Falco Builders Letter

Builder Progress
It's still anybody's guess as to who will be the next to fly their Falco. Syd Jensen is very close now. The cowling is installed along with the baffling, and Syd is installing the last few radios. I would expect Syd to get into the air very shortly.

Jim DeAngelo also has his cowling and baffling installed. His Falco is fully painted in a blue Modena scheme. Jim is now in the process of hooking up the engine plumbing and controls and installing the upholstery. I would expect Jim to be flying by April or so. Jim sent us some photos of his Falco in the very small shop with the note "Show your visitors these pictures—if the desire is there, you can build this airplane in an oversized outhouse!"

John Harns has his cowling installed and is now in the process of completing the engine installation. The upholstery is complete. The airplane is painted white, but the cowling and final trim colors are yet to be done.

Jim Shaw will fly in April or late this year, but nothing in between! Jim is a USAF flight instructor in Mesa, Arizona. He is to transferred in May and is trying to get his Falco in the air by April 1. The cowling and baffling is now installed.

Tony Bingelis writes that he is nearly ready to fly. Tony had a different spinner than the one that we use and our cowling would not match that, so Tony made his own cowling. After the Lakeland "Sun and Fun" show, Tony plans to move his Falco to the airport, paint it and go flying.

As things now stand, it looks like all of the above will be flying by the time our next builder goes out. In addition, Ray Purkiser and George Neuman are very close to finishing. We have shipped the Chilean Air Force their cowling and baffling, so there is the possibility that they too might be flying soon. I still don't know where Herbert Müller is in his construction. Karl Hansen is coming on strong and hopes to fly by Oshkosh. If he does, he will be the first to finish a Falco in under two years. (Syd Jensen would have broken that barrier long ago, but he was building faster than we could keep up.)

Francis Dahlman
Francis Dahlman is recuperating nicely from his accident. All of the pins have been removed. Francis has feeling in the entire thumb but is not able to bend it at the knuckle. Almost at the same time as the accident, Francis had a tremendous surge in orders for Falco kits. Due to his handicap of working with a bandaged hand, he was not able to get things out as quickly as he would have liked. He is now in the process of catching up with the orders. Francis reports that the price of spruce from his supplier recently was increased, so he will have a price increase in the next couple of months, but orders you place now will be at the old price.

Cowling and Baffling Installation
Judging from the first builders the installation of the cowling and baffling has been a pleasant and quick affair. Jim DeAngelo installed the cowling in about 10 hours. The cowling jig works very nicely and allows for precise alignment of the cowling behind the spinner.

The baffling only takes a few hours. Jim DeAngelo had a real problem with the right front baffling. He said that he had to cut away for the alternator belt and pulley. I could not understand this until it became clear that he had a different set-up from what I planned on. Almost all Lycoming engines have a belt which goes around a pulley on the starter ring and on the alternator. Apparently, some late model IO-320-B1A engines had an extra idler pulley. Once this was understood, Jim took the extra pulley off and got an alternator belt tension adjuster arm. If your engine has this extra idler pulley, you will want to get rid of it.

John Harns found that the exhaust system had plenty of clearance inside his cowling, while Jim DeAngelo has essentially the same situation as Dave Aronson. Jim said that if we moved the ball joint on the left side about 4" aft all of the clearance problems would be eliminated. This should be a simple change to make, and I will be in touch with Cochran Aircraft about this.

Plywood Skin for Control Surfaces
Many builders have written me regarding the possibility of skinning the control surfaces entirely with plywood. I have been very cautious about such changes since they involve the flight controls. I decided to write Mr. Frati for his suggestions. Mr. Frati says he does not object to the idea, and in fact agrees that this would simplify the construction.

There are several reasons for wanting to do this. For one thing, the trailing edge is skinned in two operations (top and bottom) rather than cutting and fitting all of the little pieces of plywood. The bottom of the ailerons and flaps has a curvature that the fabric does not want to follow, and plywood would give a smoother surface. Lastly, and most importantly, the plywood skin will eliminate the dope-and-fabric covering process.

