

T.W.I.T.T. NEWSLETTER



Couldn't resist this one from the source cited. I imagine it came from the NASA, Boeing or Wright-Patterson web sites, and was just copied for the list participants to see. This is the first concept picture I have seen showing a final configuration for the commercial version. From this angle it is not all that odd looking and, although hard to see there are window seats along the leading edge. <http://www.freerepublic.com/focus/f-news/1649497/posts>

T.W.I.T.T.

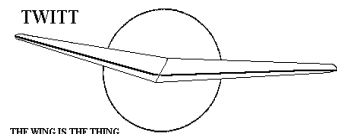
The Wing Is The Thing
P.O. Box 20430
El Cajon, CA 92021

20th ANNIVERSARY CELEBRATION



The number after your name indicates the ending year and month of your current subscription, i.e., **0607** means this is your last issue unless renewed.

Next TWITT meeting: Saturday, July 15, 2006, beginning at 1:30 pm at hanger A-4, Gillespie Field, El Cajon, CA (first hanger row on Joe Crosson Drive - Southeast side of Gillespie).



**THE WING IS
THE THING
(T.W.I.T.T.)**

T.W.I.T.T. is a non-profit organization whose membership seeks to promote the research and development of flying wings and other tailless aircraft by providing a forum for the exchange of ideas and experiences on an international basis. T.W.I.T.T. is affiliated with The Hunsaker Foundation, which is dedicated to furthering education and research in a variety of disciplines.

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Meetings are held on the third Saturday of every other month (beginning with January), at 1:30 PM, at Hanger A-4, Gillespie Field, El Cajon, California (first row of hangers on the south end of Joe Crosson Drive (#1720), east side of Gillespie or Skid Row for those flying in).

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PRESIDENT'S CORNER

I am really happy from a couple of fronts this month. First because we have what looks like a really good program for our 20th Anniversary celebration with Ken Striplin coming down from Lancaster to talk about Kasper and other things flying wing. Hopefully he will bring some of the high desert group with him since we haven't seen them in a while.

Secondly because we had a lot of incoming e-mails over the past month, which is good for several reasons. It means that people are staying interested in flying wings, they want to discuss it with others and, that people are visiting the web site in greater numbers. It is encouraging, although it hasn't resulted in any new members, YET. It also makes putting the monthly newsletter much easier because I have lots of material to choose from, although I usually include everything since it is relevant.

I found it interesting that the response I sent to John Dyke produced so many more e-mails with information. Obviously, he has a very good group of Dyke Delta owners who are very proud of their aircraft and want to show them off. Most of the individual pictures were from the 1987 Oshkosh event and I will post them on a new page for the Delta with links to the various pages they referred too and others I have found through a Google search.

I would like to thank Al Backstrom for his help in answering the questions on his plank designs. It is sure a help to have the original designer as part of the group and be readily available when people show interest in his designs.

I hope we will see a good turnout at the July meeting, partly because we have a program and I don't want to disappoint the speaker, but also because we haven't seen some of you for quite some time. So mark your calendar and come help us celebrate.



**JULY 15, 2006
PROGRAM**

The program for July will feature **Ken Striplin** of the Striplin Aircraft Company located in Lancaster, CA. He is going to tell us about some of his experiences while working with Witold Kasper and, how Ken came to built a BKB type flying wing along with his adaptation the FLAC. He has also indicated he will reveal the secrets of the tumble maneuver. Ken has some local connection by being named the Grand Champion in 1979 at the San Diego EAA Chapter 14 Fly-in with his FLAC design.



Ken sent along this self-description:

“I have always had the LOVE OF FLYING disease, a Private Pilot rating and incurable quest of anything about airplanes, which I passed on to my four sons. I am now retired and reflecting on a life of my family involved with designing, building, and testing homebuilt airplanes. We have built hi-wing, low-wing, canard, and flying wing types and have sold approximately 200 kits all over the world. I have learned a lot, but it just created more questions, which will make the meeting more fun. I did spend a lot of time with Kasper in Washington and built a copy of the BKB with his okay.”



ABOVE: The Striplin FLAC.

