

Club News Sept/Oct 2011 No. 261 NG WESTFAG III **Ross Mayo** for sponsoring FAC Embryo Modern Civilian Scale WESTFAC-WALT MOONEY MEMORIAL TROPHY WESTFAC III



All of the photos on this page were sent by Roger Willis.

**Cover shot:** The WALT MOONEY MEMORIAL WESTFAC TROPHY, constructed by Keith Sterner and transported all the way from Pennsylvania for the occasion, was awarded to the 1<sup>st</sup> place Peanut Scale entry, Mike Isermann's Boeing 306B. Ross Mayo's sponsor poster has been pasted into the background through the magic of Photoshop.

Keith Sterner photo

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**Plans**- A classic that I'm sure will be of interest to all the guys looking to get into the new Half Wakefield event; Earl Stahl's "Gypsy" is from the September, 1942 Flying Aces Magazine, and it's already half size! A couple of Peanut Scale selections: Fairchild PT-19 is from Janick Model Engineering, and the Bebe Jodel from Christian Frugoli.



If the **Dreaded Red X** shows up on your address label, it is time to renew your membership which includes six issues of this newsletter.

Please note: the Red X is the only notice you will receive.

- USA = \$20.00 cash, check, money order, or PayPal.
- CANADA = \$28.00 US PayPal
- OVERSEAS = \$40.00 US PayPal

To use the PayPal option, go to **flyingacesclub.com** and click on "membership." The PayPal button is at the bottom of the page.

Please make checks payable to: Flying Aces Club, 9154 Eldorado Trail, Strongsville, OH 44136

If you have a **change of address** or questions about your membership - send them to the address above or email -

join@flyingacesclub.com

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#### **Councilmen Emeritus**

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\*Note - Names in **bold type** are FAC Board members.

When contacting FAC officers via email, please be sure to include "FAC" in the subject line so that your message isn't overlooked.

A very limited number of **BACK ISSUES** are available from GHQ at \$5.00 each. Be sure to renew on time! **FAC GHQ, 4207 Crosswinds Dr., Erie, PA 16506-1299** 



Greetings Junior Birdmen,

Lots of good things have been happening since the last issue of the newsletter hit your mailbox. There was so much great material for this issue that it was hard to choose. That's a nice place for an editor to be. Please keep those articles and photos coming!

WESTFAC III was to be the feature event of the year for the FAC, and it lived up to its billing. All of the reports that I've received have been glowing! There's a complete rundown of the results, and some comments from the organizers on the pages that follow, and there will be more in the next issue. The FAC Non Nats also went off smoothly. The DC Maxecutors hosted the event for the first time, and did a first rate job. Their new computer tabulation system passed its first test with flying colors. Almost lost in the shuffle, the AMA Nats in Muncie had a good showing of FAC fliers despite the scheduling overlap with the Non Nats.

The FAC Store at Café Press has been busy cranking out those great shirts and other FAC logo merchandise. New items have been added recently so check it out, and start dropping some hints to Santa! http://shop.cafepress.com/flying-aces-club

One thing you might notice in this issue is the almost complete lack of advertising. For some time, we have been allowing FAC members to place a free ad on a space available basis. The "free" and "space available" aspects are very useful for a one-man operation. It means that the ads can go in last, instead of first, and it saves a whole lot of bookkeeping.

You may have also noticed that in the past, there's a lot of variation in the quality of the ads. That's because we're all still learning how to deal

with the digital age. Both the advertisers and I are trying to find the format that works best. I don't think anyone would like to see our newsletter become overloaded with ads, but I also think that many members appreciate the opportunity to learn about new suppliers and products. The Free Flight community is a very small market, and many of the suppliers are cottage businesses. The FAC News is a great place to connect the two groups. We'll be reviewing the FAC's advertising policy in the near future. If you would like to get involved, please contact me. We could use a guy or gal to act as an advertising coordinator or ad designer.

As you can see in the photo on the next page, we've received the gift from Jack McGillvray, and after a bit of a paperwork delay, the funds are now deposited in the FAC's accounts. A committee was appointed to suggest the best way to manage these funds, and their recommendations have been followed. The best news (for me) was that we've purchased some much needed equipment and software for the production of the newsletter! Now all I have to do is learn how to use it.

I hope the article from Matt King on his activities with the "RAF" will inspire others to try something similar. Matt was in a perfect position to organize the new club. Perhaps others in similar situations can learn from his experience. Free Flight modeling has a lot of competition for the attention of today's youth, but it's not hopeless. Matt and his cohorts are to be congratulated for their efforts.

Back in 1941, Charles Hampson Grant wrote a book that is still one of the most useful resources ever done for modelers. George White has created a series of articles based on Grant's work, and we'll be running them over the next several issues. I'm sure we can all learn, or relearn something from reading this series.

See you on the flying field!

Rich Weber newsletter@flyingacesclub.com

### FAC Top Gun Award

The FAC awarded our top scoring Air Marshall, Gordy Roberts, the first ever "Top Gun" medal at the recent FAC Non Nats. Gordy had to leave the field before the award could be presented, but CinC Ross Mayo tracked him down at a local restaurant and reenacted the presentation for the cameras.

Gordy's record of 540 Kanones (and still counting) is an indication of his dedication to building and flying Free Flight models in the SPIRIT of the Flying Aces Club.



#### Jack McGillvray's Bequest



The "giant check" ceremony at our bank in Erie went off smoothly, even if the actual funds took a bit longer to catch up. The bank manager, Mary Liotta, took this shot of FAC club officers, Rich Weber, Ross Mayo, and Blake Mayo for the bank's newsletter.

### Worthwhile Website

One of the FAC's most enthusiastic promoters is at it again. Chris Boehm has been busy posting a slew of Peanut Scale plans on the web (address below). You'll have to "join" to get access to them, but the process is simple and free. Once in, click on the "files" tab and then hit the "Livesay" file to see a list of hundreds of plans ready to download for your next project.

http://groups.yahoo.com/group/merlin236/

## WESTFAC.... Hello from the Folks out West

WESTFAC Mk. III Denver, Colorado June 22-25, 2011

**Roger Willis** 

WESTFAC III is now part of FLYING ACES history. Those 27,000 acres in Denver proved to be the outstanding free flight site that it was cracked up to be (no pun intended).

Things got off to a rousing start at our fantastic HQ hotel in Parker Colorado with the scale judging. The judging facility was a large ballroom completely set up to our standards by a hotel staff who really understood what outstanding service was all about. The SPONSOR posters, many done from original art drawn by flyer Duke Horn from Texas, were placed on the walls all around the room to show everyone how WESTFAC feels about its Sponsors. Between 2PM and 7PM, over 200 scale models were judged.

This WESTFAC was expanded to three flying days with 23 events. Flying got underway at the site near Parker on Thursday, with a full schedule each day. You can check out the results on the pages that follow. Our WALT MOONEY MEMORIAL WESTFAC TROPHY, constructed by Keith Sterner and transported all the way from Pennsylvania for the occasion, was awarded to the 1<sup>st</sup> place Peanut Scale entry, Mike Isermann from Texas, who

built a Boeing 306B for the event. Our new WESTFAC Grand Champion for 2011 is Don DeLoach.

The most thrilling moment was the 58 sec. flight of Chris Starleaf's rubber powered B-24. The entire flight line was shouting and clapping as this big beauty climbed slowly into the blue sky of Colorado and began the longest flight any of us had ever seen from four rubber motors unwinding into the sun.

The weather treated us well. Winds and drift were moderate and the sun was out everyday. Thermals were there for those who could catch them.

The WESTFAC Denver venue Team did one of the most professional event management jobs I have ever seen. Chuck Etherington was everywhere at one time . His Contest Director efforts made WESTFAC III a zero complaint event. We tested a new score card used by the MMM Club and modified for a FLYING ACES event. This allowed for faster posting and easier flyer handling. WESTFAC will adopt this new scoring card for WESTFAC IV.

The three WESTFAC venues are now fully operational: Perris California, Gainesville Texas and Denver Colorado as WESTFAC IV returns to California in 2013.

At our Awards Banquet, Keith Sterner said that we'd certainly made our objective, this was the most fun I have had at a contest. For us folks in WESTFAC, that's high praise. That Mission Statement goes unchanged and remains the mast head of our web-site: www.westernfac.com Many maxes to all.....r

GRUMMAN MASS LAUNCH, WON BY DON DELOACH.

All photos from WESTFAC are courtesy of Roger Willis unless noted.



### WESTFAC Mk.III

#### **Official Results**

**Contest Director: Chuck Etherington Contest Manager: Don DeLoach** 

**WESTFAC Chairman: Roger Willis** 

With profound thanks and gratitude to the many volunteers from the Magnificent Mountain Men Club, SAM 1 and elsewhere. This contest could not have happened without the hard work put in by men whose names appear below. Read through the list, then read it again. And thank these guys next time you see them.

Scale Judges: Randy Reynolds, Marc Sisk, Phil Thomas, Ed DeLoach, Mike Isermann, Don DeLoach, Rick Pangell, Jeff Pakiz and Darold Jones.

Scorekeeping: Jim Whelan, Dave Wineland, Ed DeLoach, Rick Pangell, Bob Hodes, Chris Starleaf, Don DeLoach, Mark Covington, Darold Jones, Duane Hjerlied, Bill Gieskieng and Marc Sisk.

