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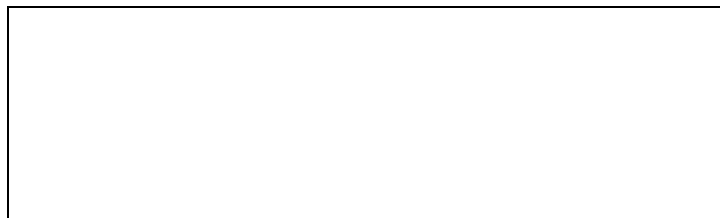
T.W.I.T.T. NEWSLETTER



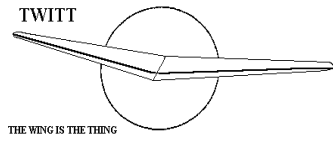
Since a major portion of this issue is on the Mitchell U-2 it seemed appropriate to have one on the cover.
Source: http://planensimple.blogspot.com/2008_01_01_archive.html

T.W.I.T.T.

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



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**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. Officers:

President: Andy Kecskes (619) 980-9831
Treasurer:
Editor: Andy Kecskes
Archivist: Gavin Slater

The **T.W.I.T.T.** office is located at:
 Hanger A-4, Gillespie Field, El Cajon, California.
 Mailing address: P.O. Box 20430
 El Cajon, CA 92021

(619) 589-1898 (Evenings – Pacific Time)
E-Mail: twitt@pobox.com
Internet: http://www.twitt.org
 Members only section: ID – 20issues10
 Password – twittmbr

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TWITT gatherings are held on the third Saturday of every odd numbered month, 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).

TABLE OF CONTENTS

President's Corner 1
Letters to the Editor..... 2
Mitchell U-2 Threads..... 3
Available Plans/Reference Material..... 7



PRESIDENT'S CORNER

Not a lot to cover this month so this column will be short.

As I note later there hasn't been any Nurflugel activity the past several weeks but all of a sudden the Mitchell U-2 group lit up. It apparently was the result of a group buying the Mitchell Wing Company from Larry Smith and moving the operation to Indiana. This is the company producing the A-10 and T-10 aircraft commercially and not the U-2 plans sold by Carol Avalon.

It sounds like the new company has some very ambitious plans for the future so will bear watching as they get everything going.

I hope everyone is getting back into the flying mode as we move into the summer. I went to a 3-day soaring safari in Arizona last month but unfortunately it didn't turn out like I would have wanted. Had car trouble, the weather didn't cooperate fully and the trip home involved some heavy crosswinds impacting the trailer. I am going to try another safari in July to the Owens Valley of California to see if that works out any better.



LETTERS TO THE EDITOR

Hi Andy,

Here is a recent exchange from a "bird builder" in Great Britain. I've also received a request for plans from a guy in Japan.

There is a great sense of personal satisfaction seeing others duplicate my experience with bird models!!!

Bob Hoey

--- Original message ---

Subject: Re: Seagull Model in Flight
From: John Norris <jcn@orpheusmail.co.uk>
To: <bobh@antelecom.net>
Date: Saturday, 05/28/2016 10:20

Hello again Bob,

I have flown the gull again a few times, it really is an absolute pleasure to fly it and everyone stops and asks about it, its great!

Here's a quick link to the most recent flight - <https://www.youtube.com/watch?v=JAnRNEReU-sI> had added between 10 and 15 grams against the front bulkhead and dialed in a little more elevator. It made a noticeable difference so I think I just had the COG too far back. I plan on adding perhaps another 10 grams next time and see how that goes. I've also now made the aileron differential adjustment we discussed in the last mail so I hope that trims it a little nicer too. Thanks again for your advice on these issues.

I posted a short build thread on the RCGroups forum as well as the YouTube videos. I've already had a couple of very interested parties ask me about the plans, everyone loves it. Obviously I don't want to be frivolous with your email address but if you are ok with it there are two people who would love to chat with you about it.

Also, I talked about tracing the working drawings again which I will make a start on this evening. I should be able to do an accurate job and I'll send you the file when I've finished. I hope it may save you some time and effort in sending out plans! It's what I did to make my gull and whilst others may be able to print out at a larger size, I had to tape a number of a4 pieces

together. Proof positive though that anyone with a PC and a standard printer can reproduce the plans and make it work.

John

From: bobh@antelecom.net
Sent: Sunday, May 15, 2016 4:46 PM
To: [John Norris](#)
Subject: Re: Seagull Model in Flight

Hi John,

You're two video clips definitely made my day!! Congratulations!

