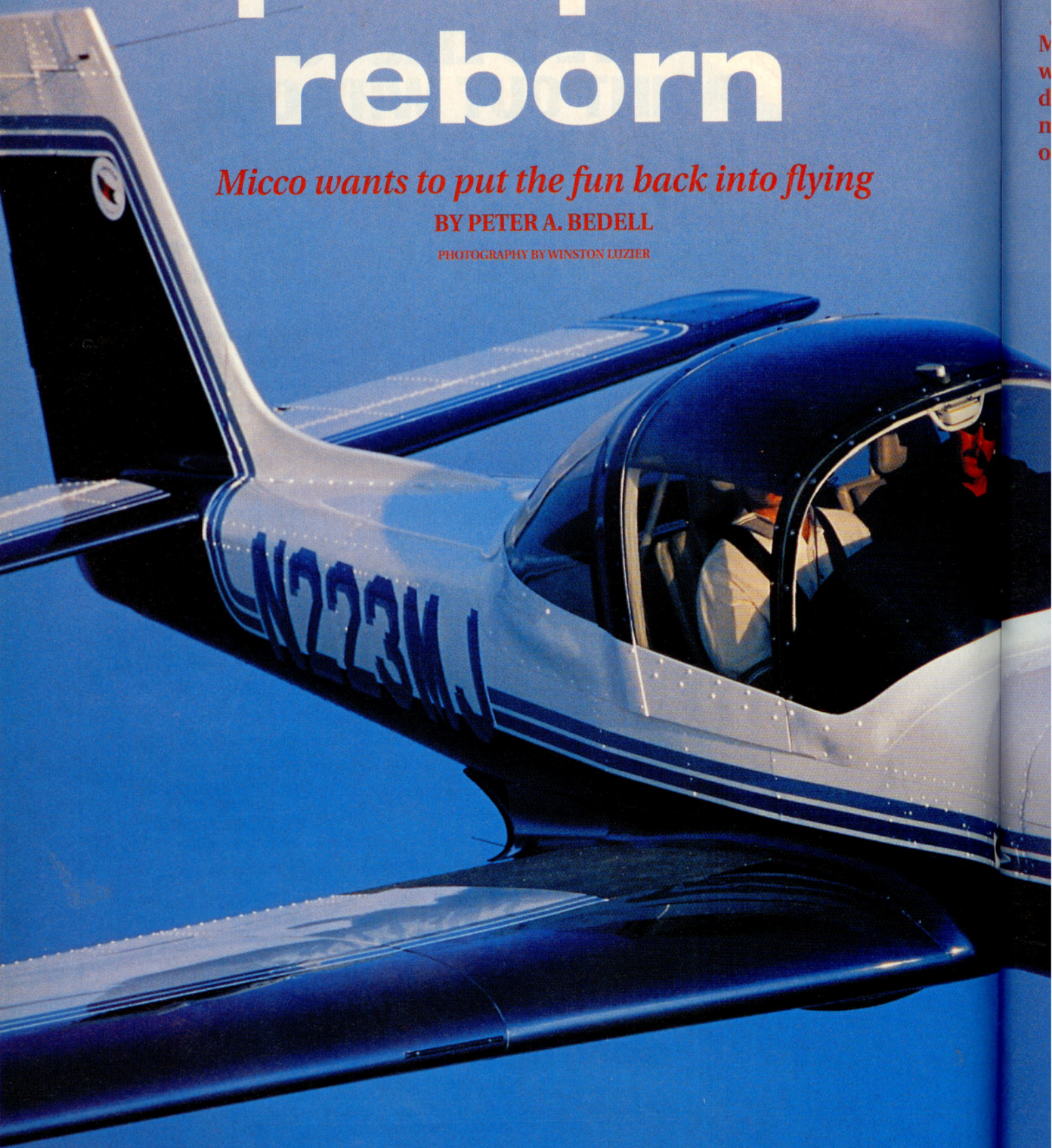


Sportplane reborn

Micco wants to put the fun back into flying

BY PETER A. BEDELL

PHOTOGRAPHY BY WINSTON LUZIER



Too often in these pages we focus so much on an airplane's attributes in getting us quickly and efficiently from point A to B that we lose focus on what prompted most of us to get our pilot certificate in the first place—the fact that flying is fun. One flight in Micco's new SP20 sportplane can bring you right back to the days when you walked around with a smile on your face for several days after a flight. ■ For our practical side the Micco delivers as well. It provides its owner with a fully certified IFR traveling machine for those more mundane, yet necessary, point-A-to-point-B flights. And if you want to throw in a loop or roll along the way to change the scenery, then so be it. ■ It's been a long road for the





Micco's SP26 prototype (background) joins up with the SP20 for a photo shoot off the coast of Florida (above). Seminole Chairman "Chief" James Billie renamed the company Micco, which means leader or superior one (below).