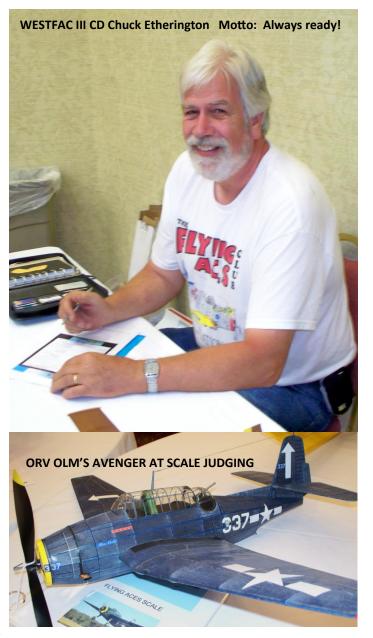
<b>WWI Combat</b>	(Director: Mil	ke Isermann)
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Flyer	Aircraft Round	11	2	3	Place
Chris Starleaf	Pomillio PE	5 sec.	3	-	
Mike Midkiff	SE-5	34	33	33	2 <sup>nd</sup>
Herb Kothe	Fokker D.VII	10	-	-	5 <sup>th</sup>
Jerry Murphy	Fokker D.VII	scratch	-	-	
Keith Sterner	Albatros D.I	42	50	7	$3^{rd}$
Duke Horn	Fokker D.VII	14	25	-	4 <sup>th</sup>
Don DeLoach	Martinsyde F.4	46	72	44	1st

WWII Combat (Director: Randy Reynolds)					
Flyer	Aircraft Round	1	2	3	Place
Herb Kothe	Yak-3	123	81	74	$3^{\text{rd}}$
Robert Hodes	Yak-3	61	19	-	
Chris Starleaf	Barracuda	135	73	86	1st
Don DeLoach	F4U Corsair	63	73	76	2 <sup>nd</sup>
Ed DeLoach	Tony	15	6	-	
Phil Thomas	P-51B	2	-	-	
Roger Willis	Barracuda	4	-	-	
Tom Arnold	P-39	73	3	-	
Orv Olm	Avenger	46	43	41	4 <sup>th</sup>
Duke Horn	Sea Wolf	64	4	-	
John Hutchison	Hellcat	6	-	-	
Mike Isermann	Ki-61	125	4	-	
Jerry Murphy	Sturmovik	15	25	18	5 <sup>th</sup>

#### **Thompson Race** (Director: Mike Isermann)

Flyer	Aircraft Roun	d 1	2	3	Place
Chris Starleaf	Cessna CR-3	93	82	N/A	2 <sup>nd</sup>
Don DeLoach	Cessna CR-2	88	94	N/A	1st
Phil Thomas	Seversky	20			3 <sup>rd</sup>

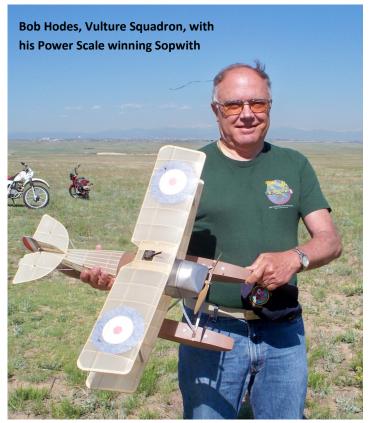


#### Greve Race (Director: Chris Starleaf)

Flyer	Aircraft Rou	ınd 1	2	3	Place
Don DeLoach	Brown B-2	>2	72	52	4 <sup>th</sup>
Robert Hodes	Chambermaid	>2	52	61	2 <sup>nd</sup>
John Hutchison	Goon	1	-	-	
John Donelson	Goon	>2	69	80	1st
F. Ramos	Mr. Smoothie	>2	14	-	5 <sup>th</sup>
Phil Thomas	Jackrabbit	2	-	-	
Mike Isermann	Brown B-2	>2	60	59	3 <sup>rd</sup>

#### **Grumman Military M.L.** (Director: Ed DeLoach)

Flyer	Aircraft Round	1	2	3	<u>Place</u>
Mike Isermann	Martlet	scratch	-	-	
Mike Midkiff	Hellcat	41	41	2	3 <sup>rd</sup>
John Donelson	Guardian	scratch	-	-	
John Hutchison	Hellcat	scratch	-	-	
Phil Thomas	Hellcat	31	-	-	
Orv Olm	Avenger	32	11	-	
Tom Arnold	Hellcat	46	50	48	2 <sup>nd</sup>
Pat Murray	Avenger	61	39	scratch	1 4 <sup>th</sup>
Don DeLoach	Wildcat	49	127	80	1st
Robert Hodes	Hellcat	48	23	-	5 <sup>th</sup>



#### Mike Midkiff with his Tiger Moth



Low Wing Trainer M.L.	(Director: Darold Jones)
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Fiyer	Aircraft Round	1		3	Place
Robert Hodes	Magister	17	-	-	
Chris Starleaf	T-28	45	50	63	$2^{nd}$
Don DeLoach	DH.94	3	-	-	
Phil Thomas	T-6A	57	7	-	
Tom Arnold	Firefly T-1	31	33	5	5th
Herb Kothe	Magister	111	93	115	1st
Duke Horn	PT-19	32	33	32	4 <sup>th</sup>
Pat Murray	T-34	50	62	59	3 <sup>r</sup>

#### Goodyear/Formula Race (Director: Bob Hodes)

Flyer	Aircraft Round	1	2	3	Place
Don DeLoach	Miss DARA	60	-	-	1st
Chris Starleaf	Owl "Pogo"	1	_	_	2 <sup>nd</sup>

#### Flying Horde (Director: Don DeLoach)

Flyer	Aircraft		Place
Marc Sisk	Lacey	60	1st
Keith Sterner	Albatros	17	2 <sup>nd</sup>
Jerry Murphy	Fokker	7	3 <sup>rd</sup>

#### **Modern Civil Scale**

Name	Aircraft	Flt 1	Flt 2	Flt 3	Total
Orv Olm Cessna	a 180	46	42	70	158
Mike Isermann	Helio Courier	28	26	28	82

#### **Embryo Endurance**

Name	Aircraft	Flt 1	Flt 2	Flt 3	Bonus	Total
Don DeLoach	Embryomatic	114	120	120	9	363
Ed DeLoach	Embryomatic	120	110	81	9	320
Herb Kothe	Go Devil	120	120	45	9	294
John Donelson	Embryomatic	100	78	79	9	266
Pat Murray	Jabberwock Jr.	59	55	72	9	195
Roger Willis	Debut	120	0	0	8	128
Jeff Pakiz	Mooney Bird	32	26	21	9	88
Mike Isermann	Embryomatic	54	0	0	9	63
Robert Hodes	Micro Box	51	0	0	9	60

#### **Old Time Stick**

Name	Aircraft	Flt 1	Flt 2	Flt 3	<u>Total</u>
Herb Kothe	Gollywock	120	120	120	360
Don DeLoach	Gollywock	120	120	83	323
John Hutchison	Vargowock	94	92	120	306
F. Ramos	Red Buzzard	120	102	79	301
John Donelson	Gollywock	120	120	60	300
Roger Willis	King Harry	70	63	120	253
Duke Horn	Wanderer	50	57	120	227
Pat Murray	Erie Daily Times	92	78	0	170



Ruth and Duke Horn with P-39

#### **FAC Old Time Cabin**

Name	Aircraft	Flt 1	Flt 2	Flt 3	F.O.	F.O.	F.O.	Total
Mike Isermann	Victory	120	120	120	180	180	109	829
Herb Kothe	Wren	120	120	120	180	180	0	720
Lee Campbell	Miss Canada	120	120	120	0			360
Pat Murray	Jabberwock	75	120	120				315
F. Ramos	Wren	60	0	0				60

**Below Left: Orv Olm with Grumman Avenger** 



Modern Military	Scale						
Name	Aircraft	Flt 1	Flt 2	Flt 3	Total		
John Donelson	Guardian	120	77	120	317		
Pat Murray	Delfin	48	82	52	182		
Tom Arnold	Seamew	42	56	66	164		
Chris Starleaf	Attacker	53	60	23	136		
Dime Scale							
Name	Aircraft	Flt 1	Flt 2	Flt 3	BP	Total	
Lee Campbell	Monocoupe	69	30	50	0	149	
Orv Olm	Fokker D.VII	43	28	53	15	139	
Pat Murray	Mulligan	32	27	46	0	105	
Mike Isermann	Arado 96	57	-	23	10	090	
Pseudo Dime Scale							

Flt 1

97

89

41

30

Flt 2

120

52

34

26

Flt 3

120

53

29

Avg.

