

Going Straight

WITH 700 HORSEPOWER AT THE TEXAS MILE

STORY AND PHOTOS BY HAROLD PACE





Todd Zuccone stares straight ahead, down a lonely runway. With 700 turbocharged horses behind his back, he's here for the Texas Mile, an event that will allow him to push his company's 997 Turbo development car for all it's worth. His goal: to surpass 200 mph.

Fast Porsches have become his life and livelihood, but then Todd never really had a chance to be anything *but* a Porsche fanatic. He grew up in a family of Porsche nuts. In the garage were Speedsters and early 911s. His uncle had a 550 and his father was an amateur racer. But the magic moment came when Todd was 13 and his parents went out of town, leaving a shiny 911 behind. Todd's father left the keys, but wisely took the coil wire. It didn't take Todd and his older brother long to find a wire and go for a ride around the block without a license between them!

Though Todd eventually came clean, he hasn't looked back since. His Scottsdale, Arizona-based company, Evolution Motorsports sells parts to make all kinds of cars faster. But his first love is clear: "There's nothing like a 911." For more than a decade now, Todd has been building ultra-fast 911s for the street in turbocharged and supercharged formats.

He knows Porsches are handling cars first and loves road-course events but has begun to explore other venues to develop and promote his products. He's become a regular at the Speedworld drag strip in Arizona and Atco Raceway in New Jersey. His best quarter-mile time so far is 10.81 seconds, his fastest trap speed 135 mph. Todd runs in the open class, where anything goes and more than one Viper has felt the sting of his 911 Turbo. The secret to quick quarters in a Porsche? "Launch hard, shift quick, and get *lots* of practice."

While building ten-second 997s has been entertaining, Todd knows that 997s were designed for higher velocities. *Far* higher velocities. Today's standard Turbo tops out at 195 mph with "only" 480 bhp, while the new GT2 blitzes through to 204. Tuners like Ruf, Champion Motorsports, Sportec, AWE, GMG, Techart, Gemballa, and Evolution have tweaked 997 Turbos to real 200+mph performance. But where can you actually *drive* 200 mph?

Here in the U.S., as with most places on earth, the street is out. So it's to the track then, right? There are two problems with that. First, most buyers who fork over \$150,000+ for a modified 911 Turbo want a street car, not a track toy. They know about GT3s, but they want a 911 Turbo. Second, most race tracks aren't really that fast. Get past 130 mph in a fast street car

and you're at a fast track. Surpass 150 and you're at a very fast one. And anything beyond a buck fifty will require either a very long straight or an oval element.

That's where the Texas Mile — and land-speed contests like it — come in. Straightline speed events offer drivers with insanely fast cars a place to really open them up with minimized risk. With his 997 Turbo-based EVT700 (as in 700 horsepower) Todd's got the insanely fast car part figured out — and the mile-long track ahead of him is about as good as it gets when it comes to minimized risk.

The Texas Mile is one of several land-speed competition events in which drivers compete to see who can achieve the highest top speed. The best-known land-speed events happen at Bonneville and are usually run by the Southern California Timing Association (SCTA), which also handles some dry-lake events. But there's another group using airport runways to time competitors at the end of a measured mile. The East Coast Timing Association (ECTA) uses Maxton, North Carolina's airport for its Maxton Mile while its Texas Mile runs take place at Goliad, Texas' airport, about 100 miles South of Austin.

These events are competitor-friendly, low key, and mercifully devoid of meddling sponsors and needless officialdom. Todd makes the trek to Goliad several times a year. In 2007, his team maxed out at 187 mph, and they're hoping for 13 mph more this year. With 150+ cars entered — including a 231.666-mph jet dragster, an ACR Viper worth well over 200 mph, a Hennessey GT-500 Mustang, crowds of Corvettes, and a pack of Porsches — the competition is awfully fierce.

