

Spring 2005

Thermal Journal

Dedicated to the never-ending battle against the law of gravity

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Submissions the Thermal Journal in the form of letters to the editor or articles are always welcome. Use the editor's address provided above.

The Editor's Line

For all of you that didn't notice, this is the second issue of the TJ under new editorship since Hugh stepped down. Hugh certainly did an excellent job for a number of years. We all owe Hugh big thanks for putting in the effort and time to make sure the TJ was published and distributed for all club members' benefit. Well done Hugh! Time for you to take a well-earned break from the publishing grind and get back to some serious building and flying. I'm sure I can speak for everyone in the club when I say we look forward to seeing Hugh on the field this coming season with his latest flying creation. (However, Hugh, that doesn't mean you can't take a moment to snap a few pictures for submission, with captions, to your favorite newsletter.)

Even though Hugh left rather large shoes to fill, I have an advantage that has already made the task of publishing and distributing the TJ quite a bit easier. Alan Estill has agreed to be part of what I call the "office of the editor". Alan's computer skills and familiarity with newsletter publishing have already been put to good use on the previous TJ issue. If it hadn't been for Alan's great efforts you would probably be receiving the Holiday TJ about now. Great big thanks to Alan for all the effort and good results. (Alan has also volunteered to be the Indoor Flying Site coordinator. Please send Alan any leads on indoor flying opportunities.)

I hope everyone finds the new format acceptable. Designing to a more common paper size should make it easier for those who receive the TJ via e-mail to print out a copy on their home printers. Hardcopies can be folded to a standard business envelope size and delivered via US mail.

The Editors Line Continues on the last page

Members of the WNYFFS,

I want to thank all of you for your cards of sympathy and generous contributions to the St Jude Children's Hospital in remembrance of Eileen. The hospital was her favorite charity and she would be very pleased with your thoughtfulness and generosity. Although Eileen did not frequent the field very often due to problems with being in the sun excessively, she thought of all members as her friend.

On behalf of our daughters, Jennifer and Elizabeth, I want to thank each of you for your kindness and sympathy.

Bob Rambo

Dates to keep in mind:

RIT Engineering Fair for high school students on April 28. Contact: Bob Clemens.

The Great Grape Gathering (GGG) will be held on June 24, 25 and 26, 2005.

HAG 1941 Air show will be July 9-10, arrival day July 8, 2005.

The FAC Non-Nats will be held on July 16 and 17, with judging on July 15, 2005.

The Empire State Championships will be held on August 19, 20 and 21, 2005.



My Tissue Techniques by Bob Clemens

1. Entire framework is carefully shaped and sanded smooth, finishing with #400 sandpaper.
 2. Framework gets a coat of clear dope at all points where it will touch the tissue, either Sig Lite Coat or nitrate.
 3. Doped areas of framework are lightly sanded with 400 paper to remove "fuzz" raised by dope.
 4. Another coat of dope is applied to the framework. Light sanding again if needed.
 5. Oversize piece of tissue is placed over area of framework. Using a brush, acetone is applied to tissue where it touches doped framework. The acetone instantly penetrates the tissue and causes the dope to become sticky, adhering the tissue to the framework. Work from rib to rib, upright to upright, etc., keeping the tissue snug as you go. Pull out wrinkles; re-apply acetone if needed to help. Work slowly and carefully. Be patient.
- NOTE: Be sure the tissue grain runs spanwise on wings and tail pieces. This will prevent undue sagging between ribs. You can determine grain direction by tearing the tissue. If it tears straight and easy, that's the grain direction. If it tears with more difficulty and in a jagged fashion, you're going across the grain.
6. Shrink tissue with rubbing alcohol or water. If necessary, pin structure down to avoid warping as tissue shrinks.
 7. Trim tissue using sharp razor blade, allowing a slight wrap-around at edges. Seal edges with clear dope. Give finishing piece two coats of clear dope thinned 50/50 to seal and protect it. Do not use butyrate clear dope, as it shrinks badly and will cause serious warps! Sig Lite Coat is butyrate, but with plasticizer added to prevent shrinkage. Aero Dyne in CA sells non-shrink nitrate dope, which I think works as well:

www.freeflightmodels.com

For very light wing and tail structure, I pre-shrink the tissue by laying the pieces on a framed window screen and spraying them with water. When dry, they are wrinkled and I iron them flat with a medium iron. The tissue will still have a texture to it, but that won't effect flying qualities. Apply as above.

