



## THE C5-R IS SO TREMENDOUSLY STABLE AND BLESSED WITH SUCH AN OTHERWORLDLY

### **W**hy is Chevrolet doing any factory racing with Corvette?

Porsche *has* to race, and so does Ferrari. Their owners would never forgive complete withdrawal from racing. But after decades of inactivity, even Corvette fanatics don't expect factory racing. With the fervor over the C5, in all its variations, there isn't a marketing need for a high-profile race program. And the benefits of *not* going sports car racing are self evident: It saves money, it saves potential embarrassment, and it prevents the sort of hair-pulling frustration that comes when manufacturers deal with the Automobile Club de l'Ouest, organizers of the 24 Hours of Le Mans.

Yet, current Corvette-based racing projects include the big-time, GTS-class C5-R (estimated to cost in the neighborhood of \$3.5 million, *AW*, March 8) that Chevrolet hopes to take to Le Mans next year. Also, Ken Brown, Corvette production and race car engineer, arranged 20 factory kits (out of Bowling Green) of racing parts for heavily modified World Challenge-type or LMGT racing. On earlier-generation Corvettes, that work was largely left to aftermarket tuners.

And Chevrolet is selling—through GM Performance Parts—kits of suspension pieces for production-based SCCA amateur racing. The basic T1 kit consists of stiffer front and rear springs; blue, thick-as-your-wrist antiroll bars; jounce bumpers; and front control arms with hard bushings—for \$3,000. You also can pick

up a transmission cooler kit and factory-tested Sachs adjustable shocks. The key here is that General Motors has tuned and tested all these parts as a package, with John Heinricy as the development driver.

Chevrolet has always had an interest in how privateer, grassroots-racing Corvettes do on the racetrack, and has helped owner/drivers. But according to Dave Hill, Corvette chief engineer, it was never before done in such an organized way.

Considering the relative lack of real factory-direct support for Corvette racing over the years, that lineup of cars and investment—from grassroots to the hallowed Mulsanne—represents a significant shift for Corvette. And we haven't even mentioned the pace cars that Chevrolet put together for use at the 1998 Indianapolis 500 and this year at Le Mans to promote its return to racing.

General Motors hasn't campaigned a factory racer under the Corvette banner since the ill-fated Corvette GTP program in the 1980s. And that was little more than a Lola chassis with "Corvette" and "GM Goodwrench" plastered on it. It even ran for much of its competitive career with a turbocharged V6. GM could have put any brand name it wanted on it.

The engineering benefits of production-based racing are real, according to Hill, who, along with brand manager Jim Campbell, is responsible for directing the Vette back to competition.



"The Corvette Challenge Series [the spec series using the previous-model Corvette] taught us a lot about C4, and we did production fixes based on information we learned there," Hill says. "Now we'll learn more. Learn for continuous improvement." He mentions aerodynamics information as one specific benefit.

The benefits for the marketing side are more straightforward. They're working on the assumption that a sports car gains credibility by racing. Whether you gain the benefit from racing without winning is another matter—and one that the Corvette team must be weighing as the C5-R gradually improves but has yet to win in the American Le Mans Series.

Campaigning a purpose-built racer that looks similar to a production sports car has obvious benefits, certainly with European customers.

The most obvious (and least PR-conscious) answer comes from Brown, who has done much of the work on C5-R and all of the other racing packages. He says simply, "We gotta get the Viper."

Chevy folks will admit that this mission has proven harder to fulfill than they expected. Dodge's factory-backed Viper racer's 8.0-liter V10 pumps out an estimated 100 horsepower more than the C5-R's 6.0-liter V8.

The street Corvette remained atop the American sports car heap for most of its history because it was a heap of one. Not anymore.

The street Viper might be a costly, limited-production boutique

car, but Chevy's tagline for Corvette, "The American Performance Icon," wears a little thin with Chrysler's snake dominating European (and now American) Le Mans-style racing. Vipers took the top six positions in the GTS class this year at Le Mans.

And Vipers soundly defeated the Corvettes in the four American Le Mans Series races Chevy has entered this year.

