SIAI-Marchetti/Aermacchi SF.260

Accessible Exotica

For some strange reason, those of us with limited funds or an irrepressible sensible streak demand utility from our large investments. Like airplanes. These things need to be tools (useful, handy, and reliable tools, for that matter) in order to justify their costs—even when they are primarily recreational devices. So who's kidding whom? ■ Within this convoluted reasoning resides the idea that practical airplanes tend to be dull and that truly fun and exhilarating models are impractical. You can't have an engaging airplane that'll also travel, and you won't find anything with a history of military and airshow successes that won't be a pain in the rear to keep. ■ But what if you could have an airplane that's both—a good traveling companion when friends and family await you hundreds of miles away and a weekend compatriot that encourages antisocial frolicking? You'd

Could this be the last airplane you will ever need?

BY MARC E. COOK

PHOTOGRAPHY BY MIKE FIZER


AIRCRAFT OF THE WORLD
N941TA
F-260 WARRIOR
U.S. AIR FORCE
NX462


07
AIR FORCE


MAX SPEED 235 KT
LDG GEAR OPS 105 KT
FULL FLAPS OPS 105 KT
20° FLAPS OPS 125 KT
AVIONICS MASTER
MAIN
ON
OFF
XMIT
OFF (FAIL SAFE)
PASS
COPILOT
CREW
PILOT
FOR IFR NAVIGATION
XMTR
ICS
4 MIN TURN
COM 1
COM 2
DME
XPDR
M/B
AUDIO

buy one—or at least want one very badly, wouldn't you?

Try the SIAI-Marchetti SF.260 on for size. What's that? You mean the paramilitary, hot-blooded Italian speedster with a wing as thin as a mouse pad and the temperament of a Mafia don? That's the one. But glance away from the SF.260's image and history for a moment to see it for what it is: a supremely fine-flying airplane that isn't as impractical or as hot-blooded as you'd think.

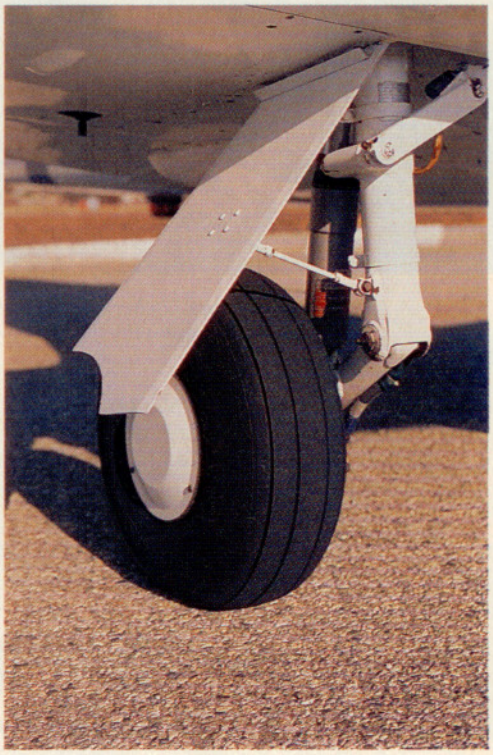
For one thing, it's reasonably fast. According to the almost excessively complete flight manual for the SF.260D model, the Marchetti will cruise along at 175 knots on 14 gph (6,000 feet, 75-percent power) and can punch through the air at 165 kt at 15,000 feet on a mere 59-percent power (and burning a measly 12.7 gph). These numbers are for the carbureted version of the 260-horsepower Lycoming O-540; the injected engine is available as an option, and fitted to most of the used fleet, saves between 0.5 and 0.8 gph in cruise. With normal equipment, the 260D will carry two 170-pound passengers with full fuel (64 gallons) but no baggage. It's worth noting that the later airplanes (C and D models) are heavier than the earlier designations, yet the maximum gross weight of 2,430 pounds has not changed.

So the SF.260 is not weight-practical like a Cessna 210 but it's not totally worthless either. If your trip is 500 nm or less, you can trade fuel for bags or a third, hardy passenger and still get the job done (the SF is a three-place airplane).

The SF was designed by the vaunted Stelio Frati in the 1960s and available in small numbers here since the early 1970s, sold for awhile as Waco Meteors. Frati's résumé includes single- and twin-engine piston designs as well as jets; his wood-and-glue F.8 Falco is currently available as a homebuilt and has a following that's nothing short of fanatical.

