Going on 30, and with a new lease on life, this fixed-gear four-seater might still be the most innovative single in the skies.

Tiger Stars, Tiger Stripes

When newly formed Tiger Aircraft announced a few years back that it was going to reintroduce the four-seat AG-5B Tiger, last produced back in 1993, it seemed like a natural. Unlike a number of more forgettable and more obscure airplanes that have been returned to production (sometimes successfully, more often not) since the bust of the mid-1980s, the Tiger makes better sense today than ever.

Indeed, it can be argued that this 30-year old sheet-metal design is the most innovative single going. Cirrus and Lancair may have decided to go with advanced composites for their next-generation airplanes, but way back in the 1960s, the airplanes that begat the Tiger were made with advanced materials, a number of design innovations and weight-saving construction techniques.

And, despite its current luxury trappings, the Tiger is a direct descendent of the simple two-seat airplanes first produced by American Aviation more than 30 years ago. Like those airplanes, the Tiger features rivetless bonded-skin construction, honeycomb materials for stiffness and light weight, a dirt-simple tubular spar, a sliding bubble canopy for great visibility and a simple laminated fiberglass main landing gear and tubular nose gear with steering accomplished via directional braking. Admittedly, all of these things had been done on other airplanes before, but putting them in one package on a certified piston single was groundbreaking stuff back then; it still is.

I've been flying these airplanes for awhile now. In fact, my first family airplane was a Tiger, an early 1990s model manufactured by American General Aircraft Company (AGAC), that I rented on a regular basis. As a new instrument pilot, I made my first forays into the slightly wilder blue in a Tiger. For a couple of years I flew my small family all around the Northeast, and slightly further afield, in that airplane, N911DK, and it proved itself a remarkably comfortable, capable and economical airplane. And with the S-Tec autopilot and an HSI, it was a surprisingly good airplane in which to learn single-pilot IFR.

We learned to love the style of the thing, too. With its sliding bubble canopy, jaunty looks and sprite-like handling, the Tiger was definitely not a new take on the same old thing. It was a unique brand of cat, and its slightly diminutive scale seemed just right for us.

The Tiger, first built as the AA-5B, wasn't the first four-seater in the family; the AA-5A Traveler, which later became known as the Cheetah, was. But by the time Grumman purchased the company in the 1970s, it decided an upgrade was in order. The Tiger, with its Lycoming O-360 180-hp engine and fixed-pitch prop, was first certified in 1975, and it was a big hit, not because it was a lot more airplane than the Traveler, but because it felt like less airplane than comparably powered competitors while delivering more. More, in this case, anyway, means more performance with greater simplicity. Despite its modest power, the airplane delivers about 140 knots at cruise, comparable to a couple of contemporary retractable-gear airplanes with similar or greater power. At the same time, the Tiger carries a good useful load, 900 pounds, and a full-fuel load of around 585 pounds, good for three FAA-regulation 170-pound people and 75 pounds of bags. That's about as good as it gets with a four-seater, and it's especially good for a four-seater powered by a 180-hp engine.

A decade after production of the Tiger and Cheetah lapsed, a new company, American General Aircraft Corporation, bought the rights to the Tiger, and the tooling for it, and reintroduced a modified version of it built to an amended type certificate. That airplane featured several noteworthy improvements over the previous models: a split nose bowl for easier access to the engine without removing the prop; better panel and exterior lighting; fuel transducers instead of fuel lines in the cockpit; a 28 volt electrical system; a big-airplane style throttle quadrant and better heat and ventilation to the rear seats. The result was an airplane with all of the good qualities of the original and far fewer of the issues. Unfortunately, ACAG was forced to close up shop in 1993 after producing just more than 100 airplanes.

