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By American

We Deliver

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On the prowl for new customers

At its current rate of 14 AG-5B Tigers per month, American General Aircraft Corporation probably will be the number three or four producer of fixed-wing, piston-powered aircraft in 1991. Not a bad showing for a company that produced its first airplane just 18 months ago. Only Aerospatiale, Beech, and possibly Mooney are likely to top that number of deliveries. Representatives of Vincennes University took delivery of Tigers with serial numbers 67 and 68 while we were visiting AGAC's Greenville, Mississippi, plant in mid-August. Aircraft with serial numbers 69 through about 79 were on the production line. That's a bit of a different story from when we last visited. In May 1990, we flew the first AGAC Tiger along the muddy Mississippi River (see "Tiger II," July 1990 *Pilot*) and over the company's vast and modern production plant on the Greenville Municipal Airport. The airplane was rolled out of the factory only a few weeks earlier and less than 10 months after AGAC President James E. Cox bought the type certificate from Gulfstream Aerospace. At the time of our first visit, the plant was nearly empty of equipment, components, and employees. Cox showed us around and pointed out the locations of what he said would be engineering offices, avionics shops, the parts department, and assembly area.

Today, those areas are filling up with just those things. Boeing Aircraft built the behemoth facility to re-wing Grumman Aerospace A-6 Intruders. When that project was deemed unfeasible, Boeing more or less gave the facility to the city of Greenville, which then leased it to AGAC, Cox explains. Even at the current production rate, AGAC uses only a fraction of the 150 acres and nearly 500,000 square feet it has leased.

About 150 employees now work for AGAC in producing the Tiger, a perky and handsome 180-horsepower four-seater. American Aviation first built the airplane in the early 1970s. Later, Grumman American produced the Tiger. Gulfstream in 1979 bought the type certificate, along with those for the 150- hp Cheetah, the two-seat AA-1, and the twin-engine Cougar. Gulfstream manufactured only the Cougar and then just for a year.

Since its inception, the Tiger has been popular as a touring airplane. Its clean fuselage and efficient wing allow it to easily cruise at 130 knots true airspeed while burning only 10 gallons an hour. The fixed-pitch propeller and down-and-welded gear equate to minimum maintenance. But today's Tiger also has found a niche as a training aircraft. A dearth of new Cessna 152s and 172s and Piper Warriors and Cadets has created a promising market for anyone who can deliver a new trainer at a reasonable price.

Cox says about 30 percent of his deliveries have been to university flight schools. He has completed delivery of a 15-ship order to the Florida Institute of Technology. Vincennes will take delivery of the last of its 12- airplane order later this year. Cox is negotiating with several other large university flight schools. The balance of the deliveries has been to his 31 domestic and five

international dealers for use as demonstrators and for resale to individuals or flying clubs. Three airplanes have been delivered to Europe. Another 21 orders from overseas are on the books. The foreign dealers are in Japan, Germany, Luxembourg, France, and England.

Representatives of FIT and Vincennes report that the airplanes are working out fine as trainers. Beginning students take no longer to solo in the Tiger than those flying 152s or Cadets. The Tiger's unusual castering nosewheel does not pose any problem, according to the officials. And students transition easily into the new aircraft.

A basic Tiger retails for $94,250, up from the $81,400 price of the first few airplanes. The base price includes instruments but no avionics. An airplane equipped like the one in the accompanying photographs — with dual nav/coms, ADF, horizontal situation indicator, loran, and two-axis autopilot — will cost $120,000 to $130,000.

Since dusting off the tooling last year, AGAC has made a number of improvements to the design. Royalite, used in the wheel fairings, dorsal fin, and throughout the interiors of the Grumman airplanes, has been replaced with more durable and easier-to-repair fiberglass and other composites. Mechanics will appreciate the new design of the composite nose cowling, which allows removal of the cowling without taking off the prop. As before, a hinge runs down the center of the cowling, allowing either side to be lifted for easy access to the engine compartment. The latches can be cantankerous, though; better make sure they're securely fastened before takeoff. Today's Tiger has a landing light in each wing tip instead of one in the nose; the new beacon is faired into the top of the rudder. A 76-inch diameter Sensenich prop replaces the McCauley that has a caution zone between 1,850 and 2,250 rpm.

Inside the cockpit, the seats have been improved and are equipped with four-point harnesses. The new black metal panel is well-lighted for night flying. The mechanical engine instruments of yesteryear have been replaced by a neat string of electronic ones across the bottom of the panel. Even the priming is electric, rather than via a plunger. To make communications easier, the new Tigers have two radio speakers, one on each side of the cockpit, in front of the canopy. The Grumman airplanes hid a single speaker under the glareshield. The AGAC Tiger uses combination toggle switches/circuit breakers to control the lighting and pilot heat. All of the new electrics are supported by a 24-volt electrical system instead of the 12- volt system found in the Grumman airplanes.