The first three airplanes were built by Aviamilano—then called the F.250 because it had a 250-hp version of the O-540—but the company never put it into large-scale production; only one of those three is believed to still be flying. Italian aerospace conglomerate SIAI-Marchetti began production of the design with the SF.260A. The company saw a market for a lightweight trainer that could also work as a gunship for cash-strapped Third World militaries. Marchettis have been purchased by some two dozen countries, including Belgium, Bolivia, Italy, Libya, Singapore, and Thailand.

Corporate parentage has transferred from SIAI-Marchetti into the Agusta group and finally to Aermacchi S.p.A., where it resides today. In production are the 260E and F models—the main difference is that the F is the carbureted engine and the E is fuel-injected. (Previously, injection was an option and only shows up as a spec number on a particular airframe.)



Similarly, the line of responsibility for the United States has changed; it's now in the hands of Mike Patlin and his Airpower Aviation Resources (805/499-0307). Patlin, whose other day job is to source and manage aircraft for movie and television productions, owns a D model and took on dealing with the Italians in part over his frustration with the spares situation. He's working diligently to make hard-to-find parts less hard to find—the SF.260 community says he's making a dent in it. What's more, many of the big, expensive items are sourced from American companies anyway. That's a Lycoming engine out there

Trailing-link gear (above) smooths even off-target touchdowns, while the instrument panel (left) is large and flexible enough to cater to the gadget-happy Italophile.

Airshow pilot Chuck Lischer's distinctive SE.260 sports a menacing face. His routines exemplify the grace and poise of the Marchetti.

turning a Hartzell propeller. Most of the servo motors are made here, and the wheels, tires, brakes, battery, and other consumables are all off-the-shelf items.

Incidentally, Patlin's pitch isn't to slide you into one of these brand-new babies. Assuming he could find a slot on the small and well-filled Aermacchi order book, a new 260E or F would cost the better part of a half-million dollars. He acknowledges that it's a hard sell against used airplanes worth around half of that.

Through the years, the various manufacturers made numerous changes and improvements. With the B version, which entered production in 1970, the airplane got a forward spar reinforcement and a leading-edge cuff on the outer portion of the wing. The vertical stabilizer was also enlarged. By 1976, the C model was in production, featuring a lower seat, aileron trim tab, sliding instrument panel (for simpler maintenance), and a faster-acting landing-gear motor. (In 1981, the turboprop SE.260TP was unleashed.) Eleven years later, the D debuted with a shorter nose-gear strut and a wing-spar reinforcement as well as a revised electrical system. In 1991, the E and F models brought a host of improvements including semiautomatic fuel management, electric elevator trim, higher landing-gear operating speeds, and revised flaps.

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Fuel management is about the only place you'd cast a legitimate complaint the Marchetti's way. Four tanks hold the 64 gallons of usable fuel—12.7 gallons in each main and 18.3 in each tip. The normal procedure is to take off on one of the mains and within 30 minutes switch to the tips; there is a position on the prominent fuel selector to drain from both tips. Drain them and then use the other main tank's supply. Look at that tiny wing, one that has to hold structure, landing gear, and fuel, and you know instantly why there are tip tanks.

These ongoing changes are well and good, but the majority of the airplanes on the market—make that a very small market, fewer than 100 aircraft—are Cs and Ds. Most have had some military experience, so good maintenance records and proper demilitarizing are critical. Patlin has a line on good shops and knowledgeable mechanics. Too, the SE.260 community is particularly tight-knit, so assistance and recommendations are never far away.

What these Marchetti aficionados get worked up about are the airplane's handling qualities. Various test pilots, kibitzers, and magazine scribblers have described the 260 as one of—and often *the*—best-handling airplane in exis-

tence. Hyperbole aside, there's much to recommend this Italian racer.

To start with, the airframe is extremely stout, with butt-joined skins that are thicker than you're used to seeing on the run-of-the-mill Bonanza. This gives the airframe a measure of stiffness that allows G-loading without deformation and imparts a solid feel. The small wing (just 108.5 square feet of it) is thin and sharp, and the control surfaces are generously sized. More than that, though, they are geared to the twin sticks in the cabin in such a way that you feel every nuance of the slipstream and can place the nose or wing tip of the airplane in space with astonishing ease.

