

# **“PEAKING” IN THE REARVIEW MIRROR**

**By Ken Peak, RCC Historian**



## **CORVETTE’S CHIEF ENGINEERS**



### **PART 2**

**DAVE HILL, 1992-2006**



**Photo credit: National Corvette Museum**

**In the early 1990s GM was in financial trouble. Morale was low and infighting was high. Once again, harkening back to its first few years of existence in the mid-1950s, every GM make and model was being scrutinized to see how it affected the bottom line; once again, the Corvette was on the chopping block.**

**At the time, thanks to Dave McLellan, the C5 was in the planning stage but only “on paper.” Jim Perkins, a Texas native recently returning to GM after a four-year stint at Toyota, was now Chevrolet’s General Manager. His “job one” was to bring back the Chevy heyday of the 1950s and 1960s even though the organization was still demoralized by its financial difficulties of the late 1980s.**

**Perkins argued with GM brass that Corvette was one of the best-known automotive names in the world. He said, “If you don’t have enough confidence to trust my judgment that we can make money on this car, then I shouldn’t be here.” Perkins won the argument, but with McLellan’s departure, he needed a new Corvette chief who could bring profitability, performance, and quality.**

**Enter Dave Hill, a native of Rochester, NY, who had earned bachelor's and master's degrees in mechanical engineering at Michigan Technological University and the University of Michigan, respectively. Hill began working with Cadillac in 1965 in the engine lab in power development; at about this point he began what would become a four-year phase of competitive sports car racing through the Sports Car Club of America (SCCA), driving the Lotus Super 7 and winning two national races. He later moved up the ranks at Cadillac to become Chief Engineer in 1988 and its Engineering Program Manager in May 1992; with all of the above loading up his resume, six months later he was named the third Corvette Chief Engineer.**

**Dave was very knowledgeable concerning GM's car line. However, when it was announced in November 1992 that he was the new Corvette Chief of Engineering, the Corvette community wondered how it could be possible that a solid Cadillac man could take over the Corvette, and what he could bring to "America's Sports Car"; it would turn out that Dave was the right man - and he would bring a lot.**

**Like his predecessor Dave McLellan experienced with the C3, Hill's first challenge was to try to keep the C4 (1984-1996) fresh, while a concurrent priority was to design and develop a totally new C5 Corvette. Everyone knew it was time for the C4 to be replaced. Orders for 1991-1996 Corvettes had averaged around 20,000 units annually – which represented a huge drop from 1984 when 51,547 Corvettes were built.**

**From 1993-1996 Dave and his team made small improvements in the Corvette and rolled out special editions to hold the buying public's interest. As examples, the 40th Anniversary package was offered in 1993, the 1993 ZR-1 package (448 units, added cost of \$31,683) got a power boost from 375 to 405 horsepower, and in 1995, the Indy 500 Pace Car Replica convertible appeared (527 units). For 1996, buyers had two special editions: the Collector Edition (5,412 units built) and the Grand Sport (1,000 units, coupe or convertible).**

**The 1997 unveiling of the C5 Corvette was the most radical of all such transitions to that point. The basic model had a new, all-aluminum fuel injected engine (the LS1, 346 ci, 345 hp); the suspension and brakes were mostly aluminum, the body was slim, lightweight, and sleek, and it had a lush interior. It**

reportedly had 1,200-1,400 fewer parts than its predecessors (depending on the source). This Corvette was unique.



The 1997 model, first year of the C5. Photo credit: National Corvette Museum

But sales of this new Corvette weren't promising, with only 9,752 units built – this, compared with 17,167 units sold in 1996 (4,369 of them convertibles), perhaps owing to the fact that all 1997 models were coupes. But in 1998, with 11,849 convertible sales and total sales of 31,084, Corvette had its best year since 1987. In fact, C5 sales never went below 30,000, and in 2002 sales reached 35,767 units - the best year since 1986 (35,109 units).

During its run, the C5 would offer numerous design changes and options to Corvette's interior, exterior, and engine power; popular additions included its heads-up display, large exterior trunk space, and a significant engine power option (i.e., the LS6, 405 hp; a supercharger could bring 505 hp).

