Falco Builders Letter

Dan and his Falco, christened 'Dolce Vita'.

Launching La Dolce Vita

by Dan Dorr

In college I majored in aeronautical engineering, and my first job after graduation was working as a civilian flight test engineer at the U.S. Air Force Flight Test Center at Edwards AFB. I took that job because the flight test engineers would often get to fly in the back seat of the chase planes (T-38s and F-4s). On Saturdays I would drive over to the Mojave airport where Burt Rutan and his partners at the Rutan Aircraft Factory would fly demonstration flights in the Long EZ. During the two years I lived in the desert I learned how to fly, and I learned a lot about aircraft design. I also decided I would build an airplane.

I moved to the San Francisco Bay area in 1985 when I took a job at NASA Ames Research Center. Some of the NASA pilots, who were also Air Force Reserve pilots, helped me get an Air Force Reserve pilot slot flying C-141s (and later C-5s) at Travis AFB, and off to pilot training I went. As T-38 training was winding down, and after a few years of pondering which aircraft to build, I decided it was time to start building. I chose the Falco because I wanted an airplane that was aerobatic with great handling qualities and also had good cruising speed and range. Plus the Falco was easily the most beautiful homebuilt design available. So in April 1988 I bought plans and started making a few wood parts in the woodshop at Vance AFB in Oklahoma. I was 27 years old.

During the first few years of construction I lived in apartments, so I only assembled the smaller parts—landing gear, ailerons and flaps, tail components, anything that would fit. The drill press in my bedroom was always a good conversation piece. I had two jobs (NASA and the Air Force Reserve), and I was finishing up an aero engineering graduate degree, so progress was slow. I knew it would take years to finish building the Falco (I was guessing about ten).

I met Larry Black and was able to see his Falco under construction about two years before his first flight. I took a lot of photos, and I referred to them many times over the years. Larry had good advice on most facets of the construction, and I called him several times with questions on things that had me stumped.

I needed a garage to get the construction seriously underway, and all the garages seemed to be attached to houses. Housing prices in the San Francisco Bay area are among the highest in the country, so buying one was a difficult proposition for me, but in 1994 I managed to break into the housing market. I finally had a two-car garage, and I could see the light at the end of the tunnel. (I sold that house in 2001 for more than twice what I paid for it, so the way I see it, the Falco didn't cost me anything—it's the best investment I ever made, because the only reason I bought the house was to build the Falco.)

During the years that the fuselage and wings came together, I would usually attend the annual West Coast Falco Fly-In. These were fantastic opportunities to look closely at other Falcos, talk to the builders, and fly in the airplanes. During those years I flew with Larry Black, Ray Purkiser, John Harns, Dave Nason, Dave McMurray, Cecil Rives, and Bill Russell. I'm very grateful to all these guys for their outstanding construction advice and the experience of closely inspecting and flying in their Falcos.

I remained single throughout most of this time, and at the fly-in one year Dave McMurray noted "Dan brings a different girl every year." I met Alyson in 1997, and at the following West Coast Falco Fly-In, Pat Harns expressed her approval saying, it would be okay if I brought Alyson again next year. Apparently she had made the

In This Issue:

Dan with the Falco on the way to weigh the plane at the CAFE Foundation.

same observation as Dave. I agreed, and Alyson has gone with me to every fly-in since.

I loved my job as an engineer and pilot at NASA, but in 1997 I was ready for something new. I took a job flying for Southwest Airlines, which gave me more time off to build the Falco. Hauling cargo all over the world in C-141s and C-5s was also a great experience for me, but in 1998 I got out of the Air Force Reserve, which allowed me even more time to work on the Falco. My project was starting to look like an airplane. Alyson and I got married in 2000, and a year later we moved to the wine country north of San Francisco, where I now had a hangar.

Engine and systems installations took a couple more years, but by the middle of 2003, construction was complete. I made the decision to have the airplane painted before flying it, which I would not recommend. The paint job dragged on for five months, which was very frustrating, but the end result was very nice. It's amazing how a coat of paint transforms a 15-year woodworking project into a beautiful red Falco.

Larry Black graciously flew over to give me some stick time in his Falco before my first flight. Although I have about 7,500 flying hours logged, most of that time is in heavy jets, so the opportunity to practice landings in Larry's Falco was quite valuable.

The FAA inspector was very impressed with the airplane, but he withheld the airworthiness certificate because a few placards specified in the flight manual were not displayed in the cockpit. A "No Smoking" placard was one such example, and I said that I didn't feel that the missing placards were necessary. He said that the flight manual requires them, so they must be displayed. A few days later I crossed out

The Falco Builders Letter is published 4 times a year by Sequoia Aircraft Corporation, 2000 Tomlynn Street, Richmond, Virginia 23230. Telephone: (804) 353-1713. Fax: (804) 359-2618. E-mail: support@seqair.com Publication dates are the 10th of March, June, September and December.

Subscriptions: $16.00 a year, $20.00 overseas. Available only to Falco builders and Frati airplane owners.

Articles, news items and tips are welcome and should be submitted at least 10 days prior to publication date.

the omitted placards from my flight manual, and since I was then in compliance, I received my airworthiness certificate.

First flight was on December 17, 2003—the 100th anniversary of the Wright brothers first flight. I followed Al Aitken's flight test plan (thanks Al), and after the taxi tests, N708WC jumped into the air following a very short takeoff roll. There were no surprises during the flight, which lasted about 30 minutes (not even an aileron trim tab required). The landing gear stayed down, and the plane handled just like other Falcos I had flown. I stayed over the airfield and slowed it down to 60 KIAS, where a little bit of buffet told me it was about to stop flying. Normal approach speed would be fine, and it was time to descend for the landing. The wind was calm, and the landing was as smooth as I could have hoped for. It was a fabulous way to celebrate the centennial of flight.

I have 22 hours on the airplane now, and I'm having a blast flying it whenever I can. It climbs out at 1,800 FPM, and at 6,500 ft with 75% power, it cruises at 175 KTAS, or 201 MPH (computed by averaging GPS groundspeed in opposite directions). And the nosewheel doors have not been installed yet. The empty weight of 1,330 lbs. is a little heavier than most Falcos, but it has a lot of equipment. I installed the 180 HP IO-360 engine, inverted fuel and oil systems, a two-axis autopilot, oxygen, and IFR avionics.

In addition to all the builders who helped, I'm also grateful to Alfred and Susan for all their help through the years. I could not have done it without you. It's amazing to me that Sequoia Aircraft Corp. is a two-person company, and I'll bet that's unique in the homebuilt aircraft business. I also have to give credit to Alyson who helped on occasion, but who mostly put up with my obsession to build this airplane. Only a few times did she mention that I was spending too much time working on it. In my defense, I could only say that I'd been working on it for almost a decade before I even met her, so it obviously came with the package.

Aviation has clearly been a big part of my life, and building a Falco has been a dream come true. I really enjoyed the building process, and that continues, because there will always be things to tinker with on the airplane. But now, when I drive out to the airport, open my hangar doors, pull that beautiful red Falco out, and take it up for a flight, there is just no better feeling. *Dolce Vita.*

World's Slowest Falco Builder Breaks Ground

by Tim Painter

21 years ago! That is when I first laid eyes on a Falco. It was at Elstree airport, home of the famous Ellstree film studios. Peter Hunter was the proud owner showing her off to the assembled crowd; at the front was a Mister Alfred Scott (who?) and at the back was me. Just a lad really, just finished an Evans Volksplane and looking on in awe at the beauty of it. No not Scoti, the Falco! I was hooked on a long and twisting journey to the first flight.

G-BVDP was built in a small (35 foot) garage in Felixstowe U.K and then moved to Framlingham air field. This is one of many WW2 airfields in East Anglia built to service the bombers of the USAF. The main runway is no longer there, but we have the taxiway to the dispersal sites as a runway and the hangar stands on a round concrete 'pan handle.' Just think, the Sally B [*The UK's last remaining airworthy B17*] may have been on this very site.

The control tower is still there now housing a moving exhibition bearing testament to many wartime experiences including the untimely death of Joseph Kennedy Jr on an experimental mission.

Now it is 19/11/03 0900hrs and one very nervous builder is fussing over his creation cleaning the screen for the third time. Well the test pilot is not due for another three hours, just enough time to check the oil and fuel again, another wax polish and another 20 minutes closer to the final proof. The moment when all the talk has been talked and the truth will be tested, the first flight!