It's unusual to have both stability and maneuverability in a single package, and the Marchetti comes as close as any design to finding perfection here. Light control responses allow you to initiate a maneuver without feeling like you're fighting the airplane's mass or overcoming big aerodynamic loads on the controls. Yet when you release the input, the airplane is perfectly content to remain along the track you suggested. With neutral spiral stability, the SF requires no more input once it's set into a steep turn but will not drive itself to straight-and-level.

Name your aerobatic maneuver and the 260 will see you through. Ham fists usually take a couple of flights to stop overcontrolling, and pilots accustomed to draggier designs will discover the airplane's tendency to gain great gobs of speed with the nose down. Roll and pitch rates are high and easily managed.

Even if you never take the airplane upside down—only the fuel-injected models have inverted systems—you can still appreciate its fine handling qualities. High wing loading—22.4 pounds per square foot, bested only by the stubby-feathered Socata singles—helps make turbulence less annoying, and the airplane's responsiveness means that a day fighting the bumps won't wear out your arm. On top of that, you can put in an S-Tec autopilot to help with the droning.

In the more prosaic maneuvers—

Military markings are more than just wanna-be stripes. The SF.260 has been used in numerous armed and training duties—though not in the United States—to good effect.

takeoff, landing, that sort of thing—the Marchetti displays an even temperament. Approaches are made between 80 and 90 kt—landing-configuration stall speeds are right at the 61-kt limit—and the airplane's responsiveness only means that you should keep your forearm firmly atop your thigh to prevent unseemly pitch excursions. If you can land a Mooney, you can put the Marchetti on the ground with ease. They are similarly low, with short main gear legs, and likely to balloon with imprudent pitch inputs at the last minute. By far, the Marchetti has the better crosswind manners, thanks to that big, powerful rudder back there.

It's a sweet-handling airplane, it's true; and no orphan. But the field here is small, with fewer than 100 airplanes in the country. Depending upon the history and state of repair, your next dream airplane could be bought for $120,000 to $250,000. Marchetti owners recommend finding an airplane that's already been restored or updated—some of the avionics in the early airplanes belong to another era and should be returned there posthaste—rather than taking on the restoration yourself. Start saving. □

Aermacci/SIAI Marchetti SF.260
Average used price: $120,000 to $250,000

Specifications

Powerplant	Lycoming O-540-E or AEIO-540-D
Recommended TBO	2,000 hr
Propeller	Hartzell constant-speed two-blade
Length	23 ft 4 in
Height	7 ft 11 in
Wingspan	27 ft 5 in
Wing area	108.7 sq ft
Wing loading	24.33 lb/sq ft
Power loading	10.17 lb/hp
Seats	3
Empty weight, typical	1,750 lb
Maximum gross weight	2,645 lb
Useful load	895 lb
Payload w/full fuel	511 lb
Fuel capacity, std	64 gal (62 gal usable) 384 lb (372 lb usable)
Oil capacity	12 qt

Performance

Takeoff distance, ground roll	900 ft
Rate of climb, sea level	1,800 fpm
Maximum level speed, sea level	182 kt
Cruise speed/endurance w/45-min rsv, std fuel (fuel consumption)	
@ 74% power, best economy 6,000 ft	173 kt/3.6 hr (105 pph/ 14.3 gph)
@ 64% power, best economy 12,000 ft	172 kt/4.3 hr (97 pph/12.2 gph)
Service ceiling	19,000 ft
Landing distance, ground roll	885 ft

Limiting and Recommended Airspeeds

V_Y (best rate of climb)	120 KIAS
V_A (design maneuvering)	174 KIAS
V_{FE} (max flap extended)	108 KIAS
V_{LE} (max gear extended)	108 KIAS
V_{NO} (max structural cruising)	187 KIAS
V_{NE} (never exceed)	236 KIAS
V_{S1} (stall, clean)	64 KIAS
V_{SO} (stall, in landing configuration)	73 KIAS

For more information, contact Airpower Aviation Resources at 805/499-0307, or e-mail the company at airpowerinc@earthlink.net

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.

Links to additional information about the SF.260 may be found on AOPA Online (www.aopa.org/pilot/links.shtml). E-mail the author at marc.cook@aopa.org