Those wheel pants can be covered by using wet tissue. Using a shallow pan of water, submerge the piece of tissue, then blot it with a paper towel. Apply as above. You'll find, with some practice, that wet tissue will conform to curved surfaces much, much better than when it's dry. You should be able to cover the pants with two pieces.

Indoor Flying at RMSC

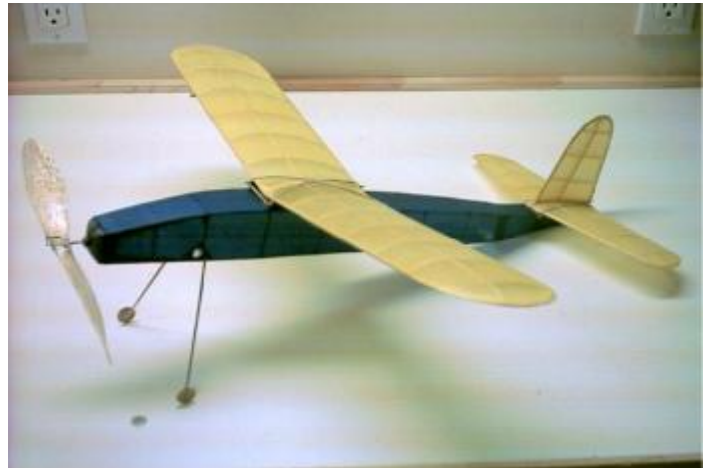
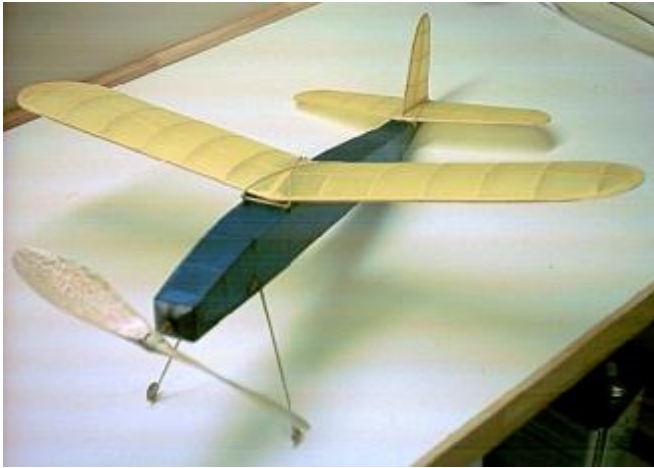


The WNYFFS demonstrated indoor free flight at the Rochester Museum and Science Center on December 18, 2004. Here Don Steeb explains his ornithopter to a curious young admirer.



WNYFFS members Carl VanVoorhis, Bob Clemens, Jim Detar, Don Steeb and Ed VanWagner man the tables loaded with indoor freeflight models at the RMSC demonstration.

WINTER BUILDING CONTEST ENTRIES – results in "Editor's Line", page 1



This design "Chad 20" was published in an English club newsletter in 1942. Originally for tethered 'round-the-pole' flying it was modified for outdoor flying and over the course of a few years built in various sizes by the designer and clubmates, even up to and including Wakefields.

Though it was never commercially published or kitted it - and a couple of other variants - are fully accepted for SAM Vintage events in the UK . On that basis I presented it to the FAC hierarchy for consideration for Two-Bits, fully expecting it to be summarily rejected but eventually got an 'Okay' from Lin Reichel ... and built it.

