

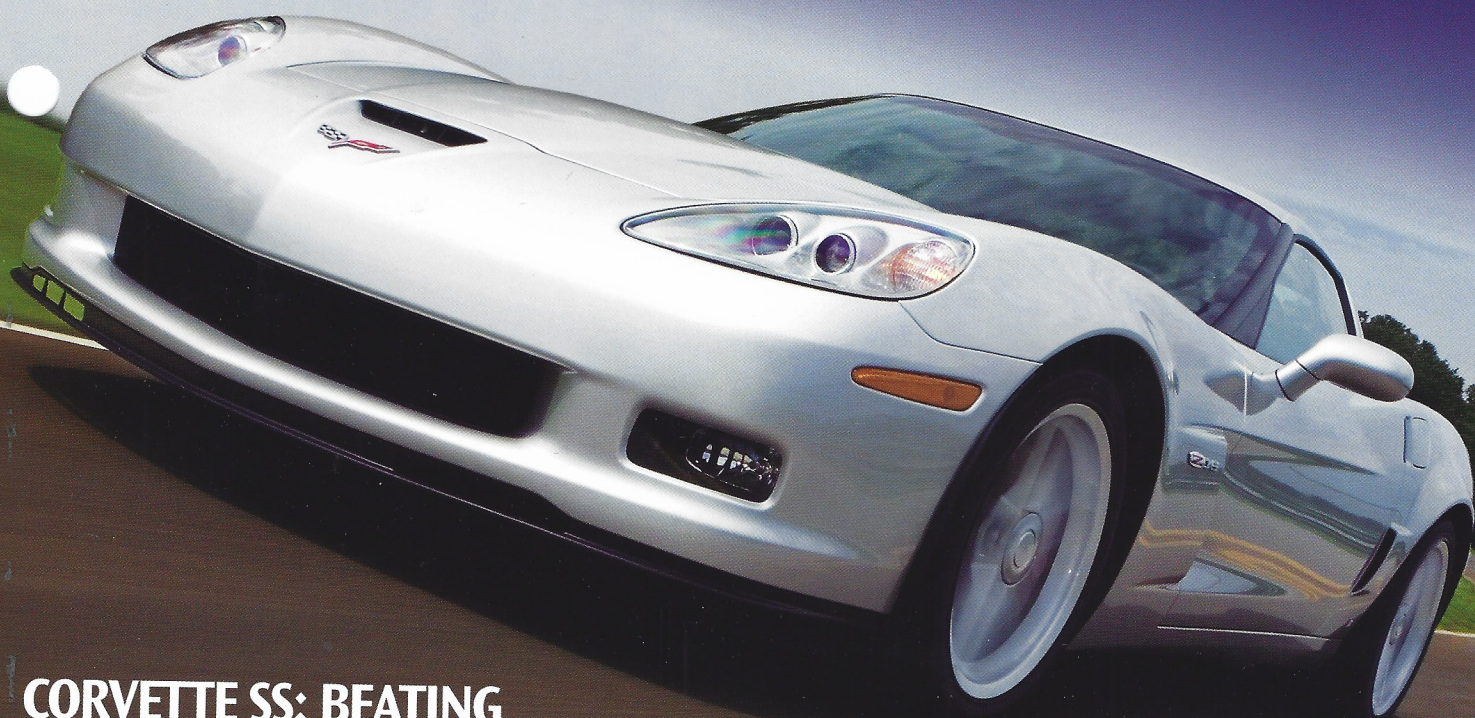


C5 MARKET REPORT

M A G A Z I N E Corvette

BEYOND Z06

CAN TUNERS REALLY
IMPROVE ON **THE BEST?**



**CORVETTE SS: BEATING
EUROPE AT ITS OWN GAME**

**IN THEIR OWN WORDS:
DAVE HILL & TOM WALLACE**

**A SEASON'S WORTH OF
CORVETTE RACING**

APRIL 2006
USA \$4.99 CAN. \$6.99



ALL OVER HILL AND TOM

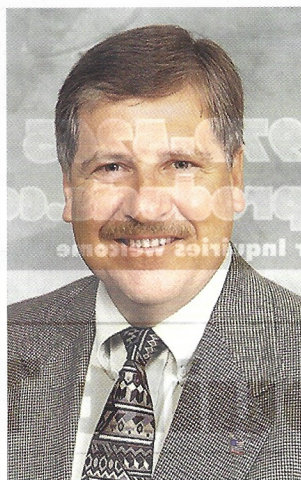
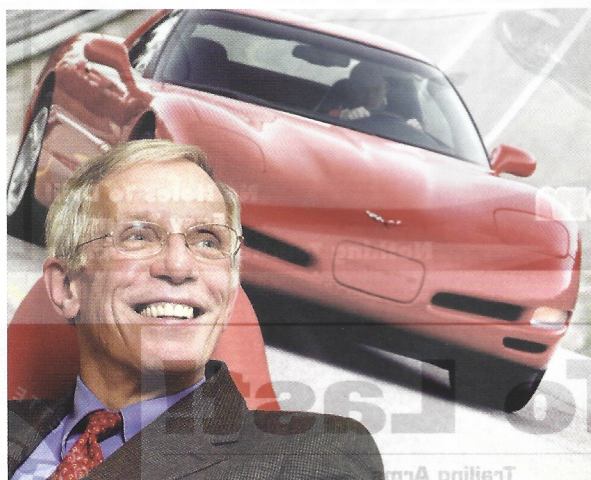
As Dave Hill retires and Tom Wallace takes over as Corvette's chief, Gary Witzenburg sat down with both men to talk about the car, its past, and its possible futures. Photos provided by Gary and General Motors.

As a new decade dawned in 1970 it wasn't a great time for the tiny Corvette team at Chevrolet Engineering HQ within the vast GM Tech Center in Warren, Michigan. Corvettes were winning on America's racetracks but sagging in sales, partly due to quality problems with the flamboyantly styled C3 that had debuted, a year late, for 1968. The

country was heading into a recession, and exorbitant insurance rates and ever-tougher safety and emissions standards were threatening to kill off performance cars entirely.

Inside the modest Corvette Engineering office, Chief Engineer Zora Arkus-Duntov was fighting mightily just to keep his 17-year-old adolescent alive. At that time his group numbered just four engineers, a secretary, and a youthful trainee—yours truly. With its reputation for shoddy workmanship drizzling ice-cold water on its image (and, by extension, that of Chevrolet), the existing Corvette was conspicuously unprofitable and in serious danger of elimination.