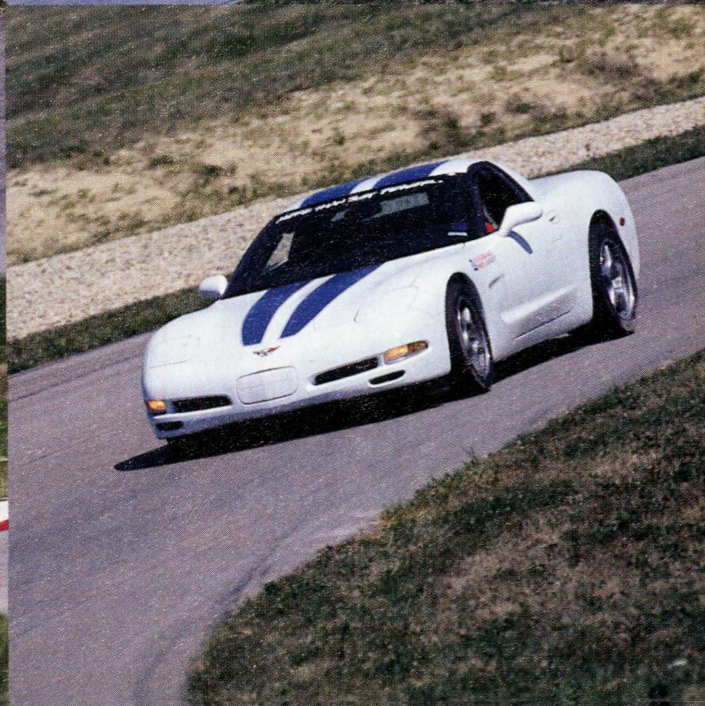
Another part of the justification for racing is that "continuous improvement" just isn't sexy enough to grab the car-buying public's attention.

Tweaking and fixing the production car makes for a better Corvette, but it doesn't have quite the same appeal as a 600-horsepower ("conservatively estimated") C5-R belching flames out its sidepipes, brakes aglow and blasting through Le Mans' Porsche Curves.

**C**ontinuous improvement doesn't have the same in-your-face appeal as racing, but a screeching yellow Corvette is about as vivid as it's going to get for street use. For 2000, the highest-visibility road-going Corvette is back.

We don't normally devote much space to new paint colors. But, well, this car looks awfully cool, and we can't tell you how many queries we've had from readers about when Chevy would offer new yellow Vettes. There's enough interest that when one of our spy photographers spotted a yellow Vette months back, we ran the photo at the top of our news section. Corvette fans tend to be

**LEVEL OF GRIP THAT IT DOESN'T FEEL AS FAST AS YOU KNOW IT IS.**





unusually passionate.

For the record, the holdup on yellow was because Chevrolet changed to waterborne paints for the C5. Chevy couldn't get enough pigment on the panels to produce a bright, saturated yellow. Pale, Easter-egg yellow won't do. The solution (also used on Magnetic Red) is to apply a tint to the clear coat. *Voilà*, Millennium Yellow.

New, high-polish aluminum wheels represent Chevrolet's way of trying to grab some of the cash it saw going to aftermarket chrome-wheel types.

The continuous improvement comes mostly in modified suspensions.

Chevrolet (actually Delphi Chassis Systems) modified the optional F45 Selective Real Time Damping suspension. Never a favorite around here, the F45 didn't provide any real advantage over conventional suspension setups to justify its complexity or cost, and it felt harsher than the Z51 performance suspension. A new algorithm (the modern equivalent to black magic) called "power smoothing" is intended to reduce impact harshness. Yet, we drove the 1999 and 2000 models on expressways and undulating back roads and couldn't tell the difference.

The Z51 performance suspension now has larger hollow antiroll bars front and rear—increased in both diameter and wall thickness. Shocks and spring rates stay the same.

According to Mike Neal, ride and handling guru for Corvette, the resulting reduction in body roll helps the Z51 pick up a couple of miles per hour in a slalom test, compared to the 1999 Z51. While we didn't get a chance to do instrumented tests, we did take back-to-back laps of Putnam Park in '99 and '00 Z51s. The new bars limit roll better, allowing you to get a little more power down earlier while exiting a corner. But we'll have to wait to gauge the inevitable loss in ride quality, since Putnam Park is unusually smooth, even for a racetrack. But ride quality on standard and Z51-equipped C5 Corvettes has been impressive, so we imagine

that for the serious, performance-minded customer, there's room for stiffening.

