



Proof positive

Fast laps, Jeep trails, autocross and dragstrip runs at FCA's famous Chelsea Proving Grounds in Michigan, where the metal first proves its mettle | By Joe Sage

Fiat Chrysler Automobiles (FCA) sold 2.8 million vehicles worldwide in 2014, for revenue of \$83 billion. They are regularly posting significant gains again for 2015. Brands now include Alfa Romeo, Chrysler, Dodge, Fiat, Jeep, Ram, Mopar and SRT. To deliver all this, FCA has 13 assembly plants, 13 additional stamping, casting, machine, axle, and tool and die facilities, seven engine plants and four transmission plants. And each and every model lineup is undergoing constant refreshing and replacement.

For confirming that every element is optimized, durable and capable, FCA has six test facilities. Closest to home for us is the Arizona Proving Grounds in Yucca, perfect for hot weather testing or general testing on a dry track in the middle of

winter. Other facilities are located in Mexico, Florida and Ontario. Closer to home for FCA are two facilities: one in Auburn Hills, Michigan, home of FCA headquarters, and Chelsea Proving Grounds, about a half hour west of Ann Arbor, Michigan (which, in turn, is about an hour west of Detroit or southwest of Auburn Hills.)

The 3,800-acre Chelsea Proving Grounds is one of the largest, most modern automotive test sites in the world. Dedicated in 1954, its roads and facilities are continually improved and expanded to keep pace with products and testing techniques. There are over 100 lane miles of on- and off-road test surfaces. Durability and Reliability testing is conducted year-round in laboratories and on specially designed roads. Chelsea also performs crash, emissions and fuel economy testing. It's easy to think "test track," but driving facilities include all of the following: Durability Roads

of concrete, asphalt, gravel, stone, Belgian block and other rough surfaces for determining reliability and durability; Evaluation and Handling Roads for evaluation of steady state handling through a variety of cornering at a wide range of speeds; an 18-acre Vehicle Dynamics Facility to test steering, suspension, and braking at speeds up to 100 miles per hour; Grade Roads of 7, 15 and 32 percent to evaluate hill climbing and service brakes, plus 20 and 30 percent grades for parking brake and transaxle parking sprag testing; and yes, an Oval Test Track, six lanes wide and 4.7 miles long, for speeds up to 200 mph, with extreme banking providing Neutral Steer at 130 mph in the 6th lane in the turns. Add to this a 4.3-mile Ride Road to test steering and suspension testing, body shake, and NVH; a Skid Traction Facility with four 1000-foot lanes of varying friction, plus built-in sprinklers for wet weather testing on a dry day; a 250-foot-long, 12-foot-wide Splash Trough to test body sealing, fascia retention, water ingestion and electrical components in the engine compartment; and two paved Straightaway Roads, one 1.6 miles long for brake testing and one 2.2 miles long for fuel economy, performance and coastdown testing.

Once a year, the super-secretive Chelsea Proving Grounds are opened to media for a "What's New" event, showcasing every product in the FCA stable for the current model year, some of what is coming for the next model year, and always a few complete surprises. We've registered for this event twice in the past but had to cancel due to

KEEP RIGHT >>

Factory drag racers

REVEALED in the Mopar Garage at Chelsea Proving Grounds were two new Mopar Dodge Challenger Drag Pak models, specifically built for track only. The 354 Supercharged HEMI Drag Pak marks the first time Mopar has offered racers supercharging, with cast-iron block, forged steel crankshaft and Mopar spec camshaft. The naturally aspirated 426 Race HEMI Drag Pak has Mopar aluminum block with pressed-in steel liners and aluminum heads. Engines are custom calibrated.

Up front is unique Mopar K-Member and suspension geometry. The rear is four-link with Panhard bar, Strange Engineering 4-inch solid axle with 9-inch aluminum third member, 40-spline gun-drilled axles, adjustable compression/rebound shocks and a new anti-roll bar. Rear axle mounts are strengthened (more than in prior models) for fast, hard launches. Lightweight 15-inch wheels sport 4.5-in-wide by 28-in outside diameter front and 9-in-wide by

30-in OD rear Hoosier drag radials. The cars have full NHRA-spec roll cages, and inside are Mopar gauge packs, two lightweight racing seats, safety net and five-point harness. The hood is now a user-friendly rear-hinged design. This is a track car, and it includes integrated trailer tie-downs front and rear. Both the 354 and 426 models have special front and rear fascia trim and graphics. The numbers pay tribute to heritage Mopar drag cars.

