

FLYING ACES

No. 277



May/June 2014

NATIONALS
MK XIX
JULY 2014



Whiskey Seven
IS GOING BACK!

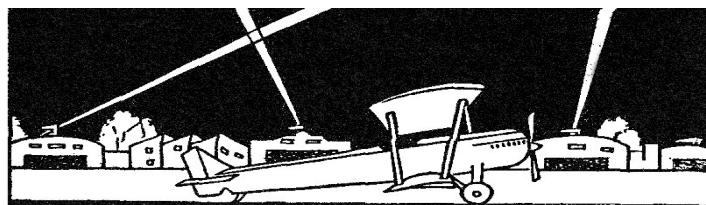


Photo Captions

1. Here's a classic military aircraft from the Golden Age nicely modeled by Jeff Runnels. His Dewoitine D.510 is done up in Spanish Republican markings.
2. Wally Farrell pinned the frames together for this photo of his new Breda 88. It's a prototype for a laser cut kit from Keith Sterner. Stay tuned for details.
3. And while we're showing off Wally's stuff, here's his Bestetti-Nardi BN.1 from Mark Fineman plans. He says it weighs 69 grams without rubber. Look for this one to be a contender at the Nats.
4. Every once in a while one of our Bonus Point Quizzes takes root and sprouts. The Bezobrazov tandem wing triplane showed up in the quiz in FACN #263 and Greg West took up the challenge.
5. Tom Nallen II is hoping to have this unusual homebuilt ready to go at Geneseo. The Westwind has lines that only a modeler could love. Hard to tell from the photo, but it's bigger than you might think. Those are No.6 Trexler tires on there!
6. Jack Kacien has joined the big model party too. Here are some specs on his Waco: 50" wingspan, Weight with motor 330 grams, Wing loading 0.65 grams per sq in. Motor is three loops of 1/4" Tan super sport. Covering is white plyspan dyed with Dr. Martins India ink applied with foam brushes after covering was attached to the airframe. Prop is 16" formed balsa reinforced with carbon fiber tow. The skies over Geneseo will get a lot of shade this July.
7. Giorgio Toso put together something a bit smaller. His neat "Hollywood" Hamiltom Metalplane is from the Airdevil plan by Dave Stott.
8. More big stuff. Mike Stuart is planning a trip across the pond this summer, and it looks like he's going to make the most of his time on "the Field of Dreams." Here is his latest report: *With the indoor BMFA Nats over, it's now time to concentrate on getting my Geneseo entries finished. Only three months to go, so it's going to be very tight for the Beriev. Attached are some photos showing where it's up to - all the parts just placed together for the photo. You can see the anhedral on the outer wing panels. The bones here weigh 47 grams but I've made a special effort to keep the tail light. The wing certainly has a lot of bulk to carry around - the fuselage is longer than the King Air, and that one's a jumbo. I've made a removable nose plug with magnets so I can load the radome with lead, if necessary.*
9. At the opposite end of the modeling spectrum, we have a couple of No-cals built by Dave Mitchell that will show you the range that fits into the category. He calls this pic the Owl and the Pussycat. They have the same wingspan, but the Helldiver dwarfs the LWF Owl he just completed. Never heard of the LWF Owl? Ready for a trimotor No-cal? Check our plans section!



On our cover - It's the T shirt design for the Nats! Thanks to Ron Gosselin for the artwork, and Tom Hallman for the lettering design.



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We have to give over some of our plans pages to the kanone report and Nats registration info at this time of year. We're going to make up for quantity with quality. As promised in the last issue, we have a plan from Al "Grayhawk" Lawton. His **Fokker D.VII** is a great flier, and readily scalable to whatever size you prefer. There's no more fitting tribute to our modeling friends who have caught their last thermal than to build one of their designs.

For those who love the exotic, Luc Martin has unearthed a wealth of material on an obscure French racer that is sure to get your aviation pulse pounding. He found a peanut scale plan for the **Kellner-Bechereau 28 V.D.** by Jean-Francis Frugoli in a long defunct French magazine called "L'activité Modeliste", and a NACA report from 1934, plus a couple of articles in le Fana de l'Aviation, which he translated into English. It's a sweet looking little racer, and again, the plan should scale up nicely. Altogether, it's a nice little package that should provide everything you need to create an outstanding model. Many thanks to our friend Luc!

And for something that's *really* different...how about a trimotor No-cal? **The L.W.F. Owl** was brought to our attention by Dave Mitchell. The sharp eyed among you may have noted that this plan is numbered fourteen of a series. When we asked about that, we got the following response: "Capt. F has been extremely cagey about that. He says I have to 'find them myself'. At least, that's what I think he's saying. He speaks in a bizarre Franco-dialect that is very difficult for me to understand, sort of like a French translation of a German translation of English. Add to that that he likes to throw around literary references in their native language, and...well, you can understand that I only catch about a tenth of what he's saying. Speaks VERY fast, too. Excitable chap...."

And to round things out, we have a prop block for those of you who love to carve. Don DeLoach has used this **9 5/8" propeller** for a variety of models, and had a lot of success with it. There is also a set of photos showing how Don finishes his props to make them tough enough to stand up to the rigors of the flying field. Thanks Don!



Greetings Junior Birdmen,

We need your help once again. It's time to vote for the newest inductees into the FAC Hall of Fame. We've got a list of eminently qualified clubsters up for consideration so it's impossible to make a wrong choice. The tough part is to pick just three of them. That's why we're asking for your help. Send an email or snail mail to our Secretary, Mike Isermann with your choices. Details are on page XX.

If you notice that someone who was nominated last time isn't on the list this time around, it's because the set up requires it. A nominee is eligible for two elections, and if he doesn't get the nod, he then has to sit out an election before being nominated again. That's something else to consider when you are marking your ballot.



Our friend Bill Hannan sent along a little follow up item about last month's cover photo: "That charming photo of C.H. Grant launching his Cloud Tramp was taken by the late John Worth, in case anyone asks." I just had to add that credit, as that photo is a part of one of my favorite covers.

Which reminded me...here's another photo and caption that Bill shared with us a while back when we had his Phantom Flash model on the cover: "The attached photo shows the late Bill Bishop, a founder



of the Comet company, with my Phantom Flash. How appropriate that George Bredehoft is keeping this classic design available."

I was saddened to hear that Al Cleave had passed away recently, and I was more than a little surprised to receive a letter from him a few days after getting the news. (!) Turned out that our friend had written his own obituary and arranged to have his wife mail it when the time came. Pure vintage Al. He had a style and a wit that was all his

own, and in keeping with that style, we're going to do something a little different this time and print it in the Gone West column just the way it came. Several of his friends, notably Allen Shields, sent along remembrances and photos, but I think Al would appreciate it if we let him do this himself. He was a stalwart in the Texas Free Flight community, and a great supporter of the FAC in those parts. He was also one of the first fellows to offer assistance when I took over the editor's post, and we corresponded regularly over the last several years. He graciously submitted a batch of articles on his life as a flier and modeler, and several have been published in these pages; one in the last issue. The rest of the contents in that file will eventually show up here too. Our condolences go out to Al's family and many friends.

Which brings to mind something else that Bill Hannan recently wrote: "How fortunate we are, sharing in something that attracts such wonderful like-minded enthusiasts. Your "Gone West" segment is a potent reminder that we must appreciate each other more, because we are as fragile as the models we build and fly..."

On a much lighter note... we have two BP Quizzes this time! Thanks to our anonymous Quiz Master (hint: his initials are Vance Gilbert) we have twice as many subjects to puzzle over. Give it a try. It's an easy and painless way to get some experience with the BP system, and it can be a lot of fun playing "stump the chump" with your modeling buddies. If you have any specific aircraft that you'd like to see featured in this column, send them along to the editor.

See you on the flying field.

Wingnut

The Flying Aces Club's Newest Squadron

GHQ and the rest of the crew would like to welcome **FAC Karlovac, Croatia Squadron** to the roles of the FAC! Mlaen Horvatin will act as CO, with Vladimir Llinardic as his adjutant.

Wishing you every success in your modeling. (Please send photos!)

- The Official FAC Flag - Now Available!

\$150 covers tax, S & H. (S&H refunded if taking delivery at the FAC NATS.)

Orders must be in to our Treasurer and pre-paid by July 1. Make checks payable to FLYING ACES CLUB.

Discounts apply if more than three flags are ordered in total. Individuals will be notified and refunds sent with flag delivery.

This is a one time offer.

ORDER NOW!



News on the Wing



Hello Clubsters!

The FAC NATS are almost upon us. Are you ready? Are you excited? Are you signed up to help at the judging or on the field? So many of you already have and GHQ thanks you. The FAC Spirit is strong and there's still time to volunteer. We won't turn down any offer to help. And don't forget that there's still time to become a sponsor for an event at the Nats.

Okay, for whatever reason you cannot make the trip to Geneseo...you can still show your FAC Spirit. How? Check out the contest calendar and make plans to attend a contest in your area. Contact the CD listed and volunteer to help there. Take an old kit that has lost its allure and donate it as a prize. Above all, go and have a great time with others of your FAC Family.

Speaking of which...how many of you took advantage of the fabulous offer by the NFFS? I just received the latest issue. There are plans and photos that any of us can and do appreciate...especially the two photos on the back cover. Why not subscribe and find out for yourself? BTW, the number of proposed AMA rule changes (17) listed is interesting.

Speaking of which...the FAC Council and Board of Directors will be meeting (as required by law) in September for its annual meeting. If you have an issue that you feel needs addressed, please let your local Councilman know or contact me directly.

While we don't want to make any rule changes at this time...we'll be taking an in depth review of rules in 2015...I do have a comment about a "non-rule." What the heck is that...a non-rule? Well, there is no rule about **"steering FAC models"** in the rule book. We just don't do it. As more FAC flying is being done indoors, there are more opportunities for that issue to arise. Please do not go to an indoor event prepared to steer any FAC model. If you are a FAC CD, please do not turn a blind eye. Encourage trimming in the FAC tradition. Based upon AMA rules, the FAC has traditionally dealt with timing issues in regards to flight interruptions...such as indoor obstructions or those darn model eating trees outdoors...by counting out loud for ten seconds, if the model frees itself, keep timing, otherwise stop the watch and subtract ten seconds.

Don't forget to vote for **2014 Hall of Fame inductees**. Bios are in this issue. Send your three votes to FAC Secretary Mike Isermann at balsabug@gmail.com.

Last minute S.U.N.Y. news! We will be using the same dorm (Seneca Hall) and dining hall as in the past. AND...the college over booked the dining hall on Thursday evening so they cannot provide services for the FAC that night. That is actually good news for us. Thursday is the bar-b-q dinner at the field. Now you don't have to

choose between a S.U.N.Y. meal or one supporting the NWM. Of course you can still choose a meal in the village if you so desire. The fee listed on the registration form reflects the reduction in the number of dinners offered in the meal pack.

See (many of) you soon!

Ross

Return to Normandy 2014

A Project of the National Warplane Museum



The National Warplane Museum will honor the members of the Greatest Generation who served their country during the Second World War by returning its flagship Douglas C-47 to the most storied place in her 70-year history; the skies over Normandy.

The aircraft, affectionately known by her distinctive squadron marking, Whiskey 7, was the lead ship of the 37th Troop Carrier Squadron, dropping elements of the 82nd Airborne Division near St. Mere Eglise, France in the early hours of June 6th, 1944.

Whiskey 7 will participate in the 70th anniversary commemorations by dropping members of the Liberty Jump Team over the original D-Day drop zones. Learn more about the project and how you can help honor those who served at the pro-



Whiskey 7 was photographed at Geneseo during last year's FAC Non Nats by Peter Kaiteris. With a little help from our Not Nats receipts, the aircraft will be returning to Normandy this year. If you'd like to help the cause, check out the details at:

<http://www.1941hag.org/>

2014 FAC Nats Motel Info:

Quality Inn 4242 Lakeville Rd, Geneseo, NY 14454, 585-243-0500
\$108.00 plus \$11.88 tax = \$119.88 per night.

Hampton Inn 4250 Lakeville Rd, Geneseo, NY 14454, 585-447-9040
\$129.00 plus \$14.19 tax = \$143.19 per night.

Be sure to mention FAC!



2014 NATS Tee Shirts are available to all!

Contestants are asked to pre-order (see the NATS Registration form).

For this edition, Ron Gossein did the artwork, and Tom Hallman did the type design. It will be printed on a gray shirt. Price is \$12.00. Add \$3.00 for size XXXL.

If you're unable to attend the contest, but would still like a shirt, you can order one from our club "Keeper of the Stuff" Bubba Mayo at the address below. Add \$3 for postage or ask a buddy going to the NATS to order for you and save on the S&H. Order deadline is July 1.

Don't delay. There will be very few if any over runs produced. In other words...this shirt is already a collector item!

Blake Mayo
3447 Adelaide Dr.
Erie, PA 16510

Make checks payable to Flying Aces Club.

WESTFAC

News from Out West

It's spring time here in California as I write this column, but you would never know it. This past weekend the SCALE STAFFEL Squadron FAC-41 held their first contest of 2014 in 91 degree weather at Taibi Field in Perris. What a fantastic two day event, drawing flyers from all over the West. This squadron has found the formula for Squadron level contests: make them two days on a weekend and pack in over eleven FLYING ACES events with lot's of mass launches. The two days makes the event more worthwhile for out-of-state flyers and the multiple mass launches are enjoyed by all. They also mix some great duration events which draw in SAM and AMA flyers as well as new builders. Several new builders flew in the event for their very first contest and had a load of fun.....which is what the FLYING ACES is all about.

The Double Trouble Mass Launch was flown on Sunday as the first mass launch of the day....



Pictured with his very first airplane at his first contest is Fernando Mia .



The finalists are pictured l-r: Bob Hodes, Fernando Ramos and Mike Mulligan, who won the event with a "floating flight of his Italian fighter bomber.



The Greve Thompson was hotly contended as seen in this picture of the mass launch...



...and one Mr. Smoothy wanted back in the hanger.



A real win for the Scale Staffel was the number of new builders and flyers who entered and flew. Pictured from l to r with a discussion of winding techniques is Don Chaption and Paul Du Pre. The guy in the funny hat on the left is this writer.



John Donelson placed 2nd in the event with his Mr. Smoothy (above) and Mike Mulligan won it with his Firecracker.



Don Chapton , had not built a new model since 1939. Here he is after his fist official flight in 2BIT + 1. Looks pretty happy..!!



Lot's of drift changes found all the ROG event flyers moving the launch tables quite a bit. Here, John Merrill (top) and Mike Jester launch their models into a very reasonable drift.

On a closing note, another new FLYING ACES Squadron is about to form in Menniffie California. The 2nd building class has started at the Oasis Active Adult Community with five new builders . If all of them graduate, it will bring the total of this potential new California Squadron up to eleven. They hope to petition GHQ in the near future for a Squadron number and will be selecting a Squadron name soon.

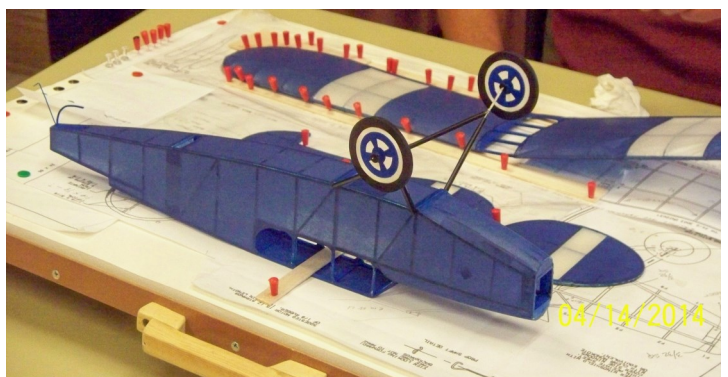


Pictured at their building tables in the Oasis craft room are from l-r Gary Lyon and Elaine Hebert ...



... and from l-r Steve Manley, Jim Shambaugh and Dale Funk all pinning wood down on their first FAC MOTH fuselage side
The first class graduates are now working on their 2nd model a Jimmie Allen BA Cabin. These guys surprise me over and over again. They come to every instruction session and help mentor the new folks. I had to include a picture of Fernando Mia's almost finished BA Cabin. Check out those wheels Clubsters..!!

Maxes and Kind Thermals to All..... Roger Willis



GLUE-THE PVAs

By Stew Meyers

Published in the September 2013 Issue of MaxFax, Stew Meyers, Editor

In the last issue I included a rather extensive rundown on Cyano Acrylics. I had previously given the history of Ambroid and some hints about using it in the MAY-JUN 2012 issue of MaxFax. To reiterate, Ambroid (or Duco for that matter) is a solvent based glue. The best joints are made by "double gluing" the joints. Start applying a layer of Ambroid to both sides of the joint. This application of glue soaks into the wood fibers and is allowed to dry. When you make the joint, apply a second layer to one side and stick the two sides together. The solvents will partially dissolve the glue that is in the wood and form a bond. Ambroid and other solvent based cements are more flexible than Cyano. This time we will look at the other major choice for assembling models: polyvinyl acetate (PVA), also known as "white glue".

