

# Stunt News

Precision Aerobatics Model  
Pilot's Association

July/August 2014 \$5.00



**2014  
Australian  
Nationals**

**CLStunt at  
the Brodak  
Fly-In**



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July/August 2014

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*On the cover:* No one has more fun flying model airplanes than does Dan Banjock. Here Dan is shown flying his beautiful rendition of the Harold "Red" Rinehardt-designed Galloping Comedian in the Old Time Stunt event at the 2014 Brodak Fly-In. Dan's ship features a homemade spun and polished aluminum ring cowling and hand hammered and polished aluminum wheel pants! Photo by Will Hubin.

*Above:* Joe Adamusko gives Mike Palko's gorgeous semi-scale P-51D Mustang a smooth launch on a flight by Mike in the Expert CLPA event at the Brodak Fly-In. Mike's been flying this Bob Hunt-designed ship for several years and has a number of wins at Brodak's with it. On this occasion he placed a close second to Joe Gilbert. Photo by Ken Armish.

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.

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# President's Column

by Warren Tiaht

## *New PAMPA website, new webmaster, and 2014 Stunt Nats recap*

**How time flies.** Since my last column, lots of good things have happened. Tops on the good things list is that we have a new PAMPA website, a new webmaster, and the new site is up and running.

First off, I would like to give Robert Storick (aka “Sparky”), the webmaster of the Stunt Hanger forum, a huge thank-you for submitting Bud Morrison as a willing candidate for the job. Bud was approached and he accepted the position. As an introduction to Bud, please read the following, giving you what he calls a “little background.”

“I am the owner and administrator of microracing.com on the Internet. I was an administrator on the SpeedTV website for four years. SpeedTV had a fork stuck in it and is now Fox Sports 1. In my opinion, the whole SpeedTV thing was poorly managed by TV people who did not understand Internet communities or racers and racing fans. It was a shame to watch the network go to crap. I left when I saw the writing on the wall four years prior to its demise.

“I was a forum moderator and the administrator of the free webhosting server and the irc server at RCgroups.com. I presently lease two servers and maintain a span of business websites and backend servers for various parties.

“For my full-time gig, I work for Machined Products [www.mpcnet.net](http://www.mpcnet.net). I wear many hats there, from CNC repair tech to automation and production engineer.

“I first flew control line when I was in elementary school, but then went on to single channel RC quickly after that. All of it was courtesy of a neighbor who was into the hobby but had no kids. He would drag me out along to fly. (Thinking back now, I was a control line stooge and a free flight plane retriever.)

“In the early '80s I got into kart racing and the whole racing thing snowballed from there. I raced, and in the off season I dabbled in RC cars, helicopters, and even boats. I hung up my racing helmet four years ago and made the move back to control line and free flight. Sort of want to stay away from RC as I deal with enough wires and electronics at work.

“I am also an avid motorcycle rider and have been known to play the bass guitar ... sort of.

“Pictures of my bikes are on my Facebook page [www.facebook.com/budmor](http://www.facebook.com/budmor) in my photo albums. If you go on YouTube, you can find some videos of my racing, some of the videos of events for RC Groups, and some video I do just to post cool stuff on my YouTube [www.youtube.com/user/rmffromroot/videos](http://www.youtube.com/user/rmffromroot/videos).

“Some people say I have adult ADD, but truthfully I just bore easily.”

—Bud

In the short time he has been on the job, Bud has proven to be running at wide-open throttle, getting the website up and



running, debugging some problems, and opening a PAMPA Facebook page.

We also owe another huge thank-you to Eric Viglione for designing the new site, and yet another thank-you to Robert Kruger for running the old website for several years. (The old site will be shut down by the time you read this.)

By the way, the new PAMPA website address is [www.pampacl.org](http://www.pampacl.org). The home page contains instructions for existing members to register on the new site. If you have any questions about registering, contact Bud at [webmaster@pampacl.org](mailto:webmaster@pampacl.org).

The 2014 CLPA Nats is over and David Fitzgerald is the new Open Champion. A very charming Samantha Hines, the 13-year-old Junior winner, did her best, but David managed to win the Walker Trophy for the eighth time.

As I write this, the F2B team of Orestes Hernandez, Howard Rush, and Kenny Stevens is getting ready to head to Poland for the upcoming CL World Championships. Bill Lee is the Team Manager for all four disciplines—Speed, Stunt, Team Race, and Combat—and Keith Trostle is the Assistant Team Manager.

These teams and the managers spend an extraordinary amount of their own money for the privilege of representing our country, the good old US of A. I am sure they will all do us proud. It should be noted that Mark Overmier, many-time Nats CLPA judge and chief judge, will be judging F2B in Poland. If you get the opportunity, tell these guys thanks for their enthusiasm and patriotism.

I also had the opportunity to judge CLPA at this year's Nats. The weather was essentially perfect for the competition. The Expert class was held again and has shown no growth with but one entrant receiving appearance points for having built his own model.

Your district representatives are looking for input about continuing the class at upcoming Nats. Speak up out there. Let your opinion be heard.

In my view, the quality of the flying at the Nats was exceptional. The top fliers are flying very close to the rulebook size with some blinding corners. It is apparent to me that the choice of powertrain is a lot less important than the person holding the handle, as it should be.

Until next time, may the weather be fair and your controls be friction free. *SN*

—Warren

# Level Laps

by Bob Hunt

get too much sleep during much of the summer. Also, needless to say, she had little to no time to focus on *Stunt News* during those months. So, we are a bit late this time, but we need to thank Liz and her staff for their amazing work in getting detailed daily reports out to all the competitors at the Nats and those at home (via the online version) who were waiting anxiously to hear the daily news.

Liz, her staff, and I weren't the only ones who were getting little to no sleep during this *SN* deadline. Our "Contest Report" section editor, Howard Rush, was super busy getting his new take-apart Nats ship ready for the trip to Poland to attend the World Championships.

Howard wisely used the Nats as a warm-up contest for the WCs, and had planned to send out the contest calendar and reports material when he returned home from the Nats. When he did get home and began to pack his model for travel, he found that the model would not fit properly into the required size box!

Howard quite rightly used the little time he had left before leaving to fix that. Unfortunately he was left with no time to get the contest material to me for this issue. I think we all support Howard's use of time and will gladly wait until the next issue for the contest

**I suppose** I should start off with an explanation as to why this issue of *Stunt News* was so late in getting out to you. As you may or may not know, our Graphic Designer/Layout Artist, Liz Helms is employed full-time by the AMA. Her duties there for most of the year are confined to the editorial functions in the production of *Model Aviation* and *Park Pilot* magazines.

However, during the time of the year when the Nats are contested, she has additional duties as one of three who produce the daily publication, *NatsNews*. During the many weeks of Nats activities the *NatsNews* staff produces approximately 35 issues that range from 4 to 24 pages! And, this is in addition to their normal duties.

Needless to say, the three of them spend a bunch more than eight hours a day at work during that timeframe, and take some of their "regular job" home to complete in the evenings.

This year I was honored to be asked by Liz to supply a daily report on the goings on at the CL Stunt circles during the CL portion of the Nats. This is a job that Allen Brickhaus had done so extremely well for the past few years. I would write up my report in the evening (usually finishing around 1 a.m.), and then meet Liz at the AMA Headquarters building around 6 a.m., along with other reporters from other Nats disciplines. Liz would download our stuff and then she would go to work organizing and help producing *NatsNews* in both print and online versions.

Needless to say, Liz and her fellow *NatsNews* staff members don't

reports.

Unfortunately for Liz and me, the loss of Howard's column left a huge hole to fill in *Stunt News* at the eleventh hour. To the rescue rode Don Ogren with two very informative "how-to" articles that filled the hole perfectly. Thanks, Don!

Bottom line is that we are very late with this issue, and that could just not be avoided. Our plan to prevent this next year is to begin putting together next year's July/August issue early and feature a number of non-time-sensitive "how-to" articles in a theme issue format. In the meantime, the Nats are over, Liz is trying to get rested up, and this column is the last piece of *Stunt News* that needed to be finished in order to ship. We



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apologize for the delay, and hope you enjoy the issue.

### Looking ahead

The above detailed ordeal has brought into sharp focus the need for us to gather and inventory more material for *Stunt News*. We are hopefully on the verge of a significant growth spurt in PAMPA because of the new website—which now features a way for new members to join online. That means we should experience an influx of new overseas members.

We have heard for years from those abroad that joining PAMPA was a bit of a chore because of the need to send funds through the mail, and the difficulties that entailed for them. Now they can join instantly and have access to the new website (See the “President’s Report”), and download each new issue of *Stunt News*, as well as all the older issues, and also view the other content on the site.

We understand the need, and our obligation, to service *all*

our members with relevant news about the world of Stunt. That means we will be seeking new reporters/columnists from around the globe to fill us in on activities in their areas of the world.

It also means that we will continue to need a steady stream of good, solid how-to material, construction features, special interest columns, and event coverage pieces. To provide all that, we will be relying on all our members to place fingers on keyboards and produce the articles needed.

The most difficult task for me as the Editor of *Stunt News* is to find quality material to fill these pages. I’ve written the following before, but it needs to be repeated here: A magazine is a lot like a wood-burning stove. It consumes a lot of material each month, and when it’s gone, it’s gone! Just like the stove, our files need to be refilled with material. Please write something for these pages!

—Bob Hunt

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

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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.

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**PAMPA Membership Secretary**

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**President: Warren Tiaht**

Address: 39477 S. Moonwood Dr.,  
Tucson AZ 85739  
Home Phone: (520) 825-3665  
Cell Phone: (252) 207-3947  
Email: tiaht@q.com

**Vice President: Matthew Neumann**

Address: 2009 Forbes Rd.,  
Vincennes IN 47591  
Phone: (812) 895-1476  
Email: mrstuka@rocketship.com

**Secretary/Treasurer: Jim Vornholt**

Address: 1206 Partridge Dr.,  
Indianapolis IN 46231  
Phone: (317) 385-4751  
Email: jvornholt@indy.rr.com

**Membership Secretary: Michael Strand**

24 Enterprise Dr., Suite C  
Delafield WI 53018  
Phone: (262) 352-0645  
Email: pampamembership@geartekinc.com

**Newsletter Editor: Bob Hunt**

Address: 209 Old Easton Rd., PO  
Box 368 Stockertown PA 18083  
Home Phone: (610) 759-8813  
Office Phone: (610) 746-0106  
Email: robinhunt@rcn.com

**District I Director: Steven Yampolsky**

Address: 13 Lyndon Road, Sharon,  
MA 02067  
Home Phone: (617) 291-7379  
Cell Phone: (781) 784-3624  
Email: syampolsky@hotmail.com

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Cell Phone: (973) 479-0981  
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Address: 310 Quarry Rd., Selinsgrove  
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Phone: (717) 602-2144  
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Address: 104 Mill Stream Way,  
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**District VII Director: Bob McDonald**

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Email: mjpitcher67@gmail.com

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# CL Aerobatics

## at the 2014 Australian Nationals

by Peter White



The 67<sup>th</sup> Australian Nationals were held over the 2013/14 New Year period from December 29 through January 4 in the regional city of Albury, situated on the Murray River in southeastern New South Wales.

All aerobatics and combat events, along with some team race classes, were run on an oval at Albury's Alexander Park Sports Complex.

For the greater part of the week, the weather gods smiled upon us with mostly fair winds and overcast or broken cloud conditions. Temperatures ranged from very warm to pleasant, cooling a little as the week progressed.

F2B was run over four rounds with final placings being determined by totalling and averaging the highest three flight scores.

Classic, flown over two rounds, was decided on the higher

of the two flight scores as was Vintage with static scores added in.

All events were very ably run by Peter Koch in his first-time role as Nats contest director. His support team of Steve Vallve on tabulation, Greg Hammond and Mark Gordon, score running, and Peter Byrne, score running and line testing, performed their tasks quickly and efficiently so that a flier could see his score by the end of, or soon after, the next competitor's flight.

It was during the Nats that Paul Turner's induction to the MAAA Hall of Fame was announced. Paul has been competing at the top level since the late 1950s, having won the majority of aerobatics events entered as well as putting in much time and effort organising and running club, state, and national contests along with holding various club positions. It was a well-deserved and popular choice for the award.



Left: Barry Frederickson prepares to start the electric motor in his Igor Burger-designed Max Bee as Tony Clifford assists. Barry placed 13th in Expert F2B.

Opposite page: The Expert Stunt winners were Russell Bond (left) second, Joe Parisi (center) first, and PJ Rowland (right) third. Note the variety in design and paint schemes on these winning planes!

### F2B Expert Aerobatics

The Expert division attracted fifteen entries, five of whom ran electric setups. Judging duties were carried out by Joan McIntyre, Don Keysecker, and Peter Koch.

For Rounds 1 and 2 temperatures were around the low to mid 30s C (85 F - 95 F) with the breeze varying in strength and

direction, while by the fourth day conditions were mostly calm and overcast with temperatures in the high 20s.