There has been much debate concerning the difference in the weight. Plywood is heavier than fabric, but some builders maintain that less finish will be applied so the weight should be close to the same. Only time will tell, but you must make sure that the control surfaces remain within the balancing limits.

One way to offset the weight of the plywood skin is to reduce the width of the trailing edge strip. When fabric is used, the trailing edge strip provides the stiffness required to overcome the tension of the fabric. When the control surfaces are covered entirely with plywood the structure is similar to sheet aluminum, and the sole purpose of the trailing edge strip is to provide a gluing surface between the upper and lower skins. Thus, the trailing edge strip may be reduced to 15mm between the ribs, although we think it would be a good idea to leave a

little integral "corner block" as part of the trailing edge strip at each rib.

While asking Mr. Frati's opinion of this, it also occurred to me that the elevator trim tab could be similarly lightened by making it of a spar, three ribs and a cut-down trailing edge strip. Mr. Frati says he has no objection to that as long as the elevator balance is maintained, but questions the cost of making the trim tab of several pieces of wood. I'm not sure I agree with him on the cost. For one thing, you already are going to make (or buy) the trailing edge strip for the elevator. It is not difficult to make a 10mm thick spar for the trim tab. The inboard rib will have to be 25mm wide so that the control arm will have something to attach to.

It seems to me that the trim tab might be easier to make as one piece with the elevator and then saw the trim tab out when completed. With the trailing edge as one piece, it would seem to be easier to float sand and there would be less area to sand. In any event, it seems to me that it would be easier, less expensive and substantially lighter. The very small weight is desirable primarily to offset any extra weight from the plywood skin in balancing the elevator.

Covering Process
There seems to be a continuing pressure from builders to simplify the covering process. The use of plywood skins on the control surfaces will greatly simplify the matter.

John Shipler has just finished covering his Falco with the epoxy and fiberglass method. He had previously built an airplane with the dope and fabric covering process. He said he found the fiberglass and epoxy much easier and quicker to apply. With dope, the fabric tends to create little bumps over globs of fabric cement, and he found the 2 oz. fiberglass cloth went on very smoothly and easily. This method seems to be winning the hearts of Falco builders.

Still, there are builders who are advocating leaving out the layer of fabric. There can be no question that this will be easier and quicker. With wood boats, the layer of fabric is considered essential in any area subject to abrasion. If you would like to experiment with omitting the fabric, I still think it would be a good idea to use fabric along the leading edges and around the firewall.

Dave Aronson makes no secret that if he had to do it over again, he would not bother with fabric. Tony Bingelis has stopped using fabric on his Falco and others have been talking about doing the same. This technique was pioneered on wood boats by the WEST system, a rather heavy system developed by Gougeon Brothers, Inc. If you are interested in this process, send $2.00 for their technical manual to Gougeon Brothers, Inc, 706 Martin, Bay City, Michigan 48706. Chem-Tech sells a similar manual for their T-88 and L-26 epoxy coating, send $2.50 to Chem-Tech Inc, 4669 Lander Road, Chagrin Falls, Ohio 44022.

These methods depend on the ability of epoxy to form a tough protective coating. The theory of using a layer of fabric is that if you get a small crack in the coating, the fabric will not crack. This extra insurance is something you will give up if you omit the fabric. How good is the finish? The fact is that no one really knows. I tend to pay more attention to the actual experience of owners than I do to the claims of manufacturers or of builders who have just painted their airplane. I would like to see an airplane flown for a few years and endure hard duty. My experience has been that the Imron paint jobs hold up very well, but you sometimes see cracks. If the epoxy on the wood continues to protect it, then all is well.

Recently I read about the finish used on the nice little ARV called the Star–Lite. On that airplane, they are applying a primer-surfacer like Featherfill on the wood to fill the grain, then using an epoxy primer and polyurethane enamel, such as Imron. I can't question that this is easy and quick, but I would like to see how such an airplane holds up flying in all types of weather. Perhaps for a fair-weather ultralight this finish system will work, but I have to question the wisdom of using such a system on a Falco.

