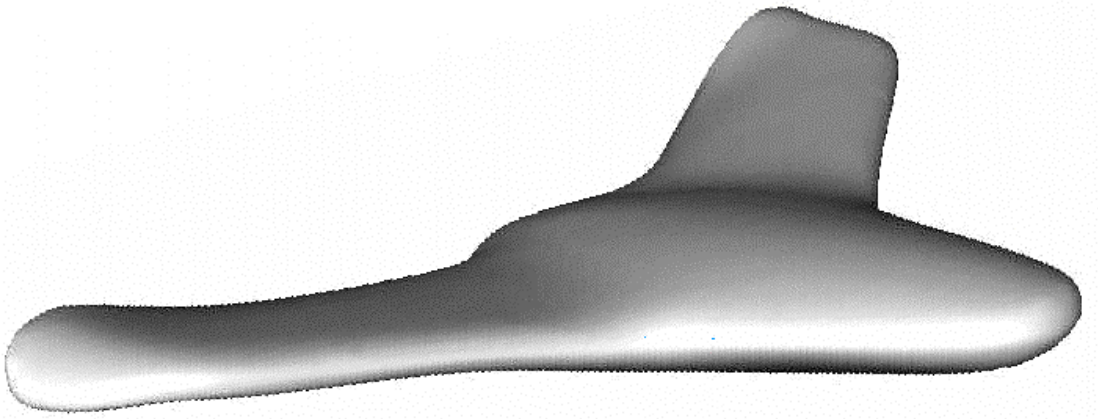
No. 178 APRIL 2001

T.W.I.T.T. NEWSLETTER

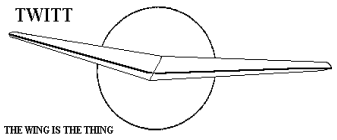


This is a view of Jay Sadowski's blended wing foam model. These also have a step shaped airfoil in the center section which has some aerodynamic advantages, as well as, providing an easy grip for launching. See the web site for more on Jay's products.

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

The number after your name indicates the ending year and month of your current subscription, i.e., **0104** means this is your last issue unless renewed.

Next TWITT meeting: Saturday, May 19, 2001, 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, east side of Gillespie).

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PRESIDENT'S CORNER

I was sorry to see many of our Los Angeles area members were not able to make the last meeting, but I know that other commitments often get in the way. I was also a little disappointed that we didn't have very many people from the hangglider community show up, although some of Bill's old acquaintances did come and renew their friendships.

Last month I mentioned we had a copy of the Farnborough Hants report on Horten aircraft. I have managed to get it all input to the website, so if you haven't visited for a while take a look at it. I need to thank David Lednicer for sending me a clearer copy of the report that allowed me to fill in some of the areas the first version was lacking. So between the two I was able to reconstruct all but a few lines of text and some of the pictures that are not available anywhere else.

Mike Brown has completed the second installment of his construction journal and it is also up on the website. As you can see from some of the responses to the first installment, this is going to be a really super piece by the time it is finished. I have every confidence that Mike will finish the aircraft's construction, so it will just be a matter of time. We both hope that it will inspire at least one person to take on such a project either while this is in progress or at the end when he sees it can be done.

Although we have a program for May, we are still looking for a good one to put on in July, which is also our annual anniversary party. If you know of someone who would make for a dynamite speaker, please let us know so we can arrange something.

Andy

MAY 19, 2001 PROGRAM

The program for May will feature our own **Alex Kozloff** who is going to update us on the use of composites in building an aircraft. This will be an update to Alex's presentation in March of 1994 where he went over the then state-of-the-art methods for economical composite construction. A lot has changed since then and the prices on many of the materials that were considered exotic at the time have come down to the homebuilder's budget level. Carbon fiber and Kevlar have almost become household words and, Alex will be showing us how these can be used in conjunction with traditional material to enhance your next project.