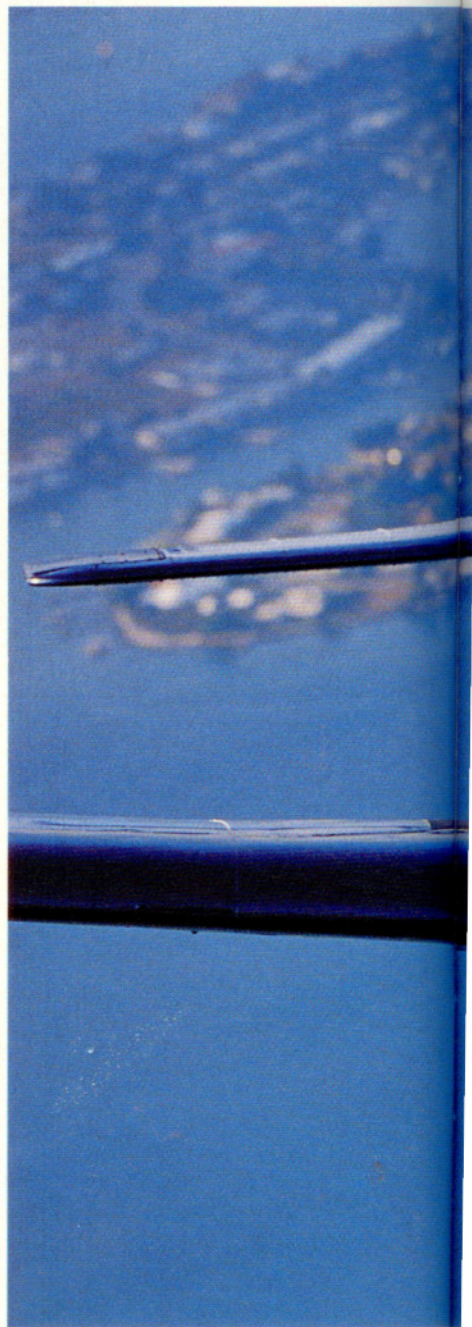
Micco folks in Fort Pierce, Florida. Even though the airplane is loosely based upon the already-certified Meyers 145A design, the certification took five years and millions of dollars. And were it not for the strong financial backing of the Seminole Tribe of Florida, the airplane simply wouldn't exist. The Seminoles bought the type certificate for the Meyers 145A in 1994 under the New Meyers Aircraft Company banner. Seminole Chairman "Chief" James Billie, an avid aviator and head of the Seminole Tribe, renamed the company Micco in 1997. The name translates to *leader* or



superior one in English and symbolizes how personal an investment Billie and the Seminoles have in this project. Micco also happens to be the name of Billie's first son. The SP20 is the first of what Micco President DeWitt Beckett hopes will be a family of airplanes. It is not certified in the Acrobatic category yet since the design is still undergoing spin testing. The next version to be certified is the 260-hp SP26, which is expected to be certified in both the Acrobatic and Utility categories by September.

The Micco sportplanes are highly modified versions of the Meyers 145A, of

which only about 20 were built between 1948 and 1954. Retained in the Micco is the Meyers' basic design of the center wing section. Under the aluminum skin, welded steel tubes neatly coated in an epoxy primer span the area between the main landing gear and evoke a look and feel of substance. When certified in the Acrobatic category, the SP26 will have a flight load envelope of plus 6 and minus 3 Gs. (There will be no inverted fuel and oil systems, so the airplane will be limited to positive-G maneuvers.) The cabin section lies in the middle of this assembly and is heavily beefed up from the Meyers 145A design. Flush riveting is used on the wings for a smooth finish. Under the skin, mil-spec hardware is



used throughout in an effort to ensure long component life.

