

Falco Builders Letter



Ian Ferguson is flying in Australia—the third one there.

Falco F.8L VH-YBN

by Ian Ferguson

Around 15 years ago, I attended an airshow in a small provincial city in our DHC1 Chipmunk, and there encountered for the first time a Frati aircraft, a Siai Marchetti SF.260. It was love at first sight! The aircraft, the only one in Australia, was owned by an organization based in Melbourne.

I was subsequently endorsed in it and flew it several times. I asked the owner, a somewhat eccentric fellow, to let me know if it ever was for sale. This he didn't do for some reason, and I discovered that a wine maker from South Australia had bought it. I rang him one day and said to him that I would buy it if he ever wanted to sell. He rang the following day and asked what I would give him for it! I made him an acceptable offer and later ferried it back to Melbourne—not without some problems as it was in a rather rundown state.

I flew this beautiful aircraft for ten years or so using business as an excuse for pleasure. After using the aircraft for a few years we received what initially seemed to be a rather innocent AD. It said, in essence that as cracks had been found in a secondary

spar all such spars are required to be fitted with doublers. Then we discovered that this meant that all the flying surfaces would need to be partially de-skinned, a very major job. There was a surgical conference in Athens which I had to attend so the decision was made that Juliet and I would fly the aircraft to Vergiate in North Italy, location of the Siai Marchetti factory, for repairs.

The trip over was difficult, mainly for political reasons but also because the VHF ra-

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dio packed up south of Bahrain causing no end of problems. We were equipped with an excellent HF set with which we could communicate with the controllers, but we were unable to get the radio repaired. Even a new radio flown out from London failed to work. The radio tech. said it had the same fault as the old one! By various subterfuges, one of which involved flying over the sea around southern Italy and Sicily to avoid the Brindisi FIR as they would not give us a clearance, (as the controller in Kirkira said, we should have gone the Greek way and had the radio failure after take off), we arrived at Urbe Airport in Rome. There the Aeroclub di Roma found the radio trouble in the inverter unit behind the auxiliary tank we had fitted for the trip.

In Rome we saw our first Falcos, looking stalky on the ground on skinny wheels. We met Luciano Nustrini there who was about to depart for Scotland, I think, flying a Lear. He invited us to stay with him at his home in Florence during our stay in Italy, but most unfortunately we were unable to take advantage of the offer. He called a friend, Enzo Marrucci, to the aerodrome who introduced us to the Aeroclub di Roma and showed us his Falco.

Having left the aircraft at the factory we travelled to London for a further conference and returned to Milan to await the completion of the repairs, and a long wait it was. During our stay there we met Mike Moore an American demonstration pilot who flew SF.260's for a living, and also had dinner with Frank Strickler. I had a ride in an SF.260D with Mike who went through his routine including double rolls at 50 feet along the runway.

Eventually I was able to ransom the machine, and we set off for Australia. The journey home was politically even more trouble than the outward journey even though the radio did continue to function. We were actually put in house arrest once on the outward journey to Ha'il, and twice on the way home in Chaing Mai, and in Medan.

When I found that I could no longer use business as an excuse, we decided that it must be sold and some of the proceeds were



Ian's Falco has a 180 hp IO-360 engine and weighs 1,294 lbs in primer paint only.

set aside so that I could build a substitute. In the meanwhile I had re-purchased the DeHavilland Chipmunk I had owned before the SF260.

What to build was the question. I had a look at a Glasair III under construction, and I was

not seriously tempted. At that time Fowler flaps were not available, the stall speed was rather high and its angular lines left something to be desired. Subsequently I heard that our CAA (as it was then) was reluctant to approve the type for IFR flight. This seemed to indicate a degree of instability.

Ian Ferguson (right) with two helpful neighbors, Ted and Ken.



Then a friend of mine came back from Oshkosh with the Falco brochure and everything fell into place. I ordered all the kits knowing that when they were all on hand, I would have the tiger by the tail and would be unable to let go until completion.

Shipping the main spar presented a problem which was solved by packing it in the container with the late Guido Zuccoli's CAC Boomerang. This got it as far as

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Darwin. The next few thousand miles were by truck followed by a couple of hundred on my trailer.

The building process was not difficult but required patience and careful attention to detail. Dimensional errors have a nasty tendency to turn around and bite further down the track.

The final inspection here is carried out by two licensed engineers and an approved representative of the SAAA. Opening gambit from the engineer, "I'll have a beer for every missing split pin". In the end, he claimed half a beer as I had used safety wire where he said a split pin should have been used.

There was worse to come. He said that as there were no tolerances given on the drawings for the control movements then there were no tolerances allowed.

Combine that attitude with an electronic level reading to 0.1 of a degree, and you do have a problem. Unfortunately Alfred was on holiday. After remaking the aileron pushrods I came pretty close and by then Alfred had returned and the matter was in perspective.

During and before this time I had been thinking about the flight testing and the first flight. As I had over one thousand hours in the SF.260 and also an hour in the left seat of Guido's Falco together with much time in an aircraft with similar control feel, the Chipmunk, I decided to do the first flight myself. Our strip is not overly long at 860 metres (2,800 feet), but it is surrounded by open large fields.

The decision was to do the flight at home. Consequently the aircraft has not been sawn in two, although there is the provision to do so if it ever proves necessary.

The day after the final inspection I gathered some expert witnesses in preparation for taxiing and the main event. We filled to half tanks and made a careful inspection.

After starting the engine a comprehensive check list was completed. The front tank was selected for takeoff. The wind was calm so the strip could be used both ways. First run to the north to condition the brakes, then to the South to see there is some pitch control both ways. Then to the north again to try the ailerons. Not

Top: Ian starts the engine for the first time. Center: A former neighbor who dressed specially for the engine run and flew the flag! Bottom: Ian taxis out for the first flight.



a lot of apparent effect to 40 knots. Turn around to go south again, this time a little faster. At 50 knots aileron effect in both directions, but then I realized we were airborne. Immediate decision, throttle wide and keep going.