Most of you probably know that polyurethanes are not good things to breath. You should definitely use a filtered mask. Breathing polyurethane mist can really ruin your day. Some painters don't use a mask, but Ray Stits says he has noticed a consistent personality change with such painters. There are other risks, John Shipler reported that a builder in his area used a polyurethane enamel while taking Tylenol. Apparently as a result of the combination, the fellow was paralyzed for 3 weeks.

More on Instrument Panel Paint
John Oliver did some experimentation on the painting of the instrument panel. He settled on the following: prime with duPont 825S red epoxy primer, two coats of black Imron (for toughness) and two coats of Krylon No. 1311 Clear Matte to eliminate reflection. John tried to use a duPont flattening agent to remove the gloss from the Imron and eliminate the Clear Matte coat that is more brittle than the Imron. He used up to 25% of the agent, but still had too much gloss and white specks started to appear. He wonders if perhaps a better agitation of the mixture in the sprayer would have solved the problem, but three weeks of testing was enough.

This sounds like a good way to get a tough finish for your instrument panel. My only caution would be that the custom Letraset lettering that we supply with the instrument panel does not adhere well to a heavily plasticized surface, so you might need to put at least one coat of Clear Matte on the Imron before applying the placards, or perhaps buff the Imron.

For those of you that are interested, the paint that is used by Cessna on the Citation instrument panel is Federal Standard No. 595-36118. I am informed that any good paint store can make up or supply this paint. This is a standard matte gray paint used for many applications.

Elevator Balance Weight Installation
A number of builders have reported that the elevator balance weight was difficult to install since the lead compressed under the riveting pressure. If you wish, you may install the weight with a couple of No. 8 AN525 washer head screws and nuts.

Dry Flox
Jim Petty reported that he has found the "dry flox" material used by composite builders a very useful thing for certain applications. Dry flox is a mixture of epoxy and flocked cotton. The flocked cotton is a form of cotton fibers that look like lint. This can be purchased from Wicks or Aircraft Spruce. To make the mixture, you mix up some epoxy (Safe-T-Poxy is most commonly used) and then add the flocked cotton until it will stand on its own. Because it is relatively dry, it does not adhere well, so the normal procedure is to set aside some epoxy and brush a coat on first.

Dry flox is used as a "structural" material

on composite aircraft. It is reasonably strong and fairly heavy (almost the same weight of pure epoxy resin).

Because it has good compression strength, Jim has used it in a number of places for easier construction. The hinges that bolt to the aft wing spar require tapered shims under their base to align with the hinges on the ailerons and flaps. Rather than make a tapered wood shim, Jim just bedded the hinges down in dry flox. To keep the flox from bonding to the hinge, Jim covered the base of the hinge with some plastic packaging tape (the same type of brown tape we use on our boxes). When the epoxy was cured, he had a perfect match.

I can see how this material would come in very handy in many places in the Falco. The top of the dorsal fin is routed to match the aluminum tube that is used as a canopy track. If the tube did not fit perfectly, you could bed the tube down in dry flox. The canopy is installed with a strip of spruce between the canopy frame and the plexiglass, and dry flox might be a good thing to use there.

Dave Aronson used dry flox to fit the windshield to the fuselage skin. On the original production Falcos, strips of spruce were glued on and sanded to the required shape. Dave just covered the windshield with duct tape and stuffed dry flox in the joint.

I have also been wondering about using this material as a gap filling materials in wood joints where a perfect fit is difficult. At the aft face of frame No. 6 the bottom tail cone skin is glued to the frame. A spruce lamination is on the aft face to receive this skin. You can measure and sand the angle on the lamination prior to gluing it on the frame, but you cannot float sand this piece very easily. It may be possible to use dry flox in this joint and others like it. Before you do this, I would suggest that you run some test blocks with a thick line of dry flox to determine if the shear strength is as great as that of spruce or birch plywood. As long as you have failure in the wood over 75% of the area you will be all right.

