

# Stunt News

Precision Aerobatics Model  
Pilot's Association

January/February 2014 \$5.00

## 2014 FAI TEAM SELECTION REPORT



**8** 2014 Team Selections  
*by Bob Hunt*

**20** Paul Walker's Nats  
Adventure  
*by Paul Walker*

**35** Lost-Foam Stabilizer and Elevator Construction  
*by Dave Fitzgerald*



**48** The Show Must Go On!  
*by Tom Collier*

*On the cover:* Introducing your 2014 United States FAI F2B Precision Aerobatics team. Clockwise from back row left are team members Howard Rush (second place), Kenny Stevens (third place), and Orestes Hernandez (first place). This is the first all-electric team in US Stunt history. Howard and Kenny are first-time "rookie" team members. Orestes will be heading to the World Championships for the fourth time. This team will represent us in Poland this coming August. Photo by Marilou Rush.

*Inside cover:* The Collier Stunt Team performed many exciting precision dual-stunt demonstrations in the late 1960s. Pictured (left to right) are Jim, Dad Pat, and Tom Collier with the stunt models they used in their performances. In this issue we are featuring an article about the team's history written by its junior member, Tom Collier. Photo from Collier collection.

PAMPA, an AMA approved Special Interest Group, was founded in July 1973. Objectives include a means of communications among Control Line Stunt fliers, voting on issues affecting Control Line Stunt, and administration of the Control Line Precision Aerobatics event at the Nats.



8



3



20

pampa news  
and reports

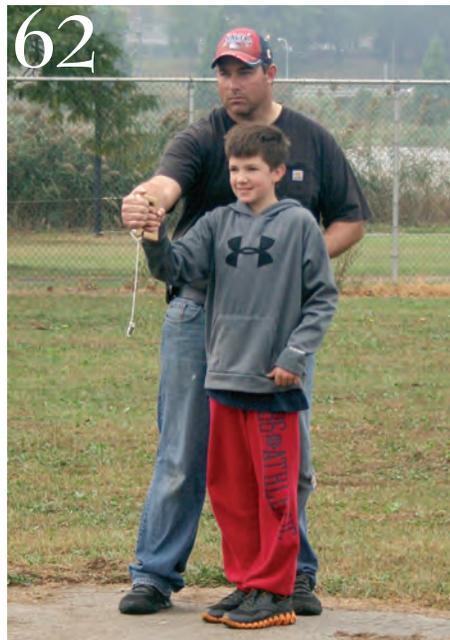
- 2 President's Report  
*Warren Tiahr*
- 3 Level Laps  
*Bob Hunt*
- 5 Membership Application
- 7 PAMPA officers contact  
information
- 57 Vice President
- 58 Secretary/Treasurer
- District Reports
- 61 District I
- 62 District II
- 64 District III
- 66 District IV
- 69 District V
- 72 District VI
- 76 District VII
- 77 District VIII
- 81 District IX
- 84 District X
- 87 District XI

extras

- 34 Joe Nall Update
- 54 Appearance Point
- 59 PAMPA Plans Service
- 88 Vintage Stunt  
Championships
- 90 Contests/Contest  
Calendar
- 97 PAMPA Products



77



62

columns

- 30 We Have the Technology
- 43 E-Stunt



76

# President's Column

by Warren Tiaht

Please be patient. I assure it will be worth the wait.

**Welcome to 2014.** First off, I want to add my sincere thank-you to Don McClave for his excellent job during his term of office as president of PAMPA. Rather than list again his accomplishments, check out Bob Hunt's editorial in the November/December issue of *Stunt News*. Well done, Don.

Last year ended on a sad note with the sudden death of Allen Brickhaus when he suffered a massive heart attack on December 28. To say he will be missed is a huge understatement. Allen was a tireless volunteer, responsible for the popular Beginner Stunt event at the AMA Nationals and multiple-time co-Contest Director of John Brodak's Spring Fly-In. He ran and promoted the Nats event, hustled up lots of merchandise prizes, was a devout Christian and all-around good guy who had an endless number of funny stories and anecdotes with which to entertain us.

Allen was a prolific designer of CLPA models and was on his way to possibly eclipsing Jack Sheeks as the number-one author of construction articles. You could count on his District VI column having lots of pictures and good information as to the happenings within his district.

Both Jim Vornholt and Matt Neumann suggested Dennis Adamisin as a replacement District Director. He was contacted, found to be willing, and has been appointed to serve the remainder of Allen's term.

Dennis has been in the hobby for a long time, is a past Nats and Walker Trophy winner, and has been a pioneer in the development of electric power by recognizing the need for dedicated electric propellers and working with APC to get some excellent props developed and available for this part of the hobby. There are also some excellent, willing prospects for personnel to take over the responsibility of running Beginner Stunt at the upcoming AMA Nats and beyond. Look for an announcement in a future District VI column.

Robert Shaw, a frequent benefactor of CLPA, has donated \$5,000 in Allen's name to PAMPA. At this time, we have no specific plans for the distribution of these funds. This will be discussed with the Executive Council to determine the course of action. It could be a suitable Memorial and/or a Scholarship in Allen's name. The resolution of this will be announced to the membership.

As some of you know, there have been some difficulties with the old PAMPA website. Bob Kruger has done an excellent job



managing the site for several years, but it is out of date and needs to be replaced. Some situations in Bob's life have caused him to step down from that long-held post. Thanks, Bob, for all your efforts over the years.

Eric Viglione has designed a new, modern website which will be put online as soon as preliminary testing is completed. Bob Hunt and his son, Brian, have volunteered (there's that word again) to temporarily babysit and test the new site. They will be cooperating with Eric so that we can eliminate the glitches before it is released to the membership. Sounds like an interesting concept to me. I am not much of a computer person but am told the new site has loads of potential and should be more user-friendly. Please be patient. I assure you it will be worth the wait.

In the past 30 days or so, I have been exposed to some of the critical comments about the old website problems and the content of *SN*. Things like, "Not enough technical information," or, "Needs more detailed contest results," or, "Too much electric stuff," yada yada yada.

I think the critics (not contributors, by the way) are forgetting a couple of small details. As most of you know and recognize, virtually all of the *SN* content is submitted by *volunteers*. Bob Hunt can only edit and publish information that he receives. He is constantly begging for articles and writers of columns. A note to you members out there:

This is your newsletter. Please don't hesitate to send in an article, hint, or a how-to-do-it piece. There are still thousands of IC engines out there that will be used for many years to come. How about some of you IC guys sharing some of *your* secrets? As Bill Werwage told me some years back, "Stunt is hard." You folks can help make it not quite so hard.

That is all I have for now. I look forward to the upcoming two years. *SN*

—Warren Tiaht

This is your newsletter. Please don't hesitate to send in an article, hint, or a how-to-do-it piece.

# Level Laps

by Bob Hunt

When I retired from writing my CL Stunt column for *Flying Models* magazine in 1997, Frank Fanelli asked me for a reference of someone to take over that duty. Without hesitation, I told him to contact Allen Brickhaus. Allen took the reins and steadfastly, with great enthusiasm and obvious love, produced one of the all-time great columns about our sport. He highlighted not only new products, events and trends, but also introduced us to many unsung heroes who worked behind the scenes to make our event a fun thing in which to be involved. Control Line Stunt never had a better friend than Allen.

I could go on for pages and pages about the amazing things that happened in our event only because Allen made them happen. Certainly one of the main things that Allen will be remembered for is his guidance of the AMA Nats Beginner program. Not only did Allen run this event for many years, he also took it upon himself to search out people who were willing to donate products that could be given out to fledgling pilots at the Nats.

Trophies are nice, but new modelers really need more tangible rewards to help them continue and improve. Allen knew this and, with the help of many of his friends and many manufacturers, provided lots of modeling equipment. It was not uncommon to see a Beginner or Intermediate flier at the Nats flying a model that was built from a kit won the previous year.

This past year there were 54 *piles* of merchandise for the Nats Beginners to choose from. Allen arranged the merchandise he received from donors into logical piles that included, for example, a kit, an engine, lines and handle, and perhaps a gallon of fuel. There were also several built-and-finished and ready-to-fly models with lines and handles in the groups of merchandise piles.

The Junior Beginner entrants would get first pick at the merchandise piles, beginning with the winner, then second place, and so on. Then the Open Beginners would get a chance to pick. Each entrant went through the piles of neat stuff at least twice!

In considering all of this, I was struck by a sobering thought: how did Allen get all the stuff that was sent to him to distribute to the Nats? Just consider the logistics. Truly, just like an iceberg hides most of itself underwater, most of Allen's amazing work was not readily obvious. And, Allen never had the need to point out how much he did, nor how he got it all accomplished; he just did it. Godspeed Allen.

## New Leadership

It is my pleasure to introduce our new president, Warren Tiaht, and our newly elected district directors, Derek Barry in District V, and Steve Yampolsky in District I. I am certain that these gentlemen will serve PAMPA with distinction.

Sadly, Warren's first duty was to have to appoint someone to serve in Allen Brickhaus's place as District VI Director. He chose wisely and appointed Dennis Adamisin to that post. Dennis knows that he has some huge shoes to fill, but I know he'll do a great job.

These fine gentlemen join with the rest of our all-volunteer administrative group to take PAMPA into yet another great year. Let's all give them our full support and help.

## Collier Stunt Team

I vividly remember reading about the Collier Stunt Team in



**There simply are no words.** By now most of you have heard of the passing of Allen Brickhaus. I received this news at the eleventh hour in the production of this newsletter. This is just devastating news not only for the sport of Control Line Stunt, but also for the entire world of aeromodeling and beyond. Allen was as special as people get.

I was moved by the outpouring of love towards Allen's memory on the *Stunt Hangar* and *Stuka Stunt* forums. Lots of modelers who were close friends of Allen's, many who just met him once, and many who never had the privilege of meeting him but knew him through his writings, took the time to relate their Allen Brickhaus stories and remembrances on those forums. If you get the chance to log on to those forums and read those posts, I'm sure you will be equally moved.



The aeromodeling world mourns the loss of Allen Brickhaus. Allen was truly one of the most beloved individuals to ever fly a stunt model. His brand of service to our community will be sorely missed, but always remembered and appreciated. Photo by Gene Martine.

the modeling magazines back in the mid to late 1960s. Truly the accounts of the exploits of Pat, Jim, and Tom Collier were the stuff of massive inspiration for a hopeful young Stunt flier. I'm sure that many of you reading this feel the very same way.

I always thought it strange that after 1967 there were no more published accounts of the Collier Stunt Team, nor any mention of its members flying in any other contests after that time. I occasionally thought about them and always wanted to try "Team Stunt." I finally got that chance when Dan Banjock

and I were flying together at a demonstration in Trenton, New Jersey sometime around 1990.

Dan and I decided to work out a few maneuvers that we could do with some degree of safety, and we practiced the footwork on the sidelines without our planes. Our performance came off very well and we vowed to work up a more complex routine and do it again. Well, that never happened for one reason or another, but Dan and Mike Palko did work out a great routine that they performed at the Brodak Fly-In and a few other venues.

In 2010 I was invited by the Knights of the Round Circle to come out to the club's annual banquet—that just happened to be on the same weekend as their annual Charles Mackey Open Stunt contest. My attendance was requested because the club wanted me present the AMA Model Aviation Hall of Fame award to Larry Renger. Talk about an honor!

While at the contest I met Tom Collier. I had no idea that Tom was even in modeling anymore, but soon found out that his enthusiasm is as strong as ever. Tragically, Tom had a serious accident on a diving board and broke his neck. The accident left Tom permanently disabled and constrained to a wheelchair. Tom's brand of spirit just looked at that as a new challenge and he now flies CL from his power-chair. Tom inspired me all over again!

I asked Tom if he would prepare an article about the Collier Stunt Team for *Stunt News*, and it appears in this issue. Please take the time to read this very interesting and courageous story. *SN*

—Bob Hunt  
(610) 746-0106  
robinhunt@rcn.com

## LEE MACHINE SHOP Quality Modeling Products

Propeller Scribes  
5 oz fuel syringes  
With o-ring plunger

Venturies for OS FP, LA 20 – 46  
Ball Drivers and Finger Drills  
Gasket Cutters, Line Wrappers  
Derek Moran Line Clip Bender  
Motor Mount Drill Guides

James Lee  
827 SE 43rd St  
Topeka, KS 66609  
785-266-7714  
Sales@LeeMachineShop.com  
www.LeeMachineShop.com



## Control Line WORLD

*The magazine  
dedicated to  
all things related  
to control line*

Control Line World Electric Radio Scale Speed Stunt

*Control Line World* is packed with finishing tips, building and flying ideas, stories, and features that you can use. Each issue includes tons of photos, results, product reviews, schedules and announcements.

Don't miss our exclusive series on *The Legends of Control Line*, the pioneers who helped shape and develop this great sport!

And, each issue includes a "centerfold" - a detailed blueprint that can be easily removed and enlarged for building.

**Subscribe today! Don't miss a single issue!**

Subscription forms are available at [www.brodak.com](http://www.brodak.com) or by calling Brodak Manufacturing at 724-966-2726. Subscriptions are \$25 for one year (four issues) (\$35 for international subscriptions).



## PAMPA Membership Application or Renewal Form

Please print legibly. Use one form per member. Make photocopies for multiple registrations.

### PAMPA Membership Renewal Instructions

#### GENERAL:

1. All renewal/new membership applications received in November and December of the current year will be considered renewal/new memberships for the coming new year.
2. Dues structure will be as noted on the Membership Form.
3. If you are a 'comp' member (AMA Contest Board, HOF, etc.) please fill out and return the form with the appropriate box checked. This allows us to keep our records and mailing lists current.
4. Seasonal address changes (snowbirds/rainbirds) must notify the Membership Chairman of changes and dates; there are no automatic transfers of mailing addresses. (Both of your addresses will be kept on file. Please let us know which one to use and when; it's up to you to be timely!)

#### RENEWALS:

1. For renewals to be considered timely, they must be ***postmarked*** by December 31st.
2. Renewals after January 1<sup>st</sup> of the membership year will be considered as late renewals.
3. Late renewals will ***NOT*** get back issues mailed to them; they are available online or by purchase.
4. **NEW** members joining after September 1st will get full credit for the next year's membership. They will also receive the September/October and November/December issues as a bonus. If you have already renewed please advise us of any changes in your information.

To renew your PAMPA membership quickly, fill out the application blank with all of your pertinent information, including the type of Stunt News delivery you would like to receive. Fill out the application and mail it with a check or your credit card information.

**DO NOT BREAK EMAILS INTO 3 PARTS AS IN PREVIOUS YEARS.**

**SCAN YOUR APPLICATION WITH ALL 16 DIGITS OF YOUR CREDIT CARD WITH THE EXPIRATION DATE AND EMAIL TO THE ADDRESS BELOW OR MAIL YOUR APPLICATION ALONG WITH YOUR CHECK OR MONEY ORDER TO THE ADDRESS ON THE APPLICATION FORM.**

**Your first issue of Stunt News will arrive with the next issue.**

All members have full access to the website and all online back issues. These can be read or downloaded to your computer. You can file them, burn CDs or print them from the files.

**MIKE STRAND**

**PAMPA Membership Secretary**

**Phone# 262-352-0645**

**pampamembership@gartekinc.com**



# PAMPA Membership Application or Renewal Form

Please print legibly. Use one form per member. Make photocopies for multiple registrations.

<b>Membership Year 2014</b>	<b>New Member</b>	<input type="checkbox"/>	<b>Renewal</b>	<input type="checkbox"/>	<b>Address change:</b>	<input type="checkbox"/>
-----------------------------	-------------------	--------------------------	----------------	--------------------------	------------------------	--------------------------

Name: \_\_\_\_\_ AMA No. \_\_\_\_\_ Age: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Nation: \_\_\_\_\_

ZIP Code + 4 (or Postal Code): \_\_\_\_\_ Telephone: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

E-Mail address: \_\_\_\_\_

Comp Member: check box: HOF  AMA CB  Other  Date: \_\_\_\_\_

Office only: Date postmarked: _____	Date received: _____	Form complete: _____
-------------------------------------	----------------------	----------------------

### Annual Dues Options: Please Check One:

### Method of Payment

<input type="checkbox"/>	Basic Member-internet access only	\$35
<input type="checkbox"/>	US Member – Bulk Mail	\$60
<input type="checkbox"/>	US Member – First Class Mail	\$70
<input type="checkbox"/>	US Compact Disk	\$60
<input type="checkbox"/>	International Compact Disk	\$65
<input type="checkbox"/>	Canada / Mexico First Class Mail	\$75
<input type="checkbox"/>	International First Class Mail	\$95
<input type="checkbox"/>	Family Member	\$5

Check	<input type="checkbox"/>	M.O.	<input type="checkbox"/>	Cash	<input type="checkbox"/>
Check No.	_____	Date:	_____		
Credit Card: (only Visa and MC are acceptable)					
Credit Card No:	_____ - _____ - _____				
Expiration:	(Mo./Yr) ____ / ____				
V-Code:	(3 digits) ____				
Signature:	_____				
Membership Card, if desired:				<input type="checkbox"/>	\$2

### **NOTE:**

*Term of ALL Memberships and Subscriptions are from January 1<sup>st</sup> through December 31<sup>st</sup>.*

<b>Mail to:</b> PAMPA Secretary 24 Enterprise Road, Unit-C Delafield, WI 53018	<b>Phone:</b> 262-352-0645 <b>Email:</b> pampamembership@gartekinc.com
--------------------------------------------------------------------------------------	---------------------------------------------------------------------------

# PAMPA Trustees

## OFFICERS:

**President** Warren Tiahr, Address:  
Email: tiahr@q.com

**Vice President** Matt Neumann,  
mrstuka@rocketship.com

**Treasurer** Jim Vornholt,  
jvornholt@indy.rr.com

**Membership Secretary** Mike Strand  
pampamembership@geartekinc.com

**Newsletter Editor** Bob Hunt  
robinhunt@rcn.com

## DISTRICT REPRESENTATIVES:

### District I

Steven Yampolsky,  
syampolsky@hotmail.com  
(Connecticut, Maine, Massachusetts,  
Rhode Island, Vermont)

### District II

Bud Wieder, bw427@ptd.net (New  
York, New Jersey)

### District III

Ken Armish, karmish@ptd.net  
(Ohio, Pennsylvania, West Virginia)

### District IV

Steve Fitton, spfvmi90@cox.net  
(Delaware, District of Columbia,  
Maryland, Virginia, North Carolina)

### District V

Derek Barry, derk21@hotmail.com  
(Alabama, Florida, Georgia,  
Mississippi, Puerto Rico, South  
Carolina, Tennessee)

### District VI

Dennis Adamisin,  
dadamisin@yahoo.com (Illinois,  
Indiana, Kentucky, Missouri)

### District VII

Bob McDonald,  
bobsp47@sbcglobal.net (Iowa,  
Michigan, Minnesota, Wisconsin)

### District VIII

Doug Moon,  
Dougmoon12@yahoo.com  
(Arkansas, Louisiana, New Mexico,  
Oklahoma, Texas)

### District IX

Jack Pitcher,  
jmpitcher67@gmail.com (Colorado,  
Kansas, Nebraska, North Dakota,  
South Dakota, Wyoming)

### District X

Jim Hoffman, windswept4@cox.net  
(Arizona, California, Guam, Hawaii,  
Nevada, Utah)

### District XI

Mike Haverly,  
moneypit2k@comcast.net (Alaska,  
Idaho, Montana, Oregon,  
Washington)

# Deadlines

## Ad and Editorial copy

Issue	Deadline
March/April	Jan. 20, 2014
May/June	March 20, 2014
July/August	May 20, 2014
September/October	July 20, 2014
November/December	Sept. 20, 2014

**Postmaster:** Send address changes to:  
PAMPA, P.O. Box 320, Plainfield, IN  
46168-0320.

*Stunt News* (ISSN 1076-2604) is the  
official newsletter of the Precision  
Aerobatics Model Pilots' Association  
(PAMPA), a not-for-profit hobby

association, and is published bimonthly at  
209 Old Easton Rd., Stockertown PA  
18083. Annual membership dues are  
\$50.00, which includes a subscription to  
*Stunt News*. Periodical postage rate paid  
at Rockport IL.

## Send camera-ready ads and payment to:

Gene Martine  
11248 Martin Lakes Dr.  
Jacksonville FL 32220-3706  
Phone: (904) 786-8650  
gmflyng@bellsouth.net

## Advertising rates

Page	Size	1 Issue	6 Issues
1/8	2.25"X 3.50"	\$10.00	\$60.00
1/4	4.75"X 3.50"	\$35.00	\$210.00
1/2	4.75"X 7.00"	\$70.00	\$420.00
Full	9.50"X 7.00"	\$140.00	\$840.00

## Full Page Color

Inside front or back cover	1@ \$225.00 6@\$1200.00
Outside Back Cover	1@ \$275.00 6@\$1500.00

## ELECTRIC CONTROL LINE

Field adjustable timers/flight  
managers for Electric CL, for all

ESC's, for all modes. Also throttle emulators for ground checks or test stands. \$10 and  
up.

Will Hubin, 719 Cuyahoga St., Kent, OH 44240; 330-678-9319;  
whubin@kent.edu.

# 2014 US Stunt Team Trials

Every other year—on the odd-numbered years—there is a CL Stunt contest held in this country that has three winners. The prize is the same for each of the contestants who place in one of the top three spots. I'm of course referring to the United States FAI Team Trials, which has been conducted in Muncie, Indiana, at the International Aeromodeling Center (AMA Headquarters) since 1995. Before that this contest moved around to various venues around the country.

Unlike the Nationals, this contest lasts only two days and usually has a fairly small entry. For many the Nats is a vacation, but the Team Trials is more like a "business trip." The payoff for the three winners is the right and privilege to represent the United States and the AMA at the next year's World Championships.

Over Labor Day weekend in 2013, the new 2014 team was selected, and they will prepare to travel later this year to Wloclawek, Poland. This will be the second FAI CL World Championships contested in Poland. The first was in 1980.

Bill Rich volunteered to be the Team Selection Director, and I volunteered to be his Assistant Director. Randy Smith was the Contest Director, and Bill Lee was the FAI Jury member on-site.

Our judges were Dennis Adamisin, Curt Contrata, Bob Gieseke, Jim Lynch, Gary McClellan, and Head Judge, Mark Overmier. Howard Rush's sister, Priscilla volunteered to be the tabulator and received help from JoAnn Lynch; Jeff Traxler volunteered to be the Pit Boss; and Marilee McMillan and Edie Oliver volunteered to be the score runners.

We had 13 entrants—all Senior division, no Juniors—sign up for the contest. The pilots' meeting/weigh-in was conducted at AMA Headquarters in the conference room, and unlike the Nats, where there are lots of questions (and lots of time to kill while the



by Bob Hunt

Here's your 2014 United States FAI F2B team. Clockwise from top left in this photo are Howard Rush (second place on team), Kenny Stevens (third place on team), and the winner and leader of the team, Orestes Hernandez. Howard and Kenny made the team for the first time; Orestes is a veteran of three team appearances. All three opted to use electric-powered models. Our congratulations go out to them along with our best wishes for a winning performance later this year in Poland. Photo by Bob Hunt.

models are being appearance pointed), the meeting lasted only a few moments.

After the pilots' meeting, there was a judges' meeting at which anyone could attend. Only the judges were allowed to talk at this meeting; however, there was an opportunity at the end of the meeting for spectators to ask questions.

The contest got off to a bit of a rocky start when the computer program didn't work properly on Bill Rich's computer. Bill worked with Curt Contrata late into the evening the night before the start of the contest in an effort to get the program to run correctly on Bill's machine. Bill remembered that Derek Barry had run this contest two years earlier, and a very late-night (early morning, actually...) call to Derek ensued.

Derek pretty much saved the day by walking Bill through some of the program's quirks, and they eventually got the score sheets printed and the round orders set at nearly the last moment.



The judging corps consisted of (L to R) Mark Overmier (Head Judge), Dennis Adamisin, Gary McClellan, Bob Gieseke, Curt Contrata, and Jim Lynch. Hunt photo.

A great big “thank you” goes out to Curt and Derek for their help in getting everything running on time.

On a personal note, it was a pleasure to spend a few days with my old buddy, Bill Werwage. Bill and I were the warm-up pilots for the judges each morning of the contest and we had our own little contest in doing that. I lent Bill my trusty old Genesis Extreme and I flew my Gene Schaffer-designed Stunt Machine 1. (The real name of the plane is the Oosa-Amma, so named by Bill Simons back in 1970 when Gene brought the plane out to a local meet.

Bill asked Gene, “What’s an Oosa-Amma?” Gene was bewildered and asked Bill what he meant. Bill said he was referring to the name of the plane. Gene responded by telling Bill the plane had no name. Bill noted that there was a huge USA painted on the left wing and an equally huge AMA on the right wing,

Once again Pricilla Rush volunteered to handle the tabulating chores. Pricilla was assisted ably by JoAnn Lynch (L). Hunt photo..



Edie Oliver and Marilee McMillan (L to R) volunteered to be the score runners for the Team Selection. Hunt photo:



and that spelled out “Oosa-Amma.” Gene hated the name, but it stuck and from that day to this it has been known on the East Coast as the Oosa-Amma.)

Who won the mini-contest between the warm up pilots? Well, we both asked the judges if we could see the scores and they declined to show them to us. They did say that we had each won a round, so it was an official draw... Swell.

Qualification flights were flown on Saturday, August 31. The contest was flown on circles 1 and 2 on the L-Pad. The total entry was split into two groups, and those groups flew two flights on each circle with the highest score from each circle counting. If a contestant first flew on circle 1, then he

would fly his second round on circle 2, his third back on circle 1, and his fourth on circle 2.

The other group just reversed this process. Ten pilots—five



Eric Taylor launches Kenny Stevens' SVE-22 on an official flight. Kenny's model is powered by a Plettenburg 2514 motor running on Zippy 6S 2,200 mAh batteries. Kenny uses a Will Hubin FM-9 timer and a Castle Creations Ice Lite 50 ESC. This combination spins an APC 13 x 4.5 pusher prop.



Left: Howard Rush relaxes before an official flight with his electric-powered, Paul Walker-designed Impact. The power system on this model consists of a Plettenberg 2016 motor, a 2,700 mAh 5S ThunderPower battery, a Will Hubin FM-9 timer, and a Castle Creations Ice Lite 75 ESC. Also used on Howard's plane were sustainably harvested vortex generators that were made on a 3-D printer. Howard's planes are always extremely well built and finished with great attention to detail. He used homemade carbon-fiber landing gear and cowl and battery compartment rails, as well as a Mike Haverly boundary layer trip strip on the stabilizer.

Below: Matt Neumann displays his original-design Stuka stunt model. This year Matt switched to electric power. His model features an E-flite 32 motor and a 3,300 mAh battery. Matt uses a Will Hubin FM-9 timer and a Castle Creations Phoenix Lite 75 ESC. The fuselage on Matt's plane was molded from 1/16-inch thick balsa. Matt placed seventh. Photo by Allen Brickhaus.





from each circle—qualified for the Sunday, September 1 finals. It may seem like a lot of effort to go through to eliminate only three fliers from the field, but those are the rules, and the FAI programs are run to the letter of the rules by AMA. (This is not a PAMPA run or administered contest!) Besides, those three pilots who were eliminated got to experience the FAI way of doing things and should be saluted for their effort. I wish more pilots would attend and have this unique experience.

On Sunday, the Finals pilots flew three flights, all on circle 1, with the best two counting toward their final placing. Weather had not been a factor during qualifying, and it appeared that the same would hold true for the final rounds. There was no appreciable wind and there was a hazy overcast, meaning that sun-in-the-

Left: Joe Gilbert is a fast-rising star in the stunt event and he will be one to be reckoned with very soon at the Nats and future team trials. Here he poses with his original-design Hurricane. This ship was built around a Genesis 46 Mk III wing and is powered by a RoJett 67 engine that is fitted with a RoJett carbon-fiber tuned pipe. The ship is finished with automotive paints.

Below: Flying buddies, Josias Delgado (L) and Orestes Hernandez scope out the competition during an official round of flying. These are fun guys to be around!





Frank McMillan flew his trusty Super Caudron 9 at the team trials. This model features a Geo-XL built-up Lost-Foam wing and is powered by a PA 75 fitted with a Smith and Werwage pipe. Keith Trostle is holding for Frank, who is heading to the handle for an official Finals flight. Hunt photo.



The First Alternate position was captured by Rich Oliver. Rich flew his original-design Maverick. The ship is powered-by a RoJett 67 fitted with a RoJett carbon-fiber tuned pipe and a Brian Eather produced 12 x 4 prop. This beautiful model was built around a Dave Midgley composite wing and was finished with automotive paints. Hunt photo.



Above: Bob McDonald flew his original-design Apogee V to the Third Alternate position. Bob's ship is powered by a PA 75 running on a Smith and Werwage carbon-fiber tuned pipe. The Warren Truss built-up wing in Bob's ship was built in a Lost-Foam fixture that Bob cut himself. Hunt photo.



Left: Bob Hunt (kneeling) and Bill Werwage flew the warm up flights for the judges each day of the competition. Bill is a three-time F2B World Champion (1970, 1972, and 2004), and Bob Hunt is a one-time World Champion (1978). Naturally they wanted to know from the judges which one of them flew the best warm-up flight each day. They were officially informed that it was a tie... Bob flew his rendition of Gene Schaffer's Oosa-Amma (Stunt Machine 1), and Bill flew Bob's well-traveled Genesis Extreme. Both ships are electric powered. Brickhaus photo.



Right: Bob Gieseke's daughter, Christy, attended the Team Trials with her dad and acted as recorder for him.



Another fast-rising star is Eric Taylor. Fresh off his win in Expert Stunt at the 2013 Nats, Eric entered the Team Trials and made the finals on his first try! He flies this very neatly crafted and finished, Randy Smith-designed SV-23. The ship features a Warren Truss, Lost-Foam built-up wing, and it is powered by a PA 61 rear-exhaust engine that is fitted with a Smith and Werwage carbon-fiber tuned pipe. Hunt photo.

eyes issues were not a factor, either. Everyone would have the chance and conditions to put in their possible best performances. Wouldn't it be nice if all contest weather would cooperate in this manner?

It was evident to all from the week of practice flying before the contest, and the qualifying flights, that the man to beat was Orestes Hernandez. Orestes was flying one of his Yatsenko Sharks, only this time he was using electric power. Orestes has always been a very smooth and technically correct flier, but on this occasion he was flying totally "lights out."

Orestes put on a clinic with a tight 45° pattern that had very smooth and precise round maneuvers and squares that featured very crisp corners, extremely flat straight sections, and flawless bottoms. He was the class of the field and he won the contest by a fairly wide margin. My hat goes off to Orestes for showing everyone present a performance for the ages. In my mind his flying at this team trials ranks right at the top of the very best I've ever seen. Strong statement, true, but I'll stick by it.

Orestes's Shark was powered by an E-Flite Power 32 motor running on ThunderPower 2,700 mAh 5S batteries. He used a Will Hubin timer system and a Castle Creations Ice Lite 50 ESC. Orestes used a 13-inch diameter, carbon-fiber quadcopter tractor prop. These props come normally in sets of two, including pusher and tractor units. Orestes de-pitched his prop from 6.5 to 5.5 inches. His Shark weighed 64 ounces ready-to-fly with the battery onboard.

Howard Rush has joined what he calls the "Varsity Team"

over the past few years. His flying has been steadily improving, and he's been knocking on the door of a significant placing at a big meet for the past few years. This was his breakthrough meet; he placed second and secured a team seat flying his electric-powered, Paul Walker-designed Impact.

Howard's style of flying is exciting to watch; he's a world-class FAI combat pilot who has competed in F2D at two World Championships (1984 and 1990), and his corners reveal the amazing reflexes he's developed over the years flying those fast, tight-turning ships. Howard flies a fairly tight 45° pattern, and that further emphasizes the tight cornering to good effect.

Howard's planes are flawlessly built and finished. A close inspection of his plane reveals not only the amazing quality and depth of craftsmanship, but also subtle features that underscore the man's engineering background. Howard used vortex generators that were made on a 3-D printer, homemade carbon-fiber landing gear, cowl and battery compartment rails, and a Mike Haverly boundary layer trip strip on the stabilizer. For power Howard chose the Plettenberg 2016, a 2,700 mAh 5S ThunderPower battery, a Will Hubin FM-9 timer, and a Castle Creations Ice Lite 75 ESC.

Kenny Stevens is another pilot who has been knocking on the door of the top spots for the past few years. His Top-5 Nats performance this year signaled that he would be one to watch at the Team Trials, and he didn't disappoint as he captured the third team seat. Kenny's pattern is a very nice blend of good corners and smooth rounds with great bottoms and pattern flow. It is the



The contest was Shark infested! These two beautiful Yatsenko Sharks belong to Josias Delgado (L) and Orestes Hernandez. Both ships are electric powered and feature E-flite Power 32 motors, Will Hubin FM-9 timers, and ThunderPower 2,700 mAh 5S battery packs and Castle Creations Ice Lite 50 ESC's. Hunt photo.



Time warp warning! The clock suddenly went back to 1961 at Willow Grove, PA and found these old friends still hanging out together. Left to right are Jim Vornholt, Bill Werwage, and Ron O'Toole. What a team that would have been! Hunt photo.

First Alternate position was captured by Rich Oliver, flying his original-design, Impact-inspired Maverick. Rich powers his Maverick with a RoJett .67 fitted with a carbon-fiber tuned pipe. In fact, Rich made his own engine, pipe, and header! Rich's plane features a Dave Midgley carbon/glass composite Impact wing. Rich is a very consistent flier and he practices a lot. (Must be nice to have your own flying circles... Yes, *circles*, with an "s.")

Joe Gilbert flew into the Second Alternate slot, flying his Genesis 46 Mk III wing-based Hurricane original. His plane is powered by a RoJett .67 with a RO Pipe and header and features a foam wing and tail. Joe hit his stride right at the end of the

type of pattern that, with lots of practice, can appear error free. Kenny had an absolutely killer second round finals flight, and that propelled him to his team spot.

Like his two team mates, Kenny chose to use electric power. His SVE-22 is based on the highly successful, Randy Smith-designed SV-22. Kenny's models are quite light, probably due in part to the gorgeous pigment-free transparent finishes that he applies.

Ken's choice of power was the Plettenberg 2514 with 6S 2,200 mAh Zippy batteries. He uses a Will Hubin FM-9 timer, along with a Castle Creations Ice Lite 50 ESC. Kenny lowered the thrust line from that of the glow version of the SV-22 ¼ inch, and reduced the side area of the fuse forward of the wing 35%, and that gives his SVE-22 a very lean and sleek look. He uses a 13 x 4.5 APC pusher prop.

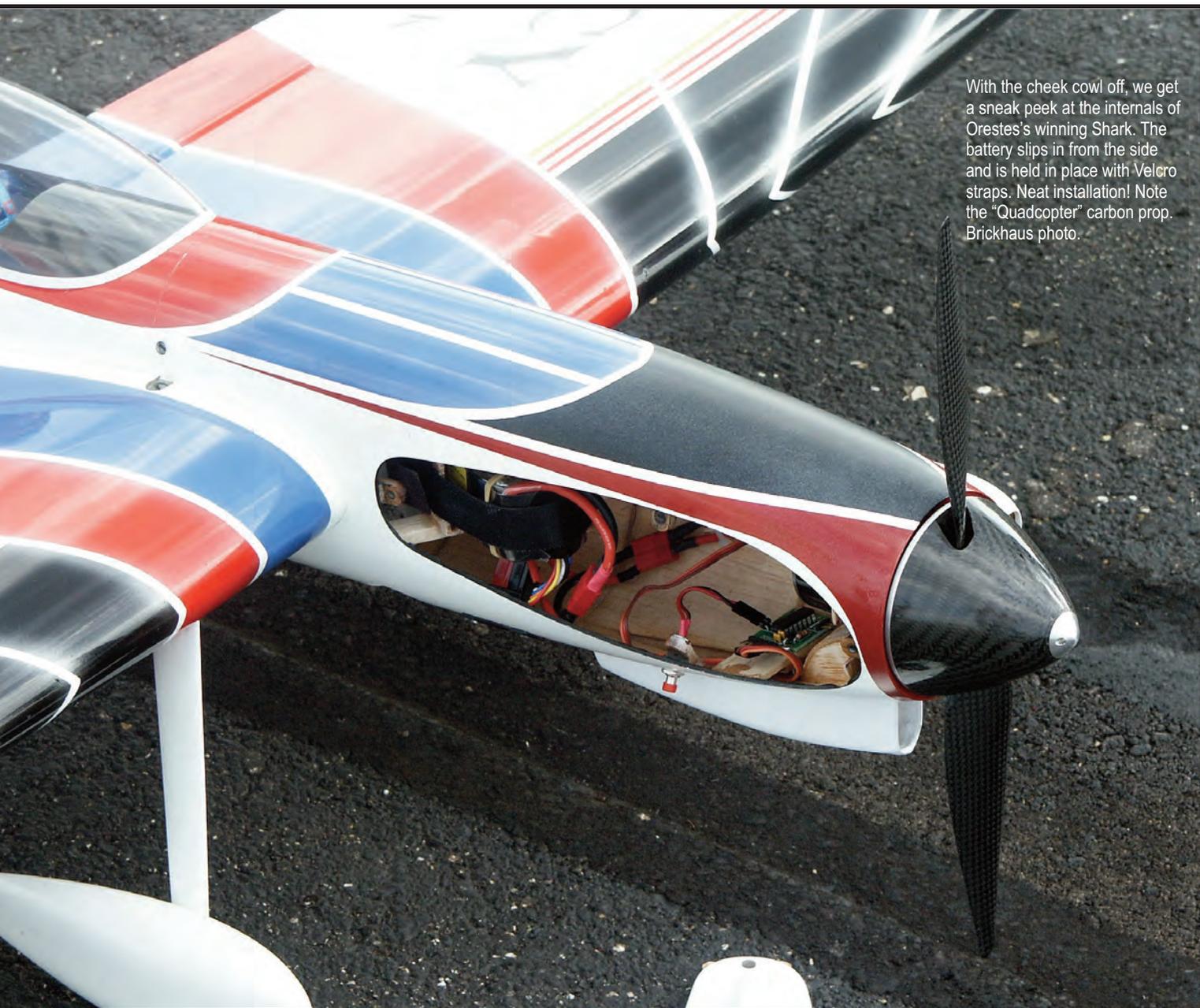
The next three placings determined the Team Alternates. The

contest; his third round flight was just amazing, and if he only had one more like it, things might have been different on the scoreboard.