Bruce Hoffman's electric Firecracker performed well with his flying showing definite improvement to push him up through the ranks. While bottom heights varied and intersections moved around, most manoeuvre shapes were well executed. Bruce's

power system was based around a Plettenberg 25/10, a Jeti Spin ESC, and an Igor Burger accelerometer setup.

Tony Bonello flew his superbly finished Firecracker through some neat manoeuvres, generally improving as the week wore on. There were a few bounced bottoms, but 45-degree elevations and intersections were quite accurately flown. Tony's ST.60—from memory, a Tom Lay rework—ran flawlessly with a deep, well-muffled exhaust note.

Joe Parisi's electric-powered O/D Frontier appeared to be a handful, particularly in the wind. While the power train worked well, Joe had to really work at it to avoid bumped bottoms and

Bruce Hoffman seems justifiably proud of his Brian Eather-designed, electric-powered Firecracker. Bruce placed a fine sixth in the Expert F2B class. Note the extreme double taper in the Firecracker's wing.





Left: Mark Ellins prepares to start the Retro 76 engine in his Yatsenko Classic, as Dave Nobes assists. The Classic is becoming a very popular design in Australia. Mark placed 11th in Expert F2B.

Below: Russell Bond flew his original design, Bandelero to a fine second place in Expert F2B. Peter White appears to be chatting with Russell about the electric-powered ship.

keep intersections on track. The result of his efforts was a three-point margin win. Joe's power train included a Cobra C 3520/12, a Hubin timer, and an Ice Lite 50 ESC.

Overall, Brian Eather's Nats campaign was not a happy one. After forgetting his starting signal, he put



Left: Flying a Retro 76-powered Classic 2 design was Peter Anglberger. Peter placed 10th in Expert F2B.

Steve Bakac's plane of choice was the Robby Hunt-designed Europa. Steve powered his ship with an electric motor and placed 14th in Expert F2B.



in a reasonably good pattern but was obviously distracted by the mistake. Very early in his second round flight a 180-degree wind change blew his wingover out, at which point he waved off, choosing to sit out the next two rounds. Brian's Stalker .61 was running extremely well, making more than enough power to haul his well-trimmed Firecracker around.

The electric-powered Max Bee flown by Barry Frederickson appeared to be stable and predictable, although he tended to hit the corners much too hard, spoiling many of his shapes. With some on-going trimming involving CG and leadout adjustments and easing off on control inputs, Barry found it much easier to place the model in maneuvers. Electrics included an MVVS motor and an Igor Burger accelerometer system.

Doug Grinham, with his Stalker .66-powered O/D Starcraft, put up some quite accurate maneuvers to be let down by missed intersections and a few very low pullouts. The neatly finished Starcraft sits well in the air and flies very clean square turns. Originally, Doug's .66 would not run symmetrically in an inverted mount situation until prior to last year's Nats when he made some small modifications that cured the problem. This seemed to be a common fault with many of the .66s, although in a side-mounted position their performance was excellent.

Eventual second placegetter, Russell Bond, again flew his



Above: Contest Director and judge, Peter Koch, appears to be getting the ping-pong balls ready for flight order draw!



Right: Doug Grinham readies his Stalker 66-powered Starcraft for a flight in Expert F2B. He placed 12th in that class.

Reg Towell's massive, Saito .72-powered, Sea Fury is a great flyer. He placed fifth with this impressive ship in Expert F2B.



O/D Bandolero 8, a model with very long moments and a highly tapered wing similar to that of the Firecracker. At times the 74-ounce model tended to battle overhead when the breeze was up, but at other times the electric system produced obvious power. A few uncharacteristic bumped bottoms would have cost him a few points. Russell's power train included a Plettenberg 25/10, a Hubin timer and a Castle Creations ESC. While all five electric-powered models operated quietly, those flown by Russell and Barry were noticeably quieter. The only common contributing factor I could see was the wooden three-blade prop with raked tips, made by Barry Robinson from England, which they were both running.

Peter Anglberger flew his Yatsenko Classic 2/Retro .76 combination a little tentatively in early rounds but gained confidence as the contest moved on to produce some quite good shapes. Triangles and square horizontal eights were often rushed and tight, particularly in the wind. While the motor put out plenty of power, the typical Retro rattle was ever present, sounding rather similar to pre-ignition or detonation but not seeming to affect its performance.

The large Saito .72-powered Sea Fire of Reg Towell flew impressively through some tidy patterns, although it became a handful in Round 2 when some very gusty wind came through. Reg has been running Saitos for many years and has the operating of them down to a fine art, rarely having start or run problems.

Paul Turner, as usual, put his O/D Wind Wonder through four reasonably tidy patterns with the aid of good consistent power from his Stalker .61 LT. Most maneuvers were well shaped with regulation bottoms and 45s, although some missed intersections and bumped pullouts would have cost a few points.

Paul flew his modified Stargazer with a piped PA .76.

PJ Rowland put together four consistently good patterns and looked to be a real candidate for the top spot. Overruns in Rounds 2 and 4 cost him some handy points that would have tightened up the top three places considerably.

Frank Battam's large Yatsenko Yak 55 flew impressively with the Retro .76 producing a lot of power. A patch of very gusty wind in Round 3 blew the Yak out of a number of maneuvers, upsetting his concentration a little. Overall, Frank's shapes were reasonably well put together despite some varying 45s and a number of not quite superimposed consecutives.

Mark Ellins spent some time regaining the feel of his Yatsenko Shark, which had been returned to him in the week prior to the Nats following extensive repairs. Early in 2013 Mark had a line break, which resulted in some serious damage to the model.

Mark's placement of many of his maneuvers relative to the wind made it difficult to shape and superimpose them correctly, but his hand was well in during Round 2 when he produced a very good pattern.

Stepping up from Advanced this year, Steve Bakac flew his reliable electric-powered Europa. He appeared to be a little out of practice with some rushed, misshapen maneuvers interspersed with a number of good shapes. The model flew positively and turned cleanly through the squares and triangles while the electrics worked flawlessly. Steve ran an E-Flite 25 motor, a Renecler timer, and a ZTW ESC.

My much-travelled Geo-XL—now fitted with a Stalker .76—handled pleasingly at 62 ounces despite the addition of an extra four ounces in a heavier motor and prop along with the necessary tail weight. The extra power of the .76 over the usual .61 was reassuring any time the breeze picked up.



In Advanced Aerobatics the winners were (L-R) Adam Pogue in second, Mark Gordon in first, and Tony Clifford in third.

### F2B Advanced Aerobatics

Advanced aerobatics attracted only four entries. CD'd by Peter Koch and judged by Russell Bond and Peter White, the four rounds were flown alternating morning and afternoon sessions

with Expert. This system gives both classes equal exposure to the different weather patterns that move through during the day.

Tony Clifford was first into the air with his very neatly built and finished scaled down KA-10 powered with a sweet-running Tower .40. The model turns cleanly and appears to stable through all maneuvers. Shapes varied from somewhat ragged to quite good as did bottom heights, although he is gradually bringing most heights down to the required level.

Adam Pogue, flying an ex-Reg Towell Saito .72-powered Caudron, put in two generally respectable flights with good squares, a few missed intersections, and some rough triangles. His Round 3 flight came to an abrupt end with control failure in the hourglass resulting in a totally wrecked model. Reg then lent Adam a Saito .72/Sea Fury, but this too crashed in practice prior to Round 4 due to a wing mounting



Left: Don Keysecker poses with his Bob Lampione-designed United. Don's ship is powered by an O.S. LA46, and with it he placed 12th in the Classic Stunt event.



mechanism failure. In his typical sportsmanlike manner, Reg again stepped up with a Saito-powered Mustang with which Adam put in a very neat flight to post the highest flight score of the Advanced group.

Eventual winner, Mark Gordon, put up his quite heavy Cardinal/Brodak .40 combination which struggled for authority in the square maneuvers and above 45 degrees despite the excellent performance from the Brodak. With careful control input, Mark was able to nurse the Cardinal through to pick up some useful scores and gain top spot by just eight points.

Don Keysecker flew his United, which he also used in Classic aerobatics, powered with a healthy O.S. LA .46, to put in some good maneuvers, particularly rounds, while some bottoms and intersections were a little off course. An unfortunate one-second over-run on his first flight put him less than half a point behind third placegetter when all was tallied up.



Top left: Tony Clifford flew this Scaled KA-10 with O.S. LA46 power to third in Advanced.

Above: Mark Gordon gives us a look at his Advanced Aerobatics-winning Brodak Profile Cardinal. It's powered by a Brodak 40 as well!

Left: Adam Pogue placed second in Advanced Aerobatics flying this huge, Saito 72 powered, Mustang. That's Reg Towell assisting.

# Scores

## F2B Expert Final Placings

	<b>Rd 1</b>	<b>Rd 2</b>	<b>Rd 3</b>	<b>Rd 4</b>	<b>Final Score</b>
1. Joe Parisi	971.5	1041.8	1024.07	1067.03	1044.3
2. Russell Bond	973.67	1039.37	1021.6	1062.3	1041.09
3. PJ Rowland	1004.33	1021.1	1043.73	1014.13	1026.32
4. Peter White	930.27	1014.3	964.63	1022.9	1000.61
5. Reg Towell	951.87	981.33	976.63	1024.17	994.04
6. Bruce Hoffman	877.83	945.83	923.53	981.33	950.23
7. Paul Turner	891.67	957	903.07	972.3	944.12
8. Tony Bonello	871.8	943.9	906.6	969.13	939.88
9. Frank Battam	893.03	911.67	905.97	935.7	917.78
10. Peter Anglberger	882.9	764.7	861.97	967.67	904.18
11. Mark Ellins	820.23	921.33	880.03	848.6	883.32
12. Doug Grinham	780.63	736.47	910.1	902.9	864.54
13. Barry Frederickson	820.07	873.9	807.9	847.37	847.11
14. Steve Bakac	801.83	834.23	802.03	866.09	834.12
15. Brian Eather	879.77	66.17	DNF	DNF	315.31

## Advanced Aerobatics Final Placings

	<b>Rd 1</b>	<b>Rd 2</b>	<b>Rd 3</b>	<b>Rd 4</b>	<b>Final Score</b>	
1. Mark Gordon	<u>776.5</u>	<u>827.25</u>	743.75	<u>805.25</u>	803	Cardinal Brodak 40
2. Adam Pogue	<u>794.75</u>	<u>761</u>	630	<u>829</u>	794.92	Caudron/Mustang Saito 72
3. Tony Clifford	<u>717.75</u>	659.75	<u>775</u>	<u>833.75</u>	775.5	KA-10 Tower 40
4. Don Keyssecker	<u>744</u>	733	<u>756</u>	<u>825.25</u>	775.08	United O.S. LA46

## Classic Aerobatics Final Placings

1. Reg Towell	1130.5	<u>1202.5</u>	MK1 Thunderbird Fox 35.
2. Peter White	1156	<u>1196</u>	Gieseke Nobler OS 40FP
3. PJ Rowland	<u>1162</u>	1019.5	Gieseke Nobler Stalker 61
4. Tony Bonello	<u>1145</u>	1055	Caprice Super Tigre 46
5. Doug Grinham	<u>1131</u>	1063	Phoenician OS 35S ABC
6. Brian Eather	<u>1124.5</u>	374.5	MagnumStalker 51
7. Frank Battam	1078.5	<u>1117</u>	Bearcat Saito 56
8. Tony Clifford	1018.5	<u>1070.5</u>	T/F Nobler HP 40
9. John Floate	<u>1031.5</u>	997	Spacehound OS LA 46
10. Adam Pogue	<u>1027</u>	1018	Skyscraper Super Tigre 46
11. Steve Masterton	<u>1017.5</u>	DNF	ChizlerSuper Tigre 46
12. Don Keyssecker	840.5	<u>967.5</u>	United OS LA 46

## Vintage Aerobatics Final Placings

1. David Nobes	293	<u>319</u> (+static) 125 = 444.0	Guided Whistle Atwood 49
2. Frank Battam	<u>305</u>	220 + 126 = 431.5	Jamison Special Atwood 51
=3. Paul Turner	<u>270.5</u>	266 + 126 = 396.5	Wombat Sabre 29
=3. Maris Dislers	<u>264.5</u>	DNF + 132 = 396.5	Wombat Oliver Tiger 2.5
5. Barry Frederickson	235.5	<u>259.5</u> + 128 = 387.5	Jamison Special Atwood 51
6. Don Keyssecker	<u>191</u>	159.5 + 125 = 316	Jamison Special Atwood 49
7. Peter White	10	10 + 128 = 138	Jamison Special Atwood 51



Above: The top three in Classic Aerobatics were (L-R) Peter White in second, the winner, Reg Towell, and PJ Rowland in third.

### Classic Aerobatics

Classic aerobatics had twelve fliers competing for the honours, and it was judged by Peter Koch and Mark Gordon.