Only 20" span, it has almost as much wing area as a FA Moth, a nice under cambered airfoil and, in its present state, weighs just 18 grammes though I expect it to need a little nose ballast. How well it performs remains to be seen.

Regards, Jim Moseley

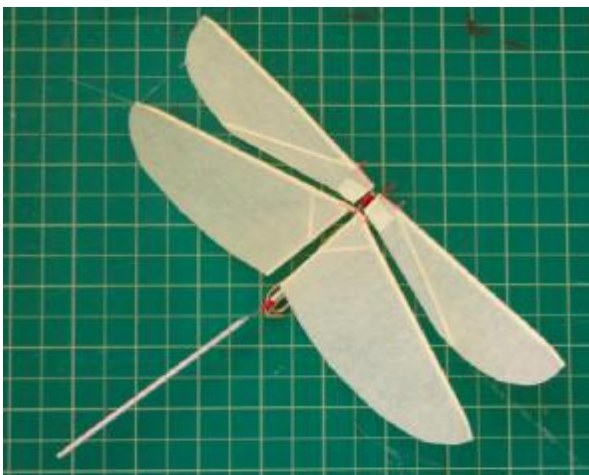


This little flapping-wing model is called the Mayfly. When I started building it, I figured it may fly, or it may not! After trying a variety of different wing designs, finally it does fly, and quite well in fact. The biggest challenge was coming up with a design for the front wing since there is so little root chord to support the tissue.

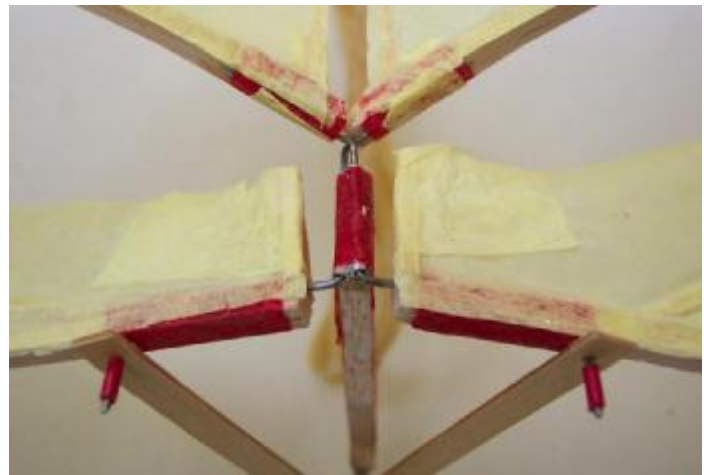
The body of the Mayfly is from The Ornithopter Zone's Freebird kit. To make it into a four-winged insect, I added a special wing hinge setup. The steel wire from the left wing crosses over to the right side and the right wing is attached to it. The other side has the opposite setup, slightly lower so the crossing wires don't interfere with each other. The tail has no aerodynamic function. It does work as a functional elevator though. Bending it up or down shifts the CG slightly, relative to the thrust line.

Nathan Chronister

Mayfly making its way across the living room.



Mayfly overview.



Close-up of wing hinge apparatus.

KeilKraft "SENATOR" Global Postal Challenge

January 1st – December 31st 2005

First kitted by KeilKraft in 1950, the 'Senator' has become recognised as an excellent design that combines simple robust structure with outstanding performance. Very popular in British 'Vintage' events, it also can do well in North American 'Category III' classes – Nostalgia Rubber, Moffett and Mulvihill, etc. for which 120 second maximums are a formality and it can be taken well past 180 seconds with little extra effort.