112.3

64.7

34.7

18.6

Aircraft

Chambermaid

Waterman

Albatros

A-36

Name

Orv Olm

Don DeLoach

Keith Sterner

Phil Thomas

#### Golden Age Civil/Military

Name	Aircraft	Flt 1	Flt 2	Flt 3	Total
Don DeLoach	Cessna CR-2	101	76	91	268
Herb Kothe	Taylorcraft	120	120	25	265
Orv Olm	Fairchild 24	64	79	111	254
Mike Midkiff	Tiger Moth	32	39	0	71

#### 2-Bit Plus One

<u>Name</u>	Aircraft	Flt 1	Flt 2	Flt 3	Total
Herb Kothe	B.A. Cabin	94	120	120	334
Robert Hodes	F.A. Moth	100	63	120	283
Duke Horn	King Harry	120	42	69	231
Ed DeLoach	Skokie	41	89	81	211
Roger Willis	B.A. Cabin	87	0	0	87
Ed Comfort	F.A. Moth	25	23	29	77
Don DeLoach	Skokie	21	0	0	21

#### Jimmie Allen

<u>Name</u>	Aircraft	Flt 1	Flt 2	Flt 3	Total
Robert Hodes	Skokie	77	120	120	317
John Hutchison	B.A. Cabin	72	93	120	285
Herb Kothe	B.A. Cabin	101	75	93	269
Ed DeLoach	B.A. Cabin	120	69	70	259
F. Ramos	Sky Chief	44	0	0	44

## Half Price! New Member\* Offer Two-year memberships \$58 now \$29

\*new members (U.S.), or members who've lapsed for 12 months or more. International dues: \$37.50; Youth dues (18 and under): \$9. Expires 1/1/13.

### National Free Flight Society

Preserving, enhancing and promoting the art, sport and science of Free Flight Model Aviation in all its forms.

Membership includes access to the NFFS Plans Catalog of over 800 plans, scholarship and volunteer opportunities, rulebooks, committee support, and 6 issues/year of Free Flight Digest, the world's most respected journal of its type. Each 40+ page bimonthly issue includes in-depth content on building and flying all types of Free Flight models: indoor and outdoor rubber, electric, glow, glider, duration, scale, Old Timer and more!

Yes! I love Free Flight and I've not been a NFFS member during the past twelve months.
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#### Secure Online payments at <www.freeflight.org>

Mike Isermann launching his Peanut Scale winning Boeing 306B Keith Sterner Photo

#### **FAC Power Scale**

Name	Aircraft	Flt 1	Flt 2	Flt 3	Flt Pts	Static	Bonus	Total
Robert Hodes	Sopwith	120	-	-	120.00	55.50	25	200.50
Mike Midkiff	Besson	108	120	-	120.00	60.00	20	200.00
Mike Midkiff	DH-2	57	86	-	86.00	56.50	25	167.50

#### **FAC High Wing Peanut**

Name	Aircraft	Flt 1	Flt 2	Flt 3	Flt Pts	Static	Bonus	Total
Mike Isermann	Tailwind	69	53	59	64.50	62.25	0	126.75
Orv Olm	Cougar	51	50	55	55.00	62.25	0	117.25
Marc Sisk	Lacey	36	-	-	36.00	61.00	0	097.00

#### **FAC Jumbo/Giant**

Name	Aircraft	Flt 1	Flt 2	Flt 3	Flt Pts	Static	Bonus	<u>Total</u>
Chris Starleaf	B-24	54	-	-	54.00	61.00	40	155.00
Mike Midkiff	B-25	49	-	-	49.00	60.00	30	139.00
Duke Horn	J-2	87	30	-	73.50	54.50	0	128.00
F. Ramos	Douglas O-38	22	-	-	22.00	57.50	15	116.50



#### **FAC Peanut Scale**

Name	Aircraft	Flt 1	Flt 2	Flt 3	Flt Pts	Static	Bonus	Total
Mike Isermann	Boeing 306B	39	47	31	47.00	62.50	25	134.50
Don DeLoach	Miss DARA	60	-	-	60.00	61.50	5	126.50
Chris Starleaf	MU-2	24	-	-	24.00	60.50	30	114.50
Rick Pangell	Halberstadt	31	25	30	31.00	58.50	15	104.50
Pat Murray	P-47	34	20	28	34.00	58.25	10	102.25

#### **FAC Scale**

Name	Aircraft	Flt 1	Flt 2	Flt 3	Flt Pts	Static	Bonus	Total
Chris Starleaf	Breda 88	120	-	-	82.50	61.50	30	174.00
Mike Isermann	Ki-61 Hien	120	-	-	82.50	61.50	10	154.00
Don DeLoach	F4U Corsair	120	-	-	82.50	61.00	10	153.50
Pat Murray	L-29 Delfin	109	42	60	79.75	55.50	5	140.25
Mike Midkiff	Dh.103 Hornet	34	-	-	34.00	61.50	35	130.50
John Donelson	Guardian	71	-	-	65.50	57.00	5	127.50
Jerry Murphy	Fokker D.VII	25	52	28	52.00	58.50	15	125.50
Orv Olm	Fairchild 24	65	-	-	62.50	58.50	0	121.00
Duke Horn	P-39	52	36	-	52.00	58.00	10	120.00
Marc Sisk	Lacey M-10	55	37	-	55.00	58.00	0	113.00
John Hutchison	Chester "Goon"	36	41	43	43.00	60.50	5	108.50
Don DeLoach	F4F Wildcat	120	-	-	82.50	62.00	5	149.50*
Mike Isermann	Boeing 306B	52	44	49	52.00	62.50	25	139.50*
Orv Olm	TBF Avenger	22	-	-	22.00	57.00	5	084.00*

OC STATE

Sponsors and contestants:
Above, Fernando Ramos;
Below, Orv Olm & Marci Green
of Gizmo Geezer fame



\*second entries do not count for final placings

#### WESTFAC III Grand Champion\*

Don DeLoach -46 points Herb Kothe - 32 Chris Starleaf - 26

Mike Isermann - 23 Robert Hodes - 17





This winding clip appeared many years ago in a column by Fernando Ramos in Model Builder. I recently asked him who invented it, and he didn't even remember that he published it!



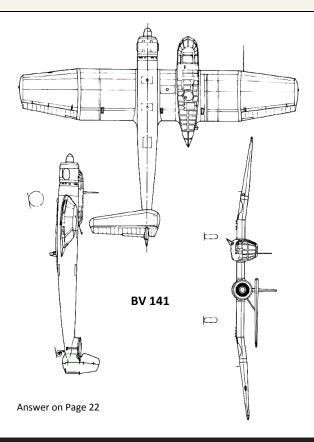
Start with a medium-size alligator clip and carefully drill a 1/16-inch dia. hole near the tip of one jaw. Remove the screw from the clip. Form a loop on one end of a length of .032 music wire. Work the long end of the wire through the tube end of the clip so that the loop is positioned over the screw hole and screw it in place. In order to keep the wire centered in the tube, you may want to bend a slight kink into the wire before screwing it into place. Now form a second loop in the wire, about 1/2-inch aft of the tube. The bent end of a prop shaft, the part that normally engages the ramp or freewheeler of the prop, fits into the hole. Now close the jaws, and the wire will be secured. Place the winder hook into the other loop and you're set to wind. With this arrangement, the prop assembly never has to be removed from the rubber for winding.

I've used this for at least 25 years and never had a mishap.

The Gadgeteer



#### Bonus Point Quiz



News Flash

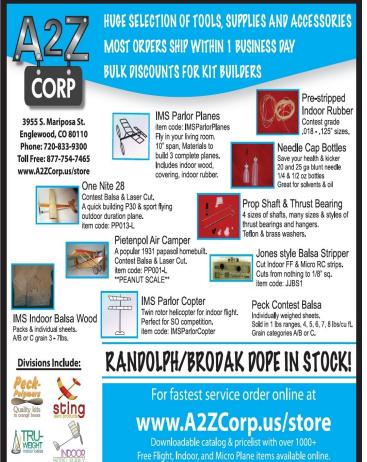
#### Russia Invades France!

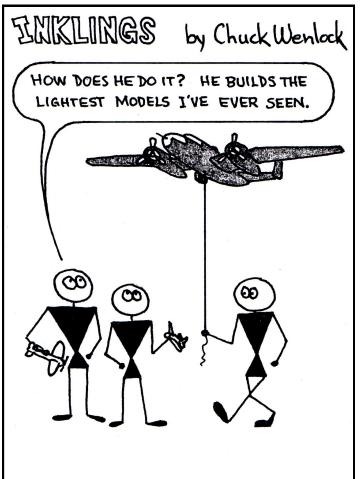
It is with great sadness that I must announce that France has been invaded by Russia and that I hereby declare the "French design mass launch" a thing of the past. The occupier has decided to implement a "breath of fresh air" and have now initiated the "Russian design mass launch." The unconditional surrender I have signed entitles them to end our beloved competition. On the other hand our new Russian friends do have lots of interesting aircraft designs, so I'm told.... I now present to you the new commander of the event, 7 stars General Krastillon Poutine

Labitte Défaite Secrétaire général de la République

For those with no sense of humour this means that there will be a "Russian design mass launch" and NO "French design mass launch" at the Nats in 2012! Be prepared to be dazzled!

Capt. Ronny Gosselin, Squadron leader FAC 71





#### Earl Stahl's "GYPSY"

THE FINEST characteristics a model can possess are: ease of construction, a great degree of stability, an efficient high climb, and the ability to soar when the power is exhausted. The "Gypsy" has repeatedly demonstrated that it has these qualities. Our first model of this design was actually flown many hundreds of times. For nearly a year it - was tested in all kinds of weather, and minor changes and readjustments were made until the performance was consistently good. It was this model that gained a place for the author on the 1939 United States



Wakefield team. At the Wakefield finals, however, the intense heat caused the huge rubber motor to snap when only partially wound. The model was nearly disintegrated by the broken strands of rubber, but Ted Just, who was flying the ship by proxy, managed to repair what remained and made one shore official flight. But that is another story.