Don't forget that this is also our **20th Anniversary** party so we want everyone to come out and enjoy a good program while sharing some cake and ice cream.



**LETTERS TO THE
EDITOR**

June 6, 2006

B-10 Large Scale Model

I was looking at all the different kids of flying wings and finally found the model I had only seen some pictures of is there any way I could get in touch with the builder to purchase plans or maybe have him scale down my full size plans for the B-10 to be flown strictly as a glider like its original configuration!

August Hahn
<augusthahn@sbcglobal.net>

(ed. – I answered with the following: “These pictures reflect Don Mitchell's desire to build a better version of the B-10 called the Stealth. However, there are no plans that I am aware of for this version, only the B-10 that you say you already have. The model was strictly built by Don and often he worked from his head and rough drawings versus any plans.

As for reducing your plans, I don't know that Richard Avalon has anything like that, since he has never mentioned it and doesn't advertise for any type of model kits of the B-10. I don't have Richard's e-mail

address handy but you can find it through a search on Mitchell B-10 and go to the Earthlink address for mitchellwing.

As for reducing your drawings, have you considered going to a high-end copy shop to see if they can scan the drawings with one of their big machines and then do a reduction for you. A blueprint shop might be an alternative, so do some calling and see what they can do for you.

Since the B-10 is really just an oversized model kit, you shouldn't have to change much unless you want to experiment with ideas before building the full size aircraft.

I hope some of this helps with your project, even though there are not "true" plans for a model version of the B-10 or Stealth.)

August wrote back:

I just joined the R/C Digest to try and find out some info on a model B-10 Mitchell Wing. See the attachment pictures: one is an exact copy the bare bones; one it looks like 1/3 scale; one is a close copy of the white one in 1/4 scale and one in 1/4 scale is silver and red. The folks at the digest told me to show the pictures to you for any information on any of these models as I may one day decide to build a full size wing. I already have the plans and the models would give me a good head start as the plans are extremely difficult to read. I was also hoping some one could help me scale down the full size plans so I could build a 1/3 scale as construction practice and of course fly.

Thanks so much for the information. You have been a tremendous help.

(ed. – The first two pictures are ones not included on our website under the Mitchell Wing sections. However, the last two are part of the material we have had on Don for many years.)



June 9, 2006

For Stephen Sawyer (also addressed in e-mail):

You asked about c.g. position on low aspect ratio wings like the Vought V-173. That plane was a result of work by C.H. Zimmerman. You can download two reports he wrote on low aspect ratio wing wind tunnel results at:

<http://ntrs.nasa.gov>

by typing in one or the other of the following into the search field. NACA TR 431 NACA TN 539

If you are unable to download them let me know and I will try to send them to you through my dial-up connection (I think they are a meg or more and sometimes I have trouble with the size).

These are from the 1930's and I believe used 'airfoil' to refer to the wing and not the wing section, so don't get bogged down by nomenclature. This data is also before aerodynamic center was always used and it shows center of pressure instead. You probably want to review the difference. With the Clark-Y airfoil section used in these reports the center of pressure for angles of attack above 30 degrees is around the 40% chord you mentioned, with a different airfoil section it would probably be different. Also with control surface deflections it will be different.

You could do the math and back out the aero center for these test data in the NACA reports if you wanted to. I suspect that it would be close to the aero center for a Clark Y section.

If you stacked the airfoil sections so that there was no sweep at the 1/4 chord (like the V-173) then I believe the aero center will be near the 1/4 chord point. Abbot and Von Doenhoff has info to calculate the aero center down to aspect ratio of 2 I believe.

Have Fun.

James Mclellan
jwmcl@att.net

James subsequently sent:

Attached is a .pdf file with plans for two models from the Air Trails Model Annual for 1954. I thought that the first model would be of interest to TWITT members because of the similarity to the hand launch glider plans in the TWITT issue 240.

The second I thought would be interesting to Stephen for it's comments on the c.g. position. I made one of these models in the 60's and put a .19 on it

lying down flush with the leading edge. I remember it flying well with the c.g. as shown but bleeding off speed incredibly fast when the elevator was deflected.