Seemingly weekly, Zora would trudge off to a product meeting to defend the car and its importance to Chevrolet and/or lay out aggressive plans to fix it and get to work on his proposed next-generation C4—a car he envisioned as a spectacular mid-engined GT that would take on the world's best. Each week he returned grumpy and depressed, having received no budget or approval for his C4 program and little encouragement that the C3



Both Hill (l) and Wallace hold bachelor's degrees in engineering. Hill also brings a masters in mechanical engineering, Wallace an MBA from Stanford.

would even survive. I recall that a particular award plaque on a filing cabinet in our office was the silent symbol of our program's future: When it faced outward, they told me, Corvette would live. When someone turned it toward the wall, its neck was on the block.

Zora managed to save Corvette, steadily improving it and keeping it alive until his retirement in 1975. The car's sales had improved but its future looked no less bleak. Federal safety, bumper, and emissions rules had taken a huge toll; the model was still unprofitable; and, most tellingly, no next-generation program was approved or budgeted.

The daunting challenge of replacing the aging C3 fell to Dave McLellan, Zora's capable replacement. Dave finally got the job done with the introduction of the much-improved C4 nine years later.

Former Cadillac engineer Dave Hill succeeded the retiring McLellan nine years after

that, in 1993—a time at which the once-mighty General was painfully recovering from a near brush with bankruptcy. For Corvette, it was *déjà vu*: The car had fallen back into so-so sales, zero profits, and a questionable future.

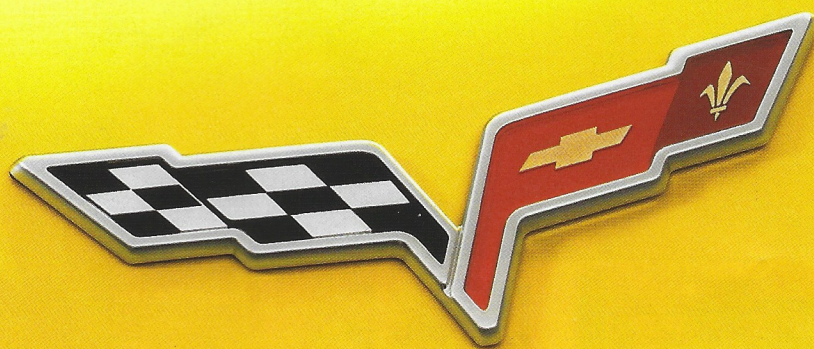
As we know Hill met the challenge head-on, beginning with a crash-course in quality and refinement for the C4. He followed up

with the brilliant, successful, and (finally) profitable C5 for 1997, then capped of his tenure with an even-better C6 for model-year 2005.