Make sure to mark you calendar now so you don't schedule something else on May 19th. As usual, tell your friend about it, even if they aren't into flying wings, since everyone can use the knowledge of composite construction techniques.

MINUTES OF THE MARCH 17, 2001 MEETING

The meeting was opened with the usual housekeeping items for the new people in the audience. Andy updated the group on the latest changes to the website and told them about one of the next projects, a flying, paper version of the BKB-1. This is being done by Pat Oliver and the prototype performs well for a paper airplane. It will eventually be offered on the website so people can print it out on normal cardstock paper and fold it into a flying model. We will also be able to put it in the newsletter so our non-electronic members can photocopy it onto cardstock and do the same.

Dick Woods told the group about his Stronjik S2A project where he is using computer programs to analyze the structure and assist him in coming up with ways to construct it in composites. He's using Marty Holman's computer programs for much of this work, while applying what he learned when he built a Vari-Eze. From what Dick told us this program is very capable from the average user's standpoint and, covers a wide range of applications for design. Roy Knizc was in the audience and ended up getting together with Dick to talk about their respective Stronjik projects.

With no other contributions from the floor, Andy introduced Bill Bennett, our speaker for the day. Bill is well renowned in the hang glider community, being the early developer of the Rogallo wing and later opening his own business selling delta wings. As it turned out, Alex Kozloff had actually been at the Statue of Liberty with his family on the day Bill made his famous flight shown in the January newsletter. Alex also met Bill on that occasion and had his own pictures of the event that he showed Bill before we got started. You live long enough and it sort of becomes a small world.

Bill opened by saying how great it was to get re-acquainted with some old friends, including Bob Recks who worked with him years ago. He also indicated he would be showing us a series of videos from pre-1973 to illustrate the progression of hanggliding, with a little on the "newer" sport of paragliding.

(ed. – I would like to preface this with the fact the throughout the videos there were constant ooh, aah and laughter as the pilots demonstrated their prowess or lack thereof.)

The first video covered some of the early days of delta wing kites starting with some shots over Lake Tahoe with Bill flying behind a tow boat. The scene moved to a slope outside of Palmdale, California, and talked about beginners using the smaller hill for the first practice flights. Bill pointed out the lack of king-posts and guy-wires on these early models and, the pilot not wearing any helmet, shirt or shoes. The video then moved on to showing the use of a delta kite for a motorcycle stunt jumper, but from the looks of the landings the kite appeared to cause more problems than it solved. Back to Lake Tahoe, Bill noted that there were times when they had 11-13 kite fliers behind one tow boat while doing a show in Florida.

One of the pilots in the film was Dave Kilbourne who was the first pilot to soar a Rogallo wing flying off of Mission Ridge for twenty minutes. As the video continued it showed a pilot taking his folded Rogallo on a ski lift for a flight from the top of the slopes using skis as a the launch mechanism. Getting off the ground was the easy part, but the landings were not as easy and graceful as we all got a good laugh. We also found out where the "brake" is on a Rogallo – dig the nose into the ground or snow and you stop very quickly.

Dual control kites were used for providing the necessary instruction for new pilots. These are a valuable tool to help reduce the number of new pilot accidents. Some of the landing shots reminded Bill to explain why king-posts were added to the later gliders. The wings had a tendency to flex downward on the hard landings and bend up the material, so by adding the posts and associated guy-wires the problem was greatly reduced.

One of the next clips showed Bill being taken to 10,000 feet under a hot air balloon at Lake Elsinore, CA for the first attempt at dropping a hangglider. Bill said they didn't really know what to expect in terms of how the glider would react right after the drop. As the film showed, everything worked out okay as the glider dropped away and began flying. Another of Bill's early records was a flight of 6.2 miles and staying airborne for 11 minutes. This would be eclipsed many times over in the coming years.