A new throttle quadrant supplants the push-pull controls in the Grumman airplanes. The levers for the throttle and mixture are too long and the knob for the carb heat is too big for my liking, but Cox says a redesign is in the works. AGAC has moved the trim wheel and flap indicator farther forward on the center console, but I still found the flap indicator very hard to see. After a couple of flights, I learned to simply hold the flap switch for about a three-count for initial approach flaps, another three-count on base, and another on final for full flaps — but enough griping.

AGAC's refinements improve the already fun-to-fly Tiger. The company had the good sense to leave the efficient airframe alone, including the sliding canopy, which gives the airplane a sports-car look.

Cox allowed me to fly one of his demonstrators, N1193E, from Greenville to Frederick, Maryland, where he wanted to display the airplane at a fly-in hosted by AOPA in mid-August. He and his East Coast sales rep, Jesse Brent, followed the next day in another of his three demonstrators.

The slick Tiger made quick work of the 757-nm trip, taking exactly six flight hours and 54.5 gallons of 1OOLL. The first leg, to the always efficient folks at Emerald Aviation in London, Kentucky, took 3.3 hours and 30.6 gallons, averaging 9.1 gph. I tried various power settings and altitudes to see what the Tiger — with just 14.8 hours on the Hobbs meter — would do. At 7,500 feet, where the temperature was 13 degrees Celsius, and 2,500 rpm (about 60-percent power), the airplane averaged 123 knots TAS, matching exactly the groundspeed shown on the Northstar loran; so much for any help from the wind. For most of the leg, I set the power at 2,650 rpm (about 70-percent power), where the airspeed climbed to 133 knots, matching that called for in the pilot's operating handbook. In all cases, the fuel burn was about 1 gph lower than that specified in the POH. Apparently, the new Textron Lycoming O-360 wasn't very thirsty.

I launched from London at 9:30 p.m. for the 345-nm ride to Frederick. It had been a long day, so I let the S-Tec System 60 autopilot do most of the flying while I watched the lights from the small West Virginia mountain towns and coal mines slip by.

Visibility out the canopy is unmatched by any other airplane in this class. I made a squeaker landing on Frederick's Runway 23 at 12:15 a.m. There's never anyone around to witness the good ones. It took 23.9 gallons to fill the 52-gallon tanks. With 75 airplanes out the door and a two-month order backlog, AGAC has proved that it can deliver airplanes and that there is a market for the product. Cox said the company recently completed a financing deal that will carry it through December. The company will turn a profit by the first of 1992, he says.

Meanwhile, he is busy building the dealer network. "Everything we do is designed to help our dealers make a profit," Cox explains. The biggest hindrance to the sale of new airplanes is not a lack of customers, but a lack of an organized sales force. "People have forgotten how to sell airplanes," he laments in his trademark Georgia drawl. He plays the good-ol'-boy image for all it's worth, but one need only spend a few minutes with him to realize that hidden behind the slow-talking facade is a quick-thinking entrepreneur. Cox has a philosophy and opinion on everything relating to general aviation; no, make that on everything. He addresses each issue with a hearty dollop of common sense and a KISS attitude — keep it simple, stupid. He is a veteran of decades of flying as a flight instructor and crop duster; he traveled around the country for many years selling ag airplanes for Cessna. He once attempted to restart production of the Helio Courier, but that proved unprofitable.

Despite pressure from some potential customers to revive the 150-hp Cheetah and to move ahead with other projects, Cox is adamant about getting the Tiger line profitable before delving into other ventures. One exception to that is his work on restarting production of the Cougar, the four-seat twin powered by a pair of normally aspirated 160-hp engines. That program is progressing under separate funding and does not affect the Tiger production, he insists. He has negotiated a deal with the Tbilisi Manufacturing Association of the Soviet Union to produce the airframe parts for the Cougar. The aircraft will be assembled by AGAC in Greenville, with Lycoming O-320 powerplants and American avionics. The recent strife in the Soviet Union should not affect plans to produce 10 Cougars by the end of next year, Cox says. By utilizing the Soviet Union's large number of highly trained but mostly unemployed machinists, he hopes to be able to sell the airplanes for about $300,000. He may eventually fit the airplane with 210-hp turbocharged engines to increase its appeal to the personal and business market.

His plans for the AG-5B airframe include the possibility of producing a complex trainer with a 210-hp engine, retractable nose gear, and constant- speed propeller. He may produce a turbocharged version for the high- performance market. However, the 180-hp Tiger is the only single-engine product of the near future, he stresses.

During every conversation, Cox returns to the subject of dealers and "multi-profit-center FBOs." Too many FBOs have dropped their flight schools because they weren't always profitable. The owners then wonder why their fuel sales decrease, their maintenance shops are empty, and their sales leads nonexistent. Without new students continually welcomed into the customer base, the FBO soon founders.