Main Landing Gear Wheel Well Doors
A number of builders have been installing the wheel well doors shown on the drawings. I have a number of preliminary drawings for the linkage. I have not sent these drawings to all of you since I want to simplify the construction and also because I am not sure of the exact lengths of the pushrods.

I mentioned in a previous builder letter the problem we discovered with Dave Aronson's Falco. I have drawn up the change required for the screwjack to allow the linkage to be attached to the pushrod. Dave Aronson has made this and has it installed. In the process of checking the operation of the doors, Dave found a new and surprising problem.

To understand the description that follows, take a look at drawing No. 102 on Sheet A2. As it is now installed, P/N 860 attaches to a steel stud welded into P/N 512 and is no longer attached to the bolt for the upper side load strut. When the landing gear is completely extended, P/N 860 and 861 are directly in line with each other (at least that is the way things have worked out for Dave). On Dave's Falco, the landing gear motor and down limit switch is adjusted so that the screwjack is partially (but not fully) into the compression of the spring in the end of the screwjack. The landing gear and the door work nicely... so far!

If Dave takes a couple of extra turns on the landing gear crank to extend the screwjacks fully into the compression of the spring (to make sure that the landing gear is really down and locked) the landing gear starts to retract! Remember I said that P/N 860 and 861 are directly in line with each other. This means that they are at the limit of their travel and cannot allow for any further movement of the screwjack. Since P/N 863 is above the screwjack, the linkage forces the outboard end of the screwjack up. This causes the side load struts to start to retract the landing gear. If you landed with the gear in this position, the gear will certainly fold on you. Nobody needs that kind of thing, so I would suggest that you thoroughly check the doors out on the ground before flying with them.

One of our advanced builder memos is on these doors. I have recently revised this and we have sent the new memo, dated February 25, 1985, to everyone that we know is installing the doors. If you are installing the doors and have not received a copy of this memo, please get in touch with me so I can put you on our list. Also, we are trying to get a sampling of the lengths of the pushrods for the door. So far we only have these lengths from Dave Aronson and Herbert Müller.

CAFE 400
With some Falcos flying this spring, some of you might want to take in the CAFE 400 competition. I did this a couple of years ago, but since "The Corporate Disgrace" is slow and heavy, I haven't done it again. The competition is set of June 21 and 22 in Santa Rosa, California. That's just north of San Francisco. There is a new formula: speed to the 1.25 power x MPG x payload to the 0.75 power. I have no idea if that helps aircraft in our class or not, but I suspect it does since the formula for the last couple of years favored 4 and 6 seat aircraft. If you are thinking of entering the race, send $3.00 for an information kit to CAFE Foundation, Inc., 16 Cambridge Hts., Novato, California 94947.

Falco Club News
I recently received the latest newsletter from the Falco Club in Italy. Unfortunately, it is in Italian and I have not had the time to work my way through it with my Italian/English dictionary. From my reading, it appears that they will have a Falco Fly-In at Elba on May 1. If you would like to know more, you can write to Gippo Demarie, President, Falco Club, Viale Cesare Pavese 77, 00144 Rome, Italy.

Dave Aronson to Sun and Fun
Dave is planning to fly his Falco down to the Lakeland, Florida, air show in March. Dave plans to fly down on March 16 and to return on the 20th. If you are in the area, be sure to stop by. I will be in Florida from March 8 to the 17th and may stop by briefly on my way back north.

Dave has spent the winter and fall working on little details on his Falco. He has installed the landing light in his cowling. The cowling is completely repainted after a lot of internal re-work for speed. A cabin heat and windshield defrost system is installed. He has lately been working on buffing out the wing to get rid of the ridges at the edges of the paint stripes. It will be interesting to see how much speed he gets from that.