Shown in the photos is an improved version of the original model. During the past season it was used in numerous contests with good results. On a recent test flight it soared out of sight.

Because of the "Gypsy's" large size, it has been necessary to make most of the plans one-half scale, so the first job is to make actual size drawings of the fuselage, wing, and tail surfaces. This will be a simple task since it will only be necessary to increase each dimension two times. In reproducing the fuselage, care should be exercised to make the angle of the top of the fuselage exactly right since the wing's correct incidence depends on your accuracy. Draw 1/2" squares on your plan and duplicate the wing and stabilizer tips as well as the rudder.

#### **FUSELAGE CONSTRUCTION**

OUR FUSELAGE is subject to considerable stress and punishment, so much strength without excessive weight is required. Select four hard 1/8 " sq. strips for the longerons, which should be of similar strength and weight. Work directly over the full size plan and make two fuselage sides, one atop the other to insure that they will be identical. It should be noted that the tail piece to which the rudder and stabilizer are attached is made integral with the fuselage and then when the entire structure is completed it can be cut off. Pins placed at frequent intervals will help keep the longerons and cross -pieces in place until the cement has set. Place the two sides in position over the top view and join them with 1/8" sq. spacers and the three F-4 formers which are cut from 1/8" sheet. Check continually for correct alignment.

Full size formers are shown on the plan and they are cut from 1/8 " sheet. Cement formers F-1 and F-3 to place and then attach the 3/32" sq. fairing strips. Short pieces of 3/32" sq. are cemented between the fairing strips to complete the nose as shown by section F-2. Shaded areas at the front and rear of the fuselage are "filled in" with 1/8" sheet for added strength, and to provide a place to hold the model while the powerful motor is being wound. Thin aluminum plates are cemented securely to the sheet balsa in the rear; they serve to cradle the hardwood dowel pin which is fitted through the fuselage to hold the rubber motor.

Construction of the landing gear is simple. A single length of 1/16" diameter music wire is required. Use heavy pliers and bend to the shape and size shown. With strong silk thread bind the landing gear to the fuselage structure and then apply several coats of cement. Wheels are made from laminated 1/8" sheet of a very hard variety. Cement bearings or washers to the wheels so that they will revolve freely and accurately. Washers soldered to the wire struts will hold the wheels in place.

#### WING, TAIL, AND PROPELLER (Note - the section about the folding propeller was left out.)

IF A FULL SIZE plan has been prepared, construction of the wing can be started. It is built in halves. Ribs are cut from soft grade 1/16" sheet. Be very accurate and make them as shown on the plan. Spars are hard balsa and they must fit accurately into the notches in the ribs. The tip outlines are cut from 1/8" sheet. Work directly over the plan and assemble the various parts using pins to hold them in place until the cement has hardened.

As shown on the plan, the outer section of each wing half is elevated to the extent of 2-1/4 " at the tip. To raise the tip it will be necessary to cut the upper spars at the sixth rib, and to crack the lower ones. Thoroughly re-cement the spars and then join the wing halves so the dihedral at each tip will be 5-3/4".

Construction of the stabilizer is practically identical to that of the wing. Nine ribs cut from 1/16" sheet balsa are required. Taper the 1/8" by 3/8" trailing edge and then cut the tip pieces from 1/8" sheet. Assemble the parts over the plans using hard stock of the correct size for the leading edge and the spars. When dry, remove from the work board and trim and sand to the finished shape.

A thin, streamlined rudder is used. First, make a flat structure using 1/8" sheet for the outline pieces and 1/8" sq. for the spar and ribs. When this structure is completed, it is lifted from the plan and 1/16" by 1/8" strips are cemented to the sides of the ribs. The ribs are then cut to a streamline shape and the leading and trailing edges are cut to blend with the ribs.

#### COVER, ASSEMBLY, AND FLYING

MUCH OF THE MODEL'S beauty depends on a neat, attractive covering job, so the entire structure should be sanded thoroughly. Cellophane is cemented to the side windows (the windshield is celluloid) and the individual units are covered with tissue, using banana oil for the adhesive. When covering, put adhesive on the extreme outlines of the frames only. If any wrinkles are present, they can be removed more successfully if this procedure is followed. One exception should be noted, however, on the under-surface of the wing the paper should be attached to each rib and spar to preserve the airfoils' shape. Water spray the parts and pin them to a flat surface to prevent warping. The entire model should be given one or two coats of dope.

Assembly of the various parts completes the construction. Attach the wing to the fuselage with a piece of 3/16" flat rubber. The removable tail piece is held to the body by rubber bands wrapped around the bamboo splints and the dowel. Slip the stabilizer through the slot in the tail piece and cement it fast after checking for correct alignment. The front of the rudder is off-set about 1/16" so the model will glide to the right.

Use 18 or 20 strands of 3/16" flat, brown rubber, 36" long for power. The rubber strands should be well lubricated, but the excess lube should be wiped off to keep it from splashing on the covering. Hook one end of the motor to the prop shaft and then bind the shaft with a small piece of rubber to keep the strands in place. Drop the other end of the motor through the fuselage and slip the dowel pin in place to hold the strands.

The degree of success of any flying model is usually determined by the builder's ability to make proper adjustments. Approximate position of the wing is shown, and if the plans were closely followed, the wing and stabilizer angles will be correct. The descent from a hand glide should be long and smooth, but a tendency to dive or stall can be corrected by sliding the wing forward or backward.

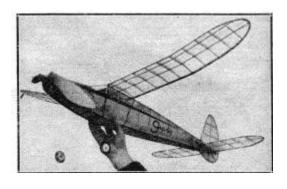
For best performance the "Gypsy" should fly and glide in right-hand circles. Confine all adjustments at first to the glide and then once it is good, correct any improper flight attitudes by off-setting the thrust line. If a tendency to mush or stall is apparent, a sliver of balsa between the nose plug and fuselage causing it to pull down, will probably correct it. Right or left thrust, as required, will help make the model circle as desired while under power. Once the adjustments seem satisfactory, cement any correction blocks in place.

Use a mechanical winder for maximum performance. And if the motor is stretched about two and one half times normal length before starting to wind, the rubber strands can safely be wound 800 to 900 turns.

#### **BILL OF MATERIALS**

- 11 pieces 1/8" by 1/8" by 36" hard balsa f or longerons, spars, etc.
- 6 pieces 3/32" by 3/32" by 36" for spars, fuselage fairings
- 2 pieces 1/16" by 1/8 by 36" for rudder
- 2 pieces 1/16" by 1/16" by 36" for stabilizer spars
- 1 sheet 1/8" by 2" by 36" for tips, fuselage, "fill-in," etc.
- 2 pieces 1/8" by 3/8" by 36" for trailing edges
- 2 sheets 1/16" by 2" by 36" for ribs, formers, etc.
- 1 block 8" by 2" by 15/8" for propeller
- 1 piece 2" by 3/4" by 5/16" for propeller hub
- 1 length each .040; 1/16" dia. wire 60 ft. 3/16" flat, brown contest rubber
- 2 sheets, colored tissue, plus dopes, celluloid, cellophane, block for nose,

brass for hinges, etc., etc.



### 2012 Nats Notes

That's right skysters, it's not too soon to start making plans for the FAC's biennial extravaganza in Geneseo. Next July will be here before you know it, and certainly before you've built all the models you'd like to bring.

You've already seen the notice from the Harfang Escadrille announcing the demise of the French Design Mass Launch, and the birth of the new Russian Design Mass Launch. (Page 13) This event should prove to be a lot of fun, if for no other reason, we'll get to hear Bernard's impression of a Russian accent! It will be interesting to see if he finds a different helmet to wear.

The other event in the offing is the Battle of Midway Mass Launch. It was proposed by Don Deloach, and has gotten approval from GHQ. It will incorporate a new twist on the traditional Mass Launch format, with Bouns Points added to the scores. The idea is to encourage participation with some unusual models. Any changes to the list of eligible aircraft and/or tweaks to the rules will be posted in the next exciting issue for the FACN. Make plans to participate in this historic event!



#### 70th Anniversary Battle of Midway Event

- · All basic FAC mass launch rules apply
- · No wingspan limitation; rubber powered only.
- 2012 Pilot's Pre-Launch Checklist strictly enforced and combat aircraft must have 3-D armament.