The Third Alternate position was captured by Bob McDonald flying his original-design Apogee V. Bob used a PA .75 and a Smith/Werwage tuned pipe in the Lost-Foam, Warren Truss wing-equipped model for which Bob cut his own Lost-Foam fixtures. Bob flies a very homogenous pattern with great rounds and crisp squares.

When the dust settled, we had a team that consisted of one veteran WC competitor in Orestes and two very solid rookies. I'm very pleased that we are sending some new blood to the World Championships; if we are to remain competitive on the world F2B stage, then we must cultivate new, younger talent. And so the beat goes on... **SN**

—Bob Hunt



With the cheek cowl off, we get a sneak peek at the internals of Orestes's winning Shark. The battery slips in from the side and is held in place with Velcro straps. Neat installation! Note the "Quadcopter" carbon prop. Brickhaus photo.

## FAI Control Line Precision Aerobatics (F2B) US Team Selection, 2013

Place	Contestant	Senior Qualification Rounds				Qual. Total	Senior Finals			Finals Total
		Round 1	Round 2	Round 3	Round 4		Round 1	Round 2	Round 3	
1	Orestes Hernandez	1107.43	1170.93	1063.73	1162.30	2278.36	1075.91	1089.28	1086.48	2175.76
2	Howard Rush	1123.59	1058.13	1125.86	1005.03	2183.98	1032.10	1039.31	1047.16	2086.47
3	Kenny Stevens	959.56	1124.06	955.79	1151.29	2110.85	1015.54	1050.48	1024.00	2074.48
4	Richard Oliver	980.93	1087.53	1000.06	1111.20	2111.26	1001.78	1029.45	1039.25	2068.70
5	Joe Gilbert	1064.13	972.30	1107.79	995.96	2103.75	967.98	1013.65	1048.61	2062.26
6	Robert McDonald	1096.80	1001.73	1129.19	983.59	2130.92	972.18	1005.70	1012.06	2017.76
7	Matthew Neuman	963.46	1127.50	989.20	1153.83	2143.02	1008.18	984.18	1003.00	2011.18
8	Frank McMillan	1069.76	975.46	1094.96	1058.63	2153.59	991.88	1002.85	993.39	1996.24
9	Eric Taylor	952.73	1083.49	994.10	1079.26	2077.59	950.33	972.71	988.28	1960.99
10	Josias Delgado	1006.53	941.23	1080.43	943.73	2024.16	962.23	972.29	980.53	1952.82
11	Mike Scott	867.66	946.46	890.23	977.60	1867.83				
12	Wesley Dick	987.33	808.03	970.93	862.10	1849.43				
13	David Triple	919.16	854.26	960.20	832.13	1814.46				

Left: Mike Scott came from Dallas, Texas, to fly his Crusin original in the team trials. Mike's ship is powered by a PA 75 that is fitted with a 13-inch Mejlik carbon-fiber prop. This ship was finished in 2007 and now has more than 2,000 flights on it! Brickhaus photo.



Wesley Dick brought his original-design Velvet to the trials. Note the nifty Venetian blind-like flap treatment that he developed. Wes calls these "bidirectional, double-slotted, blown flaps." Wes's ship is powered by a PA 65 Rear Exhaust engine and is fitted with a Smith and Werwage carbon-fiber tuned pipe. The Velvet will be the subject of a future Stunt News construction feature. Hunt photo.



Dave Triple flew his original-design Desperado. Dave's ship is powered by a RoJett 61 engine that is fitted with a carbon-fiber tuned pipe and a Mejlik 13 x 4 carbon-fiber three-blade prop. Hunt photo.



Left to right are Assistant Team Trials Director Bob Hunt; Contest Director Randy Smith; first-place winner and team member, Orestes Hernandez; and Team Trials Director Bill Rich. Brickhaus photo.



The Open Top Five competitors display their models used in the competition. Front center, Paul Walker, first; rear left, Kenny Stevens, fifth; Doug Moon, second; Derek Barry, fourth; and Bob Hunt, third.

# Paul Walker's Nats Adventure

by Paul Walker

My 2013 Nats adventure started on Saturday of the 2012 Nats finals. I wasn't able to come up with the score needed to win when I had the last flight of the contest. That fact bothered me the entire year and became the focus of my preparations for the 2013 Nats. I assessed where I gave away points, and worked to resolve that.

That started with the design of a new plane. For years I have been interested in a non-linear control system. However, I had not come up with a mechanism to do that. Howard Rush also was interested and saw the plans from an Igor Burger plane from several years ago showing the non-linear mechanism.

He tried to get me interested, but at the time I was unwilling to commit a plane to that system without testing. Undeterred, Howard had a number of them machined. After seeing Igor's plane fly in Bulgaria, I decided to commit a plane to that system. Combined with the mechanism that I use to adjust the flaps, a 4-40 bolt, it made the fuselage quite full at the trailing edge of the wing. The clearances were very tight.

In discussion with Igor, he convinced me to connect the bellcrank to flap driving horn at a pivot arm of 1.0 inches. My standard Impact connection is at 1.5 inches, but I gave in to his experience on this subject. I made a mock-up of all this mechanism to make sure it worked without interference. The mock-up showed that it would work fine.

I also switched from a fuselage-mounted gear to a wing-mounted gear. This prevented the energy storage in the gear when compressed from tending to push the plane back into the air,

either on takeoff or landing. (I also had fewer appearance points than my competition and swore I would resolve that, as well.) This was supposed to be good for four or five points over last year's effort.

The plane was framed up and it was about time to finish it. I still had *no* idea how the paint scheme was going to look. Just at that time, Bob Hunt wrote in *Stunt News* that he had enlisted the help of Sina Goudarzi to develop the trim scheme for his Crossfire's repaint. It took about two seconds to decide to call Sina, and he was excited to take on this project.

First we discussed colors, and the "type" of theme to develop. Red, black, and white were the colors chosen, and I wanted an aggressive looking scheme. Sina went to work and produced numerous options to choose from. It took much iteration until we finally ended up with the configuration used. Once it was done, the computer files were sent to Mike Haverly to cut the masks on his machine. I received that "care package" in the mail and set about the color painting. When the last mask came off, I was very pleased with the result.

The first flights showed the advantage of the non-linear system. It was very easy to feel the effect. It also had a "Walker" rudder. It is different than the Rabe rudder, as it doesn't move when up control is given, but does move outward when down control is given. Somehow during the early flights, this moveable rudder was causing problems with the corners. When it was disconnected, it cleaned up the flight characteristics.

Then one morning, I had a lapse of judgment and flew when I



Paul signals the judges for start during the Walker Cup fly-off while longtime friend and coach, Don McClave, holds for the launch.

shouldn't have. The grass was a little tall, a bit wet, and a tail wind had developed. When I pulled the stooze release, the plane moved forward, then the tail came up, and it ground the prop into the ground. The electric motor didn't stop and kept trying to go. The plane shook violently and then finally stopped. I checked and found that the motor had burned up. With a new motor, it was in the air again.

Unfortunately, there was a new problem. The violent shaking elongated a bushing in the control system, and the control system resonated when not under load. In level flight it resonated; at the top of the wingover it resonated, as well as in other spots. I couldn't stand the noise and had to replace the bushing. The system was never designed to come apart, thus making the repair very difficult.

I had to cut open the bottom of the plane and saw the cross rod for the flap horn and flap idler horn. I was told to use a hacksaw blade to do that, but I was not convinced it would work on 1/8-inch piano wire. To my surprise, it went through rather easy and I didn't even get through my first beer before it was out. The bushing was replaced and the system reinstalled. That was much

easier to write about than it was to do! Once back in place, it was flight tested before the finish was reapplied over the repair area. It flew fine and made no noise!

The trim process continued, but I soon ran into the high stick-force problem. The more forward CG combined with the stiff flaps, more flap deflection due to the non-linear control system, and the short pivot arm on the flap actuation horn all combined to create high loads in the flying lines. Increasing the handle spacing relieved the high stick force, but made the corners jump too easily.

I tried different combinations of CG, elevator travel, handle spacing, lead-out position, tip weight, etc. This forced me to keep the Predator home for the Northwest Regionals on Memorial weekend. Shortly after this, several warps were detected that had to be removed.

The inboard wing tip had a 1/2 degree twist in it. The horizontal tail had a similar twist in the inboard tip as well. The final warp was in the fuselage and caused the stab and flap hinge lines not to be parallel. This was the most difficult warp to remove.

After these were corrected, the plane flew much better and mysteriously, the stick force problem was all but gone! This process took from late March until mid-June to work out. I flew virtually every day in that time frame. There was some rain in May and June, and that caused me to lose a few days of practice time.

At the same time, I was working with the Igor Burger active speed control. I had put it in last year's planes for testing. The first plane it was in was the backup plane from last year. The first handful of flights were set for a short run time and showed great promise. When switched to a full flight time, it started stopping in the second outside loop of the overheads.



Above: The Predator is caught by Will Hubin's the camera in a wingover.

Left: The Predator in mid maneuver reveals its rather large hinge gaps (~0.08 inches). They are left large because they are sealed with multipurpose clear tape, and this gap keeps the controls free, even with the tape.

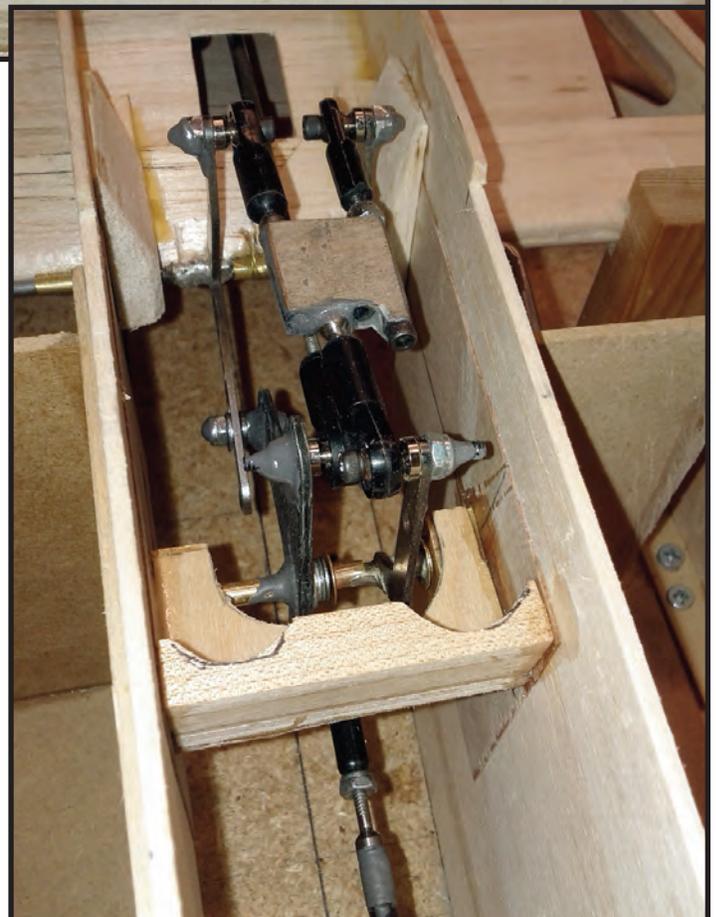
Below: The Predator is in rock steady inverted flight during the Walker Cup fly-off.





Above: The mock-up of the nonlinear control system used in the Predator was used to verify clearances before installation in structure. The mechanism on the top with the three ball links attached is the flap adjustment system. The upper bolt (in the picture, outboard in the model) spins in the carbon tube and allows a fore/aft movement of the ball link on that bolt when turned, creates the adjustment of the flaps. This is done through a strategically placed hole in the side of the fuselage. Photo by Paul Walker.

Right: Here's the nonlinear mechanism installed in Predator during construction. This view is looking forward. Walker photo.



No matter how many laps of maneuvers I left out, it would always stop there. With a helpful comment from Igor, I did the diagnosis of the recorded data from the ESC and found that it was stopping due to overheating. I then moved the ESC to be directly behind the opening in the cowl and presto, it ran all the way and only got to 60 degrees C.

The cutoff had been set at 100 degrees C. It was then moved into last year's primary plane and flown some more. It worked nicely in that plane, as well. This effort was happening at the same time as the work on the Predator, so switching from plane to plane every day made it a challenge.

After the trim on the Predator was good, I proceeded to turning on the active speed control function in it. Many trial-and-error sessions were required to get the parameters set to match this plane, its trim, and the location of the accelerometer. It took this effort, as the location of the accelerometer was different in the Predator compared to the previous year's Impacts. It takes a little getting used to.

The Predator sitting in the 19-point row after completion of appearance judging. The "wolf" head can faintly be seen on the side of the canopy. This created the name, Flaming Dog Head Airplane, FDHA, coined by Howard Rush.



For the first 50 or so flights I fixated on the changing speed. One day I noticed that I was doing nothing more than flying the plane and no longer really heard the speeding up or slowing down. When new, the beep (from the ESC) at the start of the flight was loud and could not be confused with anything else. Everything then seemed fine!

Batteries soon became an issue. I was using the Mejzlik 11 x 5.5 3-blade carbon prop on the Predator. This prop is clearly not as efficient as the APC electric props but made the plane fly better, so I used it. The effect of this was that my battery usage increased significantly over the APC prop.

With the APC prop on last year's Impact, it would draw 2000 mAh from the 5S battery for a flight. The 3-blade was drawing between 2,200 and 2,300 mAh at home in Deer Park. The altitude there is 2100 feet and it still drew that much. I was using the G6 Thunder Power 5S2700 65C battery and it didn't seem to bother it. However, the Predator was heavier than last year's Impacts, and the flaps moved more, increasing the load on the batteries.

When I went to Western Washington for competitions there, the draw was 2,450 mAh. I simply didn't want to punish those batteries in that fashion. So, for the Predator's first competition, I

used a 6S2700 35C Turnigy battery. This battery weighed in at 14.5 ounces. The competition was a success, as my coach, Don McClave, was able to see it for the first time and was emphatic about using it at the Nats. Others at this competition shared his view.

Back home, I went back to the 65C batteries. They weigh "only" 13 ounces. The more I flew it the more I started to dislike flying the Predator at that weight. Chris Cox and Alan Resinger had been using the G8Thunder Power 5S2700 25C batteries and liked them. The key feature here is that they weigh just over 10 ounces.

I had placed an order with Thunder Power in early May for two of those batteries. They finally arrived in early July! I tried them immediately and they were equal or better than the 65C batteries that were three ounces heavier. They, too, were drawing 2,200 to 2,300 mAh for a flight. (Note that the active speed control used more battery capacity, as there is more time at rpm higher than level lap speed.)

I was concerned about what the draw might be in Muncie if it were to be cool (talk about worrying about nothing!). To be sure, I found that the new G8 Thunder Power 6S2700 25C was only 12

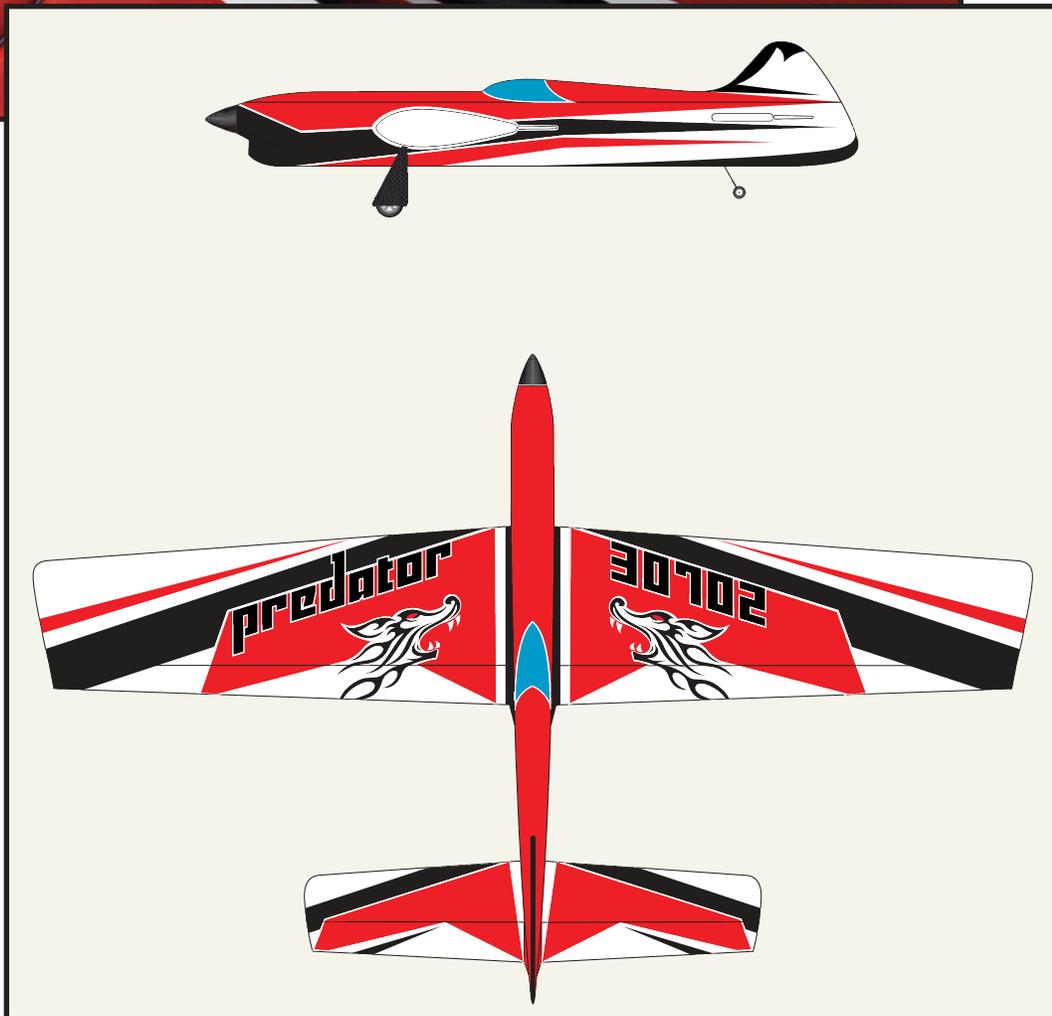


Above: Here's a close-up of the Wolfs' head that prompted the acronym, FDHA.

Right: This is the original Predator graphic that was developed by Sina Goudarzi. Nearly a month of work and many earlier configurations were melded together to arrive at this point. Sina was a pleasure to work with, and very patient with Paul.

ounces. I went to my local hobby shop where the proprietor found three of those batteries. Two were in a warehouse in Illinois and one in California. He could have them at his shop by Wednesday; I was leaving for the Nats on Thursday! (These were to be my backup batteries in case any of the 5S batteries were not going to do the job.)

On Monday before leaving, I decided to use the new G8 5S2700 25C batteries. The bad news was that I only had the two. I called Thunder Power, and they found that there were 4,000 on order and 10,000 on back order. I was not going to get any from them any time soon. It was back to my local hobby shop where the attendant was able to locate two of those batteries in a warehouse in Illinois. This





Predator in level flight. Note the location of the arming switch. It is supported by a tray that mounts to the battery mounting rails and is located in an air exit hole in the cowl.

time he had them shipped directly to AMA. Wednesday, my 6S batteries arrived at the local hobby shop as advertised.

Having just two batteries put a slight damper on my practice routine. I used two deep-cycle batteries with a separate charger on each to keep me going with only minor delays. By the time I got to the Nats, those two batteries had quite a few flights on them. It still felt a little odd leaving for the Nats with only two batteries of the size I wanted to use.

The drive to the Nats takes three days for me to complete. There was lots of time alone to think about things. I thought a lot about that last flight at the Nats in 2012. This year I focused intently on that last flight of the contest to be sure I had the right focus. I thought about it at VSC, and on my last flight put up the contest high score. The first competition for the Predator also saw the contest high score on my last flight. It seemed that I was doing something right! Mile after mile, I kept telling myself to focus on that last flight.

The standard plan for arrival at the Nats was for me to pick up Don McClave at the Indianapolis airport as I was arriving in Indiana. However, Mike Haverly was also flying into Indianapolis at the same time Don was, so Mike agreed to drive Don up to Muncie. This freed me up to arrive at AMA Headquarters before it closed to pick up my batteries that had been shipped there.

Great plan, however, as I was on 465 going toward 69 North, the cell phone rang and it was Mike. His flight out of Seattle was canceled, and by the time he got to Denver, his connecting flight had already left. He would not get to Indianapolis until 7 p.m. What was I to do? Stop, turn around, and wait for Don at the airport and not get my batteries until Monday, or proceed to Muncie, get my batteries, check in to the motel, and await Don's call?

The batteries won. I walked into the AMA offices, and Yolanda stood up immediately and handed me the box of batteries. I then went to the motel, checked in, and was unloading the cabin of the car when Don called. I told him the details, and was there in just over an hour.

Due to the lack of available practice facilities on-site at AMA on Sunday (What? Isn't one circle good enough for you guys?), we stopped at every field from Indianapolis to Muncie that we had used in the past when practice was an issue at AMA. They were all still there, but none of them had been mowed for weeks. No landing planes in those places! Finally, back at the motel we

unpacked and went to dinner.

The next day, there was *one* circle for practice, as advertised. I stood in line and awaited my turn. On my first practice flight there, an interesting thing happened. I put the arming plug in and then turned on the switch, but nothing happened. I tried a new battery quickly, but that wasn't the problem. It was back to the pits to take things apart to check.

Starting from the simplest to the hardest to get to, all connections were checked and cleaned. Nothing! Finally, I realized that I hadn't checked the arming plug. When I changed that, it worked like new! It figures it would be the easiest part to change that would be the problem. Yup, Sunday morning I got two flights in. Fantastic! The next day the grass fields were amazingly deserted.

I quickly jumped on that and flew a few uninterrupted flights. A group showed up to "share" the circle, but I quickly moved to another unused grass circle. That morning I got in nine flights in a row. Not bad for Muncie at Nats time!

It turned out to be fortunate for me. I worked on little trim changes that produced significant flight performance gains. The active speed control was staying on too long in the round loops before slowing down. I thought about that, added about two grams of tip weight, and then the speed regulator worked as it should.

Once again I was amazed at how sensitive that accelerometer really is. It became a helpful trim tool! I also slowed the elevators down by moving the slider out 0.02 of an inch. This gave me the extra lift I needed and actually allowed the corners to get tighter! Because the air was thinner than Deer Park, I moved the front upline forward one slot. That cleaned up the last corner of the inside squares and triangles without hurting anywhere else.

That afternoon was the appearance judging and pilots' meeting. I put the final coat of wax on the predator and headed off to the 180 building. I was going to be happy with an appearance score of 18, and if I got this I was going into the competition confident. Imagine my surprise when entering the gym to find the Predator sitting with only a few others in the 19-point row.



As we left, I asked Don, “Do you remember what happened the last time I got 19 appearance points?” He thought about that for a few seconds and couldn’t remember. I said, “It was 2002 and the Mustang got 19 points, and I won that Nats by appearance points!” I suggested that I should do that again! Little was I to know...

Tuesday was devoted to a final touch-up of the pattern. We went to the L Pad to practice take off and landings, and get used to the background we would fly against. I used circle 3 and 4 as Open has their Top 20 on those circles as well and the Top-5 fly-off. Things went well, and there were no issues... that I knew about then. A nice dinner and a good night’s sleep were in order for preparation for Wednesday morning.

Wednesday morning was the first day of qualifying. I had drawn a first round flight position of #2. That put me directly behind Doug Moon who had drawn #1. The last Advanced pilot was in the air, I had been pull tested, and I was testing the system prior to going to my official flight.

The Advanced pilot had a loud IC motor, and I couldn’t hear the arming beeps from the ESC. I said that out loud, as well. No sooner that I said that, that plane crashed, and then all was quiet.

There was still no sign of life. Now, I only had 10 minutes to get it fixed before I had to call an attempt.

In the pits, I started by checking every “simple” item (yes, the arming plug was the first thing I checked this time) and its connection. Nothing worked. Finally, I jiggled the wires to the motor and tried again. This time there was a muted beep, and the motor moved sporadically. I then removed the lines and took the plane to be under the tent where it was easier to get to.

I found that the connections from the motor to the ESC were making intermittent contact. I used the contact cleaner spray, and it then worked like magic. Fortunately, the judges were taking a short break between Doug’s flight and mine. I sent Howard to the pit boss to tell him I was taking an attempt and I would move down two places. I did fail to tell him what circle I was flying on, though.

Shortly, Dave Fitzgerald came by and asked if I was taking an attempt, as I was already on the clock, and I only had one minute left. There was no way I could get it all back together, tested, lines put on and tested in that time frame. Once back together, it worked fine. I flew my flight two spots later than originally scheduled.



The class winners at the 2013 Nats: Eric Taylor, Expert winner; Paul Walker, Open winner; Gavin Barry, Junior winner; Samuel Niebel, Senior winner; Jason Greer, Advanced winner; and David Fitzgerald, the Nats CLPA Event Director.



Paul smiles during the presentation, knowing that his hard work had paid off this year.

Before starting, I told the judges I was late because I was busy parking my car right next to Mark Overmier's Camaro! Okay, so Mark was one of the judges on that circle. It helped me to take the edge off from that little scare. Why was it such a scare? I had done something I swore I would never do, and that is I only had *one* active timer system. If that had failed, I would be back to the Will Hubin system. Not that Will's system is substandard; it was just that I had adjusted to the active speed control. The flight went well, and I was leading that circle. I then passed my second flight, as there was nothing to be gained.

After lunch, we headed back to the motel to check into the contact problem. The female side of motor to ESC connection was less than fully tight. To resolve that, I crimped the female connection slightly to make the joint a "press" fit. Once back

together, the *loud* beep returned.

Wednesday night was the PAMPA meeting. After the meeting, we headed to the field to verify that the system was functioning correctly. With a light breeze blowing, the system started and the flight started. To my amazement, the regulation was stronger and in the correct locations. It appears that the contacts were marginal for quite some time! Now the system was working better than it ever had. One flight was good enough, and we headed back for dinner.

The next day there was next to no air moving when the Open flying started. My flight on circle 1 was #1 in Open, and I was followed by Doug. I had, at most,  $\frac{1}{2}$  mph air moving, and I did my share of backing up. The flight was good, and I had scored well. Doug followed me immediately and didn't score as well. I passed my second flight. Doug obviously thought he needed to work on something, so he flew his second flight. He improved his score on his second flight.

Top Twenty day was much the same temperature as previous days. The difference was that there was some wind blowing on this day, and it was coming over the pagoda and tents for circles 3 and 4.

Normally, I have a plan for what I am going to do with each flight. However, on my first flight I was just going through the motions and not working to a plan. About halfway through the flight, I realized that I wasn't working to a plan, and was lost. I finished the flight with a very mediocre performance.

Once in the pits, I was very upset with myself and couldn't understand how I could have let that happen. I thought it was so bad

that I was going to have trouble making the Top Five with that flight. As I headed to the second flight, there was no doubt that I had a plan and knew how to execute it.

I *smoked* that flight and had the high score for the day with that flight. It so happens that other top five pilots also had concerns, and most of them were headed to the low-scoring circle needing good scores to make it. Doug Moon was so nervous that his second flight was not good enough to make the cut. He knew the score he needed to make the cut, and he was sure there was a significant possibility that he would not get it. In the end, he got what he needed to make the cut, as did I. It was a real cat fight, though, for the fifth spot. In the end Kenny Stephens beat Kaz Minato for that spot by  $\frac{1}{3}$  of a point. Howard Rush was just three points back of Kaz.

The Top Five was set, and now I needed to execute on my yearlong quest. I had been following my doctor's orders (he specializes in sports medicine) for fully hydrating prior to competing. Down went another quart of cut Gatorade before leaving the motel. At the field, I polished off another.

I was ready, and after the first round I had a lead of seven to nine points over the pilots that I figured had a shot. In the second round, my score went down 0.06 points, but Doug matched that score on his second flight. Bob Hunt improved, as did Derek Berry, but Derek was in all reality out of it at that point. He simply needed too big of a score to pass me or Doug.

After the second round scores were posted, Doug and I were looking at the board, and I told him that our positions were exactly reversed from the previous year. Last year I *had* to have a good score to beat Doug, and now this year Doug *had* to have a good score to beat me. He acknowledged that fact, and the battle was on.

In the third round, Kenny was first up, I was second, and Doug third. I concentrated like I had never concentrated before on that flight, and followed my plan for great bottoms and intersections. I let my practice control the sizes and shapes. It worked well, and I collected the high score for the entire week on the flight. Doug put in a valiant effort and was 0.80 points behind me on that flight. The result was that I had beaten Doug by 1.4 points for the sum of the two flights. (Remember back to appearance judging day? The last time I had 19 appearance points, I won the Nats, and I also won that Nats by appearance points, as well!)

Bob Hunt was the last to fly in the third round, and as he was leaving the circle, the skies parted and it dumped buckets of rain. The squall line had reached us, and there was then a two-hour delay before the Walker Trophy fly-off was to begin.

To his credit, Sam Niebel refused to pass and wanted to fly. I agreed, and the wait began. As advertised, the flying resumed at 12:30, and we had perfect air to fly in. The breeze that was coming over the pagoda and tents was now without any bumps and light.

Since the pressure was over from the Open finals, I switched plans and flew three flights as smooth as I could and let my practice dictate the bottoms and intersections. Sam flew well and was applauded for each of his flights. In the end, I had captured the Walker Trophy once again. I proved to myself that I still had it in me. However, this time I had to use cunning and smarts to overcome youth and skillful reflexes.

I had built probably my best-flying plane ever; I was practiced and flew well and at that just won. This was without a doubt my most memorable win. Every pilot in the fly-off flew very well, and even the slightest hick-up or two would have created a totally different outcome.

I want to thank a few people. We have moved on past the days when competitors kept their "secrets" to themselves. Most share any and all technology they have developed. Igor Burger is high on that list. He showed all the non-linear control system years ago. Few have picked up on it, but now that I have, I am afraid I can't go back. He also developed his electric motor active speed control system. I resisted that idea, but now am glad I tried it.

Bob Hunt shares his ideas all the time. He wrote about Sina



Paul Walker is awarded his Nats trophy by assistant event director, Bob McDonald. Bob will be the CLPA Nats event director in 2014.

Goudarzi, and I also picked up on that idea. Sina was a godsend for me on this plane. He helped develop the paint scheme that showed so well. Mike Haverly was also critical in this process, cutting the paint mask for this plane. Could you imagine masking the wolf head by hand? Not I.

Howard Rush is always coming up with great ideas to try. When I was hesitant to put a non-linear system in a plane, it didn't slow him down from having the flap horns for it cut from a CNC program. His horn is in that plane! And we can't forget the vortex generators. PJ Roland got me to try them a few years ago, and I found that they worked. While I was hesitant to "glue" them on permanently, Howard went to work generating an "L" version that could be attached with rubber cement. He has made them available to all!

Finally, my coach, Don McClave, has been with me at the Nats for the last 31 years. His insight and keen eye have helped me hone my pattern into a presentation that would extract as many points from the judges as my equipment, and I, were capable.

Part of the purpose of this is to show the work that goes into winning the Walker Trophy. I just didn't show up, put in a few flights, and walk off with the trophy. I busted my butt to get the results I did, and am proud of it. As one of the judges said, "This year the bar certainly has been raised."

Smooth rounds and sharp corners together are difficult but were accomplished. It is my opinion that if you are not improving your equipment, you are falling behind! Since returning home, I have flown last year's plane and no longer like the linear system. My next one will once again be non-linear. In closing, I have one question: *What's it going to take to win next year?* **SN**

# We Have the Technology by Noel Drindak

## 2013 Nats Technology Report

**This is the** 13<sup>th</sup> annual technology report detailing the equipment used by the Open and Advanced fliers at the Nationals. As usual, we passed out questionnaires at the pilots' meeting, and nearly everyone responded. A few notes on the data:

This year, for the first time, we had different survey forms for planes with internal combustion (IC) engines, and for planes with electric motors. Also, there are separate data tables for IC engines and for electrics.

The Open and Advanced classes are combined and listed alphabetically. If you want to look at the Open fliers, the top 20, or some other grouping, the information is there. Sorting it is left as an exercise for the reader. As before, I'm not going to analyze the data for you. It's more fun to do it for yourself. I'll confine myself to a few comments:

**1) Power Train:** The 2013 survey shows there were 36 planes with IC engines and 19 with electric power—the number of electrics continues to grow. Most of the planes with IC engines were using Precision Aero engines. Not surprisingly for new technology, there aren't any clear favorites in the hardware department, with one exception—almost all fliers are using Hubin timers.

**2) Props Tell a Story:** I've observed in the past that it seemed every flier with an IC engine was using a different prop—it's the same this year. On the other hand, 15 of 19 electric pilots used either a 13 x 4.5 or a 13 x 5.5 APC prop. I think that this points out a big difference between IC engines and electric motors. IC engines typically have a sweet spot where they perform best, while electric motors are happy to run where the electronic speed control (ESC) dictates.

Flying with an IC engine, you adjust the engine to run where it's happy, and then find a prop to produce the right lap time. Power can be adjusted with nitro percentage, venturi size, and compression ratio (using head shims). However, when the weather changes power changes, and fliers are continually making adjustments to compensate.

The weather effects aren't trivial. I've flown at contests where the temperature for my first official flight was in the forties and my second flight was made with temperatures in the eighties. Electric motors don't care about weather; they still run as the (ESC) settings dictate.

That's' it for my observations. Have fun analyzing the data. I hope it you find some ideas for your program.  
Good luck with your next plane. *SN*

One very high-tech model at this year's Nats was Kaz Minato's original design F6F Hellcat semiscale stunter. Kaz won the Concours award with this model and also received 20 appearance points—the maximum score possible! Kaz's model was a marvel of fit and finish. Coming from Japan, the model had to break down into parts small enough to fit into the diminutive shipping box. The removable composite-molded wings and the multi-section fuselage were so perfectly matched when assembled that the parting lines were virtually invisible. A true masterpiece from a recognized master! Photo by Gene Martine.



## NATS 2013 Technology Survey, IC Engine Data (Open and Advanced Fliers)

NAME	DESIGN	DESIGNER(S)	WING AREA	WT (oz)	ENGINE	PROP # of blades in ( )	Exhaust	LINES	FUEL	GLOW PLUG	SPECIAL FEATURES
Dan Banjock	Vista 39	Banjock	700	70	PA75RE	15x4.5 (3) Meszlik	Muffler	66x.018 Braid	Power Master 10%	T-Bolt	
Vince Bodde	Legacy 40		570	57	OSLA46	11.5x3.75 (2) APC	Muffler	64x.015 Braid	Rick's Brew 10%	K&B	
Joe Bowman	Juggernaut	Smith/Bowman	690	71	RO-Jett 65	12.5x4 (3) Maverick	Pipe	62x.018 Braid	Power Master 10%	Fireball	Automotive base/Clear finish.
Allen Brickhaus	Olympus	VandenHout	724	57	PA61RE	12x3.9 (3) Bolly	Muffler	62x.018 Braid	SIG 5%	T-Bolt RC	1964 Netherlands model, Published in Finland 2010.
Robert Brookins	Legacy	Brickhaus	680	61	Snorer 55	12x5 (2) Rev-Up	Muffler	62x.018 Braid	Power Master 10%	T-Bolt	Dope and B/C finish, ball link controls, adjustable weight box, adjustable leadouts, Brodak ARC, uniflow tank.
Alan Buck	Exel SV22	Randy Smith	675	70	PA65RE	13x4.5 (3) Bolly	Pipe	66x.018 Braid	SIG 10 %	T-Bolt	Brodak dope, ball link controls, Dupont 480S clear.
Les Byrd	Saturn	Hunt	650	64	Enya 61 CSX	12x6 (3) Bolly	Muffler	63x.018 Braid	Homebrew 5%	SIG RC	
Wesley Dick	Velvet <sup>3</sup>	Dick	680	66	PA65RE	13.5x4 Werwage	Pipe	64x.018 Braid	Power Master 5%	T-Bird	Bidirectional double-slotted blown flaps.
Bob Dixon	Crystal	Dixon	590	65	OS 52 F/S	12.5x5 (3) Meszlik	Muffler	65x.018 Braid	Power Master 10%	SIG	
Tom Dixon	P-51C Profile	Pat Johnston	580	55	Double Star 54	12x6 (2) Brodak	Muffler	62x.015 Braid	SIG Synthetic Plus 10%	SIG RC Long	Internal controls, foam wing, Brodak dope with auto clear, Tuskegee Airman color scheme.
Steve Fitton	Dreadnought	Randy Smith	675	66	PA61RE	12x3.8 (3) Meszlik	Pipe	64x.018 Braid	SIG 7.5%	T-Bolt	Sheeted foam wing, SIG dope finish.
Joe Gilbert	Hurricane	Gilbert	720	69	RO-Jett 67	13x4 (3)	Pipe	62x.018 Braid	Power Master 10%	Fox Long	Auto finish.
Dale Gleason	Impact	Walker	700	70	PA75RE	13x4 (3) Meszlik	Pipe	64x.018 Braid	Power Master 10%	T-Bolt	25% less stab area per H. Rush, "Dale" version 8-oz RST tank, John Griggsby center-drilled leadout guide.
Allen Goff	Petra 7	Goff	685	64	PA75RE	13.75x4.0 (3) Smith	Muffler	66x.018 Braid	SIG 5%	T-Bolt	
Bob Krug	Juno	Werwage	689	64	Jet 61	13x5 (2) Rev-Up	Pipe	64x.015 Braid	Power Master 10%	Fox	
James Lee	Sun Flyr	Lee	668	63	Evolution 60	12.5x4 (2)	Muffler	66x.018 Braid	SIG 10 %	Fox	
Gene Martine	SV-11	Randy Smith	690	69	PA75RE	13.5x4.3 (3) Meszlik	Pipe	65x.018 Braid	SIG 10 %	Big Bore	
Mike McHenry	A6M Zero	McHenry	680	67	PA65RE	13x4 (3) Eather	Muffler	66x.018 Braid	SIG 5%	T-Bolt	Tom Morris controls, carbon veil on solid surfaces, Polyspan on wing, Wicks dope finish.
Mark McKinney	98 Bear	Gieseke	720	60	PA61RE	12x3.4 (3)	Pipe	55x.014 Solids	Power Master 5%	T-Tiger #3	
Frank McMillan	SuperCaudron 9	McMillan	700	71	PA75RE	12.75x4.5 (3) Bolly	Pipe	65x.014 Solid	Own 12%	Big Bore	Lost foam wing, dope finish (Brodak), 7 years old.
Kaz Minato	F6F	Minato	702	62	PA75RE	11.5x5.0 (4) Carbon	Pipe	65x.018 Braid	SIG 10 %	Enya #3	
Doug Moon	Riff Raff	Gieseke	660	68	PA65RE	13x4 (2) Eather	Pipe	65x.014 Solid	SIG 15%	Enya #3	Automotive finish.
Steve Moon	Furias 96S	Moon Brothers	660	64	Discovery Retro 60	13.4x5.9 (2) Discovery	Muffler	64x.018 Braid	SIG 0%	Discovery	Carbon cheek cowls, carbon wing tips.
Dennis Moritz	Magician	Silhavey	480	40	Tower 40	12.5x4.5 (2) APC	Muffler	60x.015 Braid	Power Master 5%	T-Bolt RC	
Richard Oliver	Maverick	Oliver	690	67	RO-Jett 67	12x4 (2) Eather	Pipe	63x.018 Braid	Power Master 13%	RO-Jett	Midgley composite wing, auto paint, RO-Jett Pipe.
Michael Schmitt	Tempest 2	Randy Smith		64	PA61RE	13x4 (2) APC	Pipe	65x.018 Braid	Fox-Cat 10%	T-Bolt	
Mike Scott	Crusin	R.Smith/M.Scott			PA75RE	13-inch Meszlik	Pipe	65x.018 Braid	SIG 10-15%	T-Bolt	Not a true Randy Smith design, molded top deck, changed stab configuration, Brodak and auto finish, plane was finished in 2007, has about 2000 flights.
Michael Stinson	SV-22	Randy Smith	650	65		11.5x4.5 (3) Bolly	Pipe	65x.018 Braid	SIG 5-10%	SAT-300	
Eric Taylor	SV-23	Randy Smith		70	PA61RE	11.5x4.1 (3) Bolly	Pipe	65x.018 Braid	SIG 5%	Fireball	
Neal Thompson	Legacy	Brickhaus			ST 51	12x6	Muffler	60x.018 Braid	Power Master 15%	Fox	
Ronnie Thompson	Srega	Urmowski	748	65	ST 60	12x5 (2) Rev-Up	Muffler	65x.018 Braid	SIG 5%	SIG	Light lap tissue, Tom Morris bellcrank, ball links.
Dave Tribble	Desperado	Tribble	660		RO-Jett 61	13x4 (3) Mejlík	Pipe	63x.018 Braid	Byron 12%	Glow Devil	Zig-zag turbulators.
Dennis VanderKuur	Legacy	Brickhaus	695	63	PA65RE	13x4.5 (2) Bolly	Pipe	65x.018 Braid	Wildcat 5-10%	T-Bolt 4cyc	
Eric Viglione	Katana	Randy Smith	670	64	PA75RE	13.7x4.8 (3) Meszlik	Pipe	64x.018 Braid	SIG Synthetic	Enya #3	Klass Kote Epoxy Colors, 2 Part polyurethane clear.
Roger Wildman	Davis Special	Wildman	630	68	PA75RE	12x4.5 (3)	Pipe	66x.018 Braid	SIG 5%	T-Bolt	Foam core wing, molded fuse top and bottom.
Frank Williams	Thunder Gazer	Fitzgerald	630	70	PA75RE	12x4 (3) Mejlík	Pipe	65x.018 Braid	Power Master 20%	Big Bore	Bunches of vortex generators.

