

FORMULA EXCITEMENT

A Formula Series for the Colonies

By Tony Adamowicz
Photography as credited



Pete Lyons photo

When it comes to formula cars, most of us are familiar with the big ones: Formula Vee, Formula Ford, Formula Junior and, of course, Formula 1. But what about the truly American formula car series that married lightweight chassis with big, thundering V8 engines? That was Formula 5000.

Not only were the Formula 5000 cars exciting, but so was the racing. After all, the series attracted many of the day's big names. The champions list includes John Cannon, David Hobbs, Brian Redman, Jody Scheckter and me, Tony Adamowicz.

What is Formula 5000? Let's go back to the beginning, when John Bishop, then director of the Sports Car Club of America, witnessed the success of the Trans-Am and Can-Am series, both of which used production stock-block American V8s.

It was John Bishop's vision to produce a formula series that would develop young aspiring drivers into professional single-

seat racers. He created a formula for 1968 that allowed the small-block 302 V8s as well as the full-race 3.0-liter engines to be inserted into 1400-pound chassis. The result was called Formula A, and it initially ran as an SCCA amateur class.

Interestingly enough, with a few exceptions, the Europeans had a head start on the early development of their single-seat race cars. However, major American constructors such as Bob McKee, Jerry Eisert, Red LeGrand and Dan Gurney's All American Racers quickly became very popular. The AAR Eagle, for example, was a monocoque aircraft-influenced design that followed the early AAR F1 machines.

The Europeans quickly retaliated, and chassis constructors like Lola, Surtees, Cooper, McLaren and later McRae, March and many others appeared on the scene. Despite the edict to run American engines, the series had an international flavor.



A Mercedes-Benz cabriolet served pace car duty for the 1970 Formula 5000 event at Wisconsin's Road America. This large field was just one of three heats at the event.



Pete Lovely (in the sunglasses) and his wife, Nevele, unloaded a former Graham Hill Lotus 49 Formula 1 car at the Donnybrooke F5000 race in 1969. Formula 5000 was not exclusively for 5-liter cars, as this Lotus was propelled by a 3-liter powerplant. **BOTTOM LEFT:** Engineer Carroll Smith (left) debriefed driver Tony Adamowicz after a session at the 1969 Road America F5000 race. **BELOW:** Tony drove an Eagle-Chevrolet in that race.



Pete Lyons photos

“One of the rudest awakenings was sent from the wide front tires to the small steering wheel.”

Green Pea

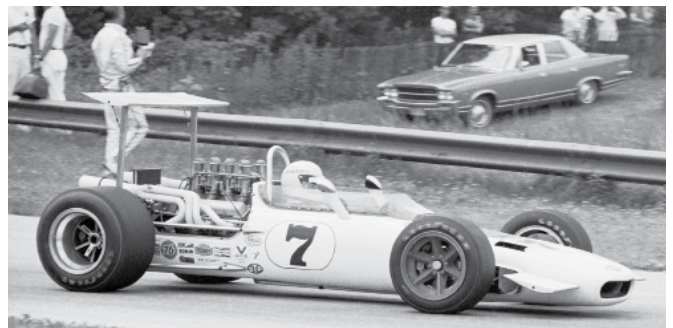
The Formula A class structure evolved into a professional series by 1969, as SCCA launched Formula 5000—the name came from the 5000cc engine displacement limit. This 13-race series made its 1969 debut at Riverside on April 20. The top six finishers would share prize money of \$15,000-plus per race. Some teams and drivers would even get additional appearance money to compete.

The first event attracted many unknown racers, including first-timers like me who had never competed in an open-wheel racing car. However, there were more experienced drivers on hand, including like John Cannon, Lothar Motschenbacher, George Wintersteen, Sam Posey, Pete Lovely, Canadian George Eaton, Bobby Brown, Chuck Dietrich, Jerry Hansen, Bud Morley and others.

Overwhelmingly so, John Cannon was the most prepared driver for this race. He was the fastest qualifier, and he simply ran away in his Eagle. I ran second most of the race in the Milestone Racing Eagle, but I gave up my position to Lothar Motschenbacher in his McLaren M10A. I had suffered bruised ribs from an earlier testing incident, and every dip in the track elicited extreme pain. Rather than do something stupid in my first race, I took a third.