At the end of '05 it was Hill's turn to retire and Tom Wallace's to take the tiller. Along with Hill's Corvette responsibilities, Wallace was inheriting the related role of VLE (vehicle line executive) for GM Performance Cars, a title that brings the XLR and other machines into his purview. Wallace comes to the job from a long and successful run as VLE for Midsize GM Trucks and has spent decades as an avid sports-car enthusiast and racer.

Bob Lutz, GM's global product czar, spoke highly of both men when Hill's retirement was announced last October. "Dave Hill has taken the Corvette to new heights," Lutz enthused. "He is a true car guy who will take his rightful place among the legends of Corvette lore, [and] Tom [Wallace] was Dave's choice, too. That should tell you all you need to know."

Shortly before Hill's official retirement on January 1, 2006, we sat down with both engineers inside the Tech Center for a wide-ranging discussion of Corvette affairs.



As VLE for Performance Cars, the top Corvette job also includes responsibility for XLR—and, with Wallace's arrival, the twin Pontiac Solstice/Saturn Sky roadsters.



CORVETTE MAGAZINE: *Dave, looking back on your tenure as Corvette's third chief engineer, what accomplishments do you think your team should be most proud of?*

DAVE HILL: A couple of things come to mind because they took everybody pulling in the same direction, we weren't sure we could get there, and when we finally did it was very rewarding. When the C5 won the JD Power best-in-class quality award against our best German and Japanese competitors, that was a milestone. The new Z06 being not only a

fantastic supercar but also so efficient that it's the first car of that type that pays no gas-guzzler tax. Everybody played a part in it, every little thing: The 405-hp C5 Z06 paying no gas-guzzler tax, the 400-hp C6 automatic paying no gas-guzzler tax, and now the 505-hp Z06 paying no gas-guzzler tax. We've got cars in that segment paying \$6000 in gas-guzzler tax, but our customers don't have to. That technical accomplishment is something nobody's ever done before, but we got it done. We also worked very hard making the C5 greatly more civilized than its predecessor [while much] bet-

ter in a straight line and on the racetrack, too. We felt that was needed to move the Corvette into a world-class situation, and that effort was pervasive through the whole program. It was a technical challenge that took a lot of effort. Some people wondered if we were doing the right thing—they had real reservations and concerns that we might lose that Corvette machismo and make it less respected for having made sacrifices in the interest of comfort—but we pulled it off. The loyalists loved it, and previous Corvette rejecters now had a chance to come in and see the car, experience it, and buy it, too.

CM: *How about the challenge of the business case—simply keeping the car alive?*

HILL: Oh yes. Before I arrived the Corvette team kept getting their program shot down, but instead of feeling sorry for themselves they'd come back and start scheming all over again. "How can we make the car better? How can we take capital out? How can we re-invent ourselves to be a successful business?" I give Dave McLellan a huge amount of credit because he assembled a group that kept working on a next-generation Corvette, kept proposing it, and kept getting battered down. They had a remarkable determination to not give up. We learned the lesson.... We got to the point where GM [was] willing to kill the Corvette because [the company] needed programs with good business results.

As VLE for midsize trucks Wallace (second from left) oversaw the birth of the SSR, 9-7x, Colorado/Canyon, Truck of the Year-winning TrailBlazer, and more.



That got people really motivated around not only needing to do a great new Corvette but also needing to have a successful business—or we wouldn't be here. Probably in comparison to some other sports cars, we really have to do a good job on profitability. It's not a charity car—[we] have to get the job done for the shareholders, and we do.

CM: *So it's true that Corvette never made money until the C5?*

HILL: Let's just say that making it a successful business was a major challenge. We had no money in the engineering budget; the organization would give us money for paper and pencils, computer time, and headcount, but no budget to build anything. Then [Chevrolet General Manager] Jim Perkins schemed a million dollars out of his promotional budget for us to build a car. He said, "I'll give you this budget and you guys go off and build a car to show if your ideas will work." That enabled something wonderful to start happening. Instead of building some auto-show dreamcar we [could] build a proof-of-concept Corvette. That was all it took. In 90 days we built a ground-up car that represented this exotic new design. The young people on the team even named it "CERV IV."