## NATS 2013 Technology Survey, Electric Power Data (Open and Advanced Fliers)

NAME	DESIGN	DESIGNER(S)	WING AREA (sqz)	WT (oz)	MOTOR	PROP # of blades in ( )	LINES	BATTERY	TIMER	SPEED CONTROL	SETTINGS	SPECIAL FEATURES
William DeMauro	SV22	Randy Smith	675	74	Scorpion 30-26-890	13x5.5 (2) APC	64x.018 Braid	Tumilly Compac III, 3700mAh 35C	Hubin FM9	Phoenix 45	Gain 45, 5.5 min, 9600 rpm	Turbo cool spinner.
Kevin DeMauro	Nobler	George Aldrich	550	41	Cobra 28-15-860	10x5.8 (2) APC	60x.015 Braid	Tumilly Compac 2700mAh 4S	Hubin FM9	Phoenix 55	Gain 45	
Rich Giacobone	Caprice	Hunt	560	49	Power 15	11x5.5 (2) APC	62x.015 Braid	Hyperion 2500mAh	Hubin FM9	Castle Edge	50% gain	
Sina Goudarzi	E-Tweener	Jose Modesto	765	66	E-Flite 32	13x5.5 (2) APC	65x.018 Braid	Tumilly 3000mAh 4S	Hubin FM9	Castle Phoenix 60	50% gain	Full composite - wing, fuse, stab. Wing has no ribs, only foam insert. Impact fuse, stab, elevator, Big Jim Tweener wing with high aspect ratio.
Jason Greer	Impact	Walker	700	55	Scorpion 3026 710kV	13x5.5 (2) APC	67x.015 Braid	Thunder Power 2700mAh 5S G8	Igor Burger	Jeti Spin 66	Active Regulation	
Mike Haverly	Sultan	Norm Whittle	690	69	E-Flite Power 32	13x5.5 (2) APC		Zippy 2700mAh 5S	Hubin FM9	Castle Phoenix 60	9437 rpm, high gain	Take apart, dope with automotive clear coat.
Bob Hunt	Crossfire	Hunt	650	62	Cobra 28x26/10	12x6 (2) APC	.014 solids x 68 feet	Hyperion 3300mAh 4S	Hubin FM9	Castle Phoenix 45	50% gain	Chroma base paint, Foam wing, flaps, stab, and elevator, molded top and bottom shells.
Jose Modesto	Saturn Impact Pattern Master	Modesto	700	71	E-Flite 32	13x4.5 (2) APC Pusher	64x.018 Braid	Skylopo 3000mAh 5S	Hubin FM9	Castle Creation Ice Lite 50	Kaz Minato settings, high governor 9850 rpm	Bob Hunt foam Impact Wing, foam Super Saturn stab and elevator, balsa composite shell Impact fuse, modified Big Jim Pattern Master moments and aerodynamics.
Sam Nebel	E-Tracer	Wayne and Jim Smith	690	64	Plettenberg	13x4.5 (2) APC	64x.018 Braid	Glacier 3300mAh 5S	Hubin	Schulze		E-Flite 10-15 size electric retracts.
Matt Neumann	Stuka	Neumann	660	72	E-Flite 32	13x5.5 (2) APC	67x.018 Braid	Horeson 3300mAh	Hubin FM9	Phoenix Lite 75	45% gain	New fuse design with 1/16-inch shell and molded sides, molded balsa canopy.
Don Ogren	Gobbleswanz	C. Nackey	620	63	Arrowind 2832, 960 KV	11x5.5 (2) APC	63x.015 Braid	Zippy 2800mAh	Hubin FM-25R	Castle Ice Lite 50	9500rpm	
Bob Redmon	Kura	Redmon/Brickhaus	690	64	E-Flite r-32	12x6.5 (2) APC	64x.018 Braid	Nanotech 3300mAh	KR2	ZTW	KR2, gain = 6 ESC timing med	Ultracote.
Scott Reynolds	Voltaire	Wm. Reynolds	635	64	EMP 1100w	13x4.5 (2) APC	64x.018 Braid	Taraegy	Hubin FM9	Phoenix Ice Lite 50		
Howard Rush	Impact	Walker	700	68	Plettenberg	13x4.5 (2) APC	68x.018 Braid	Thunder Power 5S	Hubin	Castle Ice 75 Lite		24 vortex generators.
Bill Rutherford	Infinity	Buck			Plettenberg	13x4.5 (2) APC	64x.014 Solid					Stock.
Wayne Smith	E-Tracer	Wayne and Jim Smith	690	71	Plettenberg	13x4.5 (2) APC	64x.018 Braid	Glacier 5S 3300mAh	Hubin	Schulze		
Jim Smith	E-Tracer	Wayne and Jim Smith	690	68	Plettenberg 20-16	13x4.5 (2) APC	64x.018 Braid	Thunder Power 3300mAh 5S	Hubin FM9	Schulze		
Ken Stevens	SVE-22	Randy Smith	700	65	Plettenberg	13x4.5 (2) APC Pusher	65x.018 Braid	Zippy	Hubin	Castle	RPM governor mode	SIG dope finish.
Chris Stevens	Chromosome	Ken Stevens	700	68	1150W	13x4.5 (2) APC Tractor	64x.018 Braid	Zippy	Hubin	Castle	RPM governor mode	
Robert Storick	Beamfire	Storick/Hunt	660	60	E 25	12x6 (2) APC	63x.015 Braid	Hyperion 3300mAh	Hubin FM9	Castle 45		

NAME	DESIGNER(S)	WING AREA	WING AREA (oz)	MOTOR	PROP # of blades in ( )	LINES	BATTERY	TIMER	SPEED CONTROL	SETTINGS	SPECIAL FEATURES
Jeff Tracker	Strega	Urtnowski	79	Rimfire 46 4260, 800kV	13x5.5 (2) APC Tractor	62x.018 Braid	Zippy 3000mAh, 5S 20C	KR2	Turn F64 Trust		
Paul Walker	Predator	Walker	66	E-Flite 32	11x5.5 (2) Meszlik	67x.018 Braid	Thunder Power 5S 2700mAh G8 25C	Igor	Jeti Spin 66		Non-linear flap control, more flap at small deflection, less at more deflection, Walker rudder-moves out on down, stays neutral on up. Carbon tube reinforces flaps.
Bud Wieder	Ryan's Eagle	Wieder	65	E-Flite Power 25	13x6 (2) APC	65x.016 Solid	Hyperion 4000mAh, 4S	Hubin FM9	Castle Phoenix 45	50% gain	



Note the vortex generators on the wing of Frank Williams' T-Gazer. Many of the competitors at last year's Nats were using these little widgets in one form or another. The general consensus is that they really do enhance performance, especially on heavier planes. Martine photo.



Paul Walker's Predator featured a number of high-tech devices. Paul tried and liked Igor Burger's active speed control system that works off of an accelerometer. He also tried a nonlinear control system that was also inspired by one used by Igor. Vortex generators? Yup, Paul had them on there. The result? Paul's 11th Nats win! That might also have something to do with the pilot... Photo by Will Hubin.



Sam Niebel returned once again with his retract gear equipped Tracer. The E-flite electric retracts worked very well in this electric-powered ship. The Hubin timer in Sam's model has a retract function that allows the pilot to sequence the gear retraction and extension as desired. Sam won the Senior division crown in 2013. Martine photo.

# The 2014 Joe Nall: Just Around the Corner

by Mark Weiss



As a reader of *Stunt News*, you are aware that the annual Joe Nall Fly-In should not be something new to you. In 2012 at this previously all-RC event we had over 240 attendees try their hand at CL, and last year that number swelled to over 600! Not only that, but we know that CL is sticking with some of these folks, as many have now taken up CL flying!

As one of the primary original partners in this arrangement, I can tell you that I have rarely experienced the level of gratification shown by these people after taking their turns in the Beginners Circle at the Triple Tree Aerodrome in Woodruff SC, the home of the Joe Nall Fly-In.

They have been incredibly kind and gracious and many times told us our circles were the highlight of their time at the Nall! Think about that statement for a second or two. With over 1100 registered RC pilots last year, the CL area has, for many, created more excitement than any of the other 5-6 flight lines. Every year, we have sold out of the special Joe Nall CL Tee Shirts, and we are now seeing these shirts (and their owners) showing up the following year, back in the circles for more fun!

So, why this article now when the Nall is not until May 11-17? I am asking for volunteers to come to the Nall and help with all this new pilot training. It is incredibly gratifying while equally tiring if there are not enough instructors. Last year, I was lucky enough to have with me all week Bruce Jennings, Wayne Robinson, Dave Wenzel, and Will Davis for most of the time. We were also fortunate to have Bob Hunt, Tom Hampshire, Frank Imbriaco, and others, help with the chores. Because of some schedule conflicts, that crew will not be able to help as much as they did in 2013.

Dave, Wayne, and I cannot handle the crowds of budding CL pilots without a lot more help. It is no secret that the average age of a CL flier today is not young, and the Joe Nall represents an awesome opportunity to add younger pilots to our ranks and keep CL alive and well beyond our lifetimes. Is that not worth a little of your time?

Please call or email me so we can talk about the 2014 Joe Nall and what part, even a small part, you may be willing to play.

Respectfully, Mark Weiss (302) 547-4917 or email me at [ama82824@yahoo.com](mailto:ama82824@yahoo.com). *SN*

# Lost-Foam Stabilizer and Elevator Construction

by Dave Fitzgerald

**Well, it seems** I'm stuck on doing articles having to do with tails. My original ThunderGazer had a foam core-sheeted stabilizer and elevator that proved to be too heavy. I needed to reduce the weight of the plane, so I decided to build a new tail, build it very light, and cover it with MonoKote.

While I was thinking about it, I realized that I still had the foam cradle from the original tail. I also had a spare foam core from another project. I thought to myself, "I'll just build a Bob Hunt Lost-Foam wing. Why not build a tail assembly using the same concept?"



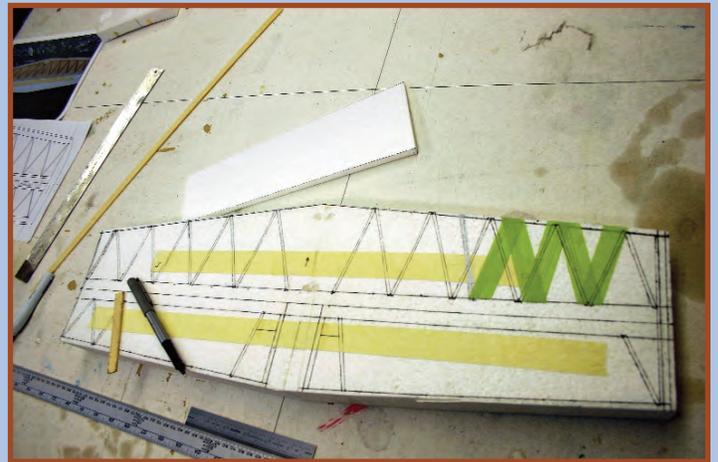
Rib and tip templates.

I did that and it worked out perfectly. I told Bob about the project and he asked me if I would do an article on my variation of his original theme, so here it is.

From my previous experience and experiments with tails, I am convinced that the tails in our stunt models are a lot more critical than we have previously thought. I feel that the tail controls more of the quality of corners (shape and radius), than does the wing. Also, it might follow that a good consistent airfoil would be important across the span.

We have solved the uniformity problem of wing leading edges with the Lost-Foam construction system which uses molded leading edges. Once again, I thought, easy to build straight, easy to have a constant leading edge radius, why not try to build a Lost-Foam tail based on Bob Hunt's wing building methods?

The new tail turned out just fine and is still on the original ThunderGazer. I decided to use the same concept for another new tail on the ThunderGazer II.



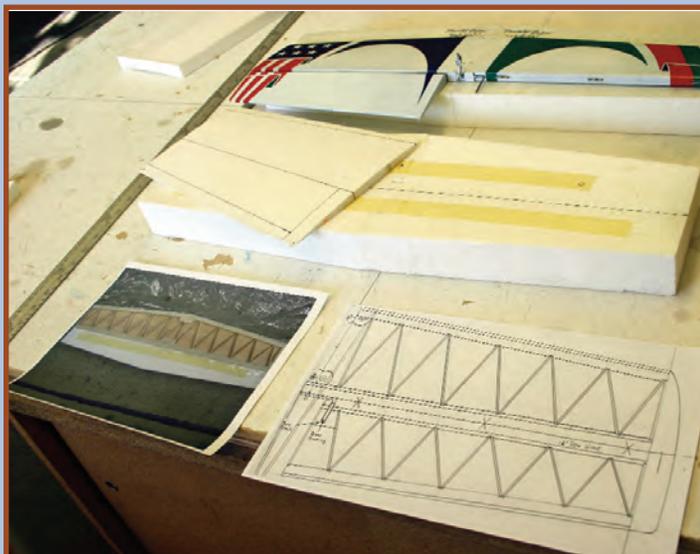
Be very careful on tail layout. I made several mistakes. I would have done better if I had set aside a large block of time to do this in one sitting. I did it over a couple of weeks and had to reinvent my thinking several times. Double up the tip and root ribs for both the elevators and stab tips. This way the MonoKote won't crush the ribs when you shrink it.

## Building a Lost-Foam tail assembly

As always, start with a perfectly flat table. If you have the ability to cut foam cores, decide what the root and tip of the tail should look like. I have been flying airfoiled tails on the ThunderGazers and a few of the Star Gazers for a while. It is fairly difficult to get one of these straight, so the lost foam method of building in the cradle is a perfect solution.

Cut a foam core from a square block of foam. If you don't have that capability, or don't know someone close who can do it for you, Bob Hunt (Robin's View Productions) has the templates for the ThunderGazer tail. If you are building something other than a ThunderGazer, Bob can make templates from supplied drawings and cut whatever design you desire.

Draw a tail plan, then transfer it to the foam cradle. I make lots



Finished foam core and cradle with tail design plan.

of mistakes, so don't worry about lines in the wrong place. Just put masking tape over them and redraw the lines. Layout the plan and cut up the foam core along the rib lines using a very sharp #11 blade. Be certain to hold the blade facing straight down so that you do not cut an angled face on the foam parts.

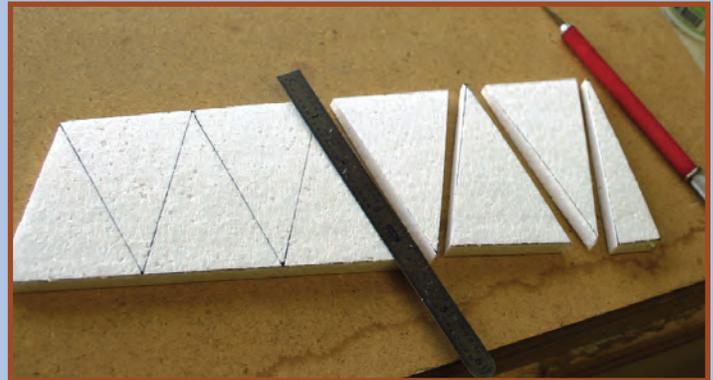
Next, start to gather the wood and component materials. I use

Tom Morris's slider elevator horns, but I do slightly modify them. I make the slot longer so I can slide the pushrod hole above or below my 1-inch arm. Decide on what kind and how many hinges you will use. This may alter your rib layout depending on how the hinges are positioned in the tail. I still have some Klett hinges left and use these. As I said, I built this tail to make it lighter, so wood selection was critical.

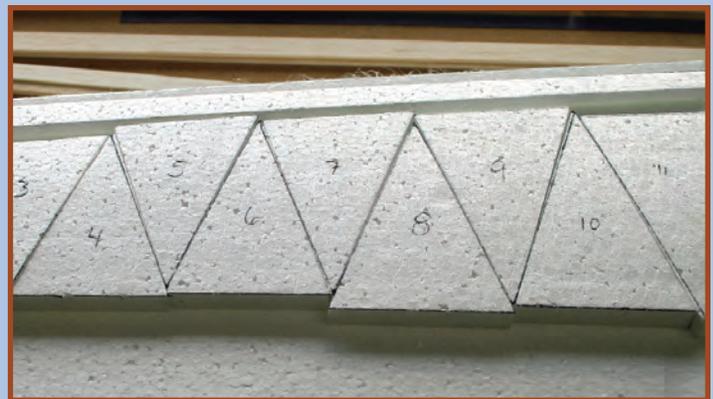
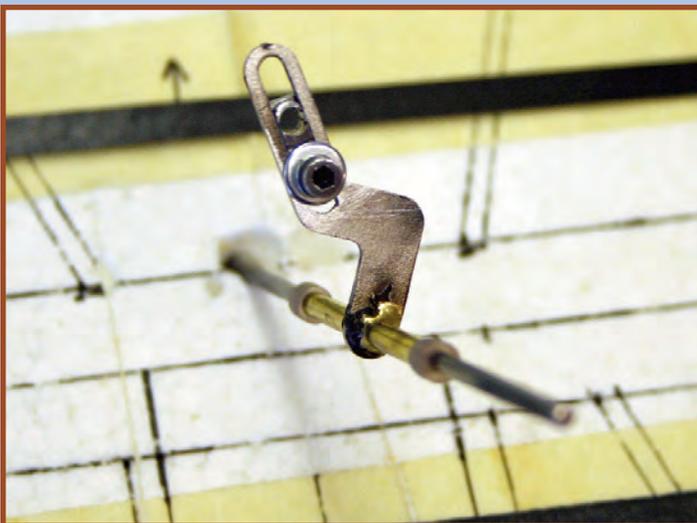
My average wood density for this project was about 4.8 lbs. I also use AeroSpace Composites .007 uni-directional carbon



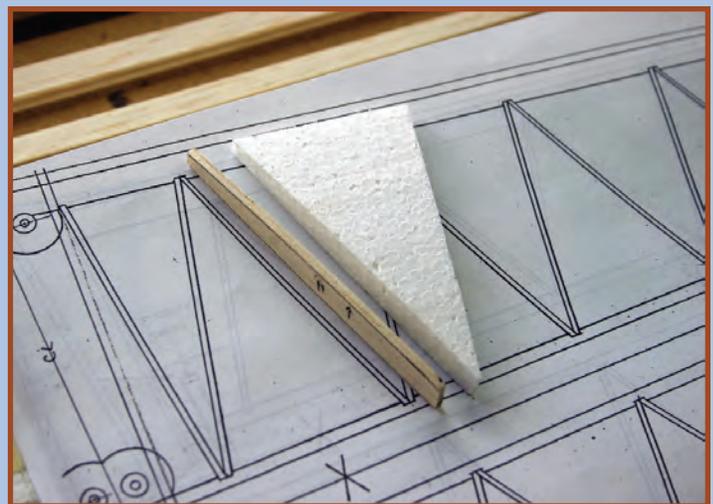
Sand and remove the cloth backing of the .007-inch carbon laminate, clean with acetone when done.



Using a straight edge X-acto knife, cut the foam core at the rib stations.



Be sure to number the rib sections for proper identification.



Tom Morris's modified 1/8-inch elevator slider. I prefer the slider block and use a 3/32-inch music wire in the end of my carbon pushrod. This way I can add or remove slop in the elevator linkage by adding or removing bushings in the hole.

Use each foam block as a pattern for each rib. Be careful to make sure you maintain the same direction up for everything just in case you don't have everything perfectly symmetrical.

strips between balsa layers for structural reinforcement and a span-wise stiffer structure. Sorry I don't have any pictures of laminating the spars; I can't work three layers of material, CA, and a camera all at the same time. Bob is a big fan of aliphatic resins, or variations of white glue. That works well for him, but I don't have that much patience. I pretty much exclusively use thin CA, but use it sparingly, and *never* use accelerator or kicker.

Cut and prepare all the parts and materials. To prepare the carbon laminate for layup, you must lightly sand both sides of the carbon and then clean it with acetone to remove the mold release, and fabric backing used to layup the laminate. Lay out the spar with hinge locations and any taper, root to tip. (Do not taper the spar just yet!) Glue the carbon laminate to one side of the balsa and then lay the second half of the balsa spar on top. For example, I start with 1/2-inch deep spars out of 1/4-inch thick wood. After laminating, you will have 1/2-inch square stab and elevator spars.

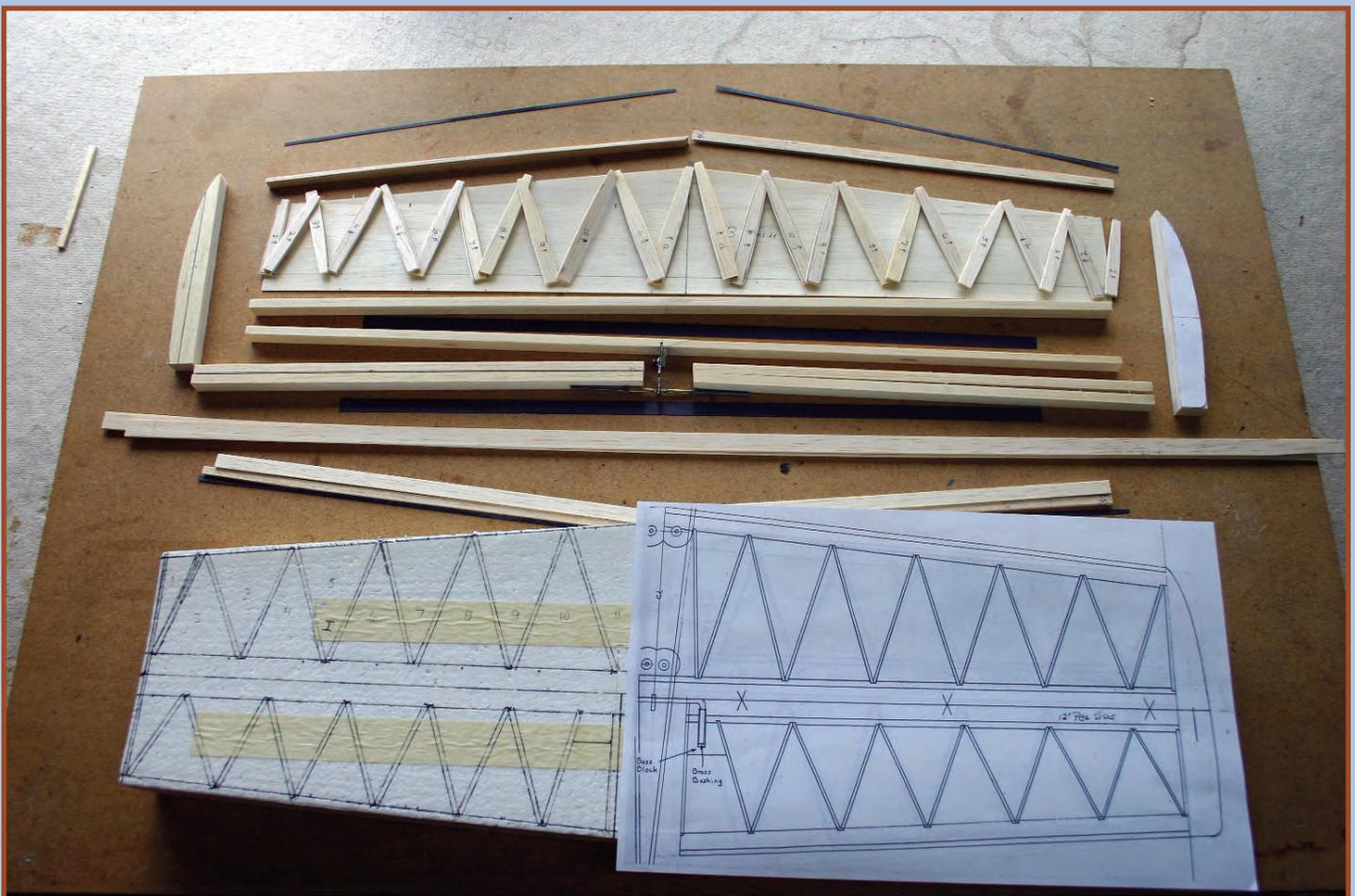
Next, take the square spars and mark centerlines, taper lines, and hinge locations. You will be cutting hinge slots using a Dremel cutoff wheel and a drill press. (I've written a previous article on how to cut perfect hinge slots using the drill press.) Mark the "Up" direction on all spars, then set the drill press height and cut the slots so all the spars have the same direction up and are hopefully at the exact same height. My added complication was that I wanted the new stab and elevators interchangeable with the existing tail parts. This might require



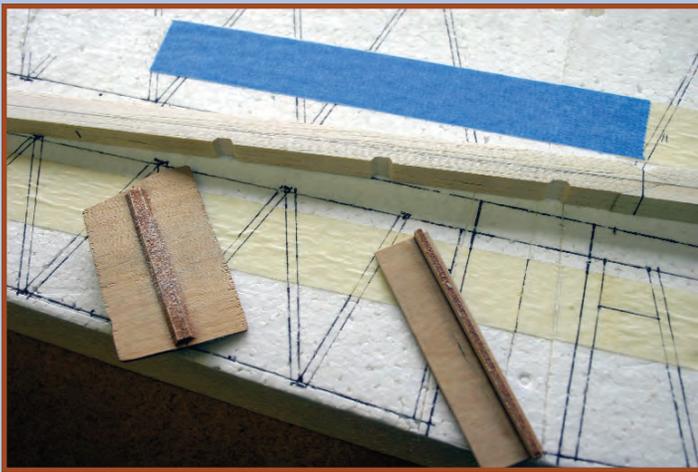
cutting the hinge slots in the drill press. Once again, make sure you have everything oriented up. This ensures the hinge slots are perfectly lined up and not tilted. You would be amazed how much more free the controls are when you hinges are perfect.

a couple of tries to get the elevator horn arms bent at exactly the right spots. Same goes with the hinge locations.

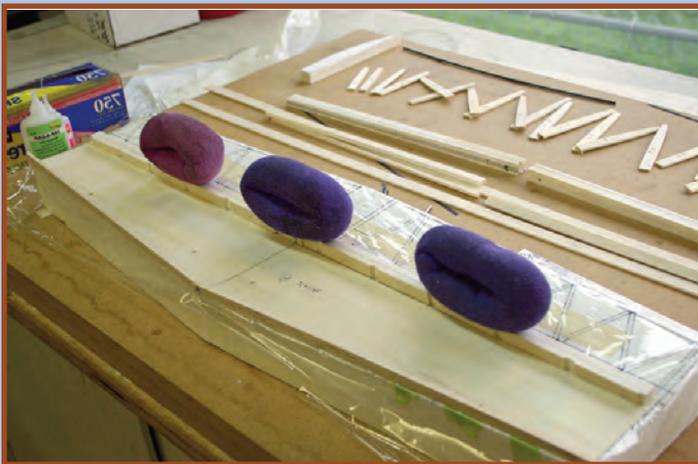
The tail will have 7/16-inch square spars, 1/32-inch stab skins, open bay elevators, 3/32-inch ribs in the tail, and 1/8-inch caps on the leading edge and trailing edge of the stab and elevators.



Rough layout of all the pieces of the new tail. It will be most critical to find a good piece of light 1/32-inch balsa for the stabilizer skins. Not too light or it can be crushed or you can put your thumb through it. Don't ask ...



Custom slotting tools to sand the rib slots. Decide what shape you want and how far into the material you want to go. I usually go about 3/32-inch deep.



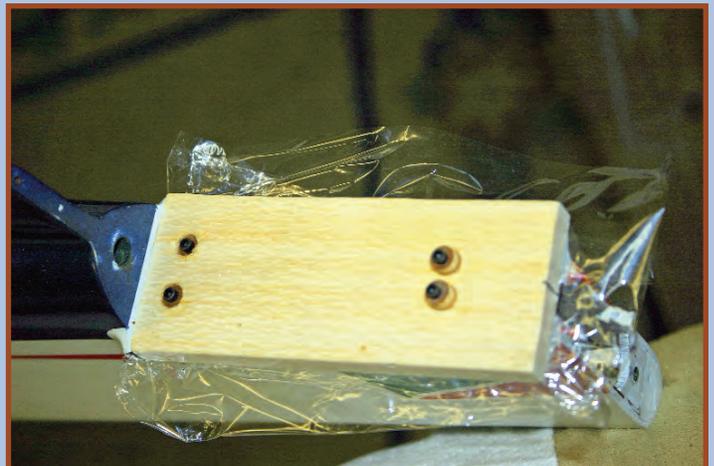
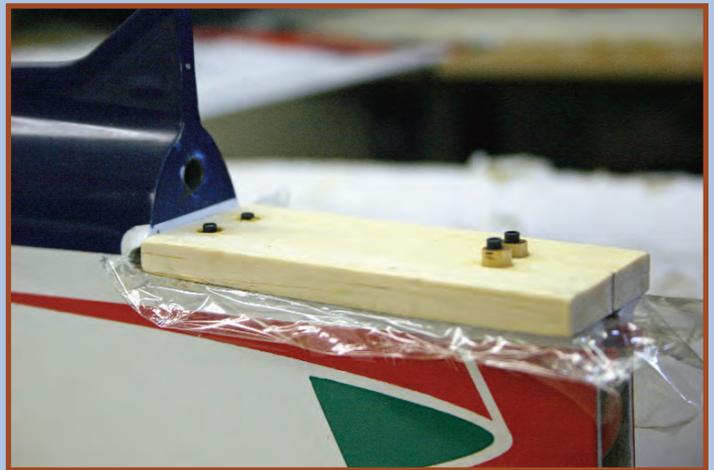
Now start assembly. Note the spar halves have been glued together with the .007-inch carbon laminate between for stiffness. Start the layup over the cradle. Use some weights to make sure everything sits snugly onto the surface of the foam.



Remember, cut the ribs slightly long, now fit them to the stab and glue each one. Also note, please use scarf joints if you must laminate any piece span-wise. This increases the gluing area so the joint is as strong as the surrounding material. Unavoidable on the LE. No butt joints, Ted!

The elevators have 1/2-inch square spars. I also use the same carbon strip lamination technique on the leading and trailing edges. I use 1/8-inch of balsa and .007 unidirectional carbon laminated under the leading and trailing edges for some increased torsional rigidity. This small amount of carbon makes a huge difference in stiffness.

A few planes back, I left this out to try to lose some weight,

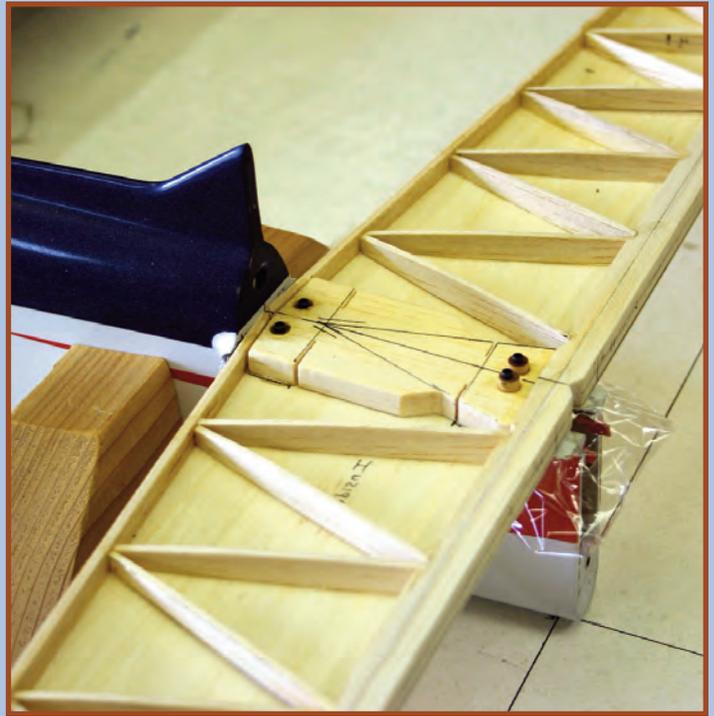


Fitting of the balsa block with the 1/4-inch dowels is crucial. Be patient, and careful.

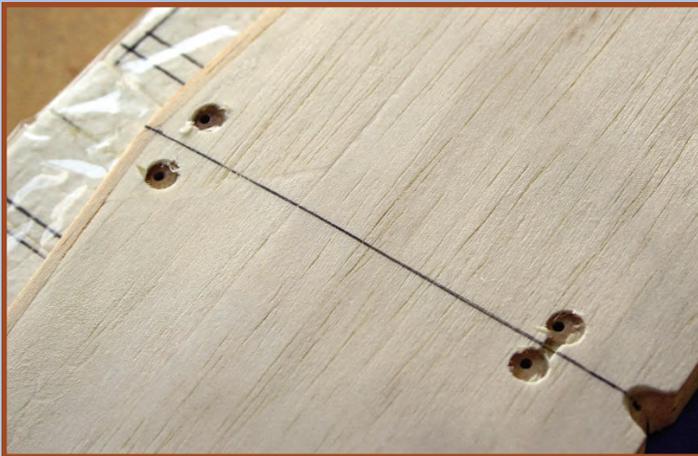


Jig up the plane to ready it for the alignment of the balsa block in the stab assembly. Alignment here will only be as good as you are patient. I was pleasantly surprised that the wings and fuselage were really as straight as I thought I built it.

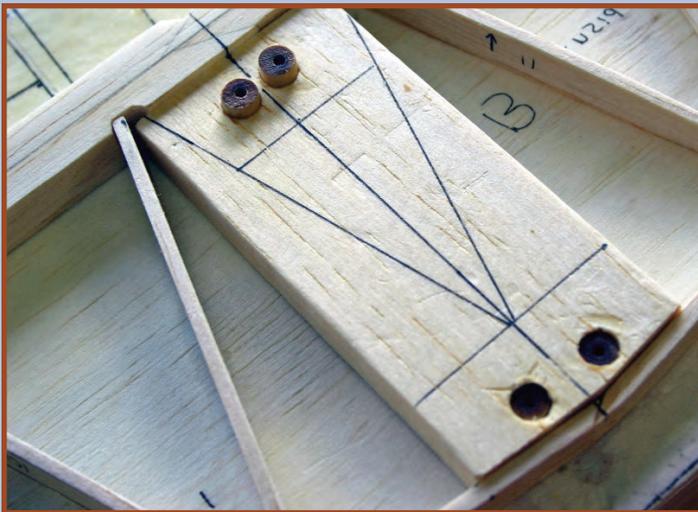
and the structure was a lot more flexible than I liked. I use hollowed balsa blocks for the end caps on the tail. “What?” you say. “Hollow out that little space?” Yup! Remember, a little in the tail goes a long way. For every gram you lose in the tail you can lose two grams in the nose for a total of a three gram savings. I saved a total of 1.5g in the tail by hollowing



Pre-fit the balsa block in the stab. Do not glue it yet!! Note the lines drawn noting the position of the two center ribs after final positioning in the stab.



Do not tighten the bolts just yet. Align the stab to the fuselage, both fore-aft and laterally to the wings. Here you can also see the pre-cut block to remove before final gluing. Once alignment is perfect, tack glue it in place.



