PrivatePilot

REPRINT FROM THE DECEMBER ISSUE OF PRIVATE PILOT

ICD 08642
DECEMBER 1974
ONE DOLLAR

NEW FOR '75:

Grumman American TIGER

Grumman American' Tiger in flight bears a close resemblance to the Traveler, but cowl covers that new 180-hp Lycoming for '75.

It's the TIGER!!!

by Bill Rice

THIS IS THE YEAR of the Tiger! Make no mistake about that. Unless I miss my guess, Grumman American's new 180-hp four-place will be the best thing since cornflakes. It has a square tail, funny stuck-down wheels and a sliding roof, but when I flew it, my overwhelming reaction was: "Where have you been all my life?"

The Tiger's heritage goes back to the American Yankee (remember?). Feared and loved in about equal parts, the Yankee scared and thrilled just about everyone that came to fly it. However, thrills aren't the name of the airplane selling game, and the Yankee became the Trainer. A new airfoil design tamed the Yankee's stall, and the need to drive the little aircraft onto the runway at a rather high rate of speed.

The Trainer, while retaining the Yankee's magnificent feel and handling, became docile enough to let a student really believe that he would survive to become a certificated pilot.

From the Trainer, American begat the Tr2, a super slick version with wheel fairings, color coordinated interior decor and a jazzy paint scheme. Without reservation I adopted the Tr2 as my favorite rental plane for short trips and general helling about.

About that time American became Grumman American, and the marriage produced the Traveler. The Traveler was supposed to carry the excitement of the Yankee/Trainer two-seaters into the realm of the 150-hp, four-place family favorites. But in the translation, some of the *macho* was lost.

Be that as it may, the Grumman American people never give up — and after a couple of years of hearing "only if . . . " from their dealers and customers, they got down to work.

The GA engineers dug into their bag of tricks, took the basic Traveler, redesigned the cowling, put in a Lycoming 0-360 (180 hp), faired the gear legs, came up with new wheel fairings, and enlarged the stabilizer-elevator assembly. Sounds simple, doesn't it? But believe me, it's a whole new airplane. It's the plane the Traveler was meant to be all along. It's the TIGER!

On a recent visit to the GA factory in Cleveland, just after the annual dealer show, the opportunity presented itself to fly all the new Grumman American models for 1975 — including the Tiger.

The Tiger, model numbered AA-5B, presently is GA's top-of-the-line aircraft, and perhaps will become the new king of the country's general aviation marketplace. The Tiger is one hell of an airplane. It is the plane to beat in 1975.

A little merriment in marketing is evidenced by the striped paint scheme, paws, fangs and eyes on this factory Tiger.

Tiger

Grumman American shows its stripes with 180 hp . . .

Panel layout is identical to Traveler's. Flight instruments are to the left, avionics stack center, powerplant far right. Fuel selector points to gauge for tank from which fuel is being drawn.

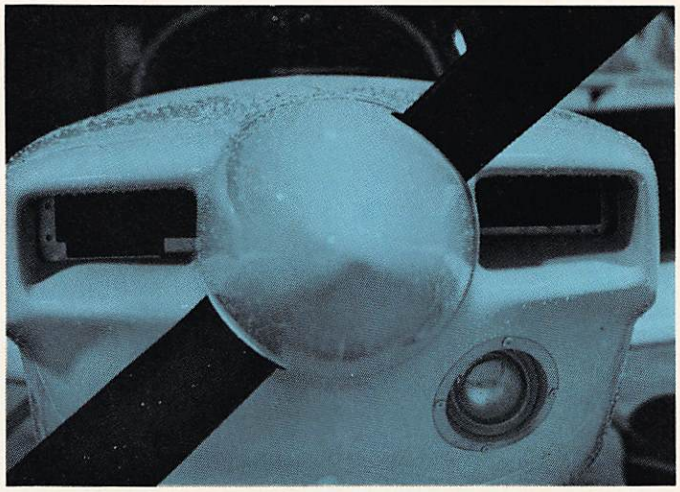
Externally, its appearance is that of the Traveler. So anyone expecting to see something otherwise is sure to be disappointed. However, external appearance is where resemblance ends.