This time it looks as though the Tiger really is back, though the early days of production can be the most challenging for a fledgling airplane maker. As I write, the company has produced seven of the airplanes and it should have, it says, production approval from the FAA by the time you read this. The production certificate will allow the company to ramp up production; it hopes to build nearly a hundred Tigers in calendar year 2003. The company, 70 percent of which is owned by Taiwanese investors, is using many of the same vendors that supplied parts for the airplane back in the 1990s. The "factory," now located in Martinsburg, West Virginia, is really more of an assembly facility, though all the major composite components, including wheel fairings, wingtip fairings and cowlings, are built there.

The price of the new Tiger is $219,500. That's an easy price to quote, as there aren't really any options available yet. Not many are needed. While the Tiger is being built to the same type certificate as the American General model, there are significant changes to the interior and panel that make the new model a decided step up from any Tiger before it.

The comfy seats are now covered in leather, which makes the usual Tiger entry pattern—lift the seat cushion, step on the seat frame, get both feet on the floor, lower the seat—more important to follow than ever before. Attractive carpeting, real leather headliner, an aluminum instrument panel and improved lighting complete the interior upgrade.

Also, the airframe of the Tiger is now extensively corrosion proofed, a process that is sure to extend the life of what has proven to be an extremely durable airplane to start with.

There are several things that remain unchanged about the Tiger, and the engine is the most noteworthy. The Lycoming O-360-A4K, which produces 180 horsepower at 2700 rpm, may be a reli-

STORY AND PHOTOGRAPHY BY ROBERT GOYER

The panel of the Tiger is all new. With twin Garmin 430s, leather-wrapped yokes and vertically aligned engine gauges, the look of the Tiger is modern and clean.

able workhorse of a powerplant, but it lacks fuel injection, so attention to carb heat remains a must. (The company has hinted about the possibility of introducing a "Super Tiger" further down the road, that would make use of a more powerful and more advanced engine.) Also, the Tiger simply cries out for a constant-speed prop, which would allow it improved takeoff and cruise performance. One holdover from Tigers of old that's easier to swallow is steering by differential braking. While this method may take some getting used to for pilots unfamiliar with it, once you get the hang of it, you wonder why any light airplane maker would do it any differently.

A defining feature of the Tiger is its sliding bubble canopy. The company makes much of the ability to slide it back in flight—you can roll it back nearly 10 inches at speeds as fast as 112 knots—but I never slid it back once in all the time I flew the airplane. The real benefit, in my view, is the visibility the canopy affords. It's remarkable. Getting into or out of the airplane is easy; the side of the fuselage is relatively low; the real down side of the canopy is the greenhouse effect; it gets hot in there when the sun shines. While taxiing, however, the sliding canopy is a godsend. Pull it back as far as you want and feel the breeze. One other note about the canopy: when it's raining hard, you've got to be pretty quick to avoid getting yourself, and your airplane, drenched when you slide the canopy back to get out of the airplane. Lots of Tiger owners carry a big umbrella with them in the airplane, to keep both occupants and airplane as dry as possible.

I went flying in the new Tiger with the company's marketing director and test pilot, Bill Crum, who also flew the airplane for the air-to-air photographs that accompany this story. As I hinted before, you don't fly in the Tiger as much as you wear it. It's more "sports car" than "sport ute," though the roominess and utility of the airplane belie its runabout style. The canopy is mostly to blame—or praise—for this, depending on your bent, but once you get used to the vistas, you won't want to go back to more conventional views. This isn't just a plus for sightseeing, which it is, but for safety, as you can keep your eye on traffic much more easily in a Tiger than in just about any other kind of production lightplane I've flown.

On takeoff, performed without flaps, the Tiger accelerated nicely, though it doesn't have the kind of get up and go you might imagine, a result of the compromise fixed-pitch prop. The airplane's max rate of climb at gross weight under standard conditions is 850 fpm, and it requires 1,550 feet to clear a 50-foot obstacle.

At cruise, the Tiger does well. With nearly full tanks and two aboard, we calculated a true airspeed of 142 knots, a click below the advertised 143 knots. In terms of handling, the Tiger feels about as sporty as it looks, with a quick roll rate and light aileron forces.