Articles
Steve Wilkinson had a nice article on us in the November issue of Pilot in England. Steve will also be in Lakeland to do some photography on Dave's Falco. As part of his justification for building his Falco (one reason is to have an airplane for daughter Brook, age 5) is that

he will be able to write a number of articles and perhaps a book on the project. There is some possibility that an article will appear in Connoisseur later this spring.

There will be an article on the Falco in the summer issue of Sport Pilot which will be out around the end of March. This is an ultralight magazine put out by Air Progress, but due to the decline of the ultralights, it has been renamed to include ARVs and homebuilt aircraft. The next issue or so of Sport Aviation should carry an article on Dave Aronson's Falco. Also, beginning with the April issue of Flying, we will begin a new advertising campaign featuring an air-to-air shot of Dave Aronson's Falco.

Oshkosh '85
We received a letter from Mr. Frati the other day saying that he is planning to come with Renato Cairo. He is not sure of the exact dates at this time. The dates for the show are July 26 to August 2. The annual Falco builders dinner is on Tuesday, July 30.

Goings On at Sequoia Aircraft

During the past few months, things have been as busy as ever at our office. Syd Jensen and Jim DeAngelo were our guinea pigs for installing the production prototype bafflings. Only a few minor changes were made to the front of the baffling. We have now completed the final drawings and the baffling kit is in the works. It will probably be a couple of months before we have the final kits on the shelf, but in the meantime, we have shipped a couple to Jim Shaw and the Chilean Air Force. If you can wait for your baffling, please do. If you really need it now, let me know, and I'll go to work.

The landing gear motor assemblies are finally done and have been shipped to all of the purchasers of the landing gear retraction kits.

Much of my time has been taken up with work on the new construction manual, which has been advancing in fits and spurts. As it now stands, the manual takes you through the assembly of the tail group, the wing and the preliminary assembly of the fuselage. The section of the fuselage assembly is just started. As it now stands, the manual is about 260 pages and is still being printed on this pathetic dot-matrix printer. We expect to get our laser printer around the end of March.

The laser printer, in combination with some additional hardware and software, will allow us to do a lot of illustrations for the new manual. The addition of illustrations will make a huge difference in the manual, and we would like to do all of these before we release the manual.

In the meantime, I have been working on a new set of drawings for the tail group. These drawings, along with the new manual, will clear up any confusion on the tail group. Once this is done, I will redraw a lot of the drawings for the wing and fuselage. I have many of these drawings in the works now, but I don't want to print them until I have every last detail down.

Essentially, what I am doing is bringing the drawings together in more logical groupings and adding details where they are needed. I am eliminating all of the drawings for the metal control surfaces. Any related drawings that are in other sections of the drawings are being included in the tail drawings. These include the rudder and elevator hinge installation drawings as well as the elevator balance weight assembly, elevator controls, etc. I have found to my surprise that the number of sheets has not decreased, as a result of the additional details that are being shown. I am detailing things to a very fine degree and leaving little to your imagination. With many of the details, you are looking at literally everything that is installed in the airplane. The drawings are ceasing to be engineering drawings and are becoming highly detailed illustrations of what the finished airplane will look like.

This process is an extremely slow one, and I beg you patience while I scratch my way along. In the process of releasing these new drawings, you will find that many of the new drawings will show identical details as the old drawings. This overlapping is inevitable but should not be confusing. I hope to finish the new tail group drawings at the same time the final version of the tail group section of the new construction manual is completed. I would like to have this done by April, but interruptions have a way of throwing things off of schedule.

I am indebted to Steve Wilkinson and Richard Clements for proofreading the new manual. I am interested in every spelling error, grammatical error and point of confusion that you can find. Those of you who purchased the plans since December now have the entire manual as it exists, so please go over it and let me have your comments.

I have begun work on a Flight Manual for the Falco. The original Flight Manual was rather poor, and I am adding to it. I am also following the GAMA format used by all production aircraft.