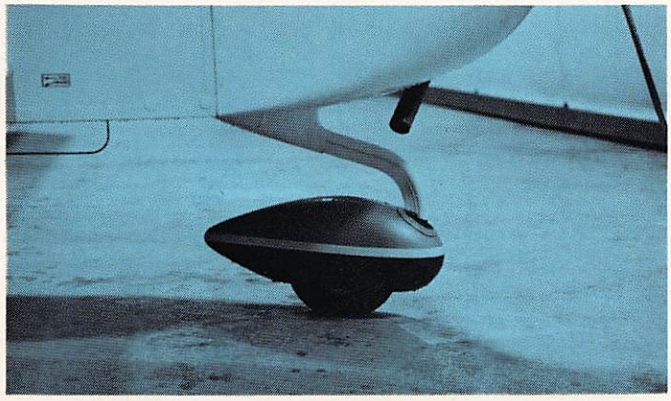
The larger 180-hp engine is hung on a stronger mount, with improved vibration insulation. New wheel fairings like those on the Traveler, a faired nose-wheel strut and super-luxurious interior *a la* Bellanca, are the main features. Back in the tail department, GA engineers strengthened the cone and added about 18 inches of span width to the elevator/stabilizer.

These changes don't seem like much, but the combination of 30 additional horsepower, slicked-up cowling and gear fairings, and tail changes have made the Tiger a completely different plane from its Traveler stablemate. The excitement of the Tr2 has been recaptured. It's all there — with four seats to boot.

GA claims a 170-mph top speed at sea level, with a cruise of 160 mph at 75 percent at 9,000 feet (2,500 rpm). Combined with a 52-gallon fuel capacity, this yields a no-reserve range of 765 miles in 4.8 hours.

Roy Garrison, GA vice president for marketing, said, in introducing the new plane to dealers, "Any time you can get ▷





Non-tiger-striped Tiger, upper left, displays paint scheme that features tiger decal on engine cowling. Upper right is the new cowl for the 180-hp powerplant; cowling is tight, cooling airflow is efficient. Below left is the strengthened nosewheel assembly. Two tubes, instead of one as in the Traveler, are used.

TIGER!!

CONTINUED

170 mph out of 180 hp, you have got some good engineers.

"We are able to climb faster, cruise faster, and carry more than all three of our major competitors' comparable models," Garrison continued, "and we know that a good design will squeeze more speed and more miles out of every gallon of gas."

Entry into the Tiger is strictly GA, made easier by the twin steps behind the wing roots and the access handles on either side of the fuselage. Slide the canopy back. To sit in front simply raise the seat cushion with a toe, step down into the cockpit, let the cushion flop back, and sit.

For rear seating, lean the front seatback forward, and step down again. Under the seat is a spar box strong enough to support a passenger's weight. This does double duty as a step.

A lot of complaints are heard about the canopy arrangement of the GA models, but you will never hear a complaint from anyone who owns one of these aircraft. After trying to work my way into many a cabin set-up, front or rear, I find the canopy entry is the simplest and most convenient yet devised. And so does my wife.

The 0-360 starts quickly with a shot of boost from the electric fuel pump. With the Lycoming humming away contentedly, taxi is by differential braking. I hope GA never succumbs to the temptation to substitute nose-wheel steering. The present system makes the GA line the easiest planes I've ever run across to taxi and maneuver in tight areas. It takes a few minutes to learn, but it's worth the trouble.

The fuel system is the best yet. The left and right fuel gauges are on the console between the seats, and the tank selector lever points at the gauge of the tank in use. You can never become confused with this arrangement as you can see instantly which tank you're feeding from and how much remains in it. I just wish GA would put an identical system in the Tr2. I can't read *those* level gauges worth a rap.

Run-up is at 1,800 rpm. Expect about 75-rpm drop. Carb heat on delivers about 100-rpm sag. Check flap travel; ⅓ is 15 degrees; ⅔ is 30 degrees; and full is 40 degrees. The flap switch is also on the console, between the seats, where you have to bend your head down to see it. It is combined with the indicator, which means you have to keep glancing down to see what flap settings you have. To my mind this is a flaw in an otherwise top-rate design. A pilot who must keep sticking his head down during a rough approach in turbulent conditions could end up with vertigo whilst low and slow — not a good combination. I would like to see one of those Cessna type pre-select flap controls on the Tiger panel. By the by, the flaps don't seem to do a heck of a lot anyway — except lower the stall speed by 4 mph.

Take-off seems perfectly normal, more so than the Tr2 which gets all wound up and scrambles down the runway before launching itself into the air. The Tiger accelerates smoothly, and will fly off with a nice sense of composure at about 80 mph. The book says it will get over a 50-foot obstacle in 1,550 feet, and climb at 850 fpm. I preferred to climb at

The Tiger can deliver 170 mph on 180 hp, cruise at 160 on 75 percent horsepower. It can be flown feet on the floor.