Reg Towell was first off the rank with his Fox .35-powered MK1 Thunderbird. The Fox ran well, hauling the T' Bird through two neat patterns with generally good bottom heights and intersections to eventually claim top spot with 1202.5 points.

Next to fly was Brian Eather who found that his Stalker .51-powered Aldrich Magnum was flying faster than he was comfortable with. Brian waved off early in his second flight after finding changed needle settings not effective enough in slowing the model.

The Stalker .61-powered Gieseke Nobler flown by PJ Rowland looked to be in good trim as it motored through large smooth manoeuvres with lap times around 5.0-5.1 seconds. Bottoms were generally good with the odd bumped pullout, and manoeuvres were well shaped. PJ flew into third place with his first round score of 1162 points.

Don Keysecker had the misfortune to over-run by one second on his second flight after putting a reasonably neat pattern. His first flight was decidedly ragged with many missed intersections and two or three bottoms low enough to be regarded as near misses. Don ran a sweet running O.S. LA .46 in his Bob Lampione-designed United.

Steve Masterton's much-travelled Chizler appeared to struggle in parts of the pattern despite the efforts of his excellent running ST.46. Manoeuvres were quite well shaped, although there were some height variations and some superimpositions that wandered. Due to prior commitments, Steve had to pass on his second round flight and the chance to improve his score.

Doug Grinham's reasonably large (for a .35) take-apart Phoenician handled well in the breeze with the Bristant ABC O.S. .35S making good power. While intersections wandered



Tony Bonello flew his rendition of the Bob Hunt-designed Caprice to fourth place in the Classic Aerobatics event. He powers it with the venerable ST 46.

Frank Battam chose the Al Rabe-designed Bearcat as his Classic Aerobatics weapon. He powers it with a Saito 56 four-stroke engine. Frank placed seventh.



Above: Steve Masterton flew this Dick Mathis-designed, ST 46 powered, Chizler in Classic. He placed 11th.

Left: John Floate threw a curve in Classic Aerobatics by flying his Juri Sirotkin-designed Spacehound. The famous Russian design was painted in a United States military scheme! John placed ninth with the LA 46-powered ship.

and some bottoms were low, rounds and 45s were generally accurate.

The first Spacehound to be seen at a Nationals for quite a while was flown by John Floate. Despite being very overweight, it performed quite well with an O.S. LA .46 providing the urge. Some shapes and bottoms were off track, due in part to the effects of the extra weight, but with its eye-catching colour scheme, deep bellied fuselage, tall fin, and large wheel spats creating a great classic appearance, it looked most impressive in the air.

Tony Bonello powered his Bob Hunt-designed Caprice with a well sorted ST.46. Sporting an immaculate finish, typical of Tony's work, it appeared smooth and stable as it motored through the pattern with a few floated intersections, but generally shapes were good and fairly well superimposed.

Adam Pogue again campaigned his ST.46/ex-Herb Hanna Skyscraper which seemed to be in good trim. A few of his heights and manoeuvre sizes varied somewhat with some shapes and positioning suffering, particularly at times when rough patches of

wind came through, but with the .46 running in typical ST fashion, there was plenty of power to haul the big model through the pattern. Adam's flying is showing improvements with experience and an increase in confidence.

Tony Clifford's Green Box Nobler/HP .40 combination performed capably in the ever-changing breeze that hung around for much of the day. Tony claims the model is responsive and very predictable while the HP runs remarkably smoothly. High bottoms and level flight cost him some points, although he worked at it and brought some manoeuvres down to the required height.

The rather bulky Rabe Bearcat of Frank Battam flew impressively through the pattern, appearing to be well trimmed and more than adequately powered with a Saito .56. Frank's patterns were generally neat, although errors such as small flats on the bottoms of many of the round manoeuvres would have cost him points.

My Gieseke Nobler/O.S. .40FP performed pleasingly, being a

Right: In Vintage Aerobatics the top three placers were (L-R) Paul Turner in third, David Nobes in first, and Frank Battam in second.



reasonably new model without a lot of airtime. It is a comfortable model to fly, and with the O.S. running happily, the combination worked well enough to claim second spot with 1196 points.

### Vintage Aerobatics

The Vintage class was flown on the final day of the Nats in very windy conditions with nine entries on the board. Doug Grinham was forced to withdraw when his Jamison Special suffered severe vibration damage in practice, and Tony Clifford elected not to risk his new, virtually untried International Stunt Winner.

Judges for the event were Peter Koch and Mark Gordon.

First away was David Nobes with the Atwood .49 in his oft-flown Guided Whistle running fast and producing plenty of power to penetrate the wind. Dave scored highly in both rounds, topping the field with a winning second flight score of 319 points.

Don Keysecker's two flights were marred by lean runs with his Atwood .49 sagging above 45 degrees, leaving his Jamison Special to the mercy of the wind. In both flights Don waved off after the horizontal eights.

The Gordon Burford-designed Wombat, flown by Paul Turner, was badly blown around the sky while its ancient Sabre .29, also a Burford product, did its best to keep it airborne. Paul always makes a good fist of flying this difficult little biplane and this time was no exception, his second flight finishing with a near perfect landing.

Maris Dislers also campaigned a neatly built Wombat powered with an Oliver Tiger 2.5 diesel. He has the experience and ear to be able to fine tune the Ollie for its best performance which was needed on the day. Maris tied off a very neat flight with a badly



Don Keysecker flew his Atwood 49-powered Jamison Special to sixth place in the Vintage Aerobatics event. The Jamison Special is popular the world over in OTS and Vintage events.



Maris Disler's Oliver Tiger-powered, Gordon Burford-designed Wombat passes by the camera on its way to a third place tie in Vintage Aerobatics.



Tony Clifford showed up with this fine version of the Harold "Red" Rinehardt-designed International Stunt Winner.

bounced landing that would not have helped his score.

Frank Battam, flying his regular Jamison/Atwood .51 setup, posted a very creditable Round 1 score despite being blown around quite a lot. His second flight was looking very tidy until the model went free flight in the vertical eights. He managed to catch it a couple of feet from the ground but not soon enough to prevent it from pancaking and spreading the landing gear.

Yet another Jamison Special/Atwood .51 combination in the hands of Barry Frederickson was offered up to the wind gods. It battled through to survive two bumpy flights with the Atwood running hard and often on the point of sagging. During the second flight, a fly-away combat wing from the far side of the oval came down just inside the circle, narrowly missing the judges but unnoticed by Barry who was very surprised to be told of the incident after his flight.

My Vintage hopes were cut short when the Atwood .51 in my Jamison Special cut on takeoff in both flights. Doug Grinham later inspected and repaired it, finding a leaking crankcase gasket, a leaking head shim, and a slightly distorted liner. *SN*



Paul Turner also opted to fly a Gordon Burford-designed Wombat in the Vintage Aerobatics event. He tied with Maris Disler and his Wombat for third! A Sabre 29 powers Paul's ship.

# 2014 Brodak Fly-In

by Mark Weiss

It's easy  
with these  
folks!



Brian Moore captured the coveted Spirit of '52 Perpetual Trophy with his excellent rendition of the OTS Yo-Yo. Photo by Will Davis.

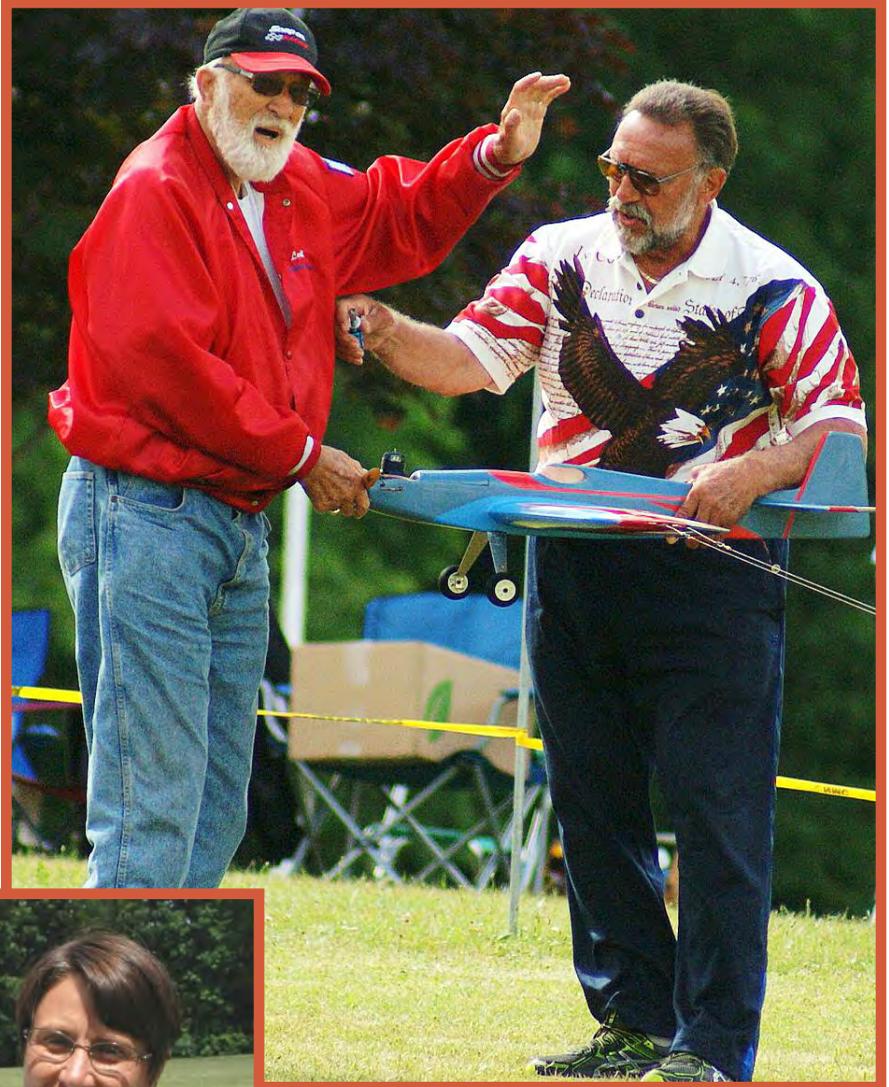
**A couple of years ago**, Allen Brickhaus came by our tent at the Brodak contest and asked me to step into his golf cart so we could chat. He took me up the hillside near the Carrier circle, turned the cart so we could look at the wondrous backyard of Buzz and John, and asked me to assist him for the following year.

I was astonished and flattered but I respectfully declined, feeling that I did not have the credibility for that post. He understood and I agreed to take the offer two years later. We remained good friends and supported each other wherever possible.

Upon learning of his death, I called John Brodak and offered my help. Fortunately, Will Davis had also been “tagged” by Allen for future assignments, and Will had also reached out to John. As we had worked together for a couple of

Right: Wichita, Kansas, native, Lew Wollard is being assisted here by Bob Brookins on PA Day. Lew appears to be readying his Bob Palmer-designed Smoothie for a flight. Davis photo.

Below: Will Davis created a perpetual award called the Brodak Cup. It is awarded to the first-place winner in Expert CLPA. This year, the award was presented to the Gilbert's, Joe and Colleen. Joe flew a new airplane and just nudged out Mike Palko for the win. Davis photo.



Above: Frank Imbriaco flew his beautifully built and finished, Bob Hunt-designed Caprice in Advanced CLPA. Photo by Will Hubin.

years at the Joe Nall, we both agreed to work together to try and fill Allen's shoes along with those of Ken Armish, Tom Hampshire, and others.

We also thought it best to officially name Will as the CD for the sake of AMA registration and for that of common sense. Will has a lot more experience in CL Stunt and event administration than me. I have run RC events, but this was new ground.

We both completed the necessary paperwork and CD requirements for the AMA, and Will went ahead and started doing all the behind-the-scenes work that included the finding and assigning of judges. Knowing that the Joe Nall took most of four months for me to handle, Will was great at taking this "bull by the horns," and I thank him again for all he did.

### Uncertainty Is a Great Motivator

I made an early decision to become as familiar as possible with the rules for CLPA. I printed all I could find and put all my resources into a three-hole loose-leaf binder. I carried it in my golf cart every day during the contest and referred to it early on to help make and interpret the rules for correct decisions.

### Thought Patterns

I can't speak for Will, but I was nervous when Bruce Jennings and I arrived on Sunday to help set up the circles and do the related tasks

Above right: The "Carolina Gang" posed for this photo at the Brodak Fly-In. It's a Will Davis photo, naturally... Will set up the camera on the tripod, hit the delayed shutter button and ran like heck to be included in his own photo!

Right: Here's Samantha Hines with her father/coach, Steve Hines, and her Precision Aero Jr.-winning Oriental. Just how good will she get? Stay tuned... Davis photo.





Dave Heinzman built this version of Bill Werwage's Junar and fitted it with a Geo-XL wing. Dave flew the PA 61-powered ship in Expert CLPA. Hubin photo.

normally assigned to the CDs. Allen and his team knew what to do, and I was trying to fill those large shoes. It did not take long to realize that Will was experienced and that I did know more than I thought.

