Falco Builders Letter

Flying the Falco

by David Thomas

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It is a long time since I promised an article on 'Flying the Falco', as opposed to 'Building the Falco'. That time has been filled up with a little flying and many other events, including the death of my father nearly a year ago. At least one of our flights was special, when we took the Falco to Draycott Farm in order for him to see the finished plane. Unfortunately he never flew in it; little did we know at the time that he would be dead six months later. There is a moral there somewhere!

This article is not exactly a flight test, since I am not a test pilot. In order to add flavour to my comments it is probably a good idea to précis my flying experience. Since gaining my PPL my background in flying is via the traditional LAA route of VP1, Luton Minor, D112 and D119. I have hundreds of hours flying Jodels! I also have very limited time on aircraft such as Cessna Cardinal, Piper Arrow, Bulldog, Rockwell Commander, and some experience of what aircraft such as Acrosport, Pitts S2 and Cap10C are like to fly.

Coming to the Falco was initially a revelation. In particular, the lack of drag and hence vertical penetration were the greatest shock initially. This coupled with light stick forces (probably about 5 lb/G) meant that on my first flight the cruise bobbed up and down 500 ft just from the weight of my hand on the stick. The preferred method of piloting the Falco is to rest the arm on your leg, to give your arm and wrist stability. This means that all control is carried out with moves of the wrist only. In fact most manoeuvres, including loops and rolls can be carried out in this manner. I discovered on the flight home that another good way to stabilise the situation is to let go, and let the plane fly itself! This it does very ably.

In the cruise the aeroplane is very stable in pitch, and the plane tends to punch through turbulence, making the ride very comfortable. Pitch forces are so light that, in fact, pitch stability can be affected as much by friction in the system as by aerodynamic effects, i.e. it is possible to position the stick and friction will keep the elevator where you left it.

In This Issue:

In normal flight the aircraft is so well balanced and harmonised that no rudder input is necessary: you think it, and you find the aircraft has already done it! In fact since selling our Jodel this year, I have done very little tail dragger flying, but one memorable trip was a positioning flight in a Piper Pacer. The aircraft seemed to be fighting me the whole way. Shortly afterwards I jumped into the Falco, and I couldn't believe how easy it is to fly. It just does what it is told; no questions asked. It just coordinates itself. I am noticing, and more to the point, I am becoming able to differentiate the control harmonies on other aeroplanes, which were not so apparent to me before.

I guess everyone wants to know what speeds we get? Well our Falco is a little slower than some because we have Liese silencers fitted which blow the exhaust out sideways and not backwards as standard. This adds a little drag: 20" MP and 2000 rpm (18 litres/hr) gives us 125 to 130 kt (IAS) which is good for flying in formation with Pioneer 300s (and at similar fuel flows). We mostly use 23" MP and 2350 rpm (about 25-28 l/hr) which gives us 145 kt. A 160 kt cruise is quite possible but the fuel flows go up dramatically.

I did take the Leise silencers off once and our 145 kt cruise increased by about 3 to 5 kt. However, the extra noise initially concerned my wife and me on take-off and climb-out (we thought something was wrong) and after an hour's flight we stuck them back on. The noise in the cockpit is reduced and is much softer in its nature.

Cruise speeds can vary depending on the gear door installation, canopy type etc. We found that installing the front gear leg door and associated clam shell doors (that entirely cover the front wheel) added a measurable 6 kts to our 65 per cent cruise speed. All the speeds are indicated although variations can be huge due to temperature and pressure variations. For example, this winter we have seen 140 kt IAS at 21" and 2100 rpm. Maybe we should carry out a test programme to establish exact performance. We have a computer programme, Benchmark, written by Alfred Scott of Sequoia Aircraft, that will produce the same aircraft cruise and fuel flow documentation carried out and provided by Boeing for the B17 and B29 during the second world war. We haven't yet got around to undertaking the formal test flights required. For those interested the program works for all variable pitch propeller aeroplanes.

The stall in our Falco comes up at 60 kt (IAS) gear and flaps up and reads similarly gear and flaps down. The aircraft has good stall warning with airframe buffet about 5 kt before the stall. The stall generally breaks straight ahead, although this can't be assured, and I have had the right wing roll through on one occasion. Probably the ball wasn't exactly in the centre! Care needs to be taken recovering from the stall; it is possible to G-stall it on the pull out (and I have done so once—I didn't think I was pulling very hard but response to pitch is quite quick). Indeed I have been told by an observer that in a pullup the aircraft can sometimes be seen to actually rotate through the pitch axis with tail moving down, and the nose going up, and then climb. I now tend to be more careful to ensure a more gradual pitch change!

Well, a 60 kt stall means at 1.3 Vs an 80 kt IAS approach. Typically, we use 80 to 85 kt on approach with 70 kt IAS over the hedge. It is quite difficult in our Falco to reduce speed; in fact in any descent the

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natural situation is for speed to increase, easily reaching 180 to 200 kt or so. Gear limiting speed is 108 kt IAS. Flaps are less than this. We either reduce speed to 120 kt before joining, or alternatively we initiate a pull-up to reduce speed to 105 kt and drop the gear whereupon the phenomenal extra drag of the gear makes speed control easier. Typically before we added the gear doors the max speed achieved with the gear down was limited to 120-130 kt. The gear limiting speed is more a function of ensuring the doors, etc. don't pull off.

In the circuit a little flap helps to drop the nose and makes positioning easier. Although the aircraft is quite fast, its personality in the circuit, gear down, is quite different. The drag from the gear helps keep speed under control and helps ensure a descent is going to happen. The flaps can extend to 45° whereupon the rate of descent will exceed 2000 fpm (the max indicated on my VSI). Care needs to be exercised, particularly as speed bleeds off, and the vertical rate of descent increases. This is why we often use 85 kt on approach.

