TOGA PARTY

It's big, it's comfy, it's old, and it's new. It's the Saratoga.

BY RICHARD L. COLLINS

Why is Piper pushing the Saratogas as it puts into place a new marketing and support organization? Simple. These tried and true airplanes fill niches in the market that are not filled by anyone else. As six-/seven-place singles, retractable gear or fixed, the Saratogas are unique, so Piper decided to put initial emphasis on them instead of on airplanes with a lot of competition. The cabin of these airplanes started more than 20 years ago with the Chero-



kee Six. Originally powered by a 260horsepower Lycoming, it evolved quickly to a 300-hp engine. And while the original airplane was brave, courageous, and true, it lacked sizzle. I owned one for several years, flying it well over 1,000 hours, and while the airplane's capabilities were very much appreciated, I don't recall ever looking back at it as I walked away, to savor the airplane's lines. Though comfortable and a capable load carrier, it wasn't pretty. The tapered wings, landing gear treatment (either retracted or adorned with fancy spats), and tasteful paint jobs on the new Saratogas have changed all that. The Saratogas have a long and graceful look that eluded the older airplanes. This is especially true of the SP, which rests more nearly level on the ground.

And for those who might feel that they can buy a used Six and have as good an airplane as a new Saratoga, this is a misconception. The new airplanes offer a great deal not found on the old ones, and at a price that in relative terms is a bargain. My old Cherokee Six had when new a couple of Narco Mark 12s, a transponder, a DME, an ADF, and an ailerons-only autopilot. The new list price on the airplane was not a lot less than \$40,000 in 1969. The fixed-gear Saratoga flown for this report was about \$170,000, which includes area navigation gear, a full autopilot, air conditioning, electric flaps, a fancy club-seating interior, and other amenities not available 19 years ago. The price of \$170,000, when adjusted to the consumer price index, equals about \$40,000 in 1969 dollars. A more capable and comfortable new airplane is relatively no more expensive today than it was in 1969.

It is hard to quantify the benefits found in a new airplane as opposed to an old airframe with new paint, a new interior, a new engine, and new avionics. But after spending a couple of days around two brand-new Saratogas, I found the appeal of new to be very strong. There is something about freshly built machinery that sets it apart. And from the standpoint of one who operates an airplane that will be 10 next year and that has almost 5,000 hours on it, I find the appeal of new to be related to dayto-day events in the life of my airplane. Despite all the things I do to my airplane to keep it young, there are a lot of pieces in it that are old. All the wiring, for example, is pretty original. To remind me of that, one of the wires to the alternator simply wore out on the way home from flying the Saratogas. I looked at it, and thousands of others like it under the cowling, and wondered which one would be the next to succumb to the ravages of age. Robust youthfulness goes by the calendar with people; you can still buy it in airplanes.

The hallmark of the Saratoga is its cavernous interior. What are the advantages to having an airplane with such a big cabin? It is like having a station wagon. You drive it by yourself much of the time, but it is big enough to carry that 4×8 -foot sheet of plywood you need every four years. And when there are three or four riding along, it is spacious. More room than you need is the American Way. I love it. A Saratoga has a lot of room for everyone and everything. True, a cruising speed price is paid for the wide body, but 10 knots won't change your life as much as having all that room in your airplane.

The flight deck is big, and the expansive instrument panel will take a full set of everything. While large, the panel, with its black plastic cover, does make your mind wander back to 1969. It could use plastic surgery.

The new Saratogas, with all the options, are a little heavier than the old Sixes, but there is still weight allowance for people and baggage, and the fuel supply can be measured to fit the mission when a lot of people go along.

Kids. Perhaps one of the most win-



ning features of the Saratogas is their ability to transport a family comfortably. The airplane suits business needs well during the week; on the weekends and for vacations you can load the whole family (provided you don't have more than four offspring) and head out. I did that with mine many times, and while the airplane wasn't pretty, it was an absolute favorite of my family.

The seats in the Saratogas can be removed quickly to make room for cargo, and the low level of the large rear door openings makes it easy to load. It is true that high-wing airplanes have always found more favor with bush operators, but a Saratoga with big tires, or skis, would seem quite adaptable to bush flying. It was put on floats once, but that project was never a raging success.

The Saratogas have a distinct handling edge over the old Six. The tapered wing does wonders for the airplane, which is now one of the nicest flying singles around. The airfield performance is good, especially at light weight; the Saratoga is as friendly at a small airport as it is on an ILS to acres of pavement.