Micco has designed a fully retractable conventional (tailwheel) landing gear à la the North American P-51 Mustang. Both the main gear and the tailwheel retract, although only the tailwheel is fully enclosed behind a set of doors. Why a tailwheel design? Micco's Beckett thinks that the pendulum is swinging back toward the belief that pilots trained in tailwheel airplanes have superior rudder control and awareness of an airplane's aerodynamics. "This airplane will make pilots, not drivers," says Beckett.

It seems that there may be an audience for this kind of airplane, as evidenced by the reintroduction of the

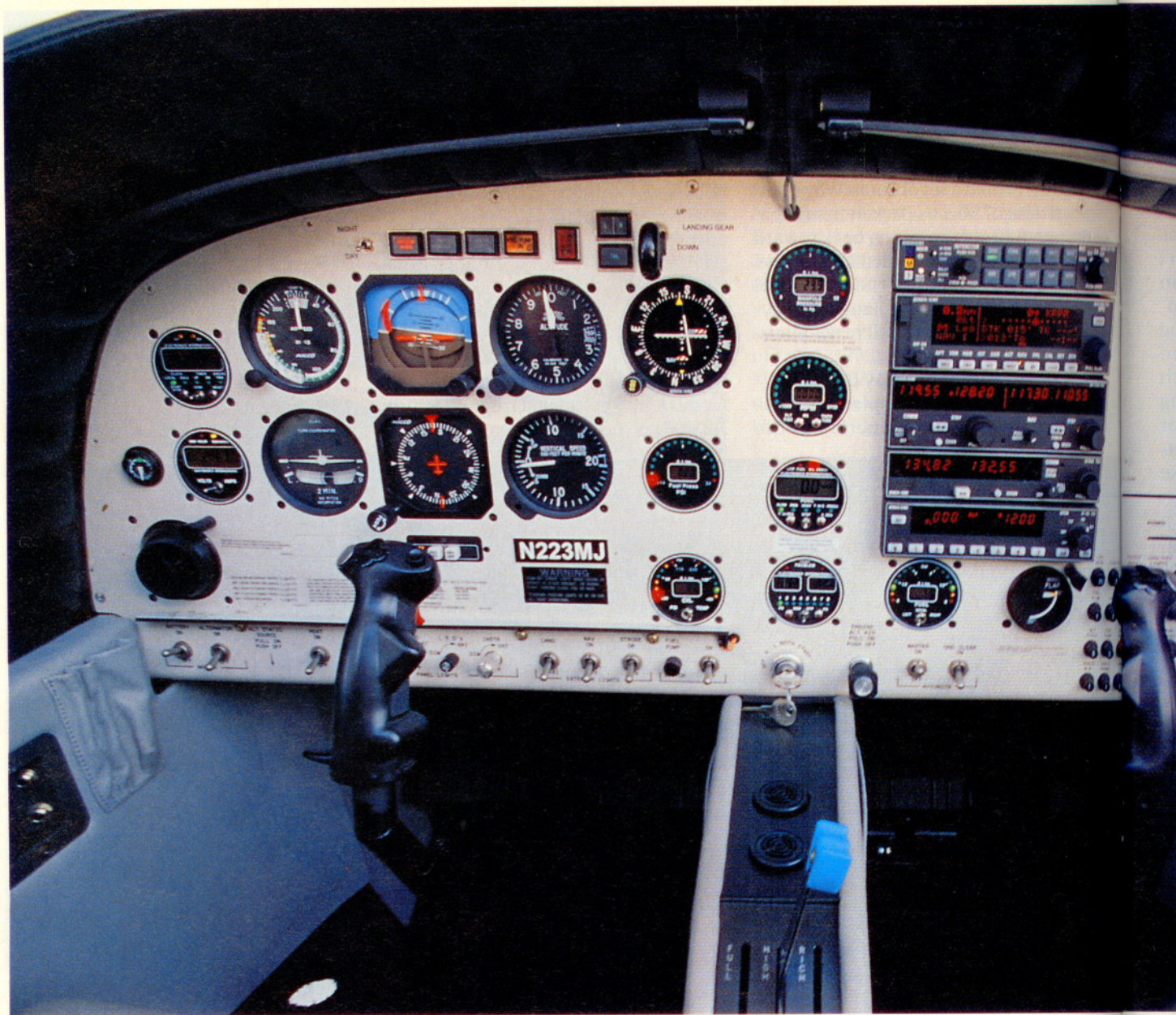
LoPresti Fury (see "Return of the Fury," October 1999 *Pilot*). Micco has been in contact with some rather large flight schools about purchasing what may be the perfect all-in-one trainer. When certified, the SP26 will be the one new airplane that will serve as an instrument, tailwheel, complex, high-performance, and aerobatic training machine. In addition, if a student scans the flight school line looking for his trainer-to-be, which do you think he'd pick? Probably the one that looks like a barrel of fun just sitting on the ramp.