Okay, now how did a “green pea” driver like me adapt to an open-wheel race car? Well, not too kindly. The following story will explain those injured ribs, too.

These open-wheel cars produced 465 to 500 horsepower and were more than a handful to maintain on the track. Our first Eagle



completely lacked aero downforce, as it was devoid of any front or rear wings. It was a narrow-track car with a short wheelbase, making it very nervous at speed. As a result, I totaled it at Willow Springs Raceway during early testing.

In Turn 6, the car was catapulted 30 feet into the air before it plummeted downward, landing within a stone's throw of the pit straight. The incident broke the right-front suspension and front brake caliper assembly. The Eagle's monocoque was also wrinkled from front to rear as it absorbed the energy of the crash. I suffered badly bruised ribs and a cut above my right eye.

I had definitely learned a lesson: I would never drive the replacement Eagle without any front or rear wings. After all, they were a crucial factor in keeping these cars glued to the track. I also had to learn how to drive the Eagle smoothly if I wanted to survive.

Our Milestone Racing crew was about as green I was—sure, they had plenty of mechanical preparation experience, but not with open-wheel racers. Don Breslauer and master mechanic Roy Wade followed me from the Group 44 Inc. racing team that gave me a professional start in racing.

After that wreck, I also made the decision to give up my open-faced helmet. I became one of the first drivers to wear one of Bell's full-faced models. It would have protected me in the crash at Willow Springs. It would also shield my eyes from debris kicked up by other cars.

When it was time for me to be fitted to the new car, I found out that I could not get into the cockpit by myself. Thanks to my bruised ribs, I had to be helped inside. During my practice laps—my first time ever on track at Riverside—every small impact from the rough surface was transmitted to my injured ribs.

Closed Helmet, Open Eyes

One of the rudest awakenings was sent from the wide front tires to the small steering wheel. The wheel wanted to whip itself out of my hands.

The brakes were also not there at the end of the straightaway. The flex of the front spindles knocked the pads back into the caliper. I had to pump the brakes at the end of the straights to have a positive brake pedal. It was unbelievable that a real racing car had these characteristics.

Even though I was new to open-wheel racing, I made an assessment that more could be done to improve these issues. One of the first things we added to the Eagle was a Koni steering rack shock absorber lifted from a Porsche 911. This helped considerably, as it absorbed the bulk of the nasty feedback sent into the steering wheel.

The brake pedal issue was not resolved until we had AAR make up a Y pedal. This component allowed me to use my left foot to pump the brake pedal just before reaching the end of a straight. I eventually realized that

there was a competitive edge to left-foot braking techniques, as I could modulate the brake pedal into turns.

I was the only left-foot braker in the series—at the time, it was a relatively unknown technique in road racing. I would continue to use this strategy throughout my racing career.

By race three, Milestone Racing owner Marvin Davidson had made an arrangement to hire Carroll Smith, team manager for Shelby Racing. Smith was a racer himself in his early days as well as a Navy-inducted engineer. He was the team manager when Ford won at Le Mans in '67.

Without his guidance and team management, I never would have won the series. Smith was my mentor and urged me on even when I was unsure of my abilities at new, challenging circuits. He was also good friends with Peter Revson, and he held that over me: If I couldn't get the job done, he could get Revvie to take the seat. I must say, Carroll Smith was a great motivator.

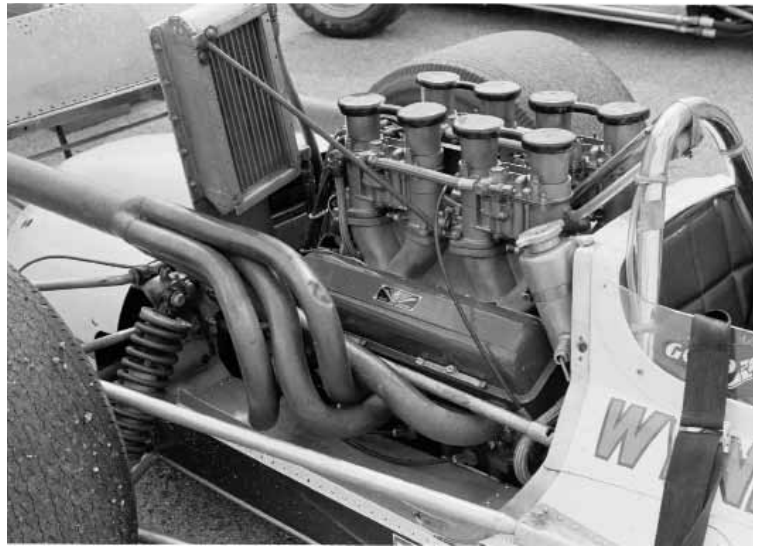
Lightning Strikes

What made this series attractive for the fans was the thundering sound of American V8 engines. Some ran Weber carburetion, while others made do with Lucas, Hilborn, Kinsler and other fuel-injection systems.

