



**We Fly the
GlaStar's
Sportsman 2+2**

The Very Popular GlaStar gets a New Sibling

TEXT AND PHOTOS BY AXEL BERGLUND



The useful load is a sizeable 1000 pounds in any combination of fuel, baggage or passengers—or a medium sized moose.

ORDER A SPORTSMAN 2+2 Jumpstart kit and you're on a fast track for some of the wildest adventures possible in aviation and backcountry flying. That's because it will go anywhere that any other aircraft designed for the bush will go, only in most cases it will go further, get there faster and allow you to bring more equipment and supplies.

Outstanding List of Options

The key for this sweeping statement is the amazing STOL performance of the aircraft and the list of options for setting it down in the wilderness: It has all the necessary fittings for configuring it as a taildragger, trike, floatplane or

ski plane. In its taildragger mode, it's possible to install anything from 6.00 x 6 on up to 28" tundra tires. With the biggies in place, landings are possible in open areas that have downed trees up to 8" in diameter, or rocky shoals with stones that stick up as much as 8 inches. You'll also be able to land on sand or in tall grass/weeds. In any of its configurations, a Sportsman will carry more (far more), outmaneuver and outrun a Super Cub. Then there are the added advantages of being able to fold the wings (try that with a Cub), put it on a trailer and take it home where it can be stored in a one-car garage. Being able to fold the wings is also helpful when you're at a strange airport and there's a hailstorm coming through. You can save a lot of grief with a

couple minutes of folding and squeezing it into a corporate hangar that otherwise wouldn't be possible.

The 2+2 designation comes from the uses for the 37 cubic feet of baggage space aft of the pilot/passenger seats. It's possible to snap in two seats that will accommodate a couple of kids (people up to 5' tall), or pop the seats out and pack away everything, including a kitchen sink. In fact, when New GlaStar brought their prototype to Oshkosh last summer, they stopped at Cabela's Outfitting in Nebraska and picked up a load of gear that would overflow TWO copies of most aircraft. Included among the sleeping bags, tents, coolers, cooking gear, fishing gear and other miscellaneous useful campsite implements was an impressively complete fold-up kitchen...with a sink! And there was still enough room to haul a couple weeks worth of provisions.

Altogether, the 2+2 can take 1,000 pounds of pilot, passenger(s),

rivers, some being strictly one-way strips. The factory pilots have yet to find one they can't get into easily. The reason for such versatility ties into the outstanding performance of the Sportsman.

Designed for 180 to 200-hp Lycoming engines, the prototype that I got to fly has the smaller of the two. It still provided sassy performance. There was plenty of power and excellent control response.

I stand 6'5" tall, tip the scales at 220, and the factory pilot who went with me is not far behind. The aircraft was equipped with 8.50 x 6 tires that put it into a rakish three-point attitude. Getting my long legs inside was a bit of a strain, but once in, the seats were comfortable and I was surprised to discover that I could see over the nose.

The seat is adjustable and at first I thought I might have to move it forward, but I decided to stretch out. Lots of headroom and in spite of the



The instrument panel, control sticks and dual rudder/brake pedals are seen in this view.

fuel, cargo or kids, or any combination thereof. Looked at from another angle, the pilot and passenger can fill up the standard fuel tanks and still cart off 300 pounds of cargo or kids. Then it's off to the toolies.

Performance— at Airports and Beyond

Idaho and Montana have their share of high pucker-factor runways in among their mountains and

bulk of the two of us, we had plenty of shoulder room. The flaps handle is located between the seats, on the floor—easy to reach and easy to pull. The console that the handle rests on when down provides separation between the two seats. Wiggle room is comparable to the four-place Cessnas.

The Details

The panel for s/n #1 is VFR, but could easily accommodate IFR avion-



ics. Both doors close and latch with a clever four-point system that creates a tight all-around seal. Once closed, a quick scan in all directions supported what was obvious from the outside: that the visibility was excellent. It's not omnivision, of course—there's no glass aft of the wing on the turtledeck—but the windshield, low dashboard, oversized windows in the doors, rear side windows and overhead portals provide more than enough to really enjoy the scenery on the ground and in the air. And if you want even more, you can remove one of the doors. Two tubes descend in a "V" configuration from the wing down through the dash to the firewall like the Stinson 108, but they "disappear" from view in a couple of minutes.



The standard-size tires can be replaced with huge tundra tires for really off-airport landings.

The engine is carbureted and starts like all Lycomings. The noise level in the cockpit has been subdued by the good door seals, insulation, carpeting and upholstery. With an ANR headset, engine sounds are almost non-existent.

Taxiing out to the runup area is easy. As noted earlier, I could see over the nose quite well and was able to taxi without repeated weaving for visibility. If I had been several inches shorter, the view might be obstructed enough to require some snaking. Directional control on the ground is easy. With a bit of forward motion, the tailwheel and rudder are effective and a light tap on the right or left brake significantly enhances the response.