### **The truly serious might want to consider the T1 package.**

While not intended for public-road use, the T1 is an absolute blast to drive. We got a chance to take Brown's white-and-blue T1 development car for more than a few laps of the 1.7-mile course (they finally had to flag us in). The extra dose of fun has a lot to do with proper Goodyear racing slicks. The development car also had its 5.7-liter engine gone through by Katech, had a Centerforce clutch, Supertrapp exhaust, adjustable shocks and race-worthy brake pads.

The T1 still feels essentially like a stock Corvette—the familiar six-speed, pedal spacing, powerband. . . After a few laps in the T1, the Z51 street Corvette seemed too soft. It isn't. But after the absolutely flat-cornering T1, there's no going back.

If we thought we could handle the abuse this suspension would dish out on public streets and had immunity from the law, the T1 might just be our street car.

### **Ah, but the C5-R. Now that's less fun. That might sound like**

sacrilege but that purebred racer is well outside our everyday experience. Driving modified street Vettes does not prepare you for the C5-R. It generates a black hole of concentration from which little fun can escape. At least, until our laps were done and we wanted to get right back in and improve our line through Turn Seven. Even if that meant turning laps for the rest of the day.

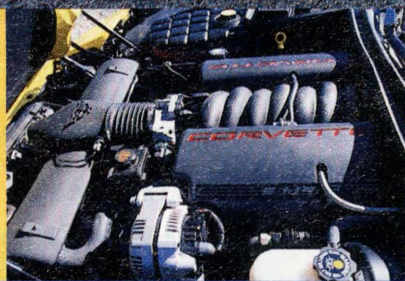
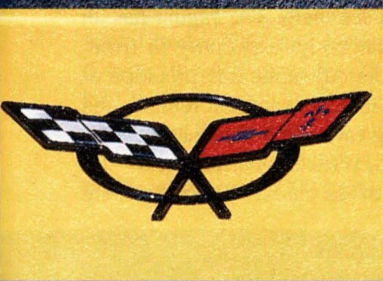
The C5-R is so stable and blessed with such an otherworldly level of grip that it doesn't *feel* as fast as you know it is.

Other observations: Even with earplugs and helmet, the constant rip of the engine was drowned out only by gear whine. The five-speed racing-tough Hewland gearbox took some getting used to because the clutch pedal took nearly no travel to engage, the racing shift pattern has first at bottom-left, and the ratios are

**THE MOST OBVIOUS ANSWER AS TO WHY THE CORVETTE SHOULD GO RACING COMES**







## FROM KEN BROWN, WHO SAYS SIMPLY, "WE GOTTA GET THE VIPER."

so close that you're not always sure that you've successfully upshifted. And the steering, even with gigantic slicks up front, is remarkably light even at relatively low speeds.

Chevy (or Pratt & Miller, which actually builds the racer) managed to retain the stock Corvette's power steering—a huge relief for endurance racers. Otherwise, there aren't many production parts on the C5-R. The windshield is stock; that's mandated by the rules. The suspension control arms are stock pieces, except the upper rears. The production-car hydroformed side rails are the base for the steel roll cage. And the aluminum engine block is similar to the production 350, but is bored to 365 cubic inches, and has better-breathing heads and a different fuel-injection system.

None of that should come as a surprise to race fans, nor to the ACO. There have been several delays in getting the car approved for competition at Le Mans, though that's been a goal. Hill says,

in his characteristically measured way, "We won't say we're ready until we're ready." Even team manager Doug Fehan says, "We were new to this. We had a lot to learn." And that learning has required much time and money to bring the car into compliance with ACO rules.

So far, Chevy has only tentative, verbal approval of the car—nothing in writing.

And even when the car gets its official approval, there's still the little matter of the Vipers. Thus far, the veteran factory Oreca Viper team has been able to build up a lead at will over the C5-Rs and slow the pace just enough to maintain its lead. And the Vipers have only qualified as well as they *need* to, but not enough to arouse too much suspicion. But, that is, as they say, one of them racin' deals.

We're just happy Corvettes are racing at all.