One of the things prevalent throughout the early sections of the video was the lack of head and body protection like that seen today. The pilots did start transitioning into the prone position by putting their feet up onto the lower lift-wires. This served the purpose of providing additional control of the glider by pushing or pulling on the wires with their feet, thus distorting the keel and getting the glider to turn. It also had a disastrous result

when one pilot's shoe eyelets got caught on the wire and he ended up spiraling into the ground. One pilot commented the procedure has a tendency to ruin your shoes and proved to be hard on the knees. The prone position as known today came about since it was found to add about 1% to the glide distance, so pilots found it was necessary in order to win contests. However, it was also found to be a little more uncomfortable than the sitting position due to the strain on the neck holding it up to see forward.

Due to the lower performance capabilities of these early gliders, there were many instances of pilots landing in unusual places like the tops of trees or on top of houses. There were some contest shots where the pilots were towed aloft behind a boat and then released to get max endurance along with making a spot landing on a water target. Some of the landings were less than graceful as the pilots did whatever it took to get as close to the center as possible.

Bill was instrumental in getting the personal parachutes designed that are still worn by pilots today. The year before he introduced the chutes about 40 pilots died in hangglider accidents. This was reduced to 4 in the following year due to the use of chutes to safely escape a damaged glider and come down separately.

Speaking of parachutes, one of the short pieces included a glider taking off over Death Valley. All seemed routine until the pilot all of a sudden released himself from the glider for a little skydiving to the desert floor. Amazingly enough the glider landed nearby with very little damage. A little later there was footage of a dual control takeoff at Death Valley and the departure of the passenger for her 1000th parachute jump.

As we progressed through the video you could see the shape of the gliders gradually changing to become more aerodynamically efficient. The center keels became shorter and the aspect ratio increased. They also starting getting shinier from the new mylar impregnated cloth covering introduced by Bill. Sometimes the mylar covering would last a long time and other times it would peel away from the cloth on the first flight. They eventually found that the better the quality cloth they used for the bonding the worst the adhesion was. It turned out that the looser the weave of the cloth (poorer quality) the better the mylar solution could penetrate thus gripping the fabric from both sides rather than just one. The question was asked if the open woven cloth had more of a tendency to rip under air loads. Bill commented that there wasn't any real problem with the grade of cloth in terms of tearing and the mylar coating helped stabilize it.

Bill noted that at one point Bob Recks had applied to the FAA for type certification on a hangglider. The FAA wrote back that due to the limited use of the airspace, there was no need for a type certificate. A few months later Bob Wills went to Hawaii and flew for eight hours, which could no longer be construed as a limited use of the airspace.

Bill introduced a new glider called the Mariah which was about 20 years ahead of its time, but it had a problem. It was found that if the glider got into certain situations that left it inverted, it could not be recovered and they didn't have the parachute recovery systems of today. Since it appeared the glider had a defect, Bill offered to repurchase all those that had been sold. The later addition of king-posts and shaping wires helped solve the problems of negative loads on the wing, but at the time of the Mariah this wasn't considered. Now gliders are stressed for about 3-4g negative to 7g positive. Bill also noted that before the problem was identified fourteen of his gliders held the 1st to 14th positions in a contest being held in the Owens Valley of California. However, once it was discovered, he pulled them all out to protect the pilots.

At this point we took a short break so everyone could stretch, have a cup of coffee or a soda, and eat a few donuts. We also had a short raffle, giving away three posters featuring the Mariah donated by Bill.

After getting everyone back into their seats, Bill put on a piece that showed one adventurist make an attempt to set the Guinness world's record for consecutive loops in a hangglider. The idea was to take the glider to altitude under a hot air balloon, release, get stabilized and then enter into the looping routine. All the loops have to be continuous in order to set the record. Smoke bombs are set off on the wing tips so the loops can be more accurately counted by the observation helicopter and those filming from the ground. The first attempt was aborted when the helicopter had a mechanical problem. But on the next day he successfully launched from the balloon and completed 52 loops which was well more than he had planned on.

The next piece of video had one Frenchman trying to teach another how to hangglide. It was quite humorous and eventually led into the student trying to learn to fly a paraglider. Everyone got a kick out the high-jinx.

