

THOSE LOW-FAT FOURNIERS



Spare and miserly, the one-man RF-4 and the two-seater RF-5 have the graceful, birdlike quality of sailplanes with the economy of Volkswagen engines.

TEXT AND PHOTOS BY JAMES GILBERT

In the front seat, there's room for knees, but not much else. Designed for low frontal drag, the Fournier RF-5 has tandem seating, so the instructor (Rob Dorsey, here) goes in back. The panel layout is efficiently German, with neat rows of switches and instruments.



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Irises, tall green swords for leaves; cirrus on a windy day—thank the Lord for slender things. Slenderness is the essence of beauty. Sailplanes are slender, and so are the Fourniers, for they are in essence powered sailplanes.

Long narrow wings are more than merely beautiful; they're efficient, thanks to low induced drag. That's why the Lockheed U-2 had such a high aspect ratio: long way to go and only so much fuel to go it on. The Fourniers are staggeringly efficient; the single-seat RF-4, for example, will cruise at 112 mph on the tiny power of a regular 1,192-cc Beetle engine, burning but 2.5 gph—say a buck and a bit an hour for fuel. That's 45 mpg. The Beetle car with the same engine cruises 68 mph, and around 33 mpg, by comparison.

The Fournier is one of those pan-European aviation projects that are so in style. Originally designed by a Frenchman—Rene Fournier—it was first financed by a Belgian count and built in a tiny factory in an Alpine valley in a town called Gap. It is now manufactured in West Germany. The first Fourniers I ever saw were several early RF-3s exhibited at the Cannes Air Show in 1964. They were in the charge of that same Belgian nobleman, Antoine d'Asche, one of those new European technocrats, abundantly fluent in all languages. It was evening, I remember. I stood admiring the RF-3s as they lay, leaning on one main-wheel and a wing-tip outrider, while I asked the good Count tiresome questions till he said, go fly the bird. Use this tiny runway of pierced-steel plank on which we stand, he said, I have the tower's permission. Be sure to turn left before you come to the main runway, for they are flying jets off that. There is no inverted fuel system, but she will do all the common aerobatics. That big lever on the left is for the spoilers, like in gliders. Remember to lower the wheel before you land—there is a warning horn but remember anyway.

So I got in and strapped in and closed the canopy, and the Count called "contact" and spun the prop, and away I went. I found the rocking from one wing-tip skid to the other less strange than I expected. I was airborne in a trice, and banking those long pinions away from all the activity on the main runway. I climbed away to a thousand meters, out over Cannes bay, where the U.S. Seventh Fleet lay at anchor. (The U.S. Seventh Fleet is always at anchor off Cannes—it's one of the ways you know it's Cannes.)

A thousand meters of altitude is 3,230 feet, and a good height for getting to know a strange avion. The RF-3, I remember, handled just delightfully, except that the ailerons were slow and heavyish. The Fournier did neat loops and barrel rolls and slow rolls and hammerheads and lazy snaps, though you could have used more power. Back in the traffic pattern, I found that you flew the approach as though in a glider; the glide was so flat you couldn't possibly undershoot, so you let go of the throttle and adjusted your rate of descent with the spoilers. Oh, yes, I remembered to lower the wheel. Thank you, Count d'Asche, that was lovely.

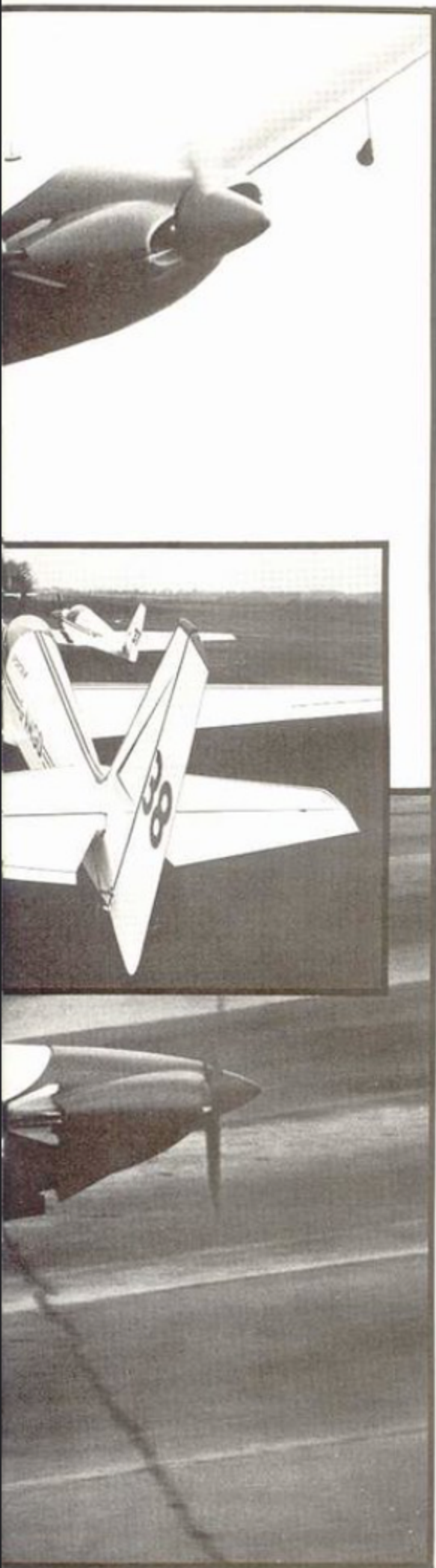
Then long years waxed and waned before I flew a Fournier again, and then it was in an altogether less agreeable place—London's Biggin Hill airport in the bitter, sly dead of winter. I came in a Super Cub, with the heater full up, and taxied up to Sportair, the flying club that has the Fournier concession for these British Isles.