Chevrolet was overwhelmingly the most popular supplier thanks to the compactness and high power output of their engine. Later, Ford, Plymouth and AMC appeared. Most all of the exhaust headers were exposed, sweeping up and back under the rear wings.

Rear wings on a single-seat race car? Well, that was exciting to watch. These cars featured a high, upside-down rear wing that sent downforce to the rear suspension uprights. This was something never seen before in North America. The front nose had chassis-mounted winglets or dive planes to balance out the downforce.

The constructors found that this series started to pay larger purse prize money. This generated the need to be a part of the series and provide their chassis to buyers wanting to participate.



ABOVE: Lou Sell's Smothers Bros. Eagle Mk. 5 was propelled by Chevrolet power at the October 1968 Laguna Seca race. **BELOW:** Sell (No. 15) went on to win at Laguna, followed by George Wintersteen (No. 12) in a similar Eagle Mk. 5. Sell won \$2100 for the victory.

Pete Lyons photos



BELOW: Mechanical failures are inevitable in any racing series. At the 1969 season finale at Sebring, Tony Adamowicz had to abandon his racer on the front straight due to a blown engine. **BOTTOM:** Formula 5000 was a breeding ground for big-name talent. Mario Andretti campaigned a Lotus-Ford at Sebring in 1969, where he qualified second but finished 21st after an engine failure.



Final Race, New Engine

By the last race of the 1969 season, Carroll Smith was in touch with Ford Motor Company and Carroll Shelby. They had agreed to outfit the Eagle with a Ford engine. All modifications were accomplished at the Shelby race shop in Torrance, California.

We completely went over the car and modified all the weak points in its suspension, brakes, cooling, exhaust and aero downforce. The Ford 302 was producing more than 500 horsepower and was fitted with a custom Bosch fuel injection by Falconer Dunn Engineering.

I was extremely happy with our test session at Riverside International Raceway just before the Sebring final race. I went into the event as a series points leader, and it appeared that the season would come down to a duel between Sam Posey and me.

I was amazed at how developed the series had become when I arrived at Sebring. All the latest chassis were there with a laundry list of major-name drivers: Mario Andretti in a new Lotus 70 Ford, Mark Donohue in the new Lola T190, David Hobbs in the new Surtees TS5, Gus Hutchinson in the new Brabham BT26 Cosworth, John Cannon in the new McLaren, Trevor Taylor in the new works Surtees TS5, Sam Posey in a new McLaren, and Swede Savage—the fastest qualifier—in a Plymouth-powered Eagle.

The race produced many surprises: Posey crashed out early, and both Mario and I had our Fords expire. David Hobbs was the ultimate race winner, and I became the Continental series champion, winning by one point.

Ford would not commit to an engine program, so the Eagle was retired after a well-fought season. When asked how I won a professional drivers' championship on my very first outing in an open-wheel car, I simply say, "Through skill and daring techniques."

Despite my championship win, the 1970 season left me without a ride or sponsorship for Formula 5000. However, I was asked to drive the new Lola T192 for Roy Woods Racing at the 1971 Questor Grand Prix. This was a one-time face-off between the Formula 5000 cars and Formula 1 cars. It was an interesting experiment, with Mark Donohue's Lola leading Mario Andretti in the F1 Ferrari; Donohue retired while in the lead and handed the win to Mario.

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Peter Brock photo

Tough Times

The series continued, and I was again asked to drive the new Lola T330 for Roy Woods Racing. This was a challenging series for me. I set a track record at Laguna Seca, but a slower car bumped me into the guard rail soon after. The car was destroyed, and I broke the blood-carrying bone in my left wrist. I nearly lost my ride when I was grounded for a year by Dr. Jobe, then team doctor for the L.A. Lakers.