(ed. - It was also at about this point the tape recorder ran out of tape unbeknownst to me. So the rest of this is sort of from memory and may not accurately reflect what really occurred.)

After the short piece on paragliding, there were some questions on how the canopy of the chute worked and, safety in this part of the sport. Bill commented that the canopy was a ram-air design and was more of a glider than a parachute. Their construction allows them to inflate rapidly in the event of an upset from gusts or excessive attitudes. This has become a popular phase of the sport since the entry-level costs are much lower than more traditional hanggliders.

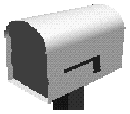
It was noted throughout most of the video footage that the pilots weren't wearing helmets and had not yet discovered the now familiar prone body bag and hanging straps. The use of compact instrument packages were also just coming into favor about the time the last of the footage was shot. Now there are instrument clusters that bolt onto the control bar that have almost everything found on high-performance sailplanes panels, including GPS integrated with flight computers for getting the best glide ratio out of the hangglider between thermals and on that final glide home to win a contest.

Bill talked a little bit about how high the various flight records have gotten since the early years. Where his flight into Death Valley lasted 11 minutes and covered 6 miles, the records are now into the 12-18 hour and 345 mile range. One hangglider has been to 40,000 feet on a

balloon, which probably created a lot more problems getting it to flying speed than Bill had from 10,000 feet.

With all that said, Bill wrapped up his presentation by telling us he and his wife were moving to Lake Havasu, Arizona (from their current San Diego location) and really going into retirement. We all wish them well and I am sure Bill will find some way to get back into the air either behind a towboat on the lake or in some other type of ultralight aircraft over the flat areas of Arizona.

Andy thanked everyone for coming and adjourned the meeting for more donuts and coffee while everyone did their last bit of hanger flying.



LETTERS TO THE EDITOR

(ed. – The following are some of the messages we have received in response to the B-10 construction piece on the website.)

March 5, 2001

Hi, Mike.

I just wanted to thank you for documenting your progress on your Mitchell Wing construction.

I joined TWITT about a year ago after ordering plans for the Mitchell Wing U-2 from U.S. Pacific. So far, I'm afraid that space constraints and uncertainty about some of the details have prevented me from getting started on the construction. However, I'm still dreaming about it. I hope to find a house with workshop space and begin construction on the plane this year.

I have to admit that I'm unsure of some of the construction details, and I have no aircraft -building experience to help me fill in the gaps. For instance, I was reading through the plans the other day, and I couldn't quite figure out how to construct the laminated bow in the spar, and the photos showing how to join the plywood skin pieces weren't clear to me. I'm not sure whether the B 10 also has the bows in the spars, but the two wings look pretty similar, so I presume they share many design details.

I will follow your progress with interest. I hope your knowledge and experience will clarify the details enough so that I'll have the confidence to get mine built. Thanks for serving as an inspiration!

Elliott Whitticar
whitticar1@home.com

(ed. – This is part of what Mike sent back to Elliott:

It's for people such as yourself that Andy and I have put up the website. We thought it's presence would encourage people to get from the "dream" stage into that of "action", but here you are, a person who's already taken the first step and at least gotten the plans. Congratulations!

From my conversations with Richard Avalon, the wing for the U-2 and the B-10 are identical, although I'd need to see the plans to confirm this for myself. From your description, however, I think they're just as Richard has said.