Test Flight

During the runup, I was impressed with the way I had settled in; it was already beginning to feel familiar and comfortable. The toe brakes easily held us in place while I checked the mags, carb heat and cycled the constant-speed prop.

Applying full power on the active brings an immediate response. In a plane length or two the tail comes up and it's airborne REALLY soon after that. No reason to doubt the factory's claim of liftoff in 350 feet, especially with the cargo area empty. The rate of climb was equally impressive. We had full fuel tanks and Arlington airport is only a couple hundred feet above sea level. Temperature was around 80 degrees. We passed the

1500-fpm rate before we crossed the end of the runway.

As I turned to depart the airport traffic pattern, the second surprise came home: aileron response is real snappy. It makes a salute that any drill sergeant would admire. To affirm the reaction, I began a series of Dutch Rolls while we were still climbing, learning in the process that the roll rate is similar to my biplane which has four ailerons. Control harmony is a real plus in the Sportsman.

Reaching cruise altitude, I pushed the electric trim button, quickly bringing us into level attitude. There's also an electric aileron trim, but wherever it was seemed to be just fine, so I left it there until later, when I pushed right then left to see



There are easily removed panels on the top of the wing to facilitate wing folding.



There is an anti-servo tab mounted on both ailerons.



The flap track is new on the Sportsman model.



Stabilons provide greater stability when approaching stalls and during landings.

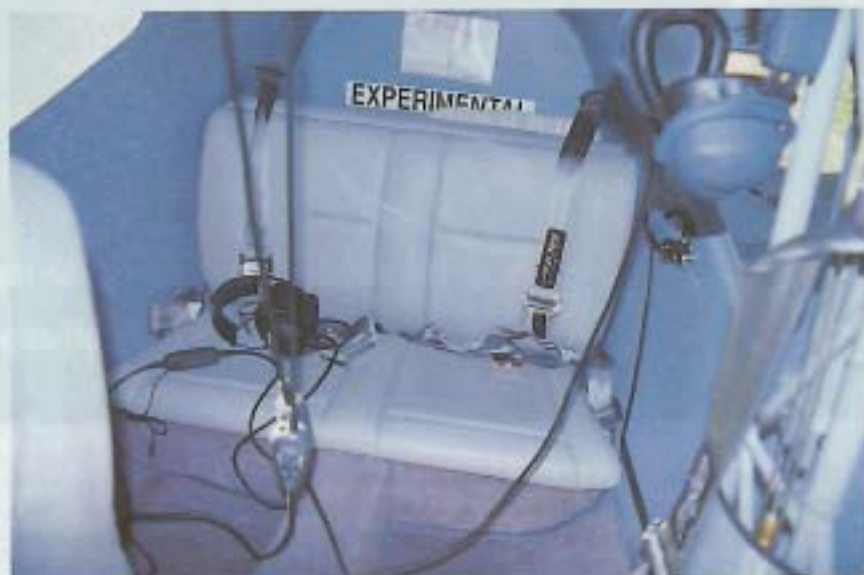
what it did. When you find the neutral position, there didn't seem to be any need for further input, regardless of power settings or activity.

Flying a square pattern, with about one mile on each leg, it was possible to average ground speed readings on the GPS: at 2,500 feet, with settings of 24 inches x 2400 rpm, the Sportsman will develop a ground speed of 127 knots in no wind conditions. That's 146 mph+. Not bad for 180 horsepower and oversized tires.

Time to check out stall response. Full-power stalls recover before you can move the stick all the way forward. At the "breaking point," the aircraft goes from a strong buffet to a forward wings-level mush. The attitude required to produce a full, deep stall is so radical that it seemed pointless to try it more than once. An inadvertent power-on stall would require a distraction at the level of something like an exploding atomic bomb. Power-off stalls are much gentler affairs that produce yawns and require a small addition of power to exit. The Sportsman is well behaved in both types of stall responses.

Landing

I decided to shoot my first landing at Bayview, about 30 miles from Arlington, which had a runway



The rear seats are removable for extra storage and when installed will hold two people up to five feet tall. Obviously kids are just the right size for these seats, thus the 2+2 designation.

pointed straight into the wind. The 150 or so landings I'd done prior to flying the Sportsman were in my Marquart Charger biplane, which seats two people in tandem. It's one of those aircraft you learn to land by Braille. Because the aircraft is based at Belen, New Mexico, 5,200-foot msl, the approaches are at a higher ground speed than at sea level. Consequently, setting up an approach and crossing the threshold at a slower speed and in a taildragger

that had such superb forward visibility made it all seem like a no-brainer. Well, that's a formula for creating problems and when the Sportsman bounced about 15 feet back into the air, I got to test sudden full throttle response. Fortunately, it's great!