Most importantly, there was Sandy, the lady whom everyone had told me knew every aspect of the entire event. She did and I "sucked up" to her as fast as possible. That was one of my two best decisions for the week.

She does know everything and is incredibly willing to share her knowledge without making one feel temporarily incompetent. She did, however, laugh at me without reservation when I took my eye off my cart's direction and drove right into one of the perimeter poles while a competitor was flying!

The other great decision was to do what I set out to do before I arrived: along with Will, do everything possible to make everyone feel comfortable and happy, and to rely on



Above: Here's that Gilbert guy again! This time he's tearing it up in Profile Stunt with his version of the Don Hutchinson-designed AT-6 Texan. Yup, he won... Hubin photo.

Right: Dennis Adamisin, of the "First Family of Stunt," guides his electric-powered Ballerina through a pattern. This ship was built from a Brodak Cosmic Wind kit and was the prototype for the electric conversion kit. Hubin photo.



their knowledge and familiarity with the event and how it worked. Whether the person is a competitor, judge, event director, family member, or anyone else, treat everyone with respect and ensure the event was enjoyable.

Will and I also decided to consult one another when a situation arose which warranted our conference and counsel. Contests draw competitive people, and all competitors want to do well.

When differences of opinion cannot be solved at the circles, we were called in to arbitrate and resolve. And here, the judges and the contestants were simply wonderful. While it is impossible to please everyone, people are really looking for a level playing field where the topic can be openly and honestly discussed to a rational and proper decision.

#### **Each Morning's Pilots' Meeting**

Will made a great decision to announce who was the first flier on each circle and who their



judges would be, and that effort would begin at 8 a.m.

For whatever reason, I decided to share a silly story with the group, for I wanted everyone to begin with a smile on their face. I think it was accepted fairly well, that is until the final Saturday morning Pilots' Meeting.

With the microphone in my hand, I began my tale of "snipe hunting" while a college student in Wichita, Kansas. Just about halfway through my tale, the mike went dead and the audience immediately cheered and applauded! I told them if they did not stay and listen to the end, I would adjust their flight scores.

I felt like Rodney Dangerfield ... "No respect!"

### **In Memoriam**

Will invited Jim Duckworth to preside over the annual ceremony to remember those who had passed since the last Brodak event. We all gathered at the memorial site where Jim chose the perfect words to help us all heal our losses of close friends.

Ironically, this was something that Allen had always presided over, and when his name was called, my eyes overflowed with tears. Jim read the names of the 11 or so people he had knowledge of and then attendees called out the names of others. In all, we lost about 18 friends in just one year.

While we made announcements over the PA as 5 p.m. grew near, the group just seemed to migrate in that direction. While



# 2014 Brodak Fly-In

June 10, 11, 12, 13, 14, 2014

228 Locust Street, Carmichaels, PA 15320

Sponsored by Brodak Mfg. & Dist. Co., Inc.

**CD: Will Davis - Mark Weiss**

## **C.L.P.A.**

### **C.L.P.A. Beginner**

Rick Huff .....	Twister/Electric .....	296.5
David Felinczak .....	Katana/61 .....	276
Briane Malin .....	Nobler/40 .....	258
Dennis Hastings .....	Vector/40 .....	242
Jennifer Fedorick .....	Cardinal/46 .....	206
Ben Crowley .....		158.5

Judges: Hammett - Heinritz

### **C.L.P.A. Intermediate**

Dan Bregar .....	Pathfinder/2826 .....	431.5
Brian Moore .....	Tony/51 .....	417.5
Samantha Hines .....	Oriental/40 .....	414.5
Gerry Glier .....	Pathfinder/46 .....	409
Ted Heinritz .....	Phazer/40 .....	408
Jim Vigani .....	Pathfinder/Electric .....	407
Tom Luciano .....	Vector/46 .....	404.5
Dennis Thomas .....	Legacy/51 .....	404.5
William Stewart .....	Stilletto/40 .....	398.5
John Passalacqua .....	Legacy/51 .....	397.5
Tom Taylor .....	Impact/Electric .....	395
Jack Rosemere .....	P40/Electric .....	379
Dave Hallas .....	Cavalier/Electric .....	377.5
Bryon Rahilly .....	Twister/34 .....	370.5
Dalton Hammett .....	Tutor/51 .....	320.5
Dave Evar .....	Tutor II/46 .....	301

Judges: Houser - Richlen

### **C.L.P.A. Advanced**

Bob Reeves .....	Latency/56 .....	526.5
Bruce Jennings .....	Juno/46 .....	523.5
George Waters .....	Thunderbird II/40 .....	521.5
John Tate .....	Vector 40/Electric .....	519.5
Bob Krug .....	Junar/61 .....	519
Jerry Higgins .....	RH-1/51 .....	518
Keith Morgan .....	SV II/65 .....	517
Artie Jessup .....	Vector 40/36 .....	516.5
Alan Buck .....	SV 22/65 .....	516
Terry McDowell .....	Cavalier/40 .....	514.5
Frank Imbriaco .....	Caprice/Electric .....	513.5

Bill Mandakis .....	Warhawk/51 .....	512
Lew Woolard .....	Smoothie/40 .....	504.5
Joe Grash .....	Vector/40 .....	503
Bob Hudak .....		500
Price Reese .....	Skyliner/Electric .....	499
Norm Liversidge .....	CD Max/75 .....	498.5
Scott Bolton .....	Strega/61 .....	497
Dennis Truxal .....	P-40/46 .....	490
Bernard Suhamski .....	Oriental/40 .....	485.5
Chris Sarnowski .....	Hallmark/40 .....	483.5
Peter Mick .....	Oriental/Electric .....	475
Dennis Moritz .....	Prowler/40 .....	448
Bob Brookins .....	Airbender/40 .....	446.5
John Miller .....	Pathfinder/51 .....	358
Eric Keller .....	Vector/36 .....	338

Judges: Borrelli - Robinson

### **C.L.P.A. Expert**

Joe Gilbert .....	Hawker/67 .....	588.50
Mike Palko .....	P-51/Electric .....	576.33
Dan Banjock .....	Vista 39/75 .....	570.17
Joe Adamusko .....	Dreampiece/67 .....	556.67
Wesley Dick .....	Velvet 3/65 .....	555.83
Robert Storick .....	Continental XL/75 .....	555.00
Paul Winter .....	English/Electric .....	549.83
Dave Heinzman .....	Junar/61 .....	549.17
Lenoard Bourel .....	Fortune/60 .....	548.67
John Simpson .....	Cavalier/36 .....	548.50
John Saunders .....	Legacy/60 .....	547.50
Tim Stagg .....	F86/Electric .....	542.50
John Wright .....	Dixon Tempest/60 .....	541.50
Jim Lynch .....	Volunteer/36 .....	541.17
Dennis Adamisin .....	Mythbuster/Electric .....	537.33
Scott Richlen .....	SL3/61 .....	536.17
Scott Reynolds .....	Voltaire/Electric .....	535.17
Neal Thompson .....	Legacy/51 .....	528.67
Gary Lutz .....	Dreamgirl/67 .....	525.50
Larry Robertson .....	White Shark/65 .....	523.67
Bob Whitney .....	Scorpio/Electric .....	512.33
John Rakes .....	Pathfinder/51 .....	507.00
John McFayden .....	Sirris 15/46 .....	505.67

### C.L.P.A. Expert continued.....

Joel Costantino	E-Rex/Electric	463.00
Phil Cartier	Streak III/46	428.33

Judges: Giacobone - Peabody - Spillman

### Precision Aero. Jr. Award

Samantha Hines	Oriental/40	414.5
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## **PROFILE PRECISION AEROBATICS**

### Profile Precision Aero. Beginner

Rick Huff	Mod. Twister/Electric	277
David Felinczak	Pathfinder MKII/45	257.5
Dennis Hastings	Cardinal/40	246
Jennifer Fedorick	Cardinal/46	182
Naomi Macklem	Twister/40	102

Judges: Moore - Reese

### Profile Precision Aero. Intermediate

Dan Bregar	Pathfinder/2826	441
Dennis Thomas	Pathfinder/46	440
Bryon Rahilly	Ms. Kath/34	428
Gerry Glier	Pathfinder/46	427
William Stewart	Pathfinder II/54	425.5
Dave Hallas	Cavalier/Electric	422.5
Brad LaPointe	Pathfinder/46	420.5
Ted Heinritz	Banshee/40	419.5
Don Sopka	ARF Tudor/46	419
Pete Hermans	ARF P-40/46	414.5
Jack Rosemere	P-40/Electric	409
Wayne Robinson	Teosawski/40	389.5
Samantha Hines	Super Spider/40	372
Dalton Hammett	ARF Super Clown/25	323
Kenneth Dawson, Sr.	Cardinal/40	322
John Passalaqua	Mustang/51	164.5

Judges: McDowell - Sarnowski

### Profile Precision Aero. Advanced

Price Reese	Cavalier/Electric	530.5
Tom Morris	Cavalier/Electric	527.5
George Waters	M-201/61	527.5
John Tate	P-47/51	518.5
Bruce Jennings	Pathfinder/46	515
Jerry Higgins	RH-1/51	512
Keith Morgan	Enigma/60	511
Bob Hudak	Cavalier/Electric	488.5
Dennis Truxal	P-40/46	486
Chris Sarnowski	Doodlebug/46	483
Norm Liversidge	ARF Primary Force/32	482
Bill Mandakis	Warhawk/51	479.5

### Profile Precision Aero. Advanced continued.....

Bob Brookins	Super Sized Magician/46	478
Eric Keller	Primary Force/40	475
Artie Jessup	Cavalier/46	448.5
Alan Buck	Bucaneer/51	435.5
Bernard Suhamski	P-40/46	406.5

Judges: Gilbert - Stagg

### Profile Precision Aero. Expert

Joe Gilbert	T-6/40	546
Tim Stagg	F-86/Electric	533.67
Jim Lynch	Baracuda/46	527
Leonard Bourel	Cardinal/46	523.33
Dan Banjock	F8F Bearcat/70	484.67
Dennis Adamisin	Yak 9/Electric	483
John Saunders	P-40/46	473.67
John Rakes	Pathfinder/51	467.67
John McFayden	Miss D/46	464.67
Phil Spillman	ARF P-40/46	433.33
Phil Cartier	Streak/21	122.67

Judges: Giacobone - Palko - Zambelli

### Profile Precision Aero. Jr. Award

Samantha Hines	Super Spider/40	372.00
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## **CLASSIC STUNT**

### Classic Beginner

Rick Huff	Thunderbird/46	285
David Felinczak	Gieseke Nobler/40	256
Briane Malin	Nobler/40	253.5

Judges: Hammett - Jessup

### Classic Intermediate

Samantha Hines	Oriental/40	514
Ted Heinritz	Nobler/40	497.5
Brian Moore	Sterling Skylark/46	490
Don Sopka	Nobler/40	487.5
Dave Hallas	Cavalier/Electric	453
John Passalaqua	Nobler/40	333
Dennis Thomas	Chipmunk/35	194
Bernie Trent	Vector/40	82

Judges: Rosemere - Waters

### Classic Advanced

Tom Morris	Cavalier/Electric	465.5
Terry McDowell	Cavalier/40	447.5
Jerry Higgins	Jamison/40	447
George Waters	Thunderbird II	443.5
John Tate	Dolphin/Electric	443

### Classic Advanced continued...

Price Reese .....	Cavalier/Electric .....	434.5
Joe Grash .....	Ares/59 .....	431.5
Frank Imbriaco .....	Caprice/Electric .....	430
Eric Keller .....	Strathmoore/46 .....	428
Bob Reeves .....	Skylark/51 .....	426.5
Mark Gerber .....	Ryan PT-20/36 .....	423.5
Norm Liversidge .....	Cavalier/40 .....	410.5
Artie Jessup .....	Nobler/40 .....	384.5
John Miller .....	All American Eagle/40 .....	381.5
Bob Brookins .....	Oriental/40 .....	362

Judges: Banjock - Holcroft

### Classic Expert

John Simpson .....	Cavalier/36 .....	553
Dan Banjock .....	Galloping Comedian/35 .....	542
Dennis Adamisin .....	Swinger/Electric .....	527
Wesley Dick .....	62 Ares/36 .....	526.33
Dave Heinzman .....	Chipmunk/40 .....	514.33
Bob Zambelli .....	Nobler/35 .....	514.33
Gerald Phelps .....	Patriot/36 .....	505
Rich Giacobone .....	Caprice/Electric .....	500.67
Larry Robertson .....	Shark 45/65 .....	499
Bob Whitney .....	Formula/Electric .....	466.67

Judges: Mandakis - Peabody - Tate

## **NOSTALGIA 30**

### Nostalgia 30 Beginner

Naomi Macklem .....	Twister/40 .....	62.5
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Judges: Hammett - Jessup