PVAs are non-toxic and very easy to use, but hard to repair since nothing else sticks well to the hardened glue. (Ambroid will stick to Cyano.) Remember you have two distinct adhesive systems here that are not compatible. Get dried PVA glue on balsa and Cyano and Ambroid won't stick to it. Likewise a coat of Cyano or Ambroid will keep a PVA glue from adhering. Aliphatic resin glue is chemically similar to PVA (white glue), but it is chemically modified to make it stronger and more waterproof. It is typically a buttery yellow color and is sold as "carpenter's wood glue."

TiteBond II is what I use. It has an open time of 5 minutes and takes about 15-30 minutes to set and it sands reasonably well, although it does sometimes gum-up the sandpaper if you use too much. The fast set of an aliphatic resin glue makes it better than a standard PVA type white wood glue, giving a stronger bond, faster, while allowing easy clean up of spilled aliphatic adhesive with a damp cloth before it dries.

What about TiteBond III and the "original" TiteBond? TiteBond III has been modified to be more water resistant --almost water proof. It has a longer open time of 10 minutes and therefore a longer set time. It's not quite as tacky as TiteBond II and leaves a dark glue line. I wouldn't use it except for seaplane hulls. The "original" TiteBond appears to be a straight PVA with less tack and water resistance than TiteBond II. TiteBond II is stronger than Ambroid. A good TiteBond II joint is stronger than most woods: orders of magnitude stronger than balsa. Ambroid is a little stronger than balsa and fine if that's all you are gluing. For spruce, bass wood, and plywood TiteBond II is a better bet.

Working with Ambroid vs. TiteBond II (or other aliphatic resin glues) is different. Although some of the techniques from Ambroid can be used. TiteBond II is water based and it really only requires a thin layer. The double gluing trick works with TiteBond II. Make the initial application of glue to both pieces to be bonded, wipe off all the excess and let it set for about 5 minutes. Then apply a very thin layer to one part - it will grab almost instantly. Give the joint about 5 minutes and you can file it. Don't stress it for 30 minutes or more. Maximum strength requires several hours. TiteBond II also shrinks as it cures. On a properly made joint, the shrinkage can actually pull the joint tighter.

I use three methods to apply TiteBond II. I put a little pool on a plastic lid and dip the end of a balsa strip into it before a sticking it in place. I may also apply TiteBond II with a tooth pick dipped in the pool. I fill a hypodermic syringe that has a 0.032" ID tip with TiteBond II. I use this as I would my squeeze bottle of thinned Ambroid. I also have a plastic 35 mm film can filled with TiteBond II thinned with water. I use this with a brush or Q tip for filleting and applying tissue.

Ambroid joints can easily be undone with MEK or acetone. One good reason for using it. After it cures, TiteBond II is water resistant and can't be readily debonded with water. Solvents won't phase it. TiteBond II is also thermo plastic and can be heat bonded. You can put a layer on the edge of the ribs, and a layer on the sheeting opposite

the ribs. Then just put the sheeting on and heat it with an iron. TiteBond II will polymerize and bond the sheeting to the ribs. You can also loosen a TiteBond II joint by the application of heat.

Another variation of aliphatic resin glue, the Super Phatic brand, is marketed by Horizon and Balsa Products. It is a thinner, highly penetrating aliphatic that has the same properties as the standard aliphatic resin glue, but is water thin and penetrates with a "wicking" action for close fitting pre-assembled joints like a thin Cyano. However it takes 10 minutes to bond rather than 10 seconds. It is waterproof when set and produces tougher (more flexible) joints than Cyano. It also has some of the drawbacks of thin Cyano. Get too much on a joint and you get a flash of dried glue that's the very devil to sand off. If the joint isn't tight fitting, you get a lousy joint. It does have a shelf life; eventually, it will turn brownish, and become slow to set. I just used some dated 2005 and it worked fine. That being said, if you build tight structures and are allergic to the fumes from Cyano, it may be what you want. Just remember, once you use it you are committed to PVA assembly.

The next PVA type adhesive I would like to mention is Weldbond. It's a little different. The manufacturer, Frank T. Ross & Sons Ltd is a little cagey about what it is chemically and merely says Weldbond is a PVA (Poly Vinyl Acetate based adhesive). My guess is that it's not an aliphatic resin emulsion. It's white and has some unique properties. For instance the manufacture states: "Weldbond can quickly be dissolved with acetone. Because Weldbond is water based it can also be dissolved with a soaking of, or submersion in water. This will dissolve a bond." I tied it and acetone works! Not speedily like a solvent based cement, but eventually. "The set up time for tackiness will vary with humidity, but is roughly five minutes for most projects. It will be somewhat longer in humid conditions. Weldbond becomes tacky quickly and will dry within the hour on porous surfaces. It provides a strong bond within 24 hours and full strength within a few days. Most bonds can be made without the need of clamping, unless working with materials that are bent or warped. It dries transparent. Glue joints will practically disappear and any excess material can be wiped up with a damp cloth up to 20 minutes after application. Weldbond provides a flexible bond. Joints can be made on flexible materials without the danger of cracking or breaking when a project is moved. A sealing mixture of 5 parts water to 1 part concentrated Weldbond dries in approximately 1 hour, and can be used to increase the flexibility and strength of porous and soft wood, such as balsa. The wood is much less likely to split, particularly when it is being shaped. Two coats of the sealing mixture can be used, if necessary. This adds negligible weight to the balsa and when dry, makes an excellent primer."

What the manufacturer didn't say is liquid Weldbond can be dissolved in Ammonia (or Windex). (TiteBond II, by contrast, will curdle in ammonia.) Why would you want to do that? Well ammonia softens the lignin in wood. This is a great aid in laminating outlines. Years ago, I was tipped off to the fact that by brushing thin strips of balsa or bass wood with a 60/40 mixture of ammonia and Weldbond, they will become much more flexible. (Editor's note: This is subject to debate. See FAC News #276.) You only need to soak it for a few minutes, before you stack up the laminate strips. Then squeegee off the excess glue with a paper towel and pull it around a waxed form, always keeping the stack in tension. I use masking tape to hold it to the form. It will usually cure within the hour to the point it can be removed from the form. It continues to develop strength overnight. A microwave can speed up the process, but may transfer too much wax from the form to the lamination making it hard to glue to. Despite the laminating being done with a "PVA type" glue, the finished piece can be glued to the next assembly with Ambroid or Cyano as well as white glues. I keep a 35 mm film can filled with the Weldbond-Windex mixture ready for quick laminating. I'll confess I don't use Weldbond for much else, but this feature alone is worth the effort. I do find the 5:1 ratio sealing mixture an excellent alternative to sanding sealer for nose blocks etc and it works on foam. TrueValue and Ace hardware stores carry

Weldbond.

Finally there is Canopy Glue which used to be known as Wilhold RC 56. The Material Safety Data sheet defines it as Vinyl acetate polymer emulsions in water. Pacer calls it FORMULA 560. IZ Products, calls it Super Z RC 56 GLUE. It offers exceptional bonding of most all plastic and vinyl. It dries clear making it the glue of choice to use for attaching airplane canopies and vacuum formed ABS parts. When using it to attach a canopy or windscreen, trim the parts to as close a fit as possible. The glue will migrate under small cracks forming a complete seal and a very tight bond, the smaller the gaps the better the bond. You will need to clamp or tape the parts together for several hours until the glue starts to turn clear; full strength takes about 24 hours. Temperature and humidity will effect the drying times. If you coat both sides of the joint and let them dry for 5 to 10 minutes until it starts to turn clear, it will act as a contact cement. Press the coated surfaces together and they will grab, eliminating the need to clamp for hours. It will still take time for the bond to gain full strength. It turns out that RC-56 type glues are also thermo-setting. A MonoCoat iron will activate a dried glue line if you wait too long to get them to grab. Just make sure you are below the melting point of the plastic being used.

Below are pictured the four basic types of glues discussed in this article. A syringe with a 1/32" ID tip works nicely to dispense full strength TITEBOND II. (White glue does not attack the rubber plunger like solvent based glues do.) A T-pin proves to be a convenient stopper. A red (24 gauge) teflon tip from Mercury Adhesives fits nicely on a Superphatic bottle. A common pin about .020 OD serves as a stopper.

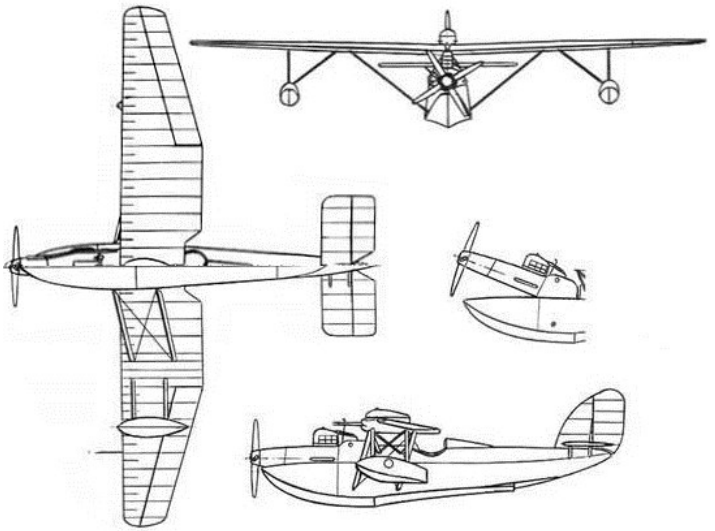


Bonus Point Quizzes

So I had a request from a clubster to do two things with future Bonus Point Quiz quizzes:

- 1) speak in the language of the FAC Rulebook in the quiz answers so folks can look up the bonus points in the rulebook themselves and make their head scratching and figuring a little more linear, and,
 - 2) put an occasional quiz in that is not so confounding.
- Ok, done and done. You'll see wordage that is directly from the rulebook, and we will endeavor to have 2 planes for the quiz - a simpler one and one that challenges the point counter FAC.

First up here is the Parnall Prawn. Powered by the motor to be used as the auxiliary power unit for the R101 airship, it is, for our purposes, basically a P-30 with outrigger floats!! Now, don't overthink this - this is the easy one....



Our second entry is the hard one. Let's say an FACer builds this Handley Page Hastings with the inboard props pulling and a prop on the rear end of them outboard jets pushing (perfectly FAC legal - see your rules). What says you, BPH (Bonus Point Hounds)? Oh no, your author or the editor would never consider such a thing.....



Answers on page 18



Worthwhile Website

Here's another one that's great for scale model researchers and aviation history buffs. The San Diego Air and Space Museum has an ongoing project to make their archives available in digital form. It's searchable, but beware of getting lost in all the great photos!

www.flickr.com/photos/sdasmarchives/

50 PLUS = AIR MARSHALL

409	ISERMAN, MIKE	53	SUGDEN, BOB	30	BARKER, JOHN	18	ENGLERT, DAVE	10	ALDERSON, LEN	6
379	SCHANZLE, ALLAN	52	25-29 = BRIGADIER GENERAL		FIKE, JACK	18	FUGIKAWA, STEVE	10	BAUGHMAN, GARY	6
295	CUMMINS, STEWART	51	ADAMS, DICK	29	HELMAN, PAUL	18	HORN, DUKE	10	BOEHM, PRESTON	6
235	MEYERS, STEW	51	GAMBLE, CLIVE	29	HUTCHINSON, JOHN	18	HUTCHINSON, BILL	10	CONERY, JIM	6
196	SMITH, DAVE (SC)	51	HILL, CHARLES	29	KRAMER, JOHN	18	OLM, ORVILLE	10	GALLO, GREGG	6
185	WELSHANS, MIKE	51	KLIENERT, RANDY	29	REES, MARIE	18	SCHMIDT, BILL	10	HENDERSON, BILL	6
197	BRUNING, PRES	50	MITCHELL, DAVE	29	STEEB, DON	18	VIGGIANO, LOU	10	HOPKINS, HARVEY	6
161	MOORE, WINN	50	FINN, JOSHUA	28	BOURKE, ROY	17	VOLLMER, AL	10	HUBE, KARL	6
161	45-49 = AIR VICE MARSHALL		DOBERFUHL, SCOTT	27	GORMAN, DICK	17	WHITEMAN, JIM	10	JACKSON, JOHN	6
160	MACDONALD, TIM	49	SHIELDS, ALLEN	27	HYKA, JIM	17	5-9 = CAPTAIN	9	KARN, JACK	6
157	PARENT, CHRIS	47	THOMS, BRUCE	26	LAENDER, TIM	17	ALDEA, OCTAVIAN	9	KWASINSKI, MARK	6
155	MILLER, RICH	46	DALEY, JIM	26	PENNINGTON, BILLY	17	CRAWFORD, DOHRMAN	9	LAMB, ED	6
142	BROWN, RUSS	45	DONOHUE, JERRY	26	ROTH, MEL	17	FOSTER, BRUCE	9	LEPPARD, BILL	6
140	EGGERT, WALT SR.	45	SCHLOSBERG, JANE	26	BREDEHOFT, JACK	16	HUMMEL, RON	9	MCCONNELL, KEN	6
140	IVERS, RICHARD	45	BACOM, STEVE	25	HUNTER, GARY	16	KAGEN, JOHN	9	MILLER, WILLIAM	6
132	NALLEN, TOM SR.	45	GILBERT, SIDNEY	25	MOULTON, BOB	16	KEPPLER, JIM	9	POLENTO, JOHN	6
132	40-44 = GENERAL		HOUCK, MARK	25	NASSISE, CHRIS	16	MAYO, BUBBA	9	PRISEL, DUDLEY	6
128	PERES, VIC	44	SLUSARCZYK, CHAR.	25	STEVENS, HERB	16	NIED, TOM	9	SCHICK, EARL	6
125	BUXTON, JIM	42	THOMPSON, MIKE	25	TECHUK, ALEX	16	SCOTT, FRANK	9	SCHUBERT, HERB	6
122	DECOOK, DON	41	20-24 = COLONEL		BRAUER, SAM	15	SMITH, HOMER	9	STEED, CHARLES	6
120	KOPTONACK, JOHN	41	BARLOW, PHIL	24	HODES, ROBERT	15	THOMAS, PHILIP	9	TAKAGI, FUDO	6
119	MCLELLON, BOB	41	ZBASNIK, PETE	24	MANSFIELD, GEORGE	15	ADAMS, RICHARD	8	TAYLOR, BARRIE	6
113	DIETZ, BILL	40	BEAL, PETE	23	NALLEN, MICK	15	BENDER, BOB	8	WARMANN, BOB	6
111	35-39 = LT. GENERAL		CARSON, BUD	23	PISHNERY, DAVE	15	BUBOLZ, DAVE	8	WHITING, JOE	6
108	BALUNEK, DEL	39	DELOACH, ED	23	SIMPSON, WILLARD	15	DION, BERNARD	8	BARISH, JOE	5
108	BLANCHARD, STEVE	39	DERBER, TOM	23	SPRENGER, JIM	15	DONELSON, JOHN	8	BARRETT, KEVIN	5
106	THORNTON, JIM	39	HIRLEMAN, FRANK	23	10-14 = MAJOR		GOSSELIN, RON	8	BATTERSON, REG	5
103	TISNAI, JACK	39	LANDRUM, BILL	23	BUCHELE, ELVIN	14	HANNAY, DOUG	8	BEARDSWORTH, DG.	5
92	BENTON, OLIVER	38	MORTON, GARY	23	REGALBUTO, JOHN	14	MARCHESE, BOB	8	BOTTICELLO, CARMEN	5
90	BURSAL, LES	38	RICCI, ANDREW	23	BARFIELD, DAVID	13	MARTIN, LUC	8	BUCHANAN, MIKE	5
82	PEAVEY, LARRY	38	DIVIS, ROY	22	BRIMMER, DON	13	MOON, ROGER	8	BUCHER, TIM	5
79	SANFORD, CURT	38	HAWLEY, RICK	22	DECOOK, ALLAN	13	OLAH, DAN	8	BURKE, SAM	5
78	AZURE, PETE	37	HEMMEL, JIM	22	LIONBERGER, FRED	13	PAILLERON, A.J.	8	COURTNEY, ROY	5
76	CORNELIUS, DALLAS	37	MCDONALD, DAN	22	MILLS, DAVID	13	RICE, JACK	8	DRELA, MARK	5
76	CHAPPELL, HOWARD	36	SHARBONDA, KEVIN	22	SHEPHERD, CHARLES	13	RUHLAND, DENNIS J.	8	HARDEN, SID	5
75	NUNEZ, GEORGE	36	CRAWMER, JERRY	21	ARNOLD, TOM	12	SCOTT, CHRIS	8	KOMP, HENRY	5
74	REED, DON	36	FRANKS, DAVID	21	BARLOW, MARK	12	TELFORD, TONY*	8	LANE, RANDY	5
71	HARLAN, RAY	35	HUDSON, RALPH	21	DIEBOLT, JOHN	12	TRABBIT, RAY	8	NUSZER, JOE	5
69	LOEHLE, CARL	35	PASSARELLI, BILL	21	KONEFES, ED	12	VANDORN, STUART	8	PRICE, BRUCE	5
65	MCGUIRE, JOE	35	ROSS, LINCOLN	21	MUFFELMAN, BILL	12	WARNER, BILL	8	SANDOR, TOM	5
63	POWELL, CLAUDE	35	SMITH, DON	21	SEAMSTER, JIM	12	ANDERSON, ERIC	7	SEALS, LARRY	5
61	RZADCA, MARK	35	SMITH, OSCAR	21	SHERMAN, LEN	12	BATIUK, GEORGE	7	SHIRLEY, HERB	5
61	WHITE, GEORGE	35	WILLIS, ROGER	21	CAMPBELL, LEE	11	BROMM, KARL	7	STEIN, HARRY	5
60	30-34 = MAJOR GENERAL		EWING, FRED	20	COLSON, STAN	11	BUTSCH, ROBERT	7	TALACKO, RAY	5
60	ISAACKS, BOB	34	FEDOR, MIKE	20	ESCALANTE, MIKE	11	DUKE, BILL	7	TALBOT, RICHARD	5
59	HUDSON, NEAL	33	GILLIS, RICH	20	GRANT, JIM	11	FRAUTSCHY, HENRY	7	TOMCZUK, S.	5
57	KUENZ, RALPH	33	HINES, MIKE	20	IVERS, DICK SR.	11	HARWOOD, DON	7	WALLACE, PETE	5
57	PHILLIPS, GEOFF	33	MORROW, MIKE	20	MILLER, DON	11	HODSON, GARY	7	WOODS, JIM	5
56	DAILY, PAT	32	15-19 = LT. COLONEL		MORRILL, JOHN	11	JACKSON, TIM	7	1-4 = LIEUTENANT	
56	MARETT, JOHN	32	BOJAN, ED	19	MULLIGAN, MIKE	11	KAMODY, RON	7	ALLING, JOHN	4
56	ENGLERT, JEFF	31	HURDLE, JOE	19	NEFF, VERN	11	MOSKOW, MIKE	7	BURNS, MICHAEL	4
55	KAITERIS, PETER	31	KLUIBER, RUDY	19	O'LEARY, JACK	11	O'BRIEN, TOM	7	CARSON, GRANT	4
55	ALLEBONE, TED	30	MCGOWAN, MEGAN	19	STEVENS, ROBERT	11	SIEDENTOPH, BOB	7	CERESA, BILL	4
54	BOLLINGER, NEWT	30	PARTIN, GENE	19	CHOATE, RICK	10	SMITH, DAN	7	COLLINS, DAVE	4
54	RUNNELS, JEFF	30	SCHMITT, TOM	19	COX, VIC	10	TEACH, TED	7	COLLINS, WALT	4
53	ORPHAN, WILLIAM	30	WEBB, JASON	19			TUCCARONE, RICH	7	COMBS, RAY	4