You may be wondering how Syd Jensen, John Harns, Jim DeAngelo are able to hook up their engine plumbing and controls, install the induction system, install the baffling and cowling and all of the other "little" things that have to be completed before you fly the airplane. To get Dave Aronson flying, I spent a lot of time on the telephone with Dave verbally describing what he had to do. In many cases, I had already done a rough drawing so I sent him that. Once Oshkosh was over, I sat down and wrote a series of "Advanced Builder Memos". These memos include all of the things that I went over with Dave. In some

cases, there are a variety of ways to hook something up. Along with these memos, I have a number of drawings, running the gamut from extremely crude sketches on a legal pad, to finished drawings that are not yet shipped to you. As I continue to refine the details of the drawings, I will complete the drawings and revise the memos which will become later chapters of the construction manual. These advanced builder memos include the following subjects: landing gear doors, exhaust system, induction system, engine controls, fuel system, engine hoses, brake system lines, cabin heat system, and windshield defrost system.

I have sent these memos to all of the builders who are so advanced that they will need them. I am continuing to work on these details and will be completing them as soon as I can. If you are nearing the completion of your Falco and need help on these things, let me know and we will send you a set of these things. Those of you in the early stages of construction will not need these, and I have made a point to include any details pertinent to everyone in this builder letter.

Tool Talk

Karl Hansen sends his apologies for questioning the Brown & Sharp No. 1 reamer. It turns out that the reamer he had was another nearly identical taper.

I recently became aware of the fact that many of you are not familiar with a tool known as a "transfer punch". A transfer punch is a specialized type of centerpunch, designed to fit snugly inside a hole. You will need a 3/16" and 1/4" diameter tranfer punch when you build the Falco. Whenever you drill through wood and then into steel or aluminum you should use a transfer punch.

For example, when you install P/N 720 engine mount lugs or the nose gear upper drag strut supports on the firewall frame, you have to drill through the wood and then drill matching holes in the steel backing plates. If you attempt to drill through the steel plates, the drill will wander and make a horrible mess of the hole. The proper solution is to drill through the wood only, without the steel plate in place. Then, clamp the steel plate in place and use the transfer punch to locate the center of the holes. Drill the holes on a drill press and install on the airplane. The seat belt mount fittings are also drilled in this same manner. You should be able to purchase these transfer punchs at a local machining supply company, or you can get them from Travers Tool Company.

This "Tool Talk" is rather brief. We need suggestions from Builders!

Brenda's Corner

Oshkosh will be here before you know it. One thing I noticed last year was that Jim Kennedy's and Dave Aronson's photo albums got a lot of attention, especially from other Falco builders. If any of you are planning to attend Oshkosh and have photo albums you would like to bring, I promise to make sure nothing happens to them. People are just fascinated to see pictures of a Falco under construction, and it really helps other Falco builders to see a picture of someone else's techniques.

We seem to be having a problem lately with the condition of boxes when they arrive to you. I would appreciate your letting me know if it appears that the box was just not packaged securely, or if you think it received unusually rough treatment from the shipping company.

Look for our new ad in the April edition of *Flying* magazine featuring Dave Aronson's Falco. Just think, that could be your Falco in one of our future ads. You will probably notice the toll free number in our new ad. That is for an 800 number service company in San Diego that handles information packet orders only. To place orders for kits or to talk with Alfred or myself, you will still need to call us on our regular telephone number. It will be interesting to see what the new ad and the toll free number will do for brochure sales. The "Go from Zero" ad will be a tough act to follow.

Alfred has sent the new construction manual to a couple of builders for them to proof and/or make comments or suggestions. Both have commented on the typos which leads to this disclaimer: I will be responsible only for the typos made by Brenda Avery! Alfred does his own typing.

From time to time Falco builders visit us here in Richmond. If you plan to be in our area, please be sure and notify us. Recently, a Falco builder came half-way across the country to see Alfred, only to arrive at our doorstep and find Alfred on vacation—yes, contrary to what he says, he does take vacations. We love to have you stop by, we just want to make sure Alfred is here to greet you.