I flew the third production SP20, which was to be delivered to Sportman's Airpark in Newburg, Oregon, in July. N223MJ is the next-to-last Micco to be

equipped with a Honeywell Bendix/King IFR radio stack. Micco recently sealed a deal with UPS Aviation Technologies to install the Apollo GX60 GPS/mapcom, SL30 nav/com, SL15 audio panel/intercom, and SL70 transponder in all future Micco airplanes. The UPS Apollo MX20 multifunction display is an \$8,500 option. An S-Tec System Thirty two-axis autopilot adds \$10,000 to the \$165,000 price.

Preflight is straightforward, and inspection of most critical components is easy. Shorter pilots will need a step to check and service the oil through the access panel in the top of the Micco's long but slim snout. The SP20's Lycoming IO-360 is slung out an extra 12 inches, thanks to a fuselage plug





between the firewall and the cabin area. The plug is removed in the SP26 to make room for the larger and heavier six-cylinder Lycoming IO-540.

It's a healthy step up to the flap of a Micco to access the cabin. Once there, you can step on the seats if you must, but the new Micco owner would likely prefer that you maneuver more gingerly and step directly to the floor to protect the leather-clad seats. Once in position, a four-point harness holds you in place. The fighter-like control stick has a "trigger" that remotely activates either the landing or taxi lights, depending on the position of the panel switch. It's all part of the HOTAS (hands on throttle and stick) concept that keeps the pilot's hands where they should be. In reality, the Micco folks are playing off that deep-down feeling

that all of us have—the desire to play fighter pilot once in a while.

There are a few ergonomic nits to pick with the Micco airplanes. One is the placement of the ignition switch in the center of the panel. It makes starting a body-twisting affair, since your right hand is operating the throttle or mixture while your left hand must reach over to the center of the panel to turn the key. This middle-of-the-panel key placement does, however, allow an instructor easier access to the ignition switch. The other nit is that the main landing gear wells intrude into the available foot room. I often found my left heel battling the hump in the floor for occupancy of that space.

Newcomers to the Micco need not be intimidated by the ground handling. As tailwheel airplanes go, Miccos are tame.

Visibility over the nose is excellent, and the rudder becomes effective at a relatively low speed. It reminded me of a Bellanca Decathlon in terms of visibility and ground handling. Although the tailwheel is not steerable, ground steering is easily accomplished by differential braking—just keep an eye on the maintenance of the brakes because they're all you've got for steering. Although we didn't provoke it, Micco's Director of Aviation Services Greg Garee says the airplane can be stood up on its nose with the brakes.

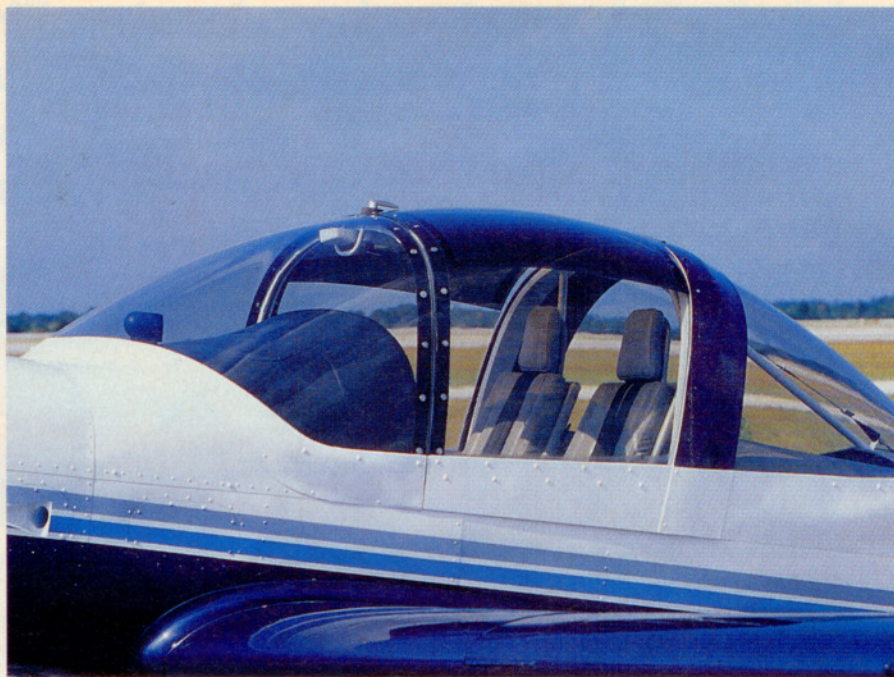
While taxiing into position on the runway, the canopy is slid forward to close with a single latch. The two-place cockpit feels quite open and airy with the expanse of Plexiglas that surrounds you from your elbows up. Once closed, the cabin heats up quickly, but Micco