Rivetless skin, hallmark of Grumman American sandwich material-resin bonding construction, is part of the reason for the slippery Tiger's high performance on relatively low power.

100 mph which yielded about 600 fpm and gave better cooling and visibility over the nose.

At cruise, 2,500 rpm (75 percent of rated horsepower) produced about 157 mph at 6,000 feet. Full bore saw 166 mph on the dial, near the claimed 170, but not quite. I must add that I was not familiar enough with the plane to fine tune the trim.

Maneuvers were a delight. Chandelles, lazy eights, and my **Energetic Eights** were sheer joy. This is a pilot's airplane. Stalls, with and without power, were gentle indeed. The Tiger has a totally harmonized control feel, each element balanced and integrated just so. Also, the Tiger doesn't demonstrate any tendency to adverse yaw. It can be flown just as well with feet on the floor.

Stability is uncanny. Set it up in any reasonable bank angle, and it will stay put, just purring around in circles as long as you wish. Straight and level flight is almost a hands-off proposition. Small corrections are all it takes. With the optional Century I Autopilot installed, the Tiger is a truly superior instrument platform.

Into the pattern, 90 mph is a good speed with the first third of flap. I usually put the second third down for the base leg and, on turning final, drop to the last third. Now, I like to keep 86 on final with power, and pull the throttle back as I flare. I find this results in a thoroughly satisfying and predictable "chirp" onto the runway. Not disturbing, but solid. The book would have you make the final approach at 75-80 mph. Your choice, but I favor the power approach.

▷

TIGER!!

CONTINUED

Later in the day, I spent a few minutes tail-chasing my shadow through the spaces between the great piles of cumulus. The Tiger prowled the footless halls with grace, responding as if instinctively to every input, effortlessly racking around a cloud, or zooming up from underneath. It was good flying.

Another point, GA has put a great deal of effort in reducing the noise level in the Traveler, hence the Tiger. Even with the engine of larger piston displacement, the Tiger was quiet — a marked improvement over the Tr2. Better soundproofing and thicker, more luxurious upholstery do the trick. The optional intercom unit isn't necessary in the Tiger, unless you yearn to make "this is your Captain speaking" announcements to all and sundry as you fly along. Here are a couple of last impressions: Grumman American says its line of aircraft is made up of the "simple" machines — easy to own, easy to maintain, easy to enjoy and easy to operate. I'd agree with all of that. This year, GA makes DuPont's "Imron" polyurethane paint standard on all models. Combined with the no-maintenance fiberglass gear legs, fixed-pitch prop, sliding canopy, and stain-resistant upholstery — there isn't much to do except change the oil and tires as necessary.

This *will* be the year of the Tiger, no doubt about it. And the Tiger year will be the best yet from the innovative people at Grumman American. What's next? I heard it will be a light twin, with a sliding roof — and all the excitement GA can cram into its slick jet-age skin. All I can say is that Grumman American will have to go a long way to beat the Tiger.

1975 Grumman American Tiger (AA-5B)

Price:
New, FAF, Cleveland, Ohio, $24,137

External Dimensions:

Wingspan	31 ft., 6 in.
Wing area	140 sq. ft.
Length overall	22 ft.
Height overall	8 ft.
Wheel track, main gear	8 ft., 3 in.
Wheelbase	5 ft., 4 in.

Weights and Loadings:

Empty weight	1,285 lb.
Gross weight	2,400 lb.
Useful load	1,115 lb.
Payload	809 lb.
Power loading	13.3 lb./hp
Wing loading	17.1 lb./sq. ft.
Fuel capacity	51 gal.
Fuel weight	306 lb.
Baggage capacity	120 lb.
Seats	4

Power Unit:
Lycoming, O-360-A4K, 180 hp @ 2,700 rpm; carburetion.

Propeller:
McCauley, metal, 2-blade, 73 in. diameter.