It looks like you had good roll control and good pitch control. Did the pitch seem too sensitive to you? It didn't look like it to me.

I would suggest you dial in a bit more up elevator and see if it trims better. If you feel it was touchy and sensitive in pitch, you might try moving the cg forward a little bit as well.

Looks like a great site for ridge soaring with plenty of wind. The additional weight was probably a help.

The airfoil I used has less reflex than my other bird models, so you will probably just have to accept the additional up-elevator in order to keep the model stable in pitch.

I could not see any excessive sideslip when you were starting turns, so the aileron bias seemed to be OK. If you see some adverse yaw (nose swinging in the wrong direction when you apply aileron), then you can increase the aileron bias a little (more leading-edge-down to both ailerons) to smooth out the turns.

Hope you enjoy your seagull as much as I have enjoyed mine!!

Stay in touch.

Bob Hoey

(ed. – My thanks to Bob for sharing this exchange on how one person has progressed with building and flying the RC Gull. The video is well worth watching and note the beautiful flying site. If only I had one the nice close to home I might consider getting back into RC slope flying.)

Mitchell U-2 Threads

(ed. – The U-2 group has been particularly active in recent weeks so here is what is happening in this aviation community.)

I have got the plans for the wood U-2, but the only thing holding me back is that it's a one seater.

Great for a personal experience, but when you would like to share your experience with some one else (Wife?)...

I definitely believe there would be a market for a 2 seat tandem U-2 "motor-glider" .

Doug Fairweather

Two-seater tandem was discussed many times here and without next reactions, development or building. As every flying wing, U2 have small range of gravity centre reserve, so building of tandem wouldn't be easy.

Friend own some redesigned MW B10, which is side by side two-seater. On U2 is wing too low - what about building U2 as some shoulder wing or B10 kind of MW plane? Anybody thought about U2 fold wing hang glider as was B10? Who have last B10 built by Don Mitchell? Could we list improvements?

Also owner of Mitchell Victory wing is around, so we can learn more. I think that Mitchell Wings deserve to be innovated and more acceptable by people, who want to build.

When I saw photos of A10 with metal sheet only glued to foam core, it doesn't got my belief :

Jeri

Hi everyone I'm Jim Gordon I had the Mitchell B10J (Jet) had ! 380 hours tt 40 jet. By that I mean I let a CFI, Multi engine, high performance, and helicopter rated, friend try to fly the Mitchell which consisted of a eight second rollover on takeoff. Pilot wasn't injured Aircraft sustained light damage. That has been a few years back if you ever wanted to know what happened to it. Good News about Mitchell Wing Company in a few days!

Jim Gordon

Great to see your on this group! I've been a big fan of yours ever since seeing you fly your jet Mitchell Wing at Oshkosh a number of years ago. You sounded just like a Mig going over my tent early one morning. I got dressed and hiked to the ultralight end of the field just in time to talk to you as you pushed the Mitchell into the parking area for ultralights.

I've hunted for affordable jet engines ever since. I had a B-10 at the time and had always wanted to make out a jet power unit that I could bolt on to swap with the prop engine. Since the tank could easily be removed I had figured I'd have a dual fuel line system with one for jet fuel and the other for 2 stroke gas. A quick pin system motor mount something like I had on my Easy Riser and I'd be in heaven.

I never found a motor in my budget and moved on to an A-10 and then a T-10 Mitchell Wing.

I've been to the old Mitchell company when it was in a missile silo in Kansas and also later after It was sold and moved to Iowa.

I'm not a big fan of the foam core wings as I found the mice here in Iowa love to nest in the wings but I did love the way the Mitchell Wings flew. The perfect Mitchell Wing would be an all aluminum ribbed wing covered like a conventional wing. I preferred the pods of the A-10's over the cage of my B-10. Now raise the wing over the pod a tad to make getting in a little easier for us older guys and then stream line the lower pod design into a rudder shape to lesson the drag and gain in the tracking department. Having the wing a little higher would be nice for landings too. I've almost dragged a wing tip on landing more than once and wished I'd had a tad more room to play with. I've had an idea of a amphibious version of my pod concept in my head for years but I have far more ideas than time to ever build and perfect my ideas.

I can't wait to hear what you have up your sleeve. There's nothing out there that can cruise on such little horsepower like a Mitchell Wing.

Camden Blue

Ok everyone I can tell you what's going on now my partner and I have purchased the Mitchell Wing Company from Larry Smith!