- Eligibility: Exclusively for combat aircraft, and reconnaissance aircraft that were engaged by the enemy during the Air Battle of Midway, June 1942. Here is the complete list of eligible aircraft: U.S. NAVY -CARRIER BASED: Douglas SBD Dauntless, Douglas TBD-1 Devastator, Grumman F4F Wildcat, US NAVY - SHORE BASED ON MIDWAY: Consolidated PBY-5 and -5A Catalina, Grumman TBF Avenger, U.S. MARINE CORPS - SHORE BASED ON MIDWAY: Douglas SBD Dauntless Dive Bomber, Vought SB2U Vindicator, Grumman F4F Wildcat, Brewster F2A-3. U.S. ARMY AIR CORPS - BASED ON MIDWAY: Martin B-26 Marauder, Boeing B-17E Flying Fortress. JAPANESE NAVY - CARRIER BASED: Aichi D3A-1 'Val', Nakajima B5N1 'Kate', Mitsubishi A6M2 'Zero'. JAPANESE NA-VY - WARSHIP BASED: Kawanishi E7K1 'Alf', Nakajima E8N1 'Dave', Mitsubishi F1M 'Pete', Aichi E13A 'Jake'. US NAVY - WARSHIP BASED: Curtiss SOC-3 'Seagull". JAPANESE NAVY - ON SEAPLANE TENDERS IN INVASION GROUP FLEET: Mitsubishi A6M2-N 'Rufe', Mitsubishi F1M 'Pete'. If the aircraft is not on the above list it is not eligible for the 2012 FAC Midway event.
- · WWII Pacific Theater color and marking required. Mid-1942/Midway markings strongly encouraged.
- Three rounds minimum, mass launched, timed to the ground by mechanics.
- · Multi-engine models will be given winding window of 2 minutes per motor.
- Bonus seconds awarded as follows on each round (yes!): mid/shoulder wing +5, Low wing +10, seaplane/flying boat +10, biplane +15, off-centerline twin +25, four engine +35.
- "Best in Show" Special Awards. One to each: the best Japanese and the best U.S. aircraft (judging during pre-launch inspection).



#### PENSACOLA, FLORIDA - 8, 9 and 10 October 2011

Sanction # 11- 1837

A Category III National Cup Event

CONTEST DIRECTOR: George White, 5928 Hermitage Drive, Pensacola, FL 32504 Email: White76@cox.net

#### ASSISTANT CD For FAC Events: Lou Cumpston, 1432 Tiger Lake Drive, Gulf Breeze, FL 32563 gardettec@aol.com

FLYING SITE: Navy Helo Field Site 8A. Exit Interstate 10 at Exit 5 onto US Highway 90A West. Go 1.7 miles to the south gate.

AWARDS: Contest Balsa (First place), Useful tools (Second & Third Place)

ENTRY FEE: PREGISTRATION PRIOR TO 1 OCTOBER: \$20 flies all events, (If under 19 - \$2)

AFTER 1 OCTOBER: \$25, (Under 19 - \$3)

#### SPECIAL INFORMATION:

- Max Flight Times and Fly-off Rules will be contained in a schedule provided to each contestant and will be basically in accord with appropriate rule books and subject to wind conditions.
- \*SAM Commercial Rubber/FAC Old-Time Rubber Cabin will be hand launched. . FAC Eligibility Rules differ from SAM
  Rules only in that Windshields are required for FAC OTRC. If a FAC eligible model achieves first place, it will be
  also awarded a Kanone if winner is a member of the FAC.
- 3. All Model aircraft flown in AMA events must conform to AMA identification requirements.
- 4. Flight times and name of model will be recorded with the C/D after each flight except for CAT/HL Glider
- 5. \*\* One winner will be recognized in this contest for this event, but each class will be reported for Nat'l Cup points.
- 6. All AMA events are Category III
- 7. For information please contact web site: www.pensacolafreeflight.org
- 8 @ These are two special events see our website www.pensacolafreeflight.org

#### **EVENTS LIST & ENTRY FORM**

Saturday 0800-160	0	Sunday 0800-1600		Monday 0800-1500	
1. AMA 1/2A Gas	JSO	13. AMA ½A Classic Gas	SO	25. AMA A/B/ Gasic Combo**	JSO
2. AMA C/D Gas Combo **	JSO	14. AMA ½A Classic Gas (Junior	only	26. AMA A/B/C/D Classic Gas Cor	nbo**
3. NOS A Gas		15. NOS ½ A & Early NOS 1/2A G	as **	JSO	
4. 1/4A NOS Gas		16, AMA P-30	so	27. NOS B/C Gas **	
5. AMA P-30 (Junior only)		17. AMA Moffett	JSO	28. SAM Small Rubber Stick	
6. AMA Mulvihill	JSO	18. SAM Large Rubber Stick		29. AMA OHLG	SO
7. SAM Rubber Small/Large Fusela	ige	19. AMA OHLG	- j	30. AMA Cat Glider SO	
8. NFFS Classic Towline Glider		20. AMA Cat Glider J		31. NFFS E36	
9. FAC Modern Military/Civil		21. FAC Two-Bit Rubber		32. SAM OT Pylon/Cabin A/B/C Ga	S
10. FAC Embryo		22. FAC Dime Scale (2012 Rules)		33. FAC Power Scale	
11. Thompson/Greve Race Mass L	aunch	23. FAC Jet Cat Scale Glider		34. SAM Comm'l Rubber/FAC OT	
0900		24 FAC WWI Mass Launch 0900		Rubber Cabin *	
12. FAC Rubber Scale		26 Flying Aces Magazine Non-Sc	ale	35 FAC WWII Mass Launch 0900	
13. FAC Peanut		Special@		36. FAC Golden Age Civil/Military	
				37. FAC Horde Mass Launch@1430	)

Release. I the undersigned contestant/parent do hereby release any and all organizations connected with this meet from all claims.

I certify that I am the Builder of all models entered and flown by me.

Signature		Da	ate		Age if U	Jnder19	THE CONTROL OF THE CO
NAME (PRINTED)				AMA#		VERIFIED	
ADDRESS		CITY			STATE	ZIP	
EMAIL ADDRESS  I ALSO WANT TO DONATE			_	PHONE#			
THE FOLLOWING AMOUNT TO THE NAVY/MARINE CORPS RELIEF SOCIETY	\$	ENTRY FEE PAID	\$		cen n	NT #	
	<b>T</b>	PAID	T		CONTESTAN	NT #	77

		BONU	`	,	
		MAX	82.5	82.5	
		FIt. 3			
		FIt. 2		82.5	
		Fit. 1 Fit. 2 Fit. 3	82.5	71.5	
011	23	ENT	-	2	l
FAC NON-NATS 2011	# OF ENTRIES=	PLANE ENT	BABY JODEL	ZERO	
LE EVENTS	#1 PEANUT SCALE	LAST	NALLEN II	RUNNELS	
AC SCALE	<b>EVENT #1</b>	FIRST	MOT	JEFFERY	
Η		REG	15	18	

PTS	115	69	23			PTS	190	114	38	
	1	2	3	4		PLACE	1	2	3	4
SCORE PLACE	154.5	153	148.5	148		SCORE PLACE	172.5	157.5	152.5	151.5
SCALE	62	60.5	19	58.5		SCALE	28	28	19	25
BONUS	10	10	2	15		BONUS	32	30	20	30
MAX	82.5	82.5	82.5	74.5		MAX	79.5	69.5	71.5	64.5
FIt. 3			68.5	29		FIt. 3		09		64.5
FIt. 2 FIt. 3		82.5	63	62.5		FIt. 2		09		63.5
FIt. 1	82.5	71.5	82.5	74.5		FIt. 1	79.5	69.5	71.5	63
ENT	1	2	1	1	38	ENT	1	1	1	_
PLANE	BABY JODEL	ZERO	CHAMBERMAID	KAWASAKI	# OF ENTRIES=	PLANE	YAK BB-22	BREDA 88	WIGHT QUADRUPLANE	ARADO 440
LAST	NALLEN II	RUNNELS	CORNELIUS	STARLEAF	<b>EVENT #2 RUBBER SCALE</b>	LAST	WEBER	STARLEAF	NALLEN II	RICCI
FIRST	MOT	JEFFERY	DALLAS	CHRIS	EVENT #2	FIRST	RICH	CHRIS	MOT	ANDREW
REG	15	18	19	71		REG	29	71	15	09

	PTS	75	45	15	
	PLACE	1	2	3	4
	SCORE	155.5	152.25	149.5	143.5
	SCALE	09	29	69	41
	BONUS	30	15	30	25
	MAX	65.5	78.25	60.5	77.5
	FIt. 3		78.25	22	46
	FIt. 2	65.5	75.25	40	49
	FIt. 1	09	75.5	60.5	27.2
15	ENT	1	7	1	1
# OF ENTRIES=	PLANE	WESTLAND PTERODACTYL	JUNKERS J1	MITSUBISHI BETTY	BOEING 306B
JUMBO SCALE	LAST	NALLEN II	HALLMAN	GILBERT	CORNELIUS
<b>EVENT #3</b>	FIRST	MOT	MOT	VANCE	DALLAS
	REG	15	_	22	19

_		$\overline{}$	_	l		_		-	_	$\overline{}$
22	45	15				PTS	30	18	9	
1	2	3	4			PLACE	1	2	3	4
155.5	152.25	149.5	143.5			SCORE	143.5	104.5	102	92
09	26	26	41			SCALE	61	41	20	41
30	15	30	25			BONUS	15	15	2	5
65.5	78.25	60.5	77.5			MAX	82.50	63.50	52.00	54.00
	78.25	22	46			FIt. 3			52.00	
62.5	75.25	40	49			FIt. 2		63.50	42.00	
09	75.5	60.5	27.2			FIt. 1	82.50	27.00	48.00	54.00
1	_	1	1	0	9	ENT	1	1	1	_
WESTLAND PTERODACTYL	1L SABANUL	ALLSOBISHI BELLLA	BOEING 306B	# OF ENTRIES= (	# OF ENTRIES=	PLANE	BLERIOT 25	BLERIOT 25	NOVAK   EASTBOURNE MONOPLANE	PONNIER
NALLEN II	HALLMAN	GILBERT	CORNELIUS	ROCKET/JET	PIONEER	LAST	HALLMAN	FARRELL	NOVAK	HOUCK
MOT	MOT	VANCE	DALLAS	EVENT #5	EVENT #7	FIRST	MOT	WALLY	ED	NHOL
15	_	22	19		ı	REG	_	54	88	99

	SLA	20	30	10	
	PLACE	1	2	3	4
	SCORE	216	211	202	202
	SCALE	23	19	62	25
	BONUS	43	30	20	30
	MAX	120.0	120.0	120.0	120.0
	FIt. 3				
	FIt. 2				
	FIt. 1	120.0	120.0	120.0	120.0
10	ENT	1	2	1	1
# OF ENTRIES=	PLANE	PTERODACTYL	SUPERMARINE WALRUS	WATERMAN AEROBILE	GREAT LAKES SPECIAL
POWER	LAST	SRULL	ALLEBONE	HALLMAN	KING
EVENT #8	FIRST	NOO	TED	MOT	MATTHEW
	REG	25	29	1	74

Event # 5 canceled due to confusion with Event #6.