As the aircraft became established in a steady and rapid climb, flaps and gear down, the first feeling was of enormous relief followed by pleasant calm.

All those plans to get the nose down and make for a preselected paddock are not necessary anymore. The aircraft was flying without any major bias in any direction.

Up to four thousand feet and fly around a bit, bank to left and right, 180 degree turns to left and right. Then stalls, straight and turning, flaps up and down, climbing and descending. No real surprises.

Having got a feel for the aircraft, rather similar to the SF.260 except rather lighter in the ailerons than the early model I flew, I made a wide circuit and a long final for an uneventful landing.

I now have twelve hours in the aircraft with gear doors on and gear up. The Falco is an exciting aircraft to fly. Being lighter than the SF.260 or the Chipmunk and more powerful than the latter, it has a spritely feel to it that the others don't.

I've not yet installed the canopy seals as we are still in primer so it is rather rowdy at present. After painting in a week or so, the seals will be fitted.

Building the aircraft was an enjoyable but demanding task and took longer than anticipated, but it was very worth doing in the end. Someone asked what I would do differently if I did it again. I replied "I would try to do everything only once."

Juliet, my wife and I have done a lot of flying together over the years. She is a pilot and flies in either seat of the various aircraft we have owned. In 1988, she flew the SF.260 to Sydney for the Bi-Centennial Airshow while I flew an ultralight nearly there—however that is another story.

The Chipmunk is not really a suitable aircraft for long distance travel. It handles beautifully, but is relatively slow, has a small fuel capacity and almost no room for baggage, and this is a big country. I expect Juliet and I will have a lot of fun flying the Falco together as it has the flying qualities of the Chipmunk without that aircraft's other deficiencies.



Top: Preflight for first flight. Center: First landing. Bottom: Ian and Juliet Ferguson.

“My Husband Is Building an Aeroplane”

by Juliet Ferguson

This has been my invariable response to questions regarding Ian’s repeated absences over the last years. Dinners, parties, conferences, overseas trips.... Travelling alone? Oh yes, Ian couldn’t come... you see, he’s building an aeroplane.

Many years BC (before construction) we decided we needed an airstrip, so we bought a very flat property at 100nm north of Melbourne—a property which is semidesert in summer and, on the rare occasions that we have rain, verdant in spring—removed a fence and started flying. The first thing we built was a large hangar thinly disguised as a farm shed and which has now become home to the myriad of spiders (including the nasty redback), snakes, mice, an owl and the unwelcome swallow which characteristically builds its nest over underlying aeroplanes.

We later built a small house with a wood stove in the living room and spent many a cold winter’s evening (in fact, many a cold winter) amid curing epoxy and damp pottery (my contribution to the homely clutter).

There was a certain agricultural flavor to the Falco building. We soaked the ply in the sheep’s footbath. On one occasion, a sheep tried a short-cut through the shed and on discovering its error became quite agitated among the delicately balanced aircraft parts. Ginger Mick, the new farm puppy, was a great help with the wiring—that incredible mass of coloured spaghetti with violet-like brown and brown-like violet. The occasional chook came in to roost and compete with the swallows’ contribution to the undercoat.

The shed is also a meeting place for the Yabba North Flyin Association (YBNFA) a valiant band of ultralight pilots who meet each month and who watched the progress of the Falco with critical interest. With the assistance of these fellows, we turned the Falco over with great ease and applause, and at the next meeting turned it back again.

The years continued on—fences fell down, corrugated iron fell off the sheds, the hay stack collapsed, the weeds engulfed the pasture but the Falco slowly and surely progressed.

Ian was relatively young at the start and now ought to be relatively old. However there is no doubt that he has been completely rejuvenated by rolling, looping and otherwise cavorting in this quite remarkable aircraft.



Landing and taxiing in after the first flight with the gear doors installed.

Magnificent Obsession

by Glyn D. Russell

The Airplane

This story began fifty-six years ago. I was four years old watching Army-Air Force maneuvers on our farm in middle Tennessee. The big radial-engine airplanes would make practice bombing runs dropping what appeared to be sacks of flour on targets. Occasionally, paratroopers would jump for practice. I suppose they were from Ft. Campbell, KY, which was about fifty miles away. I would watch these airplanes with all the sights and sounds during the day, and I would dream about them at night.

So you could say that I have had a life-long love of airplanes. When I was about seven years old, I had my first ride in a barnstormer's airplane. He came to our community, landed in a hayfield and gave rides to anyone who had the three or four-dollar fee. It was probably in a Cub or Champ. I remember the feeling but can't remember how the airplane looked.

In my teens, working in the hot dusty fields, I would imagine some day flying my own airplane. Daydreaming about landing in the small field that I was working in was not very difficult. During this time, I read everything that I could get my hands on about airplanes and continued to dream. Rockford and the EAA were just in their infancy, but Rockford was a million miles away to a kid growing up in Appalachia.

I got my private license in 1972, then completed the commercial, instrument, and multi-engine through the G.I. Bill. I owned a partnership 172 then upgraded to a partnership 182. Both of these partnerships worked out very well, but my three children came along about that time, and I couldn't afford the time or the money to indulge my expensive hobby. So I put flying on the back burner for a few years.

In 1980, I began to go to Oshkosh and have made the annual trek every year since that time to O.D. on airplanes. About 1989, late on a bright sunny Sunday afternoon, Pawel Kwiezinski took off on Runway 18 in his Falco. I happened to be sitting along the flight line enjoying the lovely summer afternoon sprinkled with departing airplanes. He pulled the Falco off, retracted the gear, held the airplane about twenty feet off the deck and flew all the way down 18 at that level. What a beautiful sight and sound. That is a memory that I believe will stay with



Top: Carlton Bailey ready for the first flight with fire retardant clothing, crash helmet and parachute. Above: N72GR breaks ground for the first time.

me forever. I was eternally hooked on the Falco.

On the way back home, somewhere south of Chicago, my brother-in-law, Paul Montgomery, looked over at me and said "You could build one of them, couldn't you?" I thought about that for the next six hundred miles as we drove home.