EGGERT, WALT, JR.	4	LUZZI, MICHAEL	3	GOURDON, BOB	2	ZEIGENFUSE, JERRY	2	DEHAAS, BILL	1	KERZIE, MARK	1
FACTOR, R.	4	LYONS, BOB	3	GREEN, MARCIE	2	ZIMMER, AL	2	DODGE, DAVE	1	KING, LES	1
GARBER, LES	4	MALTZ, ENRIQUE	3	GRIGGS, DOUG	2	ALABACK, JIM	2	DONALDSON, JACK	1	KING, STAN	1
GUERRA, OMAR	4	MCBRIDE, DUNCAN	3	HAAAKONSEN, ERIK	2	ALBRACIO, BUD	1	DONNA, GORDON	1	KNAPP, HARRISON	1
GUTH, HENRY	4	MOODY, DAVID	3	HARDEN, ED	2	ALLEN, TERRY	1	DONOHUE, GEORGE	1	KONDRAT, MARIA	1
HANWAY, J. P.	4	MOSELY, JIM	3	HARRIS, JIM	2	ALLISON, MARK	1	ECKERSON, EARL	1	KOVERMAN, HOWARD	1
HARKAN, DAVE	4	NELSON, BOB	3	HEDLEY, CARL	2	ALTENBERN, JIM	1	EIMERT, DICK	1	KRANISH, STEVE	1
HASKELL, CURT	4	ORZECH, HENRY	3	HEINRICH, MIKE	2	ALVIS, BUNNY	1	ELLIS, D.	1	KREMPETZ, KENNY	1
HAUGHT, DAVE	4	OSBORNE, BOB	3	HUNT, ALLEN	2	ANDERSON, ART	1	ENGLERT, DOUG	1	KRUSH, JOE	1
JOHNSON, KEN	4	OVERCASH, BOB	3	JAMISON, BOB	2	ARNOLD, ALLEN	1	EPP, BRIAN	1	KULP, JOE	1
LAYCOCK, JOHN	4	PACK, CHARLES	3	KING, GARY	2	ARROYO, GILBERT	1	ESPI, JOE	1	KURTENBACH, JOUR.	1
LORIMER, HAL	4	PAYNE, RAY	3	KNUTSEN, NEIL	2	ASHABRENNER, JOHN	1	EVANS, STEVE	1	LANDHUIS, ROBERT	1
MASTERS, BOB	4	PETTY, DOUG	3	KORNICH, WALT	2	ATTENBERN, JIM*	1	EVERETT, DICK	1	LANG, JOEL	1
MCCOY, TOM	4	RAKOW, RAY	3	LACHMAN, BILL	2	BAGALINI, LARRY	1	FAGS, K.	1	LAPRELLE, ROGER	1
MONTEATH, ALAN	4	REICHEL, JUANITA	3	LEHRMAN, JIM	2	BAGDON, KEN	1	FAHEY, RICHARD	1	LARSEN, TIM	1
NEWELL, KEN	4	RODEN, BOB	3	LINARDIC, VLADIMIR	2	BAIRD, TEX	1	FEDOR, JEFF	1	LEE, JIM	1
PANGELL, RICK	4	SAUTER, CHARLIE	3	LOFTHOUSE, DAVE	2	BARNES, LOU	1	FERGUSON, BOB	1	LEHR, ROGER	1
PETERSON, AARON	4	SHAW, BOB	3	LUNDBERG, BOB	2	BARR, BILL	1	FLETCHER, BARRY	1	LELONG, HENRY	1
PETRINEC, BOB	4	SIMPERS, GLEN	3	MARCELLO, ED	2	BARTEK, DON	1	GAMBLE, NICHOLAS	1	LIDBERG, AL	1
PHOENIX, ROCKY	4	STALEY, BILL	3	MASTERS, RICHARD	2	BARTEK, JOE	1	GEARING, GEORGE	1	LIGARSKI, STAN	1
REDDING, HERB	4	STROUT, REGGIE	3	MCDANIEL, HAP	2	BAXTER, D.	1	GRSZEWSKI, JIM	1	LINTON, DON	1
SCHARIDT, BILL	4	STUART, MIKE	3	MCDOW, BILL	2	BENNER, DAN	1	GILES, RICH	1	LOWERY, JIM	1
SCHWAN, HAL	4	ZAPOLSKI, ED	3	MERRILL, JOHN	2	BERRY, DAN	1	GOSSELIN, KENDRICK	1	MACKLIN, BOB	1
SMITH, PAUL	4	ZEMECK, LEN	3	MILLER, DICK	2	BETHEA, JIM	1	GOSSELIN, MOLLY	1	MAGERS, CHARLES	1
VOORHEES, JOHN	4	ALLEN, DICK	2	MITCHELL, BILL	2	BETJEMANN, ROBERT	1	GREGG, FRED LOOPY	1	MAGLIA, TONY	1
WETHERALL, BOB	4	ANTONUCCI, JERRY	2	MORROW, JOHN	2	BETZ, CLIFF	1	GRINER, JIM	1	MANKOWSKI, JIM	1
WISLEY, LINDA	4	BAIR, JIM	2	MOWDA, ERIC	2	BETZ, PRISCILLA	1	GUEST, BERNARD	1	MARCHESE, MATT	1
ANDERSON, DICK	3	BALCER, WALT	2	NALLEN, JOE	2	BEVAN, DAVE	1	GUMM, TERRY	1	MARKOS, CHARLES	1
ANDERSON, JAMES	3	BARBER, LES	2	NUNEZ, JONATHAN	2	BLAIR, JIM	1	HAGEN, AL	1	MARKSON, JERRY	1
ANDERSON, WAYNE	3	BAUMGARDNER, KEM.	2	NUNEZ, JORGE SR.	2	BOES, JIM	1	HAIGH, BOB	1	MCBRIDE, JIM	1
BAECKE, AL	3	BECKER, NORMAN	2	OSLAN, ROBERT	2	BOWERS, MIKE	1	HAIGHT, BOB	1	MCCLVEEN, JACK	1
BAECKE, FLORENT	3	BELL, BILL	2	PAPIC, FERRIL	2	BRAKE, DICK	1	HALL, JIM	1	MCCEE, DUSTIN	1
BARKER, JACK	3	BENNETT, LEON	2	PARDUE, AL	2	BRAUN, DAVE	1	HAMLETT, DALTON	1	MC GOVERN, CHRIS	1
BIRD, LES	3	BENNETT, ROBERT	2	PASSARELLI, BOB	2	BRAUNLICH, MARK	1	HANFORD, BOB	1	MCKINNEY, MIKE	1
BOONE, JACK	3	BIENENSTEIN, BOB	2	PEACOCK, DON	2	BUKO, JOE	1	HANFORD, RIP	1	MCMAHON, JIM	1
BROOKS, CLINT	3	BLACKHAM, RICH	2	PEDERSON, JOE	2	BURRY, CLAUDE	1	HARDING, HAROLD	1	MCQUAID, ED	1
BROWN, BOB	3	BLAIS, TIM	2	PORTER, CHUCK	2	BURTON, OLIE	1	HASLAM, LIN	1	MIDGETT, RON	1
CARLS, JOHN	3	BOALS, DAVID	2	PROULX, T.	2	CARNRICK, RICK	1	HATCH, ROBERT	1	MIDKIFF, RICK	1
COFFEY, WENDELL	3	BRADLEY, PAUL	2	PTASZKIEWICZ, FRAN	2	CASAZZA, DAN	1	HAYWOOD, TREVOR	1	MILES, DAN	1
CURTIS, TOM*	3	BROCK, PAM	2	RECKER, GERD	2	CASGILL, WALDO	1	HENDERSON, JOHN	1	MINO, CHRIS	1
DIXON, BROOK SR.	3	BROCKS, PETER	2	REUTER, BILL	2	CAVE, ED	1	HENDRICKSON, CHAR.	1	MKTARIAN, ALAN	1
DOCH, ZACH	3	CALDWELL, BILL	2	RICHEY, MARTY	2	CAWTHORNE, JOHN	1	HENSEL, RICH	1	MOODIE, KEVIN	1
ELLIS, ART	3	CANNON, SCOTT	2	ROAD, JOHN	2	CERVONE, MIKE	1	HERBST, PAUL	1	MOODY, CLAY	1
ENGLERT, PAULA	3	CHAMBERS, BERNARD	2	ROTH, BRIAN	2	CHAFE, WARREN	1	HINTON, BILLY	1	MOORE, MARIE	1
ERPELDING, BOB	3	CLARKE, BILL	2	SAKS, DAVID	2	CHOMYNN, MARK	1	HOUCK, JOHN T	1	MYERS, GREG	1
HATZ, LYMAN	3	COTERLY, HERB	2	SANDUSKY, RUSS	2	CHRISTIE, DAVE	1	HOWELL, JIM	1	NACIN, DICK	1
HILL, BILL	3	COYLE, JACK	2	SIEFRIED, DICK	2	CLUTTON, ERIC	1	ICAOBELLI, TOM	1	NALLEN, KAREN	1
HUGHSTON, TOM	3	DAILEY, JIM	2	THOMASIAN, HARVEY	2	COLLERLY, HERB	1	IMBERGAMO, NATE	1	NARANACE, DAVID	1
JENNINGS, JIM	3	DERBER, DAN	2	TRITTLE, PAT	2	COLLINS, DAVID	1	IVES, DAVID	1	NEARING, LARRY	1
JOYAL, RON	3	DITRICH, BRIAN	2	TUECHER, ALEX	2	COLT, GILBERT	1	JESSUP, ARTIE	1	NEDS, GEORGE	1
KING, MATT	3	DITRICH, MIKE	2	VANDEN BOSSCHE, R.	2	COPEMAN, KEN	1	JESTER, MIKE	1	NELSON, PAUL	1
KRANIS, DAN	3	DOWDY, CARL*	2	VANDERLINDE, DAVE	2	CORLETT, NORM	1	JOHNSON, BILL	1	NOLL, JACK	1
LEHNERT, KEVIN	3	DRAKE, GENE	2	VON BUEREN, KARL	2	CULVER, HARRY	1	JOHNSON, GARY	1	ORTIZ, ELLIOT	1
LEMON, KENT	3	EMERSON, LEE	2	WAGNER, JERRY	2	DAVIS, CHARLOTTE	1	KANE, CAROL	1	OSALZA, DON	1
LEONHARDT, WALT	3	EVERSON, WALT	2	WATTS, RON	2	DAVIS, GREG	1	KEAR, KEN	1	PAFOLIS, ALEX	1
LEWARS, JOHN	3	FLESHER, AL	2	WOODS FRANK	2	DAVISON, RICH	1	KEHR, WILLARD	1	PAKIZ, JEFF	1
LOVETT, GRANT	3	GARRISON, BOB	2	WORMLEY, JOHN	2	DEDEKIAN, ARA	1	KELLEY, WARREN	1	PARK, JIM	1

PASTEL, HARVEY	1	STOTT, PAUL D.	1
PAVEK, BILL	1	SWANSON, GEORGE	1
PELATOWSKI, LARRY	1	SYLVIA, ED	1
PENDZICK, RICK	1	TARANGO, GLENNA	1
PENNY, WILL	1	TAUDEVIN, MAURICE	1
PETERSON, GARY	1	TAYLOR, BILL	1
PHILABAUM, RICHARD	1	THOMAS, GREG	1
PHOENIX, GOEFF	1	THOMAS, VET	1
PIERCE, FRED	1	THOMPSON, RICHARD	1
POLLARD, JIM	1	TIMCHAK, JOYCE	1
POWELL, CHUCK	1	TIMKO, AL	1
PRICE, STEVE	1	TIPPS, LEE	1
PROFFITT, ALEX'DRA	1	TOMASCH, WALT	1
QUIER, TONY	1	TRACY, DAVID	1
RAMOS, FERNANDO	1	TRIANA, JORGE	1
RASH, FRED	1	TROUTMAN, JIM	1
REDLIN, CARL	1	TWERT, RONALD	1
REYNOLDS, BILL	1	VALLS, JOHN	1
RHODES, BILL	1	WALTER, BUCKY	1
RICE, DAN	1	WEIDNER, JIM	1
RICE, DAVE	1	WEST, GREG	1
ROBERTS, MIKE	1	WHITACRE, DON	1
ROCHA, JERRY	1	WHITE, ROY	1
ROGERS, WILLIAM	1	WHITFORD, RUSS*	1
ROSS, DON	1	WIENKLER, CLIVE	1
ROSS, RICHARD	1	WIENKLER, GRANT	1
RUBRICH, CHRIS	1	WILLIAMS, JAY	1
RUHLAND, DENNIS A.	1	WOJTKIEWICZ, CHUCK	1
RUPPERT, CONRAD	1	WURMAN, BOB	1
RYAN, KEVIN	1	YANOSKY, TOM	1
SANDERS, TOM	1		
SATTERTHWAITE, BAR.	1		
SCHLARB, BILL	1		
SCHLOTTMAN, EVAN	1		
SCHNEIDER, RICH.	1		
SCHUELER, CARL	1		
SCHUTZEL, EMIL	1		
SCOTT, WILLIAM	1		
SEALS, CORDELIA	1		
SEAVER, TED	1		
SEBASTIAN, JOE	1		
SENNET, BOB	1		
SEYMOUR, JOHN	1		
SHOLDER, BARRY	1		
SISK, MARC	1		
SMALLEY, RALPH	1		
SMITH, MATTHEW	1		
SOUTH, STEPHEN	1		
SPIESS, MIKE	1		
SQUEGLIA, RALPH	1		
STEINHEIMER, JOHN	1		
STEINMAN, ELVIN	1		
STEWART, BOB	1		
STEWART, BOB -mi	1		
STEWART, ROY	1		
STONE, RICHARD	1		
STONECIPHER, RICH	1		

LEGEND

1-4 = LIEUTENANT

5-9 = CAPTAIN

10-14 = MAJOR

15-19 = LT. COLONEL

20-24 = COLONEL

25-29 = BRIG. GENERAL

30-34 = MAJOR GENERAL

35-39 = LT. GENERAL

40-44 = GENERAL

45-49 = AIR VICE MARSHALL

50 plus = AIR MARSHALL

Bold Name 1st Time on List

Underlined Count =
Promoted in Report Year

Bold Name & Count = Blue
Max in Report Year

BLUE MAX MEMORIAL LIST

AL BACKSTROM
JOHN BLAIR
WAYNE BROCK
CHET BUKOWSKI
HAROLD CANNON
AL CLEAVE
PHIL COX
VIC DIDELOT
DICK DUNMIRE
PAUL GRABSKI
TOM GRONING
KEN GROVES
DICK HOWARD
JOE JOSEPH
JIM KUTKUHN
DON LANG
TED LANGLEY
AL LAWTON
GEORGE LEFFLER

GEORGE LEWIS
DAVE LINSTRUM
JACK MCGILVIRAY
BOB NICHOLS
HANK O'DWYER
JERRY PAISLEY
GEORGE PERRYMAN
DAVE REES
LIN REICHEL
GORDON ROBERTS
NICK ROPAR
CHARLIE SCHLOBLOWEF
DAVE STOTT
HENRY STRUCK
BOB THOMPSON
WAYNE TRIVIN
JOHN TUDOR
MILLARD WELLS
FRED WUNSCH



Fifth Annual Contest and Picnic



CLOUDBUSTERS

*Help us Celebrate
our
75th Year!*



MODEL AIRPLANE CLUB
MODEL AVIATION SINCE 1939

JULY 6, 2014

BROOME PARK – FLINT MICHIGAN
CONTEST STARTS AT 10:00 AM

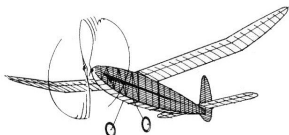
FREE LUNCH AT 12:30

For More Information Call or email

Chris Boehm - 810-348-8675 merlin236@comcast.net
or Mike Welshans - 248-545-7601 mbwelshans@aol.com

FAC News

BACK ISSUES



Just a reminder that we have pretty fair supply of back issues from #256 thru #267. Others are hit or miss. Get 'em while you can! They make good recruiting aids, and clubs can arrange for quantity discounts. Ordering info on p.19.