Then we took [members of GM's] Strategy Board for a demonstration drive and sold the program, because we not only had this breakthrough car that was completely different from the existing Corvette, we also had a positive business case. That was February '93. The CERV IV showed that we not only could, but *had* to reinvent the Corvette. We wound up building a second one—one automatic and one manual—and the first one is in the Corvette Museum now. They were disguised with C4 bodies stretched for a nine-inch-longer wheelbase but were radically different underneath. Perkins took a chance on that because he violated some rules, and the gumshoes were after him trying to find out where that money went and where this money came from.

CM: *Tom, what do you see as your biggest challenge going forward?*

WALLACE: Well, several people have said, "Don't screw it up!" [Seriously], I've been living in a Z06 and I can't find anything wrong with it. It's just so awesome that it's going to be tough to make it better. But that's what we do here—make things better.

My first challenge will be moving in with the team. It's an awesome team that's been together for a while, and you can see the products that they do. Second, I want to learn more about how the customers feel. I know what I like in a Corvette, but that's not nearly as important as what Corvette loyalists like. What do they think, and what do they want when we do the next one? [Somehow] we've got to make it better.

HILL: All cars today are so robust that they last for years and years. So the only way you can pry somebody out of their two-year-old one is that they've got to have the new one.

WALLACE: The segment we're in is a pretty tough segment, and there are formidable competitors who want to knock us off. The leader always has a target on his back. If you don't make it better—both the current vehicle and the next evolution—you'll go backwards.

CM: *A year-plus into the life of the C6, what's on the list of things to fix or improve?*

HILL: We have a very active continuous-improvement process. We review the data every week to eliminate the "things gone wrong" and gather the "what would you do to make it better?" Tom's got the right attitude: Go out and get the hot breath of the customer, learn what the customer wants, then try to scheme how you can get it all done.

By combining both business and engineering savvy, Hill gave Corvette its most productive era to date: Two platforms and a new engine family in under ten years.

CM: *Okay, but what's actually on the list?*

HILL: Well, we need continuous improvement on the Z06 manual transmission for gear rattle and synchronizer engagement. We made it better than it was, but not as good as we want it to be.

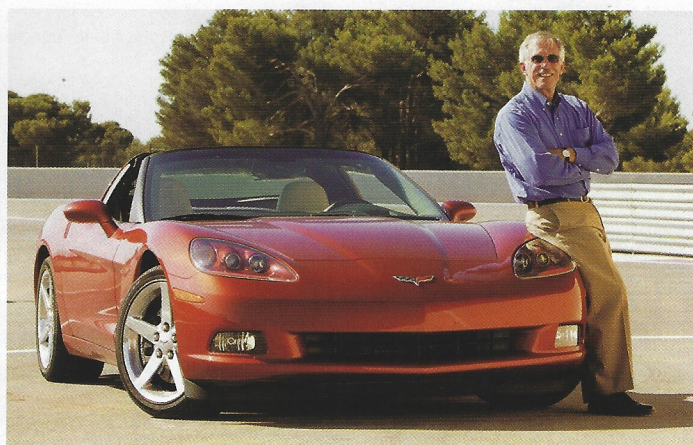
WALLACE: The first time you try a wide-open one-two shift in the Z06, it takes your breath away and you say, "Oh boy, I'm going to get myself in trouble." The second or third time you do it you say, "Wait a minute, this thing's really under control." If you take the stability systems off you really need to know what you're doing—anything with 505 horsepower can get you in trouble—but leave the systems on and it's incredibly fast, incredibly nimble, and I think lightyears ahead of the C5 Z06. That's why I don't yet know how to make it better. Yes, there are a few little things to look at, but they're more customer-comfort than performance. Performance-wise I think the thing is just about perfect.