There is no entry fee. The winner will receive a minimum prize of US\$80.00, or the equivalent in any other currency – the final sum will reflect exchange rates at the close of the event but presently equates to approximately C\$100, £45.00, A\$110.00, NZ\$120.00, etc. Further enhancement of this sum and/or provision of further prizes is dependent upon any donations received*. The lengthy timescale of this Postal is to permit any modeler an opportunity to participate, no matter where in the world they might be located. * (A 2nd prize now confirmed)

Models are to conform to the standard Senator kit plan; the structure may be amended only for the purposes of D/T installation – whether tipping stabiliser (LE down), tipping wing or hinged rear fuselage – and the undercarriage leg may be removable for storage/carrying purposes. Glazing of the 'cabin' is optional. Any freewheel propellor up to a maximum of 13" diameter may be used and there are no restrictions on rubber motor size/weight.

Three flights shall be made to a 120 second maximum. If three Maximums are achieved, then successive flights may be made with the maximum increasing by 60 seconds on each occasion, until the target time is not realised e.g. 120. 120. 120. 180. 240. 211 = Total Score 991 seconds

All flights to be pre-nominated to a timekeeper; the initial three should be made on the same day but successive flyoff flights may be made at the flyer's discretion, similarly timed.

A plan may be viewed at <http://members.rogers.com/hunter8477/> with a download also available, or contact me in the event of difficulties, or with any questions that you might have.

Entries/scores may be forwarded to me at any time and I will endeavour to keep participants informed with regular interim updates as well as a final report and result sheet, which will be further publicised as widely as possible. Accompanying anecdotes and photographs would be very welcome and are encouraged.

I hope that you will give this event your support and also encourage others to participate. The 'Senator' is a vice less airplane, easy to build and to fly with very satisfying performance; my only advice is to keep the structure aft of the CG as light as possible to reduce the need for any nose ballast to a minimum.

Happy Flying!

Jim Moseley

19 Banner Crescent, Ajax, Ontario L1S 3S8, Canada
(905) 683-3014 jjmoseley@look.ca



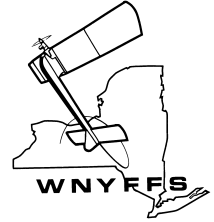
Nice pictures of bare bones and finished model of the Senator. Bare bones model by Ron Hummel while the finished model is presumably by contest sponsor Jim Moseley. Seems like a simple structure, no entry fee and with only one wheel to make, everybody should build one to try for the cash prizes.

GREAT GRAPE GATHERING 2005

(Since 1971)



Geneseo, NY, 1941 HAG Airfield
Friday Saturday and Sunday
June 24, 25 and 26



FRIDAY FREE FLIGHT EVENTS

1/2A Nostalgia
0.020 Replica/1/4A Nostalgia
Diesel Duration (8)
P30 (10)
Small Towline Glider (7)
Cloud Tramp (4)
HL/CL Glider combined (1)
Senator
FAC Embryo Endurance
Classic Wakefield (5)

SUNDAY FREE FLIGHT EVENTS

AMA A/B/C Gas
Unlimited Towline Glider (6)
SAM Small Rubber Stick to 150 sq.in.
Large Rubber Fuse >150 sq.in.
FAC Golden Age Civil Scale (3)
Mulvihill/Unlimited Rubber (9)

Contest times are from 8:00AM to 5:00PM on
Friday and Saturday, from 8:00AM to 4:00PM on
Sunday.

**VALID MAAC or AMA MEMBERSHIP CARD
REQUIRED**

ENTRY FEES: \$10 for the first event, and
\$5 for the next ones to a \$25 maximum.

BARBECUE: \$10. To be held Saturday
night in a hangar as soon after 5:00 p.m.
as possible.