The 426 Drag Pak costs \$99,426, and the 354 Supercharged racer is \$109,354.

The presentation wrapped up with a literally smokin' demonstration of the cars' raw straight-line power in the test track paddock just outside the garage facility.

ALSO of note are new Mopar Scat Pack Performance Upgrade kits for 5.7L HEMI Challenger or Charger. Both build upon Scat Pack 1. Scat Pack 2 (\$1895) adds an upgraded performance camshaft, valve springs, tie bars, pushrods and all gaskets, adding an SAE-confirmed 56 hp, well above the original 30-hp target, and 30 lb-ft of torque. Scat Pack 3 adds CNC-ported heads, hi-flow manifolds and catalyts, gasket set, exhaust manifolds with adapter and brackets, for a total increase of 75 hp and 44 lb-ft of torque. Scat Pack 3 (\$4495) includes a special badge set. Kits require a revised calibration by Arrow Racing. All Scat Pack kits maintain the factory warranty.





urgencies on the home turf. This year, we made it.

We flew to Detroit and shuttled to Ann Arbor for an overnight, where we grabbed dinner at famous Zingerman's Road House. (Zingerman's also delivered lunch to the track the next day, and we would have another dinner and breakfast at the Road House on our own before we left.)

There is much at Chelsea Proving Grounds that we're not allowed to photograph and even more we're not even allowed to see, but we had plenty to see and do during this event and can share some of it with you.

New vehicles sprawled across the lawns and access roads included the 2016 Fiat 500X, the Chrysler 300 lineup, the Ram ProMaster City van, the new Jeep Renegade, the full range of Dodge SRT vehicles including both Challenger and Charger Hellcats, and the latest specialty models in the Ram Truck lineup. On static display were the Viper ACR—the fastest street-legal Viper ever—which we had seen at its first unveiling in Elkhart Lake, Wisconsin (see our July/August issue)—and the entire 2015 Moab Easter Jeep Safari Concept Collection. Every Moab Jeep was a winner (though we noticed people were diggin' on the bright blue Jeep Chief, an homage to the '70s Cherokee Chief, this version built on a Wrangler

Unlimited platform). Other displays featured segment-topping towing and other Ram competitive points, as well as Mopar, Jeep and other accessories and performance upgrades.

Executives, marketing, engineering and design teams are with us all day, for conversation or in-depth information on any detail or overview.

With the exception of the Viper and Moab Jeep static displays, all were available for test drives.

Any and all machines could be driven at speed on the ride road paralleling the extreme oval track (this road has a smooth half and a torture half). Off-roaders and mixed-roaders could also be taken on the famous Lyman Trail courses (see Patriot sidebar). SRT performance vehicles had their own autocross course, and for some of those also a timed 1/8-mile dragstrip.

It sounds like a lot of fun, and it is. Plus, it's educational, informative and invariably enlightening.

We had been fortunate enough to drive a number of these vehicles at their initial launch events—Fiat 500X, Chrysler 300, Challenger and Charger, Jeep Renegade, Ram ProMaster City—and the day goes fast, so we took a quick lap in a few of our favorites as available, but let any first-timers have first shot at them.

Just before we had departed Phoenix for this event, we received a Jeep Patriot, a model on the cusp of replacement, and had driven it only briefly but already liked it. When we saw it was here for drives on the Lyman Trail extreme test course, we jumped on that (see sidebar). Fun to know the

team is out there testing its replacement, when nobody is looking.

We had also driven the full Ram lineup a couple of years ago, including off-road and 30,000-pound towing, but there is always something new there, such as the Ram Rebel, the new top-trim Limited, and the Ram 1500 Outdoorsman Crew Cab 4x4 EcoDiesel we had driven at Mudfest this spring (which won its category). We did time on the Evaluation and Handling Roads in the 1500 Outdoorsman Crew Cab EcoDiesel, then the Ram 2500, to compare them at speed and in the corners. This route is paralleled in spots by the rough ride road, perfect for short samples of more abusive use. Together, the drill proved the toughness and daily drivability comfort of both. In all, we drove about eight vehicles in the morning session.

After a Zingerman's lunch, the crowd gathered and cameras rolled at the purpose-built Mopar Garage, where two new \$100k-or-more Challenger Drag Pak track-only cars were revealed for the first time (see sidebar), after which a demonstration driver lit 'em up on the pavement for us.

We then headed to the autocross course and straightaways (a shuttle ride away, within the overall facility) for timed cones with the SRT lineup, from Grand Cherokee to Viper, and 1/8-mile timed drags in the Challenger SRT Hellcat. (Our numbers were pretty good!)