Quite a lonely time, that first hour. Then my 'mid wife' Ray turned up to restore some order to to the random fiddling. How about sweeping the stones (rocks in Americanese) off the runway? That should keep me occupied for some considerable time.

Time passes faster now that I have a useful job. And Philip O'Donoghue the test

Tim Painter has set a new record for the longest building time. The Falco first flew in 1955 so it's been in existence for 47 years now. Tim took 21 years to build his, so that's about one-third of the time that the Falco has been in existence!

pilot turns up. Another wave of jitters for me. I talk to Phil, jiberish comes out. Ray interprets. I think all builders should have a midwife for the first flight. I go back to sweeping stones. Phil has done his home work, test notes printed, weight and balance sheet done, speeds memorised. So I fuss with shoulder straps and am politely told "O.K You can leave me now." I can't sweep stones anymore, my hands are shaking too much.

Strangely, Phil is strapped in, calmly doing the pre-start checks, not a hint of nerves.

My heart rate is now over 90 bpm, and I am pacing up and down the taxiway.

The engine bursts in to life. 100 bpm and I am pacing round in circles.

Phil taxis to end of runway and makes the first high speed taxi test.

I am not pacing now. I am in shock. My baby has up to this time has been treated so gently, with the greatest care and now look! Nose wheel off. Bang, nose wheel down.

One main off, then down again, the other main off and on. Then the chirping of tyres. Yes, the brakes seem to work. Phil taxis back, grins at me and then does it all again! How much can I take? Then it happened, Phil called on the radio: delta papa was happy and ready to go. 110 bpm I just stand there at about the lift-off point waiting for what seemed an hour while the checks and vital actions were completed.

Strobe lights on. Here we go! The small speck at the end of the runway became a blur of red flashing past me. A swirl of dust and that peculiar Doppler shift in the engine note, and she was up and away. I just stood there like a golfer following through, my baby disappearing to a small speck in the sky. What a great moment. The heart rate drops a little, and you become aware of your surroundings again and notice that there are several other people around, Joe with his video camera shouting "I got it, I got it."

The relief is short-lived. The midwife calls "Come on Tim. Jump in the car." We were off now 5 miles to ex-USAF Bentwarters, a mile of tarmac and wider than the length of the runway we hade just left "first landing"

Here we go again. Heart rate 100 bpm.

Seven flights later, nerves settled and everybody is happy, including the test pilot!

First Flight:
Doug Henson

by Doug Henson

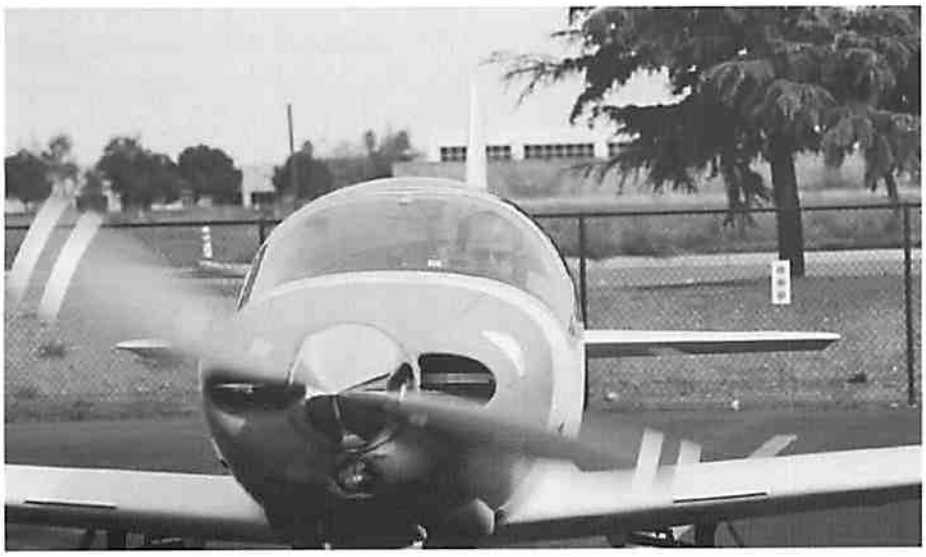
I had thoughts about owning my own airplane many years ago. In fact, my dream was to find a T-34 to rebuild, and I had actually scouted the country to find one. Reality settled in, though, when I realized neither the money nor the time was available to achieve the dream at that time. Twenty years later the stars aligned, and I got serious about building my own airplane. I looked at a lot of options, but was not excited about any of the sheet metal or fiberglass aircraft I could build. I have always been a wood craftsman, so when I discovered the Falco, it was a match. I quickly contacted two nearby owners (Dan Dorr and Larry Black) to visit their projects. In addition, Larry offered to give me a ride, and I was hooked. The Falco flies like the high performance aircraft I was accustomed to in the Air Force. I realized immediately during that flight that it was a *real* airplane and that I just had to build and own one.

My project started in January 2000 with a goal to finish within five years. N48EL lived in my garage for almost four years. I am fortunate in that I work with two other aircraft experts. Dave Neustel is building a Thorpe T-18 while Yon Perras and his brother have restored a Staggerwing and a Lockheed Electra (which won an award at Oshkosh a few years ago). Dave and Yon provided lots of advice when I needed it during construction. As we all know, building a Falco takes lots of friends.

The construction manual is right about building your airplane at home. When I moved to the Livermore Airport over the Thanksgiving weekend in 2003, progress plummeted. Even though I only live three miles from the airport, the hassle of driving to the hangar and never having the right tool at the right time was maddening. While the project was at home, it was so easy to walk into the garage to work on it—even if I only had 30 minutes between other chores.

During the summer/fall of 2003, the light at the end of the tunnel appeared. The only real change in plans I made was during that summer when I decided to fly before final painting. My original intention was to complete everything before flying. However, I discovered after painting the control surfaces that my painting skills were not up to the standard I would accept. Orange peel would not do on this aircraft. Winter was also approaching, so I decided to forego the final painting at that time. Instead, my focus turned to getting

Top: Falco roll-over party. Center: On the trailer. Above: At the airport.



Top: Larry Black. Center: Starting the engine for the first flight. Above: Taxiing out.

in the air and worrying about painting later when warm weather would be available. Off we went to the airport.

Final assembly was complete in late January 2004. Upon contacting the Oakland FSDO, I set up a visit by an inspector. Horror stories from other builders were completely unfounded. My inspector could not have been any more helpful. After receiving my request letter in the mail, he contacted me by telephone and discussed what he was looking for when he visited. We picked a mutual date, and I met him at the hangar. During the inspection, he thoroughly reviewed my documentation and the operating limitations on the aircraft. There was only one slight rewording I requested, he agreed, and we were done. His inspection of the aircraft was minimal, looking primarily for the required placards and identification plate.

My flight preparation included ground systems checks, taxi testing, and controls effectiveness tests (aka high speed taxi tests). Engine and engine controls checkout took place in front of the hangar. I put about 0.5 hours on the tach over several days to satisfy myself that everything worked. I discovered two problems during this phase. First, the Shadin MicroFlo fuel flow system did not register fuel flow. This was not a safety-of-flight issue, so I put off fixing that until later (it turned out to be a factory setting problem, not an installation error).

The important problem I found was that the fuel line between the firewall and the gascolator leaked. I had not sealed the fitting correctly, so had to replace the tube and fittings, then retest. For me, it was absolutely essential to ensure before flight that the mixture, prop, and other controls were hooked up correctly, and they do what they should to the engine. These preflight checkouts also included alternator operation, fuel flow tests from both tanks while checking for leaks, and electrical tests (lights, avionics, etc.). In short, I checked that every system did what it was designed to do before moving the aircraft under its own power. There were two very good references for this testing—the Falco Flight Test Guide and AC 90-89 Amateur-Built Aircraft and Ultralight Flight Testing Handbook.

Then one morning I played hooky from work and motored around the Livermore airpatch for taxi testing. Low speed taxiing was completed as I found my way to the rose for mag compass calibration. That's at the other end of the airport from my hangar, so I got plenty of turning and brake conditioning. Then, it was on to the runway for some high speed taxi tests.

As described in the two references, these tests are designed to check that the nose goes right when moving the right foot, the nose rises when pulling the stick back, etc. It is also the first opportunity to run the engine at full power and look for "green" indications. For me, it took five trips down LVK's shortest runway to get everything done. Near the end of the tests, I was reaching speeds around 50-60 knots, requiring me to pay close attention so that I did not fly. Improper stick movement could easily have put me in the air prematurely, and that was not a part of the plan. I am a stickler for following my plan without deviation, else I could have found myself flying before I was prepared.

