Falco Builders Letter

Gordon Cook and the 84th Sequoia Falco.

The First Flight

by Gordon Cook

Today, June 23, 2006 is the big day. I have enlisted the services of a friend, Rick Scott, an Air Canada pilot and the owner of a Globe Swift, to test fly the airplane. I first met Rick in Powell River in the late '80s I was very impressed (and still am) at how smoothly he flies his Swift which is not an easy airplane to get good at. Rick arrived at the Trail airport at about 0900 with the weather behaving perfectly. A couple of low passes at speed in the Swift with full smoke on and then back into the circuit and landing. The Falco is now the center of attention. After a thorough pre-flight Rick climbed aboard and fired her up. My feeling at this point is one of apprehension and excitement tempered by the responsibility for the safety of the test pilot.

My first experience with flying came during the summer of 1954 when I enlisted in the RCAF reserve program at Abbotsford, BC. During that two months I was enrolled in their ground radio program. Part of the experience was a flight that came later in the summer, and after watching P-51's take off and land I was looking forward to it. The flying bug was biting. The aircraft was a Harvard trainer, known south of the 49th as the T6 Texan. Only 16 years old and getting a ride in a Harvard for an hour was almost too much to take in. The deal was to put down $5.00 (big money for a 16 year old in 1954) and if you didn't get sick you got $10.00 back. The pilots didn't like giving their hard earned money so they did their best to get your stomach churning with loops, rolls, etc. He did his best, but I kept my lunch down and earned $5.00, not bad for a thoroughly enjoyable hour. I even got to take the controls for a few minutes.

Later, in 1957, I was working in Quesnel installing telephone exchange equipment and had the opportunity to take the milk run from Quesnel to Vancouver on a DC3. I was warned by my traveling companion not to eat too much lunch because I might lose it during the flight. It was my last day on my company expense account so I ignored his warnings and had a steak with all the trimmings (cost about $1.25) while he had a lettuce salad.

The flight from Quesnel to William's Lake was flown at about 1500 feet AGL since distance was only about 75 miles and no mountains to cross. The day was sunny, hot and there was the river and many plowed fields so there was a fair bit of turbulence at that altitude. I was fine but my companion filled his barf bag. The stewardess told us later that we had just ridden the vomit comet since it was common to have a lot of upchucking on that leg of the flight.

I did quite a bit of flying with the company footing the bills for the next few years. I spent two years in the early sixties working out of Terrace, BC and flying with some of the best bush pilots in the area to exotic locations like Telegraph Creek—a very small community on the Stikine river and the beautiful Queen Charlotte Islands which are west of Prince Rupert. Ironically, the Sitka spruce for my Falco came from these islands.

In the summer of '64, while still living in Terrace, I took the plunge and signed up for flying lessons at Pitt Meadows airport, about 20 miles East of Vancouver. I had two weeks vacation, and it all had to be complete within that time. I asked if they could give me a "crash course" in flying. Poor choice of words, but they said they could do it, and 10 days and $400 later they did. The requirements were far less stringent in those days, not to mention cheaper. The aircraft was a Fleet Canuck, a two-seat side-by-side tail dragger, a great little trainer and one I'd love to fly again.

Back home in Terrace I got checked out in a rental Piper Colt. I was approached by another pilot who had been renting this aircraft and who was concerned about

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a low-time pilot flying the same plane. Several weeks later he crashed on take-off destroying the Colt, fortunately he and his passenger survived. The Ministry of Transport lifted his license since this was his third crash on take-off accident—and he was worried about me!

Because of the cost of renting airplanes and a family growing in number, my flying career came to a close until 1982. I was living in Langley, BC at the time with much better access to aircraft parts dealers so I decided it's now or never and ordered Falco plans from Sequoia. Building an aircraft was something I'd dreamed of since high school. If I had known then what I know now I probably wouldn't have started the project, but you get so involved at every level including financial you can't let go.

The next several months were spent building rib jigs in my basement workshop and producing ribs from those jigs. However, there comes a point when you have to start building big things like spars and the basement workshop becomes too small so I built a large work shop next the house. George Neuman, an early Falco builder, lived in the area so I picked his brain a few times. With all the spars and ribs built BC Tel gave me marching orders again. This time it was to Gibson's, BC (home of the Beachcombers TV series) on the Sunshine Coast, just North of Vancouver on the Sechelt peninsula, probably the nicest and most scenic area we've ever lived in although where we are now is pretty hard to beat.

My job there was all-consuming so not much was done on the Falco during those five years. I was responsible for converting the area from electro-mechanical telephone exchange switching to the latest digital switching system. I did manage to build the fuselage frames, assemble the fuselage and wing and start skinning the fuselage.

More marching orders, this time to Vancouver. This time the move of the project was more complicated since the parts where now quite a bit larger. The move of household effects was quite a bit simpler than the move of the partially built Falco since the company arranged everything, and we just stood back and watched. We moved into a home with a 1-1/2 car garage in Surrey about 10 miles SW of Vancouver. By this time I had moved the project to a school in Langley that had an aviation maintenance class. They were glad to have it for the experience of working on wood airplane and promised that no work would pass unless thoroughly inspected by the instructor. Words are cheap, there was a lot of damage to the existing structure and no progress made. I retrieved the project and moved it to my garage to which I had added a temporary 8' extension and proceeded to remake the flaps and ailerons plus repair other damage done.

I got to the point where the wing and fuselage had to become one, so out came the tape measure to see if I could place the fuselage across the garage. Measurements showed it would fit, but it would be tight, up against the wall on one side and about a foot to spare on the other. The fuselage fit across the garage was so tight I had to crawl under it to get from one wing tip to the other. I had sore knees for quite a while from crawling on the concrete (how I envy those with adequate work areas!). I would have enough length, thanks to the extension, to fit the wing under the fuselage. The wing had already been skinned at this point, and there is an article in Sequoia's Skunkworks under 'bending wing skins' on how I did this. I had help to place the wing on the floor under the fuselage. I did the actual fitting and gluing of the wing to the fuselage solo. To do this I attached a couple of cable hoists to the ceiling joists

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above the wing tips and lifted one end at a time until the wing mated with the fuselage. With everything lined up and leveled and location marked I lowered the wing. I then mixed a large pot of Industrial Formulators epoxy (the glue Transport Canada recommended and similar to the West System epoxies) and applied it to appropriate places on the wing and fuselage. I lifted the wing with the cable hoists into place, lined up the location marks, clamped and got out of the garage. I have found that when working in a tight location that it's better to vacate it after a large glue job rather than look for something else to do. It's too easy to bump something and screw up the glue job.

Next came the cutting of the fuselage into two pieces. With that done I hung the fuselage up to the ceiling joists on one side of the garage and flipped the forward fuselage and wing over and skinned the bottom. Rob Carey, a sheet metal man from Air Canada and mentor from my Gibson's days, showed me how to vacuum-bag fiberglass parts using sheet plastic, a vacuum cleaner, glaziers tape and the usual vacuum bagging supplies such as peel ply and soaker cloth. We fabricated the main wheel well doors, and I later fabricated the main gear doors. I then glassed the bottom and prepared it for painting, or at least I thought I had. It seems my painter had other thoughts, and I spent weeks resanding and filling my 747 Falco... well, a Falco isn't as big as a 747 but it sure seems like it while lying on your back sanding the underside of the aircraft. Care has to be taken not to damage the thin layer of fiberglass. It's easier to prepare the bottom when it's upside down than when it's right side up!

In 2000 I attended my first Falco fly-in. I went up a couple of times with John Harns and after that flight I knew I had chosen the right airplane to build, even though it's probably one of the most complex of the homebuilts. Of course John can make any airplane look good. He let me take the controls for a few minutes and if it behaves well for me flying it, and it did, then it's got to be good. One of the builders at the fly-in had moved his battery forward from the original location to under the floor aft of frame 6, so that's were mine ended up. I then extended the original battery box right across the fuselage and will use it for survival equipment.

There were several times when the wing, fuselage, etc. had to be moved, turned over etc. and I have a secret for doing this. It's called *beer*. It was the currency of the neighborhood in Surrey. It was never dispensed before, only after the job was done. In all fairness they would have been glad to do it without the beer, but there was always a little social time after the job was done. Great neighbors!

Test pilot Rick Scott climbing aboard the Falco.