Once again, if there is anything I can do to assist you, please do not hesitate to let me know.

—Brenda Avery

Mailbox

I am building with a friend, Bill Nattress, who is a retired engineer, hence we are able to make good progress. We are just celebrating our two year anniversary on the Falco and still enjoying it. We have made all of our timber and metal parts so far, materials supplied with the assistance of Brian Fox. Just about to glue wing to fuselage.

Our sequence of construction after completing all components has been: (1) tailplane—skinned top and bottom, (2) elevator, (3) fuselage—partially skinned for rigidity, (4) fin constructed on fuselage as illustrated in your Falco advertisement, although you appear to doubt this method in your last newsletter, (5) rudder, (6) wing constructed vertically as suggested and partially skinned underneath for rigidity and (7) flaps and ailerons constructed on wing.

We do not appear to be having any difficulty with the joint, having left the lower longerons on the front section of the fuselage loose to allow a slight amount of bottom end flexibility. Having the assembly of this stage allows joining without elaborate centerboard jigging.

1985 will be concentrated on hardware. We are still enjoying construction of one of the only "real" homebuilt aircraft in the U.K.

Neville John Langrick
Huddersfield, England

I have used the last year to build a house, and do now have the space to start building. It might take a while to get the economics back on track again, but I want to start within a year or two.

Harald Pettersen
Bryne, Norway

Empennage structure completed with ply skin in place on fin and stabilizer. Frames forward to and including No. 5 are in place but not faired on mold line. Frames No. 1 through 4 in work. Assembly being accomplished in garage but the plane will be moved to a hangar in early Spring when it is completed.

I started work the week before Christmas, 1983, and currently have about 720 hours invested. I lost some time last summer and fall when I had one, then the other, hand operated on.

John W. Rawlings
St. Charles, Missouri

I have recently started to make the flap and aileron assemblies, using beams from Aero Cabinet and rib kits from Trimcraft Aero. Recognizing good advice, I have made the flaps and ailerons as one complete unit, using the fixture shown in a previous newsletter.

Working with the beam in one piece, I seemed to have a complete lack of imagination; for the life of me, I couldn't correctly locate the hinge assembly P/N 748. If anything, the dimensions from Sheet B16 confused me. Also, I finally realized that working with the one-piece beam was confusing me.

Learned advice: Cut a couple of scrap lengths of 1x2 to the Sheet B10 beam length dimensions. Clamp the hinges to these sample beams at the measured places from Sheet B16, which now all makes common sense as I laid these samples against the real one piece beam. Mark hinge locations from these samples, and visualization becomes reality!!

Had to use a few 3/16th plugs because of mis-drills, but I've wasted hours of frustration. Perhaps there are other feeble minds out there who would like to save time and nerves from my experience.

Enjoyed the latest newsletter—and Brenda's part was a touch of class! We'll keep her busy—slow, painful Falco progress—no time! Look forward to the Construction Manual.

Bill Wink
Dearborn
Michigan

Bill Wink, having built up the largest General Motors dealership in the country, can hardly claim to be a feeble mind! I look forward to solving such frustrations in the new manual.

—Alfred Scott

It is my unpleasant task to advise you that on October 11, 1984, Donald A. Beuscher died. As the executor of his estate I have become aware of the purchase agreement and request that you advise me concerning my options and the disposition of the same. Donald was actively engaged in the process of construction. A brief examination of his progress reveals that the following items are in some stage of completion: (1) fuselage frames, (2) tail group ribs, (3) wing ribs, and (4) he was working on the wing spar. Since time could become a factor regarding the estate, I will greatly appreciate your response to my

request, and any additional information and comments you might provide.