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2014 FAC Hall of Fame Nominations

Here is a list of your candidates for this year's class of the class. (In alphabetical order.) They qualify for what they have done to promote the success of the Flying Aces Club. You may vote for three of the nominees. The top three vote recipients will be inducted at the FAC-NATS banquet on July 21st.

Record your votes by July FIRST with FAC Secretary Mike Isermann at balsabug@gmail.com or 15006 Hollydale, Houston, TX 77062.

PHIL COX: A master modeler who builds museum quality flying models exudes FAC Spirit upon all those who have had the pleasure and good fortune to study under his tutelage. To place second to him is an honor more worthy than any Kanone. Soft spoken and always a gentleman, Phil is an individual anyone would do well to emulate. As an elder statesman for the Calumet Escadrille and ambassador for the FAC at so many contests, Phil has gotten it right since day one. "Doing it right" defines Phil.

ED DeLOACH: Ed DeLoach was born in Houston Texas in 1937. Ed Grow up in San Antonio where his dad taught him to fly free flight during the WWII years. His breakthrough model was a Comet Gull when he was about ten years old. He won a Plymouth contest with it and the fire was lit. Ed has had a lifelong love affair with the aeroplane. From soloing full sized aircraft at age 16, to working for LTV/Vought during his professional years as a technical writer working on the F-8 and A-7, and flying scale free flight with the Planesmen in Benbrook, Texas, Ed DeLoach has given much of his life to the promotion of aviation and model aircraft. Ed became a leader and top competitor in FAC, traveling to Geneso first in 1988 and several trips to the first FAC Outdoor Champs at Lawrenceville in 1989-91. He was one of the first in Texas to earn the Blue Max around 1992. For the past 25 years Ed has been a stalwart CD, scale judge and squadron leader. Running many Texas Scale Champs and other Texas meets. Along with Mike Midkiff, Ed has been the most important evangelist for FAC in Texas.

BOB HODES: I originally met Bob back in the 90's at the contests the Cactus Squadron would put on. Immediately we became flying buddies sharing many building and flying stories over the appropriate libations. His energy and dedication to our great sport became even more apparent from all the phone calls he would make to me and other guys in our club. He has flown and competed well in all the WestFAC contests to date. Also Bob has never failed to get to all contests in Texas, Arizona and California. Bob has desire to constantly improve his building and flying but most importantly constantly exudes the FAC spirit. He is always there when someone is chasing an errant model. Is always 1st in line to time someone's model. Participates to a high degree in all of the committees that have formed the backbone of the WestFAC activity. In my mind, Bob Hodes deserves to be recognized by FAC. Out here in the west he is our sparkplug. – Mike Midkiff

JOHN HOUCK: Having started model aviation in the early 50s, John Houck flies rubber scale harder than anyone I know. He's been at it with the FAC since the early 80's. Few have put on as many miles as John on the contest trail, from King Orange to Kudzu, to Comsat and Pax River, over to Muncie and Geneseo, all the way up the coast from MD to CT and MA contests, and always with another family member or friend happily in tow. He has set the standard for being competitive in free-flight, while having tons of fun along the way. John has designed and published many aircraft. Add to that the many years (14) as co-CD at the Wawayanda contests, which has been passed on to his son Mark. In Fact, the Houck family is all about aviation. Clearly, not

only is this praise for his 100+ victories, but he's also worthy as a nominee for the 2014 Flying Aces Club Hall of Fame!! –Tom Hallman

AL LAWTON: In 1943, Al Lawton entered the WW II Army Corps Aviation program, became a pilot and in 1945, flew C-46 transport aircraft in support of the campaign to retake Southern Burma and then went on to served in Okinawa to help with the expected invasion of Japan. After the war, earned an engineering degree from Rhode Island State College, working in the aerospace industry until the outbreak of the Korean War, where he was called back into service. After the war, Al worked for the Wright Air Development Center and then Pratt and Whitney for 35 years. Always an aviation buff, Al participated in free flight contests all over the country and was a longtime member of the FAC. Al's model designs will forever be revered as some of the best designs to grace a contest field. The Golden Age Reproduction Ki-61 Tony being one of the top wining designs of all time. A humble and quiet man with impeccable building skills, Al was always ready to help anyone trim a plane or offer building advice. His patience, skill, insight and generosity transcend the spirit of the FAC and make him an obvious candidate for the FAC HOF. We owe so much to Al. Indeed we all stand on the shoulders of giants, and Al Greyhawk Lawton was a giant among us!

ALLAN SCHANZLE: Allan earned his PhD in astrophysics, served in the US Air Force, taught aeronautics at the Air Force Academy and worked for Vought developing/producing the F-8 Crusader. Allan first encountered the Flying Aces Club at the 1976 NATS at Wright Patterson, and from there on participated in and /or CD'ed in countless other FAC events over the years. His legacy includes inventing the WWII Mass Launch and Golden Age Military event for the FAC. Allan was principal editor of the MAX-FAX from 1980 to well into the 2000's through it, helping the Maxcutters club expand their reach to modelers around the world. He has published countless plans in modeling newsletters and magazines as well as multiple scholarly publications. For his unselfish and lifelong dedication to the promotion of free-flight modeling in all its aspects, we hereby nominate Allan Schanzle to be honored through the induction into the FAC Hall of Fame.

STU WECKERLY: One of the FAC's most successful competitors who just happens to "get it." Stu is most quiet and focused during a contest (you should see his tomes of notes!), but ask a question and he'll take as much time as needed for a newbie or experienced FAC'er alike to understand a concept for a more successful flight of their model. Stu has had many innovated ideas advancing our hobby published in several of our FAC model airplane newsletters.

GEORGE WHITE: George was born in Texas and grew up in Harlingen. He earned a Business Degree from the University of Texas and later an MBA from the University of Michigan. He's a retired Navy Captain, a retired university business professor and a retired portrait photographer - never figured out what he wanted to be when he grew up. He's only been back in the model game since 1989 after a 45 year hiatus. George is an FAC spark plug in Pensacola, Florida as he has been one of the driving forces behind the Pensacola Free Flight Team's success over the years. George has served as President, Secretary, Treasurer, Board Member and has been the Editor of the Thermalier for as long as there has been dirt and has traveled the country participating and supporting contests since the early 90's. His work developing and promoting contests in Florida such as the Gathering of the Turkeys and Fiesta Five Flags are legendary. He is the force behind the PFFT website; one of the most useful modeling sites on the internet. And finally as if that would not be enough, George has served on the FAC Council from 2011 to present. George White is a shining example of FAC Spirit in action and deserves a nomination to the FAC HOF.

ROGER WILLIS: Aside from being a fixture at the FACNAT's for as long as one can remember, and being heavily involved with the

Continued next page

FAC Hall of Fame Nominations - continued

Scale Staffle Squadron in California for many years, Roger Willis has become one of the organization's most valued members for his efforts to expand FAC membership on the West coast. Roger successfully developed and marketed the organization's top four largest FAC contests in 2006 with over 55 contestants from 7 states participating in its inaugural running. The WESTFAC event is Roger's brainchild and continues to grow each year as it tours the Western regions or the country. Roger is also most likely to be the best FAC recruiter the club has had in 20 of years due to another initiative he has developed and implemented. Roger has started several building clubs in retirement communities where he resides which has added new blood to the FAC ranks and has added 2 new squadrons. Roger Willis embodies the true spirit of the FAC and his efforts are truly worthy of induction into the FAC Hall Of Fame.

There they are Skysters. Don't wait until the last minute to send in your votes!



Finding a proper clamp for the construction of model airplanes can be challenging. For years, the Gadgeteer has used flat metal hair clips for this purpose.



They're available at most drugstores and beauty supply shops. Here's a source found in a quick search of the Internet. There are probably many others:

http://www.redhotaccessories.com.au/index.php?main_page=index&cPath=26_1

Kellner-Bechereau 28 V.D.

Luc Martin

The metallic shell construction technique known as "monocoque" widely used today in the aeronautic industry was born in France around 90 years ago. The engineers Bechereau and Dewoitine each built their own version independently. It was an empty shell made of aluminum stressed skin; stiffened by a series of stringers to reduce local deformation. The first fuselage built by Bechereau using this technique in 1923 was only 23Kg.

After having designed and built several airplanes for various companies, Louis Bechereau launched his own, called the S.R.A.P. and produced several types, biplane in particular like the T-7 and T-11.

The Kellner Company a special body designer for luxury automobile during "peace time" had developed in parallel some projects to help the French war effort. Kellner was building since 1917 the famous fighter SPAD VII and XIII. When the founder George Kellner died, his son Jacques took the company helm. Jacques Kellner was passionate about aviation and developed a partnership with Louis Bechereau in 1931. Within this new Kellner-Bechereau company they developed a new stress skin shell manufacturing process using molds. This process was used for the Spad 510. It was the metallic equivalent



to the same process developed by Bechereau using wood when he was with the Deperdussin company in 1912 and build the famous "Deperdussin monocoque" which swept the Coupe Deutsch de la Meurthe the same year.

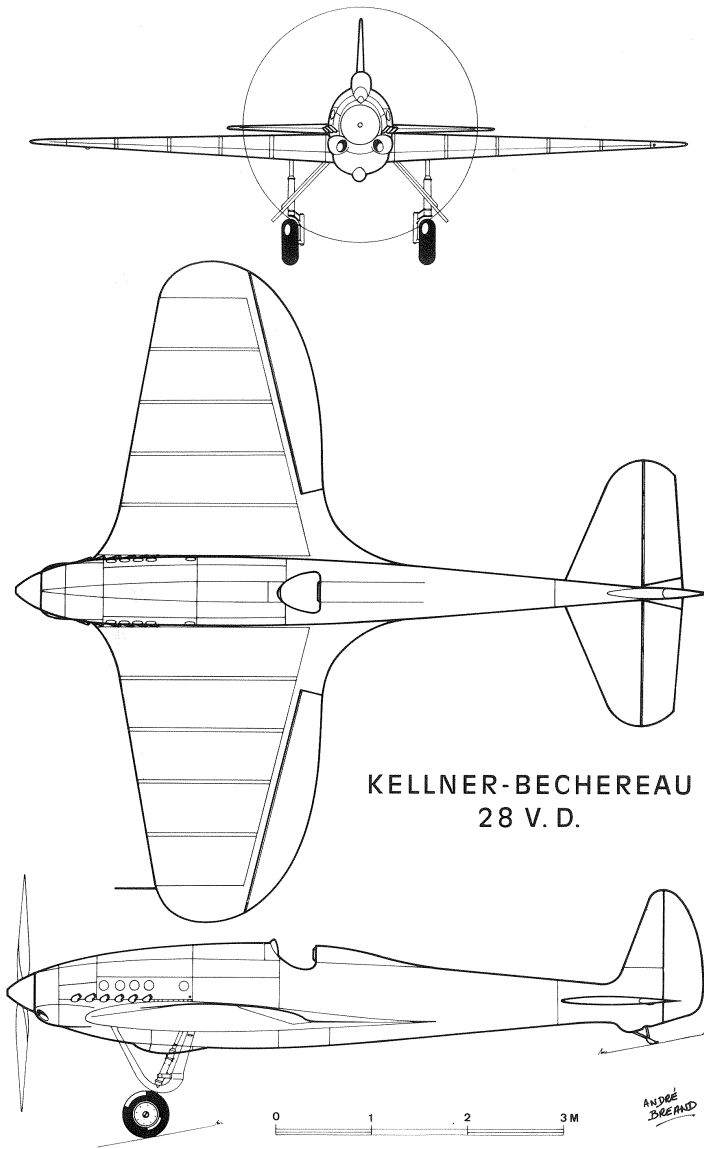
The first Kellner-Bechereau airplane was type 23, a two passenger sport and travel prototype. It stayed a one off.

In 1932 Kellner-Bechereau decided to study and build a racer for 1933 edition of the Coupe Deutsch de la Meurthe.

This cup, created by Miss Suzanne Deutsch de la Meurthe in her father's memory, who several years before created another airplane race bearing his name, was a 2000Km race for engine displacement of 8

liter maximum.

To stimulate airplane and engine companies to participate, the ministère de l'air (Air Ministry) offered up to 3 millions francs on top of the 1 million cup prize. Financially, it was very attractive for



many companies.

Kellner-Béchereau design office launched the study of a revolutionary airplane for this period: the 28VD. The airplane was carefully laid-out and was thoroughly tested in wind tunnel. Its strange curves were astonishing.

The hull could accommodate several engine types up to 650Hp and ultimately, the Delage DE 85 inverted V12 was selected. It could develop 350 Hp @ 3800 RPM. Delage Company was a well established automobile manufacturer of luxury cars and very competitive race cars.

The airplane was nimble; the monocoque metallic fuselage had an open cockpit with a streamlined head rest. The rudder seems proportionally too small in regard to the overall size. The Engine cooling system was made of a complex network of small tubes running on top and bottom wing surfaces.

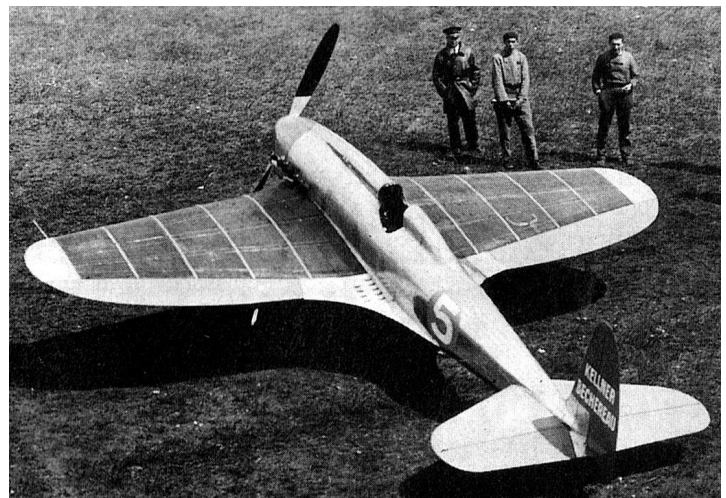
The retractable landing gear was not a simple mechanism, wheels were retracted in toward the fuselage center line while the main shock strut upper end was sliding and pivoting at the same time on a rail oriented span wise. The landing gear system was powered by com-



pressed gas from an inboard tank.

The 28V.D. had been finished only a fortnight before the 1933 Deutsch de la Meurthe race start in Etampes (located 50km South-West of Paris).

The racer was test flown several times without any major problems during the qualification prior to the official race start, scheduled on May 29th.