N223MJ is one of the last Miccos to be equipped with Bendix/King avionics (above). A stack of radio gear from UPS Aviation Technologies will replace it. The engine intake scoop (far right) is modeled after a Chevy Camaro's hood scoop.

has designed a removable tinted insert to calm the greenhouse effect. But, like any airplane manufactured in Florida, there is adequate ventilation available to keep the sweat off your brow once the airplane is moving.

A little forward pressure will raise the tail at about 35 knots. A light tug on the stick at about 65 kt will have you off by the time 70 ticks by. The SP20 is somewhat underpowered, and its initial climb rate is rather anemic when both seats are filled and Florida's heat and humidity are in full swing. On a cooler early morning flight we were able to



achieve about 800 feet per minute with a load about 120 pounds shy of the 2,600-pound maximum takeoff weight.

For now the SP20 is not certified in the Acrobatic category, so we refrained from doing any maneuvers beyond the airplane's Utility category envelope. A slow approach to a stall never resulted in a true break. The airplane pitched up and down and buffeted in a level attitude while descending at close to 1,000 fpm. Through copious amounts of buffeting, the wing provides more than enough warning that you are approaching an angle of attack (AOA) that the wing doesn't like. While maintaining

this AOA with power, the airplane still happily performed 20-degree-bank turns, buffeting throughout.

In cruise at 6,500 feet, the SP20 stabilized at 125-kt true airspeed on a warmer-than-standard day at about 75-percent power. It won't win any speed or time-to-climb races, but there is a likely culprit for the sluggish performance. Beckett explained that dynamometer testing of the SP20's engine at Lycoming resulted in a net horsepower of about 183 because of the design of the exhaust system. A properly tuned exhaust system would be able to extract the engine's full 200 hp. The discovery was made so late in the program, however, that the certification process would have had to start all over again.

The soon-to-be-certified SP26 on the other hand, is a sprightly performer, and you can feel that as soon as the throttle is advanced on takeoff because the torque of the bigger Lycoming requires a good amount of right rudder to compensate. On an 85-degree Fahrenheit day with both seats full and 35 gallons of fuel, the SP26 prototype climbed at 1,200 fpm at 80 to 85 kt indicated. In cruise, the airplane managed



145 KTAS at 75-percent power. Micco expects production SP26s to cruise faster than 150 kt, since they will not be equipped with spin chutes and other drag inducers that are affixed to the prototype's airframe for certification.

Overall, the stick-and-rudder forces of both airplanes are fairly light for an airplane certified to the new Part 23 regulations, the requirements of which tend to numb an airplane's nimbleness in favor of stability. Servo tabs that are installed on

the ailerons of the SP26 prototype substantially lighten control forces and will be incorporated in future SP20s.

As I entered a downwind leg of the Fort Pierce pattern I lowered the landing gear at 118 KIAS. Supplementing a three-in-the-green caption light on the panel are two sight windows in the aforementioned wheel wells in the floor. If you see daylight in those windows, then the gear is no longer tucked up in the wells. On final, I ran out of nose-up

trim and had to hold a little back-pressure on the stick throughout the rest of the trip to the runway. It's not a huge inconvenience, but it makes you wonder whether it would be possible to land the airplane uneventfully if there was an elevator control failure. The airplane's flight manual has a procedure for it, but hopefully you'll never have to try it.