The Project

I got up enough courage in October to call Sequoia and inquire about the plans. Alfred asked me about my background and abilities. I told him that I had built some small pieces of furniture out of wood and that I was a pretty good shade tree mechanic. I ordered the plans. When they arrived, I was so ex-

cited that I sat down and went through the entire stack at one sitting.

I was terribly overwhelmed. I became discouraged with the huge scope of the project and felt that I could never undertake building such a complicated machine. My mistake was obviously trying to comprehend the entire scope rather than a small piece at a time. A couple of weeks of contemplation helped me to put the challenge in a better perspective. I decided to proceed and see how far I could go.

The spruce and plywood were ordered and arrived in a few days. I began building on the tail ribs then proceeded to the wing ribs. Tremendous enjoyment working



with the wood! My plan at the time was to build everything from scratch thereby minimizing the amount of money that would be needed to complete the plane. After a year of building, I realized that I was not going to be able to complete the project in this lifetime. Great spare time fun, but terribly slow progress.

In talking with Alfred, he mentioned that there was a project in Springfield, IL owned by John Kerasotas which was for sale. A trip to Springfield and a visit revealed that he had a good project on which he had done quite a bit of work. The workmanship was excellent, and nothing was closed. John was a cabinet builder by hobby and had done just beautiful work. He had recently bought the flying Falco that Tony Bingelis built so I think John had lost interest in his building project. He had the first eight or ten kits on hand. I bought them and trucked them back to Alabama.

The wing and tail ribs that I had spent a year building were packed up in boxes and stored away. Seed for my next project. We began to build using a different approach—building with kits. But first, a bigger shop had to be built since the twelve by eighteen workshop that I began the project in obviously wouldn't handle the length of the main spar. We built a twenty-eight by thirty on property that we owned next to the house.

Alfred sometimes surprises me with his words of wisdom. One of these surprises was his recommendation that you keep the project close to home. This is very important as you go forward with building. It was very easy to run out to the shop and work for a few minutes at a time. This convenience is helpful amid all the frustrations of building.

I set completion goals many times during the process and continued to miss them. Finally, a serious goal of April 1998 seemed to be possible. I only missed that by one year. The tedium of finishing all the minute details seemed to be eternal. Some of the more serious aggravations were little details like the fuel gauges wouldn't work when the panel was installed. The panel was removed a couple of times because of this problem. After spending days on this small deal, Alfred suggested installing the panel and putting fuel in the tanks. He said this sometimes took care of the problem. It worked.

There were many, many other small problems that had to be solved. Finishing up

takes a huge dose of patience. I remember Steve Wilkinson saying that they are never finished, and I subscribe to that thought. After eight years and twenty-eight hundred hours, it was as finished as possible.

Time for the FAA inspection. This went very well. There were only very minor defects. We didn't have fuel capacity placards installed. Also, the cabin heat and defrost knobs were not identified. One other problem was noted. Apparently, there is a relatively new law which requires a placard on the outside indicating the make and serial number of the aircraft. A small placard under the horizontal tail took care of the defect.

There were no airframe or engine defects noted during the inspection. I had already used the services of a working A&P to inspect prior to the FAA. Thirty-one minor defects were corrected. These were things like adding another washer in a place or two and cleaning up the ends of cotter pins.

The upholstery that I selected was light gray leather complimented with ocean blue carpet. The equipment is what I consider to be standard Falco including a Century I autopilot, an inverted fuel, Christen inverted oil system, and an M1 Loran which will probably be replaced by a GPS in the future. The engine is a Lycoming IO-320-B1A which was zero timed by Clark Aviation in Bay Minette, AL.

I must thank a number of people here who have given me so much support and assistance over the years. To Alfred and Susan for all the customer support they have given me over the years. Their customer service is second to none. Answers to my numerous phone calls and faxes were extremely prompt (usually within an hour) and right on target. Good questions and dumb questions got the same courteous, polite responses. Thank you so much for all you have done.

To Clay Smith and his staff at Decatur Athens Aero Services in Decatur, AL. I have worried them to death over the past few months with questions about how to do a jillion little details on which I didn't have a clue. They are tremendously supportive of home builders.

Stan Smith aired up the struts so many times that I'm embarrassed to ask him again. (This problem was eventually solved by replacing one of the struts and then putting eight hundred pounds of pressure in both sides.)



Above: Chris Russell, Carlton Bailey and Glyn Russell make plans for the first flight.

To my son Chris, an engineer, who helped me on the project at every opportunity that he could find. He got his PhD from Virginia Tech during the construction so his time was somewhat limited. I think he enjoyed building as much as I did. His engineering assistance was invaluable.

To Robert Conklin, who helped me with the firewall forward, the panel installation and many other problems. Robert is an AI and his work in connecting wires, gauges, etc. under the cowling and behind the instrument panel has been extremely helpful. I found the engine installation to be very difficult for my ability. This was compounded by the Christen inverted system and the fact that I had never done an engine installation before this one.

Thanks to my test pilot, Carlton Bailey, who gave the project life. Finally, thank you to my wife Jonnie and other family members who put up with my Falco obsession for so long. I appreciate you allowing me the pleasure of building.

First Flight

After the FAA gave their approval, it was time to approach the challenge of the first flight. We needed a test pilot. I was not the right person, no doubt about it. We interviewed a couple of people who had expressed an interest in doing the first flight, but we didn't feel that the right person had been found.

I was walking through the airport lounge one day and Carlton Bailey, who I knew only casually, asked me, "How does the



Top: Liftoff on the first flight. Above: the first landing.

Falco fly compared to the SF.260?" I confessed that I didn't have a clue since I had not ridden in either. I went ahead to tell him that I thought they were somewhat similar in flying characteristics. I asked him if he had any interest in doing the first flight. He indicated that he would like to talk about it and see if we could reach an agreement. It turns out that Carlton is a CFII, and an Air Force Reserve pilot who is currently flying B-52s. He has more than six-thousand hours in everything from Luscombes up to...