Jim Gordon

Cool. I'm interested in see what you come up with. In my opinion, the U-2 is a very unfinished design. A great prototype, but needs improvement. The metal wing designs were also interesting, but could use some improvement. Personally, I am most interested in a tandem seating design with a single set of controls, sort of like a motorcycle, that I can fly comfortably (I'm 6'2" and 200lbs). Too many designers (like Leon Davis) are much smaller. And if it can be licensed as a motorglider, all the better. Thoughts?

Matt Lawrence

That's exactly what we're going to do and do it in a high-performance metalized and we may do carbon fiber. We will still do the A-10 and T10 U2 high-performance all metalized 100-150hp.

Does anyone know what the M series is we got the prototype?

Jim Gordon

Is this different to Mitchell Wing that Carol sells plans for? I thought Carol owned Mitchell Wing or was she just selling the plans?

Ryan Derot

Carol Avalon sells plans for the wood built b10 and U2 we have the rights on all the metalized we actually own Mitchell aircraft company.

Jim Gordon

I think Don Mitchell separated aluminum A-10 business from the the wooden B-10 and U-2 before he died. Anyway the plans for the wooden planes have always been available from U. S. Pacific and the metal factory built planes from AmeriPlanes.

Norm Masters

We are running the Business under Mitchell Wing Company. I have been in contact with Carol and have discussed possibility of putting the two parts back together, that's our hope and dreams along with bring the aircraft up to date! It will take little time to sort out!

We will supply parts, manufacture aircraft from the legal ultralight all the way up to high-performance cross country and RPV. We believe in the Wing!

Jim Gordon

I have never heard of an "M" type Mitchell wing. Most of the people involved with the development are dead and gone. At the time I was at the factory in Kansas Ed Peden was the owner of the company. He had moved all the fixtures and jigs to his missile silo from the previous owners location and was doing very limited production. The company had changed hands so many times that many development facts are now obscured or lost. I'm sure no development occurred while Ed or Larry owned the company. I had some dual with Ed in his T-10 and later traded my world record altitude holding A-10 for an older T-10 he had at the factory. There were no "M" models there at the factory at the time so I'm at a loss as to where it even came from!

I'd suggest contacting Ed and then back track from there. Maybe it was a Tulsa version of some kind before Ed bought the company? I don't remember an "M" version when the company ownership was in California.

Ed Peden moved on to selling used missile silos for homes and can be reached here: Missile bases, communication bunkers and underground properties <http://www.missilebases.com/>

Missile bases, communication bunkers and underground p... <http://www.missilebases.com/> 20th Century Castles, LLC - National leader in the acquisition and sales of missile bases, communication bunkers and other underground properties.

Camden Blue

Many Thanks for info on the M . When we get it back to Noblesville I'll post some photos, it's a stream lined undercarriage The only info that I've come across with so far M was something about a MB10? I'll pull a little more info out of Larry from where it came from.

We have started moving items to Noblesville, IN. At this time we have here a T10D, our T10D has a 39.5 wingspan, should have it in the air in about 3 weeks. What we have to bring back an A10 and T10 wings with undercarriages and a T10 wing that was pulled apart that was setting on jig to do a new U2. Hope to have all relocated to Indiana by the end of June.

Jim Gordon

Any chance for an appearance at Oshkosh this year? You would not need anything flying, just a small tent either at the ultralight end or maybe more productive to place it around the Sonic's and Kitfox type of kitplanes section. Either way, word of the Phoenix Rising so to speak is sure to get the aircraft world buzzing.

Camden Blue

I will see what we can come up with! My plans are to have a new high-performance U2 flying for fun & sun next year.

Ok talked to Larry more about the M10, Same Airfoil as the A10 just straight leading edge winged. One built and was flown and later involved in a crash into trees. We have the low cage with fiberglass pod from # 2 that was being built. We'll have it back to Indiana this Saturday will send photos!

Jim Gordon

Sucks you weren't around last year, i spent 4 years building my U2.

Then there was too many unknowns regarding flying so I ended up selling her. The guy lied and said he was going to hang plane in a flight club for show and use instruments and engine. But he used engine and instruments and just left her sitting there in the hangar to rot away from the weather.... Very sad but no longer my plane.

She was fully covered and painted with Superflite system. Did taxi tests and all, she was pretty much ready to fly. Then at the field she was at there was 3 crashes in a month with 1 fatality. They refused to let her fly out there as they figured it was too dangerous and would crash.