During a test flight on May 14th, pilot Captain Vernhol, became suddenly surrounded and blinded by a cloud of vapor coming out of the engine. The ensuing attempt to land the airplane resulted in a crash! The fierce racer was totally destroyed. Vernhol escaped miraculously with only minor injuries. You may argue that if the pilot walked away alive, it was not a crash but a successful landing.

During a previous test flight the pilot felt that the adjustable-pitch Ratier propeller was slowing down the engine too much and needed to be adjusted. Propeller pitch was reduced by 5 divisions, probably too much! During the fatal and final flight Captain Vernhol pushed the throttle wide open. The engine reached 4400 RPM, exceeding the red line established at 4000 RPM. The excess power developed may have caused a failure of a pipe or a fitting from the cooling system.

The race was over even before it actually started for the Kellner-Béchereau 28 VD and this remarkable airplane almost vanished from the history books.

Sources: *Most of the material comes from Le Fanatique de L'aviation # 23 (June 1971) & #253(Dec 1990).*

Rubber Scale Modeler's Muse Shop

Vance Gilbert



Twins

There's nothing new under the sun. Years ago, Dave Stott had a B-24 from the Joe Ott plane that placed somewhere near the top 10 in WW2 at the 1980 FAC NATS!! He also did Comet's P-38 and had a great flyer on his hands. I never saw it as it was the early 80's, and I hadn't

gotten in to FAC as yet. Yet he relayed to me that it was a great flyer; he simply flew it to death and finally gave it away to a friend. Reason why I start this issue's Muse with this fact is that I recall him saying that as he got bogged down with superchargers, plastic canopy, fuselage side scoops, spinners, and double practically everything, he kept the image in his mind of "that twin tail and the counter rotating props view from the rear in my mind's eye as the plane left my hand".

How's that for musing in mid-build? That'll get you to the finish line. So sure, you should muse about a twin. You know you want to. Never mind the winning potential of a twin - 25 bonus points before you even lay the first stick, and that's before considering the whole low-wing, mid-wing, or high-wing placement bonus points. Never mind too, as I quote a recent FAC Scale builder, how Scale events are "dominated by multi engine aircraft with their huge bonus points and factored times working for them." As said before in this column, I build to beat myself. I don't care what the other guy does as long as I get to see him, and his plane, do it, and better yet that I get to time the flight. I like the motivation of the extra bonus points. I like even more the image of these bits and pieces tightly holding hands over my head for a minute or more. And sometimes, I place or win. Then I go home and muse some more.

All that political hooah aside, now your motivation is seeing double props going away from you, period. How'd you get there? Did you buy a kit? See a Bill Henn, Mark Fineman, Dick Howard, Mike Midkiff, or Chris Starleaf twin plan somewhere in a magazine or on line (there are more...go to <http://www.outerzone.co.uk> and put in the name of your favorite plane...)? Are you contemplating drawing one of your own, hearing those coveted words from your flying buddies "well, I've never seen one of *those* modeled before..."?

Well, we will avoid excruciating math and big charts and everything else that you left at the job when you came home this evening. I'm not gonna go that deep, primarily because I can't. But there are "numbers" to consider. Here are my minimum number requirements to come up with a successful (mind you, that does NOT mean win everything all the time) FAC Scale twin:

35.9" span (maximum for FAC single winged scale ship)

8" diameter props

7-8" prophook to rear peg length (we call it peg-to-peg)

The most important of these numbers is prop diameter to wing span. That Prop Diameter X 4.5 equaling wingspan will work most the time, for ships between 30 and 40" span. But that rule is breakable too. Ok, so lets call these guidelines...

That's it. I swear, that is all that enters my mind when I am sitting with that favorite batch of three views and the scale ruler. And I have broken these rules many times with some fairly decently performing airplanes:

(Fig 1) DeHavilland Flamingo - This plane conforms to all 3 dicta above save for the peg-to-peg, which is 5 3/4 inches!! It's a proof of concept thing, which Clive Gamble took to the nth degree with his Sopwith camel that did 80 sec consistently with a peg-to-peg of a little over

4 inches. Although it helps if you have it, it ain't all about rubber length in the space. It really is about rubber "mass" - just ask Bill Henn or Don DeLoach.

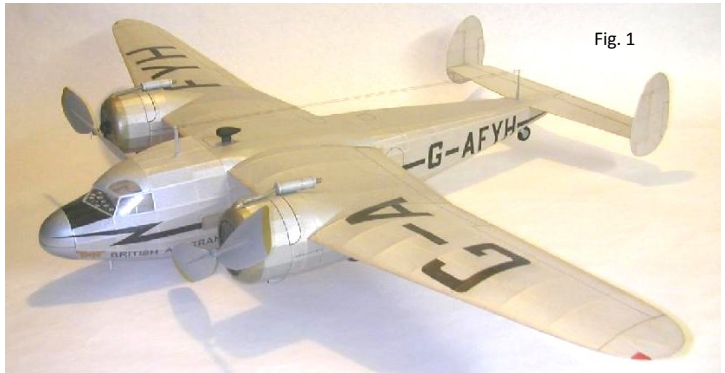


Fig. 1

(Fig 2) Mitsubishi Betty - in my book flipping one evening in 2010 I came across this ship and her glider like proportions, and then I was knocked out by the white /green color scheme! Two were painted up this way. They flew as a pair, carrying the Japanese surrender delegation to the Missouri, landing near Tokyo Bay. There these passengers signed Instruments of Surrender that heralded the real end of WW2.



Fig. 2

7 3/4 props, ok, check. 7" - 8" peg-to-peg. Check. 43" span. Say What? Yessir, another proof of concept ship. Chris Starleaf once said to me that he felt that so many other parts of what we deal with - airfoils, wing loading, rubber, prop diameter, etc., can all be trumped if the plane is "relatively light and clean". That's where I headed with Betty. That span, plus a fuselage about a yard long, a mess of plastic canopy stuff, and she tipped the scales at 83 grams. That's pretty light for her size but the serious thing was that this ship is as clean as a whistle. I had hoped that even those now fairly inefficient rule breaking props would move her along. They did, to some effect. This bird looked great in the air, but it never went up and "sat in anything" ie: she never hooked air to just float around, like I wanted her to do. Best was around 75 seconds, usually about a minute unassisted. Folded a wing in a stiff breeze on the winding rig as I was getting a replacement rubber motor for one side... Still, a fun and impressive ship.

Don Srull got really excited seeing Betty at the 2010 NATS even as I was bemoaning that fact that I had only a few test flites on a small field, and that I didn't think these props would get the thing out of ground effect. As Don is want to do, his eyes rolled back in his head, and he did some math in there somewhere, and then some Curly Howard ticker sounds came out of his ears and said "You're gonna be fine". Ok, well, that's what it seemed like he did. Here is what he taught me on the spot: The disc area of both props should be kinda close to the disc area of the one big prop you'd consider flying the ship on, if you were to run one prop with rubber down the middle.

So, for Betty as a twin we have $(\pi)(R)^2 \times 2$. Now, don't get all

flappy and anti-math...stick with me...

one prop's radius - 3.88",
squared = 15
times (pi) = 47
times 2 (uh, there are 2 props, remember?)
= 94 square inches of prop area

Still with me?

So I say to myself, "Self, what single prop diameter might give me this same total prop disc area and would that potentially fly my plane?"

After some backed-into it mathematics, I figure that I'd get the same disc area from one 11" prop.....go ahead, do "Pie-Are-Square" for and 11 inch prop for yourself and see.

I'll wait.

See? A single 11" prop on this plane would have aprox 95 square inches of disc area.

That would pretty much fly this plane if it had to - not to any gangbuster heights, but it would do the job. And that's what Don did in his head.

A few things to note to help you break these rules:

As a ship gets bigger, that 4.5 multiplier shrinks. My Twin Jenny is 48" span and sports 9" props, and that's plenty...well, I mean I'd love to swing 2 - 12" props, but 9's will do it

there is a judicious way to get to your numbers on a given ship without killing it's looks or necessarily going up to 40 - 50" span. Follow me on this:

Let's say you have a 3-view of a ship you pine for that, once you go to Kinko's and blow it up to the max span that FAC Scale allows (35.9"), only allows you to swing 7 inch props, like this sweet Douglas R3D-2, aka Douglas DC-5 (figure 3) . What I'd do, and have done, is to take the original 3 view and blow the nacelles up 5 - 7% on my printer, at Kinko's, or, I swear, I take a heavy pencil and trace a new nacelle line just outside of the original.

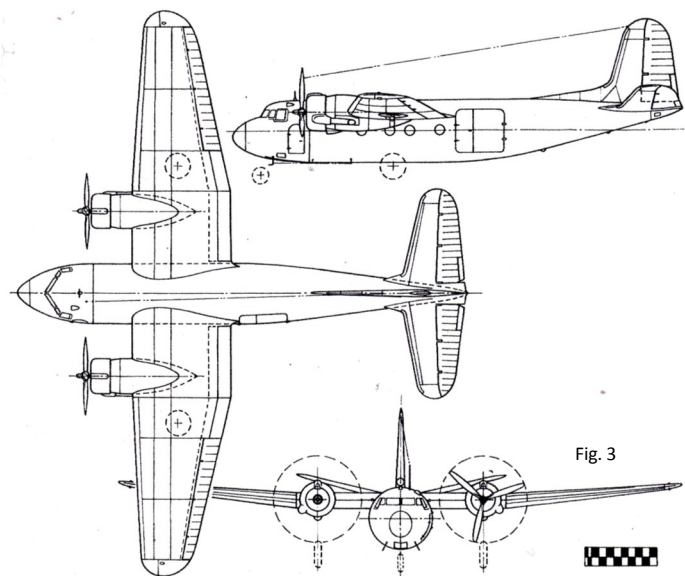


Fig. 3

Now take this "enlarged" nacelle and bring it to where the wing leading and trailing edges sweep, then a skootche more, line it up so that it's a teeny bit longer in each direction than the original, and tape or glue it down. (Figure 4)

Here's the magic...the nacelle is a teeny weeny bit further out from the fuselage, however it looks proportionately the same because it is a teeny weeny bit larger. Plus the fact that you have a larger nacelle moves it's centerline out from the fuselage too. So, if you measure from the new center of this nacelle, you now probably have gained about .2 - .3 inches in distance from the fuselage, which translates into a 7 1/2 rather than 7 inch prop - not quite your absolute "numbers", but not bad..And if you think that difference is insubstantial, just do Pie Are Squared for 2 - 7"

props and do it again for 2 - 7.5" props, and see the "disc area" gained therein.

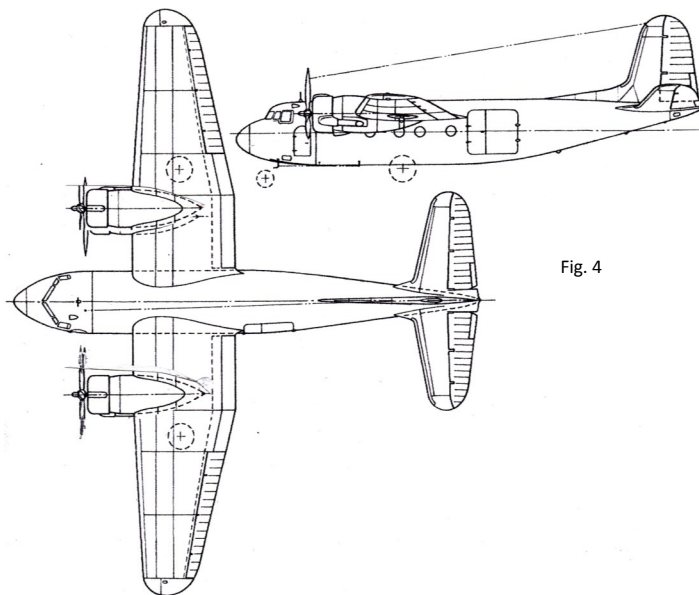


Fig. 4

The Philosophy Behind Moving These Parts -

I guarantee that there's a contingent of folks that see this sleight-of-nacelle as heresy, a cheat of sorts. So be it. Well, here's my view:

We do the same to tail surfaces and fuselages to get better (but seldom perfect) flight surface area without destroying the look of the airplane.

These birds are decidedly semi-scale. I recall asking Earl Stahl about the veracity of his plans and he replied with just short of a guffaw that he did the best he could with outlines and such with the materials he had at the time, which were sometimes no more than a few pictures and a spotter's manual 3-view (or a bit better). Even today, venerated 3-views can be wildly different.

Read this brilliantly written, untouched rule from many, many versions of the FAC Rules over the years: "Models must closely resemble the full -scale aircraft with respect to outline and proportions. The general outline of all surfaces and fuselage cross sections must be retained."

Here's what's brilliant here - no one is looking to take a scale ruler to your ship and check dimensions. Make it look like the real thing. But make it fly. You have the FAC's permission. That's the FAC. First word "Flying". Don't be ridiculous in re-sizing - c'mon, there's no need to make your Bristol Buccaneer look like Mae West's mirror reflection. Look modeler - if you can sneak a nacelle out a quarter inch, increase a tail feather a wee drab, or lengthen a fuselage a teentz and not make me look twice at the overall look of the ship, yet these "fixes" give you a manageable ship, then have at it. If it looks bad, then the scale judge and or the Contest Director will deal with you accordingly. If it is unquestionable and the plane looks just the way that it is supposed to look on the judge's table or more importantly over head, the you have successfully recreated history in stick and tissue, and that is what all of this is really about.

Do Not Go Gently-

I belong to the FAC but I have a clutch of friends, true friends, that I communicate with daily called the Non-List. All are venerable FAC guys from all over the US, Canada, and England. And out of that group I have made some of the closest friendships I have ever experienced in my life. There's a mess of other in-contact folks out there too - Don DeLoach has a band of fellows he keeps up with, as does Ronny Gosselin. Here's the thing - we fellows 60 and under are the next wave, like it or not.

Yet we are different from our predecessors.

We hug, openly say "Love you, Man", and even the most conservative amongst us are connected to the next one in a way that this previous

generation probably isn't.

Not better - just different. We're not sissy touchy feely. They're not puritanical stuck up. Us under 60 fellows, we just care differently, is all.

We're just different.

We've been there at each other's parent's funerals, been "Uncle" to the children of that flyer or another, and thrown rice at them as they walk down the aisle. We've wept in solace to each other in times of divorce or death.

We're a little different.

Some of us have served, most of us haven't seen war. However, that previous generation - the ones that made the world safe so we could be as affectionate to each other and the world as we are today - those fellows would meet at the field, fly, time flights, trade quick trim ideas, laugh, fly some more, and go home. A different kind of male-to-male contact.

I've heard of guys that died and the others wouldn't know until they went to his house to get flags or flyers for the next meet. I've known of guys that had cancer for 2 years before his buddies were told. Or an older guy's wife died and his closest flyers didn't know until a casual "how is she?" came up in conversation some 2 - 3 weeks later.

Many members of this more staid, but caring previous generation have reached their 80s and 90's and would do well with a check in call from you under 60, thoughtful, peace-love generation fellows.

Call these mentors of yours.

Jaw about your next project.

Drop over with your stack of "maybe 3-views".

Run your next project by them.

Bring over that half-done Bristol radial you cobbled out of corks and thread. Or the new stab for your Half Wake.

Ten minutes on the phone.

A half hour on his porch.

Their eyes won't let them see enough to build anymore, there are no more legs with which to chase, their hands shake for reasons they will or won't burden you with, and they have no way to drive to the farm field or the gym to fling anything into the air. But they still get the newsletter. Muse with these old men. Keep these blessed modeling treasures in the fold and keep their eyes lit up with your weekly workshop goings on. And take a guess as to who is also completely and fully served from your caring endeavor? He's in your mirror.

BP Quiz Answer

Answer

- 3 Parasol wing
- +10 Flying boat or amphibian
- =13 Bonus points - just shy of a biplane @ 15...

Our second entry is the hard one. Let's say an FACer builds this Handley Page Hastings with the inboard props pulling and a prop on the rear end of them outboard jets pushing (perfectly FAC legal - see your rules). What says you, BPH (Bonus Point Hounds)? Oh no, your author or the editor would never consider such a thing.....

answer:

- 10 Low wing
- +25 Two props, Off Centerline twin
- +10 Additional pairs of props, provided all props are equally powered
- + 5 if ANY prop is a pusher in a scale location
- = 50 Bonus points. Heck, you could drop this from the hood of the car and win FAC scale that way!! While you're gandering, see how many other ways you could power this ship, and what the freewheeling props and the outboard jets add up to numbers/wise then. I can see at least 2 other pretty viable power combinations. Oh yeah, it's make a pretty original Catapult Jet too"



No Secrets

Tips and Tricks from the Aces

Card model printouts

When I need a break from model building I use the time to try different construction techniques to see if they work better for my limited skills than the ones I currently use. I don't have the skills to really detail a model like the pros do so I'm always looking for any help I can find in that department. One technique I've considered, in an effort to improve this, is to find a way to use card model printouts. I haven't found any existing plans that match up close enough with any of the card model printouts to use them. I finally decided to use a printout as the plan outline and simply drew in the necessary construction. After framing up a fuselage I printed the same printout on white Esaki tissue and applied it with a glue stick. The photo shows the results. A quick and dirty effort but I wasn't trying to build a model or even to complete the fuselage. I simply wanted to test the technique. I'm satisfied that it



could be a useful technique for a model that had some intricate details especially like a Junkers with the corrugated fuselage. The printouts could obviously be enlarged but probably not too much without losing detail. I didn't try that but used the existing size which was about a twelve inch wing span. If you have any interest in trying this drop me a note and let me know if you'd like a particular model and I'll send it if I have it. I have a lot of Fiddlers Greens models. Keep whit-tling, Claude Powell

Free wheeling Took this shot of a free wheeling device made by Vern Nulk. The wire is .025. The tube is aluminum and is held in place by CA glue. As you can see, the prop can turn in one direction by action of the rubber motor, but when the rubber is exhausted, the prop can disengage from the rubber motor and turn (free wheel) in flight. The point is that you don't want the prop stopped in flight as it creates extra drag.



