



FALCO F.8L

Sculpture with scoot

BY EDWARD G. TRIPP

There is a new homebuilt on the market that should appeal to any pilot who has lusted after an airplane that can do sporting aerobatics yet provide efficient transportation. It is also a beauty, with elegant lines, excellent visibility and delightful handling.

At its gross weight of 1,808 pounds, the ultimate load factor is 8.7 Gs positive (9.4 Gs at the aerobatic gross weight of 1,650 pounds), and never exceed speed (Vne) is 208 KIAS. With a 160-hp engine and constant speed propeller, 65-percent cruise speed at 6,000 feet is 165 knots.

How about that? And there is more. It—the Falco F.8L, or Hawk in English—is a wood and fabric airplane that once was a certificated, produc-

tion aircraft. That means, if this type of airplane appeals to you and you are interested enough to apply the time and effort, you don't have to be an engineering and structural test pilot as well as a customer-acceptance test pilot when the project is finished.

There are a considerable number of pilots for whom the idea of a true dual-purpose airplane does take on the dimensions of lust. Satisfaction of that desire takes enormous gobs of money, and the typical solution is to buy two airplanes: one for sport and one for transportation.

The handful of production aircraft that can meet the definition of dual purpose have been exotic, demanding or expensive; frequently, they have

been all three. The two aircraft that have been available in the United States in recent times that come readily to mind are the Beech Aerobatic Bonanza (a version of the Debonair) and the Siai Marchetti SF.260. The latter was briefly available as the Waco Meteor, one of a selection of European aircraft that were to be imported to this country to form a family with which to charge at Beech, Cessna and Piper's dominance of the world's primary light aircraft market. It did not work, but not because of the visceral appeal of the SF.260.

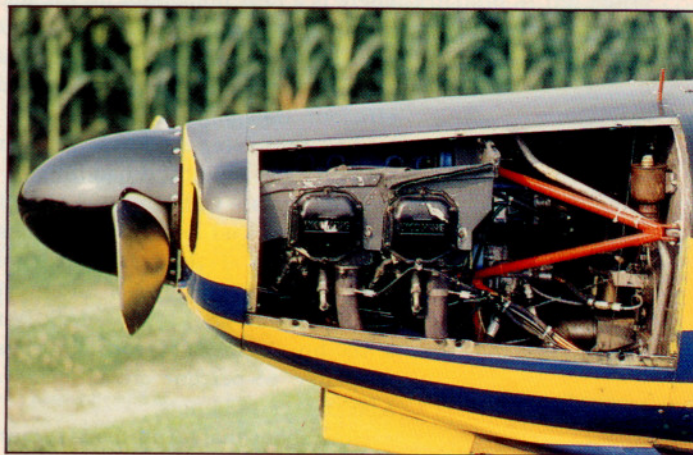
There are a handful of both the Beech and the Siai Marchetti around, and a stunning example of the latter aircraft frequently can be seen at air shows, flown by its long-time owner, Harry Shepard.

The Falco and the SF.260 are products of Stelio Frati, an artist in a business of number-crunching engineers. The 63-year-old Frati began designing aircraft while a student at Milan Polytechnic in the late 1930s and now has about 20 designs to his credit. Frati is still hard at work with a small group of assistants in what is more like a Renaissance atelier than an aircraft research and development facility.

His work is known far better in Europe than in the United States, but the revival of the Falco F.8L, one of his most famous designs and predecessor to the SF.260, may change that.

Sequoia Aircraft Corporation (900 West Franklin Street, Richmond, Virginia 23220) has been offering the Falco as a homebuilt project for the past two years, and President Alfred P. Scott said that 250 sets of plans have been sold and at least 125 aircraft are under construction. One homebuilt Falco has flown and made its debut at Oshkosh this year. Scott said the first aircraft built from Sequoia kits should fly early next year.