Landing a Micco is not a problem as with some other taildraggers. I hadn't flown a tailwheel airplane in more than two years and had little difficulty negotiating landings in a steady quartering crosswind. Both wheel landings and three-pointers are easy to cope with since the main oleo struts don't spring you back into the air. The rudder remains quite effective until the tail settles to the ground when the brakes take over directional control duties.

The only operational gotcha is a 2,492-pound maximum landing weight, meaning that you'll have to burn off as much as 18 gallons of fuel prior to landing after a takeoff at max gross weight. With two 200-pounders on board you would need to land with no more than 33 gallons of fuel. It's not a huge deal, but it's something you'd need to be aware of.

MiccOS will likely find homes in the hangars of pilots looking for an airplane in which to tool around the local area. Although most of the trips will be local fun flights, a few weekend getaways with the spouse and a few bags are within easy reach, even if the weather is IFR. Few airplanes today fit that bill and the few that do don't look as sleek as the Micco airplanes.

Judging by the order book, the SP26, with its enhanced performance and imminent certification in the Acrobatic category, is shaping up to be the big seller of the two. It is expected to list for \$199,500 with VFR equipment and \$225,000 when readied for IFR duty. When production is in full swing Micco hopes to push one airplane out the door every week. With production rates like that, you should see Miccos appearing at more and more airports across the country. You'll be able to spot the pilots. They'll be the ones walking around with the big smiles on their faces. □

Micco SP20

Base price: \$150,000
Price as tested: \$165,000

Specifications

Powerplant	Lycoming IO-360-C1E6	Cruise speed/endurance w/45-min rsv, std fuel (fuel consumption)	
Recommended TBO	2,000 hr	@ 75% power, best power	140 kt/6 hr (60 pph/10 gph)
Propeller	McCaughey QZP	7,000 ft	
	3-blade, constant-speed, 74-in dia	@ 65% power, best power	133 kt/6.8 hr (54 pph/9 gph)
Length	24 ft 1 in	@ 55% power, best economy	127 kt/7.2 hr (51 pph/8.5 gph)
Height	6 ft 6 in	10,000 ft	
Wingspan	30 ft 4 in	Service ceiling	12,000 ft
Wing area	156.6 sq ft	Landing distance over 50-ft obstacle	2,000 ft
Wing loading	16.6 lb/sq ft	Landing distance, ground roll	700 ft
Power loading	13 lb/hp		
Seats	2		
Cabin length	5 ft 5 in		
Cabin width	3 ft 7 in		
Cabin height	3 ft 3 in		
Empty weight	1,800 lb		
Empty weight, as tested	1,893 lb		
Maximum ramp weight	2,613 lb		
Useful load	800 lb		
Useful load, as tested	720 lb		
Payload w/full fuel	405 lb		
Payload w/full fuel, as tested	312 lb		
Maximum takeoff weight	2,600 lb		
Maximum landing weight	2,492 lb		
Fuel capacity	72 gal (68 gal usable) 432 lb (408 lb usable)		
Oil capacity	8 qt		
Baggage capacity	100 lb, 14 cu ft		

Limiting and Recommended Airspeeds

V_X (best angle of climb)	73 KIAS
V_Y (best rate of climb)	82 KIAS
V_A (design maneuvering)	120 KIAS
V_{FE} (max flap extended)	110 KIAS
V_{LE} (max gear extended)	128 KIAS
V_{LO} (max gear operating)	118 KIAS
V_{NO} (max structural cruising)	138 KIAS
V_{NE} (never exceed)	180 KIAS
V_R (rotation)	65 KIAS
V_{S1} (stall, clean)	55 KIAS
V_{SO} (stall, in landing configuration)	49 KIAS

For more information, contact Micco Aircraft Company, 3100 Airman's Drive, Fort Pierce, Florida 34946; telephone 800/647-9535 or 561/465-9996; or visit the Web site (www.miccoair.com).

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.

i Additional information on the Micco line may be found on AOPA Online (www.aopa.org/pilot/links.shtml). Peter A. Bedell, AOPA 1136339, is a first officer with a regional airline and former technical editor of AOPA Pilot. E-mail the author at pete.bedell@aopa.org