I haven't carried out flight tests, but I suspect that with gear down and full flap, the bottom of the drag curve occurs at 85 kt or so, this means much below this figure you are actually on the back of the drag curve. Consequently recovering from this position can require lots of power, and can take time while the speed builds and the rate of descent reduces. With 30 degrees of flap selected the drag is a lot less and the approach and flare far easier to assess.

I guess the situation is not a lot different to Cessnas with 30 or 40 degrees of flap selected. Because of the low pitch forces it is a good idea to keep high on approach and not to fly a long, low final, dragging the aeroplane in. The tendency with this approach is to inadvertently pull the stick back to make your aiming point. Stick forces being low the cues of decreasing speed can be missed, putting you on the back of the drag curve with the situation inadvertently becoming worse. The Falco flaps are very effective and so far a high, or extremely high approach will never be too high. I still frequently have to add power to make the field. I have tried an engine failure approach from 2000 ft and about 700 yds from the end of the runway and just made it with full flap!

Conversely the take-off is point and go, with rotation occurring about 65 kt IAS and after 200 to 350 yards, depending on all up weight. It pays to get the gear up as soon as a positive rate of climb is estab-

lished, or 75 kt IAS appears on the ASI (the front leg door is really a square foot of airbrake). Since the aircraft has a laminar flow wing which is not terribly full of lift at low speed, and you can easily get on the back of the drag curve, it pays to not lift off too early, and to let speed increase in a shallow ascent. By the time the gear is up (13 seconds) the speed has generally increased to 85 kt and a good climb speed is 85 to 95 kt. A cruise climb would be 105 to 120 kt. I tend not to like runways less than 600 yards with clear approaches and 900 yards plus with trees.

Getting in is no problem, but getting out with the fairly flat and fast climb out could be. Operating from grass isn't a problem, although the smoother the better. Also, the worm gear undercarriage drive is located in the wheel wells. We are concerned about getting mud in the operating mechanism, which will cause wear. So far however the wheel wells have stayed clean.

What is the Falco like to fly? "Like ballet."

In conclusion, what is the aeroplane like to fly? Superb and very easy. In fact a low time pilot (100 hours or so) would have no problem, providing they had good initial instruction and conversion to type. Both my wife and I have to thank Peter Grist for his expertise in this respect. In the words of my wife, Sian, what is the Falco like to fly? "Like ballet."

How does the Falco compare to other planes I've flown? Quite simply, in my view it's the best aeroplane I've flown, although it's taken me some time to assess its capabilities and, like all aeroplanes, it's grown on me with familiarity.

The aileron is not in the same 'switch like' category as the Acrosport, although stick forces are very much lighter than an S2B. The aileron response of the Bulldog is lovely, and the Falco is probably better than this; indeed, all stick forces are lighter than the Bulldog or the Cap 10C. Obviously the Cap 10C is far more capable aerobatically, however all control responses on the Falco are beautifully fluid and progressive in their nature and action. I like the Falco to fly better than the Cap 10, but remember I am not an aerobatic pilot.

It is true to say the Falco is old school with fluid and harmonised controls that are quick in response but not ultra quick. Control forces are very low (lower than Jodel D112) and for me the extra power and low drag gives our flying an extra dimension that 'poling around' in a lightly loaded D119 could never achieve. Set 2500 rpm and 25" MP and loops can be had from 160 kt straight and level, rolls from 135 kt. As yet we have to obtain our aerobatic rating on the aircraft so comments on aerobatics are from experiences in a production Falco. Looking out of the bubble cockpit at the small wings and long nose it is very easy to think you are in a little fighter, and while looking around you for that elusive plane to bounce you find it's already turned and is on its way towards that plane far below!

Finally, was the effort of building worth it? Would I do it again?

The aircraft was worth building, although the effort often seemed to be much too great, and difficulties almost insummountable. Without the help of many friends it would never have been finished. At the time I finished building I said I would never build another plane, let alone a Falco. Now I'm not so sure. In fact, one of the first Falco builders in this country is involved in building his second. That is probably the ultimate accolade.

Homebuilt versus Production Falcos

by David Thomas

In writing this article I was particularly asked to comment on the differences for the pilot in flying a homebuilt or production Falco. Whilst this may be an obvious query the reply isn't cut and dried.

The reason is quite simple. The Falco has always been very time dependent and costly to build. When constructed as a production aeroplane in Italy, production was often similar to a cottage industry, with only about 100 airframes being built over a 15 year or so timeframe. In addition there were four major series runs, with variations between each series. Amendments on the production run often blurred these variations, and amendments to airframes in the last 40 years or so have further muddied the water. I guess in the nature of things the production aeroplanes were much closer to homebuilts than, say, Pipers or Cessnas.

Significant variations on production aeroplanes included enlarging the tail slightly, engine size increasing from 0-290 up to 0-320, 160hp. Propellers varied from Hoffman fixed-pitch, through the Aeromatic to Hartzell constant-speed units. Each of these variations meant an increasingly forward CG as weight increased in the engine bay.

Flight controls varied from fabric-covered timber to formed aluminium on Series III, and fuel tank positions varied from the front and rear of the cockpit to bladder type tanks in the wings. Finally, some production aeroplanes had gear doors and hinge fairings. Some did not! This all sounds very like the homebuilts that followed.

My only flying experience of comparing homebuilt with production Falco is my own homebuilt with a Series III. Key points on the Series III, which vary from my homebuilt are: 150 hp Lycoming with slightly different C/S prop. (I am 160 hp), metal flying surfaces, no fairings to hinges, no front gear leg door. Different shape and construction of cowling, along with different carburettor air inlets.

The main difference is in cruise speeds due to the lack of fairings and front leg doors. Similar engine settings result in an indicated cruise speed of approximately 15 kt less with the production version. However, other production Falcos configured differently are faster, and I guess this one could also benefit from these amendments.