That put me in the position of having nothing standing in my way of flying except for the weather. A couple of weeks of low ceilings and/or rain left me plenty of quality time to get myself and the airplane ready. Just like in the Air Force, my weather days were spent in my Falco "trainer". I spent several hours in the cockpit practicing procedures as well as preparing for and visualizing my first flight by moving controls, switches, and levers. That included preparations for emergencies of all kinds.

I never considered asking anyone else to conduct the first flight of my Falco. My philosophy was simple—there is no one more dedicated to building a quality airplane that meets all specs than me since I will be the primary pilot. In addition, this is a well proven aircraft, so the only real issue to consider was for me to acquire the skills to fly it. In other words, if I build it correctly and I know how to fly it, that's all it takes.

My plan was to get a few landings in someone else's Falco, then do the deed in mine. As far as handling qualities, I knew the Falco was light on the controls which is one of the reasons I decided to build one in the first place. My flying experience in the Air Force gave me plenty of time in high performance aircraft, so the only unknown for me was landing peculiarities.

My insurance company wanted me to get an hour of flight instruction in the Falco with a CFI. With some help from the agent, I convinced the underwriter that was near impossible. The counter offer I made was for me to get a minimum of three hours dual time with an experienced Falco pilot. They agreed. I contacted Larry Black who had volunteered to help when I visited him during construction and again last fall at the West Coast Falco Fly In. He gave me stick time with lots of guidance on power settings, landing picture, etc. and, after seven landings, I was ready.

Center and Above: The first take off.

Top: Climbing out. Center: After landing. Above: Alex, Shirley and Doug Henson

The fun part about the first flight was preparation. I have a friend, Dennis Johnson, who plans to start building an airplane this year. He has been helping some with my project and provided support for final inspections. Given our similar backgrounds (we met in USAF pilot training), we work well together. I checked and rechecked the airframe, engine, and all subsystems. Then he looked at things, critically challenged my plans, and quizzed me about emergency procedures while airborne.

Preparation and planning had taken weeks, then it was time to launch on Valentine's Day, 2004. The sun was shining after a rain storm the day before, so viz was great. I strapped N48EL onto my back and headed for takeoff. After alignment onto the active runway and start of takeoff roll, things happened quickly. Some of that is attributable to my state of mind (adrenalin, etc.), but also to the acceleration of the Falco. I was airborne almost before I knew it. A word to future test pilots—plan, replan, then plan again. You will be surprised at how quickly things happen in the fast paced environment of a first flight. It did for me, but with all of the preparation ahead of time, response was rote and things went as planned.

Another word to future test pilots—the Falco does not fly like your average Cessna. As I've stated before, it is a high performance aircraft, and you need the skills to fly it.

My plan was to climb on runway heading to pattern altitude, and if things still looked okay, then exit the traffic pattern to orbit in the northeast part of LVK's Class D airspace. All instruments showed "in the green", so off I went. As I settled into flying, what a wonderful feeling it all was. There I was at altitude in an airplane I had built! Life just couldn't get any better than that.

During my stick time with Larry, he had told me that my Falco would fly essentially identical to his. He was right. The only small difference I noted was that mine climbs a bit faster due to my use of the IO-360 powerplant.

After about 30 minutes of drilling some holes in the sky, practicing slow flight, exploring the stall characteristics, etc., I was ready to land. Again, the landing looked identical to those I conducted in Larry's Falco, so my first landing in my own aircraft was a piece of cake. At shutdown, my family and friends greeted me with hugs and high-fives, then we all went home to celebrate this once-in-a-lifetime experience.

First Flight:
George Richards

by George Richards

Isn't it funny how many people can appear when you don't want them to. I'd just landed with a very rough running engine and the bloody thing stopped. Fortunately I'd made it off the runway but pulling the Falco to the hangar was a long hard slog. I would have preferred an empty airfield at that stage. But evidently the popping and coughing of my engine brought out all the "experts" to look on from afar. At least they could have helped pull the airplane, although if they said anything dumb like "Gee, you're lucky it didn't stop up there" (you think?!), like the only person with the decency to help, then forget it.

It was the third flight of my newly flying Falco when all the planned pleasure evaporated and a little more concentration was required. I'd just got airborne and was laughing to myself as I smoked (not literally I don't think!) past the preceding 152 when it was time to pull the power back a little. I'd only just moved the throttle a fraction of an inch, and I'd wished I hadn't touched it. Now the engine had changed from a smooth sewing machine to something resembling a jack hammer. I could see the left corner of the baffling trying to smack itself a hole in the cowl and the whole engine compartment took on a completely new dynamic. What did I do first?? Push the bloody throttle back in, quick smart! A natural reaction I guess, try to undo what you just did. Well fortunately it worked. It didn't give me a hell of a lot of power, but it was a lot smoother than before. I rejoined the circuit and when I was entering the downwind I dropped the gear to attempt to get the speed under control since full throttle was my only option unless I fancied a spot of gliding... er.. not today thanks.

Full power..ish gave me about 90 kts with the gear down. Not great but things could be worse. At least I could maintain height. I tried to reduce power a couple more times but each time the engine tried to abandon ship and beat me back to the airfield so I stuffed the throttle back in again. A tight approach and successful landing followed and as strange as it might seem, I was really enjoying myself since it was the first real bit of 'handling' I'd done in my Falco. After the landing I reduced power again and the engine quit. Not quite what I'd had in mind for the third flight, but at least I got the thing back.

After Einstein and I dragged my plane back to the hangar, I popped the cowls for a look inside. Everything looked OK but now my emotion turned to disgust. How could this bloody engine turn what should have been an enjoyable experience into such disgusting drama? I decided to push the thing into the hangar and get the engineer (mechanic, if you live in the USA) to sort the thing out. Turns out that the problem was due to a blocked injector nozzle. With the good old 1950's technology that we enjoy on our machines, the fuel control unit serves up fuel for four. When only three are doing the eating it makes them run way too rich as well. Added to this, my engine was running a bit rich anyhow, so when one shut down and the remaining rich three ran richer, it wasn't good. It could have been made to run better by leaning, but I doubt very much than anyone would be leaning the engine when it's trying to vacate the premises.

Anyhow, all that seems to be fixed now but somehow things still seem to be conspiring against me completing the test flying. February is normally our best month down this way but for some reason the weather gods have decided to try and float New Zealand to a new location by dumping as much water as possible on it, and then blowing like hell. All in all, not a good Falco flying experience so far with 3.6 hours flown, 0.2 of those hours with an increased heart rate. While I hope that is not the conclusion to my Falco experience it certainly seems a disappointing end to what was otherwise a lot of fun.

Early 1994 was when it all started for me. I was browsing through a second hand

bookstore while I waited for someone when I spotted my first *Kitplanes* magazine. "Hmmm, maybe these crappy shops are worth something after all". The book immediately sparked my imagination. The rest of the day was spent reading it from cover to cover. The plane that stood out, of course, was the Falco. I'd seen it several years earlier in a *Flying* magazine but never before had I considered building a plane myself. By then I'd got myself a job with Air New Zealand, I needed a new challenge and that was going to be it. About five years I thought, so I better tell everyone ten, just as well I did!

Living in a small country with a weak dollar makes purchasing parts in the US very expensive and right from the outset I knew that I couldn't really afford it. All the more reason to do it.

First things first, buy the plans. Here was my first setback. Holy Cow! Information overload. How on earth does someone make a spar like that! Instant 'mope around the house' mode. There was no way I was going to get my dream machine. But ever so slowly, after nights of lying in bed thinking and more plans inspection, I started to realize that this was possible and to hell with it. I was going to give it a whirl. Right. Let's spend some money!!

Since the kits were a bit out of range for me at that time, I started with a wood-to-size kit from Jean Peters. Within a couple of days of its arrival I had the Auckland Falco Factory in full production. After only one week I had a rib, or maybe two complete. Gee, won't be long now! Certainly the whole time spent building was doubled doing things like this. On the whole I enjoyed making everything, but I'm sure I spent a lot more time wondering if I'd ever finish than if I had bought the kits. I would certainly recommend buying the kits to anyone able to.

By the time I'd laminated all the frames I was sick of laminating and boy those wing ribs seemed to go on forever. At least with the kits you make aeroplane parts, but I was just making boxes of nondescript bits. I would generally make enough parts to make a structure, and then build it. I don't know if this was a better way or not but I guess it worked for me. While this method stopped me getting sick of making parts, it did slow the momentum considerably at times. Just when I was excited about finishing a structure, I was back to making bloody bits again. Not ideal, but that's the life of a plans builder I guess. I don't think I'd have the stomach to do it all over again without the kits, but I guess I'm a bit wiser now. I admit I completely underestimated the amount of work left in the job once the airframe is basically complete.

