 Scaglietti as the brand flagship. The four-place Shooting Brake-style two-door is designed to compete with cars like the Bentley Continental GT, Porsche Panamera, Aston Martin Rapide and other high-performance sporty cars from other premium brands. FF is powered by a new 660-hp, 6.3-liter



V12 direct-injection engine which produces a 0 to 62 mph time of 3.7 seconds and a top speed of 208 mpg. Even though the FF has 120 horsepower more than the 5.75-liter Scaglietti, it has better fuel efficiency and with significantly lower CO₂ levels. The four-wheel-drive FF is about 110 pounds lighter than the rearwheel-drive Scaglietti, weighing in at just under 4,000 pounds. The FF is expected go on sale in Europe about mid-year 2011 priced at 250,000 euros (\$337,500).

old-fashioned AM/FM whip antenna mounted on the rear deck. Determined to head off the complaint, Chevrolet planners responded quickly, commissioning self-described "antenna freak" Don Hibbard, who teamed with colleague Gregg Kittinger to work on a solution to get rid of the ugly mast, without sacrificing radio reception. The solution was to hide the

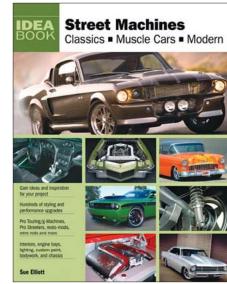
antenna inside the rear spoiler. It works and will be a standard part of 2011 Camaro Convertible now arriving in dealer showrooms.

Chrysler and the EPA are studying the feasibility of a hydraulic hybrid system for large passenger cars and light-duty vehicles. An EPA-developed system is currently used in industrial applications, including large delivery trucks and

refuse trucks across the country, showing substantial increases in fuel economy. The system is being adapted to a Chrysler Town & Country minivan with a 2.4-liter inline-4 gasoline engine, producing power with engine torque driving a hydraulic pump that charges a high-pressure accumulator of up to 5,000 psi, delivering pressure energy to an axle hydraulic motor, driving the wheels. The gas engine remains off if the accumulator charge is sufficient.

Vehicle platooning, as envisaged by Volvo and the SARTRE project, is a convoy of vehicles led by a professional driver. Each car measures distance, speed and direction and adjusts to the car in front. All are totally detached and can leave the procession at any time. In the platoon, drivers can relax and do other things while proceeding toward the long-haul destination. Platooning may be the new way of travelling on motorways in as little as ten years in Europe. For more info, visit www.SARTRE-project.eu.

A custom automotive project requires lots of planning—the right engine, chassis and transmission, mated with bodywork, paint, interiors and dozens of other decisions before work begins. Street Machines: Classics, Muscle Cars, Modern, an Idea Book is not a how-to book; rather the 161 pages and 551 color photos can be a great help to get the ball rolling and provide inspira-



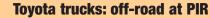
tion. This larger-format paperback **book** is well worth its \$24.99 price if the reader gets even one good idea from it. Author Sue Elliott knows about building cars thanks to more than 20 years' experience at the reins of publications like *Overhaulin': The Magazine, The Barrett-Jackson Experience* and *High Performance Pontiac*, and as product information specialist and spokesperson for SEMA. The book is available at www.motorbooks.com, a division of Quayside Publishing Group.

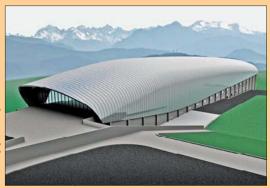
Briefs & Rumors is a summary of auto news from industry sources, trade journals and consumer magazines compiled for *Arizona Driver Magazine* by **BILL & BARBARA SCHAFFER** of *Auto Digest*.

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UPCOMING FEATURES

LeMay America's Car Museum: construction and site tour in Tacoma







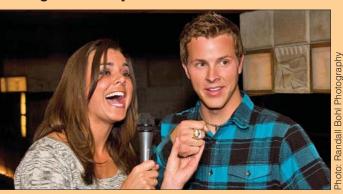


Motoring Thru Time in Heritage Square, Phoenix

PIR Night of Champions







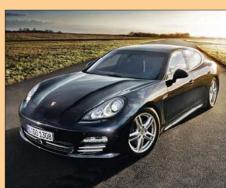
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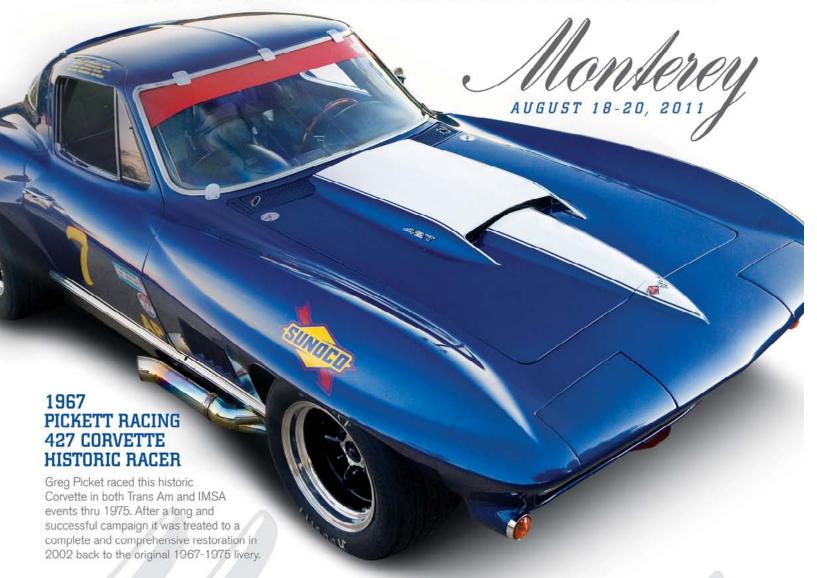
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