Do not tighten the bolts just yet. Align the stab to the fuselage, both fore-aft and laterally to the wings. Here you can also see the pre-cut block to remove before final gluing. Once alignment is perfect, tack glue it in place.

the tip blocks, which translated to about 4.5g total, or about  $\frac{1}{5}$  of an ounce. The stab on my plane is  $\frac{1}{2}$ -inch thick, so, for the tips I use two pieces of  $\frac{1}{4}$ -inch wood tacked together and tacked to the ends of the tail. Shape and sand the stab tips, then cut them off, split them apart, draw some lines on the inside to the thickness you want, then hollow it out. But I’m getting ahead of myself.

Once the foam core is cut to your preferred layout, then use the cut foam pieces as a template for cutting out your ribs. Cut the ribs slightly long. I’ve built a slotting tool with beveled edges that match my angular rib pattern, two ribs wide. Glue some sand paper to the edges, and you have a perfect slotting tool to use in both the LE and TE pieces. Then, when you pin the LE and TE of the stab and elevator, you can slightly adjust the rib length to get a perfect fit.



Build up the elevators just as you did the stab.

So, start your layup on the foam core in exactly the same way you would when building a Lost-Foam wing. The only difference for the stab would be, you lay out the bottom skin on the cradle as you build up the parts.

Use some weights to keep the parts in firm contact with the foam cradle as you glue the ribs. I glue one rib at a time. You could also pin everything in position, then glue everything in at once. I hate filling in pin holes in balsa. I always seem to miss a couple. Anyway, you won't be sheeting the top of the stab for a



Next, after the center ribs are in place and the balsa block is finished and glued with CA, install the bottom 1/32-inch ply plates. These butt against the 1/4-inch dowels so there is a hard surface to bolt the tail against the ply saddle in the fuselage. Also, not shown, on the top of the 1/4-inch dowels, I CA a metal washer so the bolt does not grind down into the dowel, just as I did on the stab.

while. Also, once you have the LE and TE glued with the ribs, make some small holes in each rib to vent each compartment to the next.

I also vent each side by drilling small holes in the tip caps. I would say this is optional with a painted finish, but my plan was to MonoKote. It is much more important to have this space vented so you don't get the MonoKote bubbling up. It's even more important to vent the elevator bays, even if using a painted finish. You will have the covering puff out like a balloon on a hot day unless you vent these cavities.

Now, for a one-piece plane this is fairly straightforward, finish the tail assembly and glue the stabilizer in place when you are ready. If you are building a take-apart plane, it is still fairly straightforward. You will install a balsa block in the center section that seats the vertical, 1/4-inch diameter dowels. These dowels will be drilled for 2-56 screws to attach the stab to the saddle in the fuselage.

You can set the bolt pattern in the stab anyway you like, then make the saddle seat for the fuselage, tape the saddle seat to the bottom of the stab, and drill fresh holes in the saddle seat that match exactly the stab. These saddle holes will host the 2-56 blind nut mounts. Later this will be glued into the fuselage when the entire plane is jugged up for final assembly. Good examples of this type of construction are detailed on Paul Walker's original Impact plans, or on the ThunderGazer plans from RSM.

However, if you are building a tail for an existing take-apart plane, as Matt Neuman says, "The devil is in the details." Now, you have to accurately match the bolt pattern in the existing fuselage. If you want to go the extra mile and make the stab and elevator parts interchangeable, then you have to match the elevator horn holes and the bends for the arms of the elevator horn. After all, what is the point of a take-apart plane if you can't mix and match the parts?

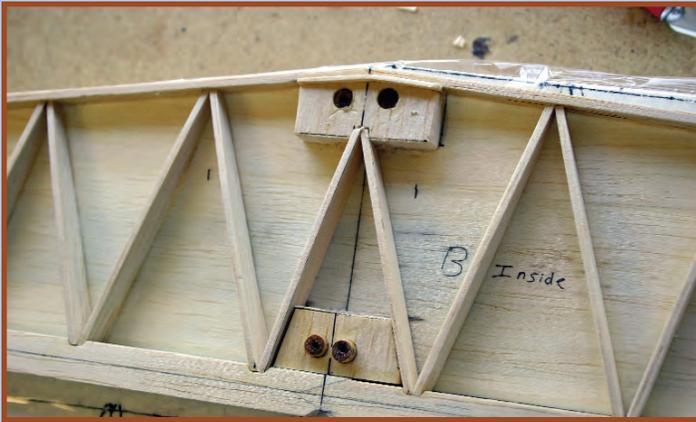
The hinges are easy. When the parts are complete, you start by assembling the new elevators to the old stab and hinges. This locates the hinges in the new elevators. Then, assemble the new stab to the new elevators with the hinges already located, and glue in the hinges to the new stab. Then you have interchangeable tail parts.

So, back to the retro-fit build. I shaped a balsa block in one piece and fitted it to the center section on the new stab. Next, I drilled the 1/4-inch diameter holes for the vertical dowels to accept 2-56 screws. Now, I'm sure, if you're anything like me, you've saved any old parts or extra stuff. Here is your chance to use a couple of those parts. Remember those 2-56 screws that you cut shorter so the cowl will fit—and you saved the cut off screw threads? You'll eventually find a use for them, right? Yeahhhh.

Here's your chance. Take four of those cut-off screw threads and carefully thread them into the stab saddle in your existing fuselage. Leave the threads sticking up about 1/32 inch. Take the balsa block that you made for the center section, locate it properly in the saddle, and press it down onto the stab saddle with the screws sticking up. This will roughly mark the spot where the mounting dowels need to go into the balsa block and locates the holes for mounting the new tail.

Now, drill 1/4-inch diameter holes centered on the indentations made by the screws. Lay two layers of wax paper or Saran Wrap on the stab saddle; set the balsa block on the saddle with the 1/4-inch dowels set in place. Screw in the four 2-56 screws into the blind mounts and tighten down the screws. This locates exactly where the dowels need to be for an exact fit.

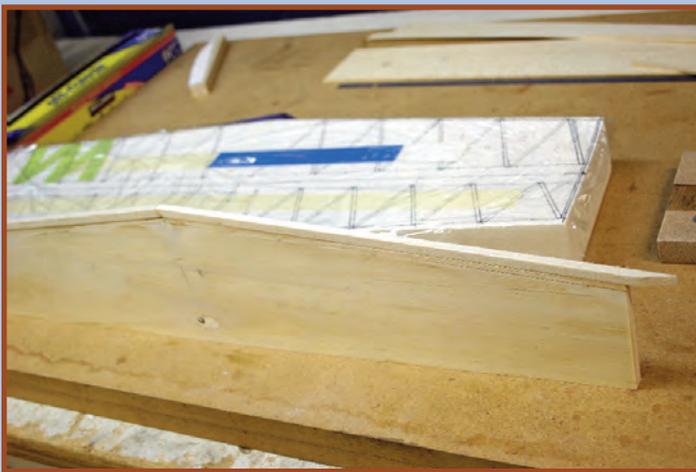
Next, lightly secure the dowels in place with medium CA. Go easy on the glue. You don't want to glue the balsa block with the 2-56 screws to the saddle. Wait until it sets up, remove the assembly, and then finish CA-ing the dowels into the balsa



The finished center section of a removable tail. All the hard parts are done. Now just sheet the top and finish the rest like a normal tail.



Close-up of the installed Tom Morris control horn. What you can't see, is the slight tilt forward of the upright in relation to the arms, to maintain a ninety degree angle of the pushrod to the horn upright. This ensures symmetrical geometry of up and down elevator movement.



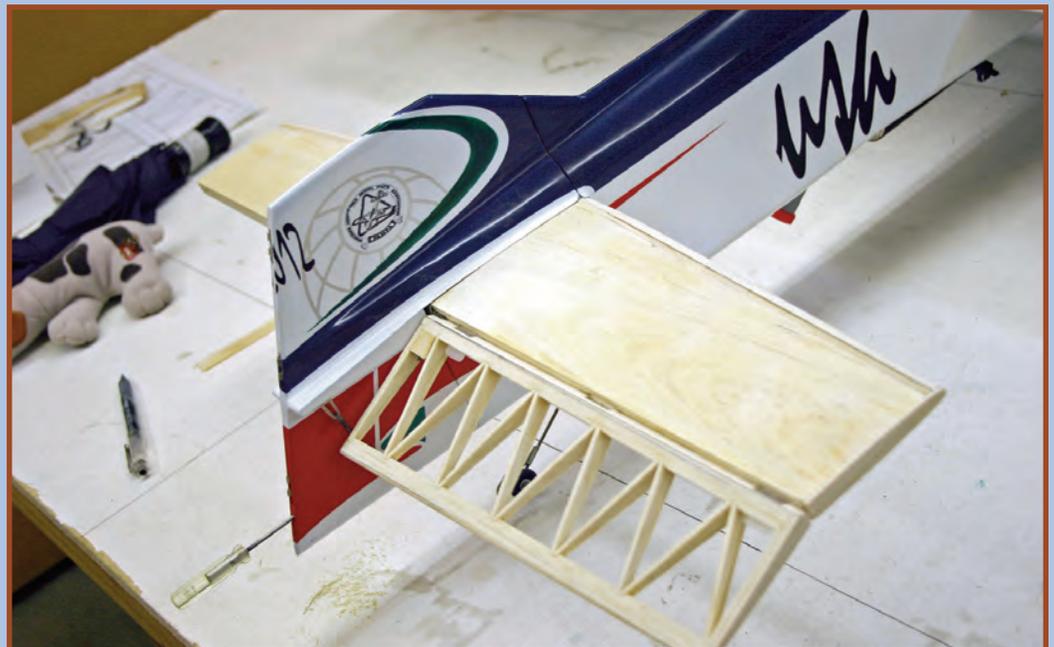
Install the last LE piece, and shape it to the rest of the stab. As an alternative, I know Ted has done this, you could mold a LE for the stab. I wasn't quite that ambitious. What I really mean is, I didn't think to do it at the time. After reflecting on it, I would mold the LE next time. After all, as Jim Aron's favorite saying goes, "Anything worth doing, is worth doing to excess."

Now comes the tricky part. Eventually, the bottom of the stab will have  $\frac{1}{2}$ -inch diameter,  $\frac{1}{32}$ -inch-thick plywood circles recessed in the bottom skin so the balsa doesn't crush when you tighten down the stab. The  $\frac{1}{32}$ -inch plywood circles set directly on the bottom of the dowels. For now, drill  $\frac{1}{4}$ -inch holes where the stab has been marked by the screw barrels.

Jig up the plane. If you don't already have a flat building surface marked with alignment marks, you need to do so now. This is the only place I use the thick, or slow-set, CA. Again, put two layers of wax paper or Saran Wrap over the stab saddle. (Note: I don't keep the entire balsa block. It is only used to accurately locate the dowels fore-aft.) Before gluing in the block to the stab, I make two cuts on the bottom of the block—one forward of the aft holes, and one aft of the forward holes. This cut goes only halfway through the block from the

block. Put the cut-off 2-56 screws back into the stab saddle. Take the freshly completed stab and carefully put it in the proper place on the saddle. Press the screws sticking up into the balsa again, just like the balsa block.

Installed and nearly finished new tail. I was able to build it 1.2 oz. lighter than the painted original tail. This means I will be able to take out more than 2 oz. of weight in the nose. Take out lead, lighter spinner, aluminum prop nut instead of steel, Mag engine parts, ect. It will be close, but the overall weight should be down to around 63.5 oz. Not bad for a fully take-apart plane.





Jim Aron and I were able to work with Dave Powers, of Signs Now, [www.SignsNowRockHill.com](http://www.SignsNowRockHill.com). He has a graphics and vinyl laser cutting business. I used laser-cut vinyl paint masks for this paint design, courtesy of Jim Aron and Phil Granderson, so we were wondering if we could find some colored vinyl close to the colors on the plane. We got pretty close. Jim slightly modified the mask cut files and presto, a custom set of vinyl graphics. I'll have to see how it holds up in the long run. Boy this was sure easier than painting the new tail!

bottom towards the top of the block.

After the block is in place, I will remove the material between these two cuts, in the middle of the stab. This wood is not necessary. Remember, every gram saved is important. The object is to set the stab in place, and using slow-set CA, set the balsa block in place over the stab. Be careful not to get glue in the area you will be removing. After the glue sets, just like the dowels in the balsa block, you can add more glue to the finished assembly after you are done and remove the stab from the saddle.

You will float the balsa block and get it close to the right position, put the screws in the dowels, and screw them into the blind nuts, but don't tighten them all the way just yet. By not tightening the screws yet, as I said, the balsa block floats over the stab until the glue sets.

Move the stab into perfect alignment and then moderately tighten the screws. Do not over tighten the screws, as this will crush the  $\frac{1}{32}$ -inch balsa sheet. Check the alignment multiple times; check the screws tightness again. Let this set overnight; the thick CA takes that long to set. This would also be a good spot to use an aliphatic resin.

Remove the assembly from the saddle. Finish gluing in the balsa block, remove the extra material from the center section, and install the last two ribs. Now, on the bottom of the stab, expand the  $\frac{1}{4}$ -inch holes you drilled in the stab, the ones over the  $\frac{1}{4}$ -inch dowels, to  $\frac{1}{2}$ -inch diameter.

Make and glue to the bottom  $\frac{1}{2}$ -inch round  $\frac{1}{32}$ -inch plywood doublers, centered on the  $\frac{1}{4}$ -inch dowels. Add the top skin to the stab, and you are mostly finished with the stab. Add

the last .007-inch carbon laminate and the very front  $\frac{1}{8}$ -inch balsa to the LE, and round the shape to the airfoil. All that is left is to mount the elevator horn and shape and hollow the tips of the stab and elevators.

The elevators are essentially flat. You can build them the traditional way on a flat surface, or in the cradle. It doesn't really matter that much. I elected to build them in the cradle so my layout will match the new stab. I have problems making dumb mistakes when I get off the plans.

Use a basswood insert immediately aft of the elevator horn hole. I drill the hole oversize and place a  $\frac{1}{8}$ -inch tube brass insert into the elevator hole. By using the brass tube, the elevator is removable from the elevator horns. By using the basswood insert on the back side of the elevator spar, you can tweak the elevator horns without fear of breaking out the horn arm.

Building the stab and elevators with this method won't really save you any time over building a flat stab, sanding, or shaping a traditional tail. What it will do is ensure a perfectly straight tail, and absolutely perfect airfoil over the entire stab. I feel the extra time to get it just right is well worth the extra effort. Of course, if you keep the tail design the same for the next plane, all the layout work will have been done, and you will save time.

Lost-Foam wing fixtures and tail cores to allow you to try the above described method of building are available from Robin's View Productions. RVP's phone number is (610) 746-0106. You can also email Bob Hunt at [robinhunt@rcn.com](mailto:robinhunt@rcn.com) for more information. **SN**

# E-Stunt

by Will DeMauro

## ARF/ARC I/C-to-Electric Conversions

**First of all**, because most of you will be reading this right after them, I want to wish you all a very happy holiday season. While thinking about a topic for this issue and what might fit in with this time of the year, I realized that many of you would either be receiving ARCs or ARFs for Christmas and some of you may be receiving your first electric power system.

In either case, some of you may want to convert that plane to electric power right from the start and some of you may want to put that brand-new electric power system into something you might already have.

Because pictures can tell a story better than I can write it, I want to thank Neal Beekman and Joe Daly for providing me with all of the ARF Nobler



Above: This photo shows both a universal motor mount, which is available from Tower Hobbies, and a homemade mount that Neal fabricated from some scrap aluminum from a window store. Neal Beekman photo.

Below: This photo shows a stock ARF Nobler fuselage that has been stripped and had a battery hatch setup installed. Neal Beekman photo.

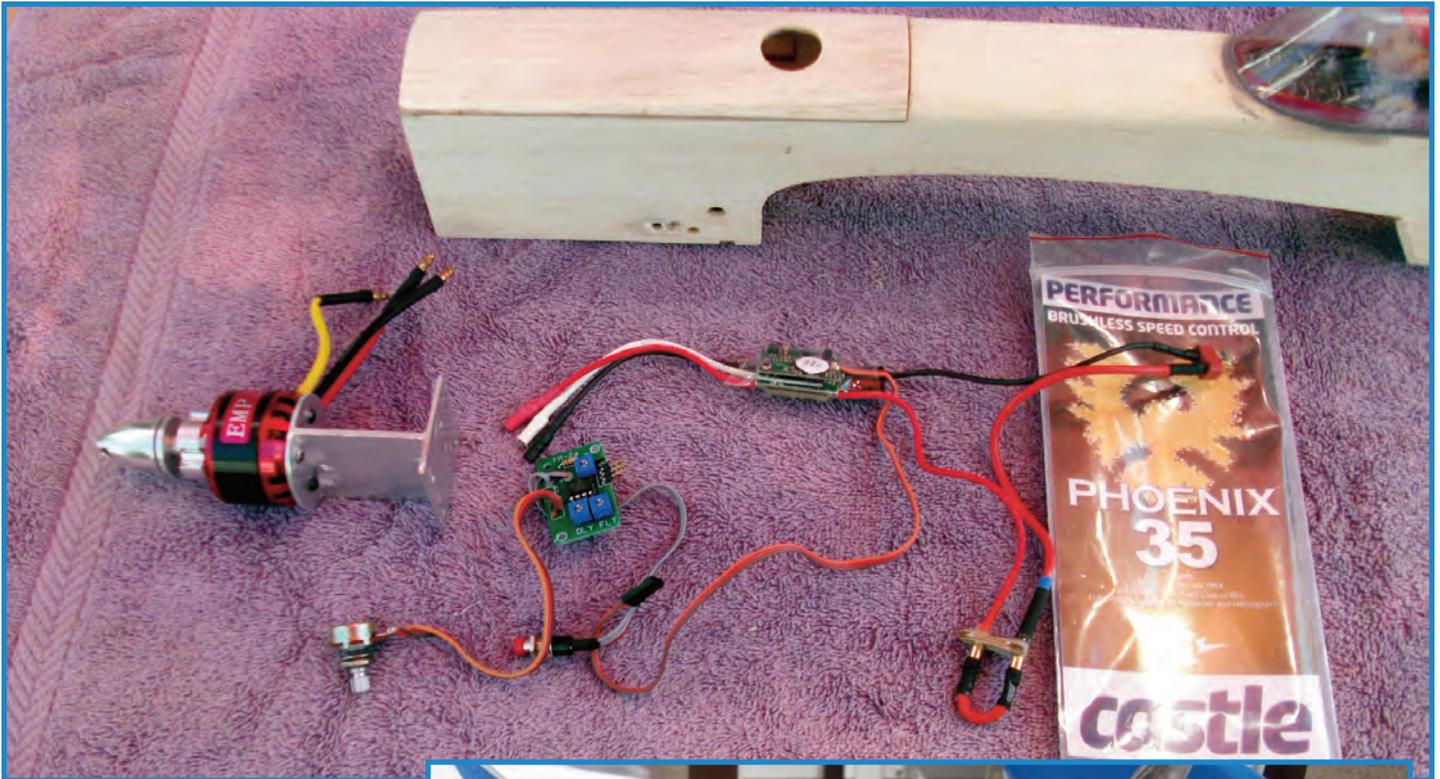


pictures used in this article. I will also show Kevin DeMauro's ARF UHP Gieseke Nobler conversion.

One thing that I would like to point out is that after Neal's Nobler was assembled, we started experimenting with smaller motors and batteries to save some weight and we were very successful. Neal's Nobler is powered with a 3020 860 Exceed motor (E-flight Power 15 equivalent).

Kevin's UHP Nobler is powered with a Cobra 2814/20 850

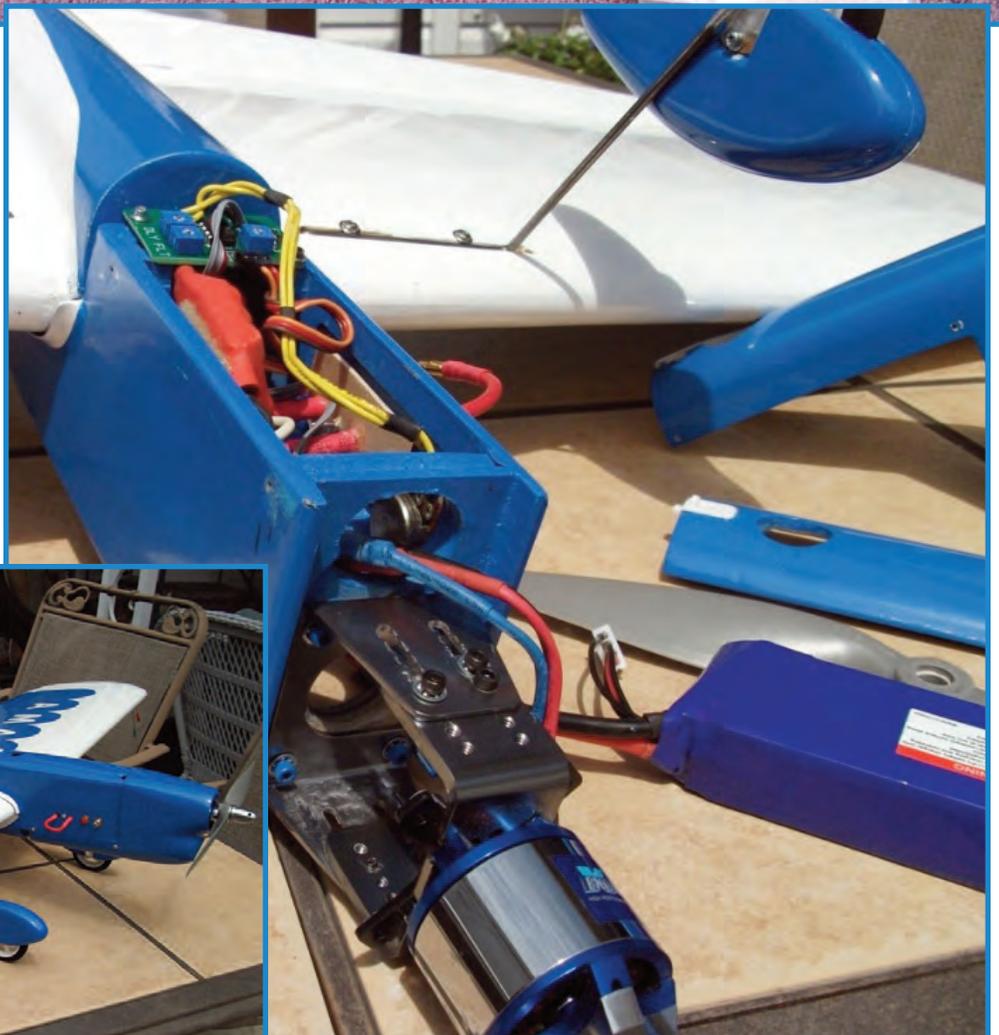
Kv Motor and Joe Daly's Top Flite Nobler is powered with an Exceed 3015-910 Kv brushless motor. Both Kevin's and Joe's motors are Power 10-size motors and around an ounce lighter than the 3020. Neil's original Nobler uses 4s 3000 mAh batteries. In Kevin's plane a 4s 2500-2700 mAh battery is used. Joe's plane uses an even smaller 4s 2200. All the Power 10-sized motors are using a 10x5.8APC pusher prop and Neal's original is using an 11x5.5 APC pusher.



Above: Here all the components are ready for installation. Note the nice job on the home-made cut-off switch. The timer is a Hubin FM2a with remote fine adjustment. Neal Beekman photo.

Right: This photo shows the Exceed 3020-860 motor and the universal motor mount. It also displays the mounting of the timer and speed control from the bottom. Neal Beekman photo.

Below: This is Neal Beekman's Nobler finished and ready to fly. This plane weighs around 50 ounces with this setup. Neal Beekman photo.



Right: Joe Daly's grandson, also named Joe, holds the finished Nobler. This plane weighs less than 45 ounces ready to fly! Joe Daly photo.

Middle: This is Joe Daly's version of the Top Flite ARF Nobler. Joe uses a very simple to make plywood motor mount. Joe is also using the Exceed 3015-910 motor. Joe Daly photo.

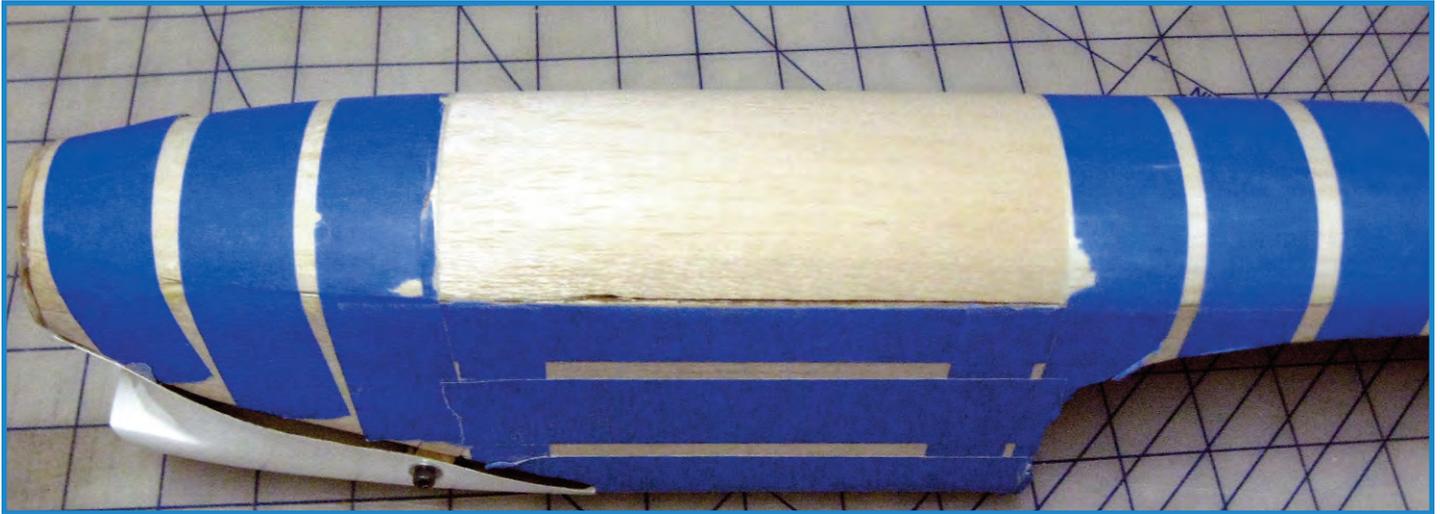
Bottom: This is Joe's set-up showing the 4s 2200 mAh battery and cowling. Peeking out from the bottom is one of the new Castle Edge lite 50 speed controller. Joe uses an FM-9 timer from Will Hubin to manage the run and time. Joe Daly photo.



These photos of Noblers can be used as a guideline to convert or build many other types of planes to electric power. These are not the only methods or ways to convert these planes, but rather just a presentation of a few modelers that were successful in the way that they did their conversions.

I again thank you all for the assistance I have received and

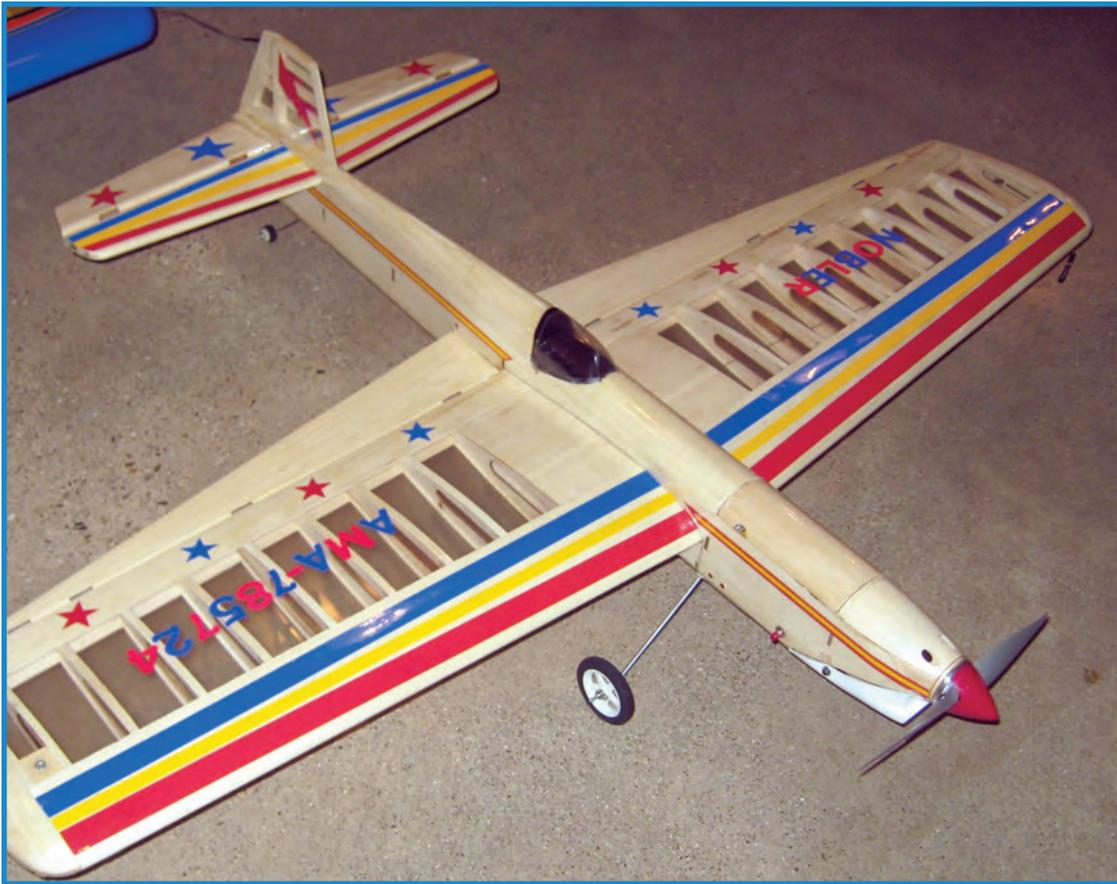
will again ask for photos and contributions for future columns. Yes a little help is welcome! I really want to do a future column on the KR timer but I need help! I know very little about that timer and would love to have someone contribute the information that I need to write an informative piece. Please KR users, share your knowledge about this unit. **SN**



Above: UHP Nobler marked and ready to cut the battery hatch. William DeMauro photo.

Below: UHP Nobler ready for the IC mounts to be ground out. William DeMauro photo.

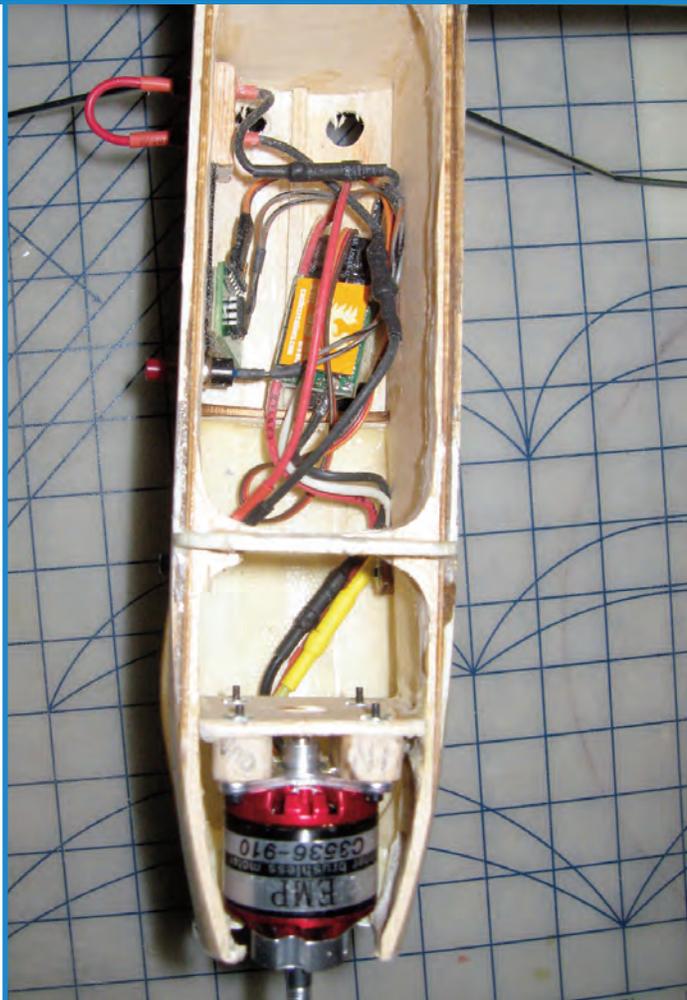




Left: This is the finished UHP Gieskie Nobler ready to fly. A painted finish was deliberately kept off the plane to keep it light. This model weighs in at 41 ounces ready to fly! William DeMauro photo.

Below left: This photo shows the mounts ground out and the electric components and motor fitted in place. The motor compartment was tight; half inch stand-offs made it easier to fit everything in place. The EMP motor was used during the fitting process. A Cobra 2814-20 is used to fly the plane. William DeMauro photo.

Below right: This shows the Zippy Compact 4s 2700 mAh battery fitted into place in the Nobler. This battery weighs 9.3 ounces. Since this plane only uses 1600 mAh for the full pattern, we could have easily used a 2200-2500 mAh battery to save another ounce or two. William DeMauro photo.



# The Show Must Go On!

*The story of the Collier Stunt Team* by Tom Collier



Wild Bill Netzeband took this photo of the Collier Stunt Team. From left to right are Tom, Pat, and Jim Collier with their competition/show team stunt models.

**My dad and I** enjoy sharing memories of going to air shows in the 1960s. We both get goose bumps when we talk about the sounds of the P-38 or the P-51. Dad shared with me how he would doodle and draw airplanes as a young boy growing up in the 1940s. This was when his interest in model airplanes started, and he began collecting the tools, materials, and components so that he could build and fly his own models.

Pop's first engine was an ignition GHQ that he bought new for \$16. He was working at that time and saved his money; \$16 was a lot of money at that time. He built many control line models but was unable to get one into the air. One of his ignition models caught fire, and out of excitement somebody stomped out the fire ... and the plane as well. He was disappointed but he did not give up.

At the age of 16 my dad moved from Texas to Hemet, California, and there he attended and graduated from high school in 1949. He had to backburner his hobby interests but kept his interest alive by attending modeling demonstrations and seminars.

Three years after graduating from high school, Dad started a family. In 1952 my brother Jim was born, I followed in 1953,

and my sister Peggy was born in 1954. This is known as "stair-stepping" the children in a family; it generally occurs naturally and is not planned ... having a family this quickly sure kept my parents busy for the next several years!

The Collier family moved to Garden Grove, California, in 1958.

One day my dad and our neighbor took us boys to fly kites, and this is where the model airplanes came into focus again. My brother Jim had seen some Cox glow-powered model planes in the hobby shop near the kite section, and they caught his curiosity. Soon after that Jim wanted to fly something with power. He approached our dad and asked for a model airplane. His wish was granted and soon after that we were going flying!

We went to the local schoolyard and set up in the baseball diamond between the pitcher's mound and home plate. Now, remember, our dad Pat had never successfully flown a model airplane. We really didn't know what we were doing. Jim made up the flying lines to be around 15 feet long—way too short!

This airplane was no Cox PT-19 trainer, either; Jim had gotten a Cox Shin, which was a small .049-powered racing plane that was designed to fly really fast. Jim did really well

that day for a 10-year-old and was able to take off and stay level for maybe 10 laps. He held on for as long as he could and got really dizzy.

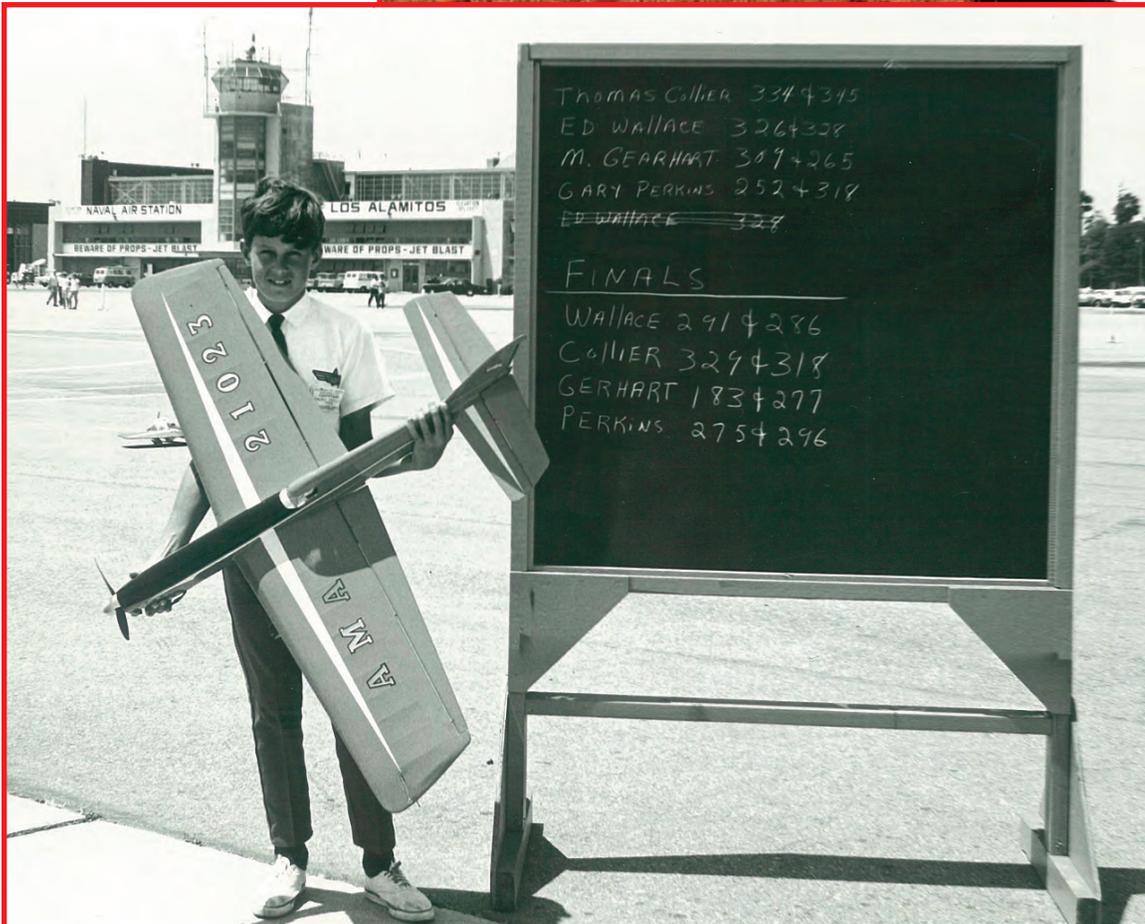
He let go of the handle thinking that the Shin would crash into the chain-link back stop behind home plate—good thinking. We cleaned up the crash site while Dad reassured us that he would try to repair the plane. And he did exactly that!