Despite this, the Tiger is a fine IFR platform, when properly outfitted, that is, and today's Tiger comes very nicely equipped. It features twin Garmin GNS 430s and an S-Tec 30 two-axis autopilot, as well as a Garmin digital transponder and dual CDIs, both with glideslope. Once the company gets its production certificate, it plans to offer an HSI (a glaring omission in an airplane this nicely equipped) and a Garmin 530 in place of one of the 430s as options.

In fact, it's hard to imagine that an IFR transportation airplane could be much easier to fly. With mixture and rpm being the biggest systems management concerns—there's no prop control, no retractable gear and no cowl flaps—and with the autopilot holding nav track or heading and altitude, single-pilot IFR doesn't get much more manageable.

Bill and I headed out to Block Island, off the Rhode Island coast in the Long Island Sound, for a quick lunch. Coming into Block Island's cozy 2,500-foot strip allowed me to revisit the Tiger's excellent short field manners. With full flaps, you simply hold 80 knots on final, 70 over the fence and 60 as you touch down, and, if you aimed well, the airplane uses precious little runway. As a note, the Tiger is equipped with straight flaps, as simple as simple can be, but they're not as effective as larger and more elaborate varieties—they also offer precious little lift; the difference between flaps-up and flaps-down stall is just three knots. You also have to be aware of the

maximum flap extension speed—105 knots—both before and after you extend the flaps. If you point the nose down a bit, it's easy to pick up five or 10 knots, which will allow the needle to accelerate beyond the limits of the white arc.

The Tiger is a very pleasing (read: "easy") airplane to land, as long as you pay attention to airspeed. Thanks to the canopy, you've got an excellent view of the landing environment. With the airplane's relatively high wing loading (17.1 lbs/sq ft), there's not a lot of float, and you can get it stopped in a hurry.

As I started saying, the Tiger is an airplane with much to offer—good speed, impressive carrying ability and wonderful visibility. To that list, this latest version adds an impressive avionics suite and a refined and comfortable interior. While it's impossible to ignore the fun style of the Tiger, at heart it's a solid and honest airplane, and it's clearly the airplane's capabilities that keep it, and Tiger fans, coming back around. □

2002 Tiger Aircraft AG-5B Tiger

The airplane flown for this report was outfitted with standard equipment. Performance figures are from the manufacturer and are for standard conditions at sea level unless otherwise noted.

Price, as tested	**$219,500**
Engine	**Lycoming O-360-A4K, 180 hp @ 2700 rpm**
TBO	**2,000 hrs**
Propeller	**Sensenich, two-blade, fixed-pitch, 76-in dia, 63-in pitch**
Seats	**4**
Length	**22 ft**
Height	**8 ft**
Wingspan	**31.5 ft**
Wing area	**140 sq ft**
Maximum takeoff weight	**2,400 lbs**
Empty weight, as tested	**1,500 lbs**
Useful load, as tested	**900 lbs**
Maximum usable fuel	**51 gals/306 lbs**
Payload, full fuel	**594 lbs**
Wing loading	**17.1 lbs/sq ft**
Power loading	**13.3 lbs/hp**
Best rate-of-climb airspeed	**90 kts**
Best angle-of-climb airspeed	**80 kts**
Maximum rate of climb	**850 fpm**
Never exceed speed (VNE)	**172 kts**
Maximum structural cruising speed	**148 kts**
Max cruise (@ 8,500 feet)	**143 kts**
Fuel flow, max cruise	**10.7 gph**
Endurance, max cruise, no res	**4.76 hrs**
Maneuvering speed	**112 kts**
Stalling speed, flaps up	**56 kts**
Stalling speed, flaps down	**53 kts**

This Tiger, the fifth off the line, is a special one. It was ready for paint at Tiger's Martinsburg, West Virginia, facility when the attacks of September 11th occurred. As a patriotic gesture, those West Virginia employees decided to give the airplane a one-of-a-kind paint scheme. Below, the Tiger retains the enclosed rotating beacon and improved lighting of the AG-5B, while adding a luxurious upgraded interior.