We went back for a little more road time, and it was a wrap.

Anybody who works at Chelsea Proving Grounds truly has a dream job. We could do this every day. ■

Solid

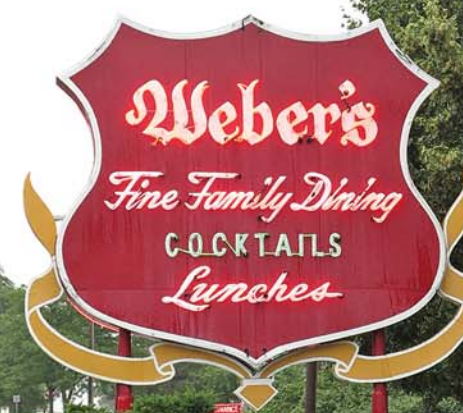
How can a big premium sedan be this sexy? For starters, it's a Chrysler, "Imported From Detroit." To cap things off, this is the 300S, the more sport-oriented model in the new-for-2015 Chrysler 300 lineup. (There is also a base 300 Limited, and at the higher end, it's largely a taste option between the S and two 300C luxe models, 300C and 300C Platinum.)

We had a full range of hardware at hand for our drive from Chelsea to the Detroit airport. The Chrysler 300S proved a solid choice for stashing luggage and gear and taking a few people to dinner—comfortable, capable, powerful and a great looker.

The 300S worked especially well in what developed into a record-breaking torrent of rain. A major storm had gracefully waited until we wrapped up our event at the proving grounds, but then it opened up. By morning, the region was on alert for widespread floods, both surface and from the river. But for us, it was smooth sailing.

Unless you perhaps have incurable European badge envy dysfunction, it's hard to beat the comfort, performance, fit and finish of this \$35,000 car. And in Michigan, you're far less likely to even suffer from that complex. A \$3000 upgrade adds the 363-hp 5.7L HEMI V8 (with 4-cylinder fuel-saving mode and good with regular gas) in lieu of the standard 292-hp 3.6L Pentastar V6. The HEMI rates 25 MPG highway, versus 31 for the V6 (or 27 in an AWD V6). This may seem a perfect day for AWD (\$2500). We had the rear-drive HEMI and sailed through the deluge in confidence. And the Redline 3-Coat Pearl paint job made us stand out as effectively as a Coast Guard raft on such a day.

This car had no Monroney sticker, but add every feature and option, and you'll barely top \$40 grand. The Chrysler 300S delivers a solid, comfortable ride, accessible prestige and significant value. ■



FUNDAMENTAL By Joe Sage

We received our 2015 Jeep Patriot at a pretty opportune time. It arrived mid-day on a Wednesday, and we would have it for a week. However, as fate would have it, we were headed to the airport at dawn the next day to fly to Michigan, for an event at the FCA US Chelsea Proving Grounds. That seemed simpatico, even if it reduced driving time.

This, however, turned out to provide us a big bonus: off-road time in the Jeep Patriot, and not just any off-road time—we would get our hands on one and take it for a spin on their most serious of test courses (see sidebar).

Jeep pitches the Patriot as the best-priced SUV in America. The lineup starts at just \$16,895, less than the Compass, which to us is a win-win situation. (We had never been fans of the Compass, which shares its platform with the Dodge Caliber, which in turn replaced the Neon econocar from an earlier era.) KBB.com has named the 2015 Jeep Patriot as a winner of its 5-Year Cost to Own Awards. Patriot is available with 5-speed manual or 6-speed automatic, and in various trims as FWD or 4x4. Our Latitude 4x4 falls in the middle. Lower trims with FWD have a base 2.0L engine.

All offer advanced off-road options and packages, some with hill descent and crawl modes.

This was also opportune timing because we hadn't really gotten to know the Patriot before, yet we know it is slated for the end of its run.

We do not yet know what the replacement vehicle will be. But we expect something very good. When the Cherokee replaced the Jeep Liberty in 2014, they moved the ball forward considerably. It quickly proved itself as a winning member of the Jeep lineup, including a Trailhawk model, and the buying public has taken to it in droves. When the Jeep Renegade launched for 2015, they nailed it again—a completely new entry, also including a Trailhawk, at the roomier end of a booming new subcompact SUV segment.

The Compass and Patriot are both, in aggregate, slated to be replaced by one new entry-level Jeep model in mid-2016. We anticipate one more dose of something wonderful, after the recent Cherokee and Renegade introductions. (And, of course, the Wrangler and Grand Cherokee have had sainted status for years now.)