Victory. The end of the first flight.

For the most part the construction went reasonably well. I spent a lot time thinking about how to do something and planning it in my head before actually doing it. With that said, there were parts that didn't go quite to plan, for instance, I didn't enjoy making the aileron and flap assemblies, and I did them more than once. I'm still not convinced I have a good method of making the flaps sorted out. I made things in a slightly different order due to space constraints. I built the fuselage before the wings and then tipped the front fuselage on its nose and built the wing up the other way (leading edge down) because the space between the rafters in my workshop wouldn't fit the firewall. Also the tilting door wouldn't open with the leading edge up but with trailing edge up the wing taper left enough room to get the door open and get a car in alongside.

The airframe is glued up with resorcinol, Aerodux to be specific. There is a bit of Aerolite in the tail, but I preferred working with the Aerodux so I stuck (no pun intended) with it. The only thing I didn't enjoy with the Aerodux was the ugly stain the squeeze-out leaves behind making the completed structure look a bit rough underneath. I guess a truly compulsive builder would mask the joints, but I didn't and so my structure doesn't look as pleasing as the Aerolite or epoxy-glued equivalent. I also had a crack at making an engine mount. It was a long drawn out exercise, (ask my wife), but the end result was quite pleasing despite having to make one 'leg' twice. On speaking to another builder I changed my mind about using it. He convinced me to be skeptical of my own welding so after

much thought I decided to go with the peace of mind of a Sequoia mount, and I think I can trust the welds better than my own since I was relatively new to welding back then. Since then an engineer friend said something like "Aw heck, just keep your eye on it" but what's done is done, and it does help peace of mind. What I should have done, in hindsight if I wanted to make it, was tack weld it and get a pro to finish the welds off.

Nine and one half years from kick off and the aircraft sat basically complete in the hangar (in the very same spot Luciano's famous I-ERNA sat) sans paint and interior, awaiting final inspection.

The aeroplane itself at this stage was, and still is, very basic. I wanted a very basic VFR aeroplane and so all I have for radios is an ICOM IC-A200 comm and a Micro-air T2000 transponder. The only gyro I have is a turn co-ordinator, although I do intend to put in a horizon at some stage soon. For engine instruments I opted for the Rocky Mountain monitor for a few reasons. Mainly since I could get all its functionality for a low cost but also because it is very light and since I have an electronics background, I could build it myself. I did have reservations about digital gauges as I have never really been a fan, but I've got around some of those problems with a good colour-coded placard I designed myself. I also have the Rocky Mountain encoder, and I really like it. I particularly like the TAS at the flick of a switch and the fact that it makes a good backup all in one instrument. One slight omission (no, not a mod) I made was to leave out the vacuum system. The only experience I've ever had with vacuum systems was bad, so I decided to go all electric. With a well-planned system, I figure it will be more reliable and my aeroplane is only intended to be VFR anyhow.

The engine decision was made about mid-project. I had changed my mind several times on engine size until one day I had the pleasure of meeting Luciano Nustrini, who was certain that the best engine for the Falco was the 320. How could I argue with someone with so much experience with Falcos? So the search was on for a used 320, preferably without too many accessories so I could add a few light weight options. After quite a lengthy search, I found one in Sydney, Australia and had it shipped here. The engine had suffered a prop strike. Actually it had a whole aeroplane strike with the demise of the occupants, but I try not to think too much about that.

I had the engine stripped down and my engineer was pleased with the internals so we top-overhauled it and put it back together. I purchased a light weight alternator and was ready to test run the engine but still needed a starter. I tried to order a Magnafight starter but was advised that there had been a number of case failures and so the company had removed the starters from the market while they sorted out the problem. I looked further. I had heard a lot of good things about Sky-tec starters and, while they didn't fit the Falco, I knew that there was one about to be released that would. I emailed Rich Chappie at Sky-Tec and pleaded with him to let me have one pre-release. Rich was great and I can honestly say he really knows what customer support is all about. Even though he could have told me to bugger off, he took time from his busy pre-Oshkosh chaos to make and ship me a starter. The new NL starter fit like a glove and has behaved flawlessly right from the first start. It has masses of torque and spins the prop on my 320 as if the spark plugs were left out.

With the lead up to the final inspection, I got my engineer to go over it and give me a hand with a few remaining items. This period I didn't enjoy, it was too much like hard work. Kevin, the engineer, worked like a man possessed and since I was paying him I couldn't just say, "well I'm knackered, I'm going home." So by the time he had finished, I had done enough 'Falcoing' for a while. With that said, I was very pleased I hired Kevin, he spotted a few things I had missed and suggested a better way to do a few things also. In fact, if it wasn't for the fact that Kevin is building an RV6 and insists on calling my Falco a tree, I'd say he is an all round great guy.

A few days after I kicked Kevin out of the hangar, I was greeting Brian Farrell, New Zealand Civil Aviation Authority's inspector. Brian was very thorough, and very pleasant while keeping me in the loop the whole time about what he was looking at and why. In just over two hours he was done and signed me off for the required Experimental Airworthiness Certificate with only a few minor corrections he would like me to make. One was to either vent the battery to the outside or change to a gel cell and the other was to put switch guards on my ignition switches since I don't have an ignition keyswitch. Both easily corrected. Kevin's work had paid off so now all I needed was a suitable day to fly it.

The second day in January was looking like it was going to be a great day for the first flight, the only problem was that at 4 A.M. I was midway between Brisbane, Australia and Christchurch, New Zealand bringing a load of holiday makers home on the 'Red Eye'. On landing I rushed over to the domestic terminal and grabbed an early flight home to Auckland, rushed across the parking lot and sped home. I figured that my present state was no way to test fly an aeroplane so I jumped into bed and got a couple of hours sleep.

When I woke up the day was just as I left it, clear sky and calm, it was one out of the box. I rang around my supporters, and Vicki and I jumped in the car bound for Ardmore airfield. I dragged SMR out of the hangar and gave it a thorough preflight. All was in order, the excuses we evaporating, this was going to happen. In the interests of safety, I put on my Nomex clothing and jumped in ready to go do the taxi tests.

The taxi testing was planned out as per the Falco test cards and ran pretty much as planned. I did find that when it came to the aileron and elevator tests that things

went a lot easier than expected. I was worried that I might get prematurely airborne in the elevator test but by using full power and not exceeding the recommended maximum speed, everything went just as it should. My confidence was growing with the machine by the minute.

When the taxi tests were complete, I taxied back for one last look around the engine compartment. I rang the Air Traffic Control center to try to get a clearance into the airspace above the field. It is usually very busy airspace above Ardmore since it is situated below the approach fan for Auckland International and so most times they just don't want to know about the "bug smashers". Fortunately it was such a nice day that most traffic were carrying out visual approaches, and there wasn't a lot of international traffic due for a while. So the supervisor gave me a code to squawk, and I was back in the plane and heading for the runway with Vicki and a few friends looking on.

I waited for a quiet time, lined up and paused. Have I done everything? It was now or never, so I smoothly applied full power and SMR tracked straight down Ardmore's runway 21. Before I had time to think about a hell of a lot, I eased gently back on the stick. The earth slipped gently away below, no wild roll, no strange vibrations or smells. Just a nice straight, smooth climb.

It might seem strange, but I don't think I had any real flood of emotion at that stage. Maybe I was too busy. But it seemed business as usual for the main part which in hindsight seems oddly disappointing. I continued to climb, called ATC who cleared me to operate up to 4,500'. All was very normal in the climb, and on leveling out all the engine parameters were normal with the exception of an unserviceable CHT. Just as I was beginning to go through a few maneuvers I started to get shoved around by ATC. It started to become clear that my idea of remaining over the airfield in controlled airspace wasn't going to be such a good one, and in fact, wasn't even going to be achievable.

By then I was getting so busy with ATC that the test flight was starting to take a back seat, not exactly what I had in mind. I could see that time in controlled airspace was becoming limited so I set it up for some stall tests. The recovery from the onset went as planned although the stall warning from the strips was very light. I don't know that the cue would be sufficient on its own, but it will do for now.