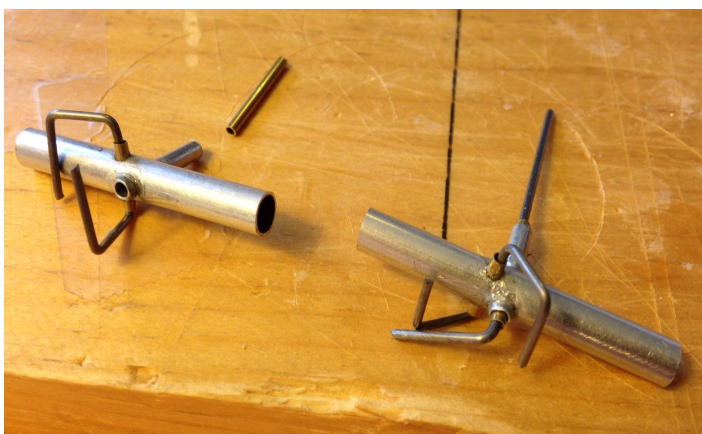
F.S. Gilbert

Here's another trick with CA: Put some Titebond (aliphatic resin glue?) on a joint, pull it apart and put a small amount of CA on the wet Titebond. Press the joint back together and it will set up almost instantly but without the CA entering the wood and making a stiff joint. It works with all types of wood in my experience.

And, this will work with Elmers white glue as well, making a joint that will come apart when wet with water. CA joints are notoriously difficult to undo, but this technique makes it easier. Aviate! Ron Williams

And more free wheeling I have one RH and One LH Nason Clutch hub setup made for my Ki46 Dinah, and will form a turned balsa spinner for each. I am using the "tube-in-tube" that accompanies this technique, with a brass tube running on the .047 wire, and the free-running aluminum prop hub running over that brass tube. This technique told to me by the Nallens several years ago. I need to be able to braid the bejabbbers out of the motors, to run a long motor length within the nacelles, and still have a good, freewheeling action. This should do it. I would not be able to do this with a ramp-type freewheeler set-up and tightly braided motor- just too much friction.

The spinner's back skirt will disappear back into the cowl, deeper than the front edge, and I think should look very convincing, once done. The Nason clutch and the L bend prop shaft end will be covered by a turned spinner, held on with some magnets. With a removable spinner, I can then gain access to the L shaped drive dog and the clutch, and hook that L bent wire directly to my winder. So I will wind with props attached, but spinners removed, then pop each spinner in place before flight.



The hub assembly seen is a build-up from aluminum and brass tubing and CA'd together. It will have a balsa backplate to help support the prop hub tubes, but otherwise I don't think you need much more than this light hub set-up.

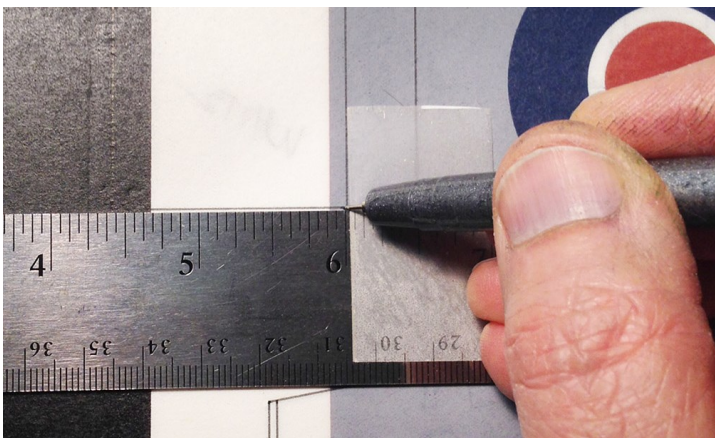
Doug Beardsworth



Panel lines

Stumbled onto a method that is new to me when putting down these with the Copic pens. Not wanting to go past the merge point, I always paid close attention to meeting up with the intersecting line. It's just hard to see it when you have the ruler over the line, or when your hand gets in the way.

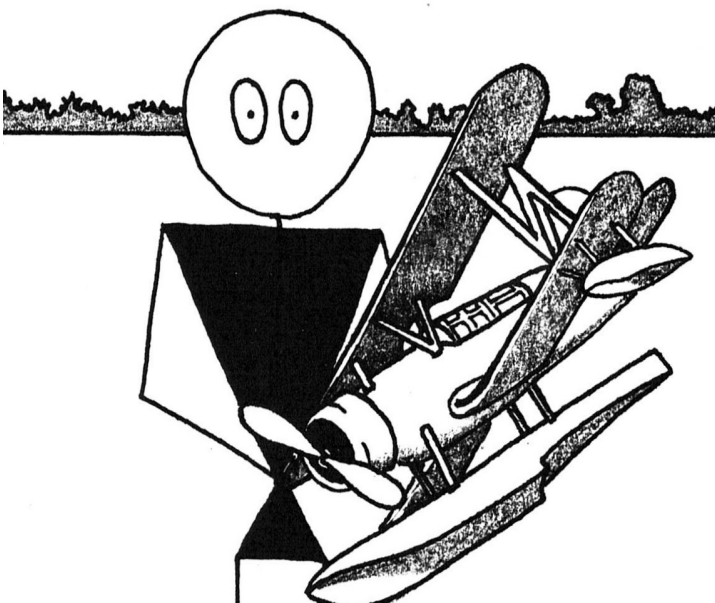
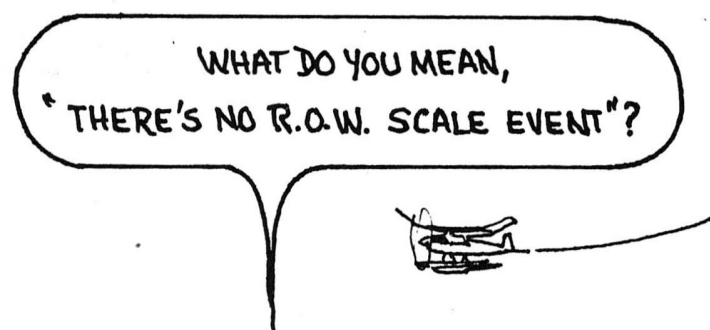
So I put a piece of 811 tape at that stopping point. Since the ruler is raised a bit, now when the pen gets there, it stops. Done.



Can't believe I went all these years without doing this. Perhaps I'm the last guy to realize this simple trick.

Tom Hallman

INKLINGS by Chuck Wenlock



Gone West

DO IT YOURSELF OBITUARY



Alfred L. Cleave

July 11, 1926 – March 21, 2014

In light of the situation that currently prevails, I suppose some sort of obituary might be in order here. Two questions, however, come to mind, both totally baffling and unanswerable: (1) "Why?" and (2) "Who cares?"

On the practical side, writing a personal obituary before one's final departure is logical simply because it's difficult for one to write anything *after* achieving the dust-to-dust mode. Besides, telling it in person makes sense in that it might be hard to find anyone who would say only good things about the dearly departed. A suggestion that my wife, Phyllis, since 1947, contribute something complimentary along this line elicited the response, "Eat my shorts." (You don't believe that, do you?). Incidentally, marrying her was the best thing I ever did.

To get on with it: *March 21, 2014* was not exactly the best day of my life. That fact came to my attention when I awoke to the realization that I was stone-cold dead. (I use the word "dead" here rather than the more elegant term "passed away." This always sounded to me like a football game . . . Grandpa went long and never came back.) Now onward and upward.

I was born in Johnstown, Pennsylvania, and my interest in aviation began in the late 1920's when I was two or three years old. At this time, we lived directly under the Pittsburgh/Harrisburg airway, and the frequent passage of early airliners overhead was a major factor in my developing a deep-seated passion for airplanes and flying. (In later years, I came to realize that being a pilot was better than working for a living. I worked once . . . didn't like it, didn't do it again.)

Served in the Air Corp during World War Two and was discharged in 1945. Following this, I spent a year ferrying airplanes for the Piper factory, in Lock Haven, then began instructing at the Johnstown airport.

It all ultimately wound up with my accumulating more than 38,000 hours as pilot . . . crop dusting, fixed-wing instructing, pipeline patrol, gliders, and five years as helicopter instructor for the Army during the Vietnam War.

It was while I was working at the Johnstown Airport that a tall stranger rode in out of the West recruiting pilots for the soon-to-start dusting season in the Midwest; I wasted no time getting signed up. (This marked a major turning point for me career-wise, and the upcoming period would be unlike any that preceded it. For one thing, it occurred later on.)

Quite probably the high point of the crop dusting era was the fact that I discovered it was possible to render an entire town in Wisconsin and much of the surrounding countryside without electricity by the simple act of running an airplane through the main power line for the region. Pipeline patrol, not nearly so dramatic, was noteworthy only for my consumption of an estimated 2,800 airborne sandwiches over a 16-year period.)

Experience gained in these fields (except the sandwiches) furnished material that enabled me to be a writer (of sorts) for many years, mostly for a magazine called *Ag-Pilot International* and authoring a column titled "Old Pro's Nest." The editor was an old duster pilot, and it's always been my conviction that he evidently suffered brain damage from excessive exposure to insecticide that caused him to be under the impression that my articles and columns were actually worth his laying out big bucks for over 20 years.

Many hobbies came and went with time . . . things such as sailing, rock hunting and lapidary work, cat photography, model airplanes, and attempting not too successfully to learn guitar and keyboard playing. My favorites were building and flying full-size gliders. An experimental flying-wing type, constructed with the help of long-suffering Phyllis, was later installed in the National Soaring Museum at Elmira, New York, as part of a permanent historical display.

Model airplanes were a way of life from ages 9 through 83, with several rubber-powered designs being published in various model magazines during my teenage years. The income from these furnished financing for flying lessons and made it possible for me to solo at the age of sixteen years.

Five years were spent in an ill-advised venture into the field of radio-controlled models, but this was doomed to failure in view of the fact that I tended to crash a lot.

Maybe, if there is such a thing as reincarnation, I might be blessed with an R/C gene next time around that would equip me with some degree of talent along the model-flying line. Except that with my luck, I'll come back, not as a model pilot, but as a jackrabbit in Kansas during the height of tornado season.



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FAC GHQ & Council

When contacting FAC officers via email, please be sure to include "FAC" in the subject line so that your message isn't overlooked.

Ross P. Mayo - President & Cinc

2558 North Tracy Drive
Erie, PA 16505
814-397-5202
cinc@flyingacesclub.com

Roy Courtney
4221 Lakeshore Rd. South
Denver, NC 28037
704-483-3709
rcourt2493@aol.com

Don DeLoach
831 E. Williamette St.
Colorado Springs, CO
80903-2804
719-964-7117
ddeloach@comcast.net

Vance Gilbert
17 Rockland Ave.
Arlington, MA 02474
vance@vancegilbert.com

Ronny Gosselin
CP 3604 Saint-Remi
QUEBEC JOL 2L0 Canada
514-808 1808
ronny@total.net

Mike Isermann - Secretary

15006 Hollydale
Houston, TX 77062
281-480-6430
Balsabug@gmail.com

Ralph Kuenz - Vice President

46127 Hampton Dr.
Shelby TWP, MI 48315 - 5605
517-240-0208
rdkuenz@yahoo.com

Blake "Bubba" Mayo - Treasurer

3447 Adelaide Drive
Erie, PA 16510
bkmbubbamail@aol.com
join@flyingacesclub.com

Stew Meyers - Board Member

8304 Whitman Drive
Bethesda, MD 20817
301-365-1749
stew.meyers@verizon.net

Dave Mitchell - Webmaster &
Keeper of the Rules
230 Walnut St. NW
Washington, DC 20012
webmaster@flyingacesclub.com

Gene Smith
1401 N. Husband Street
Stillwater, OK 74075
grwhiskey@brightok.net

Paul Stott
175 Thoreau Dr.
Shelton, CT 06484
alfa28@aol.com

Rich Weber - FAC News Editor

9154 Eldorado Trail
Strongsville, OH 44136
newsletter@flyingacesclub.com

Mike Welshans - Keeper of the Kanones & Board Member

976 Pearson
Ferndale, MI 48220
mbwelshans@aol.com

George White - Keeper of the
Squadron List
10100 Hillview Drive #234
Pensacola, FL 32514
850-473-0866
white76@cox.net

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*Note - Names in **bold type** are
FAC Board members.



Membership Information



- Membership brings you six issues of the **Flying Aces Club News**, and all the grins that come with being a Junior Bridman.
- When the **Dreaded Red X** shows up in that circle next to your address label, it is time to renew your membership. Please note: the **DRX** is the only notice you will receive. Memberships will not be back dated so any missed issues of the newsletter will have to be purchased. (For back issues, see below.)
- Your renewal date will be printed on your newsletter mailing label so the **DRX** won't sneak up on you.
- If you would like to use the **PayPal** option to send your dues, go to: **flyingacesclub.com** and click on "membership." The PayPal button is at the bottom of the page. Pick your location (US, Canada, or Overseas) and hit the button.

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Flying Aces Club Membership Form

☐ New

☐ Renewal

Annual dues in \$US:

- \$20 USA
- \$28 Canada
- \$40 Overseas

Please make checks payable to:

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3447 Adelaide Drive

Erie, PA 16510

Name: _____ AMA or
MAAC No. _____

Address: _____

City: _____

State/Prov: _____ Postal Code: _____ Country: _____

Email: _____ Phone: _____



FAC Contest Calendar



Raeform, NC	May 17 - 18	Kudzu Classic	Stew Meyers	stew.meyers@verizon.net
Geneseo, NY	May 17 - 18	WNYFFS SPRING OPENER (Rain Date - May 31 - June 1)	WNYFFS	wnyffs@rochester.rr.com
Elyria, OH	May 18	CFFS Outdoor Contest	Jim Gaffney	jamesfgaffney@hotmail.com
Flint, MI	May 24	CLOUDBUSTERS Outdoor Contest	Mike Welshans	mbwelshans@aol.com
Wawayanda, NY	May 24 - 25	FOUNDING FATHERS MEMORIAL MEET	Fast Eddie Pelatowski	epelatowski@gmail.com
Elyria, OH	June 1	CFFS Outdoor Contest	Jim Gaffney	jamesfgaffney@hotmail.com
Flint, MI	June 8	CLOUDBUSTERS Outdoor Contest	George Bredehoft	volare61@gmail.com
Whitesburg, Ga	June 21	TTOMA FAC Outdoor Contest	Karl Hube CD	fhube@bellsouth.net
Muncie, IN	June 21 - 22	McCOOK FIELD SQUADRON ANNUAL FF CONTEST	Tom Ersted	937 336 5760 flyingace46@yahoo.com
Durham, CT	June 22	SPRING FLING	NRE Eddie Novak	106 Cutlery Ave. S. Meriden, CT 06451
Otay Mesa, CA	July 4	SAN DIEGO ORBITEERS & SCALE STAFFEL FOURTH OF JULY CONTEST	John Hutchison	619 303 0785
Flint, MI	July 6	CLOUDBUSTERS Club Picnic and Contest	Chris Boehm	merlin236@comcast.net
Muncie, IN	July 7 - Aug 7	AMA NATS		http://www.modelaircraft.org/events/nats.aspx
Geneseo, NY	Jul 16 - 19	FAC NATS	Ross Mayo	CinC@flyingacesclub.com
Elyria, OH	July 27	CFFS Outdoor Contest	Jim Gaffney	jamesfgaffney@hotmail.com
Muncie, IN	Jul 28 - Aug 1	AMA / NFFS FREE FLIGHT WEEK	AMA / NFFS	Details TBA
Flint, MI	Aug 3	CLOUDBUSTERS Outdoor Contest	Winn Moore	winn_moore@yahoo.com
Geneseo, NY	Aug 8 - 10	EMPIRE STATE FREE FLIGHT CHAMPIONSHIPS	Ruth Bane	585-765-9363 windwhip47@aol.com
Elyria, OH	Aug 10	CFFS Outdoor Contest	Jim Gaffney	jamesfgaffney@hotmail.com
Geneseo, NY	Aug 22 - 24	THE PIRATE CHALLENGE		http://wnyffs.org/
Perris, CA	Aug 23 - 24	SCALE STAFFEL CONTEST	John Hutchison	http://www.scalestaffel.org/
Muncie, IN	Sept 11- 12	FAC OUTDOOR CHAMPIONSHIPS	Ralph Kuenz	rdkuenz@yahoo.com
Geneseo, NY	Sept 12 - 14	The Great Grape Gathering		http://wnyffs.org/
Elyria, OH	Sept 14	CFFS Outdoor Contest	Jim Gaffney	jamesfgaffney@hotmail.com
Flint, MI	Sept 21	CLOUDBUSTERS Outdoor Contest	George Bredehoft	volare61@gmail.com
Whitesburg, GA	Sept. 27	TTOMA FAC Outdoor Contest	Jim Altenbern	864-848-0705 jaltenburn0705@charter.net
Muncie, IN	Sept 27 -28	CIA / FAC TED DOCK MEET	Pat Murray	317 410 2200 pmurray@centerlinedesignllc.com
Flint, MI	Oct 4	CLOUDBUSTERS Outdoor Contest	Mike Welshans	mbwelshans@aol.com
Elyria, OH	Oct 5	CFFS Outdoor Contest	Jim Gaffney	jamesfgaffney@hotmail.com
Flint, MI	Oct 19	CLOUDBUSTERS Outdoor Contest	Winn Moore	winn_moore@yahoo.com
Flint, MI	Nov 2	CLOUDBUSTERS Outdoor Contest	George Bredehoft	volare61@gmail.com
Perris, CA	Nov 8 - 9	SCALE STAFFEL CONTEST	John Hutchison	http://www.scalestaffel.org/