It would make very small loops aided by how fast it slowed down with elevator deflection. It was novel but its overall performance was not near as good as a Ringmaster (conventional tail on the back) or a combat plane (wing with two booms and a stabilizer). The reason for the fast slowdown with elevator deflection and increased angle of attack is apparent in the two NACA reports I referenced earlier which show that the best L/D for aspect ratio of 1.27 is low.

Perhaps one of the reasons the V-173 ended up with stabilizers outside of the main wing was to avoid the reduction in lift as the elevator is deflected to increase the angle of attack. The two NACA reports I referenced before were all done without elevator deflection so they show a better L/D ratio than if the elevator were used to trim to a given angle of attack.

More to think about.

(ed. – The .pdf file was a cover shot of the magazine but I wasn't able to adequately reproduce it for inclusion here.)

June 13, 2006

Andy:

The June edition of the T.W.I.T.T. newsletter arrived yesterday. Though the claim of reduced membership is made, no one seems to be at a loss for words, or useful lines of enquiry and information. Regarding Christian Daniel's equation message of May 17 on page 6. I'd been at a loss for years to find a method of putting an equation into text using a keyboard. This conundrum was solved with the discovery of Math Type. This program is available as a free download, with limited function and printable; expanded function for a reasonable fee. Their website is:

<http://www.chartwellyorke.com/mathtype.html>

There is a free demo version of Math Type available at:

<http://www.dessci.com/en/products/mathtype/trial.asp>

The program solves all problems with text of literals, spacing and fonts. If you can use Wordpad, you can use Math Type. I've included as an attachment an example of an equation and literal explanation that

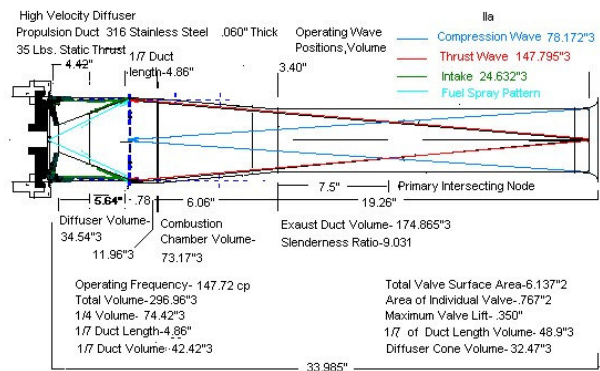
would have been impossible for me to accomplish before the discovery of this little gem of a program. Any work saved on Math Type can be copied to another text program. No extra fonts need be installed. I have no association with Math Type. I mention this program to T.W.I.T.T. in order that you be aware of something I have found to be truly useful.

Regards,

Henry E. Whittle
<Gulfrose@Juno.com>

Mike Morgulis
<mike.morgulis@sympatico.ca>
Toronto, Canada

(ed. – My reply back to Mike explained that what he saw was simply the plug that was originally meant to be the core of Bob's dream to have a flying model. However, due to a lack of funds and the fabricator's time to continue the project it was terminated and the plug painted up to look like the Horten IV. The project was also supposed to result in a set of building plans to go along with pre-fabricated parts, but that part did not materialize either.)



CE Tharrat Formula for Pulsating Combustion

$$0.0 < \frac{1}{C_v} \cdot \frac{h \cdot A \cdot R}{L \cdot C \cdot V_c} \cdot \frac{\Delta H}{1+r} \cdot \frac{A_c \cdot U}{T_c} < 2.0$$

Where:

- C_v = specific heat at constant volume
- V_c = combustion chamber volume
- h = enthalpy of products leaving chamber (per unit mass of mixture)
- A = tailpipe flow area
- R = gas constant
- L = length of tailpipe
- ΔH = heat of combustion (per unit mass of fuel)
- r = air-fuel ratio (mass basis)
- A_c = cross sectional area of chamber
- U = burning velocity
- T_c = mean temperature of reactant mixture

The above literals represent conditions at various points along the sine curve that represents the operating cycle of the tuned pulsed combustion duct.

Required valve area can be calculated by the following two formulas:

0.1045 • Thrust in pounds

0.42 • Tailpipe area

(ed. – Thanks to Hank for finding and sending along this information on the math programs. I haven't had a chance to use any of it yet to try and make the changes to Farnborough document. I have included the attachment he sent along to give you an idea of the program's capabilities.)