The sudden drop in my airspeed was making it hard for ATC to keep me away from an approaching 737. I was told to vacate controlled airspace. Bummer. I really needed to do one more stall in the landing configuration to get my approach speed sorted. I wasn't going to let this spoil my day so I set up for a stall while descending. Not ideal, but it would have to do. The stall warning came just as it did before, but then SMR departed to the left and the stick unloaded slightly. A normal recovery did everything it should, and I now had my approach flaps-15 stall speed sorted out at 58 kts.

I would have preferred a couple more stalls to confirm the speed, but I wasn't going to do them down low, so that was that. Just to be on the safe side I rounded my approach speed calculation up to 80 kts since I had plenty of runway. Approach went just how it should so the landing was uneventful and right in front of the small gathering that had collected to watch and film the event. There was so much other activity when I shut down that I don't think the reality of what I had just done actually set in until later that night, and by then it didn't seem that important. I was pleased, for sure, but I wouldn't go as far as saying ecstatic but I think my time will be when I finally take my wife for a fly in my creation. I remember back to when I was a flying instructor when my most satisfaction came when my students took their first passenger, that was a real blast for me, and I think my Falco experience will be the same.

Since my engine problems, we have had very unseasonal weather for February, with severe flooding and some very high winds. This has kept me very busy at work and grounded on my days off so I haven't had a chance to get back out and get some faith back in my machine. At present I'd be lying if I didn't say I was disappointed, hopefully only temporarily, but disappointed just the same. I know I will miss the building part, of course I haven't finished yet so I don't need to worry about that just yet. But I have enjoyed the 'creating' aspect so much that it will leave a hole in my life if I ever do manage to get it entirely finished. I guess I will just have to keep it as a work in progress. Overall I have enjoyed the process extremely, I have learned a lot and met some great people along the way, so overall am I pleased I did it? You bet, I just hope I don't have any more unexpected crowds.

Nustrini and Richards—first Falco formation in New Zealand. The call sign is ZK-SMR—ZK is only needed for international flights.

Construction Notes

George Richards installed an Odyssey 925 battery, which he says gives amazing cranking power to his Falco. This is a sealed dry-cell battery. It is very small and saves 6 lbs over a Gill 25. He says "The chopper guys love them, and they regularly use them on a 320. I'm sure a 360 would be no problem. I've put the bigger 925 in. It is a great battery. Very compact, won't spill, has heaps of cranking power and doesn't seem to go flat as much if left alone. A great product." For more information, visit www.oddysseybatteries.com and check out the aircraft batteries.

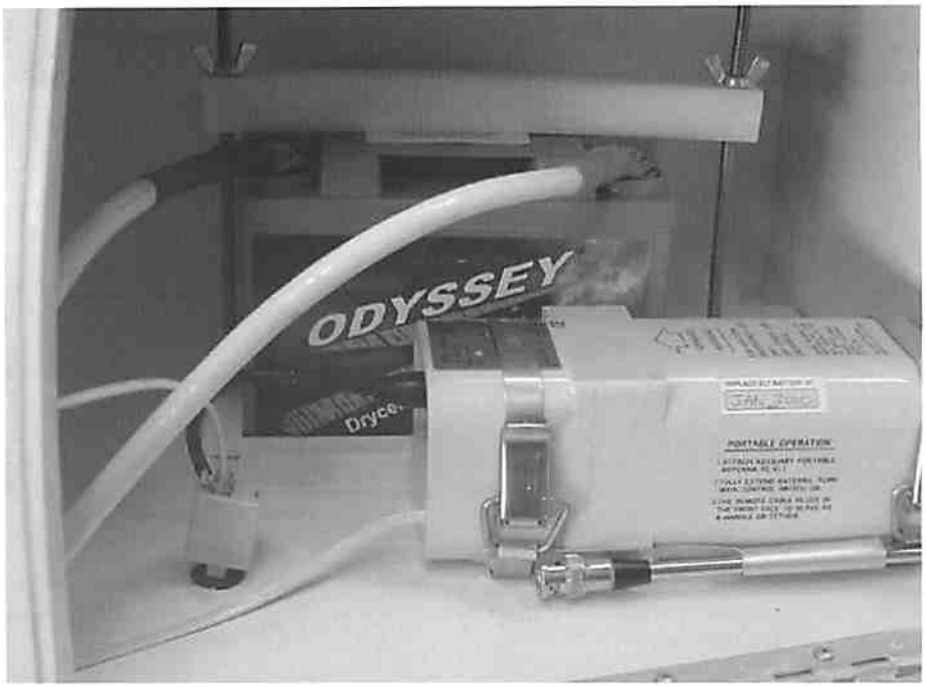
George also reports, "I've got the new Skytec High-Torque Inline (NL model) starter in my Falco. (In fact I badgered Rich at Skytec to give me the first one before they officially shipped!) That combined with an Odyssey 925 battery gives amazing cranking power to my 320. It is the best starter I've ever used, and it fits the Falco great." Visit www.skytecair.com for full details of this new starter. This appears to be a great starter for the Falco since it doesn't require any changes to the baffling, oil cooler installation or cowling. That's very good news.

Giovanni Nustrini came up with a variation on Wayne Milburn's trim idea. It is just a closed cell, self-adhesive foam strip. George reports it's "very light and simple and works great."

When George got his Falco in the air, he has a problem with the exhaust burning the cowling. Jim Petty read this and sent George a note.

"Congrats on getting your Falco in the air. That first five seconds in the air is quite a rush, isn't it.

"I was concerned about my exhaust being too close to the lower cowl (less than an inch in spots), so I added a heat shield. It consists of a layer of Fibrefrax ceramic felt (the same stuff I used behind the firewall) glued to the cowl with Fibrefrax hi-temp adhesive and covered with a layer of heavy aluminum broiling foil (Reynolds), also glued on with the same adhesive. The aluminum foil was primarily to reflect heat and also to keep the Firbefrax from getting oil-soaked. After nine years and 650 hours, it's still intact, although there're a few small holes in the foil. I haven't seen any discoloration on the outside of the cowl to indicate excessive temps, so I reckon it's working. Here's a picture showing the arrangement.



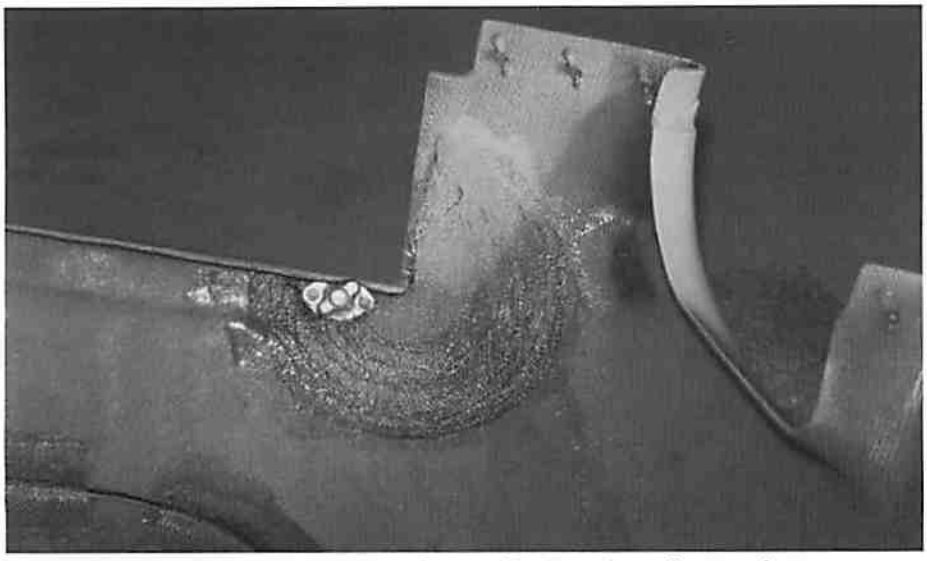
Top: Odyssey battery. Above: New Sky-Tec starter.

"I also have another suggestion. Early in my test flying, my bird started developing cracks radiating from the 90 degree inside corners of the upper and lower cowls. (These corners are real stress concentrators!) I stopped their progression by installing fiberglass fillets as shown in the photo below. The fillets consist of circular patches (9 layers, if I remember correctly), in decreasing sizes to taper the change in thickness and spread the stresses. If you see any cracks developing, you might want to do the same."—*Jim Petty*

Jim Petty adds, "Also, it might be worth mentioning again that I still have molds for the control and main gear fairings for anyone to borrow (all they have to do is e-mail me and pay the postage). I lost my list, but I think I've loaned them to about a dozen builders so far." Find Jim's email address in the Falco Hangar on our website.