I was most impressed by his more than two hundred hours in SF.260s at Fighter Town in California. After extended discussions, we agreed to have him do the first flight.

The next challenge was to get some insur-

ance. This turned out to be very difficult, expensive and restrictive. I think insurance will be almost impossible to buy on complex experimentals in the near future. I was able to find one carrier who would sell me coverage. The coverage is only good if Carlton flies off the first twenty-five hours then gives me five hours of dual. This was disappointing but not the end of the world. Since I am the careful, conservative homebuilder that I am (now that's an oxymoron) I plan to abide by the rules. Can't afford to take the risk, otherwise.

The big day came. April 3. Carlton and I were both very nervous. He had never done a first flight other than "after maintenance" flights, and I had never built anything to fly. Carlton had prepared a flight test plan right out of *The Falco Flight Test Guide*.

He was going to do a couple of high speed taxi runs to get familiar with the handling characteristics and test the brakes and systems. The first run went great. When he throttled up to begin the second test run, fuel sprayed out of the fuel pressure hose area on the back of the instrument panel and through osmosis came through the panel around the gauge. Carlton noticed a small curl of blue smoke which apparently came about when the fuel shorted against the alternator circuit breaker.

He immediately applied the brakes and got out. A fire truck was standing by in the area but was not needed. Supreme disappointment! We thought the fuel gauge was faulty and had allowed fuel to collect in the gauge then spill out the front. I pulled the gauge and sent it back to Aircraft Quality Instruments where it was checked and found to be perfect. We believe now that what happened was we had a loose fitting on the fuel pressure line where it attaches to the gauge. This allowed a small quantity of fuel to escape and put a few more gray hairs in Carlton's thirty-six-year-old head.

The gauge is reinstalled. Checked out. Time to try again. April 18. Same flight plan as before. Carlton did two high speed taxi tests. No leaking fuel this time. On the third run, he broke ground and turned my three-wheeler into an airplane. I cannot find the words to express my joy and elation on seeing N72GR break ground for the first time. It was wonderful! All I could do was stand there in awe with tears running down my checks and dripping off my chin.

Minor problems with the first flight. The transponder didn't work. We are in Class C airspace and the Huntsville, Alabama controller would not let Carlton climb above eighteen hundred feet and enter controlled airspace. So Carlton had to leave the traffic pattern and proceed to the practice area.

This caused a serious worry on my part. I could envision all the things that might go wrong on a first flight. Fuel starvation, engine seizure and a thousand other things were certainly possible. Fortunately, nothing went wrong. Carlton flew for an hour, came back and did a beautiful landing in a direct crosswind at twelve knots gusting to eighteen.

When he had landed and taxied up to the hanger, he said "You've built a good flying airplane—No, let me rephrase that, you've built a GREAT-flying airplane." Nice comment. All I could do was grin.

Aftermath: Luciano Nustrini

Luciano and Guiliana Nustrini died on February 6 in their Falco, ZK-ERNA, in a crash into the sea off Little Barrier Island in the Hauraki Gulf near Auckland, New Zealand. At the time of the accident, Nustrini was covering the Around Alone sailing race for the Italian sailing magazine *Fare Vela*.

The fleet of 11 solo sailors had set off on the third and most dangerous leg of the single-handed race around the world, and about 300 spectator craft had gathered to farewell the fleet. Nustrini had spent a lot of time with the sailors during the Auckland stop-over, and he had been out on the water earlier that day with the fleet farewelling the Italian yacht *Fila*, sailed by Giovanni Soldini.

Around Alone media spokesman Dan McConnell said "I saw him at 3:30pm. He just popped in to say what a great day he'd had. He didn't say anything about going for a flight." At the time of the accident, Nustrini was overflying the yacht *Fila* and was seen by Soldini plunging into the sea about 4:30pm. After he saw the aircraft dive, about 9km south of Little Barrier Island, American sailor Brad Van Liew sailed his yacht *Balance Bar* to the area in a futile bid to find survivors. An Auckland volunteer coast-guard vessel eventually found two bodies and the wreckage of the *Falco* about an hour after the crash was reported.

The wreckage has subsequently been recovered and no mechanical defects have been found, and autopsies revealed no health problems with Luciano Nustrini prior to the accident.

At the time of the accident, the *Falco* was seen to be flying quite low over the fleet. The only witness indicated that the aircraft entered an 'unusual', quite sudden steep turn to the right at approximately 200-300 above the sea. The aircraft continued to roll, with subsequent nose drop, impacting the surface almost inverted right wing first. There was no smoke from the aircraft (there is no evidence of fire on the wreckage recovered), and the engine was reported to have been running normally to the impact. The aircraft broke up on impact, and the heavy items sank to the sea floor some 150 feet below.

Falco builder George Richards has assisted the New Zealand aviation authorities in their accident investigation. At this time, there is no official determination of the cause of the accident, however the circumstances of the situation suggest that Luciano may have been taking a



Top: Nustrini receiving a race award in Italy. Center: Stelio Frati and Luciano Nustrini. Bottom: Gear-up landing in New Zealand.



Top: Nustrini showing Stelio Frati his proposed racing Falco. Center: Frati and Nustrini check out I-ERNA. Bottom: Nustrini's SF.260-eating Falco.

photograph of the sailboat(s) at the time of the accident, and he may have become distracted momentarily. The authorities agree that this is a possibility, and they have discovered an empty camera case, with a few exposed rolls of film (none with any relevant photos) in the wreckage.

Luciano Nustrini was an exceptionally talented man. He was an accomplished alpine skier and nearly qualified for the Italian Olympic team. He was a professor of architecture and a recognized expert on airport design. When I visited with him in 1982, he had a collection of about 300 cameras, and when he moved to New Zealand, he sold half of them to buy a telescope for his own personal observatory he built at his house in Auckland. Long before he knew Stelio Frati, he had designed a molded plywood chair which won the Compasso d'Oro design award, which was later awarded to Stelio Frati for the Falco.