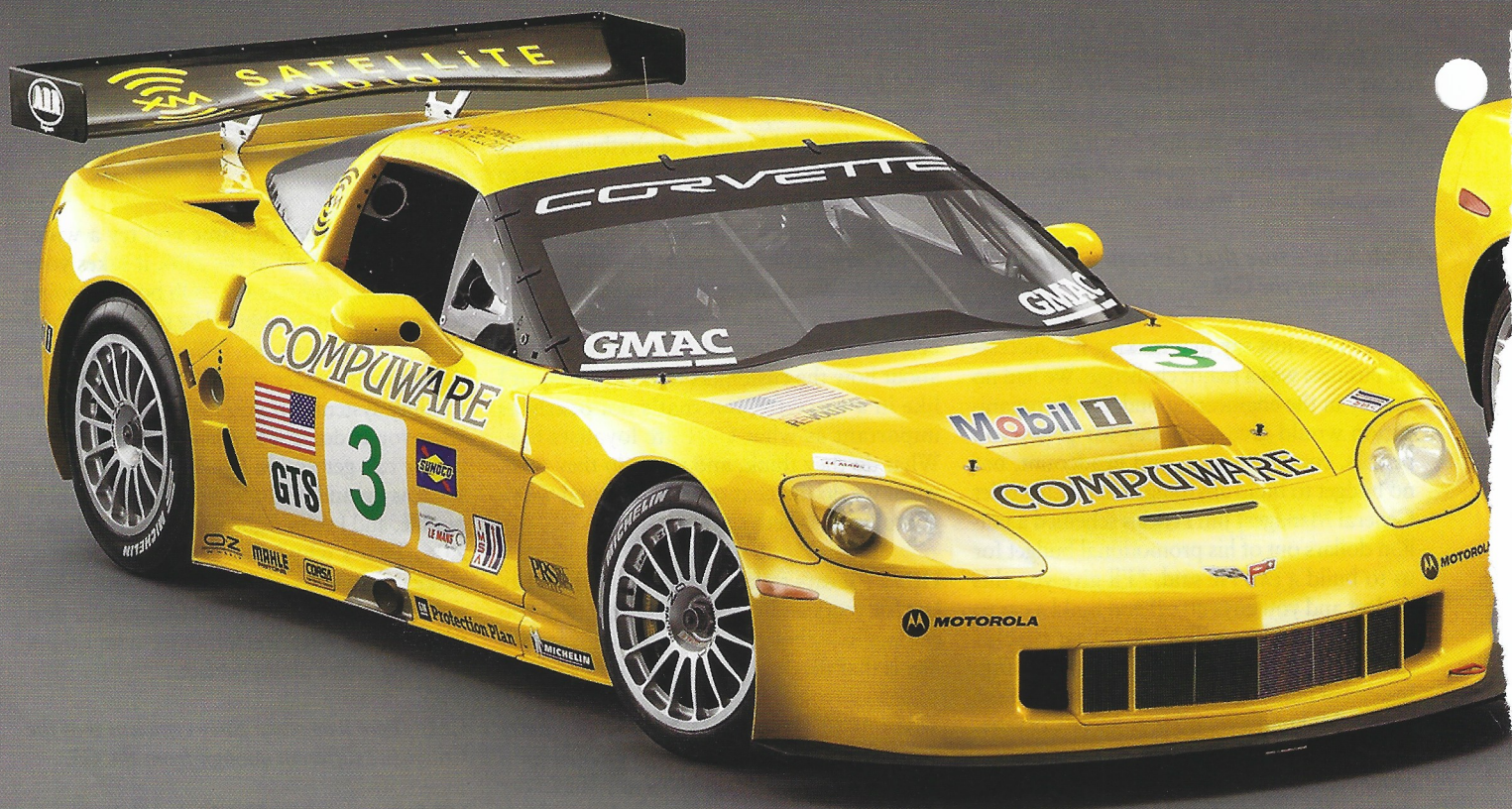
CM: *There was some early criticism that the C6 wasn't different enough from the C5.*

HILL: Some said "I thought they'd do more," but once people saw and drove the car they were startled by how much better it is. We're proud of the way the new car has come out, and we have very happy customers. [But] as Tom said, we always need to be dissatisfied; we can't wait to...make it better, because we live in an extremely competitive environment.

CM: *What do you see as Corvette's strongest competitors going forward?*

WALLACE: The high-volume one is the Nissan 350Z, which isn't nearly the vehicle [the Corvette] is. You can take the base C6 and compare it to a lot of vehicles, while the Z06 is up in the \$200-300,000 Porsche range. Most articles I've seen have said the Z06 beats the Viper hands down. I can't wait to see some





real competitive comparisons against some very expensive Porsches.

HILL: I drive as many competitive cars as we can get our hands on, both at the Proving Grounds and as daily drivers. I haven't driven the Cayman yet, but if I had to drive one of our competitors all the time it would be the Boxster S. I don't like the 911 because it's got so much mass at the ends—engine in back, long front overhang—that it never stops pitching. The Z4 for me is a real disappointment, and the 350Z is cheap on the inside and really harsh. I think we do a good job of competing against both the cheaper and the more expensive cars in our segment. Our benchmarks have to be the 350Z at the low end, where our base coupe holds its own—it's several thou-

sand more dollars but a *lot* more car—and on the higher end the 911. The 911 is a formidable competitor, but I think when you include value and versatility we've got the best car, and we keep having the best sales. Porsche is doing a job that we have to keep sharp to stay with, but I think we do stay with them. The Z06 weighs something like 300 *pounds* less than the \$440,000 Porsche Carrera GT!