Todd's EVT700 will run in the street-car class. He says it made 650 wheel horsepower on his Mustang 500-SE all-wheel-drive chassis dyno. That run was on 92-octane pump gas, and he says he sees 730 hp on 103+ octane fuel. Although his EVT700 retains its 3.6-liter engine, the next step, the EVT750, will grow to 3.8 liters. Todd says the main advantage of 200 cc more displacement is torque.

Squeezing more than 700 horses out of the 997 Turbo requires extensive work. Todd says the standard turbos won't pass enough air to feed that many horses, so special Variable Turbine Geometry turbochargers with larger, machined billet aluminum compressor wheels are used. These were designed by Evolution using CAD software and are machined on a five-axis CNC machine. The turbochargers also incorporate special boost recirculation valves to improve boost bypass recirculation and boost recovery.



See-it-all airbox and red intake runners tell you this is no ordinary 997 Turbo engine. Dashtop-mounted Sport Chronometer has been replaced by a boost gauge, while the stock seats have been swapped out for Euro GT seats that work with proper harnesses. Zuccone staged for a run (above).

To deal with the added flow, new inter-coolers with 33 percent larger cores than the standard units have been installed. Billet aluminum boost diverter valves replace the plastic factory pieces, while a larger diameter throttle body handles the intake air from an upgraded plenum. The factory exhaust manifolds have been replaced with stainless-steel ceramic-coated 44.5-mm headers featuring a pyramid merge collector. The rest of the system features HJS Motorsport high-flow 200-cell stainless-steel metal substrate catalysts and a muffler with 70-mm inlet/outlet tubes and dual stainless-steel expansion chambers.



Todd says the biggest problem with extreme-power 996/997 Turbo engines is cylinder-head clamping. If the heads lift at all due to extreme cylinder/boost pressures, the head gaskets fail and coolant dumps into the cylinders. "It's not dramatic, just very messy," he laughs. The upper limit before this becomes a problem with the water-cooled flat sixes, says Todd, is about 850 bhp. To ensure head sealing in more extreme engines, Evolution uses ARP 8740 Chromoly 220K PSI head studs and Viton-coated stainless-steel high-pressure Hell-Fire head gaskets, then rebuilds the lower end with factory parts using procedures it has developed after building over one hundred high-horse 996/997 Turbo engines.

New, proprietary maps for the Bosch ME 7.8.1 engine management computer was developed by Evolution's own software engineer. The upgrade allows the driver to switch between two performance modes via the factory Sport Chrono

Plus Sport button on the lower dash. The Normal mode is for 91-93 octane pump gas while Sport increases load and flow calculations to take advantage of high-octane (101-103+) racing fuels.

To ensure the power is transferred effectively, Evolution offers an aluminum flywheel and race-clutch assembly. While an upgraded clutch is required in all conversions, Todd says most customers prefer to retain the heavy factory dual-mass flywheel for its driveability on the street. Quite a few opt for Evolution's short-shift kit, however, which cuts approximately 30 percent from each throw.

While Evolution installs Moton's Club-sport coil-over suspension on Turbos that see regular track work, most customers find the setup too stiff for the street and prefer to lower their cars via lowering springs — and that's what this EVT700 is riding on for now. Todd says he's working with Sachs' race-engineering department to develop new dampers compat-

ible with the 997 Turbo's electronically adjustable PASM suspension. Tire pressure is vital in high-speed runs, and Todd says 45 psi works well in Michelin Pilot Sport 2s. The tires are sized 235/35R19 front, 305/30R19 rear and are mounted on 19x8.5 and 19x12 Fikse Profil 10s.

Walking around the EVT700 near the starting line, the first thing you notice is the GT3 front bumper, lights, and spoiler. There's a small rear roof spoiler mounted at the top of the rear window, but the rear wing is stock to minimize drag. The Porsche crest has been replaced by an EVT badge on the hood and there's one more on the decklid. Carbon-fiber doorsills with EVT logos are noticeable when you open the doors, and every EVT conversion bears a serial number.