The next thing we knew we were at the hobby shop again, and Dad was purchasing two Flite Streak kits to take home and build. Long story short, we became flying buddies for quite a while.

We attended our first Nats in 1963. That Nats was conducted at the Los Alamitos Naval Air Station. We did not compete because we were still just beginner fliers. After that we learned about the Orange County Thunderbugs model airplane club and started attending their meetings. In



Above: Pat Collier poses here with the first of his Starduster designs. This one was called the Starduster 500 and it was developed, like many models of the time, from a Nobler kit. This model was powered by a McCoy 35. Collier collection photo.



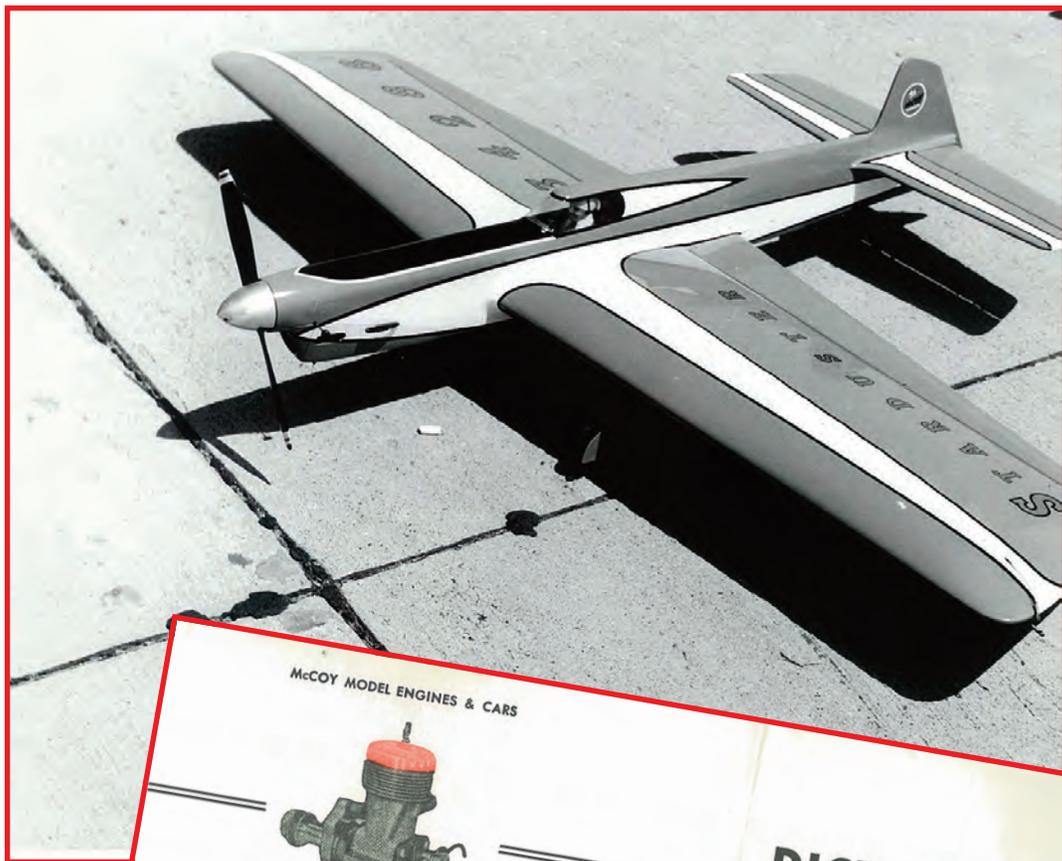
Left: Tom stands with his swept-rudder Starduster beside the scoreboard that shows the scores for the Junior class at the 1967 Nats. Looks like he won easily! Collier collection photo.

doing so we surrounded ourselves with champion model builders and fliers. With this constant influence we became worthy competitors ourselves.

My dad had built a variety of CL stunt models and decided that he wanted to create his own design ship. That's when the Starduster 500 was born. The original Starduster was built from a Top Flite Nobler kit with Dad's modifications. Dad soon developed it into a totally different airplane. We started out powering our models with McCoy .35s, and we stayed with the McCoy brand throughout our flying careers.

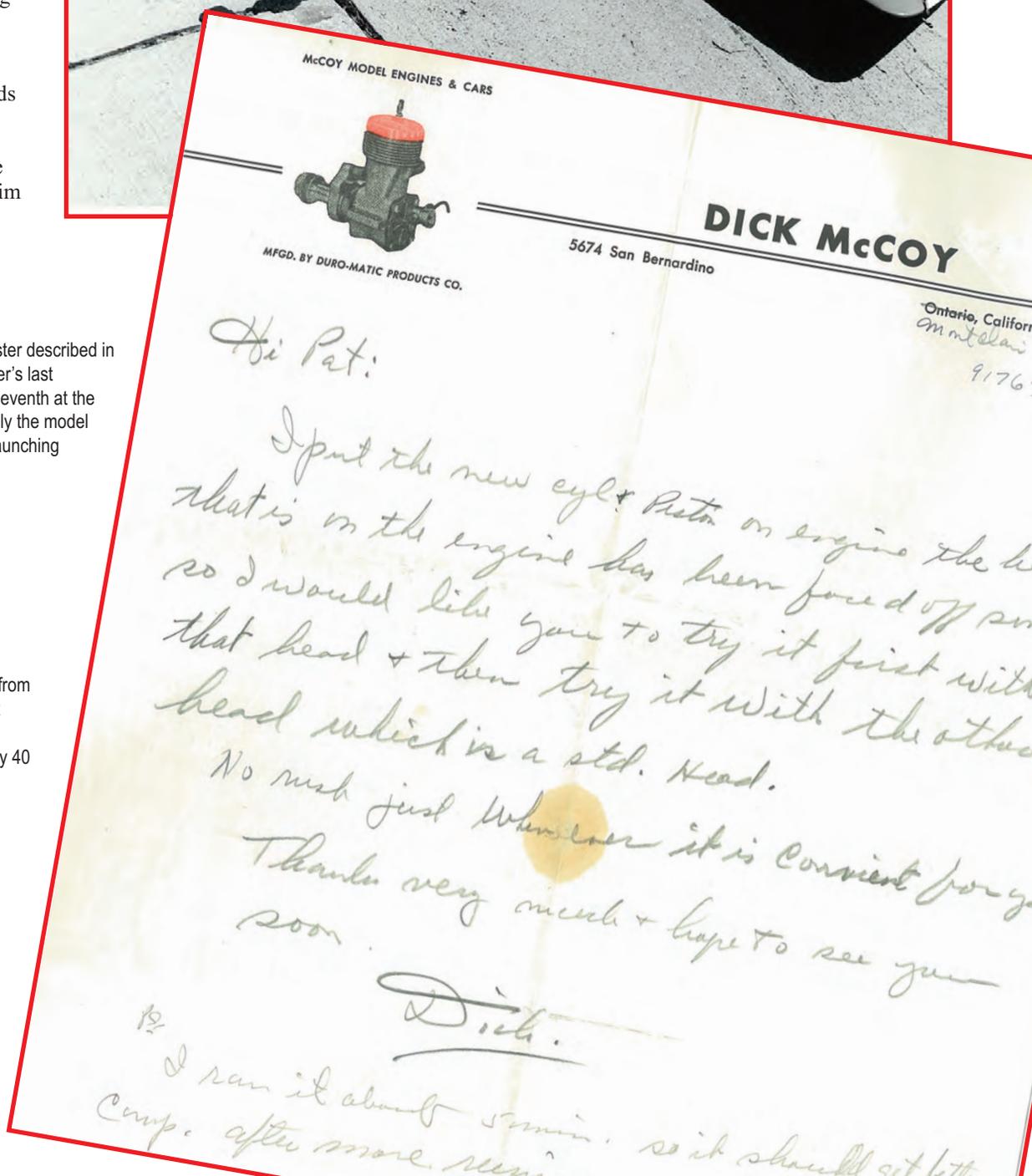
### The Collier Stunt Team

Dad became good friends with Dick McCoy, and as Dick began making his famous .40-size engines he would have my dad help him with the testing and



Above: This is the ill-fated Starduster described in the text. This model was Pat Collier's last Starduster, and with it he placed seventh at the 1967 Nats in Open Stunt. Tragically the model was lost just after that in a freak launching accident. Collier collection photo.

Right: Here is a handwritten note from engine genius, Dick McCoy to Pat Collier. Pat helped Dick with the development of the famous McCoy 40 stunt engine.



MCCOY MODEL ENGINES & CARS



MFGD. BY DURO-MATIC PRODUCTS CO.

5674 San Bernardino

**DICK MCCOY**

Ontario, California  
 9176

Hi Pat:

I put the new cyl + piston on engine the head that is on the engine has been forced off so I would like you to try it first with that head + then try it with the other head which is a std. Head.

No rush just whenever it is convenient for you  
 Thanks very much + hope to see you soon.

Dick

I ran it about 5 min. so it should set little comp. after more run.

developing of this new engine. Dad helped Dick and Dick helped with the new Collier Stunt Team. The performance and success of the McCoy .40, and the development of the Starduster design, served to produce the only engine/plane combination that was used by the team.

The members of the Collier Stunt Team were my dad Pat, my brother Jim, and me, Tom. Two of the crew at any one time acted as the pilots and the third acted as a pit man. Dad always flew. Right from the start we always flew built-up, competition-quality stunt models. The Starduster that I flew team stunt with was the same airplane that I used to win the Junior Stunt crown at the 1967 Nats.

We developed a routine and sequence of maneuvers that we performed. My dad, Pat, would be in the center and act as the "pivot man." When the other pilot's plane would pass in the opposite direction of dad's plane, the pilot (Jim or me) would have to walk around dad and duck under his arm. We would try to pass between two or three feet apart, but sometimes it was closer.

Pat's lead Starduster flew on 67-foot-long lines, and the other plane would fly on 60-foot-long lines. We were able to maintain a perfect performance record without a crash or failure. There were times, however, when the planes would sustain a glancing hit or have crossed lines. We were always able to recover from these situations without crashing.

When Pat Collier envisioned "team stunt," he wanted to deliver the excitement of a Combat match but always have a happy ending. Streamer cutting with a model has always been a crowd favorite, and we included this in our routine to the delight of the audience. However, a mistake was made with a streamer during the launch of Pat's Starduster at the Nats in 1967.

Pat had built a new plane for the '67 Nats, and after placing seventh in the Open Stunt event that



Above: Pat's Starduster follows Tom's ship through a maneuver during one of their many exciting team-stunt performances. Photo by Bill Netzeband.

Right: Note how Tom and Pat are focused on each other's planes in this photo. Each maneuver was carefully choreographed to be both exciting to watch and safe to perform. Tom's model was on shorter lines that Pat's and this helped with the timing of the maneuvers. Note the streamer. Netzeband photo.



year, he decided to take the opportunity to have the team do a performance at that Nats. He connected a streamer to the tail wheel strut on his new Starduster and signaled for a takeoff on a solo practice flight.

When the helper launched the plane he accidentally was stepping on the streamer. The result was that the model turned towards the inside of the circle and went airborne, free flying across the circle. When the lines went taut as the model reached the other side of the circle, the sudden shock pulled the handle from Pat's hand. His brand-new Starduster was totally destroyed.

We never again flew team stunt after that accident. My father and I did quite well during our years of competition, but we enjoyed the Collier Stunt Team performances the most.

After that, Dad became interested in motorcycles. Several other members of the Thunderbugs model airplane club also

started riding bikes, and together they formed a motorcycle club. I also started riding motorcycles at that time, and like stunting with planes, I started doing stunts with bikes. I raced and stunted bikes until 2002. I had an unrelated accident on a diving board and broke my neck, leaving me constrained to a wheelchair.

I still fly control line models from my power chair unassisted. A couple of years ago I attended the EAA (Experimental Aircraft Association) Fly-In at the Compton Woodley Airport in Compton, California. While there I flew a Flite Streak on 60-foot-long lines. I guess I still have my crowd appeal, as many members of the audience asked if the wheelchair guy could fly again. The answer was, "Yes." Truly, I am blessed to still be able to proclaim that "The show must go on!"

Thank you all for reading this from Pat, Jim, and Tom Collier *SN*.

## First Contest Jitters

In 1965, at the urging of my flying buddy Rick Loomis, I entered my first contest. It was held in a park in Garden Grove, California. When I got there, Rick was nowhere to be seen. Later I found out he had car problems. I was counting on him to show me around and relieve some of confusion of the contest. Not only was I confused but quite amazed and intimidated by all the beautiful airplanes and so much activity including Combat and Racing.

In those days there were three age divisions for all events, Junior, Senior and Open. I met a lot of very nice, helpful people including Bart Klapinski, Denny Shauer, and Jim Mayfield. I was flying my original-design Diplomat with a fully sheeted D-tube wing. It was not nearly as well-crafted and finished as most of the stunt ships there.

Watching the Open fliers and other Senior fliers put in practice and official flights was just plain scary! When it was time for my first official, it looked like a master class nervous, jittery Fumble-Rama but somehow the trusty McCoy 35 got started and the Diplomat was flying! All my maneuvers were blazingly awkward and geometrically indescribable until the triangles. First corner, going up, second corner going down and then there was a loud smack, a puff of balsa, and silence.

I was by no means a stranger to crashing in those days, but never in front of judges and so many people watching. It was embarrassing, humiliating and pretty much a total downer. After picking up the pieces and clearing the circle there was what seemed like an endless stream of pilots and spectators offering condolences and words of encouragement.

As I sat watching other flights, a guy came over and crouched down next to me and his words were soft spoken and sincere. "Looks like you had some really bad luck today. How you doing, buddy?" I had seen him fly earlier and admired both his beautiful plane and his excellent flying.

He introduced himself and extended his hand, "I'm Pat," he said, "And these are my boys Tom and Jimmy. Tom was flying in Junior and Jim in Senior. We talked a bit and they all went over and started doing something to their planes. As I watched, Jim Mayfield came over and said, "Have you ever seen the Colliers fly formation stunt? You're in for a real treat!" Indeed I was.

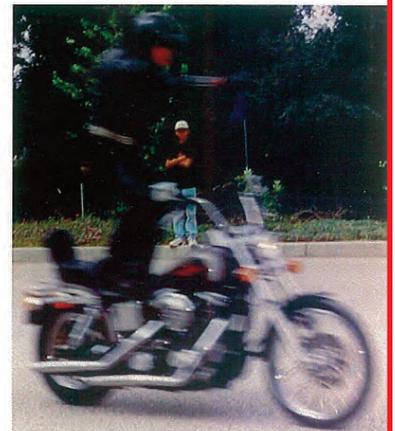
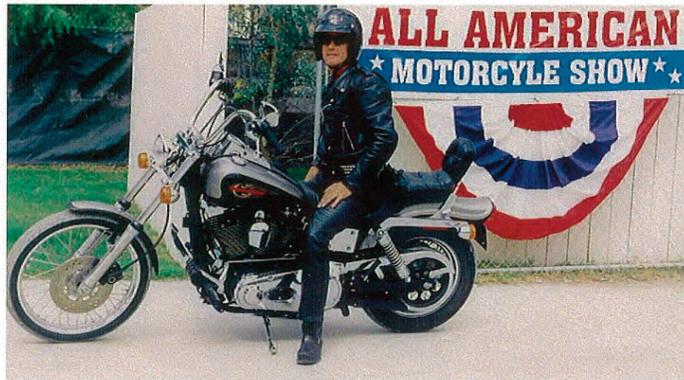
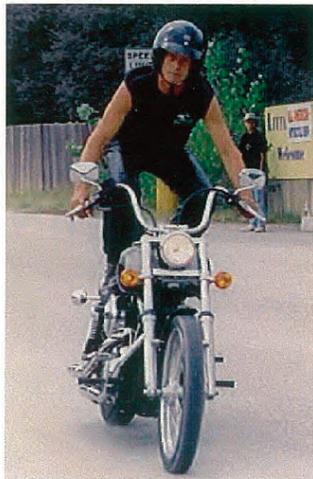
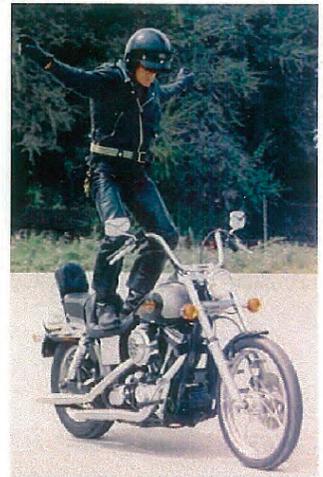
Watching their precision choreographic moves in the center of the circle as the planes flew in concert, moving precisely and accurately in unison as well as opposition, was simply unbelievable. What a show! It was a full five minutes of what might have been a disaster avoidance drill that the Colliers turned into a performance of beauty and excitement.

That first contest was the 'Full Monte' for me. A week later I received a surprise package in the mail. The return name and address was from Jim Collier. The letter enclosed was filled with words, crash empathy, and encouragement to attend more contests. It also explained that I had been chosen for the Sportsmanship award. There was a trophy with the inscription, 1<sup>st</sup> Place, Senior Stunt. Wait a minute. Jim won Sr. Stunt quite decisively; this was his trophy.

In conclusion, for those who knew/know the Colliers you understand the depth and extent of their kindness and generosity. If this is your introduction to them just multiply this single action by a million and you'll be in the ball park of understanding who the Colliers are.

—Phil Granderson





**Tom Collier**  
 Irvine Lake, California  
 September 20, 1998  
 on 1997 Harley Davidson Dyna Wide Glide

Tom gravitated eventually to motorcycle racing and stunt riding. In the photo above he is shown "surfing" on his 1997 Davidson Dyna Wide Glide. In this photo Tom is racing aboard his Jawa 500cc Speedway bike. There are no brakes allowed on Speedway bikes. Note the steel plate on Tom's boot that helped him to slide his foot and support the bike in corners. Collier collection photos.



# → Appearance Point

by Dennis Adamisin

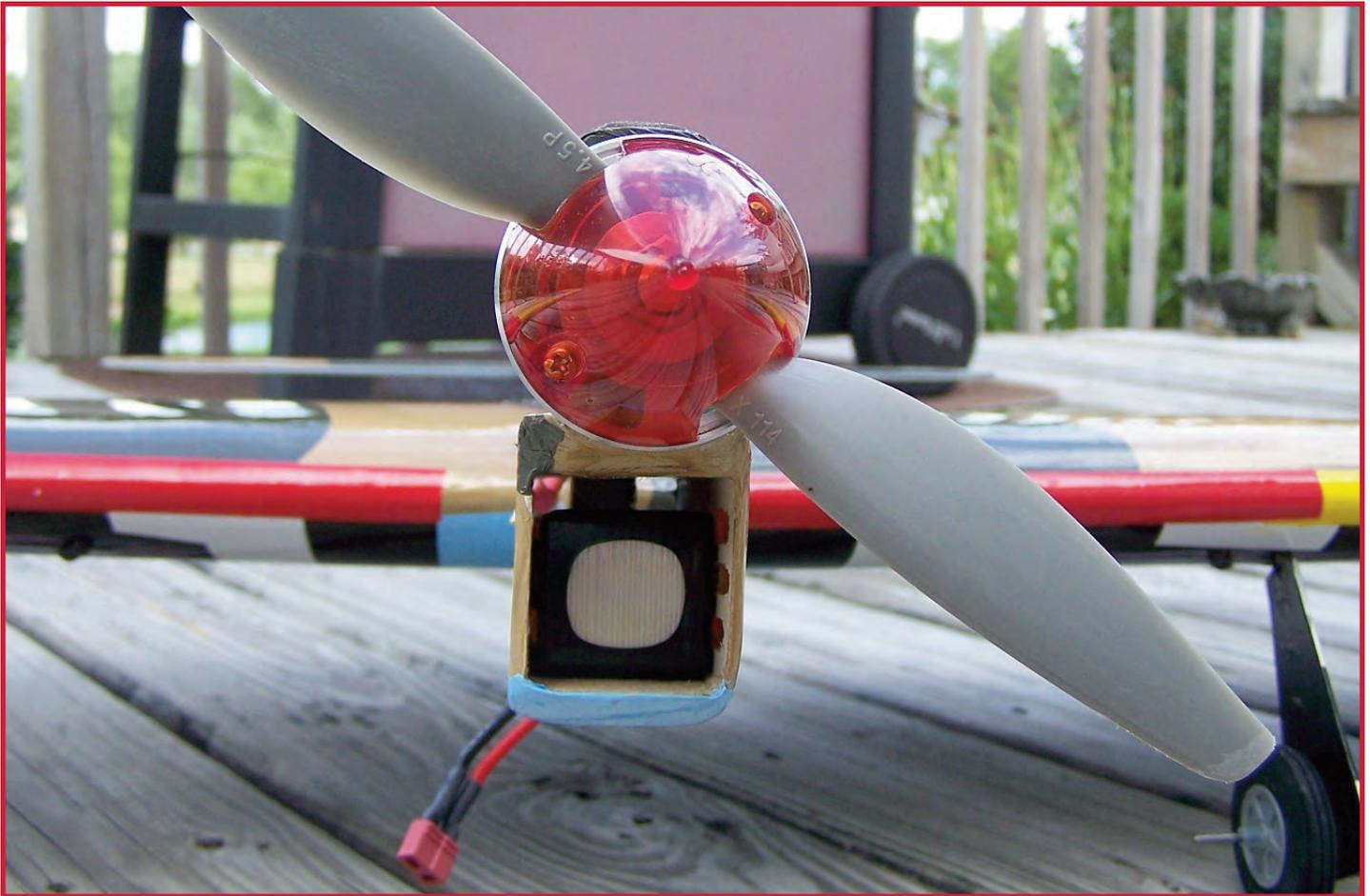
## Hawker Typhoon Electric Profile



In 1969 I won the Junior class Stunt event at the Nats using a semiscale design inspired by the British (and brutish) Hawker Typhoon. It was a very attractive model that flew extremely well. My “Tiffie” was published, in *American Aircraft Modeler* in September 1970.

In the mid 1980s, Frank Hopkins approached my dad about offering a profile version of the design for Frank’s Control Line Classics company. My dad and I each got a copy of the kit. Dad immediately built his and it also performed very well. I was flying RC Sailplanes at the time so my kit languished.

Several years passed. I purchased a vacuum bag wing system and was looking for a something to try it on. Out came the Typhoon kit and It did my first vac-bagged wing. I used way too much epoxy and that combined with the medium grade skins resulted in a very nice wing—that weighed a ton! It went back into the box for another 15 years or so. Last winter I hit upon the idea that if I could cut out great big portions of the skin I



could lighten up the wing enough to use. I removed almost four ounces. The wing was *still* heavy but borderline useable.

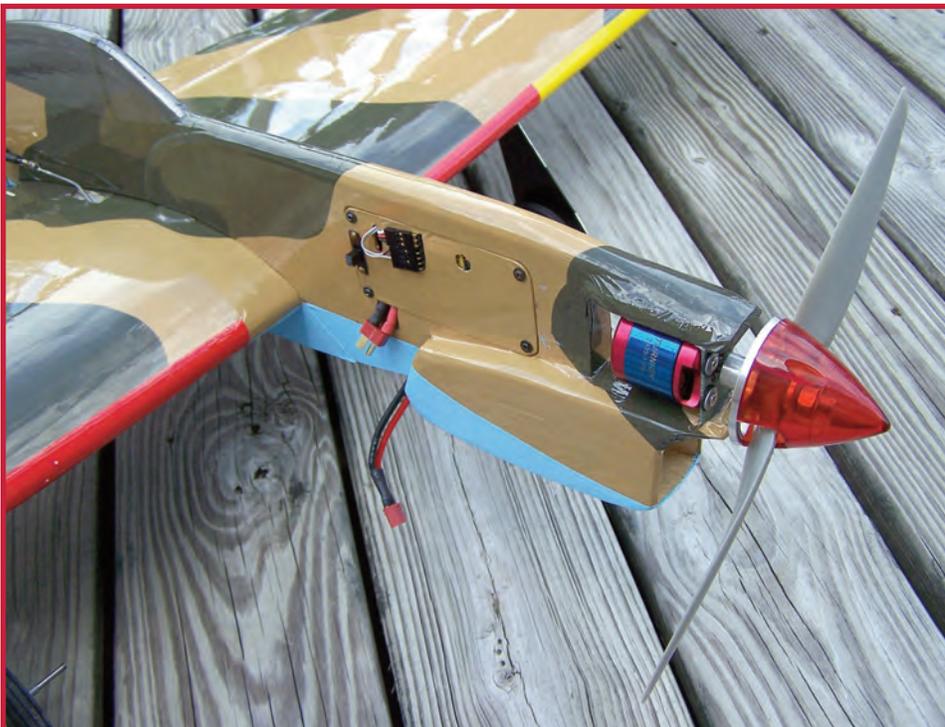
The ECL (Electric Control Line) community is collectively trying to improve on each other's best efforts for clean functional installations, and I set out to make a better installation than I ever

had. The battery in an ECL ship is typically 20%-25% of the total weight of the airplane. It needs to be pretty close to centered with the wing. The Typhoon has the wing center line positioned two inches below the thrust line, therefore the battery had to be very low—about where the Chin scoop resides! By turning the chin scoop into a battery box, the vertical CG would be served with a secure and easily accessed battery that did not need Velcro straps.

Another one of the problems with an electric Profile is that the ESC, timer, and motor wires are all just kind of stuck on to the outside, looking like an explosion in a spaghetti factory. A lot of folks use a large removable cheek cowl to cover things up, but I thought I could do better. The original Hopkins profile kit included a pocket in the fuselage for the fuel tank to nestle in; I set out to install the ESC and timer into that pocket.

Because the ESC was to be internal, cooling it would be a challenge. My brother Dave, the PC guru, used thermal epoxy to bond a modified CPU heat sink to the ESC-FETs. The Typhoon uses a Keith Renelec (KR) timer, and the programming pins need to be accessible for programming. When installed just the heat sink and the timer pin-bank are visible.

Orienting the bullet connectors for the motor at a 45° angle to the centerline of





the fuselage hid them and the hatch cover to holds them in place.

forever. The wing was made removable in anticipation of the fated econobox. The rest of the build was pretty much normal for a profile.

The results are as shown in the pictures: a squeaky-clean installation that fits any known definition of a profile fuselage, and foregoes the need for a cheek cowl. If I were going to do it again, I would shorten the nose to make it easier to balance batteries. The chin scoop layout of the Typhoon made this easy to do.

Ironically enough, many of our normal CLPA designs include a chin scoop, so it may be feasible to modify them to take a similar battery box. However, on a long skinny nose or an inline design would be better served with an inboard side access hatch to a built in battery pocket. Oh yeah, the bird looks like it is going to be a winner too. Now go do better... *SN*

Weaving the motor wires together shortened them just enough to control the spaghetti look on the outside.

Although I now have a minivan, I do not expect to have one



**Specifications:**

**Model:** Hawker Typhoon Profile

**Designer:** Dennis Adamisin

**Construction:** Foam wing with cutouts, 1/2-inch balsa profile slab fuse, sheet tail surfaces.

**Wingspan:** 52 inches

**Length:** 42 inches

**Moment arms:** 9.5 inch nose; 16.5 inch tail

**Weight:** 48 ounces ready to fly

**Power package:** Arrowwind 2815 motor, Turnigy ESC with heat sink, KR Timer, 4S 2,600 mAh battery.

**Propeller:** APC 11 x 5.5EP

**Finish:** MonoKote

**LASER CUT RIB SETS  
FROM  
RSM DISTRIBUTION**

Rib sets for all of our current kits are available for scratch builders. We also offer rib sets for many other OTS, Classic and Modern models. We can also custom cut any ribs sets you wish if you send us a copy of the root and tip rib.

**PARTIAL LIST OF AVAILABLE RIB SETS**

- \* Blue Angel
- \* Big Job
- \* Blue Max Eternal
- \* Chizler
- \* DQ Master
- \* F4 Phantom
- \* Primary Force
- \* Gladiator
- \* Imitation
- \* Naughty Girl
- \* Olympic
- \* P40 E
- \* Pole Dancer
- \* Phoenician
- \* Scimitar
- \* S1 Ringmaster
- \* Stiletto 660
- \* Talon

Order On Line at  
[rsmdistribution.com](http://rsmdistribution.com)

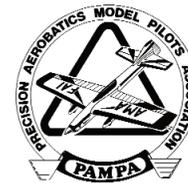
Priced  
\$29.95 to \$39.95

Order by Phone at  
951-678-1406

# PAMPA News & Reports

## Vice President Report

by Matt Neumann



**By the time** you read this, a new year will have started, and our new PAMPA President, Warren Tiaht, will have taken office. Warren spent a number of years as the Event Director of our Nats and Team Trials. As your Vice President, I look forward to working with him.

Has everyone kept his or her New Year's resolutions so far? Just what I thought. Whenever we end a New Year we traditionally look back at the year past, and in so doing I am reminded again of just what a close-knit group we are. It is not just those of us in the CL aerobatics section of the hobby. I am meaning model airplanes as a whole.

There is a story to be told here and it started just a couple of weeks ago. I work as a parts counter person at a Mack/Volvo dealership. And I get a chance to talk with my customers now and again while I wait for our "speedy" computer system to work so I can look up what parts they need. Many of them know of my hobby and occasionally ask how things are going.

In this case a customer, who is a farmer, came in looking for some parts. During our conversation he found out for the first time that I am into model planes, and he remembered that he had found a plane in his cornfield a number of years ago. He had actually run over the plane with his equipment. Remember, corn gets quite tall and it probably had settled near the bottom making it nearly impossible to see. In the process of being run over, the plane had been destroyed, but the engine managed to escape any damage. So he took it home, squirted some WD 40 in it, and put it in a shoe box to be forgotten until our conversation. He was curious now if it had any value, and I said I would be happy to look it over and see what it was.

My customer mentioned some "electronics" that had been on the airplane, and I was thinking it probably was a lost RC plane with a dime-a-dozen hobby shop engine on it, but boy was I wrong! When he brought it in my eyes about popped out of my

head. It was a Nelson: a top of the line competition engine and not cheap. It appeared to be a .15 size, but I really had no idea of what it was used on, especially since I had no chance to see the airplane that it was on. So I asked if I could take it home to take a picture of it to put up on

my dad's website, Stuka Stunt Works.

After the picture was posted, the type of engine was quickly identified as a Nelson 15 used for Free Flight. The "electronics" that he mentioned was probably a locating device. That part of the mystery was now solved.

But here is the rest of the story.

I figured there would be no way to find out who lost it, especially after talking with my customer again, because he clarified that he had found it 23 years ago! Now I was certain the owner would not be found after 23 years. Where did it come from? Who owned it? Would the original owner even be alive?

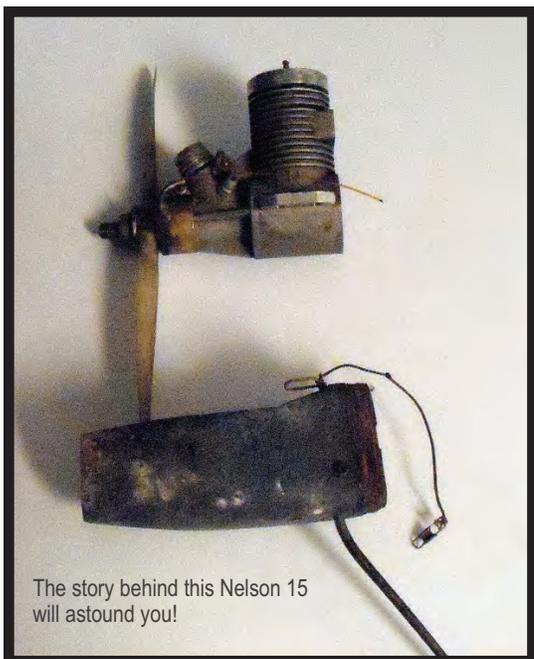
As for the engine's condition, I was amazed at how good it was in. It was not locked up in any way. It was hardly even gummy. The back plate screwed on and it came loose quite easily. I looked inside and saw a little dirt which I removed and carefully turned it over and put some after run oil in it.

As for finding the original owner, my hat's off to some of you guys on the forum who put out lots of emails to people trying to figure out who lost the engine. The owner was found living in Columbus, Ohio, and had lost it at the Nats, which was held in Lawrenceville that year. Once the owner was found, he was given my information and he contacted me and described perfectly a homemade prop brake that was still on the engine. He even described things on the engine that were not in the picture. So it certainly was his. Amazing! I got his address and after 23 years the engine was sent home to its rightful owner.

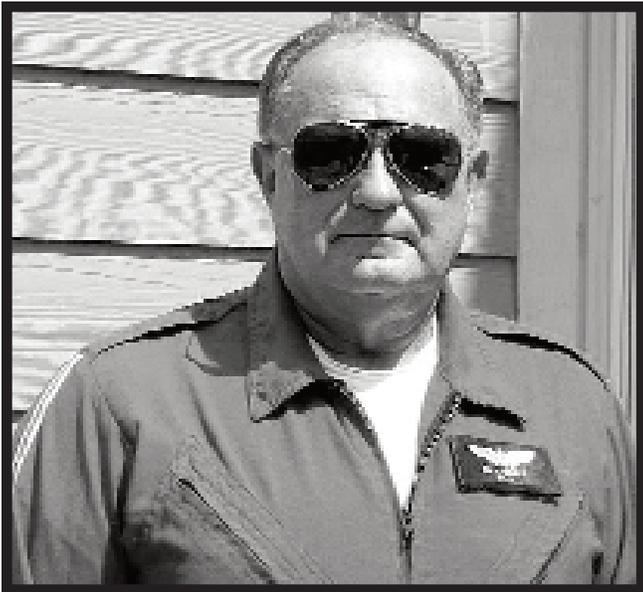
The owner sent me a note after he got the engine back. Remember how I said the engine looked in amazingly good shape all things considered? He said that he completely disassembled the engine and cleaned out any leftover dirt. He was amazed to find that all the parts were quite smooth inside. No score marks of any kind. The inside parts were like new (his words, not mine)! He reassembled the engine and is now waiting a chance to start it up after all this time, but he figures it will have no problem. After 23 years of sitting in a shoebox by someone who does not know how to store engines, the engine is in no way shape or form hurt.

This is remarkable and it shows that we modelers are remarkable because there are not that many groups that would take the time or effort to even do what we just did. We should be proud of ourselves. *SN*

—Matt



The story behind this Nelson 15 will astound you!



# Secretary/Treasurer Report

by Jim Vornholt

President Elect Warren Tiaht has advised the Executive Committee that the startup of our new website is first priority for the New Year. Personally, I had the pleasure of working for Warren at the 2009 FAI Team Trials and found him to be a very efficient and organized administrator.

Our Membership Secretary Mike Strand has been extremely busy with renewal and some new members. Membership numbers seem to be growing slightly as expected since Control Line aerobatics is gaining in popularity.

Thanks to Mike, I think I will attempt to build a stunt model this winter. With that said, Bob Hunt, stand by your phone! I'm already working on my list of electric stunt questions!

**I have said** this before and will now repeat myself. The wheels of PAMPA turn slowly. Lately, I have received several phone calls and emails concerning personal checks for PAMPA 2014 dues that have not yet been cashed.

In short, I have been in the process of changing bank accounts to a much larger bank which will allow me, your humble servant (Treasurer), better features and availability.

This required some research and conversations with several banks to see if they meet the requirements needed. One large obstacle was the new website; another was the states where the banks were located.

Please be patient. I have a stack of checks 4 inches high. For your security, I scan every check and save them in a password protected file so if there is ever a problem, I can locate your payment.

Obviously this is a slow process. I am working to get all checks into the bank by Monday, December 23.

**Until next time ...**

—Jim Vornholt

**It's difficult** for me to believe but another year has come and gone. I know the holidays are what you make them. For me, it seems I always end up thinking about the modelers, friend and family who are no longer with us.

Just recently we lost two model engine experts and PAMPA members: Byron Baker of New Albany, Indiana, and Tom Lay of Rowland Heights, California. They will be missed.

I have worked very closely and enjoyed a great, two-year relationship with our soon-to-be past president, Don McClave. PAMPA was always in good hands with Don at the helm. Don made many behind-the-scene operational changes to improve PAMPA for you, the members. I believe because of people such as Don McClave that PAMPA will remain strong in the years to come.

**I know** everyone has been sitting on the end of their seats and chewing their fingernails waiting to hear the results of the November 2013 election. Well, your wait is over. (Drum roll, please!)

President: Warren Tiaht  
Treasurer: Jim Vornholt  
Membership Secretary: Mike Strand  
District I: Steve Yampolsky  
District III: Ken Armish  
District V: Derek Barry  
District VII: Bob McDonald  
District IX: Jack Pitcher

Let me apologize to Bud Wieder for attempting to force him into double duty. Bud is already the rep for District II and I mistakenly put his name on District III instead of Ken Armish.

After this was pointed out to me, I made a sheepish, hat-in-hand phone call to Ken. He just considered the source and said don't worry about it. "I'm sure Bud can handle it." Just kidding!

The only contested district was District V where there was a bit of a surprise; we have a new representative, Derek Berry. I know everyone appreciates Eric Viglione's dedication to District V, so if you see Eric next summer, give him a pat on the back for a job well done. Few people know that Eric has spent hundreds of hours of his time for PAMPA working on a project that will be revealed to the membership in detail soon.

## Aero Products

*"World Class Stunt Stuff"*

**Custom made SV Laser cut kits; Precision Aero Engines; Cf Props; CF Gears & Wheel pants; Custom cut foam wings. Enya Engines; Magnum; Super Tiger; OS; SAITO; Evolution engines; Custom CC mufflers; Old Time; Classic; Modern kits.**

**Send \$3.00 for Catalog:**

**Randy Smith: Aero Products**

**980 Winnbrook Drive, DACULA GA 30019,  
USA**

**Ph (678) 407-9376; Fax (678) 985-5085**

**Web site: [www.Aeroproduct.net](http://www.Aeroproduct.net)**

Get inspired!