June 16, 2006

Hi TWITT:

I saw pictures of Bob Fronius' Horten IV and wondered if he's got scale drawings available so that I could build one with my sons.

Many thanks,

June 17, 2006

In response to Stephen Sawyer's May 8 question regarding center of gravity location on low aspect ratio flying wings. It's apparent that the planform in question gets better stability by having the positive angle of attack that the 40% chord center of gravity location creates. This position is also the "sweet spot" for wing twist placement across the span. Minimal drag for the best effective leverage.

Reference to the low aspect ratio planform you and Chuck Tucker are considering can be found in NACA RM A53A30 Lift, Drag and Pitching Moment of Low Aspect Ratio Wings at Subsonic and Supersonic Speeds, Charles F. Hall, April 14, 1953. As with a lot of wind tunnel model testing C.G. is not much of a consideration in this paper, but you can get a sense of it through the mention of the other parameters. There is a pile of low aspect ratio references in the bibliography of the paper.

If your ISP hasn't gone cheap on you as far as download capacity you might search the paper out at:

http://www.loc.gov/rr/ElectronicResources/full_description.php?MainID=121

Regards,

Henry E. Whittle

(ed. – Thanks to Hank for another reference that might help Stephen resolve his issues with the CG location.)

June 21, 2006

Flying Wing Bibliography

Mr. Krauss:

I recently ran across a query you posted back in September of 2003 requesting bibliographical information on any publications covering the topic of flying wings and tailless aircraft. I work as an R&D engineer for ILC Dover and some of the work I do involves the design & development of inflatable wings and aircraft. As the information you pulled together in your bibliography may be helpful to our future work, would it be possible to obtain a copy?

Much appreciated,

Daniel J. Gleeson
 <Gleesd@ILCDover.com>
 Research & Development Engineer
 ILC Dover L.P. www.ilcdover.com
 One Moonwalker Road
 Frederica, DE 19946-2080
 Fax: 302-335-4590

(ed. – Haven't heard back from Serge on the future of the next edition of his bibliography. Publishing monthly and quarterly newsletters gives me a greater appreciation for the work that goes into updating such a comprehensive document as his bibliography, but as more people express a desire for the next edition, perhaps it will give Serge the enthusiasm to "get'r done" to quote Larry the Cable Guy.)

June 24, 2006

Info About the Flying Plank

My name is Alejandro, and I've been considering the idea to built a wingless sailplane, specifically flying planks developed by Al Backstrom. Do you know if any of these sailplanes are flying today or that they lack enough stability? Cannot find conclusive answers about the handling. Can't find a case on the web of this ship flying, but I heard Mr. Backstrom still continues to work in that concept to the end of the 90's.

Thanks in advance for your help.

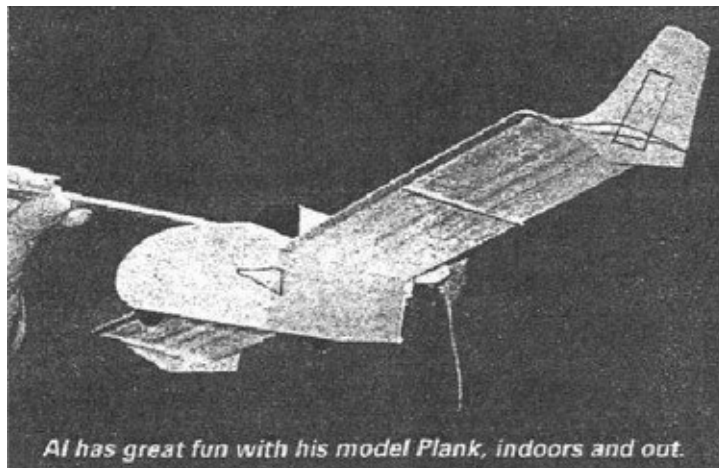
Alejandro Bonfante
 <alejandro_bonfante@yahoo.com.ar>

(ed.- I forwarded this message to Al Backstrom, who responded with the following.)