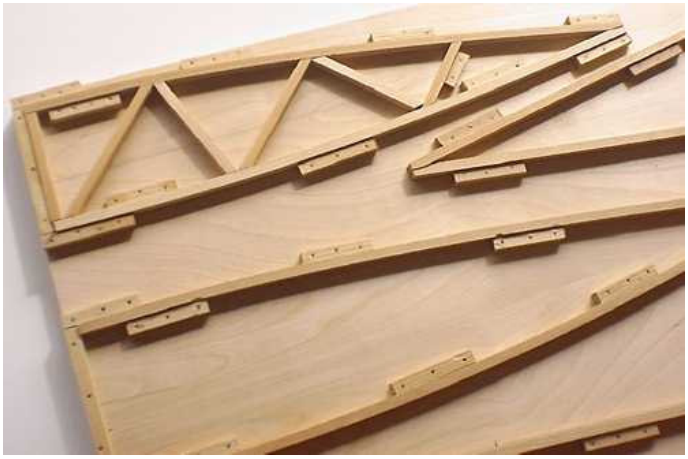
And, as you've pointed out so clearly, the photos included with the plans...presuming again, they're the same set I received, leave something to be desired for details in some areas. Again, that's one of the factors, which inspired me to put forth the effort on construction details. Without going into the matter with Richard, I've presumed Don Mitchell had not developed the plans for the homebuilder. For example, the B-10 plans, from what I can determine, are very much designed for construction from a kit, as opposed to having been designed for the person who builds from raw materials. It's clear to me, the idea they had in mind was to make money on the sale of the kits, and if a person had these kits, building of the wing would go pretty quickly. With Don Mitchell's passing, however, kits were no longer produced, so all we have now is the plans and the buyer of these is on his own. Simple as the design may be, for the novice builder, it still presents it's share of thorny problems as you've so clearly pointed out.

One of the reasons I'm developing a more elaborate set of jigs for everything is that many of the parts for the Mitchell Wing lend themselves so well to construction on a professional scale. Then they can be sold to people such as yourself who aren't really set up or have the inclination to build such jigs for only one project. The ribs, spar center bows you've described, and mixer box for the control stick and pushrods are just three areas which can be dealt with in this fashion. Having experienced so many of these building problems myself in the past, I know how they can be frustratingly delaying when one wants to get into the air. If you enjoy building, that's one thing. But most of us more or less "put up" with the building phase as a necessary annoyance connected with the actual flying.

The philosophy of Don Mitchell was to design so even those of us "on a budget" could get one of his little "ships" into the air, and I'd like to think we can help continue this philosophy. Cost has taken the fun out of flying for most of us who've known the "grass runway" airports of 50 years ago. Maybe those of us with interest in the Mitchell Wings can help defeat this trend.

I'm located in southern Oregon near Medford, by the way. Where are you located?

ABOVE: This is the finished rib board with a the beginnings of a rib inserted in the restraining blocks.



ABOVE: Now you can see the cross pieces in place inside of the rib's outer pieces. The last step in the process is to add the gussets at each joint on both sides of the rib to provide the necessary strength and rigidity.

Thanks again for your e-mail. Please keep in touch with comments on the website and anything else respecting feedback on the matter. I can't help but feel your concerns regarding complexity of the plans is shared by others, and bringing these to light will go a long ways towards helping me concentrate on explanations showing how to solve their related problems. Also, others who share these concerns must feel a sense of isolation and if we can bring more of us together, we'll promote a sense of camaraderie, which can only inure to the benefit of everyone.

Best regards,

Mike)

March 15, 2001

HI Mr Brown:

My name is Jerry Holsinger. I am a low time pilot currently flying an Aeronca Champ. Congratulations on your first 2 excellent construction installments on the TWITT website. I look forward to the rest of them.

My interest in flying wings started a few years ago and I've been collecting everything I can find since. Have also been building and flying electric RC models of flying wings.

As with you, I eventually settled on the Mitchell Wing as the optimum craft for my purposes. I have purchased Mr. Avalon's plans for the B-10 and the U-2 with the intent of building the B-10 first. As luck would have it, I stumbled across a B-10 in my local area which I purchased. It was built in the early 80's, flown briefly and stored since then. At present, I am cleaning the cage, replacing bolts, and evaluating the status of the wing (which so far looks good) and the engine (Honda Odyssey). Also have to build tip rudders.