In short, the Jeep Patriot proved itself to be quite a machine, and you can move considerably

away from its entry-level aura as you option it up, with package prices all very reasonable, in typical American style. Even the larger Patriot engine is a little short on power by current standards, and its styling is a bit vanilla. (We did find a few intriguing aftermarket items to dress it up.) Jeep is sure to be actively addressing both style and substance as they have developed its replacement, so as much as we liked the Patriot, we have considerable anticipation and high expectations for what's next.

We suspect most people use the Jeep Patriot in town quite a bit, but also anywhere and everywhere, any time they dang well please. It strikes us as tailor-made for this job.

We discovered the simple, solid, straightforward Patriot late in its life, and thus sort of hate to see it go. But we know there will be an even better tomorrow. Here's to the impending replacement—may it promptly make us forget about the Patriot. We are confident that will be the case.

We reflect upon how a much earlier vehicle named Cherokee—the original four-door compact SUV from the final decade and a half of the prior millennium—continues to find new fans in the modern era. This generation of Patriots is sure to endure. As with that earlier Cherokee, the Jeep Patriot really nails the basic concept. ■

SPECIFICATIONS

ENGINE.....	2.4L inline-4 DOHC 16v dual VVT
TRANSMISSION	6-speed automatic
DRIVETRAIN	four-wheel drive
POWER/TORQUE	172 hp / 165 lb-ft
SEATING CAPACITY / HEADROOM	five / 41 in
WHEELS	17x6.5 mineral grey aluminum
TOW CAPACITY	1000 lb / 2000 lb w tow package
APPROACH ANGLE / W OFF-ROAD PKG	26.4° / 29.0°
BREAKOVER ANGLE / W OFF-ROAD PKG	20.9° / 23.7°
DEPARTURE ANGLE / W OFF-ROAD PKG	28.5° / 33.9°
GROUND CLEARANCE / W OFF-ROAD PKG	8.1 in / 9.1 in
WEIGHT DISTRIBUTION (4WD)	57/43
CARGO VOLUME	23.0 to 53.5 cu ft
WEIGHT	3367 lb
MPG	21/27/23 (city/hwy/comb)

BASE PRICE **\$24,795**
INCLUDED: Long and considerable features list.

CUSTOMER PREFERRED PACKAGE: High Altitude package/badge, leather-trimmed bucket seats, power 6-way driver's seat w manual lumbar, 17x6.5" mineral grey aluminum wheels, power express open/close sunroof1095

SECURITY/CARGO GROUP: Security alarm, auto-dim mirror, electronic vehicle info center, universal garage door opener, soft tonneau cover.....695

AUDIO: AM-FM-CD-DVD-MP3-HDD-NAV w 40GB drive (28GB available), 5 years SiriusXM Travel Link1435

UCONNECT PKG: Uconnect® voice command, Bluetooth, auto-dim mirror with microphone, remote USB port, 1 year SiriusXM radio, remote start495

DESTINATION CHARGE:.....995

TOTAL **\$29,510**

DEMO

We arrived at the FCA Chelsea Proving Grounds in Michigan knowing we would see a lot of things and be driving some of them around the paved track areas. We soon found out that an off-road course was also part of our day. This would be not just any off-road course—we had access to the Lyman Trail, the set of test courses Jeep uses for maximum challenge during product development. And there sat the Jeep Patriot, the same vehicle we had just received the day before and had just parked at the airport in Phoenix. Opportunity was knocking.

Different routes and courses bear the names of famous trails worldwide. Just as surely as not every Jeep customer buys a Wrangler, not every Jeep model runs every possible obstacle. But our course for the Patriot was far more extreme than we would have envisioned before this week.

There are rough rock stretches, deep ruts, high breakover ramps, low departure points, the requisite spots you teeter on two out of your four wheels (always with grip), water hazards—the steep, the deep—more than we had thought people bought the Patriot for, though we have now completely updated our thinking on that.

We had one dirt breakover spot where we almost high-centered, but this could happen in a properly challenged Wrangler. A little quick jockeying and we were on our way again. The Patriot is a bit of a beast, in a plain white wrapper.

We fully expect next year's Patriot/Compass replacement vehicle to wash away the errand-runner feel of the Compass for all time. But with Patriot DNA, we now anticipate the new vehicle will have a degree of Jeep off-road worthiness on a par with the Renegade and Cherokee.

We are late to the game in realizing a Jeep Patriot would be a pretty cool vehicle to have in the garage. But we now have a significantly broadened concept of the reasons why. ■