Perhaps the most noticeable interior upgrade is the pair of factory Carrera GT carbon-fiber seats, an \$8,000 upgrade. Behind them, a factory Tequipment roll bar mounts Schroth five-point harnesses.



The driver grips a 340-mm carbon/leather airbag steering wheel and an Alcantara-wrapped shifter. In place of the dashtop Sport Chrono Plus timer this Turbo came with is a boost gauge, as Todd feels the timer is useless. While most at *Excellence* agree, those who like Sport Chrono can stick with the factory in-tach boost gauge.

The EVT700 may be the Evolution-tweaked Porsche we're here to see, but it isn't the only Evolution-tweaked Porsche present. The team has been joined by Chris Boilot, a customer with a 996 GT2-based GT700 and another customer's Carrera GT. The group's ranks are further strengthened by Luis Galan of Autodynamica, an Evolution dealer from Houston who has come out to lend a hand.

The Texas Mile drill is simple. Get the car ready to run. Get in line. Run. Repeat

seems to be less rivalry and more camaraderie, with each racer primarily interested in doing his or her personal best. That there are no trophies or prizes might be part of why, but perhaps another part is the seriousness of the speeds. As cars approach the staging line, they're held at the line until the car in front completes its run and pulls off the track. Then the driver is told he or she is free to go.

Unlike drag racing, there's no timer at the start. All that matters is your ultimate trap speed. The fastest cars accelerate hard and positively streak down the mile. Timing takes place in the last 132 feet, after which there's a half-mile slow-down area to burn off speed before the turnoff. On his first run, Todd logs a 190.010-mph trap speed, which is roughly three miles per hour faster than his best last year. His

200 mph at the Texas Mile. The extra nine miles per hour won't be easy to attain.

Todd says his company has built racing engines with over 900 horsepower, and that topping 200 would be no problem with a strip-only car. But he knows such a car would have seriously limited utility — and market demand. Building a specialized racer with which to set records at one-mile events doesn't interest him, but building a comfortable Turbo that can top 200 in just one mile does.

To underline how easy his "mile car" is to drive on the street, Todd hands the keys over so we can sample its thrust. The flat six starts immediately and idles like a stocker. The air-conditioning works beautifully, something that's useful in Texas and, we bet, Arizona. Engine noise, although pronounced, isn't out of hand. The SRE Stage 3 racing clutch setup is a little sticky to deal with, but it's manageable.

As for speed? The EVT700 explodes every time you nail the gas, so smoothness and precision pay great dividends. Frankly, this is too much fury for even the smoothest streets. On rough back country roads, things get twitchy quickly. A narrow two-laner can start to look like a golf-cart trail if the throttle is held down for even a few seconds. But the marvelous, wildly powerful flat six never falters, even after a half-dozen all-out blasts down the Texas Mile course.

The point the EVT700 most clearly makes? You *can* have stupendous power in a car you can still drive on the street in real-world conditions. Whether Todd can find his last nine miles per hour remains to be seen, but we suspect that he'll have plenty of fun trying! ■

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until you're out of sunlight or spare parts. It's a little like a local autocross, only without any turns and a whole lot faster. Upon arrival, each car must pass a tech inspection where safety equipment is checked against rules that vary by class. The rules apply not just to cars, but drivers. A fireproof suit top is required in some of the classes, but helmets are a must.

Most of our time is spent waiting in line alongside dozens of cars and motorcycles. Everyone is friendly and there

team tries taping up the body panel gaps and part of the grill area to reduce drag, but there is little change in speed.

By the end of the day, Todd edges up to 190.094 — a new record for a 997 Turbo at the TM. Boilet's 996 GT2 earns a 185-mph slip, enough to make it one of the more potent cars at the event. Todd knows his EVT700 could hit far higher trap speeds on the 5.0- and 7.0-mile courses at Bonneville — something he is contemplating. But he is committed to breaking