



The R/C Flyer

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Next Meeting
March 11, 2010,
Clear Lake Park Building – 7:00 PM

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In The Pits

By Michael Laible, President

Hopefully this persistent cold weather will let up some. However, even though this is cold for South Texas, we still get to fly once a while. My Dad in St. Louis has been reporting 5-7 deg F – as a high. But things are letting up the first of March.

Soon the weather will break and the normal flying schedule will return. Before we get into full swing, remember to do a few checks – cycle batteries, check air frame for stress cracks, check for secure movable surfaces, check servo connections, engine mount screws, and last but not least – shake it. Nah, you don't have to shake it. The bottom line is just giving it a good check out.

I did this very thing with my old fun fly. I cracked it up at the last fun fly and quickly glued it back together and finished the competition. Just last week I was servicing all my planes and decided to give the old fun fly an hour or two of maintenance. Cleaned it up, couple new pieces of MonoKote, thin CA, and BAM – I reconsidered the decommission. I got a chance to fly this last Sat-

urday and had a blast. However, last year when I quickly glued it I didn't notice the bend. But what the heck, at my skills I will never know!!

We had three new members or guest at last months meeting. I want to make a personal welcome to Jerry Litjen, Paul Evans, and Mike Sullivan. From everyone in our club, welcome. If you need any help feel free to call any of the instructors.

Also at the February meeting we voted on having the 2010 JSCRC Spring Fun fly and BBQ on May 8th. So mark it on your calendar and come on out, even if you are not flying. Last time the Bean Loop was a great event, but this time I will remember the beans. Anyway, mark it on your schedule. To close the meeting Dave Bacque presented

his Dirty Birdy for Model of the Month and we watched a DVD on the Midwest Scale fun fly. Hope to see everyone in March

Final thoughts – I am a member of I.M.A.A. and they have a quarterly big bird magazine. Corky Hietman has a column called “Corky’s Corner”. This month he writes:

“With all the turmoil and uncertainty in the financial markets, and with a much larger than normal number of people unemployed, it’s easy to get into a general funk.

And that is where we modelers are very fortunate. Our hobby is the safe refuge where we can disengage our brains from the daily stress. Our hobby gives us a time and place to unwind, to recover, and to literally heal from the wounds inflicted by everyday life.”

How true.... Let’s have some fun and show off our new projects at the next meeting.

Happy February Birthday to:

- Paul Dostal
- Ken Juneau
- Michael Laible
- Jerry Litjen
- Dick Roddy
- Blaine Valentine

Until next month - - -

See ya at the field.

Mike

CURRENT PROJECT: B-24

By Mike Laible

The B-24 project is moving along. In a separate article Herman Burton describes the progress on the wing and this article will give a progress report on the fuselage.

Before I begin, a friend of mine is aware of this project and loaned me a book about B-24s. It seemed he picked up the book when a librarian was throwing out all WWII books. The librarian said “No one reads them anymore and they needed the room”. So he collected them. The book he loaned me is by Philip Ardery, “Bomber Pilot: A Memoir of World War II”. All I got to say is it is great and I highly recommend reading it.

The first pic is of the fuselage completely sheeted with three turrets installed. Some final sanded is needed and all the windows laid out



The basic construction of three turrets are complete and only one to go. When I say basic construction, I mean just that. They move, retract and rotate but the interior details are still needed. The

pic below is of the completed front and top turrets. Both these turrets rotate and the front will have elevation rotation on the guns.



The operation of the turrets, bomb bay doors and bombs will be from another radio. So the complete ship will be operated with two FM radios, one for all flight operations (pilot) and one for air defense and bombing (bombardier and gunner)!! How cool.

FUNCTIONAL FOWLER FLAPS For the B-24

By Herman Burton

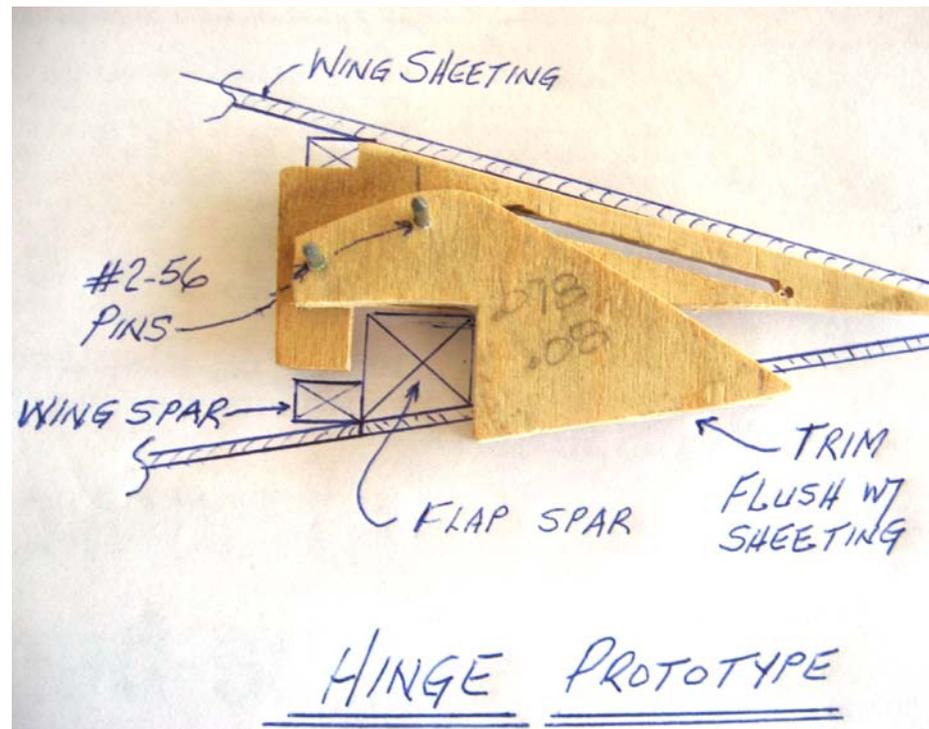
There have been several construction features of the Don Smith 146.3” wingspan B-24 bomber presently under construction by Mike Laible and me that have presented some head-scratching moments. None to date has been quite as perplexing as the design, installation and assembly of the Fowler flaps for this big bird.