As he was preparing to get his Falco flying, Dan Dorr called to say that he and Brien Seeley weighed Dan's Falco on the CAFE Foundation's scales, which are accurate to a ridiculous degree. They concluded that the Flight Manual location for the CG location of pilot and passenger is way off, like eight inches. They concluded it was at 77" instead of the stated 85". Everything else came out right on the money. They said all you do is weigh the airplane empty and then with pilot and passenger sitting in the plane.

It was about this time that George Rich-



Top: Richards/Nustrini aileron trim. Center: Jim Petty's cowling insulation. Above: Jim Petty's cowling fillet patches.

ards was weighing his Falco, and he reports "I concur with Dan with respect to the arm for the pilot and passenger. I made it nine inches further forward but Giovanni said he was probably about an inch further forward than he would have actually sat."

George began calculating the center of gravity with various loading conditions. I never want to advocate that anyone become casual or sloppy about weight and balance, but...

The forward CG limit is determined by the ability of the airplane to do a full stall in ground effect, and that really means landing. When you get your Falco in the air, you will quickly get a sense of how much elevator authority you have. You will probably worry a little bit about having possibly too-forward a CG, but then over time you will get a sense of how the plane flies, and you will stop worrying about it.

And on the aft CG, with a constant speed prop, you really have to load a bunch of stuff to get to the aft CG limit, and even then the airplane will tell you without you doing any calculation. When you get too far aft, the airplane will tip onto its tail. This happened with me once in the Corporate Disgrace, when I was in Idaho on my way to the CAFÉ 400 race. I landed, took John Harns for a ride, then filled up with fuel and perhaps a few more soft drinks in the cooler, and the plane was on its tail. I got in, had John lift and hold the stabilizer up while I started the engine. Once the engine was running, it would not tip back again. I didn't worry too much about it because I had just flown almost across the US with an essentially identical loading, so I took off. It was a little light on the stick, but certainly nothing dangerous or in the realm of positive instability.

And on gross weight, you'll find the Falco can carry anything you can get into it. You'll only run into problems at high altitude fields and with high temperatures. You're going to get very comfortable with the airplane very quickly, and you're going to start flying it like bush pilots fly Beavers, just throw everything in, start the engine and go.

Fred Doppelt reports that he talked to Larry Wohlers, who had paid a visit to look at the wreckage of his old Falco. As you may remember, the accident report cited a collapsed air intake hose. Larry reports that there was "no wire at all in the intake hose."

Fred also reports that he has installed 'Nu-

Lite' replacements for post lights. These work great and look like the light is inside the instrument. The lights cost about thirty dollars each and are available from Aircraft Spruce.

Duane Root asked about the pin assignments for using the RST-523 marker beacon receiver with our electrical kits. There was some confusion about what to do with two of the pins. The correct pin assignments for RST-523's P1 plug are (1) R340B-22, (2) Connect to pin 3 with a jumper wire, (3) Connect to pin 2 with a jumper wire, (4) R341-22, (5) n/c, (6) NR338B-22, (7) NR339B-22, (8) NR337B-22, (9) NR342-22. The only mystery was what to do with pin 2 and 3, and you just install a jumper wire.

From Mike Wiebe: "From the recent newsletter and the autopilot discussion: As you noted, we've now got two years flying behind the Navaid Devices single axis autopilot, which we bought from Jim Petty. I disagree with the newsletter comments on its applicability to the Falco. It works great for us and has the advantage of being simple in all respects. Jim flew it from new, and got rid of it because he was upgrading to an IFR airplane—the Navaid is a VFR-only unit. However it suits our purposes fine and installation would have been simple even if we didn't have pictures from Jim. It replaces a traditional turn coordinator, and has kind of a half-assed digital LED version of a TC built in, along with a slip-skid bubble. If anyone is interested, I'd be happy to send copies of the installation pictures and could probably even work up a couple of sketches. Buying used from Jim was an added savings. But prior to that we did talk with the company owner and found none of communication problems that you and others have had."

"Navaid has always maintained compatibility with virtually all panel mount GPS's, being able to track a flight plan (including turns), or hold a GPS heading. New Navaid units today can be bought with a device called a Smart Coupler built right in, which provides the same capability for handheld GPS's. If you get an older Navaid like ours, you can buy the Smart Coupler separately. Ours does a great job following our Garmin 295. Zero complaints, but if I was doing it again today (and didn't get a great deal on a used unit—thanks again Jim!), I agree that I would seriously consider the Tru-Trak unit. Its digital technology is leading edge, the only disadvantages being about a 25% price premium and the need for a new hole in the panel."

Richard Marks is nearing completion in Bridgewater, Somerset, England.

Book Review:
The Gold-Plated Porsche

How I Sank a Small Fortune into a Used Car, and Other Misadventures

by Stephan Wilkinson
The Lyons Press, ISBN 1-59228-256-3.
$21.95 Hardback, 224 pages.

Susan Crandell gives great Christmas presents. Some years ago, she gave husband Steve Wilkinson permission to build a Falco. As he worked on it, she gave him the seats-and-hardware kit, fuel tanks, engine baffling kit, and others. After he sold it, she gave him a copy of *Hemmings Motor News*.

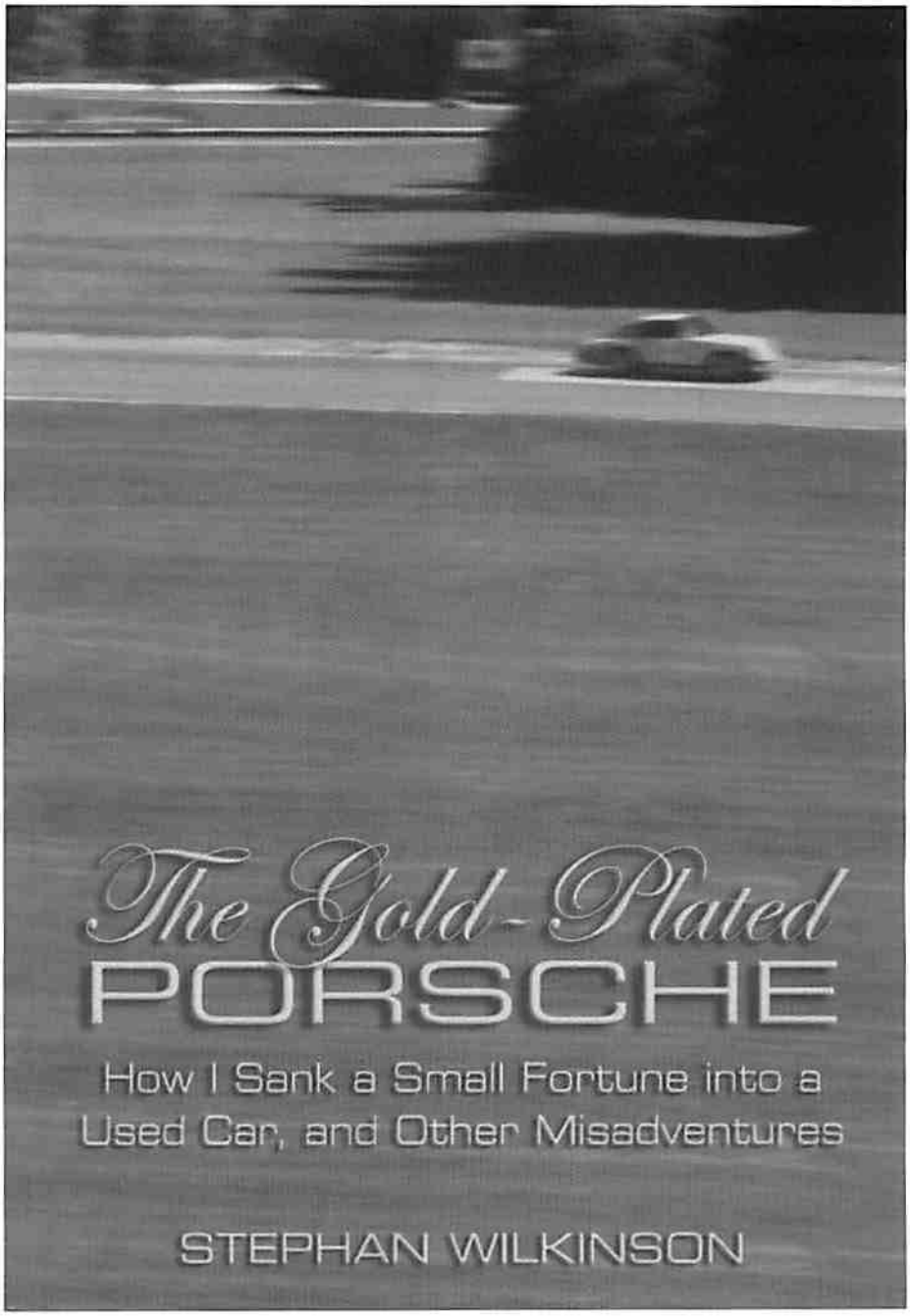
"You look bored," she said. "You finished the addition to our home. You built an airplane. Buy yourself a car to restore. A Ferrari. An Aston Martin. A Corvette, a Cobra…."