*To get your event listed on this page, **send the info to the editor**. To get your event listed on the website contest page, send your stuff to our esteemed Webmaster, Dave Mitchell. **Contact information is on the Membership Information page.***

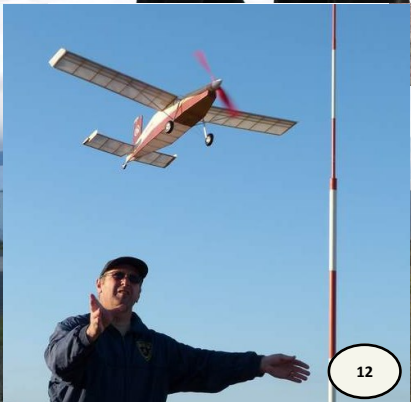
1. The WWI combat event was dominated by the Imperial German Air Service. Ron Gosselin flew a veteran Albatros, Bernard Dion had a new Hannover, and Octavian Aldea a Pfalz.
2. Gustavo (EL Magnifico) Durieux with his Polikarpov confers with Bruce foster. Bruce made the trip from NJ, and easily swept the Dime scale event for the second time.
3. BLUR racers heading for the finish line; Bern's L.I.T. G-1 in the lead, with Luc Martin's Kellner-Bechereau, and Ron's Corsair in hot pursuit. Although not pictured here, El Magnifico Durieux took the top slot with his Crosby CR4.
4. As the legend of the Harfang Escadrille grows, so does it's membership. Tim Piercy (nicknamed "The Brit") showed up to see what it was all about and stayed for some flying. Here he is winding up his Lysander, which was finished to a very high standard.
5. It's not really that windy. Looks like the traditional Harfang Challenge "leaning group shot."
6. BLUR race launching form is demonstrated by two of the participants. Not sure what the other fellow is doing...
7. Bern passes along valuable racing tips to Maria Kondrat as they head to the start line.
8. Last round of WWII was a Franco-Russian combat, and against all odds, Ron's Sturmovick did not return to home base and Luc's VG-33 performed a victory roll over the pleased crowd.
9. Kendrick Gosselin serves as mechanic for his dad in the WWI event. The father-son team proved unbeatable! (All pics via Ron Gosselin)

- Moving to the other side of the world; we got a few photos and a bit of background from our new member in South Africa: "My adventure into rubber FF started off many years ago with a guy called Neil Andersson. [Late father of Garth Andersson.] Neil was a keen aircraft historian and a designer of rubber FF models. He started Andercraft and produced several kits of South African Air Force aircraft. Because of his kits he met Don Ross, then of Flying Models. Through Don he met Jake Larson (Florida, USA). Jake visited us many years ago and we became good friends. Through the years Jake introduced us to the club newsletters. He sent me a copy of your magazine a few weeks ago and that prompted me to contact you. Keep safe and happy landings. Clyde Cartens" 10. Garth Andersson preps his Sparky. 11. Mikkie Miller launching his Dash 8 twin. 12. Hennie du Preez sends his Pilatus Porter on its way. 13. Here's Clyde himself launching his Found Centennial over the scrub. Welcome Clyde! Hope you and your compatriots can form another FAC squadron and join the fun.

BUILD...What you really like

FLY...All you can

WIN...Just let it happen





Ron Gosselin photo

FLYING ACES Club

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From the semi-frozen corn fields of Quebec to the open spaces in South Africa, model airplaning is happening around the world. Above: We see the “landing” of Bernie Dion’s L.I.T G-1 BLUR racer as Gustavo Durieux arrives to inspect for damage. Below: With a dramatic landscape for a backdrop, Johann van Zyl launches his all sheet Tiger Moth into the cool morning air.



Clyde Carstens photo

2014 FAC NATS CONTEST REGISTRATION GENESEO, NY JULY 16-19

FORM A. This form is for the Contest, Thursday evening BBQ, and Awards Banquet registration ONLY. If you plan to stay at the SUNY dorms and use their meal plan, see Form B.

EACH CONTESTANT MUST USE A SEPARATE FORM. PLEASE PRINT CLEARLY!

NAME _____ CONTESTANT # (GHQ to assign) _____

ADDRESS _____ AMA or MAAC # (REQUIRED!) _____ Sr/Open ____ Jr ____

CITY _____ STATE _____ ZIP _____ HOME PHONE _____ - _____ - _____

EMAIL ADDRESS _____ CELL NUMBER (optional) _____ - _____ - _____

WAIVER: I hereby release the FLYING ACES CLUB, INC., the the STATE UNIVERSITY OF NEW YORK (Geneseo), The National Warplane Museum, and all other persons and organizations connected with this contest from any liability whatsoever for accidents or injury incurred while participating in the 2014 FAC Nats competition. I also agree to abide by all flying and field rules in force at this contest.

SIGNATURE _____

ON-FIELD BBQ COOK-OUT—Thursday, July 17th, 6:30-ish after the day’s events.

Menu: half a chicken, baked beans, roll, butter and a dessert.
Liquid refreshments a-la-cart, or BYOB.
Box meals will be passed out on our flight line near the GHQ canopies. We’ll eat in the big HAG hanger if the weather is bad.

HELLO!! IF YOU PLAN TO ENJOY THE BBQ COOKOUT, YOU *MUST* REGISTER ON THIS FORM AT THIS TIME! CONTESTANTS AND NON-CONTESTANTS ALIKE! Tickets will NOT be available on the field during or after the contest. Note that there will be NO dinner served at the SUNY Dining Hall Thursday.

Contest Registration:	<input type="checkbox"/> Jr. (17 and under)	FREE
	<input type="checkbox"/> Sr. / Open	\$ 30.00 _____
BBQ Cook-out:	<input type="checkbox"/> Indicate how many _____ @ \$ 10.00 =	_____
Awards Banquet:	<input type="checkbox"/> Indicate how many _____ @ \$ 45.00 =	_____
Intl. Money Order^	<input type="checkbox"/> IMO	\$ 8.00 _____
2014 Nats Tee Shirts:	<input type="checkbox"/> sm med lg xl xxl _____ @ \$ 12.00 =	_____
(please circle desired size)	<input type="checkbox"/> xxxl _____ @ \$ 15.00 =	_____
	TOTAL	_____

GHQ will NOT be able to refund cancellations after July 1, 2014.

Please remit all fees with registration form by JUNE 16, 2014. Make payment to: FLYING ACES CLUB
Mail complete form and payment to: FAC, c/o Mr. Blake Mayo, 3447 Adelaide Drive, Erie, PA 16510.

^ INTERNATIONAL MONEY ORDERS IN US FUNDS MUST ADD \$8.00 TO TOTAL FOR BANK SERVICE FEE. If sending cash in US dollars from outside the US do not add the \$8.00 service fee to the total.

2014 FAC NATS DORMS AND MEALS JULY 16-19

FORM B. This form is for the SUNY dorm and meal plan registration ONLY.

NAME _____ CONTESTANT # (GHQ to assign) _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____ HOME PHONE _____ - _____ - _____

EMAIL ADDRESS _____ CELL NUMBER (optional) _____ - _____ - _____

SUNY Geneseo Dorm information: STEUBEN HALL (# 21 on campus map.)
If you need handicapped parking or have parking questions, contact the campus police upon your arrival at 585-245-5651.
Check In: July 15TH (long stay--five nights) or July 16th (short stay--four nights), after 1:00 P.M.
Check Out: July 20th before 10:00 A.M.

ARE YOU SHARING A DORM ROOM WITH ANOTHER CONTESTANT? The rates listed below are per **registered contestant**. Your registered contestant room mate pays the same when they register themselves.

Please write in your CONTESTANT room mate _____

ARE YOU SHARING A ROOM WITH YOUR SPOUSE OR OTHER NON-CONTESTANT FRIEND? Check the “Double Occupancy” rates listed below **bracketed by < >** to pay for both yourself and a non-contestant room mate.

Please write in your unregistered, NON-CONTESTANT room mate _____

Dining Hall Information: MARY JEMISON HALL (#32 on campus map) Meal times TBA in the registration packet. Note that there will be no dinner served at the Dining Hall on Saturday night (Banquet).
Thursday evening a BBQ dinner will be held on the field. (Sign up for the BBQ on the Contest Registration form “A”). **Note that there will be no dinner served at the Dining Hall on Thursday.**

S.U.N.Y. Dorm:

<input type="checkbox"/>	Four Night Single or Double w/breakfast	\$ 189.00	_____
<input type="checkbox"/>	Five Night Single or Double w/breakfast	\$ 236.00	_____
<input type="checkbox"/>	Four Night Single or Double w/breakfast, dinner	\$ 213.00	_____
<input type="checkbox"/>	Five Night Single or Double w/breakfast, dinner	\$ 273.00	_____
<input type="checkbox"/>	<Four Night Friend / Spouse Double w/breakfast only>	\$ 378.00	_____
<input type="checkbox"/>	<Five Night Friend / Spouse Double w/breakfast only>	\$ 472.00	_____
<input type="checkbox"/>	<Four Night Friend / Spouse Double w/breakfast, dinner>	\$ 426.00	_____
<input type="checkbox"/>	<Five Night Friend / Spouse Double w/breakfast, dinner>	\$ 546.00	_____
<input type="checkbox"/>	Intl. Money Order (IMO)^	\$ 8.00	_____
	TOTAL		_____

☐ Please check here if you are requesting a first floor room.

^ INTERNATIONAL MONEY ORDERS IN US FUNDS MUST ADD \$8.00 TO TOTAL FOR BANK SERVICE FEE. If sending cash in US dollars from outside the US do not add the \$8 service fee to the total.

GHQ will NOT be able to refund cancellations after July 1, 2014.

Please remit all fees with registration form by JUNE 16, 2014. Make payment to: FLYING ACES CLUB
Mail complete form and payment to: FAC, c/o Mr. Blake Mayo, 3447 Adelaide Drive, Erie, PA 16510.

Quality Inn /Hampton Inn Information: 4242 Lakeville Road, Route 20A, Geneseo, NY 14454 **Reservations:** 585-243-0500 You must mention “FAC” for special pricing of \$119.88 (inc.tax) per night. Rooms available next door at the Hampton Inn for \$143.19 (inc.tax) per night. Use the same reservation phone number to request the Hampton Inn.

Kellener-Bechereau 28 V.D. Peanut Scale Construction.

Fuselage construction

The fuselage frames 2 to 7 are slid onto a .5in diameter paper tube long enough to hold them in place when both 2x2mm longerons are glued on each side. You will note that the frame notches for these longerons are only 2x1.5mm, it is ok as the excess wood will be sanded off the longeron at the end of the building process.

Place frame 8 & 9 prior to gluing both side longerons at the aft end. The front frame (#2) is made from 3mm hard balsa. Do not remove the paper tube yet, keep it to manipulate the fuselage during the installation of all the remaining stringers and balsa hollow block around the nose. Balsa tab around the peg must be reinforced with 1/64 plywood. Peg could be made from a 1/16in aluminum tube or bamboo. I would recommend to move the peg one frame forward (frame #7), it will help to keep the CG forward and gives the motor more space to unwind and prevent bunching up in the already tight space.

When all parts are dry and secured in place, dissolve glue joint (acetone works fine with Duco or Ambroid) between frames and tube then slid and pull the tube out of the fuselage. To save a bit of weight, there is no small gain in a peanut model, you can enlarge each frame opening with a long file or a Dremel sanding bit.

Empennage Construction

Plan shows fin and rudder made as separate unit using from 1/16 and 1/20 balsa strip.

You may opt to modify the original design and laminate the V-Stab outline and build it as a single unit. You can also use smaller wood strip rather than what's specified on plan and select your lightest and stiffest wood. This option will prevent you to use the rudder as a mean to trim the airplane but it may offer you a way to save some more weight, over all. You may build the H-Stab according to plan or apply the same building philosophy in order to save weight at the aft end of the airplane.

Wing Construction

Wings are built as two units. Leading edge, main spar and aft spar are made from 2mm x 2mm balsa. Ribs are cut from a 0.5mm (a tad more than 1/64) sheet. Top of each rib is cap with a 1/16 x 1/64 thick strip. This will strengthen the ribs and help to replicate the cooling surface on top of the wing. Cut root ribs and roll a wood dowel on one face with a small pressure. It will allow this rib to bow and conform to fuse curvature. Wing tips are reinforced with soft balsa filler. You may notice the plan shows a wing structure with adjustable aileron but bare bone structure picture does not. The model could not be trimmed without, according to the designer. I let you decide which option you prefer. Ailerons and wing to fuselage fillet (Karman) are made from a 2mm light (4-5lb) balsa sheet, Aileron are hinged with 3 thin aluminum tongues (soft drink can) pushed and glued in aft spar and aileron. Pre-fit both wing to fuselage with as much dihedral as your eyes can tolerate in other word, until it seems ugly, then add more...

The FAC rule allows that wing tips can be level with the cockpit lower edge, so use it all to your advantage. Each frame in contact with the wing root will need to be shaved to accommodate the wing correct angle. Each wing leading edge fillet is shaped into a little balsa block and merged to the lower air intakes, part of the nose (see Figure 1 on plan).

Nose block

Nose block is carefully faired into the fuselage line. Propeller free wheeling system is completely enclosed in the spinner. Propeller hook is bent from a 1/32 Piano wire (CaP: Corde a Piano in French). See Figure 2 for details.

Plan shows how to make a deployed landing gear but I would not bother with it since the current FAC rules allow you to model this clean line racer in a "gear up" configuration and it is all for the best. You still have to draw the gear in that position.

Covering

I would, first, recommend you to preshrink your favorite tissue on a frame. The goal is to relax the tissue as much as possible to prevent any deformation once it is attached to this fragile structure. Spray 70% alcohol and let it dry for an hour. Repeat the process two more times then, spray silver or aluminum floral paint (Design Master) on it and let dry overnight.

Most current recent documentation, B&W photos, show a dark painted area (red) on the fin and a white text "KELLNER-BECHEREAU" 28VD

Racing number 5 is white in a red circle on both fuselage sides.

Propeller and spinner are aluminum.

Individual exhaust pipes are made from small plastic straw or balsa rod. Here is a neat trick I have learned recently to create small balsa rods: Drill a round 1/16 hole in a 1/32 or thicker brass plate. Chamfer one end of the hole on one side of the plate. Cut a 1/16 square balsa stick then draw it through the 1/16 hole to form a rod. It is a miracle would say the peanut Pope...

You can also use Hearty clay to extrude a spaghetti rod through a syringe nozzle. Once it is molded you cut it and bend it to the desired shape. Hearty Clay or Model Magic is a very light synthetic clay that dries at room temperature and still stays flexible afterward.