# Introducing the New PAMPA Plans Service

PAMPA Plans number/plane name and designer/plan size in inches

Price



PPN046 Speed King



PPN040 Tucker 4



PPN010 Doctor



PPN038 Trivial Pursuit



PPN017 Legacy 40

PPN001 Adam's Special (1 sheet 36 x 65)	\$11.00
PPN002 Bearcat III by Al Rabe (1 sheet 30 x 42)	\$9.00
PPN003 Mustang III by Al Rabe (1 sheet 30 x 43)	\$9.00
PPN004 Bearcat Profile (1 sheet 30 x 42)	\$9.00
PPN005 Berserker by Noel Drindak (1 sheet 36 x 55)	\$10.00
PPN006 Capricorn by Orestes Perdomo (1 sheet 36 x 61)	\$11.00
PPN007 Cavalier by John Simpson (1 sheet 30 x 42, 1 sheet 24 x 34)	\$15.00
PPN008 Challenger (2 sheets 36 x 50)	\$20.00
PPN009 Cutlass by Jim Kostecky (2 sheets 36 x 60)	\$20.00
PPN010 Doctor by Ted Fancher (1 sheet 36 x 60)	\$11.00
PPN011 Dragon by J.C. Yates (1 sheet 22 x 34)	\$8.00
PPN012 Force by Mike Pratt (1 sheet 36 x 48)	\$10.00
PPN013 Golden Falcon by Chris McMillin (1 sheet 30 x 58)	\$10.00
PPN014 Grandpa's Biplane by Charles Mackey (1 sheet 30 x 42)	\$9.00
PPN015 Hallmark by Gene Schaffer (1 sheet 34 x 47)	\$10.00
PPN016 Lancet by Vic Carpenter (1 sheet 36 x 24)	\$9.00
PPN017 Legacy 40 by Allen Brickhaus (2 sheets 36 x 64)	\$20.00
PPN018 Madman by J.C. Yates (1 sheet 30 x 40)	\$9.00
PPN019 Medic by Ted Fancher (1 sheet 36 x 60)	\$11.00
PPN020 Mo' Best by Larry Cunningham (2 sheets 36 x 48)	\$20.00
PPN021 Moitle by Francis D. Reynolds (1 sheet 36 x 24)	\$9.00
PPN022 Nakke by Juhani Kari (1 sheet 30 x 42)	\$9.00
PPN023 Nuts & Bolts by Sam Deheleans (1 sheet 36 x 57)	\$10.00
PPN024 Oriental by Dee Rice (1 sheet 30 x 42)	\$9.00
PPN025 Oriental Plus by Dee Rice (2 sheets 34 x 52)	\$20.00
PPN026 O'Toole Special by Ron O'Toole (36 x 50)	\$10.00
PPN027 Pluma by Bob Zambelli (2 sheets 36 x 45)	\$20.00
PPN028 Profile Nobler by Jim Harris (1 sheet 36 x 52)	\$10.00
PPN029 Profile P-51D by Tom McClain (1 sheet 36 x 48)	\$10.00
PPN030 Ruffy by Lew McFarland (1 sheet 36 x 46)	\$10.00
PPN031 Saturn by Don Ogren (1 sheet 36 x 59)	\$11.00
PPN032 Scared Kitten by Bill Netzeband (1 sheet 30 x 48)	\$10.00
PPN033 Shaman by Steve Moon (1 sheet 36 x 50)	\$10.00
PPN034 Stuka by Matt Neumann (2 sheets 34 x 45)	\$20.00
PPN035 Stuntress by Joe Adamusko (2 sheets 36 x 52)	\$20.00
PPN036 Stunt Trainer by Pat Johnston (1 sheet 22 x 34)	\$8.00
PPN037 Super Caudron by Fran McMillan (1 sheet 36 x 50, 1 sheet 36 x 34)	\$20.00
PPN038 Trivial Pursuit by Ted Fancher (1 sheet 36 x 58)	\$11.00
PPN039 Trophy Trainer by Tom Warden (1 sheet 36 x 60)	\$11.00
PPN040 Tucker 4 by Bob Tucker (1 sheet 36 x 61)	\$11.00
PPN041 Twistmaster by Bob Reeves (1 sheet 36 x 57)	\$11.00
PPN042 Valkyrie by Harold Price (2 sheets 36 x 50)	\$20.00
PPN043 Vegas by Steve Buso (1 sheet 36 x 59)	\$11.00
PPN044 Curtiss Swift by Nate Rambo (1 sheet 36 x 50)	\$10.00
PPN045 F&B Sharpie by Carl Malmsten (1 sheet 36 x 48)	\$10.00
PPN046 Speed King by John Havel (1 sheet 36 x 54, 1 sheet 36 x 48)	\$20.00
PPN047 Detroit Stunter by Roland McDonald (1 sheet 30 x 43)	\$9.00
PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 22 x 31)	\$8.00
PPN049 Veco Squaw by Joe Wagner (1 sheet 30 x 43)	\$9.00
PPN050 Max Bee by Igor Burger (2 sheets 34 x 64)	\$20.00
PPN051 Crusader by Charles A. Mackey (1 sheet 35 x 50)	\$10.00



PPN005 Berserker



PPN015 Hallmark

# PAMPA Plans Order Form

Plans Description	Quantity	Price Each	Total
*Minimum Order \$5 Please <b>**Shipping:</b> US orders less that \$60      Add 25% US orders more than \$60      Add 20% Canada and Mexico              Add 35% Foreign orders airmail          Add 40% Foreign orders surface mail   Add 30%	<b>Total for products*</b>		
	<b>Shipping**</b>		
	<b>7% tax Indiana residents</b>		
	<b>Total cost</b>		

Mail order to:  
 PAMPA Plans Service  
 c/o Jim Vornholt  
 PAMPA, PO Box 320  
 Plainfield, IN 46168.

PAMPA@indy.rr.com  
 (317) 385-4751

Ship order to:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Method of payment:

Cash     Money Order     Check # \_\_\_\_\_

(Make all checks payable to PAMPA; must be drawn on US bank)

MasterCard                       VISA

Account # \_\_\_\_\_

Exp. date: \_\_\_\_\_

Signature \_\_\_\_\_

Tel: \_\_\_\_\_

Email: \_\_\_\_\_



Note: this order form may be photocopied or downloaded from the PAMPA website.

# District I

by Steve Yampolsky

Connecticut, Maine, Massachusetts, New Hampshire,  
Rhode Island, Vermont

**Well, it finally happened!** Steve Yampolsky, “The Mad Russian,” has been elected District I director. The standard response to the news should be: “it’s an honor,” but I am not “standard!”

I am not in it for the honor, money or groupies (although, my ultimate dream is to walk into the circle at the Nats dressed in a 70s-style white suite, bell bottoms and an afro wig, surrounded by groupies). To me, being a district director is an opportunity to meet and build relationships with fellow CL’ers, and to be the voice of the district.

I will do my best to represent my beloved New England and its pilot community. I will share with the PAMPA nation our stories, our contests and things that matter to us, the District I pilots!

With the introduction aside, let’s get down to business! Since blistery cold is not conducive to Stunt contests, I would like to address three housekeeping items. Item 1: The newly elected PAMPA president has requested an emergency vote to launch the new PAMPA website. The rollout has been approved at the annual PAMPA meeting in July but has been delayed for various reasons.

The updated website is supposed to streamline membership renewal process *and* simplify the work of our membership secretary. From the several conversations I’ve had with District I pilots, I’ve understood the importance of the new website and have voted *eyes* for immediate launch. If you have a strong opinion against it, please contact me at [syampolsky@hotmail.com](mailto:syampolsky@hotmail.com) (District I members only).

Item 2: As the elected representative, I am required to put forward proposals on things important to us *and* to vote on other proposals in a way that reflects the interests of District I. Both of these tasks require that I have a communication channel to the membership of District I.

I would like to be able to reach out to all of you via email to seek your feedback. In order to do that, I need everyone to include their current email address on the PAMPA renewal form. As of November 28, there are nine members who have not provided their email address on the PAMPA renewal form. If you’d rather keep your email private, please reach out to me via email. My email is [syampolsky@hotmail.com](mailto:syampolsky@hotmail.com).

Item 3: I want to hear what’s going on in your shop. A picture, a few sentences, or a lot of pictures and hundreds of pages of text ... I want to hear from every one of you and I am sure others would want to hear from you as well. I am sure that

just like me, we all flip to District I report as soon as we get the latest *Stunt News* to read about our friends, or look for a mention of our name. Why? Because we are a community and we care for one another, and we genuinely want to know about our friends’ trials and successes! So please send me a note, or give me a call, and tell me what’s on your mind, on your building table or on the other end of the 60 feet of 0.015 wire rope. My email is [syampolsky@hotmail.com](mailto:syampolsky@hotmail.com).

That is all I have for the district business. Now, onto the fun stuff... Unlike our fair weather brethren, we don’t fly for 5 months a year due to cold weather. Now we can! Popularized by the current World Champion Igor Burger, indoor Stunt competitions have been growing in popularity over the past three years.



Igor has figured out a combination of motor, ESC, and a design capable of serious aerobatics on just 15-foot lines! This means a regular school basketball gym can accommodate two circles! Damian Sheehy and I have been intrigued by this idea and have begun to look for an indoor facility and building models.

By the time you read this, we should be flying or very close to flying. I will report back here as I learn more and hopefully encourage others to start building indoor models. Igor has made the plans of his model available online for you scratch builders. He’s also partnered up with Tania Uzunova to offer a kit for those who enjoy kit building.

Information on the kit, components required, and purchasing details are available at [www.indoorgeebee.com](http://www.indoorgeebee.com). Indoor CL is very inexpensive to start (think Cox models when you were a kid kind of cheap), and can be used to introduce younger folks to CL flying. *SN*

—Steve Yampolsky

**Hi, all.** We have a retread back with us. The gentleman's name is Joe Daly who started his flying days in the late '50s and early '60s. He is back, doing well, and is bringing in some new blood to our hobby. Here is his story:

"In 1957 when I was 12, I saw two of my schoolmates flying control line planes at the local schoolyard. I remember being fascinated by the spectacle. They had a Ringmaster and a Jim Walker Firebat. I raided my piggy bank and rode my bicycle to the local hobby shop where I bought a McCoy .35 and some balsa with which to build my first plane. It was a straight-wing knock off of the Firebat. It barely flew but I was hooked. I advanced through Flite Streaks, Hornets, and Renegades.

"We flew a lot of combat against each other in that schoolyard for a couple of summers, and in 1960 I entered the Mirror Meet on Randall's Island. I did better than I had any right to against some of the best fliers in area. School, sports, and girls put my flying on hold, and then I went into the Army.

"After my release from the service, I started my career, got married, and had three children. My son Joe, at about 10 years old, inquired about the planes in the basement that I fortunately had saved. We went to the same schoolyard and it was on all over again. He learned quickly, and at 15 he was a much better flier than I was. We started flying RC planes, and he excelled at that.

"Joe went off to play Junior Hockey in Canada at 18, and without my flying partner it wasn't fun anymore. This was before I knew about release stooges, and there was no one to fly with. My flying went dormant until this past spring when I was interested in unloading my garage full of 'stuff.' I searched the web looking at all forms of model airplane flying.

"Once I stumbled upon a couple of control line stunt links, my interest was piqued. I decided to keep the 'stuff' and fly it. I posted some inquiries about local flying sites and Will DeMauro responded with an invite to fly at Flushing Meadow Park. I dusted off an old Mustang Stunter and went and flew for first time in 25 years. The Mustang was a slug, but I had fun with it.

"I met the guys flying at FMP who offered helpful advice and assistance. I really liked the new technology. I was impressed with electric-powered stunt planes that a lot of the New York Control Line Stunt Team guys were flying, so I went at it. The knowledge that they shared with me was extraordinary. I must have been a real PITA with all the questions I had.

"I bought an ARF Flite Streak that I converted to electric, and it flew really well with one of Will's setups. I built a knockoff Forerunner for electric from plans that came from an unbuilt kit I bought for my son back in the '90s. I recycled the Mustang Stunter wing for it. I figured out electric power and the setups from that ship with some help from Ron Heckler.

"Next I built a real Forerunner using a Bob Hunt foam wing. That was when I found out how a stunt plane was *supposed* to fly; it goes right where you want it to go. When my son Joe discovered that I was flying control line he wanted to try his hand at it again. He picked it up right where he left off. Next, he brought his two oldest boys, Joe (10) and Steven (9), along.

"They flew a PDK Ringmaster E2 trainer that I built for them to learn on. They have advanced now to one of their dad's old Ringmasters that he built 20 years ago, and we have a couple of new projects going on in the hangar. I have to keep building so we have a spare plane to stay ahead of the grandsons!



Joe Daly has returned to CL flying after a long sabbatical. He's enjoying flying with his son and his grandsons and has just finished this electric powered Forerunner. Joe flies with the New York Stunt Team at Flushing Meadows Park in Queens, New York.

"I am in the process of building a Tom Morris Cavalier, and my son built a Tutor from an old kit I had to be used as an advanced trainer. We also have a Brodak Accentor in the works. Joe wants to fly competitively, and with his determination, I would expect that he will do well.

"I keep getting inquiries from Joe about the Forerunner but I told him to build his own. Now that I have a plane that flies better than I do, I am not taking any chances. Watching the grandkids fly is really fun. My son, Joe, has two more boys behind his oldest, so Steven I will be building for a while."

—Joe Daly

Thanks for sharing that with us, Joe, and welcome back into the fold!

Ron Heckler contributed the next part of our column. Ron has been a really big help with his contributions to District II. He has taken time to cover many of the events that have taken place in our district, and I really appreciate his help. Here's Ron's report on the recent NYCLST Fun Fly:

"On Sunday, October 6, the New York Control Line Stunt Team had its second Fun-Fly of the year at Flushing Meadow Park. In spite of the foggy and misty day, there was a great turnout of approximately 20 fliers, including some young pilots.

"Prior to the start, I thanked everybody for attending and supporting our club. At the same time it shows the Parks Department that our field is being used quite often. I also mentioned that we are contemplating having a contest next year on Memorial Day Weekend, as we used to do in the past, and offered a certificate that would be presented to the winners in place of plaques. This would reduce costs and the contest could still be held if attendance was low. Everybody agreed.

"With that, I yelled out, 'Pilots, man your planes.' I always wanted to say that! There were two highlights of the day. First, it was great to see young pilots being taught by their fathers or other fliers. They all flew electric-powered planes. One of them even soloed for the first time.

"We all hope they will pursue the hobby and keep it going.



Dwight Eyerick hand launches his son Aiden's plane and Will DeMauro tutors. Photo by Ron Heckler.



Left: Dwight congratulates his son Aiden on his solo flight. Heckler photo.



Below: Joe Daly demonstrates the controls to his son Joe Jr. Heckler photo.

“The second highlight was to watch Al Takasch fly his plane from his powered wheelchair. The first time I saw Al was at Brodak’s 2011 Fly-In. He was living down south at the time and is now residing in Queens, New York.

“Al told us he is right handed and has to use that hand to power his chair so he had to learn to fly left handed. To watch him fly is an inspiration to all. It shows what determination and dedication is all about. We are very proud to have him as a club member.



Left: Al Takasch flying his Brodak ARF Smoothie from his power chair. Heckler photo.

Right: Al demonstrates some very stable and confident inverted flight with his Smoothie. Heckler photo.



“To summarize, it looks like control line is on the upswing. Last week all four circles at Flushing Meadow were used. Three of the new fliers came from Long Island and told us they were beginners switching from RC to control line.

“One of them made a very unusual comment. He said, ‘People who fly RC are usually sitting in a chair or standing still, and the extent of their exercise is working the controls on the transmitter. Flying control line is just the opposite, and from looking at our club members, we are in pretty good shape.’ Of course, after that some of us couldn’t fly well with all the swelled heads we had. They also knew about us from the articles Will DeMauro and I wrote for *Stunt News* and want to join our club. The welcome mat is always open for new club members.



Left: John Passalacqua is starting his engine with the help of five other people. Heckler photo.



Below: Will DeMauro is setting up Aiden Eyerick for his solo flight. Heckler photo.

“Enclosed are some pictures of the day’s event.”  
—Ron Heckler

In closing, here are a few pictures of Bob Lampione’s version of his



recently kitted United. As always, Bob is a master of colors and craftsmanship!  
Until next time. *SN*  
—Bud Wieder



## Ohio, Pennsylvania, West Virginia

# District III

by Ken Armish

**During the third weekend** in October, you will find quite a few District III PAMPA members in Huntersville, North Carolina. For most fliers from the Northeast, this has become the closing contest for our flying season. Winter is coming fast at that point, and our thoughts turn to building for next spring.

The Metrolina Control Line Society of Huntersville, North Carolina, has been putting on this contest, as well as a spring contest, for quite a few years. To give you an idea of how this club has grown this event, let me give you some statistics from the October 19-20, 2013, contest. There were over 100 people and 56 competitors from 15 states. There were 113 competition event entries and a total of 171 activities, if you add in the support groups.

This contest has also attracted some really great vendors: Bob Krug (New Jersey) Powermaster Fuel; Jim Lee (Kansas) with an extensive array of machined building items; Brian Malin (North Carolina) BJMR Kits; and Randy Smith (Georgia) with engines and fuel accessories. From what I could see, the vendors were doing quite well!

As with all good contests that keep growing, the one common denominator is the good people who give of their time to ensure that the event will be a success, and Huntersville is no different. Everett Shoemaker (CD) and Dave Smith (assistant CD), along with William Davis (Stunt Ed) and Howard Shenton (Combat Ed) ran a very smooth, well-oiled event. The rest of the support team consisted of James Duckworth and Clark Macomber (Registration and Tabulation), and Shelly Gordon and Jo Shoemaker (Score Sheet runners). I know I speak for all District III participants when I say, "Job well done! We will be back!"

Now, how did our members do in the stunt events? In Profile, yours truly was a judge with Dave Wenzel. Dan Banjock finished fourth with his Fox.35 twin-powered Bearcat. This engine always sounds as if it is seconds away from exploding into a thousand pieces, but it sure is neat to hear. Alan Buck finished eighth with a borrowed LA.46-powered P-40. Dennis Moritz finished twelfth with his Galaxy, which is powered by a Tower.40.

Phil Cartier and Bernie Suhamski both had some equipment problems and finished thirteenth and fourteenth, respectively. In Nostalgia 30/Classic Combined, Gerald Phelps from Ohio

finished third with his beautiful, Aero Tiger .36-powered Patriot. Dan Banjock finished fifth with his Galloping Comedian. Bernie Suhamski finished fourteenth with his O.S. .40-powered Oriental, and Dennis Moritz placed fifteenth with his Tower .40-powered Galaxy.

In PAMPA Beginner, Larry Wilks placed first with his Fox .35-powered Mark I. Great job, Larry! Jenn Federick finished fourth flying her O.S. .40-powered Cardinal.

Pampa Intermediate found Ken Cook finishing in second place with his Fox .35-powered Oriental. Great job, Ken!



Ken Cook's very nicely done Brodak Oriental is powered by a Fox .35.



Ken Cook receives his award for finishing in second place in PAMPA Intermediate. Well done, Ken!



Larry Wilks receives a well-earned trophy for his first-place finish in PAMPA Beginner.

In PAMPA Advanced, my flying partner, Alan Buck, did very well, finishing with a well-deserved third.



My flying partner and best buddy, Alan (Hooligan) Buck, receives his trophy for a well-deserved third-place finish in PAMPA Advanced.

Bernie Suhamski finished eighth with his Oriental. I finished ninth with my new electric-powered Legac-E. Dennis Moritz finished tenth with his Galaxy.



Mr. Dennis Moritz (writer extraordinaire) flying his Galaxy. It's always fun to be around Dennis.

In PAMPA Expert, Philly's own Dan Banjock finished first with his well-camouflaged Vista. Dan's ship is powered by a PA.75. Phil Cartier finished thirteenth and Shawn Cook finished fourteenth with his PT-19 powered by a Brodak .40. This was Shawn's first venture into the Expert ranks, and he did himself proud.



Yet another piece of hardware for that big kid, Dan Banjock, with a first-place finish in PAMPA Expert.



Shawn Cook with his PT-19 ready to do battle in the PAMPA Expert ranks.

Old Time Stunt found Mr. Banjock finishing in third place with his well-traveled Ringmaster. Bernie Suhamski finished fifth with his O.S. .35-powered Viking.



Again, Danny (The Kid) Banjock collecting a third-place trophy for his finish in Old Time Stunt.

Quite a few of our District III members finished in the money in Combat and Carrier.

If you have never been to the Huntersville Contest, you have missed out on a great one, run by some of the finest people you could ever meet. As a caveat to the contest, many of us traveled about 40 minutes south to Papa Watt Moore's homestead, where Watt's lovely daughter Jeanna, son-in-law Jeff, and the beautiful Miss Olivia put on a picnic/bonfire which, for many of us northerners, is reason enough to travel south

Until next time, build fast. Spring is right around the corner! *SN*  
—Ken

Right: Truth be told, this is what modelers do best... eat, drink, and tell stories of days gone by. You couldn't buy friends like this. We are truly blessed!



Delaware, District of Columbia,  
Maryland, North Carolina, Virginia

## District IV

by Steve Fitton

**Do you guys remember** the TV series “Magnum PI”? It used to be one of my favorite shows when I was a kid. One of the traits of Magnum was his “Little Voice” in his head that tried to warn him when things didn’t seem right or he was about to do something really dumb. Most of the Little Voice warnings were routine, such as “Don’t burn the tires off Robin Masters’ Ferrari 308,” or “Don’t knock over Higgins’s bridge made of matchsticks.” Sometimes the warnings were much more vital, like whenever that Ivan dude would show up. (“Hey, Ivan. Did you see the sunrise?”)

The point of all this is that each of us has Magnum’s Little Voice in our own head; sometimes, though, we forget how to listen to it. Generally, as a PAMPA rep I try not to use my column as a platform for anything I am doing personally. In this case, however, I will comment on how not listening to my own Little Voice led to disaster...

I generally fly only one plane—my Dreadnought—on a regular basis, both in practice and in competition. Only working with your #1 plane is the generally accepted way to proceed when your focus is on Expert and Nats-level competitive flying, and one of the chief reasons for that is the fact you become really familiar with your plane. My Nats planes each have logbooks, and those books record flights numbering into the thousands in some cases.

With all those flights, you would think I would know my plane pretty well. Starting around the time of the Nats, though, my Little Voice started telling me things about my plane. Things like: “That’s funny. It feels like neutral is a little off, but I never made any changes.” Or “Gosh, my lines are sticking like crazy; they have never done that before.”

Those of you who have been reading *SN* for a while know that airplane trim and especially simple stuff, like handle neutral, is material I consider really important. Once basic things like handle neutral are correctly set, however, I tend to take the view that, other than fine trim/engine/prop adjustments, it’s finally up to the pilot to practice with what he’s got and deal with it. None of this is unique or particularly very clever; it’s essentially what is in the PW trim chart from many years ago.

The problem comes in if you ignore signs from the plane that something is wrong. In my case, after ignoring that Little Voice, my Dreadnought was demolished on its 699<sup>th</sup> flight

when the upright of the flap horn failed during the reverse wingover.

On the surface that seems pretty dumb, and I guess it is. But, in my defense, the problems were much more subtle than something easily described in print. Neutral issues might be there one flight, but not the next ten. Our home practice field is extremely turbulent, and it turned out turbulent air would excite the mysterious trim and handling problems. Then, take the plane on the road to a contest with good air like the Jim Coll event, and the plane would feel pretty good.

But then would come a later flight that would be downright scary, and that Little Voice would be shouting. Yes, I would try to troubleshoot issues. I thought maybe the plane was breaking; nope, no cracks or loose parts. Replaced the lines... check. Replaced the handle... check. What else could it be? “Must be the nut behind the handle,” I told myself, over the protests of the Little Voice. “Anything else at this point is just making excuses for poor flying,” I said to myself as I crammed in even more practice flights at home.

I didn’t do this in a vacuum, of course. A number of people smarter than me had said it sounded like a control system problem, and that I should to cut into the ship and examine it. With such a low number of total flights on the plane, though, I automatically discounted the possibility of a control system component wearing out and failing. In my mind, if the plane could not be at fault, then it had to be me.

It’s so common at a contest to see fliers who convince themselves that something is wrong with their plane or engine out of the blue. You can pretty much sit back and watch them chase their tail for a few hours or even a few days. I was so determined not to be “that guy” that I ignored my Little Voice, as well as the sound advice of others who noticed how much slop the control system was getting and made wise suggestions. The net result of all this was a good airplane getting completely killed.

So, the moral of this mess? Nothing revolutionary. Just remember, when your own Little Voice says something like, “Gee, I don’t think we have enough fuel to finish the clover,” or, “I bet it will corner just fine with the CG right at the fuel tank,” or, “It’s okay that the wings flap in a hard corner, because they always do that,” maybe it’s time to take a second and think about what your own good sense is telling you.



The result of not using good sense to evaluate a problem: One completely obliterated plane.



The culprit: bushing and/or lubrication failure resulted in the elevator pushrod wearing right through the double post flap horn. There was plenty of warning this would fail if I was willing to pay attention to the signs. The fact that the failure happened much earlier than expected (699 flights) made this sort of problem at the very bottom of what I thought could be the possible root of mysterious handling issues. It helps to keep an open mind toward problems and their causes, and to seek out quality advice (and then listen to it).

On a more positive note, I want to extend hearty congratulations to Hampton, Virginia's Artie Jessup for his win in Advanced at this past Huntersville contest and his earning of the Ringo Perpetual Trophy. Artie is already a lifelong master free flyer, but in the last six or seven years he has devoted his attentions more toward Stunt.

The last few months Artie put in bunches of flights at places like Brodak's, the Jim Coll, and at our home practice field. The work is paying off in better-trimmed models and a better-flying pilot, and Artie got a well-deserved reward at Huntersville. This event also represents the first time the Ringo Trophy returns home to the Hampton Roads region since it was won by the late Willis Swindell.

The Ringo Trophy was originally created by former District IV pilot Al Reed, to honor Mr. Ringo, a tireless promoter of CL in the Norfolk, Virginia, area and a man known to befriend people in the service especially and give them a home away from home in terms of modeling.

Al was one of Mr. Ringo's protégés and wanted the CL community to have something permanent to remember Mr. Ringo by. After the demise of the spring Rainmaker contest in Virginia Beach, the trophy found a new home with the Metrolina Club and is now traditionally awarded to the Pampa Advanced winner at the fall Huntersville contest.



Artie Jessup proudly displays his first-place Advanced trophy and the Ringo Perpetual Trophy that comes with winning at Huntersville. Well done!

A few weeks before the Huntersville contest, the NVCL club had their Stuntfest event. I could not make it up there this time, which ensured perfect weather for the lucky dogs who did get to go. Everybody had a great time, and congrats go out to winners Scott Richlen for Expert, John Tate for Advanced, Gerry Glier for Intermediate, Phil Spillman for OTS, and Eli Cortez for Beginner. The NVCL club guys are really working all out to make this event better and better each year, and they have succeeded in making a nice little contest right on the outskirts of DC.



Frank Dobrydney works on his TEOSAWKI at the NVCL Stuntfest. Richlen photo.



Bernie Trent made this really cool Grumman Wildcat model based on a Nobler wing that he brought to the NVCL event. Tate photo.

Finally, I'll wrap up with a few notes about the Huntersville contest. Attendance was excellent, and a light rain/mist on Saturday did nothing to dampen the size or spirits of the crowd. The winds were calm with the grey skies, and a lot of people flew their butts off all day long.

A notable return to the circle was Florida's Curt Contrata. Curt's situation was documented in the District V column in the last issue. I know after all he had been through, Curt's warm welcome back by everybody meant the world to him, and his flying showed little sign of an eight-year layoff. I think on Saturday Curt put in at least 30 flights on the practice circle with his trusty Satona stunter. I suspect Curt will be in top form by the Nats this summer.

Although not really stunt related, an increasing number of combat and carrier guys (and gals) are showing up at each Huntersville contest. The combat types especially have introduced a new dynamic at the evening bull sessions around the pool, including a beverage known as the "Irish Car Bomb" which had several stunt guys pretty much out of commission for the rest of the night and most of the next day! Avoiding drinking with combat types is a must for success the next day in stunt.

I'll leave you with some pictures from Huntersville. Hope everybody has a great Thanksgiving and Christmas, and we will see everybody at the KOI! **SN**



We have not seen Larry Draughn at a contest in a while, but here he stands next to Artie Jessup as a light rain falls on the pits down at Huntersville's Profile circle. Larry was very curious about the proliferation of various e-power setups in the time he had been away.



Left: Dennis Moritz contemplates his towering awesomeness as he makes ready for a flight in Profile.

Below: The shape of the pit area puts the Expert class planes in echelon left formation as the rays of the morning sun climb over the field. Saturday's breezy conditions would see Dan Banjock and his very well worn Vista come out on top in Expert.

Below: Don Jenkins continues to improve as he climbs the stunt ladder. Here he burns in a winning flight in Intermediate during Huntersville's Sunday action.



Below: Bernie Suhanski concentrates as he guides his Oriental around the pattern during an Advanced flight.



Left: Eric Taylor's brand new Katana glows in the sun as it arcs through the overheads on its way to a second-place showing in Expert.



# District V

by Eric Viglione

Alabama, Florida, Georgia, Mississippi,  
Puerto Rico, South Carolina, Tennessee

**Who knew the answer** to our field of dreams would be a symbiotic relationship with an RC club? If you have followed this column since I began, you already know about our club, the Tampa Bay Line Flyers, joining with an RC club that provided a great field for us.

Well, after 20 years of great fun and flying, the Tampa Bay Line Flyers will be letting our club charter lapse. It's not for lack of members, etc, but because it is now redundant to our host club, MCRC (Manatee County R/C). In the past several years that we have been merged with MCRC, they have made us at home, with a luxurious field beyond what we would have dared to hope for.

It almost feels a bit of an insult to their hospitality to persist in keeping ourselves separate to that extent any longer. So, if you come to Florida looking for the Tampa Bay Line Flyers, come find us at MCRC. You can easily recognize us as the guys with ear to ear smiles flying on the CL circle.

Speaking of which, we just hosted the 2013 Southeast Stunt 'N Fun contest at MCRC this November 2-3. The weather forecast should have scared everyone off, but you know stunt flyers, we're an optimistic bunch, heh. So, we had a decent turnout, got in all our rounds of flying, and even had some fairly good weather at times. Wayne Smith, our CD, was kind enough to compile a report which I will insert below. Take it away Wayne:

"The 2<sup>nd</sup> Annual Southeast Stunt 'N Fun was held in Palmetto, Florida on November 2 & 3. This event had numerous sponsors that supported this event and some donated with prizes and raffles for the entries. Many thanks go out to all the sponsors, the MCRC club, and its members that supported and worked this event. Special thanks to Brodak Mfg., Frank Tiano Enterprises, Zap Glue, BMJR Models, Tom Dixon's Model Airplanes, Lee Machine Shop, Sig Mfg., Archie's Hobbies & Helis, and Charlie's Hobbies for their donations that helped make this a great event for the club and the contestants. A special thanks to Rich Peabody for furnishing the awards for all the events. This control line event had 22 registered entries.

"Saturday's flying started off with a 2-hour rain delay but Mother Nature finally cooperated and all the events were flown in good weather conditions. In the Beginner event, Scott Sornburger flying his rebuilt Pathfinder bested newcomers Larry Helphinstine, James Carter and Len Bechtold. It was great to have these contestants competing. In Old Time, Dennis Toth bested the field flying his El Diablo. In Nostalgia, Bob Dixon came out on top flying his Nobler.

"Sunday came and the cold front brought the wind. On Sunday, Mike Waldron took Intermediate flying a Smoothie. In Advanced, Sam Niebel placed first flying his e-Tracer. In the Expert class, there was a tie between Curt Contrata and Wayne Smith and based on the second score, Curt Contrata took top honors flying his Satona.

"For our Perpetual Trophy, there was a one-flight fly-off of the top three finalists in the Expert class. Curt Contrata, Gene Martine, and Wayne Smith were all vying to put their name on this Perpetual Trophy. Curt Contrata ended up adding his name to this Perpetual Trophy and will bring the trophy back next year to hopefully defend his title. A full listing of all the contestants and results is posted elsewhere.



Our hard-working tabulators, including Wayne's wife, Kathy Smith, and Marty Doyle along with Debbie Niebel in back.



Even the RC guys came out to cheer us on, help out, cook us lunch, and prep the grounds for us. How do you argue with that?

"Contests cannot be successful without the help of our members and volunteers. Special thanks to Bob Dixon, Eric Viglione, Jim Smith, Rich Peabody, Wayne Smith, and Gene Martine for so graciously volunteering their time as judges.

Our tabulators Marge Josephson, Marty Doyle, and Kathy Smith did a great job of tabulating the scores and posting them for the contestants. Ray Thompson, Brian Cook, Debbie Niebel, Ward Van Duzer, Dave Roundtree, Paul Sequira, the great kitchen staff that provided lunch, the groundskeepers, and other club members that volunteered to make this a memorable event for everyone.

"Hope to see more entries for next year's event."

—Wayne Smith



Curt Contrata makes another stride in a strong comeback by taking the perpetual trophy after the flyoff. It's great to have Curt among our ranks again.



Paul Sequeira wins the raffle for the Bi-Slob, generously supplied by John Brodak. Thanks John!



Speaking of Curt, Steve Fitton sent in this picture him staying focused on lots of practice at Huntersville's Fall contest.



Bob Whitney sent in this picture of his unique E-Power flying wing. Neat-o-keen!



Don Ogren has a new protégé, Mike Waldron, and he's making fast progress as can be seen by the hardware they both won.

Before I get ahead of myself, I have some results from Roger Vizoli for the Ringmaster annual fly-a-thon:

October 5, 2013  
 Ringmaster Fly-a-Thon  
 Site: Space Coast Aeromodeling Park, Cocoa, Florida  
 Host club: Indian River Kontrol Society (IRKS)  
 Pilots: 17  
 Number of flights: 65

I want to thank Phil Coopy for his generosity and friendship. Many of you probably know, or know of Phil from his great fun-

fly in Lake Wales, or from his volunteering to pit boss at the Nationals. Phil can no longer fly Control Line due to severe vertigo problems. He donated several planes, ready to fly, complete with engines, which I brought to the contest and disseminated.

These weren't heaps, but his best stuff, and he even put a little fuel through them before he dropped them at my home to make sure they were all up to snuff. His only criteria was they went to people who would use them, and to advance the hobby he loved but could no longer participate in. They were snatched up quickly, and the people who were on the receiving end of Phil's generosity were overjoyed to have them.

Thanks, Phil, and if they ever do come up with a cure that works for you, I hope we are fortunate enough to see you among our ranks again someday.

**PAMPA elections** are in progress by now, and most ran uncontested. You will note, in District V we have two candidates running to choose from. This could be due to some underhanded goings on at the EC meeting where I might have somehow gotten the bright idea to throw Derek Barry's name in the ring without his full consent (evil grin).

Sure, we had discussed it once or twice, but Derek and I might not have ...ummm...well...let's say not officially closed the deal. So, to be a good sport, I left my name in the ring as well in case Derek turns the position down for some reason (can't imagine why, heh).

Hopefully like the rest of our country does at times, you will have voted for change, and I will get to have fun submitting content to Derek from now on. It has been my pleasure to serve you thus far, and if this is to be my last column, well, I hope you enjoyed my time here as well.

*(Editor's note: As Eric surmised, Derek did win the District V Director position. The election happened too late for Derek to be informed that this was his column to begin writing in this issue.*

*I've asked Derek to provide a few comments which appear at the end of this column. I want to personally thank Eric for his work as a PAMPA Director. He was a delight to work with! —Bob Hunt)*

**Until next time**, see ya on the circle.

—Eric Viglione

#### **A note from Derek**

Hello, my name is Derek Barry and I am your newly elected District V PAMPA Director. I want to start out by thanking Eric for his four years of service as our District Director and also for writing one more column for District V (the results of the election were not known before this article was due).

Eric always wrote great columns, with outstanding pictures, and he always did his best to represent the members of our district. I will do my best to fill his shoes, but he will be a tough act to follow. Thank you, Eric, for all of your hard work, it was certainly appreciated.

I will tell you a little about myself now. I am originally from Harlem GA, and that is where I live right now. I will be moving to a new house soon, but that is another story and I am sure it will get covered briefly from time to time over the next couple years.

I have been involved in stunt for most of my life and there is not a time that I can remember that there were not planes around. My Dad, Dale Barry, is a lifelong control line enthusiast, like his grandfather before him, so it was only natural for me to grow up loving control line.

I have been active in competition since 1988 and have been fortunate enough to meet some really great people over the years. I look forward to representing our district, writing columns, and keeping you all informed on what is going on in our area. Thank you all for giving me this opportunity. **SN**

—Derek Barry



Illinois, Indiana, Kentucky, Missouri

# District VI

by Allen Brickhaus

I traveled to the Fellowship of Christian Modelers meet at the AMA Muncie site, then to the US FAI F2B Team Trials the following weekend. Then I drove, with the help of Doug Vasseur, to the Chicago Treetown contest held at Aurora Airport. I wrenched a knee at the opening of the Team Trials and had to back out of the competition. Even with the hurt knee, Doug and I drove to Aurora, Illinois, for the Treetown event, took pictures, and made it home safely.

My final coverage for this issue is of the Byron Barker Memorial, held at the Clark County Airport by the New Albany Skyliners. My knee had healed enough to allow me to fly at this contest, so I visited four events and got to fly in two of them. My knee is much better now. I was hoping to visit Huntersville, North Carolina, for the Metrolina meet, but subbing at a local high school for nine days prevented me from attending. At least I can use the money to travel to the Vintage Stunt Championships in March of 2014.

I will begin coverage in the March/April 2014 *SN* column with the St. Louis Broken Arrow event in September and the same club's contest on the last Sunday of February entitled the Ice O Lated. February may seem cold, but it is also the weekend prior to the start of March. I think February 23 is the correct Sunday in 2014, but check that against your calendar and intend to fly at the Ice O Lated at Buder Park in the Fenton, Missouri, area. *SN*



Les Byrd brought his Bob Hunt-designed Saturn to the FCM meet this August. Les continues to improve on a monthly basis with his building and flying skills.



Pictured are the modelers who attended the Fellowship of Christian Modelers contest this past summer of 2013. Allen Goff puts on a great event and drew fliers even from the Dakotas.



Above: Pete Peterson and John Christenson took a southern route from their more northern climate to attend the FCM contest in Muncie. This was their first visit, and they thoroughly enjoyed the jaunt.



Samantha Hines and her father have been itinerate travelers these past two summers and were very welcomed at the FCM at the AMA Muncie site.