One "wart" for the C5 was the 1999 lower cost, fixed-roof hardtop model. Although it cost about \$400 less than the basic coupe, only 4,031 were built in 1999, followed by 2,090 in 2000. But Hill and his engineers learned something from this experience: by bolting on and bonding the hardtop, the overall structure was 12 percent stiffer - something that a high-performance model could benefit from having. Thereafter, the C5 Z06, introduced in 2001 (5,773 coupes), came with the more powerful 385-horsepower LS6, upgraded brakes, suspension, wheels, and tires, and a new Corvette legend was forged.



**The 1999 lower cost, fixed-roof hardtop. Photo credit: CorvSport**

Hill had other insights that brought racing glory to Corvette and later impacted the C6. Debuting in 1999 was a racing team with cars christened the C5-R (426 ci, 610 hp). Hill then partnered with race car builders Pratt & Miller to build the race cars, which would become world-class champions, taking 1st and 2nd at Le Mans in 2001, 2002 and 2004, as well as every race in 2004.



**The 1999 C5-R built by Pratt & Miller. Photo credit: GM Authority**

By 1999, Hill's engineers were telling him that they had done everything they could with the C5 platform, so they began laying plans for the next generation. The resulting C6 (appearing in 2005). was all new, with no major carryover parts. The 2006 Z06 came with 427 ci and 505 hp and an aluminum frame. This was the most brutish Corvette ever offered. Dave once said in an interview:

My favorite Corvette is the next one. Being involved with Corvette brings out the best in all of us who have the privilege of working on it. It represents the best that GM has to offer; along with the best America has to offer. The Corvette is very personal. We're not talking about transportation here; we're talking about a product that changes someone's lifestyle, and that causes us to be enthusiastic about our duty.

Dave Hill's contributions to the Corvette are well recognized. As Corvette's third Chief Engineer, he took over development of the very successful C5 during some of GM's darkest days - when the very survival of the car was in doubt. "The C5 upgraded all the things Corvettes were good at and fixed all the things they were lousy at," he would say. But his other memorable achievements, the C5-R

racing performance and the C6 Z06, were a direct result of his collaborative approach with Corvette Racing.

Dave retired on January 1, 2006, and his Hall of Fame nomination was put forward immediately following his retirement announcement; he was inducted into the NCM Hall of Fame on January 15, 2006. The NCM's website states that:

Hill's work ethic and insistence on perfection made his team and his car a world beater; his keen understanding of the need for profitability raised the Corvette to a level of success and status within GM that it has never known before. Maybe posterity will agree with Joe Spielman's assessment that, 'Corvette is here today because of Dave Hill.'"

#### **TOM WALLACE, 2005-2008**



**Photo credit: National Corvette Museum**

The three previously discussed Corvette Chief Engineers - Duntov, McLellan, and Hill - had impressive resumes involving auto racing. Tom Wallace, the fourth Chief Engineer - and one who had the shortest tenure of all of the Corvette Chief Engineers (2 years and 10 months) - had no less a pedigree in racing. He was in fact a professional racer for a long while, driving SCCA A/Sedan class cars in the early 1970s and professionally racing IMSA cars in the late 1970s and early 1980s. He also raced the 24 Hours of Daytona, the 12 Hours of Sebring, and won at Talladega. Reading his resume, one may well believe that he was the most dye-in-

the-wool racer and “fast car” guy who ever held the Corvette Chief Engineer position, even seriously bringing his two sons into the racing world.

Like his predecessors, Tom was a typical car-crazy kid growing up; raised in Pittsburgh, his dad had an Opel Cadet that Tom kept running with help from a parts donor car. Even before he had his driver’s license, he obtained a 1955 Chevy, beefed up the engine and transmission, and soon had the quickest car in high school; in fact, he rarely lost a drag race.

Tom loved engineering and racing, but he knew that if he was to rise up in the ranks in GM, he needed to focus on obtaining more formal education. Thanks to his excellent grades (obtaining a mechanical engineering degree from Kettering University – operated by GM and known as the General Motors Institute - and an MBA at Stanford), over the next 20 years Tom would hold a variety of chief positions with Buick, Olds, Cadillac and Chevrolet.