There have been several of the plank sailplanes built from my drawings. I do not know of any flying at this time. The plank sailplane drawings that have been available were done more than fifty years ago. They are not what most people want today. As to your questions on handling etc., the best recommendation I can give you is to point to the two place plank design that received normal certification in Australia. If you will send me your snail mail address I will copy an article I did a few years ago about how I would approach a new plank sailplane design.

Bill and Bunny Kuhlman have drawings of my old Tailless NoCal [profile] models available on their web site. The link is:

www.B2streamlines.com/Backstrom/



Norman Masters has done these in several formats so most everyone should be able to down load some version. Most of these are done on a single 8 1/2 X 11 sheet with a simple write up on the full scale AC and the model.

Al

Andy:

Thanks for being a helping hand! Didn't know about the Mitchell group, but will subscribe for sure. I'll begin to post messages soon. About TWITT: what kind of issues are contained in the members area, and how frequently is the newsletter being published?

Thanks a lot again.

Alejandro

(ed. – I explained that we have newsletters dating back to January 2002 in the members only section of the website. If you have an Internet connection and haven't gone to this area, the user ID and password are included in the masthead section of each newsletter, so it isn't far away. I have converted all of them to the Adobe PDF format so you won't have any formatting issues like with a MS Word document, plus they are in color since I don't convert color photos to B&W just for the newsletter.)

June 28, 2006

Dyke Delta

Sir:

It has been brought to my attention that the Dyke design is not even mentioned on this site (www.twitt.org). As designer of Dyke Delta I would like to state that this design has been flying since 1962. It is a blended wing fuselage delta/flying wing. It has no horizontal tail and should qualify as tailless design and at least an honorable mention.

John W. Dyke
<Dykedelta1@aol.com>

(ed. – I sent a message back explaining I just hadn't done any Internet searches on the Dyke Delta since

there hadn't been any real questions about the design. I did a search and found several sites and pictures, then the following set of messages came in making sure I had pictures to place on the website. I will make the addition in the weeks ahead after getting this, the ESA newsletter and a professional group PowerPoint presentation together.)

1) John Dyke told our little group that you were looking for pictures of the JD-2. Here is a composite of several that I did a while back that gives an overall view of the craft. I use it for my desktop.

Ernest Christley
<echristl@cisco.com>
Dyke Delta Builder|
<http://ernest.isa-geek.org>

(ed. – I included this one since it contained many of the aircraft shown in the individual pictures.)

2) dykedelta@yahoogroups.com

<http://hometown.aol.com/tedricks3/Deltas.html>

Tedricks3@aol.com

3) John Dyke asked me to forward some photos to you. My dad, Bernie Schaknowski Sr. built N78BS 26 years and 2000+ flight hours ago. I have owned and flown this wonderful aircraft for the last 5 years. My

name is Bernie Schaknowski Jr. 5542 Blue Cedar Dr., Sugar Hill, Ga. 30518 and my phone number is 770-614-6722.

Bernard Schaknowski
<berniebets@charter.net>

June 30, 2006

Horten IV plans

Dear People:

I am interested in obtaining plans for the Horten IV sailplane. Since the DTM recently completed a restoration of a Ho IV (how are they coming on the Ho VI?) it would seem to me, having



been trained as a draftsman, that a set of plans would have been drawn up. Would this be available in CAD, and which software? I would appreciate any and all assistance.

Sincerely,

Michael F. Vandenberg, MM1, USN(Ret)
Pensacola, Florida
850-453-2873
<mfvan@earthlink.net>

(ed. – To the best of knowledge there were no plans developed from the H IV restoration at the Deutsche Technical Museum in Berlin (www.twitt.org/Berlin.htm#top). There have been many such inquiries over the years so it is unfortunate that nothing was created that could have at least been used by the modeling world. There are Horten aircraft models flying, but they have all been scratch built with no resulting plans.)

The following was extracted from the Nurflugel bulletin board entries.