During my time in Surrey I retired from BC Telephone and since our kids had all moved from the Vancouver area and were scattered between Alberta and Northern BC and because real estate prices had gone crazy in Surrey we decided to take our equity and run. We moved to a small community just East of Trail were my wife and I have friends. There is an article on our move from Surrey to the Trail area on Sequoia's website. Again, the move of household effects was nothing compared to the move of the Falco to its new digs at the Trail airport where it is housed next to where Dan Martinelli's Falco is under construction. Trail seems to be an active center when it comes to homebuilding. There are two Falcos, one immaculate Steen Skybolt and three Spencer Air Cars either completed or under construction. Not bad for a community of about 10,000 people.

Since arriving here I've reassembled the aircraft, finished the panel and installed it, and had the aircraft painted. The panel has two attitude instruments, one vacuum and one electric, a Becker radio and transponder pair, voltmeter, an EI SR8A Smart Engine Analyzer and an EI Fuel Flow. The altimeter is an encoding type and so far seems to be working well with the Becker transponder. The other instruments are from the Sequoia instrumentation package. A Garmin 196 fills out the instrumentation. I've fastened a mounting bracket

on the panel for the GPS that I think will work well.

The homebuilder who first said, "It's 90% complete with 90% to go", knew what he was talking about. I thought I'd be ready to fly last September, but because of numerous problems it's only ready now, June 2006. One of the most frustrating snags was the faulty gear retraction system, or at least it seemed as though it was faulty. The mechanical part was fine, but the relay control wasn't functioning. The voltage drop across the pitot relay was only 3.5 volts, obviously not enough to operate it so the first suspicion was the power transistor. After checking the wiring and finding it okay I took out the transistor and checked it with the diode checker on my meter. It tested okay, but I wasn't happy with the finding because everything pointed to the transistor, especially after I jumpered between the collector and emitter points on the transistor jack and the relay system worked and the gear went up and down.

It had to be the transistor. I had it checked by an electronics firm on their magic machine, and they said there was nothing wrong with it. I dummied up the circuit at home with the transistor and resistors for the base input and the load and found 7.5 volts across the load resistor. The only difference between the aircraft and home was that the power supply I used was 13.8 volts and the aircraft battery was 12.5 volts, so all along it was a low-voltage condition that was causing the problem, if you call 12.5 volts low. After charging the battery up to 13.8 volts all was well.

I have designed a fail-safe circuit to allow testing of the retraction system while on jacks. When the double-pole, double-throw switch is operated to test the gear, one side of the switch places a short across the pitot pressure switch to allow the operation of the gear circuit and the other side opens engine starting circuit.

It's now time for the past 24 years or so of work to be put to the test. After Rick fired up the engine, he taxiied slowly to the run-up area, did his run-up tests then taxied on to runway 34 and out of sight of us who were watching. I couldn't see, but could hear the engine rev up and then she came into sight, then off the ground and flying. It was hard to believe that the machine I had labored over, cussed at and got such a sense of satisfaction from for all these years, was now flying.

Rick's test plan was to keep the speed below about 90 knots after take off, fly the circuit and when on final, if all was well, put the gear and flaps up, apply full power and climb to about 5000 ft. Since the engine has many new parts including rings it needed to be run hard for about 25 minutes. It was a relief, when on final, we saw the gear retract, and he announced the climb would start. He kept us informed throughout the test flight, by radio, of how things were going.

Those of you that have had the experience of seeing the airplane you built yourself lift off the ground and fly know it's difficult to find words to describe the feeling, but I'll try. At lift-off the feeling of extreme apprehension was front and center and would remain until he raised the gear, applied full power and started the climb. I wasn't aware of anything or anyone except the little white and red airplane and praying the aviation gods would look kindly upon her and her pilot. The higher he got the more the apprehension lifted and the feeling of euphoria and excitement took over. When he announced the indicated speed in level flight at full power I could scarcely take it in. Did I not hear him correctly? Everyone else heard the same thing so it must be so—fantastic.

At about 5000', level flight and full power it indicated 170 knots or about 195 mph. When he said he would do tight turns in both directions the apprehension started to rise again. He was about 1/2 mile south of the airport at about 5000' when he did his first turn and the tops of both wings were clearly visible as if we were looking down on the aircraft. The turn in the other direction was as if we were underneath looking up. The turns were that tight. Again no problems and the apprehension subsided and excitement grew. With about

3/4 fuel, a 180 lb. pilot and 20 degrees of flap the stall came at 55 knots with a gentle pitch forward. Clean with the same load it stalled at 60 knots. I haven't yet installed the rudder fairings so I may get a little more speed when that's done. Then there's the spinner-cowling gap and the engine cooling openings to be looked at.

He was up for about an hour, but then came time for the little bird to come home to roost. The thought crossed my mind that since everything had gone so well it would only be fitting if the first landing was a "greaser", and it was. There were hugs and handshakes all around and my heart rate finally dropped below the cardiac arrest zone.

He was up for about an hour then came in for a picture-perfect landing. He reported that the rudder needs a little tweaking even though it flies straight with feet off, the pedals aren't quite even. One wing is a bit heavy so that will need an adjustment. Other than that he says don't touch it. Like all Falcos it's slippery on the descent, but very well behaved. Even though the plane has landed long ago, I haven't. Maybe in a week or two.

December 2006 saw a new career open up for me... well, a part-time volunteer position at least. April 2006 saw the inaugural flight of a scheduled airline service provided by Pacific Coastal Airlines into the Trail airport. Volunteers were needed to pass weather, barometer readings and runway info to the incoming flights of the Beechcraft 1900's, plus handle baggage and and other little chores that need doing from time to time. I wasn't in on it from the beginning, but one of the originals got sick in November '06 and I was asked to fill in for a while. As with most volunteer positions "for a while" means from now on, but I enjoy it and it keeps me out of mischief.

Thanks to all who have helped me with this huge undertaking and lifelong dream—the neighbors in Surrey who were always there to lend a hand—Rob Carey, my mentor from the early days of construction—Bruce Langille, whose truck and trailer brought the Falco to Trail—Phil Maloy, our local AME, who helped me with engine related problems—Larry Levesque, in whose hanger the Falco resides—Rick Scott, who put the icing on the cake by test flying the airplane—and my wife Doreen who put up with me and the airplane for the past 24 years. I've not mentioned many who also helped, and although not named, their contribution is certainly valued and appreciated.

Vacuum Bagging

by Gordon Cook

A method of vacuum-bagging fiber glass fairings, wheel well and gear doors using readily available materials and equipment was shown to me by Robert Carey, a sheet metal man with Air Canada. Although this method isn't as good as using a proper vacuum pump and valve set up, it's much better than trying to force wetted out fiber glass into a mold and have it stay there until set. It also forces out excess epoxy, thereby producing a lighter fairing.

Small parts like the wing fairings can be done in a ziplok bag while the larger ones will require sheet plastic formed into a bag. The following is the method and sequence for small parts. Rule #1 is to have all material and tools at hand before starting.

After making a mold of the part from a plug fashioned from wood or other solid material, lay up 5 or 6 layers of 9 oz. cloth to make the mold. Vacuum bagging at this point should be done to ensure a quality mold. When the mold is set, remove from the plug, strip the peel ply and soaker cloth and sand the inside of the mold with up to 1200 grit sandpaper to ensure it's smooth.

Apply mold release to the mold per manufacturers instructions.

The following photos show the lay-up of the lower rudder fairing that was done on the plug rather than make a mold. The only drawback to this method is the surface that's left is rough and will require smoothing to obtain a good finish. The mold method ensures a surface on the finished product that will require little sanding and filling. The drawback is having to make a mold. I used five or six layers of 9 oz. cloth to make the mold.