The F.8L first flew in 1955 (with a Continental C90 engine) and was certificated shortly afterward. There were 110 Falcos produced during a checkered production history that ran for 12 years: 10 in 1956 with 135-hp Lycoming O-290-D2B powerplants; 20 Series II (with 150-hp Lycoming O-320-A2As) were built from 1957 through 1958; 60 Series III Falco Americas with the same 150-hp engine were built in 1959 and 1960; and 20 Series IV Super Falcos with 160-hp Lycoming O-320-B3B engines and a



Alfred Scott's 1960 Series III Falco America has a 150-hp Lycoming O-320 engine. Later model Series IV Super Falcos come with 160-hp Lycomings.



controllable-pitch propeller were built in 1968. The Falco Americas were modified to comply with U.S. Civil Aeronautical Regulation Part 3 requirements. The Super Falcos had all metal control surfaces and were offered with an optional rear seat that had a load limit of 90 pounds.

Sequoia Aircraft's specifications for the homebuilt version includes all the basic configurations, including a 135-hp version and the option of metal control surfaces, although Scott (and other pilots with experience in the Falco) says performance is too marginal with the small engine and that the additional weight of metal control surfaces makes the original wood and fabric the desired materials.

The Falco in the photographs accompanying this article is one of the Series III versions. It will be 23 years old next January and is Scott's personal airplane (but not, he said, repre-

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sentative of how the modern, homebuilt versions will look). When Scott imported it from Ireland last year, he had to retrofit a fixed-pitch propeller to satisfy the Federal Aviation Administration that it qualified as a production aircraft. The constant speed propeller that had been fitted to it was unacceptable.

Scott's Falco is representative of an Italian production light aircraft of 1960: It looks like many a homebuilt, with quite a few rough spots, a panel on which practically everything looks as though it were an afterthought and a great many pieces and fittings that would get the evil eye from an experienced homebuilder. However, when you look beyond these and through the archaic paint design, you get to the heart of the matter: The Falco is sleek, sensuous, a primarily wood and fabric sculpture.

It flies beautifully. Light, responsive and joyful-making. From the slid-



Larger pilots may find the Falco cockpit cramped, but the visibility is excellent. Scott has replaced his original instruments with more modern ones.



continued

ing canopy to the control sticks, it is very much a sporting aircraft that also is fast and efficient for the amount of horsepower it has and the amount of fuel it burns.

A couple of us on the *Pilot* staff made brief, get-acquainted flights from Scott's 2,000-foot grass strip close to the Rappahannock River in Virginia. It was a bit of a squeeze for me, but an average-size staff member had more than enough room. The fixed-pitch propeller is a cruise design, and Scott's Falco used a good bit of runway getting into the air (I'll take mine with 160 hp and a constant-speed propeller, thanks). But once flying, the Falco quickly showed its delightful qualities, including ultra-light control inputs, which had to be thought more than physically made, even after 23 years that included some rough use and neglect.

In fact, pilots schooled on modern U.S. production aircraft might find the Falco an over-responsive handful on first flight.

My only complaint is that my legs blocked the stick from full aileron travel. This should be taken care of



CONRAD LOZINSKI

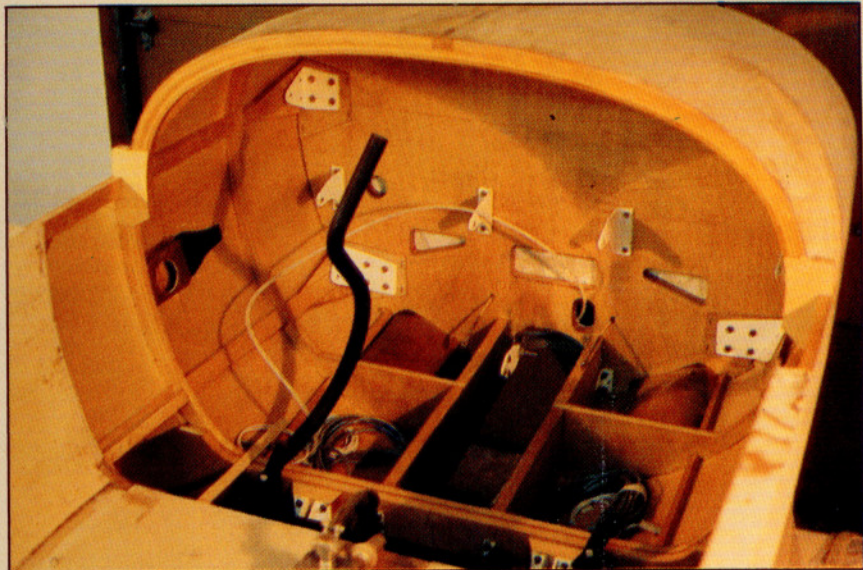
Italian designer Stelio Frati, best known for his Siai Marchetti SF.260 and Falco series of light airplanes, has designed 20 aircraft since his days at Milan Polytechnic in the 1930s.

with the new seats that have been designed. Scott said they will provide more room and be more comfortable. There is a five-point, 40-G safety harness to go with the seats. Other shortcomings are products of 20-year-old manufacturing practices, many of which have been handled while redoing the plans and developing the 25 separate kits that Scott is selling.