One key to increasing sales is to lower the entry fee into aviation, Cox says. While many middle-income families can't afford to finance a $130,000 to $350,000. He would be forced to IFR-equipped airplane, most could afford to pay about $335 a month for a share of an airplane. Cox is putting together a co-op program for his dealer whereby they could get nine customers to each pay about $4,000 year for the use of an airplane for 21 days a year. The average owner only uses his airplane a few days a month, Cox says. With this program, the customer could fly a new airplane and have it available almost anytime he wants it without having to worry about maintenance, hangaring, and insurance costs. Those costs would be handled by the dealer. With nine participants each using the airplane 21 days a year, the airplane still would be used only 50 percent of the time. Cox figures each user would fly about 50 hours a year during the 21 days. Additional days could be purchased for less than $100 each. The customer would pay for his own fuel.

The program would provide $36,000 annually to the dealer. At current finance rates and taking into account maintenance costs, the dealer would pay out about $34,000 a year for the airplane. His annual net profit, then, would be about $2,000.

After a year or two, the dealer would have a good used aircraft to sell and the chance to make an additional profit. Of course, Cox counts on the dealer then replacing the aircraft with a new one from him.

Cox also hopes to offer dealers a chance to make a profit on selling parts and modification kits for the existing fleet. AGAC's parts business currently is worth about $100,000 a month. He initially planned to offer the improvements found on the new airplanes and a complete overhaul facility at the factory. Now he says he will ship the modification kits to his dealers, allowing

them to profit. Already under way to help his dealers is a series of open houses to get pilots out to see and fly the new airplanes. Cox says he will mail an invitation to every medical certificate holder in each dealer's region. Factory representatives will help plan and organize the events for the dealers.

Cox is both a dreamer and a realist. Everything he does is with one foot firmly planted on known ground while the other steps ahead into new territory. And that's just how he does things — one step at a time. That persistence over the last couple of years has allowed him to walk right by others who have attempted to restart the production of dormant type certificates. The others have made bold claims and delivered little or nothing. The difference is that Cox and his little company on the Mississippi deliver.

AMERICAN GENERAL AIRCRAFT AG-5B TIGER BASE PRICE: $94,250	
SPECIFICATIONS	
Powerplant	Lycoming O-36O-A4K, 180 hp at 2,700 rpm
Recommended TBO	2,000 hr
Propeller	Sensenich, two-blade, 76-in diameter
Length	22 ft
Height	7 ft 10 in
Wingspan	31 ft 6 in
Wing area	140 sq ft
Wing loading	17.1 lb/sq ft
Power loading	13.3 lb/hp
Seats	4
Cabin length	7 ft 1 in
Cabin width	3 ft 4 in
Cabin height	3 ft 10 in
Empty weight	1,398 lb
Max takeoff weight	2,400 lb
Useful load	1,002 lb; Utility, 652 lb
Payload w/full fuel	686 lb; Utility, 336 lb
Max takeoff weight	2,400 lb; Utility, 2,050 lb
Max landing weight	2,400 lb; Utility, 2,050 lb
Fuel capacity	52.6 gal (51 gal usable) 316 lb (306 lb usable)

Oil capacity	8 qt
Baggage capacity	120 lb
PERFORMANCE	
Takeoff distance, ground roll	1,083 ft
Takeoff distance over 50-ft obstacle	1,926 ft
Max demonstrated crosswind component	16 kt
Rate of climb, sea level	850 fpm
Max level speed, 8,500 ft	139 kt
Cruise speed/endurance w/45-min rsv, std fuel (fuel consumption)	
@ 75% power, best economy, 8,500 ft	139 kt/3.97 hr (64.8 pph/10.8 gph)
@ 65% power, best economy, 8,500 ft	129 kt/5.04 hr (52.8 pph)
Max operating altitude	13,800 ft
Landing distance over 50-ft obstacle	1,499 ft
Landing distance, ground roll	450 ft
LIMITING AND RECOMMENDED AIRSPEEDS	
VX (best angle of climb)	70 KIAS
VY (best rate of climb)	90 KIAS
VA (design maneuvering)	112 KIAS
VFE (max flap extended)	103 KIAS
Maximum canopy open	112 KIAS
VNO (max structural cruising)	142 KIAS
VNE (never exceed)	172 KIAS
VR (rotation)	60 KIAS
VS1 (stall, clean)	56 KIAS
VSO (stall, in landing configuration)	53 KIAS

For more information, contact American General Aircraft Corporation, Post Office Box 5757, Greenville, Mississippi 38704; telephone 601/332-2422.

All specifications are based on manufacturer's calculations. All performance figures are based on

standard day, standard atmosphere, sea level, gross weight conditions unless otherwise noted.