Arup S2

I know I have been writing quite a bit about Charles Fauvel designs and the AV-60. I found out about his work doing net research on a couple of other planes....but mostly centered around the Arup design. I will have more info in a few weeks on a few neat planes, but for now I have a neat site that I think you nurflugel fans will enjoy. Hopefully this hasn't been covered before, but I am a new guy.

aeronostalgie.free.fr/n39.html



Hopefully the link will work. At the bottom of the page is a short clip of the Arup S2 flying with the outboard ailerons. Does anyone know what is on each side of the elevator? I believe the elevator is in the center, but there looks to be a movable surface on each side. My favorite part is the landing scene with

the steep angle of landing. I wonder how hard the wind was blowing...

Kevin Golden
<kgolden64@hotmail.com>
Harrisonville, MO

From Serge Krauss, <skrauss@ameritech.net>

Kevin:

The S-2 is one of my all-time favorites and as successful an early tailless plane as any. It and the S-4 flew all over the Midwest and as far east as Washington DC, over which it was photographed. Dr. Snyder even allowed his kids to ride places in the Arup(s?) and used their large wing surfaces for advertising over such places as the Indianapolis 500 and Chicago.

I am fascinated by what you have found. The link does not work, unless you remove the space. I did that and copied it to my address window. Clipping on the bottom icon, I waited a while to download the film clip, saving it in my Tailless Aircraft file. What a treat! I didn't know there remained any film clips of the S-2 in flight, let alone a newsreel clip. That is a fine find indeed.

The Arup was probably not flying into any unusual wind, since the remarkable speed range is well documented. However, the climb out is unexpectedly spectacular - and on only 37 hp. I have a VHS tape, also filmed at South Bend's Bendix Field and labeled "1933", but showing what I think is the S-4 (had raised stabilizer/elevator on vertical fin) doing touch-and-go's. The S-4 flew first in 1935. This film shows the same short-field capability and a good climb.

That tape was given (really traded) to me by Milt Hatfield while he was finishing his last "Little Bird" ultralight version of the Arup, which he had flown as a young man. It also shows flights of his first and second "Little Birds" off the grass strip in his back yard. Milt had a sheet or two of the original plan of the S-2 (spar?), but he has been gone for some years now, and I don't know where any of his stuff is.

The man to talk to about Dr. Snyder and Milt Hatfield is Bernard Rice, who wrote the definitive articles on the Arups and knew both before their deaths. His voice narrates the Hatfield tape. I talked on the phone with him 10-15 years ago and he still lived at 10825 Harrison Rd., Osceola, Indiana 46561 (between Elkhart and South Bend) at that time. He may still be at the same address, since he was active in the area in 2003 (see below), when his home was still listed as Osceola. Richard Snyder, Doc Snyder's son, was living

in San Diego within the last few years and was in contact with TWITT's Andy Kecskes, who posts here.

I had never heard of the "N14AR" replica, but what you showed seems to indicate that the plane was listed as "destroyed" and gave up its N number, which was then assigned elsewhere. However, I don't know much about those assignments. I'd like to see that one.

I know that Bernard Rice built a 22-ft span, non-flying (plywood) replica of the S-4, that was unveiled in 2003 for display at the South Bend Regional Airport (originally Bendix Field). The unveiling was at their Corporate hangar, although the plane was intended to be suspended in the atrium of the main terminal building. I have only seen its photo in the South Bend Tribune, not having visited that airport in recent years. Rice, a 19-year employee of Bendix' aerospace division, spent over 2000 hours on the replica.

Finally, the surfaces adjacent to the S-2's elevator are labeled "trimmable stabilizers" on a scale drawing by Mark Allison, later printed in one of Bill Hannan's books.

 YB-49 Model

Doug Holverson asks: "Has anyone done turbo YB-49s?"

Warren Bean, <warrenbean@cebridge.net> replies:

You will let us know when the kit becomes available won't you?

Back from Don Stackhouse
 Don Stackhouse @ DJ Aerotech
 djaerotech@erinet.com
<http://www.djaerotech.com/>

I've thought about it. With pure turbines it might be workable. With ducted fans, either electric or gas engined, it's not very promising.

It's the same problem as most of those other first-generation jets. The inlets and exhausts are just too small.

A jet (or a propeller, for that matter) makes thrust by grabbing chunks of air and shoving (accelerating) them aft. In accordance with Newton's laws, the force applied by the engine to the air to do that accelerating results in an equal and opposite force from the air to the aircraft, which we call thrust.