Nustrini was an expert pilot, with 14,500 hours, and he had modified his Falco for exceptional speed. Falco I-ERNA was one of the most highly refined-for-speed planes in existence, and Nustrini used to regularly beat SF.260s in Italian air races. He was an accomplished test pilot and was Stelio Frati's test pilot and also travelled to the Soviet Union to do certification-confirmation on a number of Soviet airliners so that they could fly in western airspace. He was an avid sailor and wrote for sailing magazines.

He was, of course, a very famous man and his accident made headlines in New Zealand and Italy. Despite all this, Nustrini was a remarkably unassuming man, and he was a quiet thinker who would slouch in a chair in a crumpled rubber-man pose. Some years ago, he came to Oshkosh with Karl Hansen, and they were a pair to watch!—Karl the effusive extravert and the introverted Luciano almost painfully peopled-out in his presence. They got along wonderfully, but you could tell Luciano badly needed to go for a long walk by himself at times.

At the time of the accident, Luciano Nustrini was 71, and Guiliiana was 63. He was a close friend of Stelio Frati's and visited with Mr. Frati whenever he was in Milan. I last heard from him in July when he sent a card. "I had a wonderful meeting with Frati (of course!), and I saw a lot of very interesting ideas.... I hope to see you when I will pass through the states." It was signed by both Luciano and Stelio Frati.

This is a terrible loss for us all, and I know all of you join me in sending our condolences to the Nustrini family.—*Alfred Scott*

Construction Notes

Cecil Rives asked about products manufactured by Performance Coatings, (www.PerformanceCoatings.com) and their possible use on the Falco. This company produces a series of ceramic coatings to control heat by applying an insulation coating to exhaust systems.

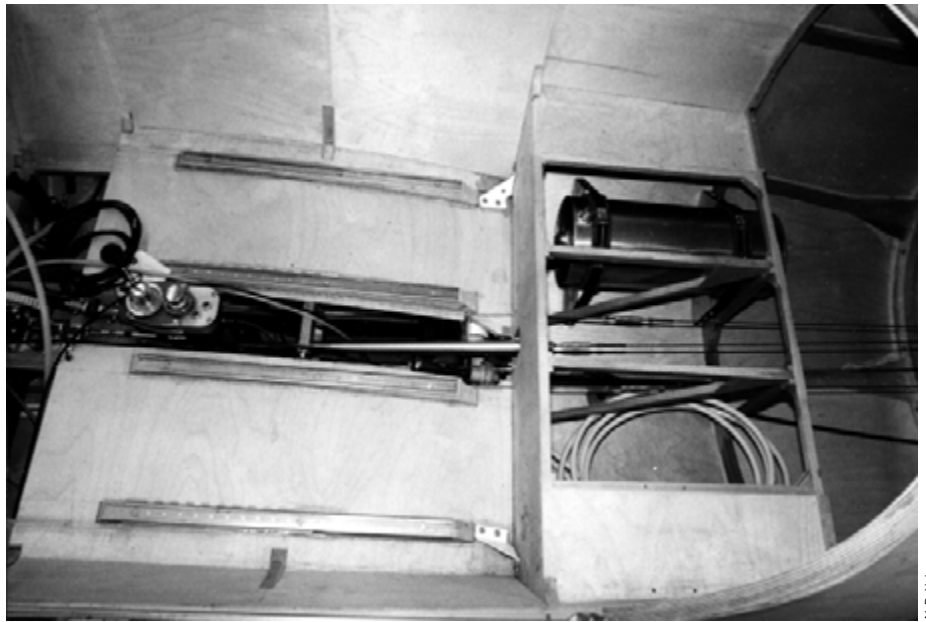
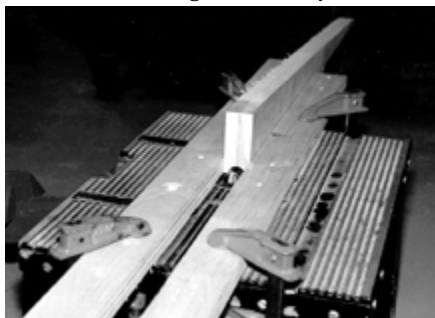
In looking at the literature, I would suggest sticking with wrap-on insulating fabrics. They've been used for quite a while now and if something goes wrong, then you can easily take the fabric off and inspect the exhaust pipes. With a spray-on coating, you're likely to get essentially the same amount of insulation, but without the worry about what might be going wrong. I just hate to be the first person on the block to try something. Remember a pioneer is someone you find face down in the path with arrows in his back. Let someone else do the pioneering.

In our last newsletter, George Richards mentioned a problem with some Poly-Flow tubing, breaking easily at a few points. Since then, Mel Olson said he found that he received a 14-foot roll of 1/4" Poly-Flow tubing in the wing equipment kit, and that these was brittle in a few places. He said most of the tubing was flexible and normal, but there were a few brittle spots where you could break the tubing by bending it in your hands.