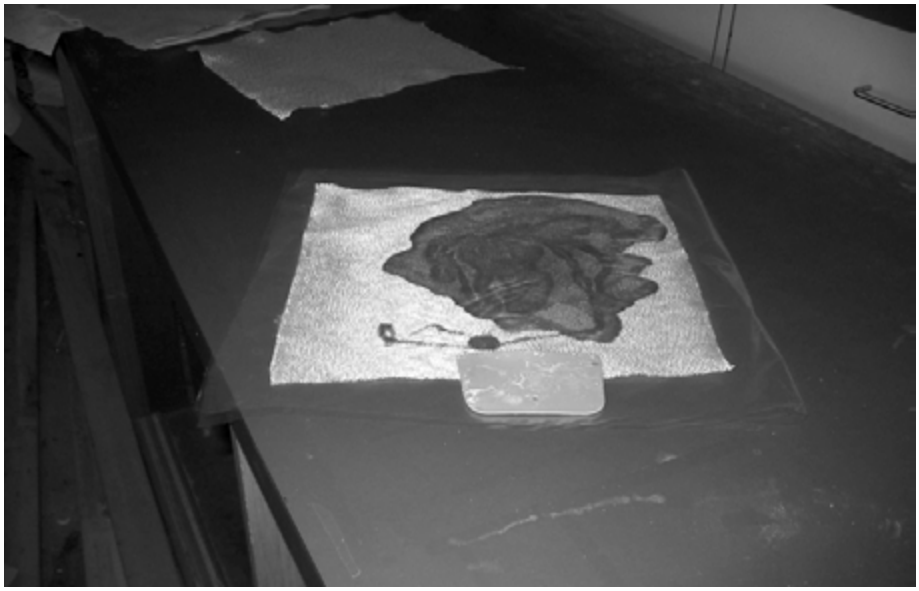
Here are the steps after the mold is complete.

1. Cut the fiberglass cloth (usually three layers of 9 oz.) to the shape of the mold. The plug or the mold will serve as a pattern.

2. Cut the bleeder cloth (one layer) to the shape of the fiberglass with about 1/2" margin all the way around.

3. Cut the soaker cloth (one layer) to the shape of the fiberglass and a little larger than the bleeder cloth.

4. Cut a rectangular piece of 4 mil plastic about 4" wider than the fiberglass and twice as long plus a couple of inches.



The plastic under and over the fiberglass. I use a plastic spreader to wet out the glass.

5. Place one layer of fiberglass on the plastic near the edge and apply sufficient epoxy to wet it out.

6. Fold the plastic over the fiberglass and squeegee until completely wetted out.

7. Open up the plastic and place the second piece on the first and apply epoxy.

8. Fold the plastic back over both pieces and squeegee, the same for the third piece of fiberglass.

9. Open the plastic and either cut the top piece of plastic off or just fold it.

10. Place the three layers of wetted out fiberglass into the mold and press it firmly into place and remove the plastic.

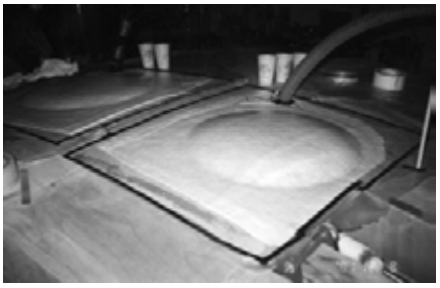
11. Place the bleeder cloth on top of the fiberglass and the soaker cloth on top of that and press into the mold.

12. Place the mold into the ziplok bag and seal. I used 2" clear plastic packing tape to further seal the bag. It's very important to get to get a good seal.

Vacuum cleaner hose attached to the plastic. Note the gray glaziers tape sealing the hose. The glaziers tape around the perimeter of the plug isn't necessary if a plastic bag is used.

13. Cut a small "X" in the bag (about 1/4") where you will be attaching the vacuum cleaner hose.

14. Place glaziers tape around the end of the hose. This will provide the adhesion between the hose and the bag and also seal the hose to the bag.



This photo shows the vacuuming bagging of the wheel well doors.

15. Turn on the vacuum and leave it on at room temperature or warmer for about 1 to 3 hours or until the epoxy has set up sufficiently to hold it's shape in the mold.

16. Wait at least 24 hours before removing from the mold.

17. Remove and discard the peel-ply and soaker cloth.

The fiberglass, peel-ply and soaker cloth were laid up over a plug constructed of styrofoam.

On top of that 2 mil plastic was placed and sealed with black glaziers tape. The aircraft was up side down at this point.

Fiberglassing the Airframe

by Gordon Cook

The following is a method I used to apply the protective coating of lightweight fiberglass to the airframe. It provides a glass-like surface that requires very little prep work for painting, providing, of course, the plywood covering has been adequately filled and sanded.

The following are the steps in sequence to follow:

1. Cut the fiberglass cloth to the size and shape of the area to be covered.

2. Cut a piece of 4 mil clear plastic sheeting a little larger than the fiberglass. Tape one edge to the airframe just beyond where the fiberglass will be placed and fold out of the way. Clear plastic packing tape works well. I have found 2 mil to be too light and 6 mil is too heavy to get a good result.

3. Place the fiberglass cloth where it is to go.

4. Mix enough epoxy to thoroughly wet out the fiberglass and pour it on the fiberglass.

5. Wet out the fiberglass with a plastic spreader then draw the plastic firmly over the fiberglass.

6. Using a plastic spreader, squeegee the epoxy from under the plastic sheet drawing it away from the taped edge. Don't press too hard or the plastic will ripple or tear. After squeegeeing, tape may be used to pull the plastic tight or to remove ripples. If rippling occurs and it is impossible to remove, just leave it and sand out the imperfection after the epoxy is set.

It is also important to remove all the bubbles from under the plastic. They can be hard to see, but will leave areas that will require attention later.

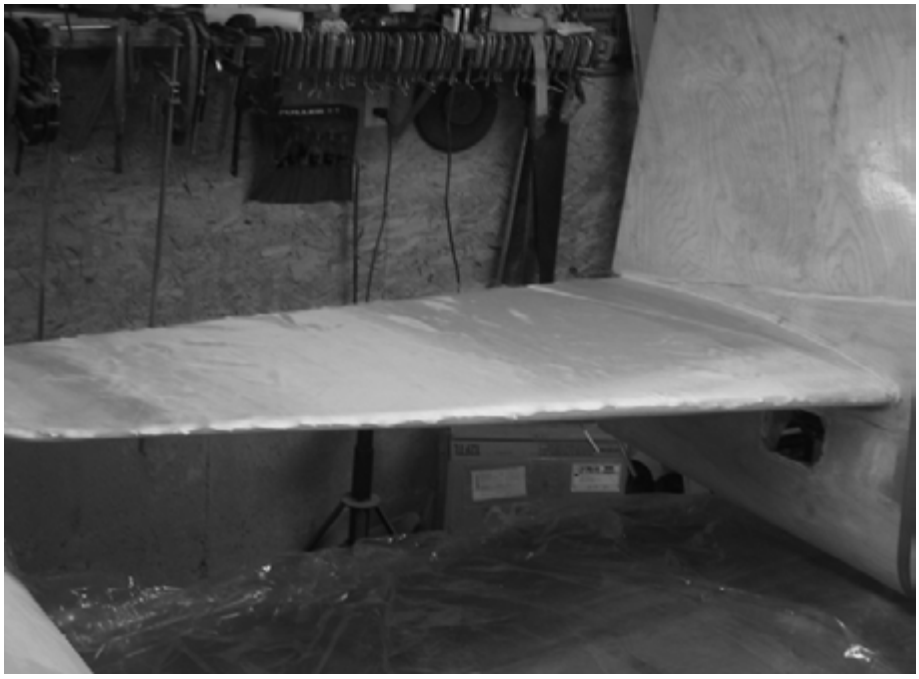
7. After the epoxy is set simply remove the plastic and if there has been no rippling, tearing or bubbles left under the plastic the surface should be as smooth as glass.

I found at first about nine or ten square ft. were all I could comfortably do, but as I gained a little experience I found I could do a little more. If you have the help of a couple of others then you may want to try a larger area such as an entire wing.

Here's how I envision it being done. With the glass and plastic cut to size and the plastic taped along the wing root, roll the plastic so it can be unrolled over the wetted out glass. The glass can then be positioned on the wing and the first four feet or so wetted out. The plastic can then be placed over the wetted glass and squeegeed, in the meantime more glass can be wetted. A third person can be used to mix epoxy as required and help the other two.

It's important not to mix too much epoxy at one time or it will heat in the pot and "kick off" in just a few minutes instead of an hour or so. If you use the West System epoxy there are two different types of hardeners, one sets up faster than the other. For glassing the airframe I recommend the slower setting hardener, it gives you more time to work before starting to set and does just as good a job.

I have never tried the latter method of laying down large areas so I don't know how well it will work, however I do know the first method works.