The plans call for simple CA flat hinges, installed at the rear spar of the wing and the split flap longitudinal spar. These types of hinges work fine, and are simple to install. The final result is a flap that rotates about its spar, somewhere near the bottom.

However, during several review sessions of the flaps between the two builders, the decision was made to make every attempt to keep the scale appearance of the B-24, whenever possible. And the B-24 did have Fowler flaps, which extended both rearward and downward during deployment. Anyone who has flown a modern commercial jetliner, and looks at the wing during landing, will notice the trailing edge of the wing moves rearward, then downward, to increase lift during landing.

So, Mike dusts off his aeronautical engineering cap, dons it, and carefully designs a hinge that is a very good Fowler flap in performance. The design allows a horizontal extension of the flap of almost two inches, and a vertical downward movement of nearly 1-1/2". A friend in the model business agrees to laser-cut the components out of 5-ply aircraft grade plywood. The model we are building has a flap nearly 38" wide, so the decision was made to use four hinges per flap.

In due time the hinges arrive, and they are works of art, both in design and in fabrication. I had completed the construction of the top of the wing, and where the flap would be, short riblets had been left in place so that the flap could be cut out as a one-piece unit. I had per-



formed this identical type of flap construction on my giant P-47 recently, and was familiar how the system needed to work.

The hinges are composed of a male component, and a female component. The male part is fitted between the wing trailing edge spars, and fits flush against the top of the wing sheeting. The female part attaches to the sheeting of the flap. The male part has a slot mirroring the movement of the flap, and two small holes in the female component track the movement. These holes are 0.075" in diameter, the exact size required for a smooth #2-56 rod to easily slide in and out for retention purposes. The photo below is a sketch of the prototype.

Keeping the two parts of the hinges exactly

parallel to each other turned out to be the most difficult part of construction. I spent many hours assembling the flap to the wing, spot gluing the hinge, checking for movement, and then see if full deployment could be achieved. Each time, not! So, back to the drawing board, as the old saying goes.

I did not realize until many trial and error assemblies that not only did each hinge have to

be perpendicular to itself, but each hinge had to be parallel to all the other hinges, as well. Otherwise, when the 38" wide flap starts its rearward movement, binding of the hinge components will occur. The flap binds on itself, and stops dead in its track.

Finally, I was able to find a location for the two outboard hinges that seemed to work quite well, and permanently glued them in. Mike and I had previously decided that we needed two servos for this size flap, one near each end. [Building servo compartments with solid wood mounting blocks was a recent construction article.] The two inner flap hinges were installed, and the flap construction was essentially finished.

Some final sanding and installation of ball joints on each end of the servo control rods finished the installation. A Futaba 9CAP computer radio will be used for this airplane, which allows for the servo arm movement to be changed from the standard 60 degree arc movement to about 175 degrees to get the necessary horizontal travel of the Fowler flap. The hinges travel about $1\frac{3}{4}$ ".



The photo to the left shows the B-24 port wing, looking from the tip toward the root. The frame is in the bones, and the aileron is shown in the foreground, with the completed flap on the wing in the up position.

The next photo shows the same wing, with the flap in the deployed position, ready for landing.



The last picture shows one of the two intermediate Fowler flap hinges in its installed position. The small rods shown are the smooth portion of a #2-56 control rod.



The Fowler flaps work smoothly, and will be a nice asset in landing plus scale appearance. And now that I know better what I am doing, the flaps on the next wing half will not take as much time as this first one did.

Model of the Month



Dave Bacque
MOM Winner.

Dave Bacque won Model of the Month with his beautiful Blue Jay Models "Dirty Birdy"

See what your missing!! I hope I see you at the next meeting.

February Meeting Pictures

Photos by Taswall Crowson



February Meeting Minutes

By Kent Stromberg

New Business:

3 new potential members

Peter Evans
Jerry Litchen
Mike Sullivan

Refreshments next meeting Phil

Discussion of Spring Fun Fly Settled on May 8th as best date

Discussion of Shirts, Hats etc. Tan, Grey, White use last years order as basis.
Check into Decals, and patches

Treasurers report: 6,411.00 Balance after disbursements

Internet will stay at present level of disk space at a cost of 180.00 to increase to double the size will cost 288.00. It was agreed to keep at same level this year.

Discussion of member access to web site. Use last name and AMA #

Model of the month winners

Dave Bacque

The R/C Flyer

Articles and Want Ads may be submitted to the Editor, Randy Collier at 12323 Ramla Place Trail, Houston TX 77089 in hard copy or via e-mail (preferred) to randy_collier@sbcglobal.net Please have your submission in two week prior to the next meeting.

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