For instance, Scott has redesigned the instrument panel completely, rearranging controls, instruments and switches more logically and up to modern standards and providing room for full IFR avionics and instruments. It is a big improvement.

A lot of builders do fine putting the basic structure together, only to find that the mysteries of flight-control runs, wiring, powerplant controls and various instruments and connectors add months, even years, to the project. Scott claims that much of this has been worked out already and the results incorporated into the corresponding kits.

What I have seen of a few of the kits and of the plans bears out his claim (although only a builder can



DAVID ARONSON

The Falco above is being constructed by David Aronson of Minneapolis, Minnesota. Fuselage skins are made of three- to five-ply aircraft-grade birch plywood, bent to form and glued with epoxy. The firewall is covered with asbestos and stainless steel.

FALCO

tell for certain). From what I remember of some European light aircraft factories as recently as the early 1970s, the homebuilt version of the Falco is a more orderly, sanitary and thoroughly worked-out product than many of the individually hand-built "production" aircraft (including the production Falcos).

The proof will be in how well the current builders do with their Falcos, of course. It is not a simple aircraft. It cannot be molded and poured into final form in a matter of a few months. It is complex. Scott said that someone who buys all of the kits (about \$26,000 worth at this writing, and from \$32,000 to \$40,000 to complete, depending on the source and age of the powerplant and the amount of avionics installed) and who is a competent homebuilder would need between 1,200 and 1,400 hours of labor to make it fly.

Just remember: It is a true dual-purpose airplane, it is stunning and different, and it is a delight to fly. And you can spread the inside lore of Stelio Frati, airplane artist, instead of the usual hangar-flying tales. □

FALCO F.8L

Base kit price (25 kits, no engine, no avionics): \$26,000

Hours to complete: 1,200 to 1,400

AOPA Pilot Operations Equipment Category: Cross Country*

Specifications		
150-hp Lycoming O-320-A2A Hartzell, fixed-pitch or constant speed	Powerplant	160-hp Lycoming O-320-B3B Hartzell, fixed-pitch or constant-speed
21 ft 4 in	Propeller	21 ft 4 in
7 ft 6 in	Length	7 ft 6 in
26 ft 3 in	Height	26 ft 3 in
107.5 sq ft	Wingspan	107.5 sq ft
15.8 lb/sq ft	Wing area	16.8 lb/sq ft
11 lb/hp	Wing loading	10.3 lb/hp
11.4 lb/hp	Power loading, Aerobatic	11.3 lb/hp
2	Power loading, Normal and Utility	2 (optional child's seat)
1,132 lb	Seats	1,212 lb
518 lb	Empty weight, equipped	438 lb
583 lb	Useful load, Aerobatic	596 lb
379 lb	Useful load, Normal and Utility	392 lb
1,715 lb	Payload w/full fuel	1,808 lb
1,650 lb	Gross weight, Normal and Utility	1,650 lb
31.2 gal (187.2 lb)	Max Aerobatic weight	31.2 gal (187.2 lb)
88 lb	Fuel capacity	88 lb
1,070 fpm	Baggage capacity	
19,000 ft	Performance	
182 kt	Rate of climb	1,140 fpm
165 kt	Service ceiling	19,000 ft
765 nm	Max level speed	184 kt
	Cruise speed @75% power 6,000 ft	165 kt
	Range, economy cruise	755 nm
	Limiting and Recommended Airspeeds	
53 kt	Vso (Stall in landing configuration)	54 kt
208 kt	Vne (Never exceed)	208 kt

All specifications are based on manufacturer's calculations. All performance figures are based on standard day, standard atmosphere at sea level and gross weight, unless otherwise noted.

*Operations/Equipment Category reflects this aircraft's maximum potential. See June 1982 Pilot, p. 93.