We were going to change airports but money was running out. We were going to store her for the rest of summer and then fly her this year but then we got the offer to sell. She is still under cover in a hangar but just sitting there, kind of sad but what can you do.

Ryan Derot

Do you know who has it now, contact info? List of updates done and load test and where is she? See if we can make it happy!

Jim Gordon

Interesting, what's the purpose? The pod position would have to be changed as I'm sure the center of lift would be altered. What does the "M" stand for?

You mentioned your working on a U-2, is this going to be a foam/metal wing off a T-10 reconfigured as a mid wing or have you acquired the rights to the U-2 also?

You also mentioned "high performance", does that mean it's a clipped version U-2 with your jet engine on the back? Now that's an airplane that would draw crowds!

Camden Blue

She is in Surrey BC Canada. Never did load tests. Just taxi tests. Here is a link for her...

<https://youtu.be/EyrQ2VevkUA>

Ryan Derot

Please excuse my punctuation marks and spelling! I have no idea what the purpose was or what the M stood for?

Was told that it was a flat A10 wing. One was flown and later crashed into trees #2 was later picked up by Larry, said he has photos of it somewhere. I may have photos here now? Have lots of things to go through.

Don't plan on building one but, I want everything and anything that has anything to do with the history of the Mitchell Wing.

Yes on the U2 to do setups and testing since we already have the wings available later converting to carbon fiber. We already have a T10 trainer that will be ready to fly in about three weeks, and have 2 other T10 wings, one is already pulled apart to do mid mounting.

Our U2 or Phoenix as we may call it has nothing to do with the wood constructed U2 and I'm working with Carol on pickup the B10 & U2 . We would give plans out just for the cost of printing and shipping . We want the company back as one!

I have made her an offer and told her she could continue on printing the plans and keep all income ,just don't want the rights lost, she has had several heart attacks, and she would like to keep the company

business going as long as possible we would like for her to do that too!

For now working on CG of tandem layout, engine 60 - 150 hp.

Have an engine making 120hp at about 2.5 gph, looking at setting up with a variable pitch prop. Yes the high-performance. Will have a beefed up spar and skin. As far as turbine - would be looking at Allison 250 converted 325 lb 24gph weight 75lb stripped down to gas producer. Not sure on build jet toy? 2 place high-performance cross country glider yes! Sales on A10 and T10 yes!

Metalized wings! Seemed to work quite well, but would incase foam to protect it from the elements and clean up the rivets and do flush mount. It's all up to how much in time and money someone wants to apply. The A10 & T10 actually have a good safety record just pilot Errors!

I have 150, 152, 172, 177, 182, 210, J3, 108E ,PT17 B-19, 12B, 269, bell 206 & Luscombe time and Mitchell B10 (B10J). It never once give me any issues, Did what ever I wanted would fly 30+ cross wide. It was a good little plane!

Turboprop ? Could go straight up!! Plane weight say 600lb. 1096 lbt how about that? That's a toy! Welcome all input! Have a lot of catching up to do.

What did it weigh or was the prop not very efficient acts heavy? Our 3,000 field I could be 500alt Sod field.

Jim Gordon

How about the P-38?? Richard Avalon said he had plans available (after someone asked about them), and was willing to sell, but didn't have them advertised.

Andy A.

Don't think it really matters anymore, I just hope you guys make improvements to the wooden plans, create perhaps a technical support department. The wooden U2 plans are very hard to understand, its not a very easy build and had i not had another guy who just built his u2 help me along the way it would never have been finished.

Perhaps maybe build one video taping or photo graphing every step of the build or just revamping the

building manual.

It was also near impossible to stay in that weight listing, i found there was no actual gross max as everywhere you looked it varied by who was writing the article. I think she should be higher off the ground as i found the weights to balance the stabilators were very low and on a grass runway you had a risk of hitting them on the ground.

It was a very rewarding experience in the end seeing what i built from scratch, but i would never do it again or recommend a person build one until some improvements made. Covering properly and painting was expensive due to wing area.

If you ever like i can email you all the areas that both myself and the other builder had great trouble with and areas for improving that you may want to look at if you going to bring the wooden plans back alive.