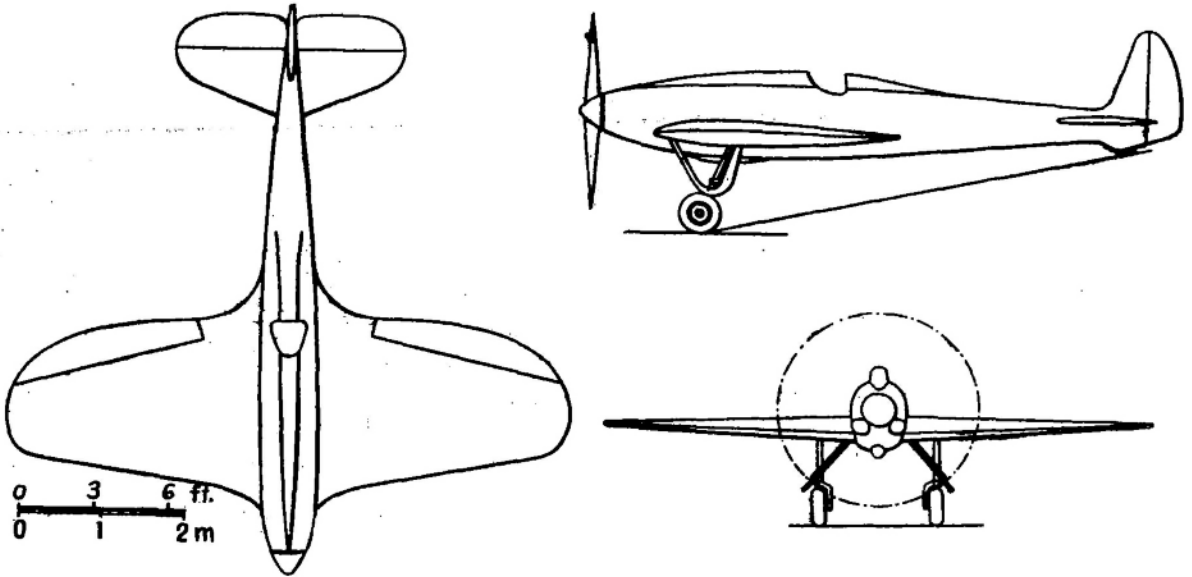
If your name is Jiro Sugimito you can build it at 10 gram total weight.

Ideally, try to keep it around 12-13 gram to maximize your chance of getting decent flies. Make a 12in long 1/8 loop motor for the first trimming steps then adjust motor to extract the best out of your propeller.

Luc Martin

N.A.C.A. Technical Memorandum No. 724

Figs. 34,35,36



Span 6.65 m (21.83 ft.) Wing area; 10.6 m² (114.1 sq.ft.)
Length 7.16 " (23.49 ")
Height 2.64 " (8.66 ")

Figure 34.- General arrangement drawing of the Kellner-Béchereau 28 V.D. airplane.

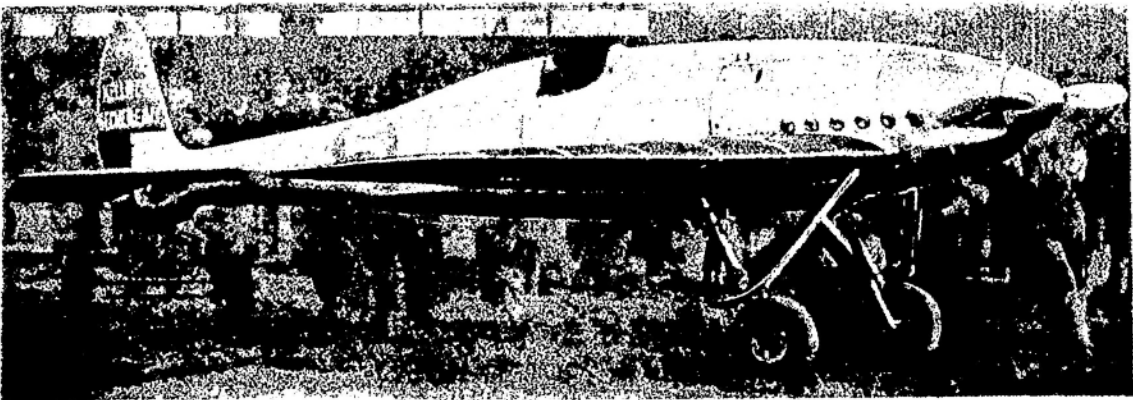


Figure 35.- View of the Kellner-Béchereau 28 V.D.

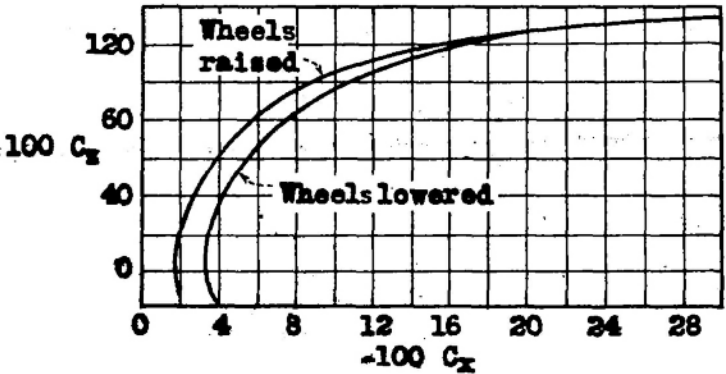


Figure 36.- Polars of the Kellner-Béchereau 28 V.D.

Hand-drawn plan view of a wing section. The drawing shows a rectangular wing with a wavy leading edge. Internal structure is indicated by dashed lines. A central section is labeled "1/32 SOCKETS FOR FLOATING L.G. REAR STRUTS (WING BOTTOM)". There are two "X" marks on the left side, each with a "Z" next to it. On the right side, there are two "X" marks with a "Z" between them. A small detail of a strut is shown in the center, with a line pointing to the text label.

DIHEDRAL $\frac{3}{8}$ $\frac{1}{2}$

THE MODEL IS ALSO
STABLE & GOOD SUR-
VIVOR. 1/8" RUBBER
AND 5 1/2" SLEEK STREAK
GET HER WELL INTO
THE BLUE.

1/32

1/32
STRUT
SOCKET
TYPICAL

'B' STRUTS RUN TO FUSE.

L2 LAM's $1/32 \times 1/16$

2 LAM'S OF 1/16
WITH BOND
PAPER COVER

STRUT RUNS TO
WING ROOT @ R

- 'GRAB' GUSSETS (BOTTOM)

$Z, Y \ 1/32$

CYL. ROW
(BLACK)

- BLACK CROSS ON WHITE
BACKGROUND - BOTH SIDES
- 1/32 DECK (BLACK)

FACN #277

POST BROWN.

BOTH SIDES { TOP
BOTTOM

WING STRUTS
1/32 x 1/16 BASS

- 1/32 COCKPIT COAMING,
ON 1/32 DECKING

— SKID SUPPORT

BLACK
RADIATOR

PROP
BLOCK

3/4 KEY

3 STRINGERS $1/32 \times 1/16$

1/32 X 1/16 BALSA
STRUTS @ X
TO BOTTOM
OF TAIL
POST

- 1/16 SANDED TO 1/20
AFTER ASSEMBLY

CLOTH
& EPOXY

ACTUAL
LENGTH

.025 M.W.

FWD L.G. STRUTS
ARE 1/6" Balsa over
WIRE

AFT STRUTS LAN'D 1/64,
'HINGED' TO FWD STRUTS
WITH THREAD

LONGERONS 1/16 SQ
SANDED AFTER SIDE
ASSEMBLY, FLUSH WITH
1/20 SQ UPRIGHTS

1/20 X 1/4
PEG HOLDER,
DOUBLER
AROUND HOLES

IF DUTCH ROLL,
(THAT DOESN'T MEAN
TONY FOKKER'S FAVORITE
DINNER BISCUIT) ADD
CLEAR CHEATER

PEANUT FOKKER D.VII
A KRAUT KANONE KRAFT
GRAYHAWK LAWTON 8-87

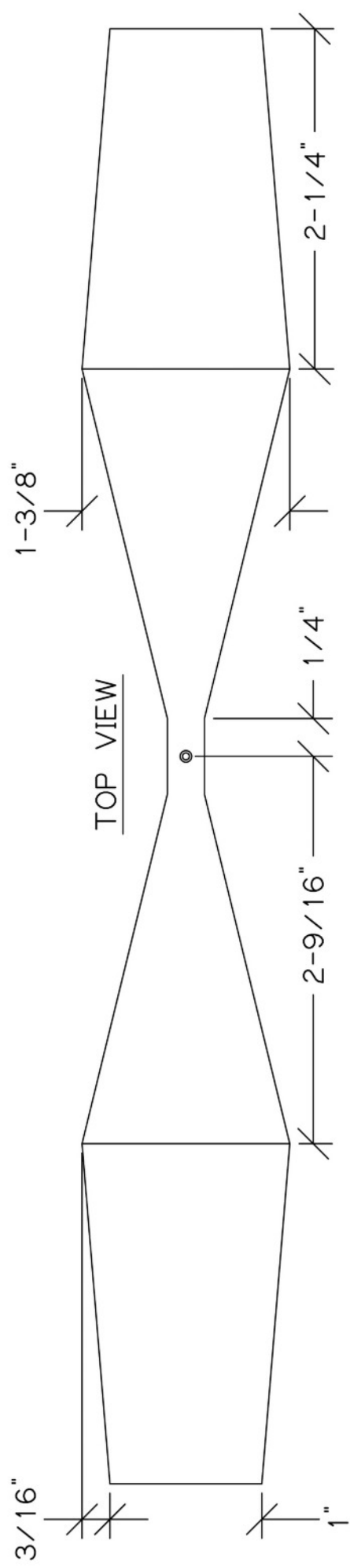
A KRAUT KANONE KRAFT

GRAYHAWK LAWTON 8-87



5.4g ready to fly, with 1.5 oz. glass cloth on 45-degree bias and smeared in coat of west systems 105/205 epoxy. Very strong.

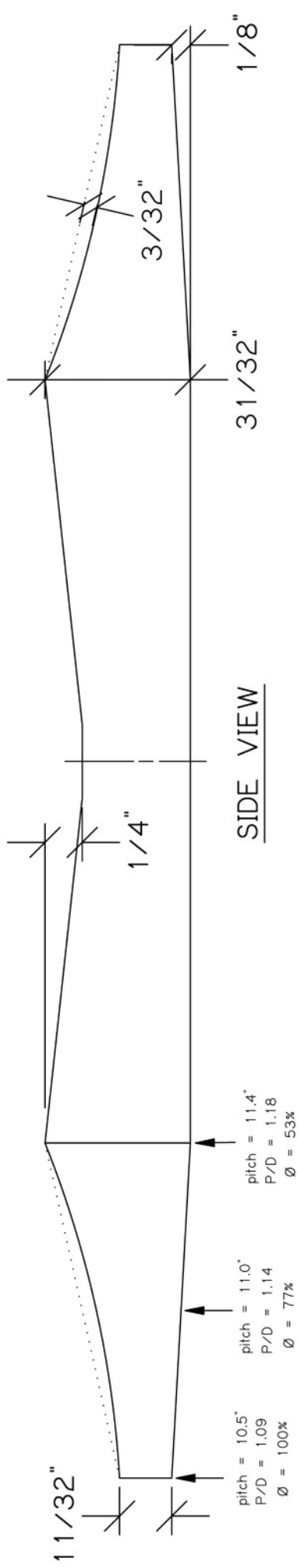
These props work nicely for me. But other fliers kick my tail regularly with plastic props. What it boils down to is I just love to carve, and I don't believe in secrets. So here you go. Don

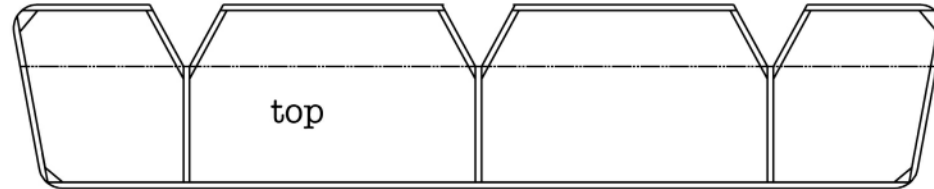
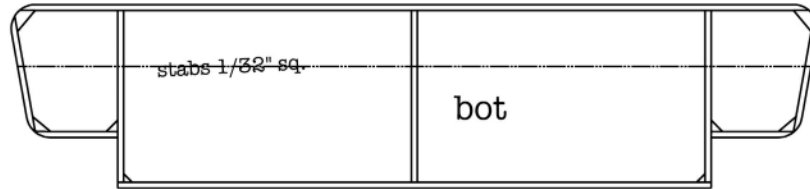
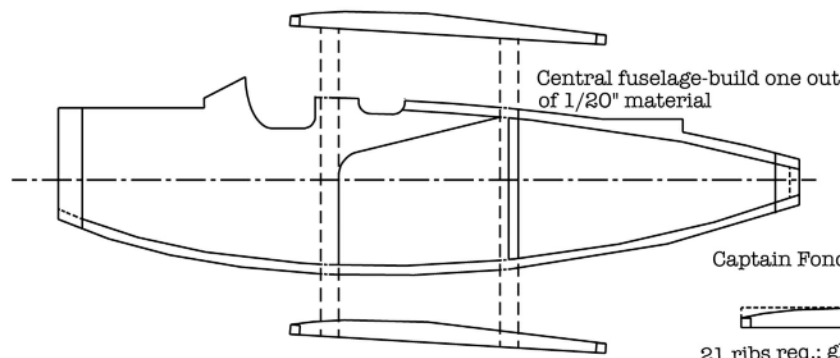
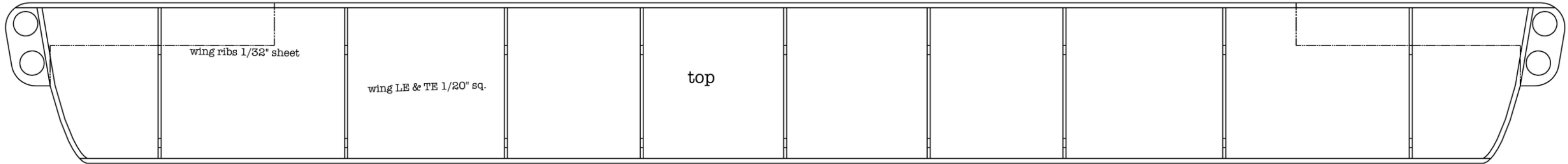
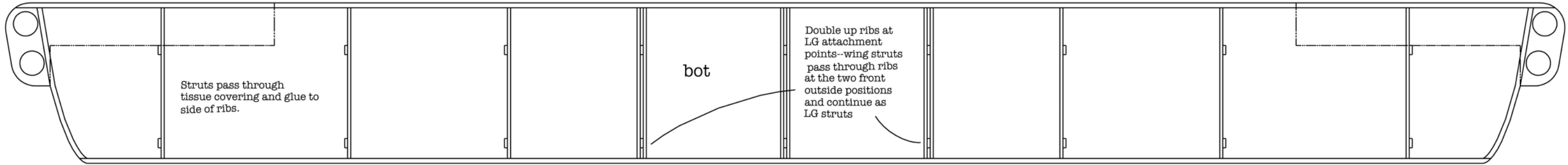


9-5/8" Ø Prop Block for FAC

For 22-25" wingspans; 30-50g empty weight
Medium balsa or light Paulownia; 3-6 g finished

By Don DeLoach, March 2014

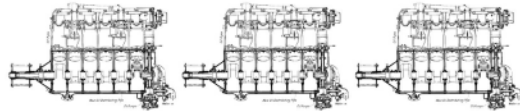




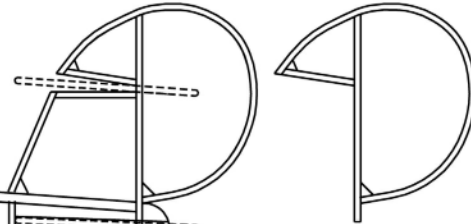
The model is conceived of as EITHER a single, twin, or tri-motor affair, with detachable motor tubes (triangles?) allowing for experimentation. You are most decidedly on your own. Captain Foncké suggests that the wings and struts be assembled as a unit first, and the fuselage assemblies attached after that. You may have other ideas..

21 ribs req.; glue in place as a rectangle then sand to airfoil

Three fire-belchin' Liberty V-12 engines!



third, central rudder
no fin. 1/32" sq.



best setting for decalage is anybody's guess. Plan approximates what the real thing had.

LWF Model H-1 "OWL"

1919-1923

The NoNoNo-Cal series
Plan #14

FACN #277

Not to be copied
for resale

Outboard fuselages--build two including rudders
Fuselage from 1/20" material; rudders 1/32" sq.

"By absolutely light , then, we mean that which moves upward or to the extremity, and by absolutely heavy that which moves downward or to the centre. By lighter or relatively light we mean that one, of two bodies endowed with weight and equal in bulk, which is exceeded by the other in the speed of its natural downward movement."
-Aristote, *On tthe Heavens*

A Foolish Lark by Capt. Perilous Leigh Foncké

5/8" dihedral
each tip

WARNING! The Modeler General has advised that building this thing, much less attempting to fly it, may tickle your funny bone.