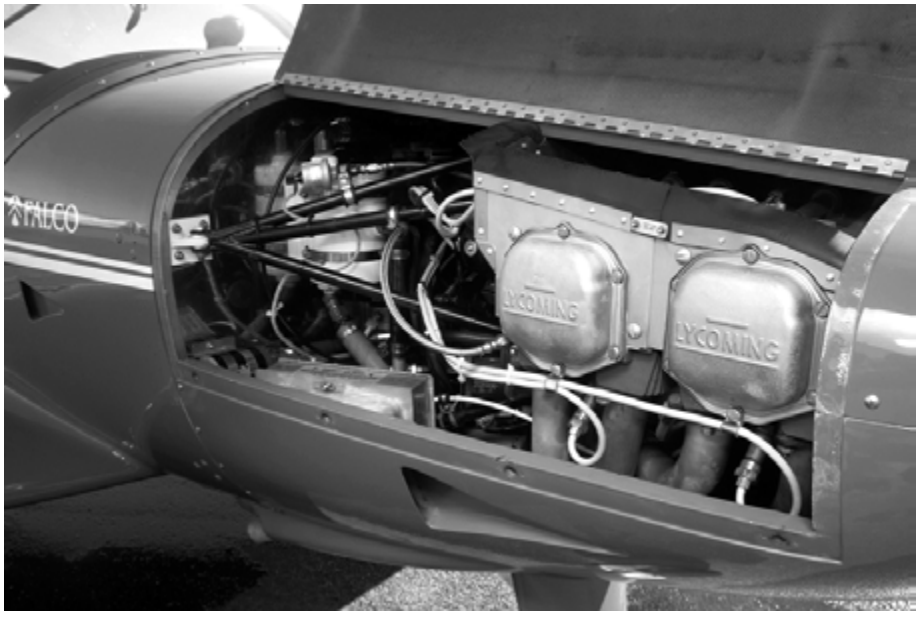


Top: The fiberglass cut to size and placed in position ready for epoxy.
Above: The plastic, which has been taped to the vertical surface of the stabilizer trailing edge, after squeegeeing out excess epoxy. The large paper clips attached to the plastic along the leading edge are to provide weight to ensure the fiberglass stays adhered to the leading edge.

Blau machen auf Italienisch

This article appeared in the December 2005 issue of Flieger Magazin in Germany
Text & photos by Christian von Wischetzki
Translation by Matthias Inhoff

The title of this article cannot be directly translated, as it is a play on words. "Blau machen" means playing hooky from work. "Blau" is the color blue, in this case as in the airplane color and/or the sky; "machen" means to make. "Auf Italienisch" means "in the Italian way". Therefore, it can mean "playing hooky in blue, the Italian way" as in if he skips work to play in the sky; or literally, building it blue, the Italian way.—Matthias Inhoff



Airplanes, that look amazing, fly great as well—the Falco F.8L is an especially striking confirmation for this thesis. Nobody believes that this rakish two-seater is an "Oldie". But, it is true: Over half a century ago, in the summer of 1955, the first Falco took to the air, built by the Italian aircraft designer Stelio Frati. The wooden low-winged airplane is even designed for aerobatics: at the max. aerobatic gross weight, a loading of plus six or minus three *g* is allowed.

Due to the hot-blooded looks and its high airspeeds, the F.8L was dubbed the "Ferrari of the air" many a decade ago—by rights: the Falco is an astonishing compromise of airspeed, stability and agility. Nevertheless, after only 110 examples had been produced in series production by different Italian companies, the provisional end had neared. The Falco mutated, just like the sports cars from Maranello, into a collectors item.

That was true until 1979. In that year, the American Alfred Scott, who was looking for a two-seat, cross-country-capable airplane, came upon the Falco. Confident of its construction qualities, founded the Sequoia Aircraft Corporation and obtained the licensed rights to the design. Scott set about and revised the Italian plans, translating them into English and then offered the Falco for sale in kit form. The first buyers did not wait long; at this point the 80th Sequoia Falco is in the air.

The potential of this small machine has already been amply demonstrated by the Italian pilot Luciano Nustrini. With his severely modified Falco, powered with a 160HP Lycoming O-320, he managed to win more than his fair share of races. In the process he was regularly faster than the more powerful SF.260, also a Frati design. His best air race was covered with the imposing average speed of 201 knots.

Enough of history. The Falco for my test flight is standing on the tarmac of the Donaueschingen airport in Baden-Wuerttenberg. And now it is becoming clear to me why its builder, Cipriano Kritzinger, who as an airline pilot is accustomed to high airspeeds, decided to build this machine: the rakish lines paired with great flying qualities plus the addition of the aerobatic capabilities—these three requirements are fulfilled to perfection by the F.8L.

The bright blue colour of this low winger signals from afar: despite the elegant lines, this is not a composite-racer that stands in front of me, but an aircraft built of natural materials.

The entrance over the wing is easy, thanks to the wide-opening canopy. Access to the cockpit is gained just like in a sports car: everything is a bit tight, but fits like a glove. Pilots over 6 ft. will have some problems with headroom. For those, there is an optionally available higher canopy, which will decrease the cruise speed by around three knots.

After tightening the aerobatic capable five-point harness and becoming acquainted with the various controls and the classical avionics, it is time for the check list.

As soon as the IO-320 springs to life the comparison to the sports car becomes even greater: no muffler changes the note of the Lycoming four banger. It is, but for the Christen inverted oil system, in stock condition. Off to runway 18. Ground handling is a breeze, thanks to the single wheel brakes. Prior to takeoff it is time for

the extensive engine, instrument and flap preflight checks.

Everything is in the green; the infinitely variable flaps are deployed ten degrees. Cipriano Kritzinger looks at me expectantly. Full throttle! The acceleration is considerable; the 65 knots required for rotation are reached quickly. A light pull on the stick and we are airborne. A short reach to the panel and the landing gear retracts electrically, as do the flaps.

A good 1100 fpm climb is showing on the rate of climb, even though we have three quarters full tanks and two pilots on board. We level out at 6000 ft. I leave the power at 24" manifold pressure and 2400 rpm, which equates to roughly 75% power. The airspeed needle wanders quickly past the 150 knot mark, finally stabilizing at 157 knots, a very good speed for a 160 HP aircraft.

With slight forward pressure on the stick the airspeed needle climbs once more. The sound of the engine is now surpassed by the sound of the air stream.

The Falco quickly gains airspeed as soon as the nose is below the horizon. This is where its aerodynamic qualities shine. With almost 200 knots we travel slightly downwards. One hardly notices the fast airspeeds, as the Falco is rock steady in the air. Now a gentle application of up elevator. I am surprised at the low stick force required, which requires a light touch at these high airspeeds, in comparison to the ailerons.

Nevertheless, the Falco is a pilot's airplane that wants to be flown through the wrist: agile, mobile, almost like a Pitts. It is no wonder, after all, that most builders of this airplane do not solely fly their machine straight and level. The same can be said of Kritzinger's example, as it will be certified for aerobatics in short course. Until that time however, rolls and loops are taboo.

So how does the F.8L stall? The leading edge stall-strips give ample warning of the stall buffet. The aerodynamics of this racer are exemplary in this discipline as well. The Falco falls off the left wing after a short buffet and picks up speed quickly with relaxation of the backpressure on the stick. Here again, no bad surprises.

After this test flight we return to the Black Forest. Back in the circuit of the Donaueschingen airport we first set the flaps to 15 degrees, and then lower the landing gear. Retrimming the aircraft is hardly required. With around 80 knots airspeed we turn on to final for runway 18, the glideslope is easily corrected with the throttle. The ailerons are responsive even in landing configuration, so that centering the aircraft on the runway is easy. The F.8L should have 70 knots over the threshold; I leave a little gas in and touch down softly.

As we park the machine, several pilots come inquisitively towards us. The sexy lines and the extraordinary paint job have raised their curiosity. They could not guess that the idea of translating this "flyers dream" started a quarter of a century ago.

Kritzinger had already bought his plans in 1980, thinking that it would be five years until first flight. In reality, he only began construction in 1987, as he had to put his flying career of piloting an Airbus with LTU ahead of his construction ambitions. That he spent 17 years building his dream Falco (with a few interruptions in between) has not diminished his fascination with the aircraft.

It can be done quicker, however: depending on the builder's abilities and budget, the buyer has the option of ordering entire kits and sub-assemblies from Sequoia, or building these themselves. Thanks to the wooden construction, a huge investment in machinery is not required.

However, a lot of handiwork and craftsmanship is required, before this Italian-American aircraft can call a hangar home. She can be powered by either a 160 or 180 HP engine and, depending on ones personal height, one can have any of three canopy variations: elevated, standard and lowered.