This Falco is owned by Peter Grist, who started work on Dave Thomas's G-CCOR twelve years ago.

There appears to be no difference in control response between metal and fabric surfaces (well, not that I can detect), although the homebuilt appears a little bit more progressive and softer in its response. I think this is simply because all the bearings etc. are new in the homebuilt.

There is one other difference and that is pitch stability is greater in the production version, also there is a little more break-out force in pitch. Investigation indicates that the production plane has a little more 'stiction' in its elevator circuit and, coupled with the low stick forces, this stiction results in a more 'dead beat' action to the elevator, and triming can be more easily achieved by leaving the stick 'where it last was'.

It is worth bearing in mind that fuel tank positions in both aircraft are identical. Tanks in the wings could amend this slightly.

The speed of the aircraft, and elevator forces can vary with CG position, a rearwards CG increases speed, and seems to make the elevator more sensitive.

Into Cold Water

by Simon Paul

Beauty similar to Sophia Loren's, workmanship that equals Stradivari work, aerodynamics that resemble Lamborghini's smooth lines and a Ferrari-like performance to top it all off. Those must have been my first impressions when I opened "All the World's Aircraft" on the page that depicted a Laverda Falco IV. Italian style and beauty. I must have been a young boy, not more than twelve years old when my father gave me this book for a birthday or some other festivity.

Without knowing it, the aviation virus must have passed on from my father to me. He was born in 1919 as the eldest son of a farmer and in his childhood he spent a lot of time in the countryside, working on the fields and taking care of the cows. Numerous hours were wasted looking up into the quiet skies, scanning for a Fokker F.7 or a Koolhoven trainer. He knew in an early age that he wanted to be a part of aviation and after spending several years at sea, he joined the Dutch Civil Aviation Authority as an air traffic controller. With a little envy I must admit that he grew up in aviation's most glorious years.

The developments went swiftly. He saw the DC-2s and DC-3s come and go, quickly making room for Lockheed Electras, DC-8s and Boeing 707s. No shortage of fuel and no environmental concerns could slow down the rapid pace of the aviation industry back then. Without knowing it, he passed this enthusiasm on to me, and I knew that I wanted to play my role in aviation, too.

After finishing high school I went to the technical university in Delft to study aviation technology. Much to the disappointment of my parents I quit within a year. My father really wanted me to become an aeronautical engineer and follow the footsteps of Anthony Fokker, a famous Dutch airplane manufacturer.

I joined the Royal Netherlands Air Force for the draft-service, a system that was still in place back in the eighties. Leaving the Air Force, I went straight to the CAA to become an air traffic controller. My parents' disappointment had disappeared, and it was smooth sailing from then on.

Aviation always played a very important role in my life, and I was thrilled to the bone when I was given the opportunity to fly aeroplanes. I gained my private pilot's license in 1992 and an instrument rating and commercial pilot's license a few years later. Life was good. I met my wonderful wife Birgit. And God gave us the ultimate gift of two beautiful and healthy children, a boy and a girl, Joris and Simone, now 15 and 13 years of age.

Birgit with Bent Michelson and Per Brüel and OY-BKC

I was more than happy piloting Cessna 172s and Piper 28s through the skies of Europe. With friends I made a lot of trips to the United States, the world's aviation paradise, to rent high-performance aircraft and have fun at very reasonable prices. Owning an aeroplane never crossed my mind until I found the book in an old box again. There it was, the Falco, still amazingly and stunningly beautiful. What a gracious aircraft, designed and built in the fifties when Piper was still pulling cloth over tubular frames. Frati was visionary. His way would be an example for the whole world to admire. This would be the aircraft we would one day own.

Having access to the database of all European registered aircraft, I wrote a letter to each and every Falco owner back in 1999. I bluntly asked them if they would consider selling their aircraft to me. A significant number of owners responded, most of them unwilling to part with their proud possession.

One exception was Per Brüel who was just about to offer his Falco IV for sale. September 15, 2000 marked the day on which Birgit and I flew to Copenhagen to meet Per Brüel, Bent Michelson and their lovely Falco, registered OY-BKC. The next

Simon, Glyn Russell and N72GR

day, Per took us to Grunholt aerodrome in his other Italian passion, a Lancia, and we inspected the Falco, an original Italian factory-built example in a very good condition and well kept. It was clear that their separation from the aircraft was involuntary and forced by medical considerations. Very emotional and difficult indeed. We talked about transferring ownership and much to our disappointment, we could not agree on the price. Our return to the Netherlands was without the Falco but our love for the aircraft was reconfirmed. And we knew for sure that our search for a suitable Falco would one day end in ownership.

I looked at building my own Falco from plans and kits available from Sequioa Aircraft. Having no experience with building aeroplanes, apart from looking and reading drawings during my short stay at the aeronautical university and gluing model aircraft together, I decided that building a Falco would be one step too much for me. The love, née passion, for the Falco never went away however. I had to admit to myself that being honest with myself means pursuing the dream of owning a Falco.

During the first quarter of 2007, the dollar-to-euro exchange rate started to drop significantly in favor of the euro. This meant that the time had come to blow fresh air into our search for a good Falco. After talking to a local A&P Mechanic, we decided that our airplane should be equipped with a Lycoming O-360 engine, a constant-speed propeller and the standard canopy. How I would love to own a low-drag Nustrini-like Falco, but my body length simply wouldn't allow it, so a standard canopy it would be. I started searching the Internet for a suitable aircraft. Our main source of information was the Sequoia website which has a dedicated page with aircraft for sale.

Our first venture was a truly magnificent Falco that was offered for sale in Montana. It did however have the low-drag canopy, but maybe I could make adjustments for my 6 foot 3 inch body to fit in this Italian beauty. It didn't take much time for somebody else to snap up this aircraft. It was sold to a gentleman in Florida a few weeks later.

