



Texas City Wings



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August 2009

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Next members meeting will be at the field, September 26th 8:00am. The time was changed from 9:00 due to races scheduled at that time

Carbon Fiber Components (Another more than you want to know)

By: Harvey Cappel

Last month James Grassmuck asked me as an Engineer to help him decide if substituting a carbon fiber tube for his aluminum wing tube to save 11 ounces of weight would work.

He gave me the dimensions of both tubes. My first thoughts were:

- 1) I can do it.
- 2) The aluminum tube seems to be much greater wall thickness than required.
- 3) The carbon fiber tube seems to be much thinner wall than I believe will work.

After a little research I found out that carbon fiber is potentially about four times stronger than steel in tension (loads tending to stretch it). I

couldn't find anything on compression or allowable bending stresses.

So although I can determine the stresses in the tube (simple mechanical design) I had no information to determine if the carbon tube could withstand the stresses.

Later I came to realize that carbon fiber products are produced much like fiberglass products and their strength is determined by the way they are mechanically made, the adhesives used and possibly the way they are heat cured.

So what to do? A full scale test sounds like a solution to me but James wanted no part of that. I tried to tell him how club members would

really want to watch especially if the test failed. He still said no.

So for a wimpy James I recommend this.

- 1) Make a mock up of the tube sleeve.
- 2) Buy a sample of the tube you want to use so you can test it.
- 3) Calculate a load test as follows:

Each end of the wing tube will be supporting roughly one half of the airplane's total weight. So a one "G" load will be half the airplane's weight. Now decide how many "G's" you wish to subject your airplane to. How about 10 "Gs". Then consider a safety factor of say about 50%.

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Texas City Radio Club Meeting Minutes August—

By David Gatling, Secretary

These are the minutes for the Texas City Radio Control Club meeting of August 29, 2009.

The meeting at the TCRCC flying field was called to order at 9:00am by President Michael Grassmuck. A quorum was met with 27 members in attendance.

Visitors: Ron Williams

Secretary's Report -

David Gatling: The minutes for the July 2009 members meeting were accepted by the membership as presented in the July newsletter.

Treasurer's Report -

Ray Saenz: Ray presented results for the months of July and August 2009. An audit of the treasury was made in August and found in order.

President's Report -

Michael Grassmuck: Directors are working on the Christmas party.

Nominations for directors will be held in October.

Mike will pursue obtaining a Gold Club certificate from the AMA for TCRCC.

Vice President's Report -

Randy Brown:

Randy will apply to AMA to reserve the Saturday of Father's Day weekend for the 2010 Big Bird event.

Event's Section Report

Mark Weiss: Mark has Quicky 2 pylon and Club 40 races scheduled for September 19th. (Note: the date was changed to September 26th due to conflicts on September 19th).

Also, there will be a member's only and families Fun Fly scheduled for October 10th.

Volunteers will be needed for both events. Contact Mark Weiss for the races and Mike Grassmuck for the Fun Fly.

Newsletter Editor Report -

Kyle Tupin: Kyle requested articles and pictures for the newsletter.

Safety Officer's Report

-Butch McEachern:

Butch statement to the membership "Just don't be stupid".

Pilot Instruction -

Harvey Cappel: Presently there is one student pilot.

Field Marshall's Report

- The field is being maintained thanks to the volunteer

mowers.

Old Business - none

New Business - A change in the TCRCC constitution and by-laws is required to conform to federal income tax regulations. The statement, "Donations are tax deductible" in article 2 of the by-laws must be removed. A motion was made, seconded, and passed to remove the statement.

Harvey Cappel presented a list of criteria and cost estimate (both are attached) for the proposed TCRCC field building - club house which the building committee prepared. The committee members are: Don Roccaforte, Glen Pope- alt., James Suggs, Mark Weiss, Mike Grassmuck-occasionally, Randy Brown - alt., Walter Clemishaw, and Harvey Cappel- committee chairman. The committee was congratulated by the membership for their good work in developing the plan.

Harvey stated that FEMA regulations could be a major problem in the requirements of the building construction leading to some major expense. He worked with Texas City officials and agreed to declare the building inhabitable and therefore the building would not be regulated by FEMA rules.

Harvey will negotiate with Texas City officials to help finance and hopefully obtain a no interest loan for the building.

The proposed building will be lo-

Carbon Fiber (continued)

(Continued from page 1)

So the load now, for this case, will be one half the airplane's weight times 10 times 1.5. For a 20 lb. airplane this will be $20 \times 0.5 \times 10 \times 1.5 = 150$ lbs.

4) With some sand bags or something similar gently and as evenly as possible add the 150 lb weight to the wing tube extending out from your mock up tube sleeve.

If it doesn't break then go for the real full scale test in your airplane, Remember this is a money back deal. If this doesn't work you get your money back. Send request to:

Good Luck

U pick um address

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cated on the present grand stand slab. The disposition of the steel grand stand will be decided later.