There's a lot more sponging built into the spring gear on the Sportsman and the oversized tires contribute to it. Reminded me of my first attempt at a wheel landing in a Cessna 120. The shock subsided on downwind and with a more studied approach, the Sportsman did what it was designed to do. Touchdown comes gently and smoothly to those with less ham in their hands. It really kisses the runway at what seemed like an incredibly slow speed. This aircraft is user-friendly if the user doesn't behave like a gorilla.

The final surprise of our brief flight was rollout; if we didn't hit the

factory spec of 260 feet, we were darn close. On a sod strip or a riverbed, it would clearly be less. It tracks straight when in contact with the runway and requires little dancing on the rudder pedals...like some biplanes I know.

The Feel of Flight

There's something about the Sportsman, though, that you can't measure in knots, fpm climb or roll rate. It's the "feel" you get when



The Sportsman airframe can handle either a 180 or 200-hp engine.

you're flying low and tracking the wandering course of a river or skimming across mountain ridges or just following your whims instead of a flightplan. This is one of those aircraft that replicates your will so precisely that it brings back those childhood memories of running down a hillside, arms extended and banked, feeling like you're really airborne. Point is, you are aloft and you are banking in a dream-like encounter with reality. There's a smoothness in the transition from thought to actual changes in direction or altitude that doesn't occur in a lot of aircraft. Part of it is simply being aware that the Sportsman can take you just about anywhere you want to go. If it had a middle name, it would surely be "versatility."

Truly New GlaStar

This isn't a GlaStar. That design, which debuted back around 1993, found a large, enthusiastic audience and continues to sell on its own merits. Over 900 GlaStars have been started, and well over a third of those are already on the

flight line. There were so many desirable characteristics in the original GlaStar that it was used as a baseline for the Sportsman. Much has changed, however, and few parts are interchangeable.

Though the fuselage retained the familiar GlaStar shape, it's been expanded considerably, especially in the aft cockpit/baggage area allowing room for a couple sets of golf clubs, bulky scuba gear, skis and poles, sets of snowshoes, or 9-foot fishing rods. To accommodate the extra cargo space, they moved the tail and tailwheel back one foot. The tail group could be bolted onto the original GlaStar, but that's about all that's interchangeable. The wings have the same span and airfoil, but internally they're a different breed with more ribs, thicker skins and spars and no hat sections. This was done for added strength and ease of construction. The landing gear, wing struts, safety cage and fuselage have also been beefed up to allow for an additional 340

pounds, raising the total to 2300 pounds. The height of the safety cage has been increased, a few tube locations have been moved and some of the tubes are thicker.

There are delta tabs on top of the wings that enhance stability in stall. The ailerons have anti-servo tabs for lightening the loads. Slotted flap tracks are new and the flap is longer with all-new ribs, spars and skins. The flap handle has two positions, can be deployed at a higher speed and requires a much lighter touch than the GlaStar. The Sportsman's seats are also set higher.

Sportsman kits are available in standard format or Jumpstart. Since introducing the Jumpstart program with the GlaStar and Glassir series, about 90 percent of the orders are now for Jumpstart kits. Understandably. After opening the box, the gear can be bolted on, the tailgroup put in place and the wings hung over the fuselage; it almost looks like a finished airframe. Perhaps the greatest value in the Jumpstart is the fact that all critical alignments are fabricated

The GlaStar Sportsman is the ideal small, family, STOL, go-anywhere airplane.



at the factory. There's no chance of winding up with a warped or out of trim airframe. The amateur-built builder is satisfied by different types of tasks left for the builder and the monotony of bucking thousands of rivets is eliminated.

With the wing kit, the builder slides in the fuel tanks, runs the fuel lines, cables and the wires for lighting, and then he places the pre-drilled upper wing skin in place and rivets it in place.

The safety cage is built into the two composite fuselage halves that are mated at the factory where the bulkheads are also installed. Essentially, the fuselage is structurally complete, requiring the builder to add doors, windows, instrument panel, seats and upholstery. The firewall just slides in place and the only work involving fiberglass resin



There are two skylights and they prove very helpful when making turns in the pattern.

comes when the airbox gets attached to the cowl. As if that weren't enough, all surfaces are either primed or gel coated. There is no bending or cutting of aluminum, no aligning, and the only holes that get drilled are for securing the fuel tanks. The only riveting is the top skin of the wing. Builders find that the fabricating is essentially limited to systems in the aircraft. The rest is assembly; the kind of fit-Tab-A-into-Slot-B stuff. There's no reason why a committed builder, having a first-time experience, couldn't get to the flight line in six months...or less.

For More Information

Contact the company at www.newglasair.com, e-mail them at info@newglasair.com or call 360/435-8533, ext. 232.