Next in line was a Falco offered for sale in Titusville, Florida. The pictures looked nice, and the price sounded very reasonable. Birgit and I talked about this particular aircraft. She told me that must have been a connection between the two aircraft. "Why don't you talk to the guy in Florida who bought the Falco from Montana? He knows the Titusville Falco for sure," she said.

Smart move, that's just what I did, and this is how I came in contact with Howard Jones and his lovely wife Petra. Howard flew commercial airliners for PanAm and Delta Airlines and spent many years in Europe where he met Petra. What a coincidence! We soon came to the conclusion that the Titusville Falco would not be a suitable aircraft for me. With passion he talked about his Falco that he snapped away right in front of our noses. Howard sold his SF.260, and he was seeing Marchetti-like performance from his Falco at half the cost! Great deal! He invited us to visit his Jacksonville house whenever we were in the area. I didn't know that this would happen shortly afterwards.

Alfred Scott knew that I was looking for a Falco, and he informed me that a fine example would become available in Alabama during the first quarter of 2007. This particular aircraft, registered N72GR, was built, owned and flown by Glyn Russell, together with his brother-in-law Paul Montgomery. Glyn was terminally ill, and he was looking for a good home for his Falco. In August 2007, I flew from Frankfurt to Orlando on a Condor Flug Boeing 767, to meet Howard and Petra Jones, the owners of Falco N318WM. The meeting was warm and welcome, what a bunch of great people! The next day Howard showed me his Falco, and I was amazed at its beauty and clean lines. The low-drag canopy made the airplane look even better than a standard example.

I was stunned at the performance of the plane. We flew several aerobatic figures, including a Cuban Eight and an Immelmann, a few miles east of St. Augustine, and the Falco just wouldn't slow down. Truly amazing. It confirmed once more that the Falco is the pinnacle of homebuilt aircraft. There is nothing that beats its beauty, performance, ease of flying and comfort. It also confirmed that I'm too tall for a Nustrini-style canopy. Howard had to take the seat cushion out and replace it with a very thin foam layer just to make me fit. After the aerobatics my body ached in places I wasn't aware it could, but it was worth it all the way.

Next was a long and tedious drive from St. Augustine, Florida to Decatur, Alabama. Howard and Petra advised me that it would be a much better idea to fly Southwest to Birmingham and rent a car from there. Smart thinking, nothing beats flying. I arrived in Decatur and met with Paul Montgomery, Glyn Russell's brother-in-law who showed me Falco N72GR.

The airplane was very well built, but did have a number of cosmetic flaws and cracks. For some reason it performed less than expected, but I may have been spoiled by Howard's Falco. N72GR airspeed indicator wouldn't top 130 knots at 4500 feet with full power. I must admit that it was an extremely hot and humid day, not good for aircraft performance. Also the Falco had its gear doors removed. All gaps were open and uncovered. I guess another ten knots could be gained by making it aerodynamically cleaner.

Our EAA inspector in the Netherlands is liberal and easygoing. So is our general attitude, which isn't always good, but he had his reservations about the cracks and cosmetic flaws of which I had sent him some digital pictures over the Internet. Isn't the Internet great of stuff like this? The world is so small nowadays and data zooms across the globe at the speed of light. Truly wonderful.

I had apologize to Glyn and Paul, but N72GR would require a significant amount of work to bring it to Dutch airworthiness standards, and the sale fell through. It was with lead in my shoes, having to leave Glyn and Paul like this, I knew it was the last time that I would see Glyn, and I didn't want to disappoint him like this. I wasn't happy at all with the situation, but Glyn and Paul took it rather light-heartedly. Truly wonderful characters and great people. Their airplane was sold a few weeks later to a gentleman from Sweden who dismantled

Top: Howard and Petra Jones. Above: N318WM, built by Mel Olson

and shipped the Falco to his home country. It will be registered SE-XJR and as far as I know, it is the only Falco currently registered in Sweden.

I flew back by Southwest Airlines to Orlando and spent another day with Howard and Petra Jones. Next day the Condor Boeing flew me back to Frankfurt. I was disappointed and slightly frustrated. My search for a Falco was going nowhere. I was just spending money on traveling to available aircraft, but I couldn't find an airplane to meet my wishes. I was tired and sour, traveling by train from Frankfurt to our house in the Netherlands when my cell phone rang.

It was Howard Jones. He had taken another look at the Sequoia website and found a Falco that met our requirements. Well built, with a Lycoming O-360 180 horsepower engine with constant-speed propeller and a normal canopy. It was offered for sale in Grants Pass, Oregon, about as deep into the USA as possible from where we live.

Anyway, I called the owner from the train, and we talked about the aircraft. He had built the Falco over a nine-year period and flew it for thirteen years. Rex Hume enjoyed building and flying the airplane. He had been an A&P mechanic for the Douglas Aircraft Company and put all of his knowledge and craftsmanship into the Falco. It showed. N660RH won thirty trophies in homebuilt competitions, and the only reason for parting with the plane was the loss of his medical.

Jody and Rex Hume

We agreed rather swiftly on the conditions and price. I wasn't going to let this one slip away. Through Howard Jones and the EAA, I found an expert on woodwork in aircraft construction, a pilot and a mechanic who could do a pre-buy inspection. He was impressed with the aircraft. It was well-built, with an outstanding finish and aerodynamically clean. The interior was the only item that needed an upgrade. I could fix that.

In October 2007 I traveled to Medford, OR where Rex and his wife Jody picked me up from the airport. Yet another bunch of great people. It seems that the whole Falco-community is made up of warm and caring characters. The Falco must be a "bird of bonding"! Next day, we traveled to the Grants Pass airport to look at the Falco and fly it. It was another wonderful experience. This was one of the fast-flying species, 160 knots at 6000 at 24/2400. I was impressed. This would be our bird, and we would take good care of it.