### Nostalgia 30 Intermediate

Dan Bregar .....	Magician/15 .....	493.5
Wayne Robinson .....	Smoothie/Electric .....	492.5
William Stewart .....	Stilletto/40 .....	473.5
Bryon Rahilly .....	Volunteer/36 .....	431

Judges: Rosemere - Waters

### Nostalgia 30 Advanced

Bruce Jennings .....	Juno/46 .....	459
Keith Morgan .....	Stilletto/60 .....	441
Alan Buck .....	Gypsy 46/61 .....	433.5
Chris Sarnowski .....	Hallmark/40 .....	428
Bob Hudak .....	Thunderchief/Electric .....	414.5
Bernard Suhamski .....	Oriental/40 .....	406.5
Bob Krug .....	Strathmore/46 .....	399

Judges: Banjock - Holcroft

### Nostalgia 30 Expert

Joe Gilbert .....	Nering Special/46 .....	534.33
Tim Stagg .....	Chipmunk/Electric .....	533.33
Leonard Bourel .....	Stilletto/51 .....	530.67
Jim Lynch .....	Volunteer/36 .....	530.33
Phil Spillman .....	Oriental/40 .....	483.67

Judges: Mandakis - Peabody - Tate

## **OLD TIME STUNT**

### Intermediate

Brian Moore .....	Yo Yo/35 .....	245
George Marenka .....	Viking/40 .....	242
Jack Rosemere .....	Viking/40 .....	200
Chris Sarnowski .....	Ringmaster/35 .....	192
Dennis Hastings .....	Ringmaster/35 .....	111.5

Judges: Benedetti - Hermans

### Old Time Stunt Advanced

Bernard Suhamski .....	Viking/35 .....	311
Jerry Higgins .....	Jamison/40 .....	296.5
Bill Mandakis .....	Viking/40 .....	288.5
Eric Keller .....	Viking/46 .....	281.5
Scott Richlen .....	Ringmaster/35 .....	231.5

Judges: Dawson - Robinson

### Old Time Stunt Expert

Dan Banjock .....	Galloping Comedian/35 .....	326.67
Dennis Adamisin .....	Joker/Electric .....	319.17
John Wright .....	Box Car Chief/35 .....	317
Bob Whitney .....	Big Job/60 .....	296.83
Tim Stagg .....	Viking/40 .....	296.33
John Saunders .....	Humongous/46 .....	295.67
Bob Brookins .....	Humongous/46 .....	293.33
Terry McDowell .....	Viking/51 .....	294
John McFayden .....	Ringmaster/20 .....	280.33
Bob Zambelli .....	Icarus/29 .....	267.33
Leonard Bourel .....	Ringmaster/25 .....	259.83

Judges: Hudak - Lynch - Peabody  
OJT - Rahilly

## **OLD TIME STUNT PHASE 2**

### O.T.S. Phase 2 Intermediate

Carl Schaefer .....	Super Clown/25 .....	256.5
Don Sopka .....	Smoothie/40 .....	172

Judges: Benedetti - Hermans

O.T.S. Phase 2 Advanced

Lew Woolard.....Smoothie/40.....	262
Price Reese .....Mustang/35.....	255
Watt Moore .....Jamison/25.....	005

Judges: Dawson - Robinson

O.T.S. Phase 2 Expert

Joe Gilbert .....Stills Stuka/35.....	299.83
Phil Spillman.....Smoothie/40.....	271.67

Judges: Hudak - Lynch - Peabody  
OJT - Rahilly

Event Director: Armish

**APPEARANCE JUDGING**

Bob Zambelli - Wayne Robinson

**MOST ARDUOUS JOURNEY**

Peter Lott

**CLUB PARTICIPATION AWARD**

Philly Flyers

**MOST EVENTS ENTERED AWARD**

Paul Smith

**SPIRIT OF 52**

Brian Moore - Yo Yo

**Rusty Brown Award**

John G. Brodak

**Brodak Cup Award**

Joe Gilbert

**SPIRIT OF THE SPORT AWARD**

Lew Woolard

Tim Stagg flew his original-design, semiscale, electric-powered F-86 Sabre Jet stunter in the Expert CLPA event. The surface detail on this ship has to be seen in person to be fully appreciated! Hubin photo.





New Jersey's John Saunders flies his veteran Humongous. He's won a lot of major Old Time Stunt contests with this fine-flying, Ted Snow-designed ship. John placed sixth on this occasion. Hubin photo.



I am not good sitting still and felt I could not feel the event from under a tent; that's just me. That decision enabled me to feel the pulse and help wherever I could. I did not know whether my travels were appropriate, but it seemed to work.

Occasionally, I would stop at a tent and chat with its inhabitants, and I realized I was finally getting to know these folks, some of whom had been CL gurus to me. What a neat deal! And they were getting to know me.

Now, I cannot tell you if that was a plus for them, but it was a treat for me. As the week progressed, folks were asking me to stop by and take a rest with them. How gracious was that!

The Brodak event has 18 consecutive years of attendees knowing where to set up, when to tear down, what to bring, when to arrive, and when to pack up for the evening. They knew when special events took place,

sobering, the memorial service is as integral to the week as any other activity.

#### The Event: Much More than a Contest

The results of each competition can be found along with this report.

What impressed me the most in this, my third consecutive visit to Carmichaels, was not just some really superb flying and terrific airplanes, but also *the wonderful camaraderie that is the Brodak Fly-In.*

I spent the great majority of my time in my cart visiting the competitors, judges, pit bosses, and the administration team tent. I hope John did not lease these carts with a mileage restriction.



Top left: Tennessee's Jim Lynch begins a flight in Classic Stunt with his original design, Volunteer. This model appeared as a construction article in the August 1977 issue of Flying Models. Hubin photo.

Above: Rich Giacobone seems very intent on laying in a good flight in Expert CLPA with his Bob Hunt-designed Caprice. The problem is, Rich is going the wrong way! Hubin photo.

Left: Big Art Adamisin, Shirley Sheeks, Jack Sheeks, Merry Phelps and Gerry Phelps (L-R) take a moment away from reminiscing to pose for the camera. Davis photo.





Above: Brodak regulars (L-R) Ted Hienritz, Randy Holcroft, Ken Dawson, Mike Palko, Elena Saunders, John Saunders, Dan Banjock, and Will Davis enjoy a moment together. Davis photo.



Above: Stunt icon, John D'Ottavio and his son, Nick D'Ottavio traveled the Fly-In site in style in one of the golf carts. John is now 91 years young! Davis photo.

such as the very enjoyable "Junk Yard Wars," beautifully directed by Ken Armish.

For me, the week was all about chemistry: the relationships between the staff and John and Buzz, and the relationships between competitors and their spouses with the others there to fly.

As I think back on this wonderful



Right: Steve Bittner's Hi Johnson-designed Stuka breaks ground dramatically. Steve's mentor and friend, the late Hank Spielman, used to fly this design in competition on the East Coast. Davis photo.



Top: The Fly-In site at John Brodak's home in Carmichaels, Pennsylvania is truly a field of dreams for modelers.

Above: The appearance point judging is done on the front lawn of John and Buzz Brodak's house.



Dan Banjock's double-size Bi Slob is always a crowd pleaser. Dan is a party looking for a place to happen! Davis photo.



Maryland's Tim Stagg built this gorgeous Jim Van Loo-designed Chipmunk for Classic competition. It's electric powered and is virtually flawless. Hubin photo.

Bob "Sparky" Storick begins a flight in Expert CLPA with his enlarged version of the Tom Warden-designed Continental. Bob's ships are all beautifully built and finished. Hubin photo.



week, I am not sure if Brodak is a contest surrounded by personal harmony or rather a reunion of old friends and new, interrupted from time to time by competitive flying? Regardless, it works and works very well.

#### The Future

John and Buzz invited Will and me to have dinner with them on Wednesday evening. As my seat was directly across from John, I asked the question and John responded with absolutely no hesitation: *"There will be two more years. That will make 20 and that is what Buzz and I had agreed."*

What the attendees will miss is much more than the competition. They will miss arriving and finding their regular spot and waiting for their friends to come and set up next to them. They will miss the little food truck with the two delightful ladies offering coffee and donuts for 60 cents total, hot dogs and pizza slices for 50 cents each, and cold drinks for the same. They will miss the wonderful backyard and the Pennsylvania skies.

A contest? Sure. But so much more.

#### Finally

Thank you John and Buzz for allowing Will and me to help continue the tradition; thank you, Sandy, and your crew, for the excellent and continual support; thank you to all the competitors, judges, event directors, and supporting family members for making this so easy and delightful.

If I were you, I would plan on attending Brodak for its final curtain calls. Two more years. I am sure it will be standing room

only. And that is the way it should be, for the Brodak Fly-In will go out on a very high note. I guarantee it. *sv*

—Mark Weiss

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## Lower-case “e”

**Will DeMauro** asked for an issue off from writing the “E-Stunt” column so that he could have some time to paint his new Voltron original and have it ready for the Nats.

Will prefers the SV-22 “numbers” and used those as the base for his futuristic new stunter. It features a sheeted foam core wing and flaps, and foam core stabilizer and elevators. The fuselage is of normal crutch construction and has molded top and bottom shells. It’s a looker, in my opinion.



Will DeMauro's new Voltron is shown here almost ready for the finish to be applied. It's based on SV-22 aerodynamics and features foam wing and tail components and molded top and bottom fuselage shells. Photo by Bob Hunt.



Will's Voltron is powered by a Cobra 2826-10 motor. Also used is a Phoenix 45 ESC, a Hubin FM-9 timer, and a Turnigy Compact 3700 4S 35C battery. The plane was finished with DuPont ChromaBase paints in a scheme developed for Will by Sina Goudarzi. Photo by Will DeMauro.

### Lower case “e”

Actually, I was anxious to write an “E-Stunt” column. Over the past couple of years a few of my friends and I have learned a lot about e-power applications, and it just seemed like time to stop and publish our findings. Although there are many e-subjects that I would like to write about, the one I’ve chosen to highlight here is the use of the somewhat smaller electric systems in classic .35-size built-up airplanes, and in .35-size profile models.

When I started my electric experiments back in 2005, I chose a format for a moderate-size ship. I converted my Genesis Extreme design from IC to electric and used an AXI 2826-10 motor. I flew that ship with that motor for a few years, and then, in the spring of 2011, changed it from a rear mount to a front mount setup, and, in making that change, I also switched over to the E-Flite Power 25 motor.

Soon after making that motor change in the Genesis, I was on duty judging at a contest in Hazleton, Pennsylvania. I had the Genesis with me and was asked to fly a demonstration flight with it between rounds. It was very windy that day, but the Genesis cut through the wind extremely well. That flight prompted many in attendance to come over and ask questions about the setup and E-Stunt in general. One of those interested parties was my old friend (and Union Model Airplane Club co-alumni), Frank Imbriaco.

Frank wanted to try electric power, but he didn’t want to go to a model the size of the Genesis right away. He asked if there was a smaller, simpler motor/plane combination that might work well. I had wanted to start experimenting with a smaller electric setup that might be used to effectively power a classic .35-size built-up ship and/or a .35-size profile, so I invited Frank to stop over at my shop on the way home from the contest; I had an idea...

Several years before, I had started an RD-1 as part of a project with Mike Ferguson. We had built the wings for our models but, for whatever reason, never continued with the project. I figured that the RD-1 could be easily modified to accept a Power 10 motor and a 2,100 to 2,500 mAh 4S battery. Not having too much



Frank Imbriaco built this nifty RD-1E as his first electric CL model. The only changes made from the stock RD-1 (which was published in *Flying Models* magazine in June of 1991) was to lengthen the tail moment half an inch. Photo by Frank Imbriaco.

time to try this concept, as I was busy getting ready for the 2011 Nats, I figured that I could coerce, er, ah, convince Frank to take the wing and build an RD-1E around it.

Actually, Frank jumped at the chance to do that, and we quickly drew up a new front end that would accept the electric motor. We also extended the tail length half an inch or so. I had always thought that we had made the RD-1 a bit too short-coupled, and this was an opportunity to remedy that.

Frank took the wing, a set of RD-1 plans, and the new front end sketch home with him and went to work. Frank is—and always has been—an excellent builder/finisher, and, once he commits to a project, he can be counted upon to produce quick and beautiful results. This case was no exception; within a few weeks I found myself at one of my local flying fields getting ready to test fly Frank's gorgeous RD-1E.

Frank's ship came out light at 39 ounces, with the battery on board. Not being familiar with the capabilities of that motor/battery combination, I somewhat optimistically suggested that we use an APC 12 x 6 EP (Electric Pusher) prop. We did a couple of one-minute test flights (you have to love the Hubin timer...), but I was less than exuberant with the results. The ship just didn't have much "punch."