Contest Director: Brooks Goodnow, WNYFFS

FF Event Director

Jim Moseley
19 Banner Crescent
Ajax, Ontario L1S 3S8
905-683-3014

jjmoseley@look.ca

RC Event Director

Roy Bourke
56 Clareville Crescent
Toronto, Ontario M2J 2C1
416-493-0111

rsbourke@3web.net

SATURDAY FREE FLIGHT EVENTS

FAC OT Gas Replica Electric
Bob Gordon Trophy/Classic Gas (2)
1/2A Classic Gas
ABC Nostalgia Gas
Diesel Duration (8)
Nostalgia Rubber
SAM Commercial Rubber
SAM Small Rubber Fuse. to 150 sq. in.
SAM Large Rubber Stick >150 sq. in.
FAC Two-bit Old Timer
HL/CL Glider combined (1)

R/C EVENTS

Friday

LMR Wakefield (2)
Special 1/2A Texaco (1)

Saturday

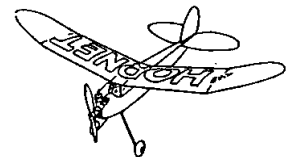
Special 1/2A Texaco (1)

Sunday

TBA

SPECIAL EVENTS

Mimi, Scotty Murray Memorial and Ladies
Cloud Tramp, schedule to be determined.
If numbers warrant, there may be an
informal Ebenezer event. For Mimi or
Ebenezer plans contact Richard
Barlow, toad.hall@sympatico.ca or Don
Myers at donevanmyers@yahoo.com



Contest Manager

Jim Anderson
135 Margaret Pl.
Brockville, Ontario K6V 6Y6
613-342-5613

janderson@ripnet.com

**Event Rules can
be found on the
following page.**

GGG FREE FLIGHT EVENT RULES
VALID MAAC or AMA MEMBERSHIP CARD REQUIRED

All events except HL/CL glider and Mulvihill to start with 3, 2-minute flights, then 1 minute increments. Builder of the Model rule applies to all free flight events except Cloud Tramp. Current SAM, AMA, FAC and NFFS rules apply where applicable, subject to CD discretion and the following notes.

1. **HL/CL Glider:** AMA Rules. Fly Friday and/or Saturday and score the best 3 of 6 flights.
2. **Bob Gordon Trophy/Classic Gas:** Any size engine, no moving surfaces except DT. Engine run: 7 sec. glow; 9 sec. diesel.
3. **FAC Golden Age Civil Scale:** No judging except 45 point minimum must be confirmed.
4. **Cloud Tramp:** Builder of Model Rule waived this event only. Time to be announced for Ladies' Mass Launch.
5. **Classic Wakefield:** Any 4 or 8 oz. Wakefield built to the rules of its era; pre-1943. ROG required.
6. **Unlimited Towline:** Any size/weight model, straight tow only, no bunt and no moving surfaces other than autorudder
7. **Small Towline Gliders:** up to total Max area of 300 sq. in. Straight tow as in Unlimited Towline.
8. **Diesel Duration:** Engine run 12 sec. Three qualifying flights Friday and/or Saturday for a qualifying total of 250 sec. Qualifiers make an unlimited flight between 0800 and 1000 Sunday.
9. **Mulvihill:** Any rubber powered model of 300 sq.in. wing area or less. Make 3 qualifying flights of 2, 3 and 4 minutes, then one minute increments. If a max is not achieved on an early flight, subsequent max flights may still be attempted
10. **P30:** Weight of air frame to be checked once and then the model with rubber after each max.
11. **Morgan Wakefield:** Plans available from Floyd Reck, SAM Plans Service

GGG RC EVENT RULES
VALID MAAC or AMA MEMBERSHIP CARD REQUIRED

Contest times are from 8:00 AM to 5:00 PM on Friday and Saturday and from 8:00 AM to 4:00 PM on Sunday. Current SAM official rules apply where applicable, subject to CD discretion and the following notes.