To make a given amount of thrust, you can grab a large chunk of air and give it a gentle push, or a small chunk of air and give it a violent shove. That's where models of the first generation jets get into trouble.

Because their inlets and exhausts are so small, especially on models of large aircraft like the YB-49, the only option they have is the small chunk, violent shove approach. Ducted fans in general tend to have much smaller diameters than a typical propeller that would be used with the same engine, and a ducted fan with the inlet of a 1950's jet tends to be especially small.

Unfortunately, that's also the most inefficient approach. One method to calculate efficiency is to divide the airspeed of the air coming in to the engine by the airspeed going out. If you have a small diameter inlet, to make any thrust you need to have a very large exhaust velocity, and that makes the ratio of inlet to outlet velocity (and therefore the efficiency) extremely poor. Thus, if you need a given amount of thrust to fly the plane, and your power plant is extremely inefficient, then you will need massive amounts of installed power to make up for the lack of efficiency.

Unfortunately those larger engines and the fuel or batteries to feed them weigh more, which then means you need even more thrust to sustain flight. If you are stuck with the same inlet and exhaust areas because of scale requirements (since this is a scale model we're talking about), and have to get even more thrust from them, then your propulsive efficiency gets even worse, so you need even bigger engines! This can quickly become a vicious circle.

I have a model of the XB-35 that I developed for an addition to our Roadkill Series indoor/backyard/park flyer kits. It flies very well, and now that I've solved the minor handling problems that originally put it on the back burner, I'm hoping to get it finished up and into production one of these days (however, given my current workload of other projects, it's likely to be a while yet). Performance with the propellers is really quite good.

However, to make it an electric ducted fan model simply would not be practical with today's technology, and even if we could get enough power into it to sustain flight on four reasonably scale-diameter ducted fans, it would still be overweight, underpowered, expensive and very noisy. Instead of four 5" props, we would be trying to make the same thrust from four fan units about 1"-1.5" diameter, which would require more than 11 times the exhaust velocity, even before allowing for the extra installed power needed due to the lower efficiency, as well as the increase in weight from the fan units, bigger motors and far larger batteries. That also means the flying speed of the airplane would have to increase, including the landing speeds, so the entire airframe would have to be built stronger, which adds even more weight, which then needs more power.

With today's pure turbines a large model could be done, since these engines are already compatible with the small inlet/high exhaust velocity approach. However, even then it would still be quite expensive, very noisy, and probably somewhat underpowered, at least in comparison to other jet models.

I too remember about Flying Wing years ago in Tomball Texas. I believe it was an early experimental AV36 or something similar. Wish I knew more, any help is appreciated.

Jim Pickett, <aircrafter@yahoo.com>

From TWITT, <twitt@cox.net>

Are you referring to the Fauvel that eventually ended up in the hands of Jack Lambie? If so, there might be some information available through either the SSA and Soaring magazine, or through the Vintage Sailplane Association (VSA). I remember seeing it fly at Elsinore, CA back in the late 1950s and I think we might have an article on him speaking at one of our meeting years ago. I will look for it when I get back home from my weekly work assignment and see about publishing it where everyone can get to it.

From Bob Storck, <bstorck@sprynet.com>

I flew the thing a couple times out of Elsinore, back in '58 or '59. I think Jack was trying to sell it to me, and he was flying one of the first BG-12s at the time.

It towed on a long trailer, with a wingtip over the tow car. The rudders folded back and the nose cone removed to meet trailer width . . . 8' as I recall. It had a droppable dolly for takeoff, and Jack had it bounce up and damage the elevator just after I flew it. It was just a bit better than a 1-26, performance going to hell above 80 or so. 1-23s would run away from it then. But in a thermal, you'd just core it, pull the stick back and climb up inside of everyone else . . . including Baby Bowlus!

From Kevin Golden, <kgolden64@hotmail.com>

New guy here. I have been searching not only a couple of subjects, but members on this site. Very impressive members here that I have only read about (Krauss, Marske, etc) but I know the names.

What I am looking for is construction drawings for the Charles Fauvel design AV-60. Are these still available?