We set the timer for a longer run anyway, and halfway through that flight I began to smell a decidedly electric burning odor in the air. Long story short, I was badly mistaken about the 12 x 6 on the Power 10. My bad entirely, but, hey, it was one of mine, so at least Frank wasn't out the cost of the motor.



Frank's RD-1E was initially powered by an E-Flite Power 10 motor, but was retrofitted to accept a Power 15. The Power 10 would have been plenty if only Bob Hunt had not miscalculated the prop size (see text)... Frank opted to use a rear-mounted motor at first, but is now preparing to retrofit the motor with a front mount. Imbriaco photo.

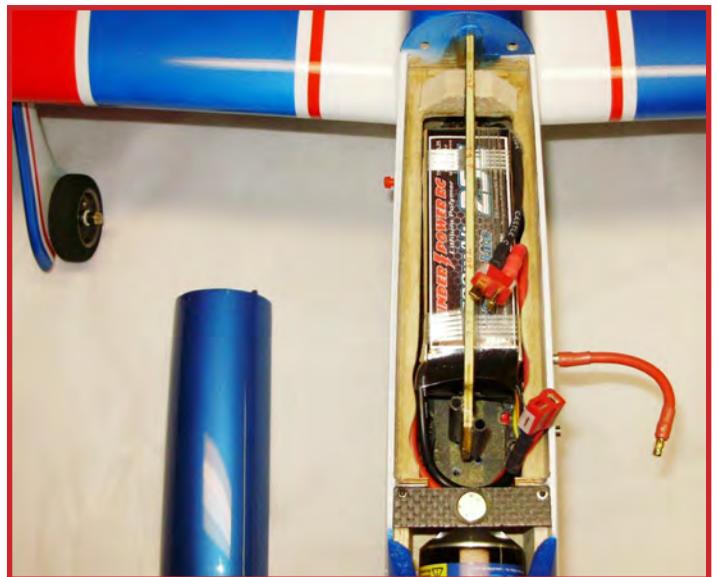
I suggested to Frank that he retrofit an E-Flite Power 15 and use an APC 11 x 4.5EP prop. That did the trick, and we instantly had a combination that pulled extremely well throughout the pattern. Frank was so impressed with that combination that he asked if we could redesign the nose of my Classic Stunt Caprice to accept that same system.

That turned out to be an easy task, and the resulting airplane that Frank produced was not only beautiful but also about as good a flying machine as anyone could possibly hope for. Frank's Caprice weighed in at 48 ounces with the battery on board, so that's equivalent to a glow Caprice at 44 ounces *without* the four

ounces of fuel on board. That's a great weight for a 560-square-inch ship!



Frank poses with his gorgeous E-Caprice at the famed Middlesex, New Jersey flying field. The ship is fitted with an E-Flite Power 15, a Castle Creations Phoenix 45 ESC, and a Hubin FM-9 timer system. It flies outstandingly well! Hunt photo.



Here's the "electronics bay" in Frank's E-Caprice. Frank prefers Thunder Power batteries. This is a very well thought out installation with a plywood support cradle to insure front end rigidity, and battery adjustment capability for proper balance. Imbriaco photo.

Shortly after Frank started on his Caprice, another flying buddy of mine, Tom Hampshire, decided to build an Ultra Hobby Products Gieseke Nobler kit that he had lying around and use the exact same system as Frank was using in his Caprice for power. The results were the same — a great flying, fun-size model!



Tom Hampshire built this sporty E-Gieseke Noble from the fine Ultra Hobby Products kit. Tom also used the Power 15 motor, a Castle Creations ESC, and a Hubin FM-9 timer system. This combination works very well and has been installed in many East Coast lower-case "e" ships. Tom Hampshire photo.

Will DeMauro came over to our e-flying site one day soon after that and brought along his son Kevin's UHP Gieseke Nobler. Kevin's ship was powered by a Cobra 2814-20 motor that is basically equivalent to an E-Flite Power 10. I was totally skeptical that the small motor would be enough for the 40 ounce BOB (Battery On Board) ship after having that bad experience with the Power 10 in Frank's RD-1E.

It turns out that all that setup needed was a smaller prop to be perfectly matched to a light .35-size ship. Will used an APC 10 x 5.8EP prop on that ship, and it flew through some fairly heavy wind with total authority.



Kevin DeMauro flew this e-powered UHP ARC Gieseke Nobler to third place in the Intermediate class at the 2013 Nats. This model is very light at 40 ounces with the battery on board! It is powered by a Cobra 2814-20 motor, which is roughly equivalent to the E-Flite Power 10, and is plenty for this size model when fitted with an APC 10 x 5.8EP prop. Photo by Will DeMauro.

We began retrofitting a number of .35-size ships to Power 15 setups, including "Frankentucker." That's a Tucker Special that I built back in 1991 for use in Classic Stunt at VSC (actually won VSC with it in 1993!). That ship was originally

fitted with a Webra .28, and then a re-timed Webra .32.

During a practice flight at my local field some years later, the engine shut off cold just after I had pulled up into a wingover. It fell in directly towards me and hit on the nose, crushing it back to the firewall. It went through a few hands after that with a repaired nose and was finally returned to me and I converted it to electric. The Power 15 was installed along with a 2,500 mAh Hyperion 4S pack, and it was eventually adopted by my son Robby as a practice plane.

The ship had a slightly warped outer flap, so we replaced that. We also installed a 1½-inch diameter spinner in place of the 1¾-inch spinner that was on the ship originally, and ground out the nose ring to allow for an annular cooling inlet. That brought the motor's operating temperature down significantly.

It was looking pretty ragged with all the repairs and modifications, but it was flying extremely well for Robby. We nicknamed it Frankentucker.



Bob Hunt's Tucker Special was built in 1991 and is looking a bit ragged these days. It was recently retrofitted to e-power and has begun a whole new life as a practice plane for Robby Hunt. It was nicknamed, "Frankentucker." The ship was first fitted with a Power 15 system, but now sports a Cobra 2814-20 motor and a Hyperion 2,500 4S 25C battery, a Phoenix 45 ESC, and Hubin FM-9 timer system. Hunt photo.



Frankentucker was new once and looked somewhat better than it does these days. It's shown here with a younger, Bob Hunt at the 1993 VSC, where it won the Classic Stunt event. It was powered in those days by a Webra .32. Hunt collection photo.

Robby likes his models to balance *very* far aft, and we bailed as much weight out of the nose as possible. Ultimately, I remembered watching Kevin DeMauro's Gieseke Nobler fly so well with the Cobra 2814-20 and suggested we try one of those along with the APC 10 x 5.8EP prop. That combination moved the CG far enough aft to satisfy Robby, and the ship is presently flying amazingly well with that setup.

We may even try a 2,100 mAh 4S battery in that ship to move the CG even a bit farther aft. We checked and found that we are only putting nominally 1,375 mA back into a 2,500 mAh pack after a flight, so the 2,100 mAh pack should be plenty.

In the spring of 2012, I had finished a new Classic competition ship. I built an exact replica of Gene Schaffer's twin-rudder-equipped Stunt Machine 1. Actually, Gene didn't name that ship, but the subsequent model—that also had twin rudders—was named the Stunt Machine by Don McGovern when he published it in *Flying Models* magazine.



Here's Bob with his tribute version of Gene Schaffer's Oosa-Amma (see text). This ship was too nose-heavy with a PA 40 R Merlin, so it was retrofitted with a Power 25 electric system and a 3,300 mAh battery. It was still too nose-heavy... So, Bob, at Will DeMauro's suggestion, installed a Power 15 and a 2,500 mAh Hyperion battery. That combination turned this ship into one of Bob's all-time favorite airplanes. Photo by Allen Brickhaus.



Here's a photo of Gene Schaffer's original Oosa-Amma (Stunt Machine 1). It received the nickname "Oosa-Amma" from Bill Simons when he contracted the "USA" on the left wing and the "AMA" on the right wing! Gene hated that nickname... The ship was designed in 1969, making it Classic Stunt legal. Plans and a construction article for this model will soon appear in *Stunt News*. Hunt photo.

The first ship in this series was quite a bit larger than the published one, and it had wing-mounted landing gear. Gene's first Stunt Machine had the letters USA, that were about five inches tall, emblazoned on the left wing of the ship, and the letters AMA, that were equally tall, painted on the right wing. When Gene first brought that ship to the local field, Bill Simons looked at it long and hard and then asked Gene, "What's an Oosa-Amma?" Gene hated that nickname, but it stuck, and it has forevermore been known around here as the Oosa-Amma!

My Oosa-Amma was originally powered by a PA .40R Ultra Lite, Merlin engine. (That engine has more nicknames than Apollo Creed in Rocky IV...) The ship turned out too nose heavy with that fine engine, and so I decided to convert it to electric power. I installed a Power 25 motor and a 3,300 mAh 4S Hyperion battery. It was still too nose heavy with that system.

Will DeMauro suggested that a Power 15 motor and a 2,500 mAh battery be installed. I was sure that Will was being overly optimistic, and that such a system would not have enough power to pull that 630-square-inch ship. I humored him and installed it anyway.

To my most pleasant surprise, that system pulled the 46-ounce BOB Oosa-Amma around as if it were a feather. Even in extremely high winds the Oosa-Amma performed great with the Power 15. In fact, it performs embarrassingly well; it's one of the very best flying ships I've ever owned!

Recently a few others on the East Coast have either converted 35-size models from IC to Power 15 electric setups, or built ships so equipped from scratch. After seeing how well Frank Imbriaco's Caprice looked and flew, Rich Giacobone decided to build one of his own. Rich flies the "other way" (he refers to it as the "correct way"), and we all constantly kid him about his leadouts exiting from the wrong tip. Rich's ship flies very well at 51 ounces BOB (Battery on Board).



Rich Giacobone wanted to try electric and built this e-powered Caprice. He installed a Power 15 system. His ship is almost perfect; the only problem is that he ran the leadouts out the wrong wing! (*I wamed you, Rich, don't mess with the Editor... Bob*). Hunt photo.



Bob Hunt seems confused at having to launch Rich Giacobone's Caprice the "wrong way" during the Classic Stunt competition at the 2013 Nats. Brickhaus photo.



A number of East Coast ARF Noblers have been fitted or retrofitted with electric power systems. Mike Ostella completely rebuilt and recovered his ARF from new to accept a Power 15 system. Photo by Mike Ostella.



Joe Adamusko retrofitted his flawless, Bob Gialdini-designed Olympic Mk VI with a Power 15 and an Edge Lite 50 ESC. After a few initial firmware programming issues, the ship is performing beautifully. The new Castle Creations Edge series of ESC's require the use of the newest firmware updates and also requires that the older Hubin program boxes be updated to enable the use of the "Castle New High Governor" mode. Hunt photo.

Joe Adamusko – another extraordinary builder and finisher – converted his gorgeous Bob Gialdini-designed Olympic Mk VI from IC to glow and seems very pleased with the results after a few initial firmware issues.

There have been a number of ARF Noblers converted from IC to electric around here. One of the most beautiful is Mike Ostella's version that was modified from the beginning to be electric powered. All these mentioned planes are using the Power 15 setup, and all of them fly outstandingly well.



Here's the electronics bay in Mike's modified ARF Nobler. It's a bit tight, but servicable. Note the use of a front mount for the Power 15 motor. The timer is a Hubin FM-9 and the ESC is a Castle Creations Phoenix Castle Ice Lite 50. The propellor is an APC 11 x 5.5EP that turns at 9,465 rpm, yielding a 5.3-second lap time. Mike uses a Thunder Power 25C 2,700 mAh 4S battery. Ostella photo.

So, the Power 15-size system is excellent for ships ranging from 500 square inches to well over 600 square inches, and from 38 to well over 50 ounces.

Early last year, Mark Weiss contacted me about possibly building a few advanced stunt trainers to be used at the Joe Nall Fly-In. Dean Pappas and I conjured up a very simple-to-build, profile model that had a Sukhoi-like appearance. We called it the Joe Nall Cadet, and, with the help of a number of our local flying buddies, built five of them in less than a month. A Power 15 system was used in that plane and it worked very well. The JN Cadet weighed in at 37 ounces BOB and was full-pattern capable. In fact, Mark took one of the surviving models (we crashed two of the five in training sorties at "The Nall") and used it to start competing in the Beginner class at local meets. So, our goal had been more than met to find a system that would work on .35-size built-up ships and on .35-size profile trainers.



(especially in heavy wind), and these smaller setups are just flat enjoyable and stress free. Yet another advantage to this size model is the fact that if the all-up weight is kept right at or under 40 ounces, you can fly on .012 cables or .010 solids. Think you've felt good performance on .015's? Just wait until you fly on .010 solids!

One of the most impressive and enjoyable aspects of electric power systems of any size is the fact that once they are setup and running properly, they just seem to fly for hundreds of flights in a row with no changes or issues. This attribute alone makes flying a good electric model so much fun and so satisfying.

Convinced to try a smaller electric system? Virtually any .35-size ship can be converted from IC to electric power, or built from the beginning as an electric model.