In the preceding months I had ordered new avionics and a TruTrak autopilot, and Rex and I set out to install it. Rex and his buddy were also busy with the ferry tank—48 gallons of fuel would assist my Atlantic ferry flight to the Netherlands. Rex and I worked steadily, happily but quietly along side to prepare the Falco for the longest journey it had ever made. Installing the autopilot took more time and effort than anticipated.

We were regularly interrupted by locals who wanted to meet this crazy Dutch guy who was going to ferry a homebuilt airplane across the United States and then across the ocean to Europe. But the bottom line was a lack of time to ferry the airplane across the ocean especially because the weather in Canada was starting to deteriorate. Snow storms and low freezing levels would make the ferry close to impossible. I elected to keep the Falco in the hangar and fly it across in the spring of 2008. In the remaining week I enjoyed flying the Falco on local trips across Oregon.

The Oregon people are truly nice. I met a local pilot who retired from IBM a few years ago and was learning to fly his Lark Commander. Gary Houston heard about my adventures and moved me from a local hotel to his house. What a great guy. I now had somebody to talk to in the evenings, and it gave me the opportunity to enjoy Mary-Ann's Oregon cooking. One day I flew the Falco to visit a friend. Gary went along for the ride, and he was flabbergasted with the Falco's performance. Compared to a Lark Commander, the Falco flew almost twice the speed at the same fuel consumption.

October 25 was the last day I flew the Falco over Oregon. I changed the insurance on N660RH to ground damage cover only to save a few bucks and said goodbye to Rex, Jody, Gary, Mary-Ann and all the other good people. I would be back in the spring to pick up N660RH and fly it to its new home. In the meantime, Rex was going to take good care of the plane and run the engine from time to time.

It wasn't until May 5, 2008 before I returned to Grants Pass. The Falco had spent the winter in the warm and clean hangar and was looking ready to go. Rex installed the ferry tank and during a few test flights I was able to confirm that it worked beautifully. Fuel flow was established and all other systems, such as a newly installed Garmin GNS430W worked fine. It talked to the autopilot and there were no other squawks on the plane. In fact, by May 9, I was fully ready to go. At Gary and Mary-Ann's house, I looked at the weather for the first leg to Winnipeg. It looked just perfect, no convective activity, no low ceilings and great forecasts. Compared to the European system, it's truly a piece of cake to file an IFR flight plan in the US and before I knew it, I was 'in the system.'

Preparations for an international ferry flight cannot be taken light-heartedly. Special considerations include: Make sure the plane is technically immaculate;

Insurance for ferry trip and compliance to liability insurance minima for all countries; Clearances to overfly all countries with an experimental aircraft with a restricted certificate of airworthiness; Having enough fuel for all legs and making sure that fuel, oxygen and oil are available at all stops; Prepare for high altitude flying by bringing portable oxygen; Rent or buy survival suit and dinghy; Take food and water in plentiful quantities; Take medicine, survival kits, thermal underwear and thermal blanket; Take flares and knives for survival; Get the airplane's ELT checked and buy or rent a Personal Locator Beacon or EPIRB; Be prepared in an aeronautical sense which means buying charts, approach plates and knowing the rules and regulations of all airspace being crossed.

I was fully convinced of having covered all of this and more. By May 10 the Falco and I took off from Grants Pass for a short flight to Medford. Medford is a regional airport with a long runway and for the first heavy take-off I wanted as much runway as possible. This is where I fuelled up: 48 gallons in the ferry tank, 21 gallons in the aft tank and 19 gallons in the forward tank, for a total of 88 gallons, enough for roughly 11 hours of flying at eight GPH.

The takeoff from Medford was uneventful, and the aircraft accelerated as if it were light. It climbed with almost 1000 feet per minute, and I was convinced of having made the right decision to buy this particular aircraft. Most of the flight was at 15,000 feet, just above a thin cloud layer. The Aerox oxygen system worked flawlessly and after 6 hours and 51 minutes I touched down at CYWG, Winnipeg Airport in CAVOK conditions. The Falco had performed without a hitch. Not a single malfunction. The friendly people at the handling agency were extremely helpful and had me in a local hotel within the hour.

The next morning I reported back at the FBO to prepare for the next leg to Goose Bay. The Winnipeg and Goose Bay weather looked perfect. In between I would encounter a few areas with low ceilings en route, but the tops of the clouds were at 15,000 feet, no problem to carry out this leg. On the previous day I had encountered ground speeds in excess of 200 knots but those tailwinds had died down and the calculated TAS of 175 knots at 11,000 would now also be my groundspeed. I was looking at about nine hours of flying that day. This would be the longest of all the ferry legs. Goose Bay to Reykjavik, Reykjavik-Wick and Wick-Maastricht were all significantly shorter.

I filed my IFR flight plan with Winnipeg Centre and departed around eleven o'clock in the morning. I cruised initially at 9,000 in very smooth air. IFR flying is mostly about 'nagging for directs' so that's what I did. Navigating with the help of the Garmin and a TruTrak autopilot with altitude-hold is truly a piece of cake. With a few exceptions, I have always found VFR flying much more demanding than IFR, and all I was doing that morning was watching the engine gauges, temperatures and pressures. Rex had done a great job by equipping N660RH with CHT and EGT sensors on all four positions. It also had a carburettor temperature probe and an outside air temperature probe. I was watching these gauges continuously and all looked well.

About two hours into the flight I entered a thin cloud layer at 11,000 feet. In fact, I could still see the sun faintly by looking vertically through the canopy. The base of the clouds must have been at about 7,000 feet. Not a problem to continue into this thin layer. The airframe did not ice up, nor did the carburettor, and the air was smooth. All was well until about half an hour later when all hell broke loose.