Right: Jordan Segal's calm exterior belies his dedicated competition interior. The FCM was thrilled with the entry of Jordie in his travels from the Chicago area.



Larry Lindburg is certainly the happy camper at the FCM meet. Larry is a blast to be around and we all enjoy his humor.



The "Boss." No, not Bruce Springsteen, but rather Allen Goff doing his tabulation duties at his FCM venue in Muncie.



Howard Rush is one of our F2B FAI Team members after the close of the Team Trials at the AMA Muncie site.



Orestes Hernandez was the top point pilot at the AMA/FAI F2B Team Trials in Muncie during the Labor Day weekend.



Kenny Stevens of the Lexington, Kentucky, area also won a spot on the team that will head to Europe next summer. Congratulations to all three team members.



Mark Overmier, Dennis Adamisin, and Jim Lynch took on the judging duties at the AMA/FAI F2B Team Trials at Muncie this summer.



Curt Contrata, Gary McClellan, and Bob Gieseke were the other half of the judging tour de force for the Team Trials.



Randy Smith (pictured here) Bill Rich, and Bob Hunt got the Team Trials going and concluded during the Labor Day weekend.



Richard Oliver and his Maverick captured the First Alternate position at the Team Trials.



Mike Riebe and Brad Jungheim take on talking points at the Chicago-based Treetown Modelaires at the Aurora Airport on the Sunday of the Labor Day weekend.



Bob Hunt and Bill Werwege were reunited at the Team Trials on the "L" pad. They flew the warm-up flights and had a little contest of their own in doing that. I heard it ended in a tie... Bob also served as the Assistant Team Trials Director.



Crist Rigotti, Peter Mick, and Gene Schneiderer await their turn on the tarmac at the Aurora Airport for the Treetown Modelaires venue. Crist is always much happier than he looks here in this shot.



Fred Krueger and Bill Smith stand by the pilots' meeting run by Fred at the Aurora Airport event over the Labor Day weekend.



Workers and pilots at the Byron Barker Memorial Contest held in late summer at the Clark County Indiana Airport.



Michael Schmitt holds Dennis Vander Kuur's Brodak Legacy while Dennis prepares for his flight.



Left: Allen Goff brought his very nicely built, painted and trimmed Petra to the New Albany Skyliners venue.



Good to see Mike Starrett back on the contest trail at the Byron Barker Memorial Contest held by the New Albany Skyliners at the Clark County Indiana Airport.



Below: Larry Fruits from Plymouth, Indiana, and Howard Terrell came quite a distance to fly at the Skyliner's contest.



Left: Roger Wildman received his Concours trophy from Contest Director, Allen Burnham, at the New Albany Byron Barker Memorial Stunt Contest.

# District VII

by Bob McDonald

**Time again** for stuff from District VII. Mostly what I have for this installment are a few photos from Tour 'D Michigan event in Jackson and not much more. That's a little hint that I could use input from you folks out there.

I was at the Jackson event held in early June to help out and give advice if asked (or felt compelled). As you probably know, the Tour 'D Michigan is an event structured toward beginners to possibly create interest in competition, but mainly it is a fun-fly. There are four of them held throughout the year in four different southern Michigan locations.

Frank Carlisle and I judged the Beginner and Fun Stunt events. I flew a demo flight with my Apogee 5 before competition started in really nice weather. They have a beautiful field which is a shared RC field built on top of a capped landfill.



The pit area at the Jackson Tour D Michigan event. McDonald photo.



This was a very nice Smoothie by Tom Alberty of Kalamzoo. He had an incident learning to do vertical eights I was told. McDonald photo.

Iowa, Michigan, Minnesota,  
Wisconsin



A well-done Magician by Paul Barber. Paul also did well in Beginner at the 2013 Nats, demonstrating the value of the Tour 'D Michigan events, as Paul has been a regular for a few years. McDonald photo.



Finally, as I mentioned earlier, I was at the Jackson event with my Apogee. The photo is actually from the Nats in front of what I call "tent city." I included this to remind everyone that the 2014 Nats are coming up, and this year it is my "good fortune" to be the Event Director. I will therefore gratefully be accepting any offers of help. So if you are interested, just contact me via the info below.

That's all I have for now. Fly stunt, and *please* send me stuff for the column. Until next issue. *SN*

—Bob McDonald

My email: [bobsp47@sbcglobal.net](mailto:bobsp47@sbcglobal.net)  
Snail mail: Bob McDonald  
128746 Westfield, Livonia MI 48150  
Phone 734-421-4330

Arkansas, Louisiana, New Mexico,  
Oklahoma, Texas

# District VIII

by Doug Moon

**Hello, District VIII.** The 2013 competition season is in the books. We had many contests this season and lots of fun was had by many competitors all across the district. On top of that, lots of great meals were consumed, as well. Yummy! The contest meals never disappoint; that's for sure.

On October 19-20, the F2C Team Selection contest was held at Hobby Park in Dallas, Texas. Bill Lee is the one in charge of most of the tasks associated with the selection, so it would only make sense to have it in his area. Bill sent out an invite for needed volunteers.

I was able to stop by the contest for a little while, and I could see many District VIII PAMPA members were on hand helping out, and competing, too. Mike Scott and Phil Dunlap, along with Bill's wife Sandra, were working timers and lap counters. I milled about smartly, making sure to stay out of the way, snapped a few pictures, and got some details.



The judges' booth for the F2C Team Selection Contest.



A typical model box is about the size of a large suitcase. One competitor uses an actual Samsonite for his. The case holds the planes, tools, props, and all the gear needed to compete.

As you can see, they have quite an extensive official's booth setup on the circle's edge. This is where the official judges observe the races. The lap counters and timers are spaced along the outside of the circle at each of the two pit boxes. The planes are really cool, not to mention *fast!* They run a .15 diesel.

There are a mandatory number of pit stops for each race. If you run your engine at full song it will be too hot and won't start after the pit stop; too slow, and, well, you know what happens there. A racing diesel engine has a very distinct sound when it is really working right on the edge of too much. The planes also have retractable landing gear. The line tension at speed activates linkage within the model and away they go. Each tank holds just under 7cc.

The pit man in FAI Team Racing has a pretty sophisticated fueling device strapped to his arm. It is a pressurized system attached to a fuel supply that is mounted on his upper arm. A tube runs down to the pit man's index finger where it is connected to a fueling tube. The tank has a spring-loaded receptacle, much like you would see on a NASCAR car. Once the filler is inserted into the tank's receptacle, the fuel is released and it fills the tank in a split second.

The pit stop is quite a sight to see. When executed properly, it is literally only few seconds and the plane is filled and back into the air. I have seen in on video before but in person it was really impressive!



A close-up of the fueling device.



Mike Greb awaits his turn as pit man for Bill Bischoff.



Bill Lee and Mike Greb are waiting in the pits for their turn on the circle.

On the weekend of September 28-29, the Oklahoma Control Line Stunt Contest was held at Bob Reeves' place. The cool thing about that was I could peep in the contest by viewing the web cam on the Tulsa Glue-Dobbers' website as the weekend went along. Well, I saw a lot of rain. De Hill had a write-up online, and I am going to include it for those who didn't get to see it:

"Saturday morning started with temps in the middle 70s and the wind blowing 10-20 miles per hour. The weathermen said that the rain would start at 10 a.m. and end at noon. They lied. Around 10 a.m. the temperature dropped, and it started raining heavily and continued on until 3 p.m.

"Two good things that came out of the rain is that Pat Reeves got everyone signed up to fly, and Colleen Gilbert had a hot meal ready for everyone for lunch.

"Doug Patterson came up from Louisiana just to judge. He has a brother here in Tulsa, so he got in some good visiting time. Marvin, Ree, and David Denny showed up. Marvin had wanted to judge Old Time Stunt Plus, but the weather prevented it and the Dennys went home that afternoon. Lew Woolard and Robert Brookins came down. Lew wanted to judge Saturday, but again the weather prevented it.

"We did a lot of visiting in the clubhouse and under the shelter. We were grateful that the Tulsa Glue-Dobbers Controline Club has a 12 x 30-foot clubhouse and a steel shelter, which is actually a two-car carport. There was enough shelter for everyone to stay out of the rain.

"We had people from five states waiting to fly, but no official flights took place until Sunday. We called off it officially on Saturday around 3 p.m. and went home. This is the first time in 25 years that we have been rained out on either contest day. The challenge at that point was to complete the entire contest on Sunday.

"Sunday morning was cold and very foggy. I left the house at 6:15 a.m., and it took much longer than usual to get to Reeves Field. Visibility was about 200 feet. I had to slow down to 50 mph just to be able to see and slow down for the turnoff to the field. Elwyn was already there. People started arriving and the day slowly brightened through the fog.

We decided to run shortened versions of Saturday's events. We ran Profile Unlimited, Classic/Nostalgia, and Old Time Stunt Plus with two attempts for one official. This saved a lot of time. By 10:15 we started the Stunt classes, which we ran normally (three attempts for two officials). This year, our biggest class was Expert and then Advanced. We had no entries in Beginner and none in Intermediate. (Last year we had three entries in each.)

"We managed to get everything flown off by 2:30 p.m. Then we had the raffle and the awards ceremony and got everybody heading home by 3:30 p.m."

—De Hill

Thank you, De Hill, for the report.

From what I am hearing, Bob Reeves' pull test device is a big hit. You pull on an "L" shaped device. Your handle is hooked to the top of the L and the weight is moved to the location that would equal 10 times your model's weight in resistance. As you pull, the weight starts to move. Once it is lifted, you have satisfied the pull test. As it goes higher, it lightens up as the weight travels on an arc. It's an awesome idea and doesn't keep a sustained amount of pressure on the system once the weight is moved. Very cool, Bob. I would like to see this type used elsewhere.

On October 19-20 The Baton Rouge Bi-Liners held the Lee Lorio Memorial event. Fred and Steve Kocher got some great



Inverted during the profile contest in Baton Rouge.



Joe Bowman is flying his Shark in Baton Rouge.



Richard Oliver shows us his face of concentration.



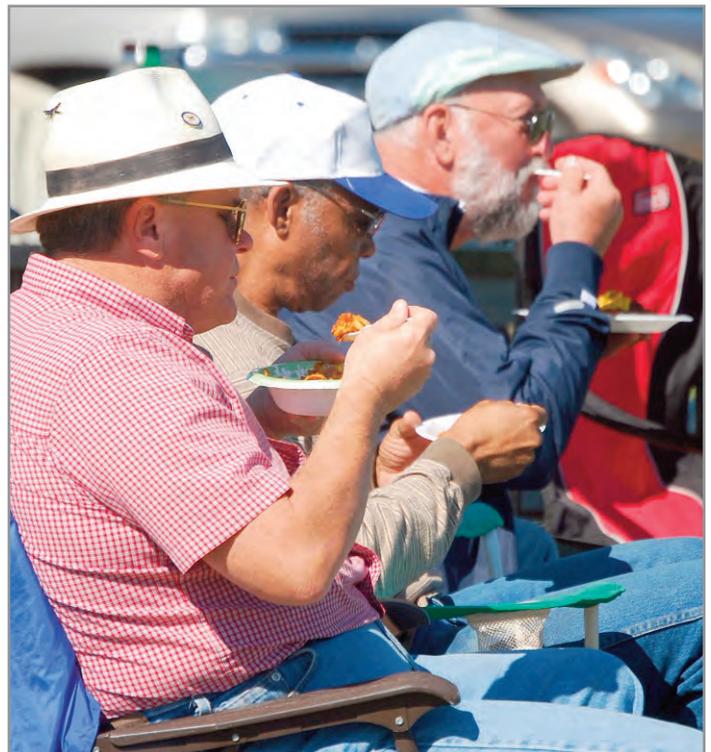
Another perfect launch during the event in Baton Rouge.

photos. The scores will be posted elsewhere in this issue.

November 3 was the date of the South East Arkansas Stunt Championships, and it was held in El Dorado, Arkansas. This marks the end of the contest season for District VIII. I have heard time and time again this is an excellent contest, and those who run it are the some of the finest, most generous people you will come across in Stunt, or anywhere for that matter. Once again our great photographers on the move, Fred and Steve Kocher,



There she is! Linda Gleason is usually the one taking the photos. Here we see her helping Dale "Old Dad" getting his needle set on his Piper Cub.



Joe Gilbert and few others get their Grub On during lunch at the Arkansas Stunt Championships.



The Arkansas Gang is all here. Looks like a great group to me!



Louis Keller Jr. and his Vector are hard at work in Arkansas.



Mark Troutman's new Super Ringmaster with an O.S. .25.



Darrel Harvin's new, highly modified electric Infinity.



Frank Williams' electric Eratix 3-D converted to control line from a RC ARF.

have provided some action photos from the event.

I received a nice note from Mark Troutman, along with some photos from one of his club's recent flying sessions. The following is what Mark had to say:

"Hello! Mark Troutman here. Thought you might enjoy some pictures of a typical Sunday morning flying session at George Bush Park in Katy, Texas. Darrell Harvin and Frank Williams are always experimenting with advancing electric technology.

"Mark Troutman brings out the Old Time Stunt and Classic



Ryan Young with an electric Crossfire.

side of things. Bill Rutherford and his grandson, Ryan Young, were flying everything under the sun. The Sunday morning sessions are quite a good place to see and learn all facets of control line Stunt. Here are some pictures from the November 10 session just to show the diversity that is taking place here each weekend.”

I would like to thank everyone in District VIII, as my first year as your representative comes to a close. Many of you have supported my efforts and made getting a column out each time very easy. Thank you so much for all of your efforts. Please keep the information and photos coming. We will continue to show District VIII is one of the best around. *SN*

—Doug Moon



Mark Troutman's modified Top Flight Nobler with Fox 35 power.



Bill Rutherford's Aero Tiger 36-powered Caprice.

Colorado, Kansas, Nebraska, North Dakota, South Dakota, Wyoming

# District IX

by Jack Pitcher

**At this writing,** we are well into fall and the weather is turning colder in our district. Approaching winter is driving many of us away from the flying field and into the shop. I don't have a lot to report on yet about our winter project activity for this column.

I'll make my repeated plea right up front to District IX members to send me photos and reports on what you're doing out there so the column can represent the activities going on all around the district.

I do have a report on a fall flying session in the Denver area. In mid October a group of members of the new Colorado Control Line Aerobatics Club gathered at the control line circle at the Arvada Associated Modelers flying field on the west side of Denver for some fall flying. The weather was cool and cloudy but the air was good, so the guys got in quite a bit of flying.



Dave Myer's Serious Ju Ju. The flying surfaces are from a Pathfinder, and it is powered by an ST .51. Higgins photo



Dave Myer holding his new ST .51-powered Serious Ju Ju. Higgins photo.



Keith McMahon and Chris Brainard on the flightline with Dave Myer flying in the background. Jerry Higgins photo.



Keith McMahon with his new plane, Sierra. It is based on a stretched Cardinal 40 wing and powered by a Magnum .36. It appears to fly well, but Keith is still working on a reliable engine run. Higgins photo.

As can be seen in the photos, the surface of the Arvada circle is fine gravel with some sections of rubber matting for a takeoff pad. The pit area is a bit rocky, but the main circle is reasonably smooth and stays in pretty good condition, needing only a bit of weed treatment and some raking in the spring time. This circle is currently serving as the home field for the CCLAC club and is the only official control line site in the Denver area at this time.

The Arvada Associated Modelers is the parent club operating the whole site, which includes two separate paved RC runways and the CL circle. AAM is facing the probable loss of this field at a future date due to highway construction slated to pass directly through the site. Fortunately, the local authorities have pledged to help the club relocate and develop a new site in the area which would include a CL circle.

We are fortunate to have several CCLAC members also active within the AAM club, including Linda Brainard who has taken on the position of Secretary on the Board of Directors for the parent club. We're well represented on the board and optimistic that control line interests will be considered in any future action.

While on the theme of winter flying, I'd like to share a short report from Dave Tribble in the Kansas City area. Dave has reprised his profile Sukhoi SU-26 design from previous years, this one specifically intended for use over the coming winter season. Dave's comments follow:

"I kitted the Sukhoi for a few years, and it is a great profile airplane. Pilots who flew this model won open at the Aussie Nats twice, and one placed third there just this year. Like most of my designs, they are most popular outside the US. It's interesting to see them compete one-on-one with the Yatsenko stuff. I'm changing out the Enya .40 that I have in mine for an FP.40. I'm not thrilled so far with the Enya, but maybe it's too new yet."



Dave Tribble's latest Sukhoi SU-26. An Enya .40 is currently installed in this ship. Tribble photo.

Dave also sends word of a new club and flying site in the Kansas City area:

"Our new place is grass, but level, and in an industrial park on the western outskirts of the KC metro on the Kansas side. We just got our new club charter as Sky Kings of the Ring, AMA charter 5176. All are welcome to fly with us. The site is open anytime and we keep it mowed and usable. No facilities are there, but a nice quick trip down the street a couple blocks remedies that."

Back in the May/June issue I reported on our flying at a terrific concrete runway section at the old Stapleton Airport in Denver. I must now report that the site has been lost.

Several of the guys went out there in late August only to find an industrial building going up on the site. I suppose it was inevitable, being in the middle of a developing industrial area. It was good while it lasted. A tough loss.



The late lamented Stapelton flying site. Sniff! Jack Pitcher photo.

Chris Brainard has been doing some development work with the Evo .36s and flying them in his Caprices this past season. We have a report from Chris on the results:

“You commented on the Evolution .36 that I used in my Caprice at our contest. I now have a second Caprice powered by an Evolution .36. It runs every bit as good as the first one; in fact, I now own a total of five of them (Evo .36s, not Caprices!). In my opinion this engine offers more bang for the buck than any other engine I own, once you take into consideration the minimal amount of effort it takes to really get one running right.

“The biggest single issue is the lousy factory needle valve assembly. The manufacturer made an effort to make this engine ‘beginner friendly’ and succeeded in taking what easily could have been a competition engine for Intermediate through Expert fliers and handicapped it.

“Other than drilling the case for a delrin (.272-inch dia.) venturi and standard Super Tigre N.V.A., there are no changes to the timing, etc. I did not like all those goofy fins on the head or how much room the head took up, so I chucked the head up in my lathe and machined it round.

“Then I used the head as a template and took the case over to the sander and sanded the fins off the back of the case to match the head. The tongue muffler needed a few more holes, too.

“The net result is a lighter, more compact engine that runs great (and in my opinion looks a lot better, too). I ran the engine all summer in my cowled Caprice with absolutely no overheating problems.

“The single most important ‘trick’ to getting this engine to run right is the fuel. Cool Power 15% nitro works perfect at our altitude during the summer (10% was more than enough in Tulsa). In fact, with that fuel the engine is remarkably tractable and will handle a wide range of props running in a 2 - 4 or 2 - 2 type break.

“I’ve really been impressed... enough to where my Roadrunner, which has been languishing half built for the last three years, is now moved to front and center—a direct result

of how impressed I am with the running characteristics of this engine. It’s not an AeroTiger .36, but in my opinion it’s awfully darn close, and for a third the price (and it comes with a tongue muffler).”

We’ll close out this column with a couple of update pictures from Mark Gerber of his Charles Parrott designed P-40. Mark reports:

“Here’s where I am with the P-40. I just got the stab finished and I’m trial fitting everything before I install the rear fuselage formers, the pushrod, and the stabilizer. It’s starting to look like an airplane, but progress from here will be slower because I need to draw up, then carve molds and mold the fuselage shells (three of them).”



Mark Gerber's P-40 airframe undergoing trial assembly. Mark Gerber photo.



Here's a view from the business end of Mark Gerber's P-40. Gerber photo.

If you’d like to see your activities highlighted in our district column, I need to hear from you. Send reports and pictures.

See you in the new year. *SN*

—Jack

# District X

by Jim Hoffman

Arizona, California, Guam, Hawaii,  
Nevada, Utah

## Golden State Stunt Championships

I was privileged to attend the Golden State Stunt Championships (GSSC) in Madera, California, in Oct 2013. Every aspect of the event was splendid, including the site, weather, management, and the people. This success builds on itself causing contestants to repeatedly travel great distances to attend.

Chris and Joan Cox and Alan Resinger travelled 1,000 miles from the Vancouver, British Columbia, area, and we Arizonians traveled a mere 700 miles. The contest site is on an airport apron. We could conveniently park at the edge the apron and set up our shade awnings and chairs. The flying surface was clean, smooth, flat, and free of nearby turbulence-generating trees and buildings. Contest Director, Brian Massey, had arranged a good room rate at a nearby hotel. "Nearby" is about ½ mile from the site, and there's free breakfast, too!



Mary Ann and Robert Harness enjoying GSSC.



Chris Cox flew his beautiful electric Crossfire very well at GSSC.



Marshall Palmer and his Pilot's Choice Award stunter at GSSC.



CD Brian Massey steering the ship at GSSC.



Steve Harris flew his ST .60-powered Hawker Hunter in both Classic and Expert at GSSC.

The flying results are published elsewhere in *Stunt News* and are online. The quality of the flying and craftsmanship was superb. One had to fly very well just to finish in the middle of the pack.

The appearance judging was done indoors during the Saturday evening banquet at the hotel. Marshall Palmer won the Pilot's Choice appearance award by a sizeable margin—most impressive considering the number of really beautiful models on hand.

I got a look at the Dave Hemstrought-designed PT-19 Classic model built by Larry Fernandez. It was unflown at the time. It featured lot of detail and a flawless finish.

It should be noted that the number of electric-powered planes continues to grow. It is really great to have so many good choices for power, I remember the days when that was not the case.

This Dave Hemstrought-designed PT-19 was beautifully crafted by Larry Fernandez and displayed at GSSC.



Here is the landing gear detail on Larry's PT-19 landing gear detail. Details get better as one looks closer.



This is but one of two fully-detailed cockpits in Larry's PT-19.

The only thing that topped the competition, site, and weather was the positive atmosphere—wide smiles everywhere. Hats off to the management team of Brian Massey, Mike Massey, and Bob Swan for making it happen. The contestants helped by pitching in to judge events they did not fly.

I noted that a variety of individuals generously sponsored the award plaques for the various competition events which helped to defray the contest costs. Everybody enjoyed the free hot dog lunch at the field every day. A donation jar was provided to reimburse the club for its costs. The same process was used for the beer and wine at the Saturday evening banquet. The GSSC

dates are already set for next year, the weekend of October 18-19, 2014. Consider putting it on your calendar.

### Doug Barton Award

Pete Cunha flew, judged, and received the Barton Award at GSSC.



The Douglas E. Barton Sportsman of the Year Award was presented at GSSC to Pete Cunha. This award is presented annually to an individual in California who reflects the attributes that Doug Barton demonstrated for many years. It recognizes someone who works diligently, often behind the scenes with little or no recognition, in order to make flying model aircraft more enjoyable for all of us.

Winning a lot of contests will not qualify you for the award. The only way you can qualify for the Doug Barton Award is by working selflessly for many years to better the hobby. Pete is a wonderful and deserving member of our stunt community and I was pleased to see him get some recognition for his contributions.

### Phil Granderson

I received some photos and words from David Fitzgerald recently following a flying outing with his pal Phil Granderson. Take it away Dave.

“Phil Granderson has done it again. He claims to be nothing but a ‘Sport Pilot’ now, but he keeps cranking out new, spectacular planes. This new one is also electric. I have no idea what the innards are, but it involves electricity, and batteries. It weighs, with battery, 56.5 ounces. And we added tip weight after the first few flights.

“Sport Pilot,” Phil Granderson’s latest E-powered Attitude.



Phil Granderson’s ship features exotic, Diva-type graphics.

“It flew very nicely. He designed it to go through turbulence and handle high winds. The air came up on the last flight and it seemed to fly well through the wind. Aside from the gear not tracking on takeoff, trim was pretty close from the first flight on.

“Take a good look at that Diva on the tail, wow, pretty hot. Again, nicely done! BTW, take a close look at the first picture. See that grease spot on the asphalt? That’s from my plane!

Phil did get upset when I tried to put his nice pretty plane down in my greasy exhaust trail.” *SN*



Past and present PAMPA presidents Ted Fancher and Warren Tiaht take a moment to peruse Ted’s Classic Ruffys.

*Jim Hoffman*  
2658 W. Montgomery Drive  
Chandler, Az. 85224-7854  
480-897-0630 (home)  
480-329-3316 (cell)  
windswept4@cox.net

Alaska, Idaho, Montana, Oregon,  
Washington

# District XI

by Mike Haverly

No column this issue. *SN*

## ***Stunt News* Wants You!**

***Wanted:*** Articles and Columnists for the pages of *Stunt News*.

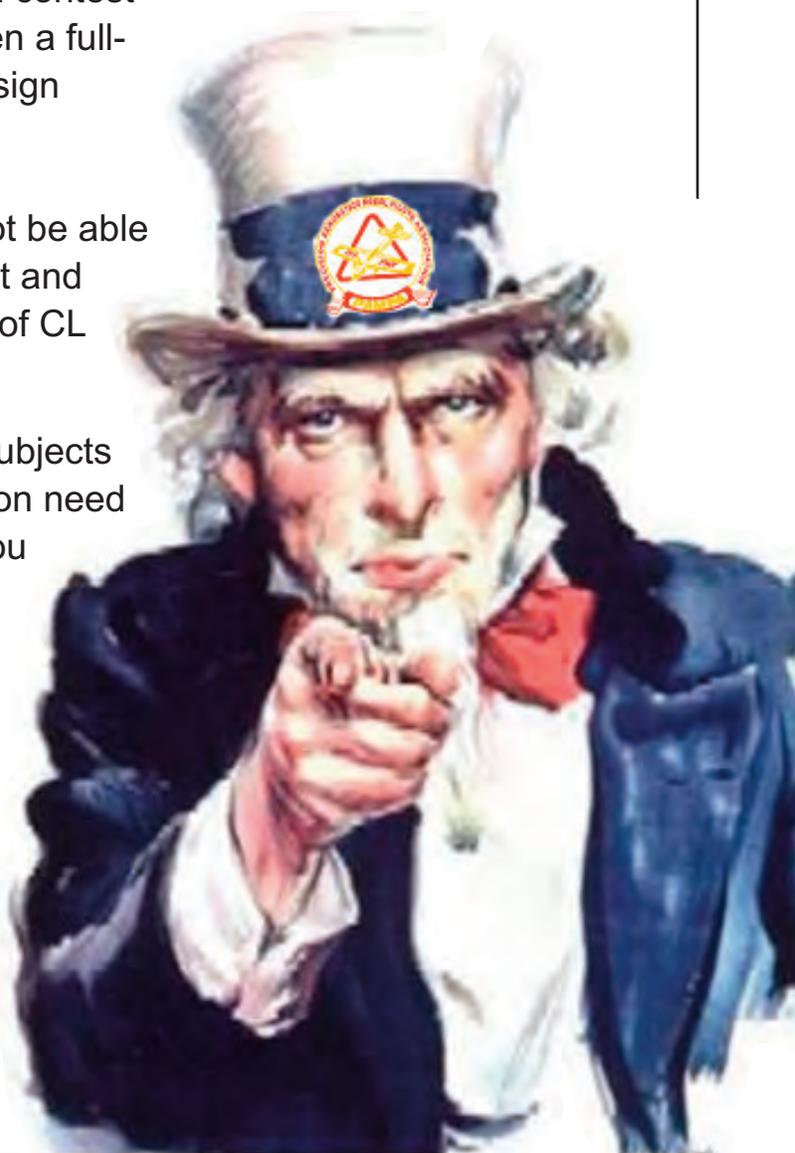
***Reward:*** Everlasting satisfaction that you have contributed to the advancement and enjoyment of the greatest hobby/sport on earth!

Seriously, we need for all our members to put on their thinking caps and come up with something for these pages. It could be a "How-To" article about a building or flying technique that you have developed, a contest coverage report, a personality piece, or even a full-blown construction article on an original design model.

Without your contributions we simply will not be able to continue filling these pages with pertinent and interesting material about the art and sport of CL Stunt flying.

We also need some new columnists. The subjects of Finishing, Building, Flying and Competition need to be addressed on a continuing basis. If you would care to take on the responsibility of writing one of these columns, or have an idea for another column subject, please contact Bob Hunt via email at: [robinhunt@rcn.com](mailto:robinhunt@rcn.com), or by phone at: (610) 746-0106.

**We need your help – Now! Please join the ranks of those who share information and write something for *Stunt News*.**



# Vintage Stunt Championships XXVI

**Five Days: March 18 – 22, 2014**

**Pre Registration Required.**

VSC-XXVI (26) will be held at Christopher Columbus Park on Silverbell Rd., Tucson, Arizona between Grant and El Camino Del Cerro (See map).

VSC Headquarters Hotel is the Riverpark Inn (520-239-2300) at 22<sup>nd</sup> Street & I-10. Access is from the frontage road going south along I-10 (see map). Mention Vintage Stunt when making your reservation to get the room rate (\$72 plus 12% tax & \$2 city bed tax per night). Reservations must be made before February 17<sup>th</sup>, 2014. Rates increase for more than 2 people per room.

**The Judges Meeting** for all VSC judges will take place at the Riverpark Inn on Mon. Mar 17<sup>th</sup>, from 12 noon to 1PM.

**Pilots meeting daily at 7:30 AM. Official flights start no later than 8:00AM.**

**Old Time Stunt (OTS), Ignition OTS and Ringmaster OTS** will be held Tuesday & Wednesday, March 18 & 19, one round per day. OTS on asphalt circles, IGN & Ringmaster on grass. You may enter all three if you wish.

**Classic & Super 70's** will be held Thursday - Saturday March 20 thru 22; one round per day over three (3) days. The two highest scores will be added together for a final score and placing. The events will be run concurrently and the entries will be co-mingled on the circles. You may enter only one of the two events.

Classic & Super 70's Appearance judging will be held Wed. (Mar 19) starting promptly at **4:30PM at the Riverpark Inn** (See map).

**ARF's, ARC's, purchased, or borrowed** models can compete in Classic and Super 70's, but receive a zero (0) for appearance.

No more than two contestants can fly the same plane in the same event. Example: Contestant 'X' and contestant 'Y' can fly the same plane in Classic but no one else. This goes for OTS, OTS Ign, and Ringmaster as well.

**Ignition OTS** - will be held Tue. & Wed. (Mar 18 & 19) on grass. Pilots meeting promptly at 7:30 AM each day.

**Ringmaster OTS** will be held Tue & Wed. (Mar 18 & 19) on grass. S-1 Ringmaster required, no BOM. This new event will be held on a non interference OTS. You may enter OTS, IGN OTS, and Ringmaster OTS if you wish.

**Exhibition** – We invite you to fly or exhibit something COOL, interesting or representative of any early era of control line. Exhibition to be held immediately after OTS on Tue & Wed. No pre-entry or fee required. Just show up with a current AMA license and show us something cool.

**VSC Banquet** - Saturday evening Mar 22<sup>nd</sup> at the Riverpark Inn (See map). Cash Bar at 5:00PM and Dinner served at 6:30PM. This is a sit down dinner plus award presentations.

**Entry Deadline: Friday March 7th, 2014.** By this date and time we need to have received your entry. John Callentine's mailing address is on the Registration form below. Registration form is available for download at [www.ccmaconline.org](http://www.ccmaconline.org). Our policy is to return your entry fees if you have registered and cannot attend.

**Shipping** – contact us if you need assistance shipping models to VSC.

The Banquet sign-up is held open until after the start of VSC (the 19<sup>th</sup>). If you want to attend the banquet and have not signed-up, check with John Callentine at the flying site by **8 AM, Wed. March 19<sup>th</sup>**. Refunds for the banquet are handled by John Callentine **and cannot be made after 8 AM, Wed. March 19<sup>th</sup>**.

The Banquet fee is \$29.50 per Person - you choose what meal you want in line. The menu choices are:

**Steak Italiano** – beef and peppers, onions, mushrooms in a burgundy wine sauce with side of pasta.

**Chicken Parmesan** – with penne pasta

**Vegetable Lasagna**

**Included:** Garlic bread, fresh long green beans, and squash medley.

**Desert:** Cheesecake

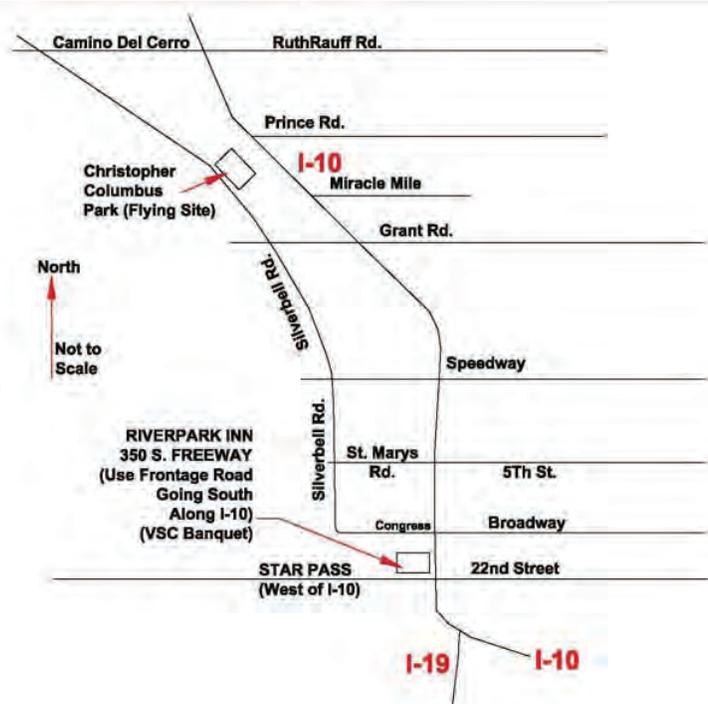
Entry fee is \$20 per event – Please include address, AMA number, events entered, banquet attendance, and signature (required). If you have an email address, please list it so that John Callentine can send conformation that he has received your entry.

CD: Jim Hoffman:  
2658 W. Montgomery Drive  
Chandler, Az. 853224  
Home 480-897-0630  
Cell: 480-329-3316  
Email: [windswept4@cox.net](mailto:windswept4@cox.net)

Riverpark Inn  
I-10 at 22<sup>nd</sup> Street  
Ph: 520-239-2300

Assistant CD: Leroy Black  
25526 W. Rio Vista Lane  
Buckeye, AZ 85326  
Home: 623-327-9227  
Cell: 623-326-4110  
Email: [Lindyle1@yahoo.com](mailto:Lindyle1@yahoo.com)

John Callentine  
5625 W. Owl Ridge Rd  
Tucson, Az. 85745  
Home: 520-743-7835  
Cell: 520-631-5420  
Email: [Johncallentine@Gmail.com](mailto:Johncallentine@Gmail.com)



**ENTRY FORM IS ON PAGE 2**

## REGISTRATION AND PAYMENT: VSC-XXVI (26) March 18 –22, 2014 (Five Days)

NAME: \_\_\_\_\_ AMA # \_\_\_\_\_  
STREET: \_\_\_\_\_ CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ Zip \_\_\_\_\_  
EMAIL ADDRESS: \_\_\_\_\_ License Plate # and State: \_\_\_\_\_

Needed if you would like entry conformation

(Only if staying in park overnight)

FOR ANY AND ALL EVENTS: I hereby certify that I have read all information accompanying the entry form, and that the model(s) entered by me will be built by me (if required) and flown in compliance with the current Competition Regulations (both AMA and PAMPA), and will previously have been successfully flight tested and proved to be airworthy in accordance with the Official AMA Safety Code.  
Signature: \_\_\_\_\_

### EVENTS ENTERED:

OTS @ \$20.00 \_\_\_\_\_ (Tues. 18<sup>th</sup> – Wed. 19<sup>th</sup>)  
IGN OTS @ \$20.00 \_\_\_\_\_ (Tues. 18<sup>th</sup> – Wed. 19<sup>th</sup>)  
OTS Ringmaster @ \$20.00 \_\_\_\_\_ (Tues. 18<sup>th</sup> – Wed. 19<sup>th</sup>)  
Classic @ \$20.00 \_\_\_\_\_ (Thru. 20<sup>th</sup> – Sat. 22<sup>nd</sup>)  
Super 70s @ \$20.00 \_\_\_\_\_ (Thru. 20<sup>th</sup> – Sat. 22<sup>nd</sup>)

ARF's, ARC's, purchased or borrowed models are allowed in all events, but, models entered in Classic or Super 70s receive a zero (0) for appearance points. No more than two contestants can fly the same plane in the same event. Example: Contestant 'X' and contestant 'Y' can fly the same plane in Classic but no one else. This goes for OTS, OTS Ign, and Ringmaster as well. For details refer to the Cholla Chopper web site; [www.ccmaconline.org](http://www.ccmaconline.org)

BANQUET \_\_\_\_\_ @ \$29.50 \_\_\_\_\_ (Sat Night March 22<sup>h</sup>)

Please provide names of attendees: \_\_\_\_\_

**Entry must be received no later than Friday March 7, 2014**  
**Make Checks Payable to John Callentine (Email [Johncallentine@gmail.com](mailto:Johncallentine@gmail.com))**  
**Mail to: John Callentine, 5625 W. Owl Ridge Rd., Tucson, AZ 85745**

VSC Headquarters Hotel is the Riverpark Inn (520-239-2300) at 22nd Street & I-10. Access is from the frontage road going south along I-10 (see map). Mention Vintage Stunt when making your reservation to get the room rate (\$72 plus 12% tax & \$2 city bed tax per night). Reservations must be made before February 17th, 2014. Rates increase for more than 2 people per room.

Rules & Flyer – All are posted on the Cholla Chopper web site: [www.ccmaconline.org](http://www.ccmaconline.org). All rules can be printed or downloaded. We use PAMPA OTS rules. If you do not have internet access, please call & we will send by snail mail.

PAMPA OTS / OTS IGN / OTS Ringmaster - will run concurrently Tue & Wed (Mar 18 & 19).

- OTS will be run on two paved circles.
- OTS IGN / OTS Ringmaster will be run on two separate grass circles
- OTS flight order will always supersede the flight order of the other two events.

Classic/Super 70s competition will run concurrently Thu, Fri, Sat (Mar 20, 21, 22).

- Three rounds, one round each day using all three asphalt circles.
- Two highest scores will be added together for the final score & placing.
- 25 pattern points will be included in the scoring per the 2011 – 2012 AMA Precision Aerobatics rules
- Appearance judging at Riverpark Inn Wed Mar 20, 4:30 PM
- We will try to post the flight order at the Riverpark Inn during appearance judging.