Another major effort is to locate pilots who have had experience with Mitchell wings. So far I have found very few. Have also been collecting all the info I can find on the Mitchell Wing. Have had some luck with that, but would like more info on flight characteristics, etc.

I have thoroughly enjoyed the TWITT website, the newsletter, and the materials I've purchased from TWITT. Keep up the excellent work. If TWITT has or knows of additional info on Don Mitchell or the Mitchell wing, please let me know. There must be more info from the 80's I haven't found yet.

Look forward to following your progress Mr. Brown. Would be happy to share any info I have with you.

Regards,

Larry

Also, thanks for the favorable comments on our efforts. It appears you're already ahead of the game with a B-10 of your very own. I'm glad you also recognized it seems a good place to start. I'm trying to keep things simple, informative, and yet not sound too much like I'm teaching the first grade. Hope the balance is satisfactory.

You're fortunate to have located a reasonably flyable model. It's so much easier if you have something to start with. Even if you have to do some repairs of replace missing parts, at least there's the psychological feeling you HAVE a wing there. Sounds like you're doing everything just right at this point.

I wish I could steer you in a direction regarding flying one but as you know from reading the website and TWITT newsletters, I'm just like you...I've never flown one. Perhaps you'll run into somebody locally who has some time in one although, they're somewhat rare as you probably have discovered. Also, Richard is very willing to "flight instruct" by telephone. As far as additional information, Richard is the one whom I'd tap for anything regarding the B-10. He's got it all, but none if it's written down, unfortunately.

Mike

(ed. – I have attempted to locate one or two people that have flown the B-10 besides Richard Avalon and get them to provide us with some independent reports. As of publication time I hadn't track anyone down yet, but I will keep trying, so if you are one of these people, or know someone who has flown the B-10, get in touch with us.)

(ed. – Now, back to our regular letters.)

January 26, 2001

TWITT:

Enclosed is my check to renew my membership in TWITT. I look forward to my receiving the newsletter every month and I wish it were 3-times the size. It if weren't for TWITT and SHA we would be totally without information on truly grass roots aviation and it would be a great loss.

Thank you,

Fred Blanton
(707) 451-3341
fnjblanton@worldnet.att.net

(ed. – Obviously I got to this one a little late, but thanks for the renewal. Also, thanks for the comment on our contribution to the aviation community. We like to think we provide a service that no other publication does directly, including SHA. We do like to work with SHA and many of our members, like you, are members of both organizations. Our hope is that someday it will all come together and there will be flying wings showing up from the homebuilders realm.)

December 10, 2000

TWITT:

Thanks for a great job on your TWITT newsletter. You cover all interests I have enjoyed since I watched Franklin Farrar build his wing in 1948-1950 with advice from Gus Raspet. This is the tailless plane he took to Grand Prairie, Texas in the 1950 Nationals. Dr. Lippisch looked the plane over and recommended a vertical fin to start test flying – to be removed if not needed. Franklin died this fall at 84. Check enclosed for renewal.
Sincerely,

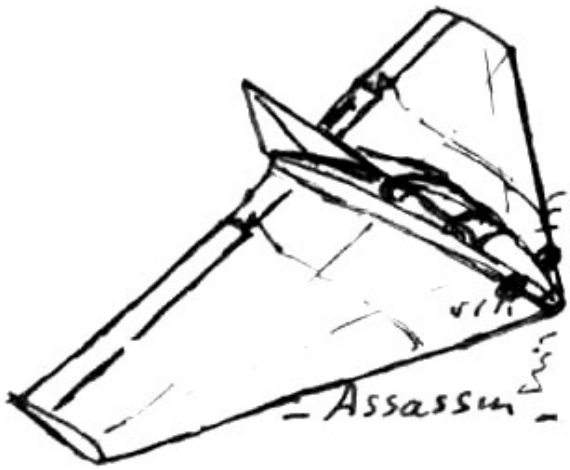
Charles Person

(ed. – It is always nice to hear that we are meeting the needs of the members. I hope you continue to be pleased with the newsletter in the future.)