In addition to many acquired kit components, Kritzinger was able to build many

pieces like ribs, spars, landing gear doors, canopy fairing and the fuselage/wing fairing, himself. The fuselage was completed in 1995. Due to the introduction of the Airbus A330 with his airline, this Chief Pilot had once again not enough time left over for his hobby. In later years it was again possible to work on his dream with full steam ahead. In 2003 it was finally ready for paint: will it be red or blue? A decision was reached after many uneasy nights sleep—blue it will be!

The bureaucratic portion of this homebuilder's adventure went smoothly, according to Kritzinger. To avoid elaborate changes requires a good rapport with the local inspector and the technical expert of the Oscar Ursinus Association (similar to the US EAA).

Kritzinger recommend buying all of the available kits from Sequoia, unless one is sure that one can build the different parts themselves. The expensive components like the engine, propeller, and harnesses should only be purchased shortly before they are required, as the warranty would otherwise be expired before they are ultimately put to use, as things generally take longer than one first surmises.

Near the end of 2003 the search for a useable airport with hard surface runway and a heated hangar facility to allow a quick final assembly started in earnest. His choice fell to the Dahlemer-Binz with its 3000 ft runway. Several further months passed until the first flight, as he couldn't find any oil pressure sensors, which necessitated replacement of the entire oil pressure unit.

In August 2004 it finally came to pass: Kritzinger's first flight with his baby was completed with only a problem with the

airspeed indicator. It turned out that a porous static line caused the errant airspeed indications. The landing gear was retracted on the third flight. Since that time, the aircraft flies straight and true. Trim tabs were not required. The aircraft's handling and performance are exemplary—the 17 years spent building has not been for naught.

During a recently completed airspeed calibration flight he recorded a true 172.5 knots at 5500 ft and 70% power. And that was even though the landing gear doors did not close completely and required further adjustment. The required flight tests will hopefully be completed by the end of this year. After its certification in the "Utility" category, this Falco will be further certified in the "Aerobatic" category.

What criticism remains? The rakish canopy looks elegant, but leaves headroom wanting for taller passengers. Further reclining the seats will help in this direction. The presently installed landing gear wheels with the thinner tires are not conducive to grass runways. An optional, wider set is available, however.

Kritzinger's machine now has 45 hours in the air. This high-time pilot also has a lot of experience in single-engine aircraft and is conducting the entire test flight programme. The results have been worth every moment of its 5000 hour build time, so says Kritzinger of his rakish Italian. If one decides to build a Falco, one should budget around USD 130,000 plus avionics. For an aerobatic capable version, another USD 4,000 would be required.

For this sum the buyer will obtain plans and kits of the highest quality. Special woodworking experience in building wooden airplanes is not a necessity, according to Kritzinger. The builder should, next to a lot of time, have a lot of patience and a quality control frame of mind. The correct translation of what is shown on the plans to the component being made is of absolute importance. (See also www.seqair.com, Hangar, Cipriano Kritzinger, "The Fulfillment of Perfection".

Thanks to the good flying performance and its balanced handling, the Falco remains a "hot iron", despite being 50 years old. The Falco can favourably compare itself to any modern 160 HP single.

He who enjoys working with wood and who is looking for an elegant two-seat, cross-country capable aircraft with which simple aerobatics are possible, will find this Italian fully meeting their needs.

The Glider

Part 24 of a Series

by Dr. Ing. Stelio Frati
translated by Giovanni Nustrini

Strut-Braced Wing. We have studied wings in their various forms. Let's now see how we can calculate the values of T and M_f in the case of a strut-braced wing. Generally the wing is attached to the fuselage and a strut if the wing has one spar, and with two struts if there are two spars.

The angle that is formed by the strut and the wing should not be too small—not less than 30°.

There are two important reasons for this: the first is so as not to stress the strut too much and the second is to keep the aerodynamic interference between the strut and the wing to a minimum.

It is very important that the attachment between the wing, fuselage and strut is hinged.

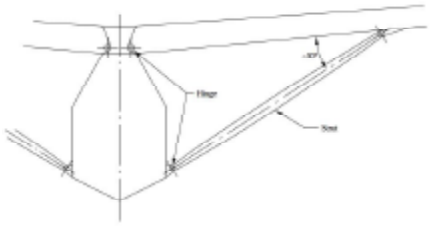


Figure 9-14

It is a mistake to think that attaching the wing to the fuselage with rigid attachments that will not allow movement along the longitudinal axis will give us a stronger structure. In this case we would get an overly rigid structure, with too many connections. We will not look further into this as it is not part of our exercise, but it is important to remember that in this case, although we would be reducing the stresses on the spar, we would also increase the stresses on the wing structure.

Furthermore, because of possible minor differences in assembly, there is the potential of very high secondary stresses. In the calculation method that we are going to use, we will assume a hinged attachment.

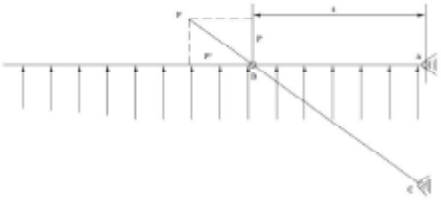


Figure 9-15

Let's show the strut-braced wing in this graph: it is stressed upwards because of the aerodynamic forces that are distributed based on the area and by a concentrated load P, applied at B, that acts from up to down in the direction of the strut. It represents the reaction of the strut (Figure 9-15). We can therefore proceed in a very simple manner to find T and M_f. We will assume first that the wing is attached at A without a strut, i.e. a cantilever wing. As we have already seen, we are finding both the shear stress and the bending moment, which will increase continously from the wing tip to the midpoint A.

Let's consider the wing as it actually is. We know that the bending moment at A has to be zero because the hinge cannot transmit this moment. Therefore the diagram of the bending moment will have its maximum value at the strut B, and will decrease from B all the way to become zero at A. For this part of the diagram, from B to A, let's now consider the vertical component P' of the load. P is the reaction of the strut.

This makes for a bending moment of opposite sign from the earlier one which will vary from zero at B to its maximum value at A, which coincides with the absolute value in the strut-braced wing, because as we noted before, the moment at the hinge has to be zero. The diagram of the bending moment in P' is linear as it is only a function of the distance from B. We have now found its bending moment, even without knowing its value nor the value of P yet.

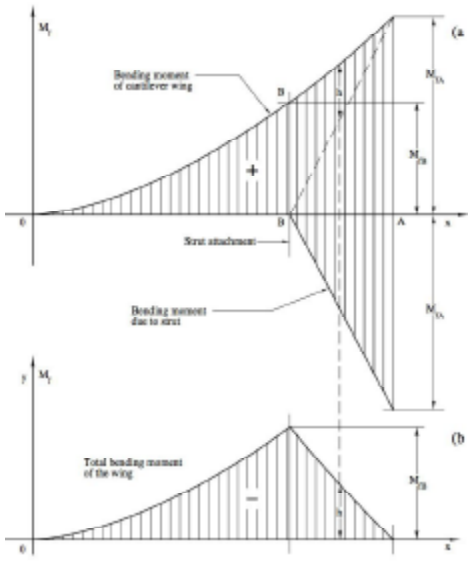


Figure 9-16

Therefore the diagram of the bending moment for the strut-braced wing is given by the diagrams of the two bending moments, one is relative to the cantilever wing and the other to the load P' (Figure 9-16a).

The resulting diagram is therefore the one shown in Figure 9-16b.

We can now determine the load P' and therefore also the bending moment of P, which is the tension on the strut. Thus, we have:

$$M_{fA} = P' \cdot a$$

where a is the distance of the attachment of the strut to the mid-section of the wing at A.

We therefore have:

$$P' = \frac{M_{fA}}{a}$$

Then, with the angle a formed from mounting with the wing, the value of P is calculated.

$$P = \frac{P'}{\sin a}$$

We can see how by decreasing the angle a we reduce sine a, and as a consequence the tension load on the strut increases.