The more people compare, the better the Corvette's chances of being purchased. The dealers say they're seeing people they've never seen before, and we're really proud when we

Pursuing what Duntov and McLellan aspired to but rarely achieved, Hill always put Corvette in the bigger context of all sports cars, not just its own cult. The result was a sales poacher of imports like Z and 911.

get conquest sales. [It's critical to take] care of Corvette-loyal customers with the C6, but when we get a sale to a first-time buyer who's been in imports all his life, that's a real accomplishment. And we do get a lot of them; I talk to first-time buyers who've come from prestigious European imports, and they're pretty darn happy. They were surprised when they bought the Corvette, and they're even more surprised that it tends to improve their appreciation the more time they spend in it.

I'm also really proud of how our sales are improving in Europe. That's been an ambition, to get our car to be a mainstream competitor in Europe, and it's going well.

CM: How would you say the Corvette has evolved through the years?





WALLACE: One of the big changes is that people now drive them daily—much more so than even ten or 15 years ago. My eye doctor is on his seventh or eighth Corvette. This guy *loves* Corvettes; he drives them everywhere.

HILL: It used to be the Corvette was "his" car. "She" would put up with it because she loved him, but she didn't really appreciate it. Today it's so well-rounded, diverse, and broad in its capabilities that they both love it equally. It's become something they're doing together—it's *their* car instead of *his* car, and that's pretty rewarding. That also helps sales, because it's much easier to justify an expensive purchase when both members of the team are on board.

CM: *How do you think racing fits into the Corvette's performance and image right now?*

WALLACE: There's no question that racing improves the breed. It really does. The discipline you get from racing, from having to be a winner, from having a balanced vehicle.... You can't win a race with just a motor or just a chassis or just a good driver. You need a total team and a balanced effort with a balanced vehicle. Then you take those same principles and put them into the road car.

HILL: Racing has been a beautiful part of growing the Corvette and a big part of its gain

in prestige and reputation worldwide. It really does legitimize the car and shows the world that General Motors is behind it, supporting it, and is willing to put it into a very threatening situation against Ferrari, Aston-Martin, and others. I can't say enough good about the people running Corvette Racing—especially Doug Fehan, the program manager, and Gary Pratt at Pratt & Miller. Those guys are so professionally perfect that we all look up to them and try to learn from how they run their organization. Chevrolet is also supporting Corvette Corrals at races in a positive way. We go out there with display cars and a few employees and get hundreds of people coming to the race to participate in the Corral and watch the yellow cars win. You look across the field and see the Porsche Park with their black and gray cars, and there are 30 of them and 400 of us. People say, "This is part of my hobby, my automotive recreation. I want to go there and hang out in the Corral and see people I only see at races." And on the tech-transfer front, the Z06 and the racecar have fed off each other in both directions—in aero, in high-temperature and premium materials, in the dry sump, in the titanium rods.... Sometimes we're catching up with the racecar, [and] sometimes we've gone ahead and they'd like to catch up with us. We've got the aluminum structure now, but [by ALMS rules] they've still got steel. We had titanium rods on the street, but they didn't

have them validated for racing. They'll be validated for 24-hour races by the time we go to Le Mans next year, though.

WALLACE: I was in a meeting [once] where Dave was talking about the dry sump and I almost fell out of my chair. I said, "You've got to be kidding! We're going to a dry sump? That's *awesome!*" To see that General Motors was going to [dry-sump] a production vehicle, I knew we were getting really serious.

CM: *Tom, we understand you're a racer yourself. What's your current car?*

WALLACE: Loaded question. I had an SCCA GT1 tube-frame Camaro I'd done well with for six years, but we recently sold it because we're building a new GT1 car—a Corvette.

CM: *Dave, what are your thoughts on leaving Corvette and handing it over to Tom?*

HILL: It's been a great ride. I've made many wonderful friendships here at work and out in the Corvette community. It's good to be leaving at a time when we've got this wonderful Z06 running well, and it's been great to play a part in hand-selecting the successor—along with Lutz, Lauckner, and some others, of course. I'm really proud that Tom is the fourth chief. I think he'll do great. ○