Alan C. Beuscher, Sr.
Hampshire, Illinois

I was very sorry to hear about this. I have advised Mr. Beuscher to advertise in Sport Aviation and Trade-A-Plane. If any of your are interested in these parts, please contact Alan C. Beuscher, Sr., 30 Chandelle Drive, Rt. #3, Hampshire, Illinois 60140.—Alfred Scott

I think time is due to give you some information about the standing of my Falco project. As I told you in my last letter, I am very pleased with the standards of your kits.

I have now completed all ribs, fuselage frames, spars except for the main wing spar, and started to assemble the tail and control surfaces. The progress is now according to a time table with expected first flight in 1988.

My plan is to order all the rest of the kits: cowling, instrument panel, instruments, electrical, engine controls, engine baffling, propeller and spinner, exhaust stacks, etc. for a single shipment late this year. This is to some degree related to a sale of a small farm I am the process of selling here in Norway. Also, the standing of the U.S. dollar is of some importance. To give you some impression of these problems, I can inform you that the value of the U.S. dollar compared to Norwegian Krones has doubled since I started with the Falco.

As you probably know, Mr. Jan Waldhal is well underway with his Falco, and I keep a very helpful and pleasing contact with him. The rules of Norway is such that an aircraft with granted I.C.A.O. certification will receive a standard airworthiness certificate even when built by an amateur.

I am very pleased with your professional work, and it is pure pleasure to work with the Falco. Keep on going.

Capt. Bjoern Eriksen
Bodoe, Norway

Lord Meynard Keynes once said that "There are only two people in the world who understand the international monetary situation… and they don't agree." Several years ago, before the dollar went crazy, Capt. Eriksen took delivery of everything we had in stock at the time. So, out of all this craziness, it's nice to see someone to have benefited by good timing.

—Alfred Scott

I'm finally getting off top-dead-center. Please send me one Kit No. 801-1. Both Bob Skillen and I really enjoyed flying your machine. Thanks very much, We are both sold on it.

My impression of the Falco is that she flies much like a T34B (piston engine) that does not have the FAA-mandated control bungees installed. The military-trim T-34 has a reputation for excellent flying qualities and control harmony, and the Falco is very similar. The Falco is significantly faster, rolls quicker, and has a slightly heavier rudder. I'm sure some potential builders have flown and desired the T-34, so this is good news for them. Remember though that civil-licensed T-34's have aileron-rudder interconnect bungees installed (at least at inspection time!) that somewhat degrade a really sweet airplane. As a result, the Falco feels better than a civil T-34, and that's no small feat.

If you get the chance to come down to Norfolk, give me a call. We should be able to give you a great tour.

Paul Miles
Virginia Beach
Virginia

Paul Miles normally flies F-14's for the Navy. His back seat companion, Bob Skillen, had been considering another design... until I took him for a ride!

—Alfred Scott

Steve Wilkinson sent us a copy of the following letter to Francis Dahlman at Trimcraft.

Dear Francis:
Just wanted to let you know that my Falco tail-group spars, ribs and wood arrived yesterday, and it was worth the wait.

I am awed by the quality of your workmanship—I can't find a variation from spec of more than one millimeter lengthwise on the longest spars—and I'm delighted with what I bought.

Equally important, I am amazed at the sheer volume of material of high quality, as well as your efforts, that my $980 purchased. Your price seems to me to be more than fair, especially when compared against what $980 buys you in many other fields of endeavor.

I'm looking forward to all your future kits.

Stephan Wilkinson
Cornwall-on-Hudson,
New York

Q&A

Q: Since access to the battery has to be through a door in the side of the fuselage, what is the nature of said door?

A: We will be showing the door in a future drawing. It is a sheet of .040" 2024-T3 aluminum, hinged from a piano hinge at the top. At the bottom, the door is secured by two quarter-turn Dzus fasteners mounted on angle brackets.

Q: The alternator analyzer gauge does not fit in the 2-1/4" instrument holes on the instrument panel. What is wrong?

A: The alternator analyzer gauge is installed on the center console cover, just in front of the trim tab control wheel. The details for this installation are shown on the electrical system drawings.