# SCALE EVENTS

# FAC NON-NATS 2011

																																PTS	135	81	27	
																																PLACE	1	2	က	4
	PTS	110	99	22				PTS	22	33	11			PTS	20	42	14			PTS	35	21	7			PTS	09	36	12			SCORE	364	320	305	292
	PLACE	1	2	3	4			PLACE	1	2	3	4		PLACE	1	2	က	4		PLACE	1	2	3	4		PLACE	-	2	က	4		BONUS	15	10	9	10
	TOTAL	318	288	254	252			TOTAL	319	309	284	239		TOTAL	292	286	280	274		TOTAL	286	244	204	174		TOTAL	318	271	263	229		TOTAL	349	310	295	285
	TIME 3	111	120	102	120			TIME 3	120	102	94	45		TIME 3	66	83	9/	22		TIME 3	66	82	22			TIME 3	111	84	29	106		TIME 3	120	111	120	82
	TIME 2	87	71	87	78			TIME 2	62	87	82	06		TIME 2	98	120	93	66		TIME 2	98	106	25	117		TIME 2	115	120	120	44		TIME 2	120	96	93	107
	TIME 1	120	97	69	54			TIME 1	120	120	105	104		TIME 1	101	83	111	120		TIME 1	95	99	72	57		TIME 1	92	29	84	79		TIME 1	109	103	82	93
22	ENTRY	_	1	1	1		11	ENTRY	1	1	1	1	4	ENTRY	1	1	_	1	7	ENTRY	1	1	1	1	12	ENTRY	_	-	_	1	27	ENTRY	1	1	_	_
# OF ENTRIES=		PIPER CUB CRUISER J-5	FARMAN 400	ME 108 TAUFIN	PIPER CUB		# OF ENTRIES=	PLANE	DH29	STOSSER	DEWOITINE	MO1	# OF ENTRIES=	PLANE	DH BEAVER	HELIO STALLION	PIPER J4E	CITABRIA	# OF ENTRIES=	PLANE	T-28-D	MIG-15	MIG 9	GRUMMAN GUARDIAN	# OF ENTRIES=		PT19	SHORT SEAMEW	T-28	MILES MAGISTER	# OF ENTRIES=	PLANE	BEECH STAGGERWING	SPITFIRE	BUMBLEBEE	ARADO
G A CIVIL	LAST	DETAR	CLEMENS	RUNNELS	NIPPERT	-	<b>G A MILITARY</b>	LAST	WEBER	ZAPF	RUNNELS	MOSES	MOD CIVIL	LAST	ZAPF	RZADCA	BOYANOWSKI	HOUCK	MOD MILITARY	LAST	CORNELIUS	FARRELL	PELATOWSKI	DETAR	L W MIL TRAINER	LAST	ROBERTS	ARNOLD	RUNNELS	FARRELL	DIME SCALE	LAST	HALLMAN	BOYANOWSKI	MACDONALD	RUNNELS
EVENT #10	FIRST	MIC	ROBERT	JEFFERY	NIC		<b>EVENT #11</b>	FIRST	RICH	RICHARD	JEFFERY	JACK	EVENT #12	FIRST	RICHARD	MARK	PAUL	NHOC	EVENT #13	FIRST	DALLAS	WALLY	ED	MIC	EVENT #14 L	FIRST	GORDON	MOT	JEFFERY	WALLY	EVENT #24	FIRST	TOM	PAUL	TIM	JEFFERY
	REG	25	94	18	28			REG	29	37	18	6		REG	37	2	53	26		REG	19	54	31	52		REG	21	75	18	54		REG	_	53	82	18

#### MASS LAUNCH EVENTS

#### **FAC NON-NATS 2011**

EVENT #15 THOMPSON # OF ENTRIES= 14

REG#	FIRST	LAST	PLANE	RND 1	RND 2	RND 3	PLACE	PTS
59	RICH	WEBER	SIMPLEX RACER	86	93	125	1	70
52	JIM	DETAR	ALTAIR	71	89	110	2	42
54	WALLY	FARRELL	MR MULLIGAN	78	97	75	3	14
37	RICHARD	ZAPF	ALLENBAUGH MODEL A	62	69	72	4	

EVENT #16 GREVE # OF ENTRIES= 26

		U	<i>"</i> • • • • • • • • • • • • • • • • • • •					
REG#	FIRST	LAST	PLANE	RND 1	RND 2	RND 3	PLACE	PTS
8	Jerry	Crawmer	CHAMBERMAID	200	103	158	1	130
54	WALLY	FARRELL	MR SMOOTHIE	135	104	140	2	78
52	JIM	DETAR	MISS LOS ANGELES	67	103	81	3	26
31	ED	PELATOWSKI	FOLKERTS SK-2	80	102	25	4	

**EVENT #20 GOODYEAR # OF ENTRIES= 10** 

REG#	FIRST	LAST	PLANE	RND 1	RND 2	RND 3	PLACE	PTS
37	RICHARD	ZAPF	HUTCHENSON WLH-1	79	114	75	1	50
34	RICHARD	GORMAN	SONERAI	64	109	64	2	30
19	Dallas	Cornelius	Long LA1	46	68	51	3	10
59	RICH	WEBER	LEIGHNOR SPECIAL	71	89	0	4	

EVENT #21 WW I # OF ENTRIES= 18

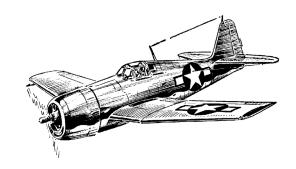
REG#	FIRST	LAST	PLANE	RND 1	RND 2	RND 3	PLACE	PTS
15	TOM	NALLEN II	DORAND AR1	200	79	175	1	90
54	WALLY	FARRELL	MARTINCYDE	77	71	110	2	54
71	CHRIS	STARLEAF	POMILIO PE	80	57	94	3	18
49	RICHARD	MILLER	FOKKER D7	84	58	81	4	

EVENT #22 WW II # OF ENTRIES= 31

REG#	FIRST	LAST	PLANE	RND 1	RND 2	RND 3	PLACE	PTS
37	RICHARD	ZAPF	HE 112	59	78	92	1	155
97	PAUL	STOTT	FIAT G55	66	70	90	2	93
50	ANDREW	RICCI	FAIREY BARRACUDA	114	123	88	3	31
34	RICHARD	GORMAN	YAK 3	97	100	84	4	

#### **GRAND CHAMP FAC NON-NATS 2011**

REG#	FIRST	LAST	FACTOR	PLACE	PTS
37	RICHARD	ZAPF	YES	1	392
59	RICH	WEBER	YES	2	322
15	TOM	NALLEN II	YES	3	318
25	DON	SRULL	YES	4	234



SCORING 5-3-1 TIMES THE NUMBER OF ENTRIES IN THE EVENT.

We had 100 people register, but with no-shows there were 96 actual contestants on the field.

**Tom Nallen II** was the Winner of the **Maxecuter Master Scale Award** for the highest combined scale and flight time with out considering bonus points for his Baby Jodel.