I think for my u2, it is best to remember her through the photos and videos, know that she is at the airport to see if i ever want to see (which I don't as she was a nice bird) but also know that nobody got hurt or died test flying her. Way too many unknowns for pilots who have never flown a tailless design and at the end of the day, even guys who have thousands of hours in ultralights and flying different planes all were too scared to touch the u2. I had people email me saying she was beautiful but they were glad i never flew her as they themselves flew one once and nearly died and scared themselves half to death. Good luck and I look forward to reading the updates :)

Ryan Derot

Sorry to hear you sold her. I'm wishing now I would have taken my Mitchell wing ramps and a trailer out to Canada and picked it up when you offered it to me. Last I heard from you, you mentioned you decided to keep it. You were going to finish getting your wings and then see about flying the Mitchell wing later. If I had known you really wanted to part with it again I would have looked for a few more options.

A thrust jet on the back of that is something only a few of us have envisioned as the home-built version of a Messerschmitt. I looked at another U2 built by the Challenger airplane companies' former owner. It was too far gone to restore. The mice had chewed all the foam ribs out of the leading edge and everywhere else they wanted to. Mice and the Midwest seem to destroy many airplanes where foam is involved. My T-10 Mitchell wing has tunnels all over the wing core from

mice. I'd never trust flying it and they are not something one can fix with a little wood work and a cloth patch.

Camden Blue

I was going to keep her, got my wings and then had actually booked a truck to move her to a different airport with 5000ft runway.

After renting a spot I did not get a good feeling and cancelled the move, the airport was too big and she was the smallest plane there and no covered parking available - she would have been sitting outdoors. Then we were going to leave her for the rest of the year to let things cool down.

The build log was inspected and plane checked out and originally told she was good to fly, had 2 people say they would test fly her for me. Then after a few planes crashed they changed there story, was told the build log showed problems but they would not tell me what was wrong. Then the 2 test pilots suddenly said they were no longer interested in flying her. I was told i was a dead man if she flies, I would leave my kids without a father if we move forward with test flying. It became too much for me and my family and we decided no more spending money, no more drama. I then got a call and offered money for her, they said she would not fly and that one of the buyers were going to take engine and instruments and other buyer was taking plane to hang in a flight club. Talked it over and decided it was the right choice and safest option. We then used the money and bought a Team Mini Max from the factory that had flying time on it. Then when we went to get some refresher flying I saw her still in the hangar but no engine... Never went to look and see what they did to her and i guess it does not matter as it is no longer my bird. It was a huge accomplishment finishing her, building and learning so much.

Ryan Derot

Too bad your not moving the company a little farther south. I'm thinking about working during my retirement years and can't think of anyone that would make a better business partner for a Mitchell wing company than myself! We both love the airplane. We both want to see it survive and we both have vision of where it can be taken in the future. I've been a modeler since the 60's and flown many flavors of ultralights. I've also been a machinist for many years and know production, cnc machines and software and

web design. I too thought about purchasing the company even before Larry bought it.

Camden Blue

AVAILABLE PLANS & REFERENCE MATERIAL



VIDEOS AND AUDIO TAPES



(ed. – These videos are also now available on DVD, at the buyer's choice.)

VHS tape of Al Bowers' September 19, 1998 presentation on "The Horten H X Series: Ultra Light Flying Wing Sailplanes." The package includes Al's 20 pages of slides so you won't have to squint at the TV screen trying to read what he is explaining. This was an excellent presentation covering Horten history and an analysis of bell and elliptical lift distributions.

Cost: \$10.00 postage paid
Add: \$ 2.00 for foreign postage

An Overview of Composite Design Properties, by Alex Kozloff, as presented at the TWITT Meeting 3/19/94. Includes pamphlet of charts and graphs on composite characteristics, and audio cassette tape of Alex's presentation explaining the material.

Cost: \$5.00 postage paid
Add: \$1.50 for foreign postage

VHS of Robert Hoey's presentation on November 20, 1999, covering his group's experimentation with radio controlled bird models being used to explore the control and performance parameters of birds. Tape comes with a complete set of the overhead slides used in the presentation.

Cost : \$10.00 postage paid in US
\$15.00 foreign orders

FLYING WING SALES

BLUEPRINTS – Available for the Mitchell Wing Model U-2 Superwing Experimental motor glider and the B-10 Ultralight motor glider. These two aircraft were designed by Don Mitchell and are considered by many to be the finest flying wing airplanes available. The complete drawings, which include instructions, constructions photos and a flight manual cost \$250 US delivery, \$280 foreign delivery, postage paid.

U.S. Pacific
8104 S. Cherry Avenue
San Bruno, CA 93725

(559) 834-9107
mitchellwing@earthlink.net
<http://home.earthlink.net/~mitchellwing/>