A motion was made and seconded to accept the committee's building proposal only if financing can be arranged with Texas City, otherwise a new proposal will be required. The motion carried with 22 yes votes 4 no votes and 1 abstaining. The quorum required was 14 members.

Show and Tell – Butch McEachern displayed and flew 6 small paper aircraft replicas of antique aircraft which were very nice scale reproductions. He downloaded from Fiddlers-green.net. Several members enjoyed flying the small aircraft.

Meeting was adjourned at 9:45am.

Next members meeting will be at the field, September 26th 8:00am. The time was changed from 9:00 due to races scheduled at that time.

TCRCC BUILDING PROPOSAL 8/29/2009

1) How did we determine size, use and location of building?

a) Wanted to see flying activi-

ties.

b) Club meetings/parties etc.

2) Construction of building (1204 SF, seats 60) (describe building)

a) Wood vs metal vs used modular. (Meets all Codes, TWIA Insurable)

b) Future use of building

c) Flood concerns (bottom 4 feet protected)

d) Flat work, AC's, security and handicap access.

3) Cost of building (\$45,315) or for FEMA (\$49,715)

a) Firm bids.

b) Committed free or discounted help:

1) Engineering, Drawings, Construction Management

2) Electrical labor (Club furnished drinks and food)

3) Electrical certification (minimum fee)

4) Free Permits

5) Movement of grandstands

c) FEMA elevation may not be required (non-inhabitable building)

d) Commercial building masonry façade requirement will be waived.

4) Financing

a) Co-Op 70/30 with City & interest free loan. (Longer payout for

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smaller club)

b) Sign rights as “Landry Center” or “Randy Brown Building”

5) Per member cost based on highest estimates, 25 year pay-back and 80 club members.

\$22.66 per year or \$1.89 per month. (For FEMA \$24.86 per year or \$2.07 per month)

(Upper limit of annual pay-back will be set at 40% of annual collected club dues)

Finally: Your vote to approve the proposed project is only valid if the cost to members is not significantly changed from what we anticipate today. Any major change to plans or cost will cause a re-vote on changed plans.

After an affirmative vote we will discuss the use and location of grandstands.

- 1) Give both back to City.
- 2) Give one to City and keep one.
- 3) If we keep one where will it be located?
 - a) In grass for future use
 - b) South end of field. (Can't see much)
 - c) Extreme north end of north parking area.
 - d) Extreme south end of north

parking area (about 25 feet from end of shed).

On the Safe Side

The Attitude of Gratitude

By Don Nix, *Insider* Safety Column Editor

Although there are regrettably a few among us who seem to occasionally think otherwise, flying model airplanes is a privilege, not one of the “inalienable rights” spoken of so eloquently in the U.S. Declaration of Independence.

And what a wonderful privilege it is that we live in an age and a country where all but those of the most meager means can afford to fly at least some sort of model. Thanks to present technology, most can afford to fly Radio Control, either electric or combustion-powered. For that, we modelers should be grateful indeed.

Here is where safety enters the picture: Anyone who has been flying more than a couple of months has undoubtedly seen a local hotshot who seems to think the rules are for you, and you, and you, and me, and not for him. After all, he “knows how to fly.”

At the infamous (but no

longer available to modelers) Mile Square Park in Orange County, California, where I usually flew when I lived in the L.A. area, we had 12 flight stations that were frequently all active at the same time. It was quite common to see 50 or 60 fliers out on a good-weather weekend. Clearly, this was an environment where courteous flying and “safety first” should have been the standard. Many times it was; too frequently it wasn't.

It always seemed as if some self-designated hot flier had to demonstrate his skill with shoulder-high passes at 120 mph a few feet in front of 11 others. Requests that he refrain from doing such were usually met with, “Get out of my face! I know how to fly!” I have to admit to a barely suppressed desire to wait until his airplane was far off the end of the field, clip his antenna at the base with bolt cutters and say, “You're through!”

L.A. and Orange counties compose a monster-plex of some 14 million people with all the accompanying potential interference generators known to human kind. Dear hearts, please write this down and date it: It does not matter how good you are if your frequency is suddenly zapped by outside sources.

This was demonstrated one Saturday when a particular flier got



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AMA Charter #1075



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“hit” and his model ended up going through the open tailgate of another flier’s station wagon. Happily, no one was hurt ... that time. Fortunately, our technology has developed to the point where such instances are becoming less frequent, but the potential always exists.

Of course, mechanical, electrical, or structural failures are quite common. A servo gives up the ghost, we fly a little too long for the battery power left, something somewhere breaks. When any of these things happen, skill is of little use.

It’s not only appropriate to speak to anyone whom you see flying discourteously and perhaps dangerously, but for the safety of others and our hobby, an obligation. It can certainly be done in a non-confrontational manner, and if that doesn’t work, recruit one or two others and approach him with some backup. Numbers do help in a touchy situation.

Comments (pro or con), personal experiences, and suggestions for future subjects are always welcome: flyerdon@aol.com.