Without any warning, the engine produced a loud bang and simply stopped producing power. The airframe shook continuously, and the autopilot was fighting to maintain altitude. This put me in a dangerous position. I saw the airspeed decay rapidly. The autopilot was quickly trading speed for altitude and a stall was imminent. I disabled the altitude-hold function and declared an emergency with air traffic control. In the meantime I worked through the emergency checklist in an attempt to restore engine power, unfortunately to no avail.

I told the controller that I was descending rapidly to get below 7,000 feet in order to become visual with the ground and prepare for an emergency landing. I also requested a vector to the nearest airport. He told me that Geraldton was the closest, heading 056 and 21 miles. I was probably not going to make that, but it would be close. I was heavy, still some 70 gallons of fuel on board and with a glide ratio of 1:10, I could glide 110,000 feet or about 18 nautical miles. I thought I had a fair chance. That was until the controller told me that he had bad news for me. The visibility at Geraldton was down to a quarter mile in snow and the cloud base was estimated at 500 feet.

I wasn't all that cheerful before he gave me this message, but the situation now

looked rather hopeless. As most pilots do, I read accident reports in the hope to learn from them. I knew that my chances were slim. This was the first time that I thought I might not live to tell the story. The only way to stand a chance was to keep on flying the airplane. I heard the voice of my instrument instructor Marco, "Fight for each and every knot of airspeed and degree of heading, come on Simon, fight for it."

That was really all I did. I prayed to God to take good care of Birgit and our kids and help me on my way down. I needed all the help I could get. The Garmin started giving me terrain warnings as I passed through 4000 feet, still solid IMC. The last thing I needed were warnings like that, but I didn't want to switch it off. In fact, I didn't want to do anything but fly the plane.

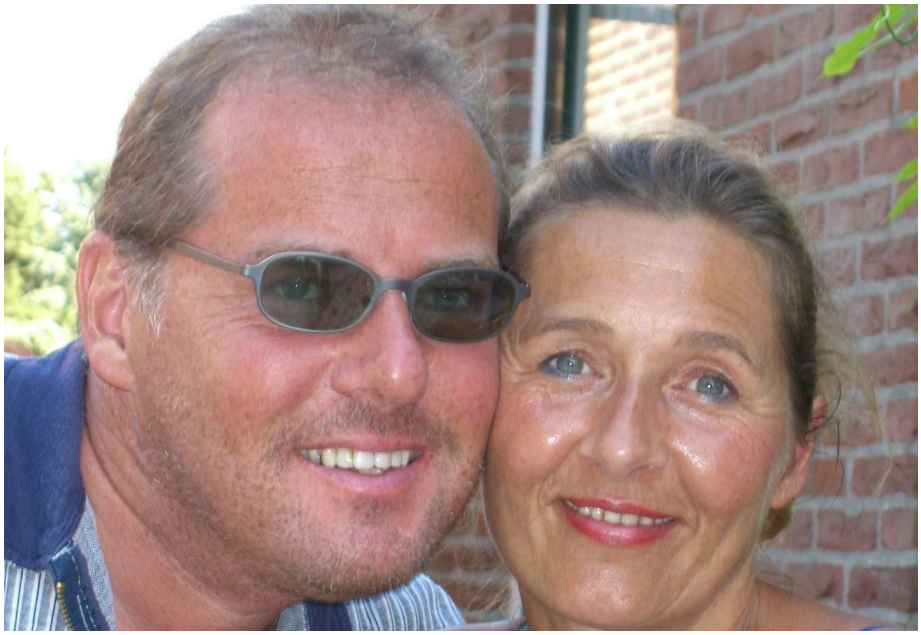
I broke out at around 500 feet, and the view from the stricken Falco was devastating. High pine trees, far enough separated as not to form a cushion of branches, rocks and snow. This is worse than the simulator! I was sure that my life would end right here and right now, what a terrible way to go. A thought slipped through my mind about if and how the rescue people would find me. This was when I discovered a dark area on the horizon.

The horizon is usually far away, but not in this case. The visibility was so restricted that the visual horizon was only hundreds of feet away. The dark area looked like a valley, an area without trees. I steered the Falco in this direction and traded a little extra speed for altitude. I couldn't help but clip the top of a pine tree when I discovered that the valley was actually a river. I guess my prayers were heard, this was an opportunity to live on.

Personal Locator Beacon, or EPIRB

These are photos of Bob McCallum's attempt, with Jack Wiebe, to recover the airplane in early June. It appears to be impossible to reach by land, and it is extremely expensive to get the Falco out by helicopter. At press time, the effort has stalled.

I lined the Falco up with the river, made a few more mayday calls and descended to inches above the water. The airspeed bled off nicely, I kept flaps and gear up and let the aircraft touch down very gently into the cold and clear water. Rex had done a great job by keeping the belly clean. No antennas and a fully enclosed landing gear. The belly resembled that of a boat, and the Falco sat down as quietly as a goose—the



As if anyone needs to be reminded of what really matters. Top: Joris and Simone Above: Simon and Birgit Paul

only noise was the water being pushed aside by the fuselage and the wings. I was amazed at how quickly the airplane stopped and even more amazed at my physical condition. Not a nail broken so far.

The engine is the heaviest part of the plane, and the front fuel tank was full. I had been using the aft and ferry tank only. This made Falco rather nose-heavy, and it started sinking quickly. Water filled the cockpit, and I was quick to release the canopy and slide it back. I threw the EPIRB which I had activated seconds earlier into the water followed by a bag with all essentials. After putting on a life vest, I jumped into the ice-cold water and swam ashore—only about 20 feet or so but enough to make me wet and cold to the bone.

Once ashore I looked at the Falco and couldn't understand what had happened and why it had failed on me. This emotion quickly made way for pure euphoria, a state of very intense happiness and feeling of well-being. I had made it through the Kabuffle and just survived a crash. I can't really remember the emotion that followed that, but it must have had something to do with the cold.