From TWITT:

Try this site. I didn't look deep enough to see if they have what you want, but it is worth a shot. They have an e-mail address to the webmaster who might be able to put in contact with the right people.

<http://www.survol.cjb.net/>

From Koen Van de Kerckhove,
<nestofdragons@hotmail.com>

I see the name FALCONAIR in a previous message. This name is already known to me from my Flying Flea groups. Please, please, don't get in contact with this man. I don't like to use the words, but ... the man is a crook. In my eyes even a criminal. Sorry about the hard words. But how do you call a person who sells plans of others without first asking permission or without paying royalties to the designer. Just contact Pierre Mignet or the co-designer of the (aaargh, forgot its name) (also a French design with a low wing).

Just type in Google Falconair Flying Flea . The first page you will see is one of me, called BIG BAD WOLFS. ALL flying flea persons put a link to that site page, just to prevent others from contacting that person.

OK, that person did invent some variations to the Flying Flea, but ...that does not give him the right to sell the complete set of plans.

A last remark for that person who searches the plans of Fauvel. If you think "hey, OK, the guy is a crook, but I cannot find the plans anywhere else, I will buy them anyway." , please, remember the fact that I got many remarks that the copies from Falconair are truly bad. They seem to be copies of copies of copies of Hardly readable.

From Kevin Golden:

I am also a member of the Flying Flea site and have read the many opinions of FALCONAIR. So....I tread lightly. He wants \$300 for the plans he has for the Fauvel design. It isn't the plane I want, so it really would serve me no purpose but to study the history of Fauvel designs. There has to be a better (cheaper) way.

Somewhere out there has to be someone with drawings for the AV-60/61 that could be copied or sold outright. Who owns the rights to all of Fauvels designs today?

From Koen:

Hmmm, I cannot tell, but maybe Christophe Bordeaux could. Euh ... did. I type his name right? He has or had a site about Fauvel. Something with "survol" in the URL. Is he still active in the group? You better ask him.

From Bill & Bunny Kuhlman,
<bsquared@themacisp.net b2_tailless>

The AV-50, AV-60, and AV-61 are very closely related. This was described in detail in the January 2004 issue of RC Soaring Digest. A PDF of the article is available at

<<http://www.glide.dyndns.org/on-the-wing4/178-AV-61.pdf>>.

The only AV-60 plans we are aware of are from Bill Young. These are 1" = 1' scale and show quite a bit of detail, but are not "working" drawings - they were drawn for modelers.

Bill Young
8106 Teesdale Ave
N Hollywood CA 91605

Cost is \$5.00. There's also a set of 12 photos for \$12.00.

From Kevin Golden:

Thanks for the continued information on the AV-60. I am sending off for those drawings to Bill Young.

There is several mentionings of a designer/ Engineer in Canada by the name of Georges Jacquemin. He was the man who was responsible for the engineering on the AV-60. He should have a lot of information if he is still around. Does anyone have contact information on him?

It just seems odd that a man like Fauvel has had so many designs and nearly all of these designs/ studies seem to have died with him. There has to be a paper trail somewhere. Maybe they are in a old dusty drawer somewhere.

From Peter Ivens, <peter.i@tiscali.be>

Apparently after the death of Charles Fauvel, the family didn't like that the plans were still sold. As a Fauvel AV36/361 enthusiast I visited some owners and one of these owners is the head of the Musée Régional de l' Air at Anger a member of the GPPA. In that museum they have plans of several aircraft they use to restore their aircrafts or to help people with

aircraft in restoration. They have some (I think not all) of the original Fauvel papers but mostly about the AV36/361 and some about the AV22/222. I don't remember that I have seen the AV60 but you can always mail them. In the brochure of Falconar you can find that there is a Wolff and Davidson of Houston, Texas who build an AV-60.

From Mike Thompson,
sportcfi@sportaviatorbuilder.com

Kevin, I am new to this group. I like you spent some time trying to run down plans for the Fauvel designs. When I talked to Chris Falconair a few weeks ago, he told me that when Charles Fauvel died in 79? his wife burned everything. I did see that he had a son that helped complete the 45? but could not run down any more info on him.

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