March 8, 2001

TWITT:

As a matter of interest I came across a very basic self launching slope soarer called ether "Assassin" in a May 1999 Airbourne magazine of delta concepts. It was stated that a 48" model was extremely aerobatic and would fly in 40 kt wind without ballast. If this is the case, why has not a similar man-carrying ultralight been built, or maybe one has, but living in such a remote area I had not come across one in the magazines and EAA does not seem to feature the flying wing concept. It appears to have separate elevators, ailerons and rudder, but I believe "elevons" would be enough with the rudder input for adverse yaw and the elevators could become flaps of the center blended wing area.



From my readings, it appears less power is needed by the flying wing concept due to the low drag. But I would love to see someone use the simple 2-cycle, air-cooled, direct drive 60 hp engines now on the market to design a 2-seater tandem or side-by-side ultralight with fixed tri-landing gear for the ultralight people of Australia.

It would be a plyfoam composite covered with fiberglass and even foam wing tips could be added to the cutoff shape of the wing tips. This would suit the tropical areas of Australia. A large market is awaiting. Push-rod controls would lower maintenance and if the center body was moly chrome with each wing slotting into the sides, say of 10' span each, it would be easy to trailer in the remote areas.

I enclose pictures of interest from one of our fly-ins that Andre Maertens of Q.Land Australia sent me of a bush hanger and a U.F.O. My workshop is a mowed area under a red-flame tree in the front of my house adjacent to the road with a fire hydrant close by.

Another concept I came across was the five-pointed star like the instrument used by the Ninja's of Japan. A simple concept that would be made of three lengths of aluminum tube for the leading edges and aluminum channel for affixing the ailerons and elevators. I don't think rudders would be necessary, just the fins for stability or a single fin and rudder for better control. Once again, the twin opposed air-cooled 4-stroke direct drive power comes to mind for simplicity and I believe 60 hp would make this a 150 kt speed machine in the ultralights.

I would like to thank the members of TWITT for sending me all the literature on the history of flying wing development, having no computer and living in such a remote area makes it hard to get any info. Please forward anything of interest and I wish to thank those members that made the effort to phone me from America.

Yours Sincerely,

Terry Baxter
c/o Darwin Butterfly Sanctuary
79 Mueller Road, MALAK
Darwin, Northern Territory
Australia 0812

(ed. – Thanks for the pictures. I have included the two of the UFO. The magazine article of the UFO (Useless Flying Object) says it was designed and built by David Rowe and, represented his third attempt at getting a round aircraft to fly properly. In the article he commented it was much slower than it looked and, that after designing and flying round wings had been interested and novel, but they did appear to be quite inefficient.

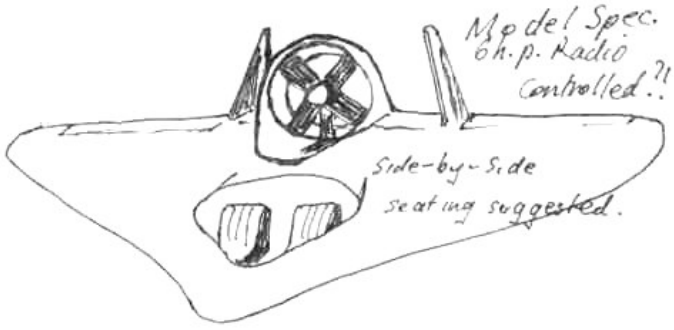
I am glad that you have heard from our members in answer to some of your previous questions on flying wings and your attempts to build something for your private use.)