Builder of the Model (BOM)

- BOM rule, as it applies to VSC is posted on the Cholla Chopper Web Site
- OTS/OTS IGN-current PAMPA rules BOM not req'd, self built model gets a 5 point bonus. No flap bonus is 5 pts.
- Ringmaster OTS - no BOM rule & no bonus for self built models. S-1 Ringmaster is required.
- Classic & S/70 – No BOM. Zero (0) for appearance if the contestant did not build the airplane

Circle usage Tue & Wed (Mar 18 & 19)

- Grass circles - OTS airplanes have priority over Classic and S/70 for practice until 10 AM.
- Grass circles open to all practice following completion of the competition events.
- Asphalt circle (#1) not used for OTS competition – Classic/S70 airplanes have priority for practice until 10 AM

Dinner & Awards Banquet - Sat. evening Mar 22<sup>nd</sup> at the Riverpark Inn. Cash bar at 5:00 PM; Dinner 6:30 PM.

# Contests

# Contest Calendar

For up-to-date listings see the PAMPA Website: [www.control-line.org](http://www.control-line.org). See also the AMA Web site: [modelaircraft.org/events/calendar.aspx](http://modelaircraft.org/events/calendar.aspx). Be sure to confirm with the CD before going to a contest. Please submit new listings and con results to Howard Rush, [hmrush@comcast.net](mailto:hmrush@comcast.net). Submit contest ads to Gene Martine, [gmflying@bellsouth.net](mailto:gmflying@bellsouth.net).

Events marked with an asterisk use nonstandard rules. Contact CD for details.

## 2014 Contests:

January 19-20

King Orange International,  
Whitehouse Naval Outlying Field, Jacksonville FL  
Take exit 351 from I-10, go north to US 90,  
go west on US 90, take Halsema Road north to the field.  
Saturday: Basic\*, Old Time, Classic, N-30\*, Profile\*  
Sunday: Precision Aerobatics (Beginner, Intermediate, Adv., Exp.)  
Get Navy waiver form from CD before the contest.  
CD: Lynn Weedman, (904) 669-3242, [x47weed@aol.com](mailto:x47weed@aol.com)

February 23

Ice-O-Lated CL Contest  
Buder Park, Valley Park, MO  
Take exit 272 north from I-44, turn right at Meramec St.  
Basic Flight\*, Profile\*,  
Precision Aerobatics (Beginner, Intermediate, Advanced, Expert)  
CD: Fred Cronenwett, [clscale@rocketmail.com](mailto:clscale@rocketmail.com)

March 18-22

Vintage Stunt Championships  
Christopher Columbus Park, 4600 N. Silverbell Rd, Tucson, AZ  
Tuesday-Wednesday: Old Time, Ignition Old Time,  
Ringmaster Old Time  
Thursday-Saturday: Classic, Super 70s\*  
Entry deadline: March 7, 2014  
CD: Jim Hoffman, 2658 W Montgomery Dr, Chandler, AZ 85224,  
(480) 897-0630, [windswept4@cox.net](mailto:windswept4@cox.net)  
Assistant CD: Leroy Black, 25526 W. Rio Vista Lane, Buckeye,  
AZ 85326, (623) 327-9227 (H), (623) 326-4110 (C),  
[Lindylel@yahoo.com](mailto:Lindylel@yahoo.com)  
[www.ccmasonline.org](http://www.ccmasonline.org)

June 10-14

Brodak Fly-In, Brodak flying field, Carmichaels, PA  
39.8812N, 79.9595W See Web site for map and directions.  
Tuesday: Profile\* (Beginner, Intermediate, Advanced, Expert)  
Wednesday: Classic-Nostalgia 30\* (Beginner, Intermediate,  
Advanced, Expert)  
Thursday: Old Time I, II (Beginner, Intermediate, Adv., Exp.),  
Precision Aerobatics appearance judging (Intermediate, Adv., Exp.)  
Friday: Precision Aerobatics flying (Beginner, Intermediate,  
Advanced, Expert) round 1  
Saturday: Precision Aerobatics flying (Beginner, Intermediate,  
Advanced, Expert) round 2  
CD: Will Davis, Phone (704) 860-1079

Contact: Sandy Bruce,

Brodak Manufacturing and Distributing Company, Inc.  
100 Park Avenue, Carmichaels, PA 15320, (724) 966-7335  
[flyin@brodak.com](mailto:flyin@brodak.com)  
<http://brodak.com/fly-in/>

July 14-19

US Nationals  
Stunt ED: Bob McDonald, 28746 Westfield St, Livonia, MI 48  
(734) 421-0429, [bobsp47@sbcglobal.net](mailto:bobsp47@sbcglobal.net)

August 9-10

Jim Coll Memorial Stunt Contest  
6035 Shiloh Camp Road, 2 miles SW of Hurlock, MD  
Saturday: Old Time, Profile\*  
Sunday: Precision Aerobatics (Beginner, Intermediate, Adv., E  
CD: Jack Rosemere (410) 330-4663, [jrosemere@verizon.net](mailto:jrosemere@verizon.net)  
<http://www.esacclub.org/>

August 16-17

Western Kentucky/Southern Illinois Stunt Championships  
McCracken County Model Air Park, Paducah, KY:  
37.09N, 88.665W  
Saturday: Beginner Precision Aerobatics, Basic Flight\*, Profile  
Classic-Nostalgia\*, Old Time  
Sunday: Precision Aerobatics\* (Intermediate, Advanced, Expe  
CDs: Allen W. Brickhaus, PO Box 206, Golconda, IL 62938,  
(618) 683-7611 (home), (618) 841-0089 (cell),  
[abkb801@shawneelink.com](mailto:abkb801@shawneelink.com),  
Charles Reeves, 8310 Moore Road, Paducah, KY 42001,  
(270) 554-9920, [chasreeves@comcast.net](mailto:chasreeves@comcast.net)  
<http://www.paducahaeromodelers.com/>

August 23-24

Fellowship of Christian Modelers FCM at AMA  
AMA, E. Memorial Drive, Muncie, IN  
Saturday: Classic, Old Time, Profile \*  
Sunday: Precision Aerobatics (Beg., Int., Adv., Exp., Masters\*  
Contact: Allen Goff, 2100 N Carrolton Dr., Muncie, IN 47304,  
(765) 759-7473, [fcm95@comcast.net](mailto:fcm95@comcast.net)  
[www.fcmodelers.com](http://www.fcmodelers.com)

# Contest Results

## Great American ARF-OFF

August 3-4, 2013, Davis CA

Results from Jim Aron, CD

### Finalists

1	David Fitzgerald	580	Vector 40	RO-Jett .61
2	Ted Fancher	562.75	Vector 40	PA .40 Lite
3	Brett Buck	559	Vector 40	RO-Jett .61
4	Jim Aron	550.75	Vector 40	electric

### Nonfinalists

5	Ray Firkins	.987	P Force	electric
6	Paul Pomposo	.904	Vector 40	PA .40 Lite
7	Heman Lee	.895	Vector 40	RO-Jett .61
8	Mark Wasnick	.874	Nobler	Fox .35
9	Brian Moore	.775	Vector 40	
10	Bob Duncan	.762	Vector 40	RO-Jett .61
11	Jerry Arana	.742	Nobler	Brodak .40
12	Fred Staley	.723	Nobler	Brodak .40
13	Doug Barton	.718	Vector 40	Stalker .40 RE
14	Jim Cunningham	.159	Flite Streak	OS .25LA

## Oklahoma Control Line Championships

September 28-29, 2012, Catoosa OK

Results from Doug Moon, www.tulsacl.com

### Expert

Judges: Doug Patterson, Walt Weatherford

1	Richard Oliver	561.5	Maverick	RO Jett .65
2	Joe Bowman	551	Juggernaut	RO Jett .65
3	Dale Gleason	541.5	Impcat	PA .75
4	Don Cranfill	535	Whatever	RO Jett .40
5	John Hill	531	Caudron	RO Jett .65
6	Mike Greb	526	Strega	RO Jett .65
7	Jim Lee	525.5	Sunflyr	Evolution .60
8	Chris Brainard	524	Cavalier	OS .46LA
9	Bob Redmon	523.5	Red One	electric
10	Bill Rutherford	503.5	Crossfire	electric

### Advanced

Judges: Linda Brainard, De Hill

1	Gary Mondry	521	Primary Force	OS .25FP
2	Andy Stokey	463.5	Buccaneer	Supertigre .60
3	Tim Tipton	419	Vulcan	electric

### Classic, Nostalgia 30 Combined

Judges: Tim Tipton, Bill Gilder

1	Joe Bowman	546	Road Runner	Brodak .40
2	Jim Lee	523	Nobler	Fox .35
3	Chris Brainard	326.9	Caprice	Evolution .36

### Old Time Plus

Judges: Joe Gilbert, De Hill

1	Don Cranfill	350.5	Stinger	Thunder Tiger .36
2	Dale Gleason	343.25	Wildman	Orwick .64 Ignition
3	Chris Brainard	326.9	Jamison Special	Brodak .40
4	Mike Greb	298	Ringmaster	Thunder Tiger .25

### Profile Unlimited

Judges: Walt Weatherford, Doug Patterson

1	Chris Brainard	498.5	Cardinal	OS .46LA
2	Bob Redmon	480.5	Mod. Cardinal	electric
3	Don Cranfill	455	Twister	RO Jett .40
4	Gary Mondry	444.5	Primary Force	OS .25FP
5	Andy Stokey	416	Forerunner	OS .40FP
6	Dale Gleason	392	J-3 Cub	Magnum .36

Concours: Bob Redmon

Spirit of '52: Dale Gleason

Spirit of '68: Joe Bowman

Pachyderm Award: Gary Mondry

K. K. McClure Award: Chris Brainard

Charles Ash Award: Linda Brainard, Doug Patterson

Pull Test: Vance Munsell, Doug Ames, Lee Thiel, Joe McGilbra

Runners: Ben Mills, Brian Harris, Becky Smith

Photographer: Elwyn Aud

Tabulators: Randy Ross, Joann Lynch

Raffle: Tom Martin, Jerry Neafus

Food: Colleen Gilbert, Janice Stokey, Lila Lee, Stella Hill, Linda Gleason, Sheila Cranfill, Nan Beavers, Linda Brainard, Dina Redmon

Award Printer and Assembler: Bob Reeves

## Wisconsin Stunt and Scale Championships

June 9, 2013, Pewaukee WI

Results from Peter Mick, CD

### Expert

1	Fred Krueger	490.5
2	Gene Scheiderer	482.5

### Advanced

1	Jordan Segal	500
2	Will Smith	488

### Beginner

1	Roger Beltman	270
2	Scott Pahlow	259.5
3	Mike Riebe	259

### Fall Follies

October 5-6, 2013, Salem OR  
Results from Flyinglines.org

#### Expert

Judges: Dave Royer, Jerry Eichten

1	Howard Rush	583.5	Impact	electric
2	Bruce Hunt	560.5	Stiletto	Stalker .51
3	John Leidle	543	Songbird	Supertigre .60
4	Mike Haverly	536.5	Sultan	electric
5	Keith Varley	512.5	Sultan	electric
6	John Thompson	489.5	Vector 40	OS .40LA
7	Steve Helmick	477.5	Eagle	OS .46VF

#### Advanced

Judges: John Leidle, Jerry Eichten

1	Floyd Carter	494.5	Tiburon	Stalker .51
2	Mark Scarborough	492.5	Avenger	Magnum .53
3	Tim Wescott	484	Sister Jenny	OS .46LA
4	Mike Hazel	466.5	Cardinal	OS .40FP
5	Gordon Rea	446.5	Ringmaster	OS .25LA
6	Rex Abbott	408.5	Legacy	4-stroke

#### Intermediate

Judges: Howard Rush, John Thompson

1	Marc Winz	446	Pathfinder	OS .46LA
---	-----------	-----	------------	----------

#### Beginner

Judges: Howard Rush, John Thompson

1	Jerry Olson	232.5	Super Clown	OS .25LA
---	-------------	-------	-------------	----------

#### Classic

Judges: Steve Helmick, Dave Royer

1	John Thompson	492.5	Ares	Brodak .40
2	Mark Scarborough	477.5	Avenger	Magnum .53
3	Tim Wescott	475.5	Ringmaster	OS .20FP
4	Rex Abbott	459	Strathmoor	4-stroke
5	Gordon Rea	456.5	Ringmaster	OS .25LA
6	Jim Johnson	181.5	Oriental	OS .35S

#### Old Time

Judges: Bruce Hunt, Steve Helmick

1	Dave Royer	282	Humongous	Dixon Merco .61
2	John Thompson	275.75	Ringmaster	OS .26 4S
3	Alice Cotton-Royer	212.75	Firecat	OS .25FP
4	Rex Abbott	206.75	All American Sr.	Forster .29
5	Tim Wescott	201.5	Ringmaster	OS .20FP

#### Profile Expert

Judges: Bruce Hunt, Dave Royer

1	John Thompson	478	Scrub J (Cardinal)	Evolution .36
---	---------------	-----	--------------------	---------------

#### Profile Sportsman

Judges: Bruce Hunt, Dave Royer

1	Mike Hazel	492	Cardinal	OS .40FP
2	Tim Wescott	477	Sister Jenny	OS .46LA
3	Mark Scarborough	475.5	E Jet	electric
4	Gordon Rea	453	Ringmaster	OS .25LA
5	Marc Winz	452	Pathfinder	OS .46LA

Vintage Stunt Trophy: Pete Peterson

CD, mowing, registration, tabulation, Sunday BBQ: Mike Hazel

Field setup: Mike Hazel, Craig Bartlett;

Pull testing: Rex Abbott, Tim Wescott

Score runner: Kyli Lee

### Southeast Stunt 'N Fun

November 2-3, 2013, Palmetto FL  
Results from Wayne Smith, CD

#### Expert

Judges: Jim Smith, Rich Peabody

1	Curt Contrata	543.5	Satona	PA .40
2	Wayne Smith	543.5	e-Tracer	Plettenberg
3	Gene Martine	539.5	SV-11	PA .75
4	James Lee	529.5	SunFlyr	EVO .60
5	Bob Dixon	529.5	Crystal	OS .52
6	Eric Viglione	526	Katana	PA .75

#### Perpetual Trophy Expert Flyoff

Judges: Jim Smith, Eric Viglione, Bob Dixon

1	Curt Contrata	537.3	Satona	PA .40
2	Gene Martine	534.3	SV-11	PA .75
3	Wayne Smith	528.3	e-Tracer	Plettenberg

#### Advanced

Judges: Bob Dixon, Wayne Smith

1	Sam Niebel	508.5	e-Tracer	Plettenberg
2	Don Ogren	491	Pathfinder	Electric
3	Bob Whitney	470.5	LightingVolt	Electric

#### Intermediate

Judges: Bob Dixon, Wayne Smith

1	Mike Waldron	474.5	Smoothie	Brodak .40
2	David Hallas	389.5	Cavalier	e-Flite .15
3	Phil Bayly	207.5	Chief	Supertigre .46

#### Beginner

Judges: Rich Peabody, Wayne Smith

1	Scott Sornburger	207.5	Pathfinder	LA .46
2	James Carter	175.5	Big Tiger	.40
3	Larry Helphinstine	167	FW 190	.40
4	Len Bechtold	124	Ringmaster	Fox .35

#### Nostalgia 30

Judges: Eric Viglione, Jim Smith

1	Bob Dixon	541.5	Nobler	Fox .35
2	Sam Niebel	507	Barnstormer	LA .25
3	James Lee	504.5	Nobler	Fox .35
4	Bob Whitney	475.5	Scorpio	Electric
5	Ed Ruane	444.5	Tucker	Supertigre .35

#### Old Time

Judges: Rich Peabody, Wayne Smith, Gene Martine, Eric Viglione

1	Dennis Toth	275.5	El Diablo	Fox .35
2	Jim Mynes	270.25	Super Clown	Electric
3	Bob Whitney	254	Big Job	Supertigre .60
4	Jim Smith	252.5	Barnstormer	LA .25
5	Sam Niebel	250.5	Barnstormer	LA .25
6	Dale Josephson	203.5	All American	Fox .35
7	Phil Bayly	152	Chief	Supertigre .46

Registration: Kathy Smith, Ray Thompson

Weigh-in and Pull Test: Ward Van Duzer, Brian Cook

Score runners: Kathy Smith, Brian Cook, Debbie Niebel

Photographers: Rich Peabody, Eric Viglione, Brian Cook

Tabulators: Marge Josephson, Marty Doyle, Kathy Smith

Awards: Rich Peabody

**High Desert Control Line Fiesta**  
 August 17-18, 2013, Albuquerque NM  
 Results from Dick Perry, CD

**Expert**

1	Joe Gilbert	597.5
2	Dale Gleason	583
3	Jack Pitcher	565
4	Lou Wolgast	564
5	Bob Redmon	557.5

**Advanced**

1	Burt Brokaw	482.5
2	Pete Cunha	476.5
3	Mark Gerber	473
4	Jerry Higgins	469
5	Rick Green	447

**Old Time**

1	Lou Wolgast	306.5
2	Joe Gilbert	296
3	Jerry Higgins	280
4	Rick Green	242
5	Burt Brokaw	177.5

**Intermediate**

1	Tom Hamblet	54.5
---	-------------	------

**Lee Lorio Control Line Stunt Championships**

October 19-20 2013, Baton Rouge LA  
 Results from Doug Patterson, CD

**Expert**

Judges: Allan Perret, Doug Patterson

1	Joe Gilbert	605	T-Rex P-47	PA .75
2	Richard Oliver	602	Mule	RO-Jett .67
3	Joe Bowman	597.5	Juggernaut	RO-Jett .75
4	Dale Gleason	593	Impcat	PA .75
5	Tom Dixon	588.5	Profile P-51	Double Star .54
6	Don Cranfill	587	Skylark	RO-Jett .40
7	Perry Rose	577	Mod. Banshee	OS .46LA
8	John Hill	570.5	Super Caudron	PA .6X
9	Bill Rutherford	564.5	Crossfire	electric

**Advanced**

Judges: Nick Iacussa, Merle Pettigrew

1	Louis Keller	480	Vector 40	OS .40FP
2	Norm Faith	478.5	Thai Angel	Supertigre .51
3	Gil Causey	458.5	Bootlegger	OS .46LA
4	Andy Stokey	457	Pr. Buccaneer	Supertigre .60

**Intermediate**

Judges: Nick Iacussa, Merle Pettigrew

1	Ty Marcucci	431.5	Argus	Aero Tiger .36
---	-------------	-------	-------	----------------

**Classic**

Judges: Gil Causey, Brent Rogillio

1	Joe Bowman	600	Shark	
2	Richard Oliver	581	Thunderbird	RO-Jett .40
3	Tom Dixon	568	Dixon Nobler	Double Star .40
4	Bill Rutherford	560.5	Caprice	Aero Tiger .36
5	Ty Marcucci	420	Argus	Aero Tiger .36

**Old Time**

Judges: Gil Causey, Richard Oliver

1	Don Cranfill	288	Sweet Pea	
---	--------------	-----	-----------	--

**Nostalgia 30**

Judges: Gil Causey, Brent Rogillio

1	Perry Rose	476.5
---	------------	-------

**Warbird**

Judges: Allan Perret, Doug Patterson

1	Joe Gilbert	582.5	Profile T-6	Saito .40
2	Tom Dixon	579	Profile P-51	Double Star .54
3	Perry Rose	557	Profile P-39	OS .46LA
4	Dale Gleason	535	Profile J-3 Cub	Magnum .36
5	Don Hutchinson	521.5	Pr. SBD Dauntless	OS .46LA

**Profile**

Judges: Nick Iacussa, Merle Pettigrew

1	Tom Dixon	477	P-51	Double Star .54
2	Dale Gleason	468	J-3 Cub	Magnum .36
3	Don Cranfill	466.5		OS .40FP
4	Joe Gilbert	465	T-6	Saito .40
5	Andy Stokey	462	Buccaneer 746	Supertigre .60
6	Don Hutchinson	461.5	SBD Dauntless	OS .46LA
7	Allan Perret	457.5	Ringmaster Deluxe	Aero Tiger .36
8	Perry Rose	455	Mod. Banshee	OS .46LA
9	Norm Faith	446	Mod. Banshee	OS .40FP
10	Gil Causey	430	Bootlegger	OS .46LA

Top Gun: Joe Gilbert

Pilots' Choice: Joe Bowman, Juggernaut

Spirit of '52: Don Cranfill, Sweet Pea

Spirit of '64: Joe Bowman, Shark

Best Warbird: Tom Dixon, Tuskegee Red Tail P-51

Assistant CDs: Tommy Mansur, Gil Causey, Brent Rogillio

Outstanding Service Award: Linda Gleason

Brent Rogillio made a memorial plaque for Joan Donovan honoring her late husband Mike. It showed Mike flying inverted at his last contest. It was really very nice and unique.

***Stunthanger.com***

***Control line forum***

## Carolina Criterium

October 19-20, 2013, Huntersville NC

Results from Howard Shenton

### Expert

Judges: Kent Tysor, Dave Wenzel, William Davis

1	Dan Banjock	536.7	Vista	PA .75
2	Eric Taylor	524	Katana	PA .61
3	Curt Contrata	522.3	Satona	PA .40
4	Derek Barry	519.3	Matrix	PA .75
5	Bob Dixon	516	Crystal	OS .52
6	Steve Fitton	511.7	Dreadnaught	PA .61
7	Gene Martine	510	SV-11	PA .75
8	Charles Reeves	500	Humbler	PA .51
9	Tom Luper	487.7	TEOSAWKI	Supertigre .51
10	James Lee	487.3	Sunflyr	Evolution .60
11	John Rakes	465.3	Pathfinder	Supertigre .51
12	Mike Cooper	462	Trivial Pursuit	PA .75
13	Phil Cartier	452.3	Streaker ST	Thunder Tiger .25
14	Shawn Cook	442	PT-19	Brodak .40

### Advanced

Judges: Pat Robinson, Curtis Comer

1	Artie Jessup	468.5	Vector 40	AT .46
2	Bob Krug	465.5	Junar	RO-Jett .61
3	Alan Buck	458.5	SV-22 EXET	PA .65
4	Price Reese	457.5	Skyliner	electric
5	Terry McDowell	450	Viking	Supertigre .51
6	Bob Whitney	449	Scorpio	electric
7	John Tate	448	Vector	OS .46LA
8	Bernard Suhamski	444.5	Oriental	OS .40
9	Ken Armish	441	Legacy-E	electric
10	Dennis Moritz	417	Galaxy	Tower .40

### Intermediate

Judges: Sonny Williams, Wayne Robinson

1	Don Jenkins	482.5	Nobler	Fox .35
2	Ken Cook	473.5	Oriental	Fox .35
3	David Smith	464.5		Supertigre .51
4	Brian Moore	461.5	Veco Mustang	Saito .40
5	Bill Mandakis	439	Crusader	OS .40
6	Ray Copeland	430	Gotcha Full Body	Magnum .42
7	Dave Hallas	399	Cavalier Profile	electric

### Beginner

Judges: Watt Moore, Everett Shoemaker

1	Larry Wilks	276	Mark I	Fox .35
2	Brian Malin	236.5	Nobler Profile	Brodak .40
3	Rusty Knowlton	233.5	Shoestring	Thunder Tiger .25
4	Jennifer Fedorick	210.5	Cardinal	OS .40

### Classic, Nostalgia 30 Combined

Judges: Bill Mandakis, Alan Buck

1	Bob Dixon	507	Nobler	Fox .35
2	Charles Reeves	504	Southwick Lark	OS .46LA
3	Gerald Phelps	502	Patriot	Aero Tiger .36
4	Steve Fitton	489	Nakke	Double Star .50
5	Dan Banjock	485.5	Galloping Comedian	Fox .35
6	Don Jenkins	460.5	Nobler	Fox .35
7	James Lee	460	Nobler ARF	Fox .35
8	Mike Cooper	457.5	Stiletto	PA .51
9	Thomas Weedman	456	Super Chipmunk	OS .46LA
10	Bob Whitney	447	Scorpio	electric
11	Bob Krug	447	Junar	RO-Jett .61
12	John Tate	446.5	Nobler	electric
13	Brian Moore	424.5	Tony	Supertigre .51
14	Bernard Suhamski	418.5	Oriental	OS .40
15	Dennis Moritz	412	Galaxy	Tower .40

### Old Time

Judges: William Davis, Watt Moore

1	Charles Reeves	324	Big Job	Fox .59
2	James Lee	323	Triumphant	Fox .29
3	Dan Banjock	322	Ringmaster	Fox .35
4	Don Thibault	318.5	Barnstormer	Fox .35
5	Bernard Suhamski	316	Viking	OS .35
6	Terry McDowell	309	Viking	Supertigre .51
7	Price Reese	308.5	Viking	Skr .46
8	Bill Mandakis	304	Ringmaster	Fox .35
9	Bob Whitney	304	Big Job	Supertigre .60
10	Brian Moore	270.5	YoYo	Fox .35

### Profile

Judges: Pat Robinson, Ken Armish

1	Tom Luper	547	TEOSAWKI	Supertigre .51
2	John Rakes	498.5	Pathfinder	Supertigre .51
3	John Tate	493.5	P-47	Supertigre .51
4	Dan Banjock	487	Bearcat	Fox .35 Twin
5	Price Reese	469	Pathfinder	OS .46LA
6	Artie Jessup	461.5	P-40	Supertigre .51
7	Curtis Comer	456.5	Pathfinder	Supertigre .51
8	Alan Buck	439.5	P-40	OS .46LA
9	Bob Whitney	420	Lightning Volt	electric
10	Dave Hallas	415	Cavalier	electric
11	Ray Copeland	396.5	Chipmunk	OS .46LA
12	Dennis Moritz	393.5	Galaxy	Tower .40
13	Phil Cartier	111	Streak III	OS .40LA

S. H. Ringo Award: Artie Jessup

Carolina Spirit Award: William Davis, for outstanding support to MCLS and to control line modeling in general

CD: Everett Shoemaker

Assistant CD: David Smith

Stunt ED: William Davis

Registration and Tabulation: James Duckworth, Clark Macomber

Runners: Jo Shoemaker, Shelley Gordon

### 35<sup>th</sup> Golden State Stunt Championships

October 19-20, 2013, Madera CA

Results from Brian Massey, CD

#### Expert

Judges: Keith Trostle, Clint Ormosen

1	David Fitzgerald	597.5
2	Brett Buck	596.5
3	Paul Walker	588.5
4	Howard Rush	583
5	Ted Fancher	566.5
6	Chris Cox	564.5
7	Jim Aron	548
8	Alan Resinger	546
9	Kestutis Dvarvydis	545
10	Leroy Black	544.5
11	Jim Hoffman	544
12	Bob Whitely	542.5
13	Mike Haverly	537.5
14	Bob Harness, Jr.	532.5
15	Steve Harris	531.5
16	Chip Hyde	530.5
17	Kirk Mullinnix	530
18	Jim Rhoades	523.5
19	Warren Tiaht	523
20	Rich Walbridge	518
21	John Wright	512
22	Bob Swan	508
23	Igor Panchenko	504.5
24	Paul Pomposo	502
25	Mark Wasnick	471

#### Advanced

Judges: David Fitzgerald,  
Larry Fernandez

1	Lanny Shorts	516.5
2	Bob Duncan	510
3	Brian Moore	509
4	Oswaldo Campos	508.5
5	Heman Lee	504.5
6	David Riggs	503
7	Pete Cunha	497
8	Larry Wong	494.5
9	Jerry Arana	484
10	Mike Massey	475.5
11	Fred Staley	470.5
12	Brian Massey	452

#### Intermediate

Judges: Jim Hoffman, Rich Walbridge

1	Russell Shaffer	422.5
2	Shawn Lenci	409
3	Norm Gayer	395

#### Beginner

Judge: Joan Cox

1	Charles Carter	226
2	Fred Cadiente	190
3	Chuck Milsap	91

#### Classic

Judges: Brett Buck, Joel Chesler

1	Ted Fancher	589.5
2	Bob Whitely	579.5
3	Leroy Black	573
4	Steve Harris	569
5	Bob Harness, Jr.	562
6	Keith Trostle	549.5
7	Mark Wasnick	523.5
8	Clint Ormosen	518.5
9	Pete Cunha	518
10	Brian Moore	515.5
11	Jim Rhoades	509.5
12	Lanny Shorts	507
13	David Riggs	505
14	Fred Staley	482.5
15	Mike Massey	478
16	Larry Fernandez	469
17	Brian Massey	467

#### Old Time

Judges: Joan Cox, Alan Resinger

1	Bob Whitely	306.75
2	Keith Trostle	305.5
3	Leroy Black	301.75
4	Jim Hoffman	290
5	Jim Aron	289.25
6	John Wright	286
7	Bob Duncan	282.25
8	Bob Harness, Jr.	271.75
9	Heman Lee	236.5
10	Russell Shaffer	188.75

Concours: Marshall Palmer, Skipjack  
Doug Barton Service Award: Pete Cunha

### South Arkansas Stunt Championships

November 2-3, 2013, El Dorado AR

Results from Steve Kocher

#### Expert

1	Joe Gilbert	585
2	Don Cranfill	577.5
3	Jason Greer	569
4	Dale Gleason	567.5
5	Mike Greb	556

#### Advanced

1	Louis Keller	518.5
2	Gil Causey	428

#### Intermediate

1	Bill Ledden	416.5
2	Mike Makepeace	402.5
3	Ty Marcucci	370

#### Beginner

1	Daniel Bowman	64
---	---------------	----

#### Old Time

1	Joe Gilbert	283
2	Don Cranfill	281.5
3	Mike Greb	277, 262
4	Mike Makepeace	277, 199
5	Bill Ledden	255

#### Profile Expert

1	Joe Gilbert	558
3	Jason Greer	549.5
4	Dale Gleason	506
2	Don Cranfill	470.5

#### Profile Advanced

1	Gil Causey	262.5
---	------------	-------

#### Profile Intermediate

1	Bill Ledden	417
2	Mike Makepeace	416.5

CD: Norm Faith, Jr.

### Mitch Lilly Memorial Massachusetts Cup

September 7-8, 2013, Wrentham MA

Results from Chris Sarnowski

#### Expert

Judges: Richard Carville, Guerry Byers

1	Steve Yampolski	532.5
2	Will Moore	515
3	Perry Rose	506
4	Steve Buso	482
5	Neal Thompson	469
6	Bill Hummel	465

#### Advanced

Judges: Richard Carville, Guerry Byers

1	Linheart Smith	484
2	Norm Liversidge	483.5
3	Matt Dube	468
4	Chris Sarnowski	463.5
5	Steve Teerlinck	441.5
6	Jim Sumner	395.5

#### Intermediate

Judges: Chris Sarnowski, Linheart Smith

1	Jerry Rudzinski Jr	404
2	Jerry Rudzinski Sr	369.5

#### Beginner

Judge: Chris Sarnowski, Linheart Smith

1	Damian Sheehy	193.5
2	Lyle Spiegel	170

#### Classic

Judges: Richard Carville, Guerry Byers

1	Linheart Smith	473
2	Norm Liversidge	461.5

#### Old Time

Judges: Richard Carville, Guerry Byers

1	Perry Rose	234
2	Norm Liversidge	205.5

Massachusetts Cup: Damian Sheehy

Concours: Steve Buso, Bobcat

Classic Concours: Norm Liversidge, Cavalier

OTS Concours: Perry Rose, Nobler

Tabulation: Stan Baron

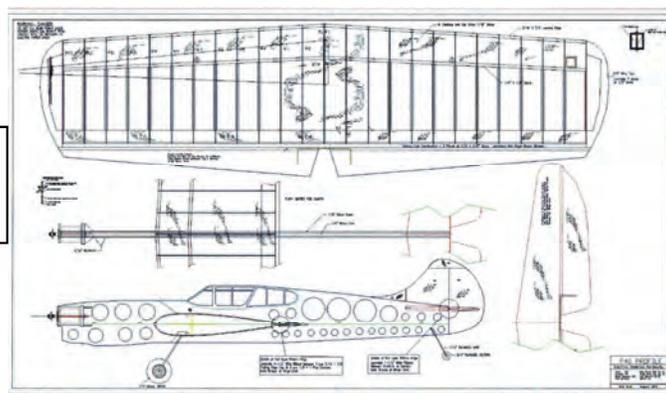
Field preparation: Leon Bowen, Will Moore

Food, setup, support: Damian Sheehy

## NEW KIT FROM RSM DISTRIBUTION

**P40 PROFILE SEMI SCALE AEROBATIC STUNTER**  
**AVAILABLE January 2014..... \$119.95**

Order On Line at  
[Rsmdistribution.com](http://Rsmdistribution.com)



Order by Phone at  
 951-678-1406

\*Wing Span 52"

\*Wing Area 621 sq. in.

\*Length 39"

\*Stab Area 151 sq. in.

\*Nose Moment 8.8"

\*Tail Moment 15.75"

\*Weight 50 oz

\*Electric Power

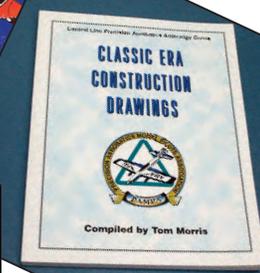
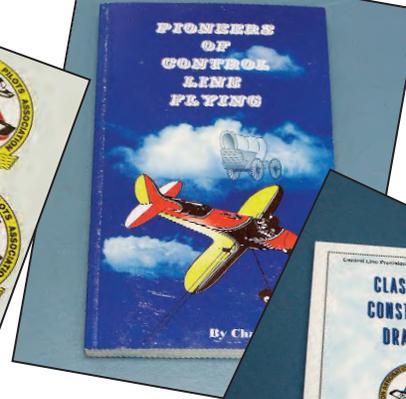
\*Sealed Hinge Line

\*Simple Construction

\*Full Size Plan

\*Deluxe Hardware

**PAMPA  
Products  
Are Back!**



**Books:**

- Classic Era Construction Drawings* compiled by Tom Morris \$12.00
- Old-Time Stunt Construction Drawings* compiled by Tom Morris \$ 8.00
- Pioneers of Control Line Flying* by Charles Mackey \$12.00

**PAMPA Decals, Stickers and Pins:**

- PAMPA Logo:** Full color water-transfer decals. One 3-inch diameter decal and two 1½-inch diameter decals \$ 2.00
- PAMPA Logo:** Black on clear 1½-inch diameter vinyl sticker \$ .25
- PAMPA Pin:** A 1¼-inch diameter, five-color metal lapel pin \$ 4.00



## PAMPA Products Order Form

Item Description	Quantity	Price Each	Total

**Payment**

- Cash     M.O.     Check #: \_\_\_\_\_
- Credit Card     MasterCard     Visa

Account #: \_\_\_\_\_

Exp. Date: \_\_\_\_\_

V Code: \_\_\_\_\_

Amount: \_\_\_\_\_

Signature: \_\_\_\_\_

Telephone: \_\_\_\_\_

**Ship to:**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Total for Products*	
Shipping**	
7% tax Indiana residents	
<b>Total Cost</b>	

\*Minimum Order \$5.00 please  
 \*\*Shipping: US Orders Under \$60 add 25%  
 US Orders Over \$60 add 20%  
 Other Nations Airmail add 40%  
 Other Nations Surface Mail add 30%  
 Canada and Mexico add 35%

**Mail Order To:** PAMPA Products  
 c/o Jim Vornholt  
 PAMPA, PO Box 320  
 Plainfield, IN 46168.

**Voice Order:** (317) 385-4751  
**Email:** PAMPA@indy.rr.com

Plainfield, IN 46168-0320  
P.O. Box 320  
PAMPA



# BRODAK MANUFACTURING AND DISTRIBUTING COMPANY, INC.

We are your one-stop source for everything related to building and flying, including the largest and most complete line of paints and dope products. From wheels, hubs, and collars to wheel pants, landing gears, hinges, and props, we have it all. Check out our complete line of engines and fuel tanks, coverings of all kinds, and bellcranks!

**BRODAK**  
announces  
four classic  
designs. . .



**B-25**  
(CLP - 94) \$149.99



**Bob Palmer HURRICANE**  
(CLB - 90) \$109.99



**JUNIOR NOBLER**  
(CLB- 92) \$87.99



**RINGMASTER S1**  
(CLP - 82) \$87.99

. . . and six updated Carl Goldberg 1/2A Models!

These classic designs have been recreated using today's standards, with the high quality, attention to detail, and precision engineering that are part of everything we do. These designs include the option of front-mounting the engines.



**SWORDSMAN 18**  
(CLP-69) \$34.99



**LITTLE TOOT**  
(CLP-70) \$34.99



**LI'L WIZARD**  
(CLP-71) \$34.99



**STUNT MAN 23**  
(CLP-72) \$34.99



**LI'L JUMPIN' BEAN**  
(CLP-73) \$34.99



**LI'L SATAN**  
(CLP-74) \$34.99

**BRODAK has a full line of ARF/ARC airplanes for enthusiasts of all skill levels!**

ARF planes come in a number of colors. See our website for details.



**T-REX**  
ARC - 0012 \$189.99  
ARF - 012 \$199.99



**ORIENTAL**  
ARC - 003 \$120.99  
ARF - 03 \$126.99



**SMOOTHIE**  
ARC - 006 \$120.99  
ARF - 06 \$126.99



**VECTOR .40**  
ARC - 0010 \$148.99  
ARF - 010 \$153.99

*Spirit of Yesteryear*

**DARE**  
Design & Engineering Co., Inc.

The Spirit of Yesteryear designs are now part of the Brodak family. These distinctive designs feature all laser-cut parts and attention to detail! For a complete list, visit [www.brodak.com](http://www.brodak.com).



has joined our family of products. Recognized for its gliders, rubber-powered kits, and unique designs. Dare brings to Brodak Manufacturing a huge selection of exclusive items, including Dare Covering Tissue, an inexpensive way to cover small models, and a complete selection of Japanese Tissue. Visit the Brodak website to check out our Dare Spoked Wheel Jigs, Wheel Kits for WW1 models, Radial Engine kits, pilots, and more!



A huge selection of bombs, missiles and other armament



Beginner model airplane kits, gliders, and rubber-powered kits

Brodak Manufacturing now offers a new line of conversion kits for converting your gas-powered designs to electric!

**Brodak Manufacturing & Distributing Company, Inc.**

100 Park Avenue • Carmichaels, PA 15320 • [www.brodak.com](http://www.brodak.com)

(724) 966-2726 (voice) • (724) 966-5670 (fax) • (724) 966-9131 (voice) • email: [flyin@brodak.com](mailto:flyin@brodak.com)