1. **Special 1/2 A Texaco, Bob Gordon Rules.** Six attempts for 4 official flights. May be flown on Friday or Saturday. Any 1/2A engine. Fuel allotment is 1cc per 0.01 cu.in. of engine displacement, rounded to nearest 0.01 cid. Any SAM legal 1/2A Texaco or 1/2A Scale duration. Wing loading for monoplanes 8 oz./sq. ft. and biplanes 6 oz./sq. ft.
2. **LMR Wakefield:** Any SAM legal (pre-1943) Wakefield model. No scaling. Speed 300 or 280 motor; up to 7 NiCd cells. Gearing and folding prop allowed. 3 attempts for 2 ROG official flights, 5-min max, sum of 2 official flights scores. (For full rules, see <http://www.cometkid.com/shilen.html>)

GGG Special Event Rules

Mimi Rules: Plans from Aeromodeller, Sept. 1953 or from Richard Barlow. This special GGG event may be flown on any day. The idea is not long duration by precise duration and is to be attempted as follows: Six attempts to achieve three official flights. Choose three of the official flights as "counters". An official flight has a 20 sec. Min. and 120 sec. Max. Submit three which most closely total 180 sec. e.g. If you logged two flights of 45 and 71 sec., you now try for 64 sec. In case of a tie, three most consistent flights win. No engine timers of DTs permitted. Model may be hand launched or ROG, your choice.

Scotty Murray Memorial: This is a small cabin target time event for which the Dakota qualifies. Any built up fuselage model of stick and tissue, foam board, sheet box or planked construction. No open cockpit or painted pylons. No profiles. Any engine of 1 cc or smaller. No timer fuel cutoff. Engine run time by "guesstimation". Flight to be between 60 and 180 seconds. Score to be composed of total difference between the first flight and each of the next three. Lowest score wins.

Ebenezer: Virtually any all sheet, profile model with a 0.01 to 0.049 engine that is in the spirit of Bert Striegler's Ebenezer WWI biplanes as featured in the April 1958 Aeromodeller magazine. No other rules except, be ready for a mass launch at count down.

One on One

If you want to talk to a free flyer directly, the names listed here are people in the area who can offer advice on getting started or have a suggestion for a first kit or tips about what to ask for at the hobby store.

Auburn

Brooks Goodnow
22 Lakehurst Drive
Auburn, NY 13201
315-252-9170
bgood@a-znet.com

Canandaigua

Jack Barker
2067 Route 65
Bloomfield, NY 14469
585-624-2844

Buffalo

Brad Bane
60 Lake Ave.
Lyndonville, NY 14098
585-765-9363
windwhip47@aol.com

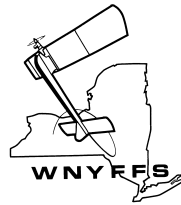
Rochester

Bob Clemens
95 Shoreway Drive
Rochester, NY 14612
585-392-3346
rclemens@compuserve.com

Brockport

Vet Thomas
970 Clarkson-Parma Road
Hilton, NY 13021
585-392-5164
vthomas1@rochester.rr.com

To Join the WNYFFS complete this form (or a facsimile) and send it along with a check for \$10 (annual dues) payable to:



Ruth Bane, Treasurer, WNYFFS
60 Lake Avenue
Lyndonville, NY 14098

Name _____
Street Address _____
City _____ State _____ Zip _____
Home Phone _____
Work Phone _____
Email _____
AMA/ MAAC # _____

Please consider membership in AMA/MAAC. While not required for membership in WNYFFS, AMA/MAAC provides supplemental liability insurance covering model flying activities and is required at most WNYFFS flying activities.

Contest CD's

Brooks Goodnow
22 Lakehurst Drive.
Auburn, NY 13021
315-252-9170

Vet Thomas
970 Clarkson-Parma Road
Hilton, NY 13021
585-392-5164
vthomas1@rochester.rr.com

John Carls
43 Murphy Road
Bradford, PA 16701
814-362-7789

Lyle Whitford
9003 Lake Rd, PO Box 72
Barker, NY 14012
716-795-3831

Application for Membership

Name _____ Phone _____
Address _____ e-Mail _____
City _____ State _____ Zip _____

Occupation _____

Hobbies _____

Membership entitles you to free admission to our air show and to the museum, a 10% discount in the HAG store, *Hangar Tales* for a year, a window sticker for your car, and membership card (which must be presented to obtain the perks).