It was truly cold up there, and on top of that a light snow was falling. This wouldn't help my rescue. Fortunately I was able to rescue my heavy coat that was floating down the river, and I found shelter between branches and trees on the shoreline. The first aid kit in my bag contained an aluminium thermal blanket which I put on without delay. Now it was just a matter of waiting and hoping that a local family of brown bears wouldn't call me their lunch.

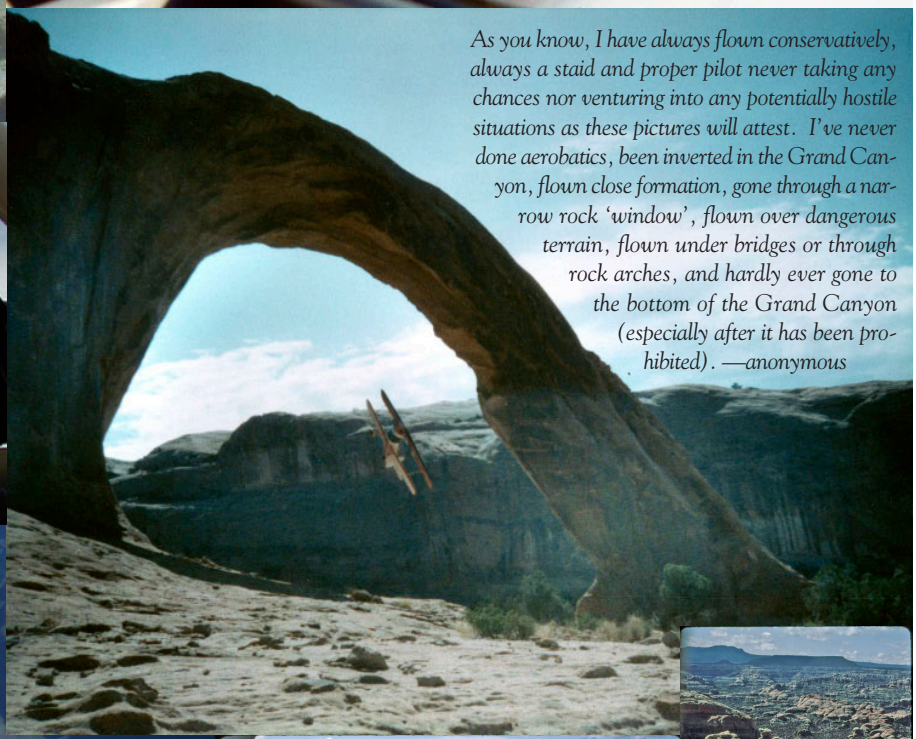
It took about an hour and a half before I heard a helicopter. It was clear that they were looking in the wrong spot, but there was nothing I could do about that. The flares had disappeared, they were no longer in the bag and must have slipped out during the landing or the throw from the airplane. Very slowly the helicopter was coming closer and at one point I could even see it. I waved at them with the blanket and turned my portable strobes on. They didn't see me, and it frightened me. It was a light helicopter. It looked like a Squirrel, and they usually don't have a very long endurance. I was afraid they might head out for fuel, leaving me to spend the night on the shoreline.

Much to my relief they showed up about 20 minutes later. The helicopter pilot dropped two fire workers, one to get me and the other one to cut down about 20 trees to make a clearing for the helicopter to land. Murray Sitch was the guy who rescued me and seeing him was like seeing an angel.

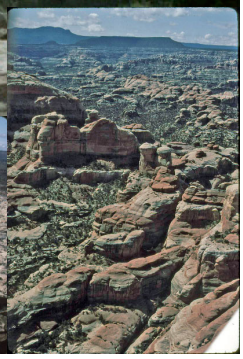
These guys did an amazing job and flew me to the Geraldton airport where an ambulance was waiting to take me to the Geraldton General Hospital. Apart from a mild hypothermia, I was just fine and after a two-day observation I left to travel back home on the airlines. A friend and homebuilder picked me up from Amsterdam/Schiphol airport and brought me home. In times like this you get to know your friends. My family had decorated the house for my return and being back felt like a rebirth. What a lucky man to have family and friends like that!

Now we are in the aftermath of the accident. A great guy called Bob McCallum volunteered to get the plane out. He took a week of unpaid leave and set out to get the plane. The Falco however is the middle of nowhere, and it's extremely difficult to get it out without professional help. He contacted Recon Air of Geraldton to assist him, and they promised that they would. It looks like the only way to get it out is by helicopter making the salvage a $25,000 operation. The Canadian Government made me liable for all damage to their property but the insurance is, so far, reluctant to cooperate and cover the expenses under the liability insurance that I have. As far as I know, the plane is still in the water, and everybody is still waiting for each other.

Confessions of a Now-Retired Aviator



As you know, I have always flown conservatively, always a staid and proper pilot never taking any chances nor venturing into any potentially hostile situations as these pictures will attest. I've never done aerobatics, been inverted in the Grand Canyon, flown close formation, gone through a narrow rock 'window', flown over dangerous terrain, flown under bridges or through rock arches, and hardly ever gone to the bottom of the Grand Canyon (especially after it has been prohibited). —anonymous



Coast to Coast with Susan

Once upon a time—a long time ago!—I was a stewardess. It was a time when the United States had major commercial passenger carriers like Pan American Airlines, Eastern Airlines, Delta and United. My first hope was to fly for Eastern Airlines. You can imagine my terror when I arrived for the interview and there sat Frank Borman. Alas, I was told that I could not fly for them, because I had freckles. It was a time when 'looks' were important.

I would not be defeated and went next door, to National Airlines, and they liked my freckles! We were based in Miami, Florida, my home town. The advertisement for National Airlines was "From Coast to Coast". So, I flew with people from coast to coast. What an adventure and what memories!