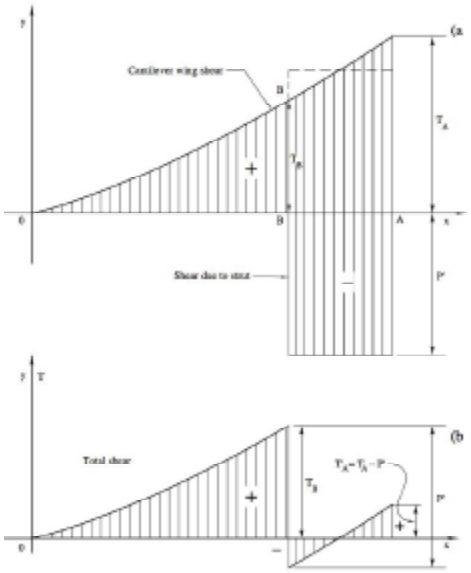


Figure 9-17

After we obtain the vertical component of P' of P, we can immediately determine the reduction in load from B to A. For this the diagram is the result of the difference between the two: one relative to the cantilevered portion of the wing, and the other is relative to the concentrated load at P' that is constant from B to A (Figure 9-17a). The resulting diagram is the one in Figure 9-17b.

The value of P' can be greater than the value of load at B for the cantilevered wing and therefore the diagram of the load changes sign, as can be seen in Figure 9-17b

Example. Let's anchor the wing in our last example (Figure 9-13) and let's assume that

it is now braced with a strut attached at a distance of 2.4 meters from the mid-section. Since we already have the diagram of shear and bending moment for the cantilever wing, we now only have to determine these loads for the portion of wing between the strut and the attachment at the mid-section.

Because the maximum value of the bending moment at the mid-section is 2460 kg for the cantilever wing, this value is also the same (with exception of the sign) as the one for the vertical component *P'* of the load *P* on the strut. Thus we will have:

$$M_f = 2460 = P' \cdot 2.40$$

From which P' is found.

$$P' = \frac{2460}{2.40} = 1025\text{kg}$$

By subtracting the value of *P'* = 1025 from the shear diagram of Figure 9-13 of the attachment of the strut to the mid-section, we have the diagram of the strut-braced wing (Figure 9-18). As you can see, the value of the shear changes sign at the attachment of the strut, and it has the maximum value at this location.

To obtain the bending moment we subtract the line given by *P'* (Figure 9-13) from the one for the cantilever wing. The result is shown in Figure 9-19. The maximum value is at the attachment of the strut and it is:

$$M_{fs} = 1142\text{kgm}$$

If we assume that the angle between wing and strut is 30 degrees, the tension force is:

$$P = \frac{P'}{\sin 30^\circ} = \frac{1025}{0.5} = 2050\text{kg}$$

We can also find the compression load on the spar, from the strut attachment to the mid-section. The *P* parallel component on the axis of the spar (*P''* in Figure 9-15) is given by:

$$P'' = P\cos 30^\circ = 2050 \cdot 0.866 = 1775\text{kg}$$

This compression load will be added to the normal stress of the wing attachments, derived from the bending when we dimension the spar.

We have therefore seen, with different examples, how to determine the highest shear stresses and the bending moment for the wing relative to the maximum lift. These loads are supported in the wing structure by the spar or spars.

We know that in gliders a monospar with a torsion box is very common design. In this type of design the bending loads are therefore carried by the only spar that is placed at the point of maximum thickness

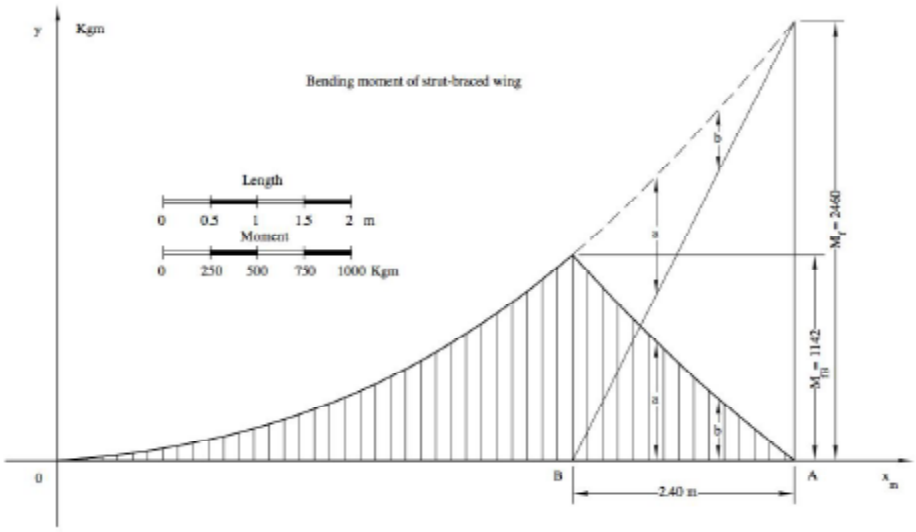


Figure 9-18

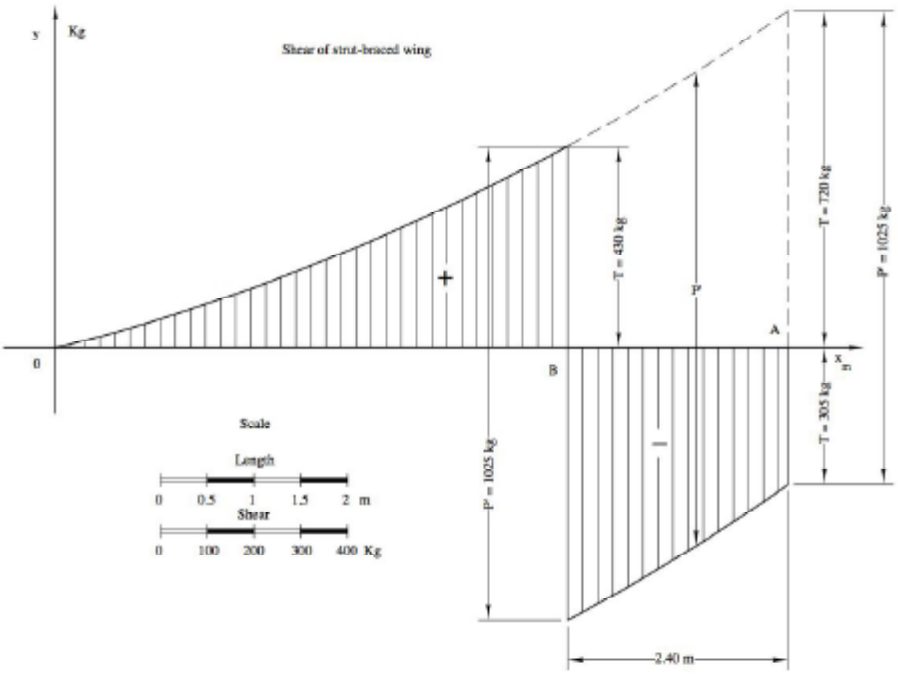


Figure 9-19

of the airfoil, normally between 30% and 35% of the chord.

However, if the structure is multispar, as in basic gliders of low aspect ratio, the shear loads on the wing will be shared by the two spars considering the load distribution along the wing chord. In the case of maximum lift as we have already seen, the load is distributed at 1/3 of the wing chord, or 35% (see Figure 3-7).

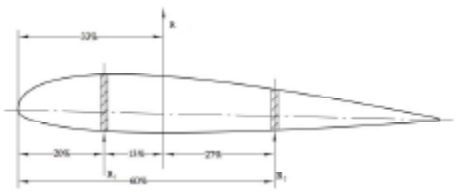


Figure 9-20

Example. Let us assume that the wing has a forward spar at 20% and an aft spar at 60% of the wing chord (Figure 9-20)

The distance, in percentage of the chord, of *R* (the load on the two spars) is therefore 13% from the forward spar and 27% from the back spar.

The result of the equation for the bending moment is:

$$R_1 = R \cdot \frac{27}{13+27} = R \cdot 0.675$$

$$R_2 = R \cdot \frac{13}{13+27} = R \cdot 0.325$$

We therefore have stresses of shear and bending on the wing. Roughly 2/3 is on the forward spar and 1/3 are on the aft spar.