"Wow." said Steve. " I'd always wanted to restore a car, and my unfailingly perceptive partner, always game for anything, was encouraging me to start at the top. Husbands who feel that permission to watch the Super Bowl is marital bliss don't know what they're missing."

Wow is right. Steve bought an old, rundown Porsche 911E, and spent the next two years tearing it apart and installing every top-of-the line Porsche after-market accessory, high-compression pistons, Weber carburetors, consulting with a Porsche engine expert in Oregon, visiting Porsche chatrooms on the Internet… while working on it in the barn behind his house.

In *The Gold-Plated Porsche*, Steve takes you inside the barn, down into the engine and recounts his own personal history, of dropping out of Harvard to tour the world as a merchant seaman, driving an ambulance, working at *Flying* magazine, a brief tour at *Car & Driver* as editor, fired, then back to *Flying* where he was soon fired again. Lord knows they had reasons: his brief association with a Canadian marijuana smuggler who needed a pilot, then as chief pilot for Dennis Banks, one of the leaders of the controversial American Indian Movement, for a week or so at least, and long enough to attract the attention of the F.B.I.

The Falco is all through the book, so Falcophiles going through withdrawals from Steve's articles can get their replacement therapy with a copy of this wonderful book.



It is classic Steve. After tearing the transmission apart and finding a bent mainshaft, worn bushings and other evidence of a few hard knocks, he notes "Wondering what your car has been through is like thinking about how your wife lost her virginity. On the one hand you don't want to know, on the other you can't help daydreaming the worst." (And this from a guy who is still hiding his First Flight/Kim Basinger article from his wife.)

From the preface: "I took to explaining that I was simply spending two years and $70,000 to make a brand-new 1983 Porsche that would never in my lifetime be worth more than twenty grand, tops. It was like the MasterCard commercials: 'Car, $10,500. Parts, $59,000. Experience, priceless.' A few people got it, most didn't. This book is for the people who Get It."

Do get it. Lately I've been working my way through Edmund Morris's *Theodore Rex*, William Manchester's *The Last Lion*, and H.W. Brands *T.R.* at a pace of a few pages a night, but when I cracked open *The Gold-Plated Porsche*, I read until after midnight, then woke up early to finish it the next morning. It's just a wonderful book, but then, has Steve ever written anything that wasn't?

The Gold-Plated Porsche, a two-year auto rebuild account wrapped around a life story, will be published in June 2004. It's available on Amazon now for preorders, and in bookstores.

If a Falco Project Could Only Talk

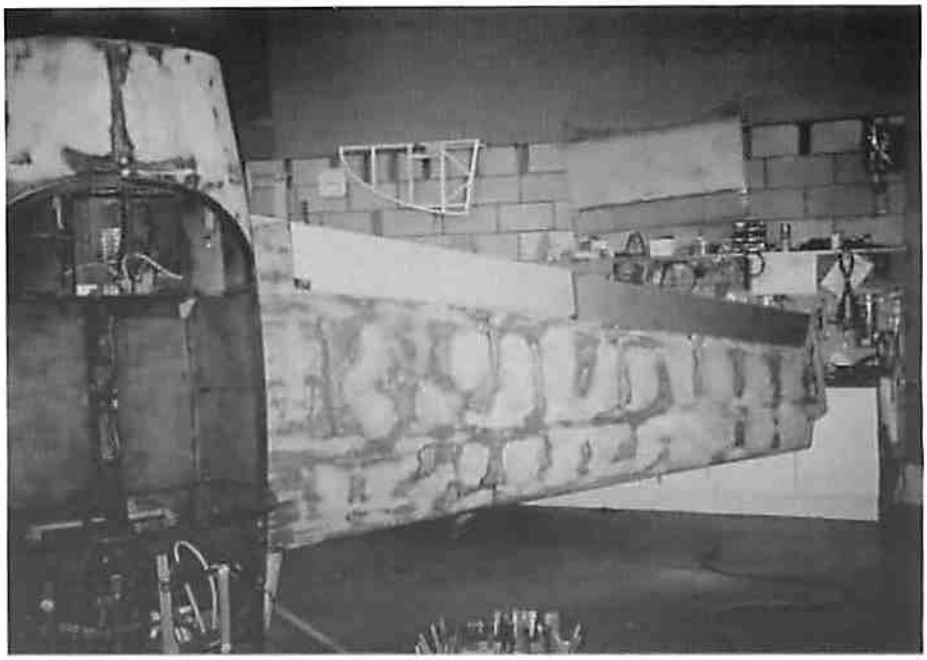
by David and Sian Thomas

This Falco project was started in 1982, with most of the basic airframe being completed and signed off by 1984, according to my records. The project passed on to Pat Millar and then Bob Sothcote. Bob was featured in *Kitplanes* magazine around 1990, with a photograph of the aeroplane as it was then. The aeroplane stood on its undercarriage with all the skins fitted apart from the top of wing skins. Around this time Bob bought the cowling, instrument panel and electrical kit from Sequoia. I believe the canopy and undercarriage components were also sourced at this time, possibly from Falco G-AVUJ which was destroyed in a hanger fire during the late 80's.

I first saw the aircraft three years ago when Dave Almey bought the project from Bob, and asked me if I would help retrieve it over the Christmas break. Little did I know I would eventually own it! We traveled with two trucks and trailers and four men. My first sight of the plane was as the door of a ramshackle barn opened, showing the wings and cockpit lying diagonally across the barn, the port wingtip resting on the ground and the starboard tip up in the air on the diagonal side of the barn. It just fitted, with the tail section sitting half over the wing and supported on straw bails! Under all this lay the undercarriage on the bare earth. Oh, what a sorry sight. I wish I had taken photographs.

How on earth were we to get the aeroplane out? Maybe dismantling the barn would be easier, particularly since the roof already had some holes letting in water. We managed to load up the remains onto the two trailers by lifting the parts out of the shed, over a brick wall and across the edge of a field! But this was nothing. We strapped the tail section upright to the smaller of the two trailers, and it looked like the tail of a fossilized whale. We did get some funny looks passing through the city of Hull, on our way back to David's workshop. A slow and steady trip of some 100 miles in the cold and frosty weather, with the tail spreading amazing shadows from the setting sun on buildings passing by.

Once at the workshop David instituted a period of stabilisation, gently letting the warm air in the workshop dry the moisture out of the airframe. Very little positive progress appeared to happen for a year. At the time I was building a four-seat Jodel.

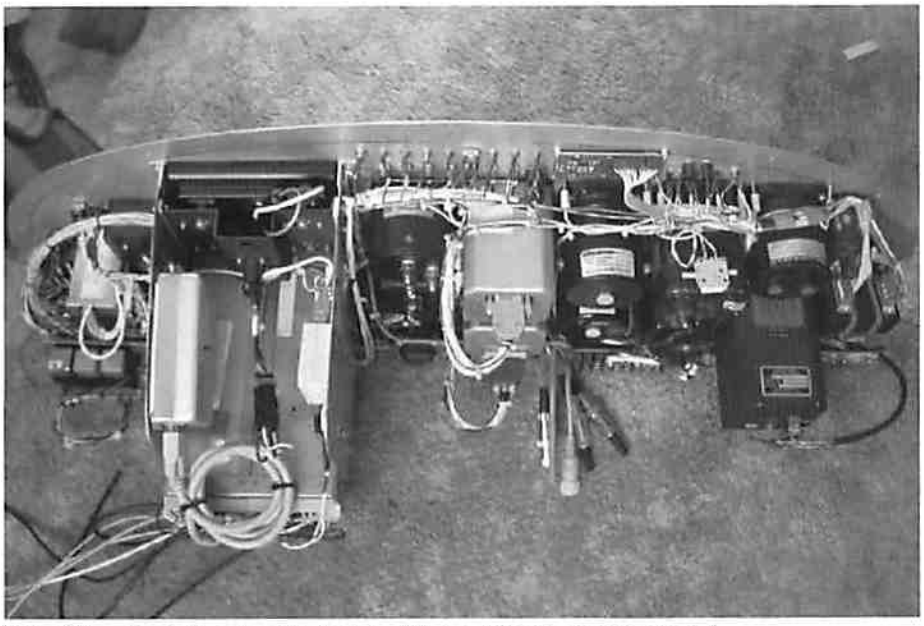


Top: The wing filled with microballoons. Above: The tail section.