At about the time he graduated in 1970, however, the muscle car era had peaked and was ending. Performance was being phased out and there were concerns with emissions, and the emphasis was on fuel mileage and safety. Buick’s chief engineer knew of Tom’s interest in racing and asked him to research the feasibility of adding a turbocharger to their old V-6 engine. Tom determined that such could be done and so he was instructed to install a turbo on a Buick Century to pace the 1976 Indy 500. As part of a three-man team, Tom was the engine man. In total, Tom produced six Indy 500 pace cars. His turbo Buick V-6 project eventually led to the Buick Grand National, Turbo-T, T-Type and the GNX series of cars that ran from 1982-1987.



**The 1976 Buick Century turbo-charged Indy 500 pace car (306 hp). Photo credit: GM Authority**



**An example of the rare (547 built) 1987 Buick GNX series; it could outrun Ferrari and Porsche. One in this condition today can sell for more than \$200,000.**

**Photo credit: GM Authority**

**Late in 2005, Tom got a surprise bit of information: Dave Hill was retiring on January 1, 2006, and Tom would be his replacement. Tom was stunned but fully aware that he was inheriting a great team, with Tadge Juechter as his lead engineer. But as indicated above, Tom's tenure as Chief Engineer would be short-lived, less than three years.**

**When Tom took over the Corvette program, the C6 ZR1 was only on paper, a concept car that was deemed too expensive to produce. However, Tom and his team worked out ways to manage the cost, got the project approved, and started the ZR1's development. Soon rumors of a super Corvette surfaced with names such as Blue Devil and SS. Then someone posted a photo of a prototype ZR1 that was being delivered to Germany for testing - a supercharged Corvette.**



**The rumored 2006 ZR1 Corvette. Photo credit: Motor Trend**

**When information concerning the ZR1 was released to the press in late-2007, Tom said, "We want to push the technology envelope into the supercar realm. We**

want a Corvette that can take on any production car in the world.” This car certainly fit the bill, with a supercharged 638 hp LS9 engine, 0-60 mph in 3.3 seconds, top speed of 205 mph, and a cost of \$103,300; 1,415 were built.



The 2009 ZR1. Photo credit: CorvSport

Meanwhile, as Corvette fans who loved the car’s speed were no doubt very impressed with this brute, GM was soon to declare bankruptcy (doing so on June 1, 2009). The nation’s economy was still in a recession, GM’s market share was down (a bit less than 20%), competitors’ car sales were taking a toll while GM’s auto sales were in freefall at about two million vehicles (any number of possible reasons were put forth: GM had too many fixed costs, was too slow to innovate, had a dealer network that was too large, and the mistake of GM’s selling off its financing business, GMAC). The *Harvard Business Review* reported that GM had not made a profit since 2005, losing about \$90 billion from 2005-2009. It was determined that only full-size trucks and Corvettes produced a profit. In the face of all this, however, Tom Wallace and his team began work on the C7 in April 2006 (C7s not appearing until 2014); but future plans had to be stopped.

The aforementioned financial troubles at GM and the nation were not favorable for Corvette research and development, and in October 2006 Tom was informed that funding was not approved for the C7. Furthermore, top-level executives were offered early retirement. For a serious car guy and racer, “marking time” or standing in place with the Corvette was not in the picture, so Tom retired on November 1, 2008.

Although Tom Wallace was unable to accomplish all that he wanted with the Corvette, several of his ideas made a difference. First, he realized that it would be beneficial for his engineers to drive Corvettes on the track at the NCM and talk with



**customers about what they liked and didn't like about Corvettes. Given his racing background, Tom was the perfect Chief Engineer to work on issues with Corvette's race cars – which resulted in more race cars to be built during the C7 generation. While Tom wasn't there to usher in the C7, his efforts set up the program for the capable hands of his successor, Tadge Juechter.**

**But perhaps his greatest legacy, as stated by the NCM, is that:**

**during a dark time in automotive history, when the future of GM was in question, Tom surprised the world and pulled together the resources to lead a team on a mission to create the fastest, most balanced, most capable Corvette ever made to that point.**

**Tom was inducted into the NCM's Hall of Fame in August 2018.**