The Story of Falco
I-DRIM

All of us have dreams, but only those who dream learn to fly!

by Guglielmo Leggeri

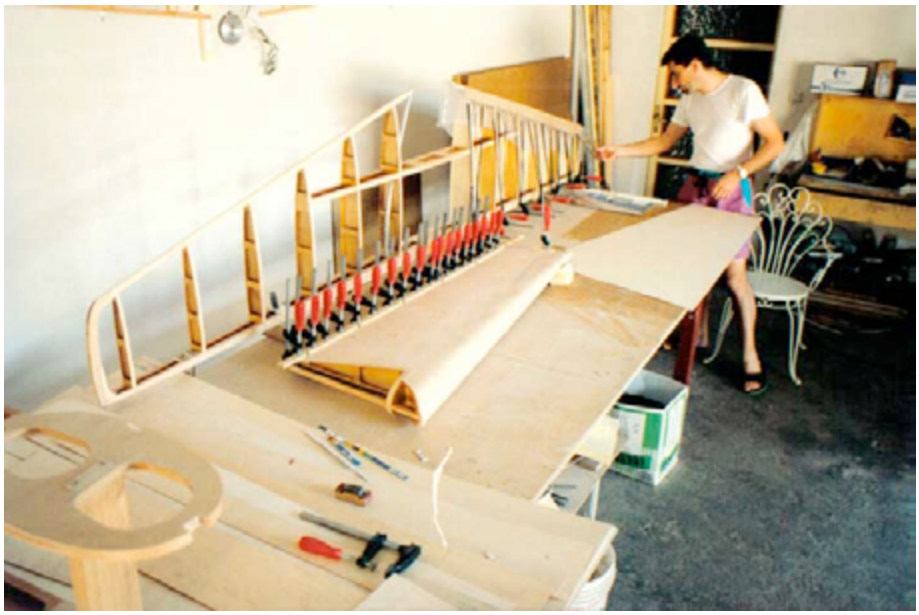
Before I get into the details of the construction of the airplane, let me provide you with a short biography of myself. My name is Guglielmo Leggeri. I am a pharmacist in the town of Cremona, Italy—also known for the Stradivari violins. While I was taking classes to get my pilots license, I became friends with Oscar Colombini who was in the same class as I was. We received our pilots license in 1983. I, at the ripe age of 18 and Oscar at the ripe age of 23. Oscar makes a living as an electronic technician in Brescia, Italy. After we recieved our pilots licenses, we raced airplanes together in 'rally' style races and in 1988 we won the *Giro Aereo d'Italia* race and in 1992 we placed third in the same race.

Around 1985, I read an article in the Italian flying magazine *Volare* that talked about the first Falco constructed by Sequoia Aircraft Corporation. After reading that article, I started dreaming about building one for myself. Around 1992 I talked to Oscar about building the Falco that I saw in the *Volare* magazine and he instantly became interested with the idea. Almost right away, we decided to order all 23 kits to build the Falco! All of the kits arrived at the beginning of 1993 and we started building the airplane right away.

The long journey to build the airplane took about 14 years—my marriage and a few kids slowed the building process down a bit. At the beginning, we thought that it would have taken us a little less time to build it. The airplane weighs 618 kg and has a 200 hp Lycoming IO-360A1B6 engine which forced us to make a long series of modifications.

However, after these 14 splendid years, on September 16, 2006, with Oscar Colombini at the controls and Guglielmo Leggeri as the co-pilot, we celebrated with the first flight of I-DRIM! Everything went well during the flight, and the airplane seems to be perfectly balanced. Take off was less than 150 meters. With 22" map and 2450 rpm, it indicates 170 kts with fuel consumption of 29.1 litres/hour. It performs fantastically!

We would like to thank Stelio Frati and Sequoia Aircraft Corporation for giving us the opportunity to live this wonderful adventure!



Top: Oscar with horizontal stabilizer and rudder. Center: Oscar peeks through landing gear bay. Above: Fuselage under construction.

Top left: The famous cut. Center left: Oscar with painted tail. Above left: Guglielmo with two sons and Oscar in the back. Center right: Heading for the paint booth on foot for 2 km at 6 in the morning. Above right: Heading back from the paint booth.

Guglielmo Leggeri

Oscar Colombini

Construction Notes

Dan Dorr was taking off one day and heard a 'thump' sound from the front of the airplane, right as he was leaving the ground. On landing, he found that the nose gear strut was completely collapsed.

At first glance, this was pretty worrisome, but Dan discovered the problem: "The nut (P/N 655) that seals the strut had backed off to the point where it could no longer hold the pressure. It's an easy fix for me, which is great, but I wonder if anyone else has had this problem. If it would have backed off further, the whole thing would have let go, but I suppose the torque links would have prevented the nosewheel from departing the airplane. Anyway that's my situation, and I should be back in the air shortly."

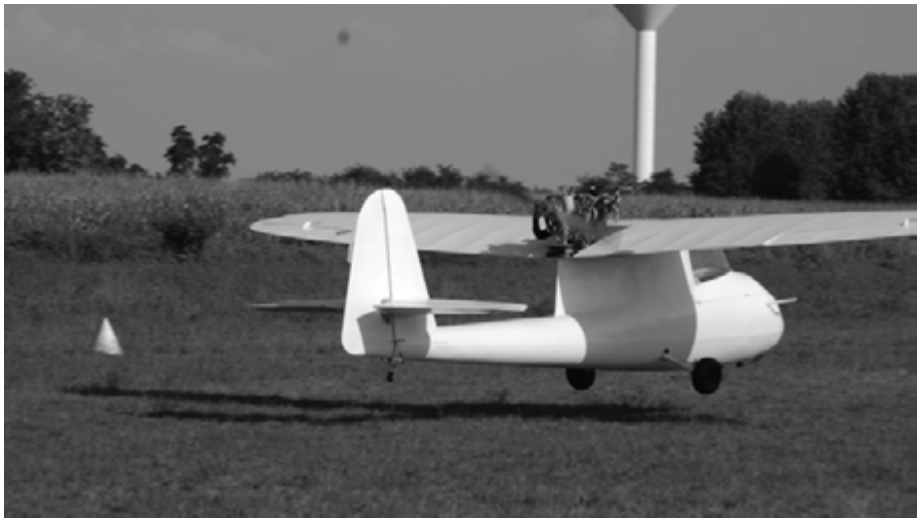
Jarrel Battaglia asks, "I am preparing to build the main stabilizer spar and have noticed that, unlike the fin's main spar, the cross members are 10mm thick, not 12mm as I expected. Is this an oversight in the plans or should I keep plugging along?"

I never noticed the difference before, nor do I know the reason for the difference. I'm sure that if we could go back to 1955 and ask Stelio Frati, he could certainly be able to explain it. So, just build the airplane according to the plans.

Ryan Vaughan asks, "I have another basic woodworking question about the fuselage frame I just made. It's the top half of frame No. 3. After I took it out of the jig, the ends seem to have constricted just a bit making the shape about 3mm short on both sides (the width of the shape should be 1010mm and is about 1004mm). Do you think it would be okay to clamp the lamination ends to stretch it back to the correct shape? Should I over-clamp it a little because it might spring back again? I wouldn't have guessed that the shape would constrict out of the jig. I would think it would try to expand, but what do I know?"

This always happens. The water in the glue causes it to swell slightly and then as it dries, it pulls back. Sometimes it springs this way, and sometimes that way. Don't worry about it at all. When you go to assemble the entire frame, spring it so the entire frame is in the right shape, and then glue everything together. Then it will stay put.

Even so, everyone who builds a Falco will tell you the same thing. You follow the plans and dimensions as closely as possible, and then at some point—say when you are float-sanding—you just accept that this is a piece of sculpture. You sand it smooth, put the skin on and forget about it.



Enzo Marrucci sent these photos of a replica of Stelio Frati's first design, the F.M.1 Passero.

From Angus Buchanan: "It's clear in the drawings that the shoulder belt support member runs parallel to the top longeron. However in the manual it looks diagonal and seems to run from the corner made between frame 8 and the 30x10 stringer (manual page 26-11). I would intuitively go with the drawing, but I didn't pre-notch the front frame 8 for the 30x15 shoulder belt supports in Chapter 35, therefore I wonder if the diagonal has any importance. Or is it just a trick of the light?"

Stelio Frati designed the airplane, but I put in the shoulder belt support, and thinking only in a fore-and-aft load situation, I drew it from the top view, thus I designed it to be parallel with the top longeron. Of course, to make matters worse, Frati put a 20x10 stringer in there for the top of the battery box, and this is parallel to W.L. 0. Both are intended this way, but when it is skinned, you can't see any of this foolishness.