Each time I visited, there was the Falco, sitting vertically on the firewall across one side of the workshop. Each time there was less of a Falco airframe to be seen as the fabric covering the flaps and ailerons was removed, filler material on the wing sanded off (it was suspected of absorbing moisture), and the partially installed electrical kit dismantled to check contacts for corrosion. However, even in its uncleaned state the beautiful shape of the Frati Falco could be seen. An aeroplane to aspire to, but not for my wife and me. We fly from Fenland airfield (600 yds of bumpy grass), with a Jodel D119, often with a group of friends in a loose formation, flying at around 80-90 kts. We often fly for an hour or so to nearby fields for a group lunch, or into nearby farm strips. During summer months France beckons our French built (and designed) Jodel home. No, no a Falco is not for us.

David Almey kept on slowly working away on the project, overhauling the undercarriage, re-chroming and machining the axles and struts. He eventually assembled the airframe, checking overall setting out and dimensions. All measured within 1mm, so obviously the Falco airframe is not only structurally strong but will also stand long periods of poor storage. A few areas of moisture-damaged skin covering on the bottom of the rear fuselage were replaced.

After about two years of construction, I decided that the four-seat Jodel project was going to be uneconomic, and would cost more to build than it would be worth.



Top: The wing primed and painted. Above: The instrument panel.

Dave Almey then offered me the Falco project. After much thought and discussion with friends, I eventually managed to convince myself I could finish the project and be able to sell it if I wished without losing vast sums of money. This of course was a very sensible decision. Maybe my exposure to the project had made me sentimental about the aeroplane. Or maybe the comments from my friends: "A Falco, of course, buy it and finish it—we will fly it with you!" had persuaded me to buy, but hold on—I still needed approval from 'Mission Control'.

My previous experience of aircraft building consists of refurbishing our Jodel D119 two seat plane and, of course, work on the now abandoned four-seat Jodel DR200 project. My wife, Sian had helped with refurbishing the D119 and after much discussion, the response came: yes, I could take on the Falco; no, she was not going to help with the major construction of this project. Some conditions to approval have been set, however. When the aircraft is finished European touring, in particular a visit to Prague is in the offing. In the meantime while I am building, Sian is out flying the D119 (possibly a cunning plan when she gave me the go-ahead).

Well, Sian and I are now proud owners of Falco PFA project number 100-10588. I only have the airframe, electrical installation, instrument panel, tanks and plumbing, brakes, undercarriage, engine and miriad other details and parts to install and fit. I will keep you informed of progress as and when progress is made. However, I am definitely going for the medal for completing the oldest and longest construction period for a Sequoia Falco.

Along with enough wood to look like an aeroplane came an equal mass of paper. Several sets of plans, build book, 20 years of Falco newsletters. First off is to register my involvement with the PFA, establish that the PFA records are in order, and acquire a licence to build from Sequoia. That done I can really call myself a Falco builder. But what to tackle first? Read the newsletters first. One a night just before bed, just what the doctor ordered. Lots of information, instantly forgotten, on the finer points of Falco construction. How to balance the flying surfaces, strengthening the fuel tanks, etc. Even a few encouraging flight reports. It seems some people do actually finish and fly their project. Looking through boxes of bits that David kept throwing at me arrived an instrument panel. Winter weather, cold outside, start with this on the kitchen table.

Fortunately for me much of the wiring for the panel was already completed. However it did not stop the drawings being brought out, and a continuity check carried out on all cables so far installed. Continued with the engine cluster, audio panel, and some changes of my own making. Installed Terra Comm, VOR, ADF and Transponder, along with Skyforce GPS. Why Terra? I already had the Comm and transponder for my previous project. However I have now realised my deliberate mistake. I have to have the aeroplane finished and flying before 2008, otherwise this will be the first Falco to have an avionics re-fit before completion and flight. This is because of the requirement to fit mode-S transponders in Europe by that date. I now have to complete the aeroplane because the panel wiring and fitment has taken me six months, and I can't face re-doing this before flight.

Was anything difficult? No, it just took a long time, and I hope it all works when it is all finally hooked up, otherwise I have a feeling I could take the rest of my life to troubleshoot the system.

Calendar of Events

West Coast Falco Fly-In. September 17-19, 2004 at Nelson, B.C. Canada Contact: Dan Martinelli (250) 367-9257, email: dmartinelli@telus.net or at Box 14, Montrose, B.C. Canada

Oshkosh 2005. Plan now to attend the 50th Birthday Party for the Falco.

Mailbox

I visited Larry Weldon on Friday. He is making good progress on his Falco. I believe he is building an award winner. The workmanship on his machine is very outstanding. I was very impressed with his project.

Glyn Russell
Hartselle, AL

I'll fly the Falco to an aeronautical exibition in Berlin in May, and I've been selected from the Italian homebuilders (there's one plane from each country, it's not an homebuilt convention). This is the most important European airshow after Le Bourget and Farnborough.

Andrea Tremolada
Milan, Italy

Karen and I had an interesting flight this past Saturday. We left Brenham Muni about 10 a.m. to fly to Kerrville (northwest of San Antonio). The flight would take about one hour and after checking the weather we launched into partly cloudy skies and unlimited visibility. We climbed to 4,500 feet, engaged the autopilot and sat back to enjoy the scenery. The air was smooth as could be and verified what flight service had predicted. They did mention that there was a strong southerly flow over most of Texas as a front was approaching and would reach our area sometime Sunday morning.

About 20 nm from Kerrville I tuned in the AWOS and was informed that the winds were 180 at 20 with gusts to 25. Didn't sound too bad. We started down with the intention of leveling off at 2,600 feet (airport traffic pattern altitude). When we passed through 3,500 all hell broke loose! We encountered severe (at least for the Falco) turbulence. Heads bounced repeatedly off the canopy. The airplane yawed left and right with up and down-drafts and rolls from left to right and back again. N63KC was almost uncontrollable. I tried to call Kerrville Unicom several times but got no answer.

Finally I told Karen we were going back up and turn around and go back to Brenham. She really surprised me when she calmly replied, "We're almost there, why turn around now?" (She told me later that the reason she was so calm was because she felt I knew what I was doing. How's that for blind faith?) Anyway, I agreed to make one attempt to land and if it didn't feel right we would go back to Brenham. The runway of choice was 12. The wind sock indicated a something like a direction of 180 but the way it was gyrating back and forth it was difficult to tell exactly. We had descended to somewhere below 100 feet above the runway, and I had about 30 degrees of flaps while carrying some extra speed.

Suddenly (like in a heartbeat) the plane rolled left to about 60 degrees. I managed to level the wings, firewalled the throttle, raised the gear and headed home. When we leveled off at 7,500 (in smooth air) I called the Kerrville Unicom again, and this time got a response. He informed me that the winds were indeed from 180 at 20 kts gusting to 35. I glanced at the accelerometer which indicated 3.5 g's positive and 1 g negative! That was one hell of a ride!

Cecil Rives
Houston, TX

Sport aviation's own Jim Weir (designer of the antenna system in the Falco) was one of the many running for Governor of California. Jim reports, "I came in 30th in a field of 130. BigBoobs came in fifth or sixth, I don't remember which; too many people who wanted to say 'up the system' voted for her as the protest of choice. I wound up with around 3500 votes—and the question I ask anybody who says that isn't a lot of votes—'How many votes did YOU get?' Here is a photo taken during the campaign. The other candidates in the photo are 'Aaahnold' and Dr. Mancuso, a cardiologist from Visalia who was really a neat guy."

After all these years of reading your newsletter, it is time to contribute. After twenty years of Falco, it is time to hang it up.

My Falco has been one of the most rewarding experiences of my life. I enjoyed six years of building and fourteen years of flying it.

A few weeks ago, it was determined that I needed a pacemaker implant, so now I am like the Energizer Bunny—I run on a battery and don't have a pilot's license.

It has been great, but now it's off to other things.

Steve Bachnak
Munster, IN