March 25, 2001

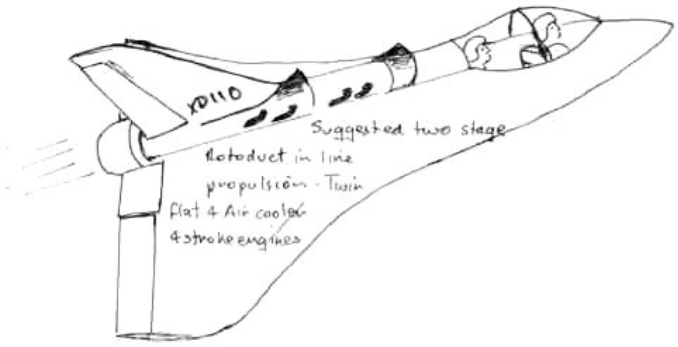
TWITT:

Having come across many large type models which have successfully flown, I cannot understand that a 2-seater flying wing ultralight has as yet never been successfully launched in homebuilt plans or kits. Take the following sketch, although there were no actual measurements; a tandem say with 60 hp could follow, or even 100 hp. It appears to be a standard 3-axis control and would certainly lend itself to a full composite construction. I still think this could be classed as a flying wing!!!

Another was Teledyne 262 of about 7' wing span using a rotoduct. I could not find any details of this model but it was all fiberglass. This would suit a belt reduction, flat 4-cylinder Subaru.



Then there is the AMR XD110 Research scale model for a two seat Bensen Nova training aircraft. First flight was 1969 on a Ross 4 hp driving a multiblade shrouded propeller. Wing span of 7', chord 10', max payload of 80 lbs, max level speed of 300 mph and a stall speed of 10 mph.



The third prototype was a scale test model in 1976 as a two seat STOL advanced trainer, non-stalling, double wing delta with sealed control surfaces. Radio controlled command guidance. Conventional take-off and landing using retract tricycle landing gear. A later version with twin rotoducts buried in the aft fuselage was scheduled after 1976.

It appears that the rotoduct is a very efficient means of propulsion. I take it is a number of multiblade props, one behind the other like axial flow turbine flood pumps. Can you send me any information on them?

Thanks for the exposure in the last newsletter, but I thought it would have been better to show the sketch of the twin prop 1800's flying wing instead of the single which was not what the model was about.

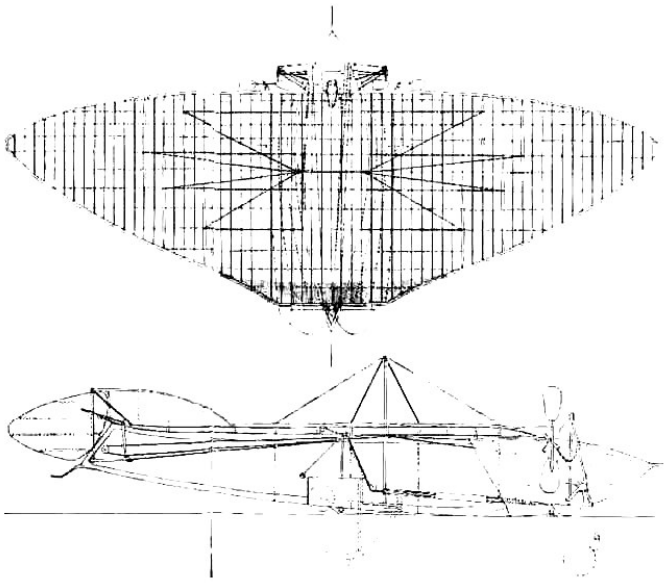
Regards,

Terry

(ed. – Thanks for the follow-on letter showing us more of what you have found in the way of models that, like many other things, never made it into a production stage. This seems to be typical of many commercial projects when it is found there is really no market either in the private or public sectors.

As for information on rotoducts, we don't really have anything that would be of help. Ducted fans, which they are commonly called here, have not proved to be as efficient in homebuilt applications as might be expected. Rohr Aircraft tried one on a delta wing in an attempt to take on Cessna's 150 training aircraft, but it also never got beyond the prototype stage for various reasons.

Bob also noted that I had not included the correct picture to go with the text material you provided. I did have it in the newsletter at one point, but in the process of doing the editing took it out without re-inserting it. That has now been corrected.)



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