Angus also asks about the High Nustrini canopy installation. "I'm inclined towards the sex appeal of the Nustrini but I am 6 ft (and a half!). On the website, there is an idiot's guide to the High Nustrini. I don't seem to be able to find anything comprehensive. Specifically, on Frame 4, I'd assumed I'd cut the one I've got and crank it over. However on closer inspection it's not clear whether the alternative is a different shape because it is dimensioned in a different orientation. Can I use the one I have or should I laminate a new one?"

Yes, just use what you have and you may well have to add some wood at some point to match the canopy. Just count on having to do that and glue on a few strips when you see what you have to do, and then sand it all to shape.

"On the gunwales, I assume these are set slightly higher?"

Right.

"What happens to diagonal frame No. 2. The other parts seem to go up a bit but the geometry for this appears more exciting."

Nothing changes here. The geometry of diagonal Frame 2 is almost impossible to visualize in advance of putting it all together. Some of the lines of the frames cross at a slight angle with the bottom of the windshield. Just remember what it is there for, and that you want the frame to glue to the fuselage skin, and also to support the windshield. It's a bit of sculpture and one day I will probably do a drawing that illustrates it all.

Sawdust

• We're famous. Now there's an entry for Sequoia Falco in Wikipedia. Of course, Stelio Frati is in there, too.

• About time. There's a bit of conventional wisdom that no homebuilt airplane has ever flown for as many hours as it took to build it. That's not necessarily true in the case of Art Domingues, who now has just over 3000 hours on N828TS, first built by Terry Smith and now owned by Quentin Rench, who lets Art fly it on business for Quentin's company. In a recent flight, Art flew from Denver to York, PA in just over five hours and burning only 31 gallons. Most of the flight was at 17,000 where he had a true airspeed of 158 kts with a power setting of 15/2000. But it's the ground speed, of 260 kts, on this flight that Art most likes to talk about. The 180 hp Falco is quite fast and typical performance at 24/2400 and 4000 feet is 178 kts TAS.

• Media Watch. Keep an eye out for an article by Steve Wilkinson in the March/April 2007 issue of *Golf Connoisseur,* which you can find at exclusive country clubs—just land your Falco on the greens and wander in to get a copy—and Barnes & Noble. Cipriano Kritzinger and his Falco were on the cover of the December 2006 *Fleigermagazin* in Germany with a big article—"Blau Machen auf Italienisch" included in this newsletter. And Mike Wiebe's Falco was on the cover of the January/February 2006 *Recreational Flyer* magazine in Canada.

• You may remember that Senator James Inhofe once enquired about buying Steve Wilkinson's Falco. Steve, worried about the publicity and liability of selling the plane to a high-profile individual and assumedly a lawyer, passed on the idea of selling the plane. So Steve was interested to hear that the senator groundlooped his RV8 in Oklahoma, blamed on "obvious mechanical problems." No one was injured.

• Harold Thompson got his Falco flying on August 1. He now has over 50 hours in the Falco, which was started by Bill Wink who died in February. We're still waiting for photos but Harold reports that there have been no surprises and that it is "Just a lovely airplane, no bad habits."

• Hey, that's our name. Galileo Avionica is now offering a 'Falco' for sale, but it's a UAV designed for "low-cost 24/7 surveillance missions as well as environmental patrolling and security control."

Top: If you are bored, your doctor says you only have a few days to live and you want to have one last joy ride, check out the Jet-Man at www.jet-man.com for a backpack jet powered wing. You go first. Above: John Devoe's Falco lives on.

Susan's Corner

Not much time or space for me this time, but I'm here, I'm busy and all is well. December was pretty slow, which is fairly normal, except this past December, my better half (Michael) and I were sick most of the month so it was slower than ever, 'cause I wasn't even here most of the month! I think Christmas dinner at our house was sharing a can of chicken soup. Yum.

Kit sales have really picked up in the last several weeks, so we must have some pretty busy builders out there. Unfortunately, David has left me for more of a full time, warehouse management position so I'm now back to doing it all by myself. It might take me a little longer to get those kits out, but usually only by a day or so.

For all you newbies, especially those of you across the pond, using your Visa or Mastercard has become the preferred method of payment for kits and parts. It saves on all the back and forth invoicing and it also let's me get your orders out quicker, because I don't have to wait for a check or wire payment. Wire payments still work well though for the really big purchases, so don't count that out as an option.

That's all for now folks. Gotta get this to the printers. Don't forget to let me know if you have a change of mailing address. Last time I had several Builder Letters that came back because the builder had moved and the forwarding time had expired.

Have a safe and happy few months until we get the next Builder Letter out. And as always, keep us posted on your progress and don't forget to send us those pictures.

—Susan Fleming

Calendar of Events

West Coast Falco Fly-In. Sept. 20-23, 2007 at French Valley Airport (F70), California. Contact: Ray and Penelope Hecker (714) 258-1800 email ray@franek-tech.com

Mailbox

I've been having a hell of a lot of fun in my Falco recently, and it dawned upon me that you deserve thanks for making such a wonderful machine available to me. I know you've heard this before but not from me. Without your efforts this amazing little aeroplane would probably be completely unknown to me let alone unavailable. It has made a huge impact on my life, and I can only imagine how big the hole would be without the experience. I certainly would not have considered building an aeroplane if it wasn't for the Falco and without all your efforts I would never of discovered it.

Thanks again, Alfred. It's made my life a hell of a lot richer.

George Richards
Auckland, New Zealand

You can roll about laughing at my expense—I have tried to make a nose gear fork unsuccessfully four times, and have finally managed to get the two grey cells in my head to come to their senses—please ship me a nose gear fork (P/N 613).

I live in Johannesburg, South Africa and currently work in Perth, Australia. I hope that you will visit our land one day and see Dr. Fanie Hendricks's Falco, apart from being the most beautiful aircraft I have ever seen, it is absolutely flawless.

By the way, I really love your website, it oozes professionalism.

Alan Evan-Hanes
Perth, Australia

[September] My conversion and flight test were completed two weeks ago but weather precluded flight again until today when I went solo for the first time and no instructor watching!

By the way, in South Africa we have to do spins—quite exciting in the Falco. ZU-BTT's stall buffet has been sorted out with the bigger and sharper stall strips. She drops over vertical into the spin but recovery is immediate and takes less than 500'.

I put just 30min on the clock this afternoon and BTT now has 18h 37 min leaving six and a bit hours before the annual permit is issued.

Today's flight was at 7000', temp ~20C and IAS was 140 kt at 2650 rpm. (Still no gear doors). Fuel consumption over the 18h so far is in the order of 20-22 litres per hour. Oil temps have climbed a bit again so I'm going to try the scoop. One problem I do have is repeated carburettor icing—a phenomenon not previously experienced by me on my Partenavia P64B—so I don't know if the Ellison is particularly susceptible or if my installation is suspect.

Top: Neil & Gwyn Aitkenhead somewhere over the Nullarbor Desert.
Above: Two canaries in New Zealand: Giovanni Nustrini and George Richards.

[December] Just letting you know that the 25 proving flight hours were completed this past weekend and I received the annual 'Authority to Fly' on Monday. The 'carb-ice' situation seems to be resolved (now I think it was fuel percolation; I put firesleeve over the fuel lines and no trouble since).

You may recall me saying at first flight that there was no emotion but now I am experiencing great satisfaction and pleasure—she flies like an aeroplane should and inspires confidence. At 2650 rpm she indicates 130 kt at pressure alt. of 7500 and temp 29 C. Climb at gross, 90 kt indicated is ~700'/min. at the same press.alt. Little change at 9500' and 24 celsius. Now going to make the gear 1/2 doors.

Brian Nelson
Randburg, South Africa

Apparently, there are only four Falcos flying in Australia with one under construction. Would you believe that all four visited my home airfield in one day, having flown across our vast continent.

I had them follow me into the pattern and couldn't wait to get a close up look as I had not seen one before. What a fantastic aircraft. Just thought you would like to know.

Gary Peters
Manjimup, Western Australia

By our count there are six Falcos flying in Australia and more under construction. But four of ours made this guy's day, and we don't need to correct him.

We, Australian Falco Fliers, have recently been over to Perth, West Australia for the Red Bull Air Race. I got Juliet Ferguson to take some air-to-air photos of our Falco while on one of the several legs to Perth.

There will be some more info and photos from our group in due course. In the meantime this is the best of the air-to-air shots "Somewhere over the Nullarbor Desert"

I have now done close to 100 hours and all going well.

Neil & Gwyn Aitkenhead
Main Beach, Queensland, Australia