# **TOTF NON-SCALE EVENTS**

# FAC NON-NATS 2001

	PTS	145	87	29		
	PLACE	1	2	3	4	
	SCORE	369	351	348	317	
	BONUS	6	6	6		
	TOTAL	360	342	339	317	
	TIME 3 TOTAL	120	115	120	22	
	TIME 2	120	120	103	120	
	TIME 1	120	107	116	120	
29	ENTRY	1	1	1	1	
# OF ENTRIES=	PLANE	DEBUT	DEBUT	F. A. GYPSY	PUMA	
<b>EMBRYO</b>	LAST	MACDONALD	CRAWMER	STOTT	RZADCA	
<b>EVENT #29</b>	FIRST	MIL	JERRY	PAUL	MARK	
	REG#	82	8	26	2	

	OT STICK # OF ENTRIES=	၈ ။	,	•	•	•	•	•	
LAST	PLANE	NE ENTRY	.RY	TIME 1	TIME 1 TIME 2 TIME 3 TOTAL	TIME 3	TOTAL	PLACE	PTS
RZADCA	GOLLYWOCK	CK	1	120	120	120	360	1	45
ALLEBONE	WANDERER	ER	1	120	120	120	360	2	27
SRULL	SMITH	TH	1	120	120	120	360	3	6
TIMKO	CASANO STICK	SK	1	120	120	114	354	4	

# OT CABIN # OF ENTRIES= 28 **EVENT #31**

		L	ľ						
FIRST	LAST	PLANE	ENTRY	TIME 1	TIME 2 TIME 3	TIME 3	TOTAL	PLACE	PTS
DON	SRULL	LANZO 30	_	120	120	120	360	,	140
RICHARD	ZAPF	F. A. MOTH	1	120	120	118	358	2	84
WALLY	FARRELL	WREN	7	120	113	120	353	3	28
TED	ALLEBONE	CANADIAN CABIN	1	120	120	94	334	4	

# တ JIMMY ALLEN # OF ENTRIES= **EVENT #33**

٠,					
	PTS	45	27	6	
	PLACE	1	2	3	4
	TOTAL	323	306	284	278
	E 3MIL	94	116	120	22
	TIME 2	120	110	73	120
	TIME 1	109	80	16	83
	ENTRY	1	1	1	-
	PLANE	BLUE FLASH	SKOKIE	SKOKIE	SKOKIE
	LAST	HOUCK	KAITERIS	STOTT	CRAWMER
	FIRST	NHOC	PETER	NHOC	JERRY
	REG#	99	35	12	8

# TARGET TIMES OT GAS # OF ENTRIES= 11

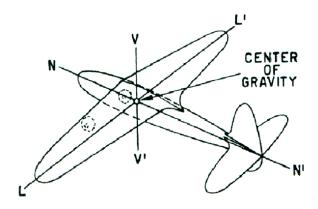
	<b>EVENT #34</b>	OT GAS	# OF ENTRIES=	7	TARGET TIMES	TIMES				
REG#	FIRST	LAST	PLANE	ENTRY	<b>29</b>	83	69	SCORE	PLACE	PTS
78	NIC	NIPPERT	AEROBO	2	63	85	63	12	_	55
က	MIKE	WELSHANS	SCRAM	1	72	88	29	12	2	33
2	MARK	RZADCA	NEW RULER	1	62	62	74	14	3	11
8	JERRY	CRAWMER	CLEVELAND VIKING	1	99	91	99	22	4	
	<b>EVENT #36</b>	1/2 WAKEFIELD	# OF ENTRIES=	7						
REG#	FIRST	LAST	PLANE	ENTRY	TIME 1	TIME 2	TIME 3	TIME 3 TOTAL	PLACE	PTS
25	NOO	SRULL	SWEDISH WAKE	1	118	118	120	326	-	32
24	DAVID	PISHNEY	1951 KEITH HORRY	1	<b>9</b>	62	120	264	2	21
29	RICH	WEBER	1/2 AWAKE	1	<u> </u>	85	20	250	3	7
81	ARRIBAA	OVAM	MAYO   39 CANADIAN CHAMP	-	87	86	81	215	4	

#### **GRANT ON LATERAL STABILITY Part 1**

This is the first in a series of articles abstracting information concerning Stability from the 1941 book "Model Airplane Design and Theory of Flight," written by the famous Charles Hampson Grant. Let the reader understand that I'm going to be liberally using Grant's exact words and illustrations, condensing them, and for ease of reading the constant use of quotation marks is omitted.

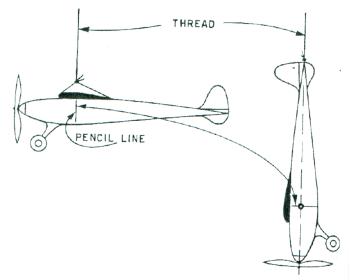
by George

**Kinds of Stability.** This is surely well known, but I'll use Grant's diagram to help define his terms.



In the first place, stability is defined as the capacity of an airplane to overcome any tendency to displace or turn from normal flight — or to return to normal flight after displacement.

Critical to achieving stability in a model is the establishment of the center of gravity (c.g.). Many of us simply stick a couple of fingers under the wings and balance the model. That may more or less get the fore and aft location of the c.g., but many of us have no idea where the c.g. is above or below the wing. He proposes tying a string around the wing and suspending the model from a second string, moving it back and forth until the model is balanced.



shes the fore and aft c.g. location and he recommends a mark on

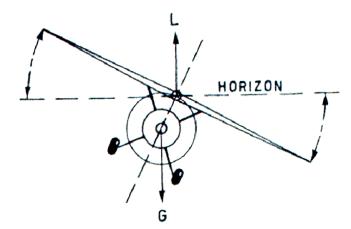
the fuselage. Then suspend the model from the tail and find the actual location of the c.g. by continuing the line from the tail until it crosses the line you made from above the wing.

In his book Grant also provides a method for calculating the c.g. based upon weights and moments. That is the method used to calculate the c.g. of full scale aircraft, but is beyond the scope of this article.

As can be seen from the diagram above, there are three kinds of stability to deal with, i.e. **Longitudinal stability** which refers to the maintenance of normal flight about axis, L-L1. **Directional stability** which refers to the maintenance of normal flight about the vertical axis, V-V1. **Lateral stability** which refers to the maintenance of normal flight about the axis running through the center of gravity on axis N-N1.

This first article on the subject will deal solely with **lateral stability.** 

Grant states that the factors contributing to lateral stability of a model include **low center of gravity**, **sweepback of wing**, and **dihedral angle**. Also, a combination of low center of gravity with either of the other two.

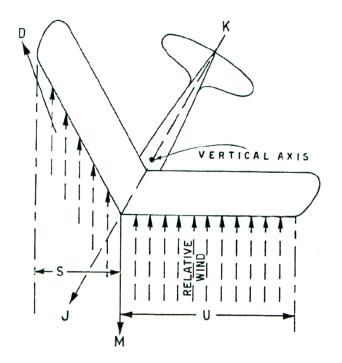


Low Center of Gravity. As seen in the diagram above, the lower the center of gravity relative to the center of lift (L), the greater the rotational force acting to correct any upset. This is relatively easy to accomplish with a high wing model. However, in many low-wing models the center of gravity gets very close to the center of lift, necessitating additional means of obtaining lateral stability. Low c.g. increases stability without loss

of efficiency, and should be used in conjunction with sweepback or dihedral.

Sweepback Wing. The sweepback wing may be either constant chord or tapered — the sweepback angle on a tapered wing should be measured by a line equal to 1/3 the wing chord. He says that sweepback might vary between 10° and 30°, where 20° is average with a model with a high c.g. He defines a high c.g. as when the thrust line is close to the wing center section, and a low c.g when the c.g. is 6/100 or more of the wing span below the sweepback wing. With a c.g. being that much below the wing, only 10° sweepback is required and the spinning tendency is reduced. In addition to the method described above for determining the height of a c.g., an accurate check can be made of how high or low the c.g. is by balancing the model on its side, shifting the support point until the point of balance (the c.g.) is found.

Grant's proposal of sweepback to add lateral stability may at first be somewhat difficult to comprehend when he states that a sweepback wing is less efficient than a straight wing and also has a tendency to cause spinning. Insofar as a sweepback wing is less efficient, it should be obvious that in straight flight the air over the wing not only strikes the wing at an angle but also there is less wing presented to that air than would be the case for a straight wing of the same span. The tendency to spin requires further explanation.



When the model becomes unbalanced laterally, it sideslips due to the force of gravity, at the same time it tries to move forward (J) due to propeller thrust. As a result, the airplane actually moves in a direction M. Consequently, air is moving against the

wing in the direction of the arrows shown in the broken lines. The volume of air striking the low wing has a width equal to the length of line U, whereas the volume of air striking the upper wing is equal to the length of the line S. The volume of air striking the lower wing produces greater lift, not only because of its volume, but also because it is striking that portion of the wing squarely. The top wing is spilling much of the lower volume of air flowing over it. Thus, the greater the sweepback, the wider the air stream U compared to S, providing a stronger righting action.

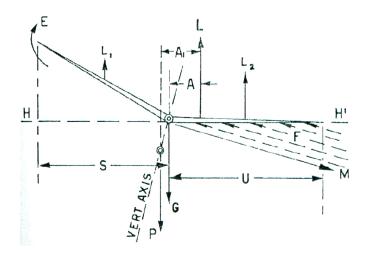
The downside of the sweepback wing is the spinning tendency. That greater volume of air over the lower wing not only produces lift, but also drag, tending to shove the lower wing aft. That, combined with the center of weight forward of the vertical axis and propeller thrust at the nose, pulls forward at the center of the entire span. A sharp rotating couple is created, tending to spin the ship counter clockwise about the vertical axis. My aero engineer son comments that "Too much sweep and you loose the benefit to other bad low speed effects. Sweepback by itself for low speed model aircraft is a relatively weak lateral stability factor and so should be combined with dihedral and low CG or not used at all."