I was to fly with the chief instructor. "Howdy," he says, extending a huge paw. *Howdy?* Yup, he's from Texas: Marshall, Texas. Meet Rob Dorsey, who wandered over to England to cheer on the U.S. Aerobatic Team last summer, and decided to stay awhile. He must be a remarkable guy, because he's persuaded the British authorities to issue him an instructor's rating on the basis of his FAA one, and they just don't do things like that, usually.

Wrap up warm, he says, these birds have no heaters. I bed down in the front seat of an RF-5, and pull the hinged canopy down over our heads. It's comfortable, but my head touches the canopy, even though I'm reclining as in a beach chair. I like this five-piece snap-in aerobatic harness. There are levers scattered all around above and below your knees. There are two gear levers, one to unlock it, and one to shift it. You must *unlock* before you can raise the gear; with slight spring assist, it locks itself up. Then you unlock before you can lower it, while it locks itself down. And you must change hands on the stick to do this. These gear levers are somehow *under* and *behind* your right knee.

There's just no extra room in this airplane—nowhere to put my camera, my map, my notebook, let alone levers and things. Low drag through low frontal area was the designer's goal. That's why the tandem seating.

There's a neat row of efficient German toggle switches, and a massive ignition switch, massive to



make up for the fact that there is only one of them. Everything is neatly labeled in Dymo. How would we fly without Dymo?

The RF-5 has all-electric flight instruments, since no one, as far as I know, has yet fitted a vacuum pump to a VW engine, though there's no reason why not. But I don't think I'd like to fly a Fournier in weather, with no kind of attitude backup to the electrics. Even now, the horizon is neatly placarded (Dymo again) "U/S," which is British for she no good, kaput, needs fixing ("UnServiceable," actually).

We wear headphones with mike attached, and the press-to-transmit button is on top of the stick, where the gun button was in a Spitfire, and doesn't a Fournier remind you a bit of a Spitfire? It really does. They're very big on headsets in Europe, mainly because their airplanes tend to have rotten soundproofing, but this arrangement does save fumbling for the mike at that critical moment on final when you're also trying to lower the gear, trim out, close the throttle and open the spoilers.

Hit the starter, says Rob, and 68 horses roar. Taxiing is simple, but I am told that the weathercocking tendency in a really strong wind makes the thing a bear. We do our checks, which are not much. No carb heat, and only one ignition circuit! The justification for this is that the Fournier isn't really an airplane, but rather, a powered sailplane, and sailplanes get by with no ignition at all.

The FAA won't buy this, and refuses to certificate the Fournier in anything but the Experimental-Exhibition category. But the Fourniers have Normal category certification most everywhere else—even in Britain, whose certification authority is so hard to impress they rejected the Boeing 707 first time around. In truth you could get a Fournier down almost anywhere.

The tips fold on the RF-5, to reduce the span to 30 feet for hangarage. But you can check that they're locked from the cockpit; you can see the locking lever, and the fairing around the hinge won't fit in place unless the lock is truly home. The ailerons have a neat folding linkage, so you never need worry about them—they remain hooked up all the time.

We are cleared for takeoff, and away we go. The ailerons become effective at once. I ease the tail up, then rotate slightly at 60 mph. Climb at 70, says Rob, but this speed gives little nibbling red flashes from the stall-warning light, so I try 80. The controls are light and powerful. The feel reminds you of the last pure sailplane you flew.

It's a nice-flying airplane, very stable. It rides the bumps like a jet, with a solid, hard feel, and very little

displacement of attitude. It picks up speed very slowly when you level off, but it gets there. I notice 113 mph IAS at 1,500 feet, turning 3350 rpm.

She picks up speed very fast if you lower the nose, which is the mark of a low-drag airplane. It would be, I think, in summer a really delightful cross-country airplane, cheap on gas, yet moving right along, stable, light on the controls, and affording you a marvelous view from that big Plexiglas blister. Right now it's just a bit chilly to be fun, so we head back for a cup of tea, the British brew that cheers but does not inebriate.

On final, I ignore the throttle and grasp the spoiler handle. You must grasp the handle firmly, for the spoilers tend to jump out if you don't have a firm grip. It's like running into a wall of suet. These spoilers really work as lift dump devices, too, for they give you sink as well as drag.

You want them fully out as you cross the fence, for if you put them out only as you round out, they can drop you with an awful bang. And leave them out as you roll out, too; I was in too much of a hurry to get everything put away right after landing, and closed the spoilers just after touchdown, whereupon the airplane, its full lift suddenly restored, leapt right back into the air again.

Sportair trains student pilots in the two-place RF-5, transferring them to the RF-4 once they are solo. They do allow that landing the thing is the one area in which students do worst. They occasionally drop it in, which knocks off the tailwheel, or else jams the mainwheel mechanism so that it won't retract.

The 4 is a lovely airplane, says Rob over tea; you'll really like that. You can get warm propping it, too; the 4 lacks the 5's alternator and starter, though it does have an electrical system of sorts—just enough for radio, stall and gear warners, and instruments, driven by a battery you must take out to charge. But you can prop the 4 all by yourself, for you can stand behind the prop with one hand working the throttle and switch while you swing the propeller with the other. (Ever seen a runaway plane after someone propped it with no one at the controls? Sometimes they actually get airborne, but the only one I ever saw just crashed noisily into three other parked planes.)

The 4's gear and spoiler levers are even harder to grasp, being jammed up right against the cockpit walls. But it does fly nicely, my goodness. It has different ailerons from the old 3 model, light and effective. Like all the Fourniers—indeed, like almost every European light airplane—it's aerobatic, but I noticed that snaps are no longer recommended. I did hear that