The Power 15 motor (950 Kv) is an E-Flite product and can be ordered through the company's website: [http://secure.hobbyzone.com/eflite/eflite\\_brushless/EFLM4025A.html](http://secure.hobbyzone.com/eflite/eflite_brushless/EFLM4025A.html). Order product #EFLM4015A. The Power 15 is currently list priced at \$64.99. Note that this motor comes from the factory setup for rear mounting. I highly prefer and most highly recommend that it be changed over to allow front mounting, which lowers the stress on the main bearing. Instructions are included with the motor for the reversing process.

Please note that there are many other motors from other manufacturers that are equivalent in quality, output, and price to the Power 15. Notables among these are the Cobra 2820-12 at 970 Kv and the Cobra 2820-14 at 840 Kv. The 2820-14 might be just a bit more efficient for our 4S use, but either of them will work fine.

These motors are priced around \$42.00, and they feature very large main bearings. One major plus for me is that the Cobra motors come from the factory setup for front mount use. The Cobra line of electric motors is available from Innov8tive Designs. Their website address is <http://innov8tivedesigns.com>.

I highly recommend the use of a Castle Creations ESC (Electronic Speed Control). For these smaller ships you can use either a 35 Amp Talon 35 or Phoenix 35 (the Phoenix 35 has been discontinued but is still sometimes findable by searching the online e-forums).

The 35-amp units will work fine for ships up to and including 45 ounces BOB. If your model is heavier than that, consider using the new Edge Lite 50 or a Phoenix 45 (again, discontinued but findable on the e-forums). You can purchase Castle Creations products from one of the many online RC discount suppliers, such as Tower Hobby or A Main Hobbies.

I also recommend the use of the Hubin FM-9 timer and Prog box system. You can contact Will Hubin at [whubin@kent.edu](mailto:whubin@kent.edu), or call him at (330) 678-9319.

I use premium-quality Hyperion batteries exclusively for electric flying. They are not the least expensive batteries out there, but, with proper care, they will last for several hundred flights. As I like to say, "The very best always costs a bit more... And it's always worth it!" I purchase my Hyperion

The Joe Nall Cadet was designed by Bob Hunt and Dean Pappas as a purpose-built, flapless e-stunt trainer for use at the 2012 Joe Nall Fly-In. It features a non-sheeted foam core wing that has .2 carbon mat reinforcement strips that are applied using water-thinned Titebond Aliphatic Resin. The ship is powered by a Power 15 motor and uses a Hubin FM-9 timer system, a Hyperion 2,500 mAh battery, and a Castle Creations Ice Lite 50 ESC. It is full-pattern capable and is very inexpensive to build. Hunt photo.

There are many good reasons to try this type/size setup. One main advantage is that this smaller system costs considerably less than the larger electric setups, so it makes it almost painless to the pocketbook to give e-Stunt a try. Also, the substantially lower cost of the system makes it viable to own more than one model. Like any electric setup, this type of system is very quiet and can be flown in localities where glow engine-equipped ships cannot be flown do to noise restrictions; that means more practice time is possible. The main reason to try one, in my humble opinion, is the fact that the smaller ships are just plain fun to fly, and they fly well in most conditions. Big ships wear me out over a day's flying



Bob Hunt designed and built this new ship specifically for the Power 15 size electric system. He calls it the Rounder. It features a reverse-composite foam core wing, a sheeted foam core stabilizer and elevator assembly, and molded fuselage shells. The wing is a stretched Caprice unit. Hunt photo.

Here's yet another new small electric design by Bob Hunt. This one is called the Caprice Extreme. It also features a reverse-composite wing (which will be the subject of a near future SN article). Bob reduced the length of the nose from that of the original IC powered Caprice and also restyled the fuselage to have a somewhat rounder appearance. Plans will be available soon... Hunt photo.



batteries from All e RC at allerc.com. I use the 25C, 4S 2,500 mAh packs, but I'm also getting ready to try a few 2,100 4S packs in my smaller, lighter e-ships.

Most of the Power 15 size models around here are being flown using the APC 11 x 5.5EP prop. Some have experimented with other props with varying degrees of success. "Wrong way" Rich Giacobone is using a tractor APC 11 x 5.5E and finds that his backwards flying Caprice works better with it than with the pusher prop. The bottom line is that you should experiment with props to find the best one for your plane, just as you would when flying an IC engine.

I have two new lower case e-size electric stunt models under construction at this time. One is a model I call the Rounder, and the other is a slightly modified Caprice that I call the Caprice Extreme. I will eventually have plans available for each of these

models. I also have just finished drawing the pencils for a smaller version of my Crossfire Extreme.

I'd be more than happy to answer any questions you might have about trying "Lower Case E-Stunt," or any other modeling-related subject. My email address is robinhunt@rcn.com, and my phone number is (610) 746-0106. *SN*



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by Paul Walker

**Criteria problems:** The previous discussions on the flow chart describe the ideal situation. That is, everything tried; results in the correct solution. However, that rarely occurs in the real world. It can be a real chore to get through the “Basic” trim section.

Some of these problem areas are discussed here. I call them “Criteria problems.” This is when two individual criteria can’t be satisfied with a single trim configuration. It can become quite frustrating sorting out the problem(s). Anyone who has flown a competition stunt plane knows that compromises are made to do the best pattern possible with a given plane. The goal is to minimize compromises and make your plane the best it can be. You need to be very objective about your trim and adjustments and be honest with yourself. Only then can you make the changes necessary to move to a better state of trim.

One major problem is working with a plane that is not straight. It’s nice to say that you are starting with a straight plane, and no one intentionally starts with a warped plane, but it does happen. It can be adjusted well to meet certain criteria, yet will fail others. If it is corrected for the latter, then the former will be out.

An example would be a warp in the wing that would cause a roll. It can be adjusted to fly level (in roll) both upright and inverted. This is illustrated by the green dash-dot-dot line in Figure 1. However, it will fail the even line tension criterion

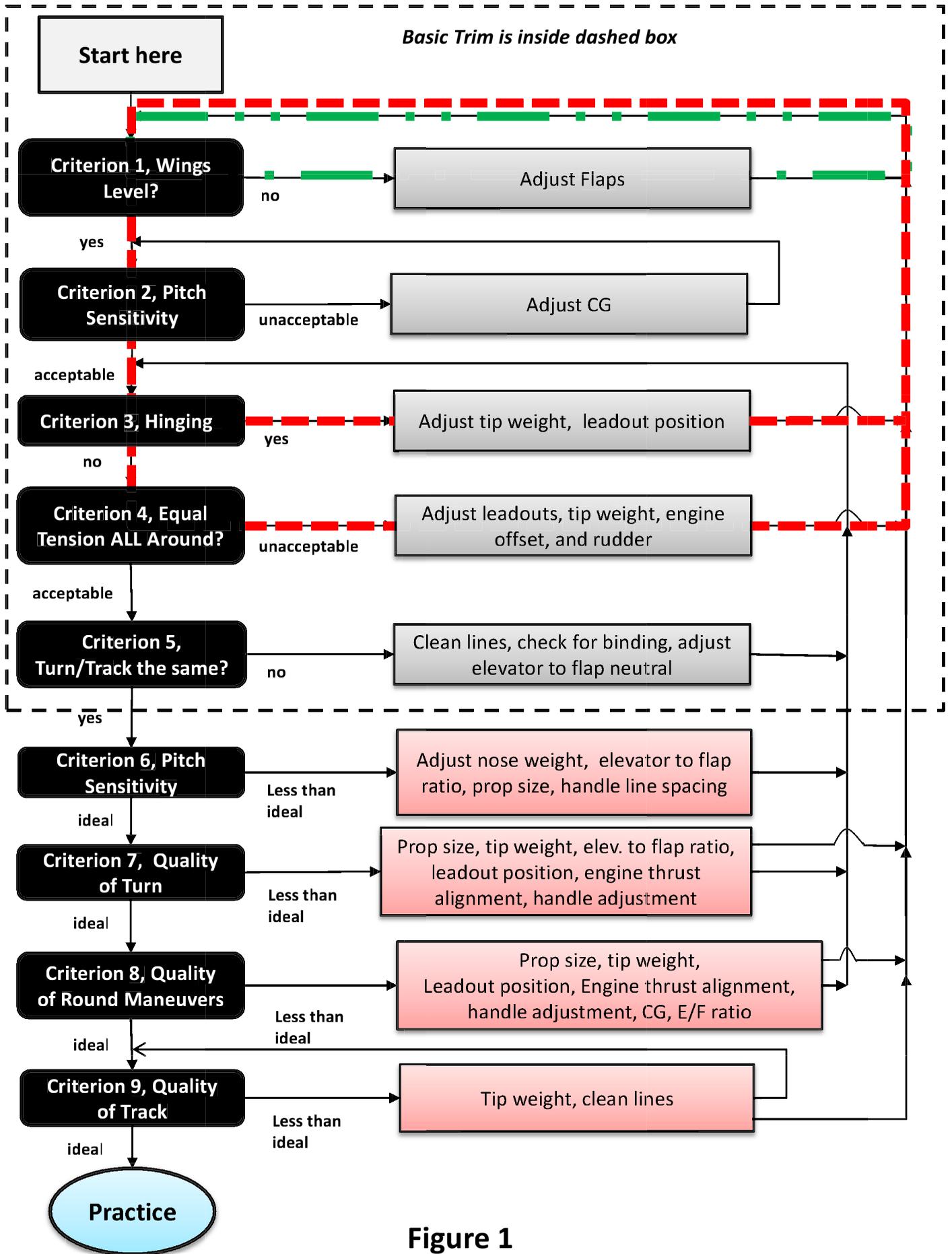
between inside and outside maneuvers or the hinging (rolling) criterion as seen by the red dashed lines in Figure 1.

At this point in trimming the equal tension should really be, “similar roll response.” Is the plane rolling in on certain maneuvers causing the line tension to reduce and rolling out on other maneuvers causing the line tension to increase? Note: There is a yaw component to the line tension criteria and that will be dealt with later on. This failure to meet these criteria is because the simple change of “tweaking” the flaps solves the static situation in level flight, but when the load factor on the plane is increased, the lift is no longer balanced. As the flaps are deflected, the relative camber between the inboard wing and outboard wing is different, causing a difference in lift between the two sides, and thus a roll. For minor flap tweaks, this is not a huge issue; however, it *is* a compromise in the trim process. I have been in this position before, and based on these types of responses, I knew there was a warp but was unsure if it was the flap or the wing.

Since I have removable control surfaces, I removed the flap and examined it carefully. When certain the flap was straight, I examined the wing closely. It wasn’t until I put the incidence meter on the wing that I found a one-half-degree twist in the outer three inches of the inboard wing section (inboard most



Chris Cox prepares to touch down with his Crossfire. Chris is the consummate trimmer and his planes always fly well and are competitive at the highest levels. Photo by *Flying Lines*.



**Figure 1**



Left: Isn't this a pretty sight? Warren Tiaht's, Art Pawloski-designed, Lunar tracks straight and true through a looping maneuver. The ship features I-Beam wing construction and a dope finish. Photo by Will Hubin.

work bench with a plastic tarp and under the edges lay sections of a 1 x 1 to fashion a bit of a tub the width and length of the wing to catch the excess water. The fuselage straddles the 1 x 1s so that the wing is over the tub. Towels are laid in the tub so that the bottom of the wing panel that is to be twisted is touching those towels.

The plane is then removed and some of that boiling water is poured on those

section). It was then flown without the flaps to verify it was all in the wing. Note: If you do this, only fly around level, as you will quickly appreciate how much the flaps really do help the plane corner. Really!

The same comment with respect to landing applies, as the "stall" speed goes up significantly. The wing was then straightened, re-flown without the flaps to verify the wing was then straight. When perfectly straight, then the flaps were added and the level rechecked. Now, the wing is straight and the flaps are straight with no bias adjusted in them in terms of roll. Having the flaps removable comes in handy when checking the wing for warps with an incidence meter at this stage.

If there is a warp in the wing, it has to be dealt with. This process that follows will work for most planes; however, I have yet to do this on a foam core wing. Others have stated that they have twisted a foam wing with steam, but I have never attempted this. Most other built-up wings are easily corrected this way.

My method is to boil a gallon of water and collect a few bath towels that have been discarded. I cover the



Steve Moon's original-design Furius features tip plates on the stabilizer to help promote better elevator authority. It seems to work! Photo by Gene Martine.

towels, and then the plane is placed on top of those now very hot towels. Another towel is then dunked in the boiling water and removed with a set of tongs. The towel is carefully placed on top of the wing and allowed to soak for a few minutes. The towel is then removed and the wing then twisted to the position necessary to remove the warp.

This process is similar to twisting a carbon prop with boiling water. Heat, twist, let cool, and check the position. If not satisfied, repeat until it is straight. Let it cool for a few hours, and if still straight, reassemble and perform a flight check.