**Dihedral Angle.** Grant states that the best corrective action is through the application of dihedral alone or in combination with low c.g. or sweepback. Dihedral is the most efficient and practical method for securing lateral stability because it rights a banked plane without appreciable tendency to spin it. However he cautions that the less dihedral used to obtain the desired stability, the more efficient the wing. The theory behind the action of dihedral is illustrated below. In that illustration, which also includes information showing the effects of low c.g., the plane is banked and sideslipping in the direction of arrow M. The model here is also crabbing in the direction of arrow M in the sweepback wing illustration above as a result of propeller thrust, but with dihedral, air is also striking the the wing from the side as well as from the front. Arrows F indicate how this side draft (considerably exagerated here) strikes the dihedral of the lower wing. On the other hand, the higher wing spills the air as indicated by arrow E, decreasing its lift. There is also a blanking effect of the lower wing on the uplifted wing, something which is more pronounced on a low wing aircraft.

Interestingly, whether or not the center portion of the wing is horizontal with no dihedral is immaterial. The dihedral action provided by the upturned outer portion of the wing provides the same action as given here. In fact, the tips can be vertical and have a stabilizing effect, and by reducing wing end spill, can increase lift.

How much dihedral should a wing have to ensure proper performance? The following table provides the recommended wing tip

elevation per foot of span for differing values of the c.g. below to the center of lift. Determination of the center of lift is illustrated in the diagram at the bottom of the page. Distances referred to in the table are represented by distance S in that diagram.



Distance from center of	Wing tip elevation
gravity to center of lift	per foot of span
0% or minus	1 1/2"
2 1/2% of span	1 1/4"
5% of span	1"
7 1/2% of span	3/4"
10% of span	1/2"
12% of span	3/8"

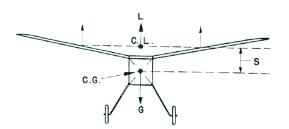
For the mathematically inclined, should you wish to determine the proper tip elevation for a wing which has a flat center section, Grant offers the following formula:

Multiply the above values by 1+4(S-2X/2S)2 where:

S = total wing span and X = that part of the wing in inches which has no dihedral angle.

For a biplane, when the c.g. is at or above the halfway point between the wings, one inch of tip elevation per each foot of span is recommended.

To be continued...



# The RAF and 33 Squadron

Matt King

When I was a kid (many years ago) it was my good fortune to know a fellow named John Hatch from Rhinebeck. He taught in the Arlington school district and had a model flying club that would meet once a month at the Arlington elementary gym. He encouraged me to build and fly FF model airplanes. Not that my dad, my uncle Bill, and living next to the Old Rhinebeck Aerodrome wasn't encouragement enough. My Eastbourne monoplane and Piper Vagabond did really well in the contest at year's end. It was fun.



I had long wanted to have a model airplane club at the high school in Red Hook, NY where I teach Technology education. Having a good size family, I found myself getting involved in extracurricular activities and night school tutoring. Coaching football and baseball for 20 years just made it too difficult to establish said club. With the end of my kids athletic endeavors and an empty nest, I now had time to devote to FF models and a club.

We've had the **Raiders Aeromodelers Flying** club (RAF) for a few years now. The RAF meets every week that school is in session and we build, fly, or both depending on weather, ballgames on the flying field, and availability of the gym. The three (of eight) really active fellows in the RAF built 6 models and then got in some good flying time in this Spring.

These three boys also came in to my lab to work at after school on non-meeting days just to build. They just love to build I guess. We know what that's all about don't we?

I joined the FAC (finally) and with the lab here at school started having monthly get-togethers (building/flying sessions) for the 33 Squadron, 6pm to 11. I felt that the building/flying sessions would be perfect for the students. The students meet with us.

The five gents of the Old Rhinebeck Squadron have been mentoring the students this year and this effort has paid great dividends. Tom Polapink, Ken Cassens, Stew Sommerville, Bob Bard, and Kevin Mooney are those involved in our B/F sessions. Bob recently joined the FAC too and Kevin (FAC member) comes from Troy to meet with us. We flew our No-Cals out in the parking lot one night under the lights. We flew one night in the back fields using the illumination of the soccer game lights. The guys have had a good time teaching and mentoring the students as well as getting some dedicated hobby time.



One thing we of the 33<sup>rd</sup> Squadron felt we should do this year was to sponsor three of the boys by paying their first year of membership to the FAC. They've seen the newsletter and we talk up the FAC and they in turn are excited. They like the copies of plans and info that I give them each week that I have gotten from the FAC newsletter. They have their own archives now...and so it goes.

Matt has been the RAF president for three

years and has one more year left. He's built a couple of Wright Flyers (one for experimentation), a No-Cal P-51 that flys great, and Dumas Zero (flys better than most low-wingers I build). Finally, he made a No-Cal autogiro (concept model) and a stick and tissue one with gears for lift and thrust for the latest Cole Palen Memorial Model Meet.



Luis has built 5 models in the past year or so (2 Sig Tigers, Wright Flyer, a Guillows Cub and C180). One Tiger gets great time and the C180 was nearly done at school's end in June. Best of all, his skills have improved before our eyes.

Jeremy has finished No-Cal Corsair with printed paper for a classy finish, on the board he has a SNCAP 200 from plans by S. Greibling, CFFS, 2009 newsletter. He has a 1/6 scale C150 to finish yet and likes to fly small r/c stuff in the gym. We turn half the lights off to enjoy the LEDs on the plane. Cool beans! Jeremy is already an AMA member too.

Last year Matt participated in the Cole Palen Memorial Model meet and won the Sir Percy Goodfellow award for sportsmanship for his helping younger kids present to get some simple Sleek Streaks flying. So isn't this the idea? How pleased I was. This year he won the taxi contest and did it in such an analytical way that all were amazed.

It has been a pleasure working with these young fellows for the last few years. We lost Luis to graduation, but he knows he can come back any day the RAF meets to build and fly. The fun part for me is that one part of my Transportation Classes is to have

#### **FAC Contest Calendar**

Cloudbuster **Fred Greg**, aka Loopy, is the official FAC **Contest Calendar Coordinator**. He'll be your contact man for all contest announcements. You can reach him here: Fred Gregg 13701 Provincial Dr Sterling Heights, MI, 48313-2018 PH 586.884.6919 loopy.cbfac@yahoo.com **Please help to make this a useful resource for our members! Send in your contest info!** 

Muncie	IN	Sept 8-9	2011 Outdoor Champs	CD - Ralph Kuenz F. Gregg	rdkuenz@yahoo.com loopy.cbfac@yahoo.com
Elyria	ОН	Sept 18	Cleveland Free Flight Society	Jim Gaffney	jamesfgaffney@hotmail.com
Whitesburg	GA	Sept 24	TTOMA Sept FAC Event	CD - Dohrman Crawford 770-698-8737	tum25@bellsouth.net www.thermalthumbers.com
Flint	МІ	Sept 24	Cloudbusters FAC Broome Park	Chris Boehm 810.348.8675	merlin236@comcast.net
Muncie	IN	Oct 1, 2	Ted Dock Memorial	Lonnie Kinder	lonkin@comcast.net
Flint, MI	МІ	Oct 9	Cloudbusters Broome Park	Chris Boehm 810.348.8675	merlin236@comcast.net
Elyria	ОН	Oct 9	CFFS - FAC FF at LCCC	Jim Gaffney	jamesfgaffney@hotmail.com
Pensacola	FL	Oct 8, 9, 10	Gathering of the Turkeys - PFFT	CD – George White	White76@cox.net
Flint	MI	Oct 22	Cloudbusters Broome Park	Mike Welshans 248.545.7601	mbwelshans@aol.com
Wawayanda	NY	Oct 22	Barron Field Air Races	Tom Hallman	tom@hallmanstudio.com
Flint	MI	Nov 6	Cloudbusters Broome Park	Chris Boehm 810.348.8675	merlin236@comcast.net
Otay Mesa	CA	Nov 13	FAC Squadron #41	George Mansfield	gmansfield75@gmail.com

#### RAF & 33 Squadron

Continued

the kids build and fly Wright Flyers as projects. I hope that this keeps the flow going to the RAF and then the FAC. We've been inspired by Ronny, Berny, Octavian, and all the Harfang Escadrille boys, and so our meetings are just lots of fun. At the FAC meetings the kids like meeting with these older than middle-aged guys. Amazing!

We look around and see many more octogenarians than us less-experienced fellows in our beloved hobby, and hail them for what they taught us and their desire to carry on. (We know they never grew up really.) John Hatch all those years ago got

kids involved in this great hobby. I know I am in a great spot and it's easier for me to bring this hobby to kids. I hope to be able to continue, as I may not be able to retire even when the time comes. Do what you can to keep this hobby alive and well, no matter what your situation. Maybe sponsoring some young modelers is just what they need. Good luck and keep'em flying!

**BP QUIZ answer** - Most people would call this a mid wing model because the top of the airfoil is above the center datum line. 5 points It would also qualify for 15 more points because of it's unorthodox configuration. Asymmetry has its advantages! Grand total - 20 BPs







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Above: A familiar scene to those who attended the FAC Non Nats. CD Dave Mitchell worked overtime to insure that the contest ran smoothly. He and his crew of Maxecutors not only did an outstanding job organizing the scale judging and field activities, but also implemented a new computer based system for tabulating the results.

Bob Clemens photo

Below: The Raiders Aeromodelers Flying club (RAF) and members of FAC Squadron 33 show off their models in one of the best places in the world for a model club meeting. Left to right: Tom, Jeremy, Luis, Matt, Stew and Bob. Story on page 20.