The biggest dilemma would be in choosing between the retractable Saratoga SP and the one with fixed gear. The SP is about 30 grand more, which makes its eight- to 10-knot speed advantage the most expensive option on the airplane. But it is faster, more efficient, and better looking. The practical buyer would crunch the numbers and go for the fixed. The rest of us would probably take the sleek SP. $\hfill \Box$

NEW MATH: 4+2=SARATOGA There's more to moving up to a Saratoga

than adding two seats to a Warrior.

BY THOMAS B. HAINES

For anyone who has spent most of his flying time shoulder-to-shoulder with an instructor in a Piper Warrior or a small Cessna, climbing aboard the Piper Saratoga will leave you feeling a little lonely. No longer will you be rubbing knees with your instructor. There's actually space between the two front seats, and glancing over your shoulder, you'll see four seats instead of just two. The Saratoga's panel, seven inches wider than the Warrior's, makes the pilot dream to fill all that real estate with a host of avionics.

The PA-32-301 Saratoga and PA-32R-301 Saratoga SP demonstrators I flew around for a couple of days had little room left in the panel. The fixedgear N9137Z came with a horizontal situation indicator (HSI), two-axis autopilot, King KNS 80 integrated navigation system (which includes VOR, localizer, glideslope, area navigation, and DME), ADF, stand-by vacuum pump, air conditioning, and enough extra buttons on the yoke to make the pilot feel really important—autopilot disengage, electric trim, control wheel steering, push-to-talk, and ident.

N9136K, the SP version, which stands for special performance and indicates retractable gear, added more, including a flight director, a more sophisticated ADF, and a ground/clearance switch, which allows you to turn on just the number one communications radio without firing up the whole avionics system to call clearance or ground control before engine start—a \$120 option. All-leather seats, an extra \$2,410, add a touch of elegance.

Pilots promoted from a PA-28 War-



rior will find the Saratoga front office bigger, but familiar. In the Saratoga, the rocker-type switches for electrical master, fuel pump, and aircraft lights are moved to near the pilot's left elbow. The fuel tank selector control is shifted from the lower left side wall on the PA–28 to the center floor on the Saratoga.

It is after starting the big Lycoming that Warrior pilots might get nervous. There's a lot more airplane in front and in back than those pilots are used to and nearly double the horsepower spinning an extra propeller blade.

Cessna pilots will appreciate the nosewheel steering of all the Pipers. Slow taxiing in the Saratoga is vintage Warrior, but be prepared to bring the size 12 double Ds down hard on the right rudder pedal when advancing the throttle. Charles Bockstahler, Piper's manager of domestic dealer support, suggested lifting the nose five to seven degrees at about 75 knots for a normal takeoff. The tug required for rotation is stiffer than for the lighter Pipers, and it's easy to bust through 80 knots.

Leave the pitch at about five degrees nose-high and the Saratoga climbs out smartly at the recommended speed of 90 knots and near 1,000 feet per minute. The long snout blocks nearly all forward visibility at that attitude, and the view improves when the nose is lowered to achieve about 105 knots.

Climbing out of Akron Canton Regional Airport in N9137Z and heading northwest to Dryer VOR and then direct Sandusky, Ohio, we entered clouds at about 2,000 feet and stayed in the soup most of the way. The Saratoga felt more at home in the light chop than any Warrior would have.

Descending out of the clouds at about 4,000 feet on approach to Griffing-Sandusky Airport, we canceled IFR and set up for the approach to Runway 27. We entered a left downwind, and all of a sudden things were happening very fast. A pattern speed of 105 knots makes the runway slip by quickly for anyone used to a more leisurely 85 or 90 knots in a Warrior. That extra 15 or 20 knots changes the picture drastically. Final approach to Runway 27 is over water, and a brisk crosswind added a thrill I could have done without.

I just looked at Bockstahler when he said to cross the fence at 95 knots. "You mean 75 knots, right?" No, he meant 95 knots, which seemed incredibly fast after bringing a Warrior in at 65 knots. By this time we had crossed the fence at 95 and the numbers were underneath. Sure enough, the airplane was ready to set down when the power came off, but not before it danced around in the wind and Bockstahler added a steadying hand.

The biggest difference pilots will find in transitioning up to the Saratoga is in takeoff and landing. In cruise, the bigger airplane feels much like a Warrior—just heavier in the controls and faster.

Later in the day, Bockstahler and I went up in the Saratoga SP for a demonstration flight. In steep turns, stalls, and slow flight, the airplane is as docile and predictable as its smaller cousins.