Performance:

Maximum speed, gross, sea level	170 mph
Cruise speed, 75% power	160 mph
Economy cruise, 60% power	144 mph
Stall, clean	65 mph
Stall, landing gear and flaps down	61 mph
Rate of climb, gross, sea level	850 fpm
Service ceiling	14,600 ft.
Take-off ground roll	872 ft.
Take-off over 50-ft. obstacle	1,550 ft.
Landing ground roll	380 ft.
Landing over 50-ft. obstacle	1,100 ft.
Range, maximum cruise	765 sm
Range, economy cruise	5.2 sm
Peak endurance	6.1 hr

The Other Americans

The Trainer and Traveler are brighter and swifter for '75 . . .

by Bill Rice

Grumman American's 1974 Traveler is speedier for 1975, result of a new engine cowling design which reduces drag and improves cooling of the 150-hp Lycoming. Upper right is the Tr2 for '75 features an instructor intercom system that feeds through the cabin loudspeaker. The Trainer, lower right, continues in its primary task with 108 Lycoming horsepower.

I WAS RECENTLY invited to visit the Grumman American plant in Cleveland, Ohio. Through the courtesy of Tom Rennolds, marketing manager, and Roy Garrison, vice president for marketing, I spent a day flying GA aircraft to make direct comparisons.

First in line was the Tr2. Then came the Traveler. I'm already fairly well acquainted with these airplanes, so I was able to evaluate them on the basis of some background in flying the species.

The weather wasn't cooperative until very late in the morning, hence my flying time, unfortunately, was limited. So, these reports are based on some rather quick surface impressions.

TRAINER/Tr2 (AA-1B) — For 1975, most visible changes are in the paint scheme, which is brighter for the model year; and in the instrument panel, which has been given a "Quick Scan" treatment, and a beefing up with heavier material. My flight, limited by rain, was only a quick circuit around the pattern, but the aircraft flew in a way identical to the Tr2 which I rent occasionally — superbly. The noise level remains high, which is probably the most disconcerting aspect of the airplane. To overcome the problem of communication with the student in the left seat, Grumman American has installed an optional intercom unit that feeds the instructor's voice through the cabin speaker. I can just imagine a student's mental condition after an hour of touch-and-go landings with a bull-voiced instructor whose words have been impressed on him with multiple decibel electronic amplification approaching that used by the Rolling Stones at a rock concert. The student would be a candidate for a long rest in a rubber room, to say the least.

I don't know how Grumman American could make the Trainer Tr2 more quiet, but the intercom isn't the answer. It merely adds more sound to the existing high noise level.

TRAVELER (AA-5) — The Traveler for '75 has been given a new cowl, new interior and a new paint scheme. The same indestructible 150-hp Lycoming has a new hat, as GA engineers came up with the new cowling for improved speed. A re-designed air box reduces drag and improves cooling. New main gear fairings also contribute to raised speed through reduced drag.

Traveler advertising claims a 157-mph top speed, and 147 mph at 8,500 feet MSL on 75 percent of takeoff power. In my short flight , I wasn't able to check speeds, so I can't report with any accuracy that the Traveler flew this or that fast. One sea level run in the Traveler at full bore produced about 154 mph, so it's entirely possible that the additional 3 mph may have been hiding in the trim wheel. Even at that, 154 mph with 150 hp ain't all that bad.

In-flight handling seems to be as it was in previous Travelers — a little heavy on the elevator, and more straightforward than the Tr2, but not nearly as entertaining. The Traveler is a nice, honest airplane in the class with Cessna's Skyhawk and Piper's Warrior. The Traveler has a definite speed advantage, coupled with better handling. The Traveler is an excellent value for anyone's airplane dollar.

See your local Grumman American Dealer or contact the regional manager in your area

Robert Anderson
25 Urso Drive
Westerly, Rhode Island 02891
Phone: (401) 322-7038

Oliver G. O'Mahony
1320 Poplar Estates Parkway
Germantown, Tennessee 38138
Phone: (901) 754-2816

Robert A. Hummel
R. R. #3, Paradise Acres
Galesburg, Illinois 61401
Phone: (309) 343-0807

John Hruban
208 Meadow Lane
Schuyler, Nebraska 68661
Phone: (402) 352-5766

William L. Heft
P. O. Box 31786
Dallas, Texas 75231
Phone: (214) 369-4683

William P. Fouts
1421 Gracia
Camarillo, California 93010
Phone: (805) 482-9638

Thomas H. Rennolds, III
Domestic Sales Manager
Phone: (216) 449-2200

Werner H. Huiras
International Sales Manager
Phone: (216) 449-2200

GRUMMAN AMERICAN AVIATION CORPORATION

318 BISHOP ROAD, CLEVELAND, OHIO 44143
(216) 449-2200 TELEX NO. 980-245

SPA 7550

General Aviation Manufacturers Association