I convinced them to cast the wrist, saying I would have the crew cover the plaster cast with fiberglass. My convincing salesmanship worked, and I spent the rest of the season driving with one hand.

By then the series had introduced even more competitors, some new, some old—familiar names like Hobbs, Lunger, Donohue, and Scheckter, who ultimately became World Champion in a Ferrari F1 car. I was able to share the front row with Scheckter at Mid-Ohio. I often wonder how things would have turned out if I could have used two hands to drive.

The energy crunch came about in 1974, and again I was without a ride. Many top drivers found themselves without sponsorship to race. F5000 continued with new drivers and newly constructed cars. Gone were the tall suspension wings, though the F5000 cars were heavily influenced by the current F1 designs; this was becoming state of the art for open-wheel racers.

SCCA management of the series and economic times seemed to take their toll on this fine North American formula for open-wheel racing, and an exciting chapter in motorsports history came to a close in 1976.

Tony Adamowicz has driven just about everything, everywhere, from his first race car—a Volvo PV544—to Ferraris at Daytona and Le Mans. His colorful biography can be found at a2zracer.com.



ABOVE: John Morton raced with Brock Racing Enterprises in Formula 5000 during the 1972 season, and F5000 Cars were evolving to look more like their F1 counterparts. At Road Atlanta in August, Morton's Ford-powered Lotus 70B placed fourth in the aggregate results from two races. **BELOW:** Many Formula 5000 race cars were reborn with closed bodywork as Can-Am single-seat entries.

Single-Seat Can-Am: Formula 5000's Legacy

While the U.S. Formula 5000 series came to a close at the end of 1976, the cars weren't necessarily retired. The SCCA revived their Can-Am name for 1977, and the new rules welcomed Formula 5000 cars—provided they wore sports racer bodywork that enveloped all four wheels.

The single-seat Can-Am series took a few years to really catch on, but the late '70s and early '80s saw some great competition. Series champions included Jacky Ickx (1979), Geoff Brabham (1981) and Al Unser Jr. (1982). Several teams defected for IMSA and CART as the '80s got rolling, however, and Can-Am eventually petered out. The SCCA pulled the plug in 1986.



Clark McInnis photo



What's Formula 5000 racing doing today? Well, it's once again alive in vintage racing. Seb Coppola introduced the Formula 5000 Registry in 2008. (Visit the Web site at f5000registry.com for more information.)

The return of these fine race cars also marked my 40th reunion of diving into open-wheel racing. Doug Magnon of the Riverside International Automotive Museum is the current owner of my 1969 Gurney Eagle, chassis No. 510, and master mechanic Bill Losee has restored this championship-winning chassis to race condition.

By 2009, after contributing a great deal of hard work and extreme effort, the RIAM had produced a competitive chassis for me to drive—40 years after my first run in the same car. This is a feat that I'm told no one else has accomplished in racing.

Have you decided to invest in a vintage F5000 car? My advice would be to find an example with some history as a first choice. The most popular chassis is the proven Lola T332, probably the most proficient of all the F5000 cars and readily available for purchase.

Parts, too, are easy to obtain, something that's imperative for bringing the car back to racing shape. The most important part of making the F5000 car safe to drive, of course, is a proficient mechanic. Want to see them live? Their 2010 season starts at Road Atlanta as part of the *Classic Motorsports Mitty*.

On a side note, during the development of the Riverside International Automotive Museum Gurney Eagle, we employed the assistance of my friend Peter Bryant. He's the designer of the Ti22 titanium and Shadow Can-Am cars. Bryant's award-winning book, "Can-Am Challenger," is an interesting and humorous recap of his racing career. I recommend it.

Peter was able to work closely with our master mechanic Bill Losee and RIAM UK transplant fabricator Morris Jephcott. Peter's expertise allowed him to uncover issues with the car that extended back to 1969. These were corrected, and the Eagle became very safe and competitive for its class in vintage racing. Forty years after the car's debut, we were able to pilot it to a number of race wins. (*Learn more at riversideinternationalraceway.com*)

Formula 5000 Drivers Association Schedule

April 29-May 2: Road Atlanta (*CMS Mitty*)

June 10-13: Watkins Glen

July 15-18: Road America

Sept. 3-6: Portland Raceway

Oct. 1-3: Infineon Raceway