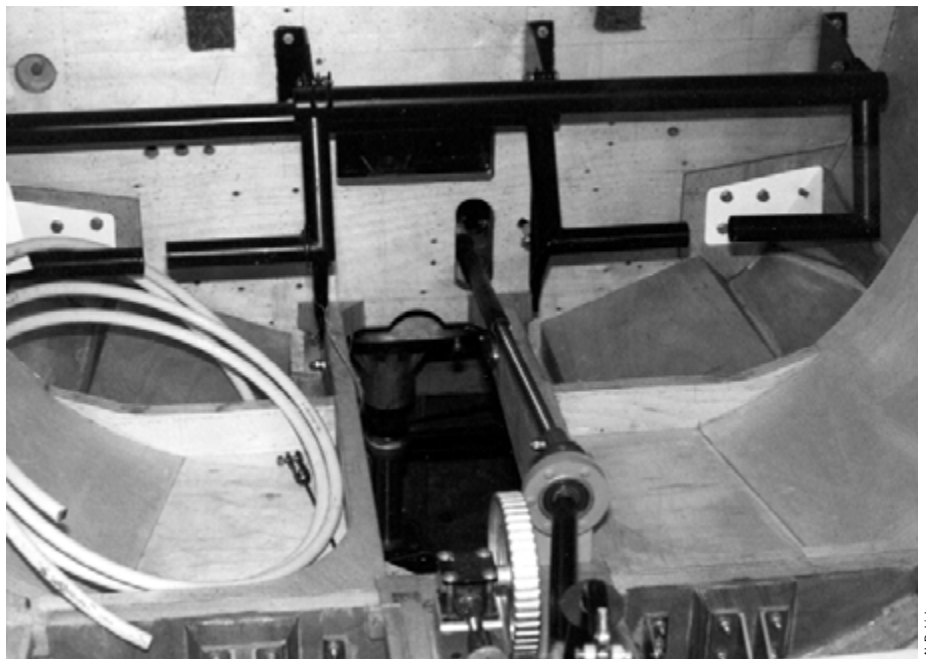
I called a friend who has long experience with this sort of thing, and he said he had never heard of this but that since this type of tubing is a commodity product, it would not have a tight specification and could easily have a few quality control problems. Who knows if they were recycling regrinds through the process or had a mix of chemistry.

After hearing of Mel Olson's experience, we went through all of the tubing we have here. We uncoiled each piece and grabbed the tubing and pull relatively hard on each end. Most of the tubing just resisted stretching, but two pieces had weak spots that stretched out in a dramatic way to that the tubing was about half the diameter in that

Al Dubiak routing the dorsal fin.



Al Dubiak



Al Dubiak

area. It didn't break, but there was clearly a localized weakness. I would recommend that all of you with this type of tubing give it the stretch test and we'll be happy to replace any that you find is defective.

After getting his Falco in the air, Ian Ferguson reported oil temperature at redline. We investigated all the logical problems: flow problems through the oil cooler, obstructed lines, a faulty Vernathan valve. The problem persisted even after replacing the Vernathan, but then Ian finally found the source of the problem, a poor ground connection to the engine.

Alfred Scott

I was interested to see that at least one other individual was questioning the use of the S-TEC autopilot system. I too have been communicating with S-TEC to determine

the compatibility of their systems. I do not have an answer yet, but initially it is looking promising. On your note of electrical vs. vacuum-driven autopilot systems, the S-TEC components are electrically driven rate-based-gyros, a plus that warrants my further efforts. S-TEC only offers servos for for bridle-cables (and not push-pull tubes) so I am requesting S-TEC's assist with a solution for the pitch control servo. I will advise you what I learn if you are interested.

For those who are interested in fabricating as much of their electrical harness as possible, I have found that Mouser Electronics (www.mouser.com) is an excellent source for most of everything you will need. They communicate well (phone and e-mail) and will work with you even if it is a 9-cent part!

David Carroll

Bezard's Buzzards

Look around the homebuilding field, and you will find many exceptional, crazy and intriguing individuals—here's one. Some years ago, we heard from Charles Bezard, who was working on Stelio Frati's unfinished F.480 Cobra jet, an all-wood four-seat prototype that Frati never completed. I was curious how far he had come with the project, and I wrote him for news of the project. Here at last is his report, but as you can see, he has a lot of excuses to offer for not working on the Frati jet. But what a list of excuses!—Alfred Scott

It's with pleasure I give you these photographs. You already know the SIPA 200 MiniJet. I think it's still the smallest all-metal two-seat jet in the world. I bought it in 1968 and the renovation took me more than 5000 hours. I had to rebuild a great part of the equipment and to learn turbojet mechanics.

It's both a collector's piece (built in 1954) and a new plane; the airframe has only 280 hours of flight. With a Turboméca Palas engine, the thrust is only 160 Dan, so piloting must be accurate. It's a splendid jet trainer and also a good way to fly a jet without breaking the bank. Fortunately, I have lots of spare parts: engine, last model, etc.... A few years ago, two friends bought two single-seater DeHavilland Vampires. I lent them the MiniJet for training. There is a second SIPA in California. Seven SIPAs have been built, the other five were scrapped!

The Fouga Sylphe is an all-wood, single seater. The engine is a Turboméca Pimene, thrust 0.90 Dan. It was the first civil turbojet built in Europe after the second world war and it has a span of 13 meters. Years ago, during the holidays, I flew in the mountains—the Alps—until I ran out of kerosene, then I landed like a glider. For takeoff somebody has to hold the tip of the wing. So I have built two outriggers and next spring I hope to do the test flight.

You can't imagine the pleasure I have flying the MiniJet and the Sylphe! Sometimes a pilot does a detour to fly along side me. I guess the pilot's surprise. It flew in Miami in January 1950. Mr. Sikorsky was very interested, so it was the beginning of a cooperation with Mr. Szydlowski, boss of Turboméca. The result was the Sikorsky S52S, the first helicopter in the world to fly with a turbine engine, and also the start of the French firm.

Because of the purchase of three Fouga Magisters, I can't give you any news about the Cobra. However I now have three engines to use in it. I have done the hardest



Charles Bezard and his toys. From top, Fouga Sylphe III, Fouga Magister, SIPA MiniJet, and above: Charles (third from left) with Sylphe and friends.

part of the work on the airframe—wood and sheet metal working.

For five or six years I have only flew the Fournier RF9 motorglider. It's different, but it's also a good plane too, and much cheaper to fly. In the Alps, we are able to fly for many hours with the engine stopped. On thinking it over, it will be my last plane. Time flies! As I have already told

you, I want to sell the three Fouga Magisters, and unfortunately I'll also have to sell the other planes, little by little, preferably to American buyers. My country is too severe with aviation amateurs. Perhaps you have some advice to give me.

Charles Bezard
33 Av de Boran
60260 Lamorlaye
France

Goings On at Sequoia Aircraft

I have any number of flimsy excuses to explain why this newsletter is so dreadfully late.