The air lanes were far more relaxed then. Part of my job was to take the pilot and his cockpit crew coffee and their meals. I was often allowed to stay, sit with them, watch them do their jobs and watch the clouds roll by. They were great guys but always doing their job. I developed a deep respect for them. After all, they were going to take us to wherever we were going and bring us back to earth safely! My flying career concluded when I made my parents really happy, went back to college and ended my lark in the skies.

Then, more time went by and I moved to Richmond, Virginia. I went to work for a guy named Alfred Scott. I was managing a building for him while he was busy in the basement putting together something called Sequoia Aircraft. I was there watching Alfred's love affair with the F.8L Falco begin. It was his passion and everyone thought he was crazy, including the FBI. While sitting at my desk one morning I looked up and there stood two very serious looking guys, wearing dark blue suits and carrying really big badges stamped FBI. They wanted to talk to Alfred about his "airplane kit building activities." They went away satisfied that Alfred was not creating his own air force. In a few years I left Alfred and his passion, to chase another career. We have remained in contact and friends through the years.

I never lost my love of aviation nor speed. At one time I was the proud owner of a 1975 Corvette Stingray. Beauty and speed on the ground instead of the air. That led to my current love for the four-legged Greyhound—the fastest dog around, living and breathing speed! I spend my extra time helping them find homes after they have been retired from racing.

It's a bit of an understatement to say that Susan Arruda likes it here. The simple truth is that she's fallen in love with the world of the Falco. And there are going to be some changes made. To start with, she's been overhauling things and reorganizing the office. Visit the Falco website for a new office tour. Fasten your seat belts, there's more to come.—Alfred Scott

I have just spent eight years as a comptroller for a very large container warehouse corporation. My job was to keep track of millions of empty beverage and food containers housed over 300,000 sq. ft. Some people count sheep at night to help them fall asleep. I would often fall asleep thinking about tracking an inventory of two million Pepsi cans. Not too terribly exciting!

Now, I am back in the world of aviation! This time I am not bringing pilots their coffee but going up and down warehouse aisles to find parts for your airplanes—to the Falco! Not only am I working for you from coast to coast but from continent to continent. It makes you believe in destiny, doesn't it?

As the new kid I have the opportunity to bring some fresh ideas. Alfred and I agreed that we should have color. So, to start your Falco Builders Letter is now printed in color. Next, I will be revamping the on-line Falco Store. With this letter, you will find my first Falco Store flyer. With each Falco Builders Letter, I will include another flyer. These sales will be the avenue to make room for new merchandise I will have for you. The new look will include ways to make ordering easier and quicker.

I am having the pleasure of getting to know some of you by telephone. Most of you having been emailing me. We can meet face to face through Skype (Skype name: SequoiaAircraft) or iChat (falcosupport@mac.com). I have been up-dating builder addresses and e-mails—do you have a change for me? As you may have guessed, I have lots of ideas!

What I loved about working for a major airline all those years ago was the feeling of belonging to something really special. There was a sense of pride about boarding one of those tremendous airplanes. Now, I find myself part of something truly special again and I am thrilled to be aboard!

—Susan Arruda

Calendar of Events

West Coast Falco Fly-In. Sept. 18-20, 2008 at Gillespie County Airport, Fredericksburg, TX. Contact: Jim Quinn: FalcoFlyIn2008@gmail.com

Mailbox

Really like the color in the FBL, looks great. Thanks!

So how did a speech (not speed—I hate it when the spell checker doesn't know what I intended) and drama major (often drunk as I recall from previous conversations) become so knowledgeable in all things aeronautical (page 16, re Bill Nutt)? There is so much to know and so little time.

Thanks again for the new look of the FBL!

Jim Quinn
Dallas, Texas

I have just received the news letter. It is a vast improvment. The quality of the reproduction is excellent.

Ian Ferguson
Dookie
Australia

My book's way up there on Amazon's list, under a million. I guess the threat to shoot a Falco worked.

Kabul is fun, but I can't wait to get inside a KBR chowhall...

Jonas Dovydenas
Lenox, Massachusetts

Jonas has been to Afghanistan many times including with the Mujahadin in the Soviet Afghan war. Here's a tail-wheel assembly he found at the airport.

As for what's happening with my Falco, formerly known as Steve Wilkinson's Falco, it has now done 50 hrs since I bought it albeit not all by me as pilot in control but the compressions have risen by two psi to 72-76/80 in the last six months. When Ian Ferguson flew it up here for the inspection they were 70-74/80 so I guess she likes being flown. I have nearly gained my (restricted pilots license) with only a few hrs to go but am really looking forward to doing my PPL in the next few months.

I have found her to be very easy to learn on seeing that I only have experience in gliders (1100 hrs) but the motor and CSU were a bit of a challenge but soon got over that. I am really looking forward to doing some X-country training as the training area can be traversed in around 5-7 mins so it's a little boring even though the coastline is very beautiful.

Top: Peter Grist in G-PDGG. Above: Dave Thomas at the Frati fly-in at Schaffen Diest, Belgium, where he won best Frati trophy with the plane.

I am also getting pressure from my friends far away as to when the Falco is coming to their strip seeing I have been talking about it for sooooo long... Anyway, it is a very pleasing aircraft to fly, and I am forever grateful for Ian Ferguson telling me that SWF was available in Melbourne as I actually rang him about Glyn Russell's machine just wanting to confirm what Drew Done said about learning to fly in the Falco. I have a long history with Ian and gliding as well as flying in his SF-260. Rex, the LAME out here, now looks after four of the eight currently flying Falcos in OZ. Mine is currently going through its annual inspection, and I was there with one of the workers. He couldn't fault it but reckons he WILL find something wrong! It's was funny at the Gold Coast fly-in as everyone involved in Falco building/flying started telling me Steve's stories as they have all read them so I couldn't tell them anything new.

Thanks for a wonderful machine.

Ian Newman
Merimbula, NSW
Australia