By the time we returned to Sandusky the wind had calmed down, I was more used to the airplane, and 95 knots across the fence didn't seem so fast—just a little wobble this time. On the third landing I had the procedure down and was willing to take on a crosswind.

The Saratoga's forte is its size versus handling. Few other six-place airplanes are such fun to fly. Six adults in a Saratoga will find their knees intertwined, but four adults or two adults and four

kids will be quite comfortable. A colleague who flies his Baron during the week on business trips parks it on the weekends in favor of the Saratoga. The kids have plenty of room to romp around on the way to the beach, and he has a more relaxing time flying the simpler airplane. It is that reputation that has led to Piper's success with the Cherokee Six turned Lance turned Saratoga (see "Sixth Sense," September 1987 *Pilot*, p. 34) and the reason it is still in production at a time when the assembly lines of a lot of competitive airplanes are dark and quiet.

	Piper PA-32-301	Piper PA-32R-301
	Saratoga	Saratoga SP
Base price:	\$123,400	\$147,300
Price as tested:	\$177,065	\$205,293
Specifications		
Powerplant	Lycoming IO-540-K1G5	Lycoming IO-540-K1G5
Pasammandad TPO	300 np @ 2,700 rpm	300 np @ 2,700 rpm
Propeller	Hartzell constant speed	Hartzall constant speed
Topener	three-blade 78-in dia	three-blade 78 in dia
Length	27 67 ft	27 67 ft
Height	8.17 ft	8.17 ft
Wingspan	36.17 ft	36.17 ft
Wing area	178 sq ft	178 sq ft
Wing loading	20.2 lb/sq ft	20.2 lb/sq ft
Power loading	12.0 lb/hp	12.0 lb/hp
Seats	6-7	6-7
Cabin length	10.42 ft	10.42 ft
Cabin width	4.08 ft	4.08 ft
Cabin height	4.08 ft	4.08 ft
Empty weight	1,999 lb	2,045 lb
Empty weight, as tested	2,319 ID 2,615 Ib	2,344 lb
Cross weight	3,013 ID 2,600 lb	3,013 ID 2,600 lb
Useful load as tested	1 297 lb	1 271 lb
Payload w/full fuel	1.083 lb	1,271 lb
Payload w/full fuel, as tested	685 lb	659 lb
Max takeoff weight	3,600 lb	3.600 lb
Fuel capacity, std	107 gal (102 gal usable)	107 gal (102 gal usable)
and the stand shares in the stand	642 lb (612 lb usable)	642 lb (612 lb usable)
Oil capacity	12 qt	12 qt
Baggage capacity	200 lb, 24.3 cu ft	200 lb, 24.3 cu ft
Performance		
Takeoff distance, ground roll	1,013 ft	1,013 ft
Takeoff distance over 50-ft obstacle	1,573 ft	1,573 ft
Max demonstrated crosswind component	17 kt	17 kt
Kate of climb, sea level	990 tpm	990 tpm
Cruice speed, sea level	152 Kt	104 Kt
(fuel consumption)		
@ 75% power best economy	148 kt/823 nm	157 kt/865 nm
6.500 ft	(96 pph/16 gph)	(96 pph/16 gph)
@ 65% power, best economy	144 kt/911 nm	151 kt/937 nm
10,500 ft	(83 pph/13.8 gph)	(83 pph/13.8 gph)
@ 55% power, best economy	133 kt/960 nm	141 kt/983 nm
14,000 ft	(71.4 pph/11.9 gph)	(71.4 pph/11.9 gph)
Service ceiling	14,000 ft	16,700 ft
Absolute ceiling	15,900 ft	18,350 ft
Landing distance over 50-ft obstacle	1,612 ft	1,612 ft
Landing distance, ground roll	732 ft	732 ft
Limiting and Recommended Airspeeds	20 KIAC	00 KIAC
Vx (Best angle of climb)	80 KIAS	80 KIAS
Vy (Design maneuwering)	91 NIA5 134 VIAS	91 NIA5 134 VIAS
Vfe (Max flan extended)	112 KIAS	112 KIAS
Vle (Max gear extended)	III KIAJ	132 KIAS
Extend		132 KIAS
Retract		110 KIAS
Vno (Max structural cruising)	154 KIAS	154 KIAS
Vne (Never exceed)	197 KIAS	197 KIAS
Vs1 (Stall clean)	60 KIAS	60 KIAS
Vso (Stall in landing configuration)	57 KIAS	57 KIAS

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.