For one thing, in the first part of this year, we've never been busier. Sales for the calendar year are up 75%, and much of the overall change took place in the second half of the year where we had a huge jump. The change is massive and is across-the-board, with dramatic increases in kit sales and, most importantly, plans sales and new starts.

Then I was waiting for photos from Ian Ferguson, and an article by Juliet.

We are also presently in a big re-order cycle. Susan has been keeping on top of that, and constantly bugging me to crank out updated drawings. I haven't yet figured out how or when to integrate the new drawings into the set that we send out, but I now have a lot of new drawings on my computer.

But I suppose the best reason is that we were waiting to get the Falco shirts and hats ready. This is something we've planned for a while, but I never thought that such a little thing would take so long. I hope you like what we've done. In putting this collection together, we picked as many people's brains as possible. All the experienced people said to stick with golf shirt and caps as the most popular items.

As you can see, we have two basic views of the Falco embroidered on the shirts and hats. Each year, we plan to alternate the designs on the shirts and continually rotate through various colors and cap designs. While we will always have a white and black golf shirt available, you can be assured that you'll never see the exact combination of color, embroidery design and lettering color repeated. So it's going to be an ever-changing assortment of garments. That's the way Versace does it, so why not Sequoia as well!

I tend to get involved in little side projects from time to time, and sometimes the word 'side project' with me can mean a bit more than that! My latest side venture is a little music business selling CDs on my brother-in-laws music over the Internet. If you have access to the web, check out www.Talkeetna.com for what's up at Talk-eetna Records. And if you look carefully, you'll actually find some music by me in there as well.

At this point, I'm about 75% of where I want to be with the Falco website. I plan

to do a lot of work on the Falco Store and the kits, with a shipping ticket for each kit and an a photo of each part. I find, from time to time, that people have great difficulty envisioning what part is what, and they're great at giving us fuzzy verbal descriptions when what we need is a part number. I'm also looking for ways to improve our website, so please don't hesitate to send me a suggestion if you have an idea for the website.

Meredith and I plan to be visiting our daughter in Jackson Hole, Wyoming, for the week before the West Coast Falco Fly-In, and I hope I can get down to join you all for a day or so. I may need to bum a ride, however.

Alfred Scott

Susan's Corner

Spring has arrived in Virginia in a most glorious fashion... but the pace here at Sequoia hasn't slowed down much. The multitude of parts that have been ordered are beginning to arrive, so getting them labeled and put up is a job in itself. New builders are arriving on our doorstep in record numbers, and they seem to be getting very active with their building from the gitgo.

I'm back to bending cap strips so we can finish the wing ribs that need to be made. So much of everything has been shipped out in the last several months that it seems as if no area of parts has escaped being ordered, made or refilled. But there's wonderful progress going on out there in Falcoland, so as fast as you can build, I'll do my best to keep up with you.

Our spring line of golf shirts, tee shirts and hats is in, and they are just awesome. Check them out on our web site and get your orders in early. We don't have a tremendous number of any one thing, so as usual, it's first-come first-served.

Oshkosh '99—I have 5 rooms available this year. Our newsletter is late in getting out to you, so if anyone wants a room, you'll really have to hustle and let me know. And for Oshkosh 2000, I expect I'll have the usual 20 rooms, but with the big "bash" we're planning on having, you need to let me know as soon as possible if you're going to want a room. We're still expecting Dr. Frati to come join us, so anyone that was there in 1995 can remember what a wonderful time we had. I fully expect 2000 to be even better because we have so many more Falco's in the air now! I guess when you're the best, there's nothing wrong with strutting your stuff! And we're expecting every available Falco to be there, with bells on, even!

If any of you would like to see your Falco featured in *Kitplanes* magazine, here's what you need to do: (1) They need to receive the information directly from the builder. (2) They prefer typed, double spaced description of the project with details on the finished aircraft. Include a good sharp photo and a daytime phone number, e-mail address and mailing address in case other builders would like to contact you. (3) To be eligible for the 1999 GPS drawing, submissions must be received by June 4, 1999. Completion's received after that date will be eligible for the 2000 prize. (4) Mail to: *Kitplanes* Completion's, 8745 Aero Drive, Suite 105, San Diego, CA 92123

This is probably one of the most popular features in the magazine, and they usually publish all submissions. Some are published monthly and the overflow is published in the September issue. There's also a chance of winning one of 4 handheld GPS receivers in July, 1999.

That's all for now guys. I'm on the run and only stopped to write this to catch my breath! Keep up the good work and send us those progress notes.—*Susan Stimmitt*



Sawdust

- From Mike Wiebe: Two Glasair builder are intently focused on a table. Just as the Falco guy walk by, they jump up in celebration, congratulating each other with 'high fives'.

"What's so special?" says the Falco guy. They reply "We just finished this puzzle in only three months! And we're really proud 'cause the sign on the side of the box says three to five years..."

- Steve Wilkinson caused quite a stir in the publishing world with an article that appeared in the April 1999 issue of *more* magazine, published by *Ladies's Home Journal*, where Steve's wife, Susan Crandell is the executive editor. The article "A Fate Worse Than Death?" deals with a subject rarely covered in any magazine, and one that very few men can even bring themselves to talk about, much less write about in a public forum.

Interested? We've posted the article in Steve's entry in the Falco Hangar on our website.

- Here's a good reason to keep flying Falcos. Passenger rage is getting to the level of Los Angeles road rage of a few years ago. An irate passenger recently punched out the inside window of an airliner and threatened to take out the outside pane. He was arrested. A stockbroker from Greenwich recently took revenge on the airline by relieving himself, seriously, on the drink cart.

But nothing comes close to the travails of Northwest Airlines Flight 1829 over the first weekend of the year. It arrived about 22 hours late and was trapped on the tarmac at Detroit for more than seven hours. A huge snow storm had dumped a foot of snow on the airport, and the jetways were reported to be inoperative, so thirty planes were directed to a far-off taxiway and were left to their own devices.