Membership Type: _____ Regular \$30 (age 18-59)
_____ Senior Citizen \$25 (age 60 & up)
_____ Junior \$10 (age 17 and under)

Mail this application (or a photocopy) with your check to:

1941 Historical Aircraft Group Museum
PO Box 185
Geneseo, NY 14454-0185



Background on the WNYFFS

The Western NY Free Flight Society began in the late 1960's with a few modelers. Today the Society now numbers nearly 100 members in 9 states and Canada. For over 30 years the club has hosted the Empire State Free Flight Championships in late summer, as well as a "fun fly", each spring, both are held in Geneseo, NY. Powered by rubber, gas, diesel, electric, CO₂, compressed air or that old standby- muscle, these events exact the best from the planes and presents the fascinating challenge of outdoor free flight to the folks attending. There is no "off season" in free flight. Once a year a major contest is hosted in conjunction with the Flying Aces Club. The Empire State Indoor Championships are held at the Buffalo Bills field house in Orchard Park, NY.

Casual Outdoor Contests

With the arrival of Spring, the building season is drawing to a close and the outdoor flying season will be upon us. Please join us for FAC event flying at the Hendershot airport on Route 18 in Hilton, NY. This is where we do our trimming and tuneups for FAC events at the big Geneseo summer meets such as the Great Grape Gathering, the FAC NATs and the Empire State Free Flight Champs. Don't go to Geneseo unprepared, untrimmed, or untested!! Give your ships (and yourself) a little experience in a friendly, informal, contest atmosphere (pun intended). To get notice of these events, please send me your email address and which FAC events you fly (Embryo, WWII mass launch, Golden Age Scale, etc.) We decide to do these gatherings on short notice, depending on the weather outlook for Saturday or Sunday morning, so email is the way to go for notification. The notification will give you the day and the planned events.

We will run any FAC event if there are enough participants, so be sure to let me know what events you fly. Of course, you can also do flight trimming and test flying of any FAC category, even if there are insufficient participants to run the event and submit a Kanone report.

I can be reached at 585-637-5163

Jim DeTar

The Editors Line, continued:

Speaking of Journals sent via US mail, some of you noticed that your name on the address label was incorrect. Errors in addresses resulted from problems in converting from the previous membership list to a PC compatible list. Over the years, many names of casual contacts were added to the TJ distribution list. While making the conversion several names were pruned and some first and last names were unfortunately jumbled. Hopefully the errors have all been corrected. If any additional naming anomalies remain, please feel free to send a note with the necessary correction spelled out and I will attempt to make the membership list perfect once again. Until then, I apologize for any inconvenience.

The previous issue of the TJ included announcement of a Winter Building Contest. Although there were not an overwhelming number of entries, the quality of the two entries received more than made up for any shortage in quantity. Our newest member to the WNYFFS, Nathan Chronister, entered his just completed ornithopter, *Mayfly*. Longtime member and stalwart competitor Jim Moseley entered his Two Bit Old Time Rubber *Chad*. See page 3 to view the contest entries.

Selection of the final winner was definitely difficult for the panel of judges. Some of the judges were taken with the unusual nature of Nathan's creation and several were pleased with Jim's color scheme for Chad. When the votes were tallied, Jim's Chad edged out the Mayfly by a thin margin. Congratulations to both Jim and Nathan. Jim's prize of a Dave Diels kit of the Focke-Wulf TA-152H will be delivered at the GGG this spring. Perhaps Jim will discover why we don't see this plane modeled too often, even though it has nice moments.

Thanks to everyone who contributed to this issue. Even though every contribution could not be included in this issue, they are still greatly appreciated and will be saved for future use. I would also like to recognize Lyle Whitford for taking the time to inaugurate the WNYFFS inventory list. If anyone else has any items belonging to the club let me know so they can be included in the list.

Mark C. Rzacca



Mark C. Rzacca
17 High Point Trail
Fairport, NY 14450