Water gave out, toilets overflowed, the air stank, babies screamed and adults screamed, too. Finally, a passenger with plenty of chutzpah called the airline's CEO, John Dasburg at his home, talked to Mrs. Dasburg, and later called back with the Captain and talked to the CEO, who was home by then.

He told him, "We're out of food, out of water. Lavatories aren't functioning. We've got a passenger threatening to pop the chute. It's minus-30 windchill. There are

Get Them While They're Hot



The spring 1999 Falco collection. Golf shirts in white, navy blue, heather gray, black, maize, and forest green. Sizes: M, L & XL. \$34.00. Caps in white, black, khaki/stone blue, white/black suede and charcoal. \$15.00. Heavyweight tee shirt, Falco logo on breast, "Life is too short..." on back. \$18.00. Sizes: M, L, XL and XXL. Shipping & handling: orders under \$100: \$6.00, orders over \$100: \$10.00.

Sequoia Aircraft Corporation 804-353-1713

First-come, first-serve. Visit www.SeqAir.com to see in full color.



F.8V FALCO

A Falco for people who have no place to go but up. Hot off Stelio Frati's drawing board, the new F.8V Falco features a Russian Vendenyev 360 hp 9-cylinder radial engine and titanium fixed gear. This super acro machine features full-span ailerons, a supine seating position and a custom Slick Willy control stick.

active taxiways. It would make a very bad news story for Northwest. You've got to do something." Mr. Dasburg, replied "This should never have happened to you guys. We'll get you out of it right now." And in short order, their ordeal ended. But the Captain was right. It did make for a very bad news story, an enormous, highly detailed article on the front page of the April 28 *Wall Street Journal*.

Calendar of Events

West Coast Falco Fly-In. September 16-18, 1999 at Durango, Colorado. Contact: Fred Doppelt (970) 884-0843

Oshkosh 2000. Plan now to attend the 45th Birthday Party for the Falco. All Falco owners are ordered to attend. Expect a massive turnout—Stelio Frati says he will be there.

Mailbox

I was very saddened to read about the tragic deaths of Mr. and Mrs. Luciano Nustrini. Ever since I became interested in building the Falco, I have placed 'Nustrini' alongside 'Fрати' when I speak of the Falco. Whether describing the Falco's detail in design, or the Falco's trademark 'Italian curves', or the Falco's speed and efficiency to others, I always mention the name Nustrini and his contributions to the Falco. Though I never had the opportunity to meet the Nustrinis, I feel as though I have lost a true friend. I wish to express my deepest sympathy to the entire Falco family.

It was fantastic to read that orders are up 400%! The web is a most powerful tool indeed. I have visited approximately 75 aviation web sites and was surprised to learn that very, very few of them contained any reference to SeqAir.com. Most aviation web sites contain a page with links to 'aviation related websites, there you will find everything from www.aerotrike.com to www.zenithair.com, however no mention of the Falco or Sequoia. Maybe it would be worth some time spreading the news that Sequoia Aircraft Corp may be found at www.SeqAir.com. This may provide another 400% boost in sales!

*David E. Carroll
Acworth, Georgia*

Thanks. The 400% increase was a short-term increase over a few months, and it translated into a 75% increase for the calendar year, but there is a huge sea-change in the interest in the Falco. On the other websites, please feel free to spread the word as you visit various sites. My time is badly limited with the work I have to do here.—Alfred Scott

Looks like everything is coming along great for the fly-in to Durango 16-18 September 1999! We've got good rooms lined up, great meals and a super agenda proposed. We need to start lining up specifics on the program, especially for those that might want to take a ride on the Durango-Silverton railroad or go to the Mesa Verde Indian ruins, as these need a little prior planning.

It would be great if those interested in coming to Durango for the fly-in can give us some early notification, say by July 1. It would help in getting tickets especially for the railroad trip. Also let us know whether you want a rental car for yourself, or are willing to share with someone else.

Thanks. Hope to see you in Durango!
*Fred Doppelt
Bayfield, Colorado*



Falco #1301 has moved out of a one-bedroom apartment and into a one-car garage. It will also be getting a co-owner in June when I get married.

*Lance Roundy
Irvine, California*

I'm now approaching 50 hours on my Falco. The cowling nose gear door added about four knots, and the partial main gear doors added two or three knots. The left wing dropped very sharply in the stall, so I added about four inches to the outboard end of the right stall strip. Now the stall is straight ahead, and somewhat mushy.

My first cross country was to Houston. I made it there in record time, thanks to the Falco and a very stiff tailwind.

*Kim Mitchell
Ponca City,
Oklahoma*

I hope to be flying by the end of the year. I'm making good progress now.

*Frank Spysma
Turlock, California*

Accident Notification, G-CWAG Falco F8L, 23 Feb 99 at Prestwick Airport

After a preflight check in a hangar, the above aircraft was pulled out of the hangar by a passenger using a towbar. The pilot, owner Charles Wagner, told the passenger to remove the towbar while he contacted ATC for "book-out".

Both entered the aircraft, taxied onto the apron, "ran up" the aircraft, taxied to hold, carried out preflight run ups. On entering the runway at approx. 12 noon, the front nosewheel collapsed.

On inspection, it was found that the towbar was still connected to the nose-wheel.

The towbar, one-inch square section steel, was bent back, almost doubled. This had presumably caught on the tarmac of the runway which was raised above the tarmac of the hold and taxiways and been bent over. This force was sufficient to overcome the oversquare lock on the front wheel, permanently distort the nosewheel screwjack, and cause the aircraft to gently nose down onto the engine cowling.

The propeller was damaged. The screwjack was distorted, and the cowling was damaged. The undercarriage gearbox will have to be inspected as the force will have been transferred at 90 degrees on to this.

No injury was sustained either to the pilot or passenger in this incident. Accepting that the responsibility for the incident is the captain's however, injury may very well yet be sustained by the passenger.

*Charles Wagner
Glasgow, Scotland*

PS. Fuck. Fuck. Fuck.



Charles Wagner is not pleased.