How close is close enough? If the flaps are only a few degrees different, providing they are straight, it is probably close enough. I strive to have the flaps without any bias to each other, as this difference will eventually create minor issues later on in trimming.

Other designs use a segmented flap that has a separate outboard section to adjust wing level. This keeps the flaps unbiased, but its effectivity will change based on the AoA (angle of attack) of the wing. This will add a roll imbalance that *could* create issues in later stages of trim. It will come down to your adjusting and checking the loops highlighted in Figure 1 to be sure the criteria are met.

Now that the wing and flaps are straight, you may still experience problems meeting all the criteria. Another issue that creates a similar problem of a warped wing is having the vertical CG “off.”

I use the term “off” as being in a location that creates the issue about to be described. However, you say that you hung the plane from the leadouts and used a plum line or laser level to check the orientation of the wing, and it was exactly normal (perpendicular) to the ground. I have done that, as well, and my 2011 Nats’ Impact XS didn’t hang normal to the ground.

I measured the offset at the outboard tip, and calculated how

much the battery had to move to make it normal to the ground. I made that shim and then rechecked the offset. It hung perfectly normal to the ground. I then immediately took it to the field and flew it. This is a plane that just finished second at the Nats and second at the Team Trials, so it was a pretty fair airplane. I re-leveled the wings and then proceeded to fly the pattern.

It was *horrible*. It had the previously described problem of a major imbalance between insides and outsides. The only thing that fixed it was to put it back the way it was previously! I have checked the wing and flaps for warps, but none were found. The point here is just because it hangs perfectly from the leadouts, don’t assume all is well.

An *incorrect* vertical CG can be especially noticeable on the top of the vertical eight, the hourglass, and the overhead eight. Because of the vertical CG being “off,” the flaps had to be tweaked a bit to balance this. In level flight this isn’t a big problem, but once again during maneuvers with the higher load factors, the tweaked flaps will cause a roll.

Of course, the flaps can be tweaked to make the maneuvers balanced in roll, but then the wings aren’t level upright and inverted. This is the same problem that was discussed earlier. What to look for? If the plane is loose on outsides and tight on insides, suspect that the vertical CG is too low. For an IC-powered plane, moving the CG up is a bit problematic. Try some clay weights on the CG on the top of the fuselage. This will require a flap re-tweak to get the wings level.

Once the wing is re-leveled, check for the inside-outside balance in roll. If it helped but didn’t completely solve the problem, add some more clay and try again. For electric-powered planes, it *may* simply involve moving the battery up some.

Another tipoff that the vertical CG may be off is that the plane may hinge inside but not outside, or vice versa. Just as described above, this hinging can be balanced with a flap tweak, but then



Bob Hunt's original-design Caprice grooves through inverted flight on way to one of his five consecutive wins with that model at VSC. Bob never stopped trimming on this ship and it just kept getting better! Hubin photo.



Left: Bill Werwage's "razorback" P-47 has won many major contests, including the 2004 World Championships. It is shown here during one of the winning flights at that contest. Yet another extremely well-trimmed ship! Photo by Barry McCool.

Below: Here's Jim Lynch's gorgeous Bill Werwage-designed Super Ares caught in a wingover path. Jim's ships are always well trimmed and competitive. Hubin photo.

the level flight will be off. Sounds just like what was discussed earlier! This assumes that there are no anomalies with the airfoil section on your wing. Bumps and sharp edges can cause no end of grief, so be careful with this when building.

At this point the wings should be level, and the maneuvers balanced in roll. The line tension may vary between inside and outside *due to yaw issues*, but the roll response will be the same. The line tension issue will be taken care of with other subsequent adjustments.

Now that the wing is straight (and the flaps, as well) it should be able to satisfy the criteria. These criteria are at the very start of the flow chart, and I can't emphasize enough the importance of getting this correct at the very beginning of the trimming process. It will make all the following adjustments that much easier.

If this warp is not corrected early, and much time is put in later, you will end up going back to step one anyway, and have to start over when the warp is corrected. This leads to a subtle thing that happens when going through this process. That is that many trim changes will act differently when the plane is in a different state of trim.

A good example of this is wing tip weight. When the plane is in *perfect* trim, I can tell the difference in *one gram* of tip weight. No B.S. here; it is a fact! In fact, the "magic" trim change I made at the 2013 Nat's was to add two grams of tip weight. I know that in other trim configurations I had it in, I could not feel two grams of tip weight, and it realistically made no difference. That in itself was a clue that the overall trim it was in at the time was not optimal for me.

Converse to that argument, there are certain trim changes that become insensitive to adjustment when the overall trim hits the "sweet spot." On the 2012 Impact, that insensitive item was leadout position.

One afternoon in the fall, I actually moved the leadouts all through a range of 1.0 inches, with minimal affect. This was when it was in the trim from the Nats of that year. Prior to the



Nats, it was more sensitive to the leadout position, yet in this other configuration it was relatively insensitive. This phenomenon is real.

The point I am trying to make is that you should remember (or write in a log book) what happened to the plane after a certain trim change was made, for your use at a future time. *But* don't be totally surprised if it doesn't work exactly the same in your current configuration.

In the next installment, Criterion 5 (turn and track the same) will be discussed in more detail. SV

# IC Engines

by Brett Buck

**Like a bad penny**, I just keep coming back. Being a well-established Luddite and curmudgeon, our esteemed editor asked me to write this column on the ancient technology of internal combustion stunt engines. I think it all started when I made the mistake of typing the characters “f-o-x-3-5” into the internet in about 1995.

This column will focus on setup, props, and some basic propulsion theory, with whatever I or others happen to understand about it. Mostly this will be functionally-oriented, rather than argue about squish band widths, how to make it go, with enough theory to help generalize. Much of it may be arguable, so, my email address is above, argue away.

You can't really separate the engine from the prop. This has been illustrated clearly by, yes, electric systems, where a lot of what we thought were purely prop effects, are now known to be a

function of the engine and prop interacting.

With that preamble, I will start off with a critical but non-controversial topic on which we can all agree.

## **Everything you know about torque and horsepower is wrong**

Howard Rush made this point on SSW quite a while back, but it's at least partially true. What the typical American male thinks he knows about horsepower and torque, in particular, is influenced primarily by various TV ads and bragging contests in junior high school. My very own Dad, a retired from a stellar career in industrial engineering, still claims his ~90 HP flathead V8 in a 49 Ford is a “real torquer,” despite the fact that my Mom's Nissan had more rear-wheel torque at the same RPM. It's the same with model engines. Ancient technology Fox 35s, ST60s, and 4-strokes are considered “torque monsters,” while



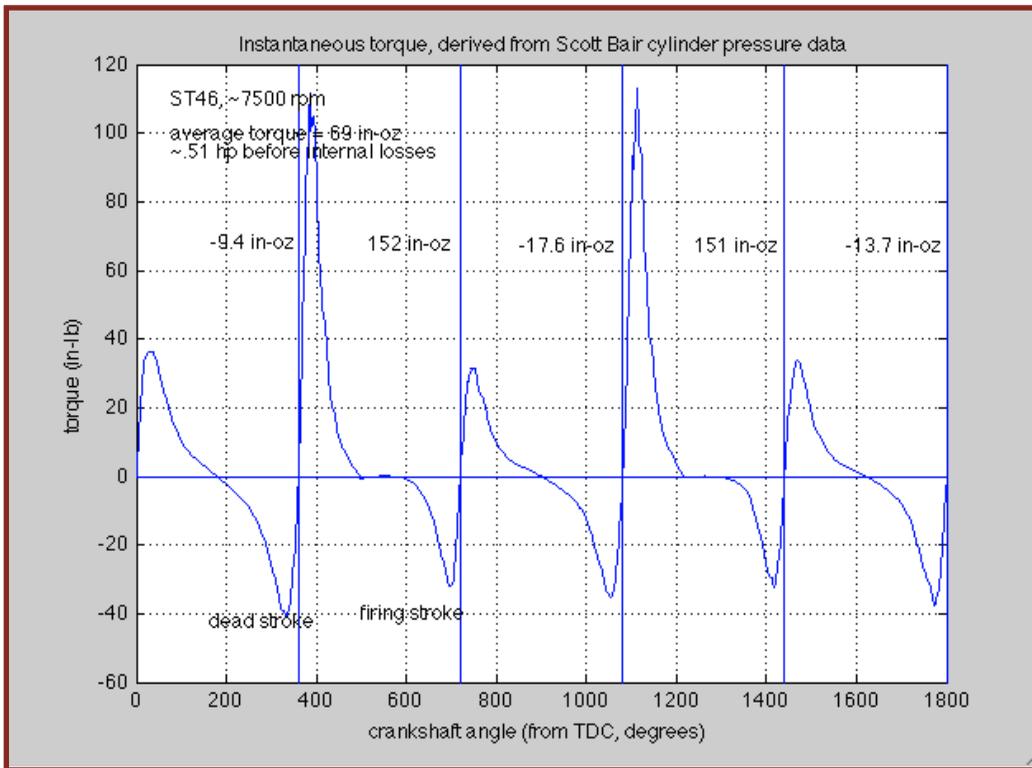


Figure 1 Torque applied at shaft for several complete revs

something like a 40VF is a “whining Ferrari” with no “real guts.”

In fact, a 40VF setup up per standard system, like Paul Walker’s, has substantially more torque at any usable stunt RPM than a Saito 56. The difference is that the Saito is about ready to give up the ghost at 11,000 rpm no matter what load you have and the VF will happily rev right on up to 13-14000 even with the pipe set to regulate at 11,000. The Saito is a “chugger” not because it has extraordinary low-end torque, but because it *has to* run at relatively low RPM. The 40VF runs at much higher revs

not always “forward.” At some points during a revolution, the torque is backwards, meaning it is slowing the prop down, instead of pushing it faster. Figure 1 is an example. In this case, the peak forward torque is about 110 in-lb and the average torque is only about 4.3 in-lb. And this is a wimpy little ST46. Think what it might be on a big ABC 60.

This is why you don’t want to run electric props on your conventional engine – this torque is forcing the prop to accelerate and decelerate quite a lot during each rev, and that has to result in

because it has such tremendously more torque at high revs, *it won’t stay at low revs*, unless you do something to prevent it.

This is just an example of a condition we have argued out on the internet for 20 or more years. Of course, from now on I will have to check my mail for ticking sounds.

Torque and horsepower have real, legitimate, definitions, and they are accurate for stunt planes just as much as anything else. “Power” and “torque” used in a stunt context, tend to mean almost nothing, but are usually related to how much line tension you have, how rich it seems to run in flight, and/or how big a prop it spins. These are all vaguely related to actual power and torque, but not too strongly.

Torque is the twisting force, how hard it is twisting the prop at any particular instant. In most tests, the torque is measured as an average over many revolutions. In reality, it changes all over the place during a revolution, and it’s



Brett signals the judges to begin one of his Top-5 flights at the 2014 Nats as David Fitzgerald, the ultimate winner of the event, holds. Martine photo.



Brett is a past Nats Champion, but he finished a very credible fourth on this occasion. He knows his engines and that's why he's our new engine columnist. Martine photo.

much more flex in the blade at the tip gets ahead and behind. They are fine for electric, because although the average torque is about the same for a prop/airplane/airspeed (much more of that in future episodes), the variation around a rev is negligible.

Note that torque is just that, the twisting force on the shaft. And it is the torque you actually have, not what it might have at some other condition. The confusion between what the torque actually is opposed to what it might be, what the power actually is, as opposed to it might be, is rampant.

Bear with me, I am getting to a basic point that you really need to understand.

Horsepower is the rate at which "work" is done. Work also has a clear definition in physics, force times the distance. If you are holding a barbell stationary overhead, you are applying a force but without moving it, there is no work being done by the physics definition. Lifting it above your head from the ground is some force over some distance, and that *was* work. It has units of foot-lbs if you are talking about linear motion and you are a good right-thinking American. It doesn't matter if you get there fast or slow, it's the same amount of work.

Of course, it's a lot harder to do the same amount of work faster. The rate at which work is done is the *power*. It can have many different units, like ft-lb/sec, or watts. James Watt, the steam engine guy, tortured horses in the pre-PETA era to determine that a very strong draft horse could generate about 33,000 ft-lbs of work in a minute. Hence, one possible unit of power is the Horsepower, 33000 ft-lbs/minute or 550 ft-lb/sec. Note also that that feet/second is the speed. So the faster you are going when you apply the force, the power is being used. That's why a Saturn V putting out 7.6 million pounds of thrust is putting out exactly zero power until you release it – no motion, no work, no power.

The rotational analog of force is the torque, the rotational

analog of distance is the amount of rotational angle, so the rotational analog of work is the torque time the total amount of rotation (say, revolutions or radians). Correspondingly, the horsepower is the work per unit time, so something like the torque times the number of revolutions in a minute. The number of the revolutions in a minute is of course the RPM, to the power is the torque times the RPM. To get it in units of horsepower, with torque in inch-lbs, it's the torque times the RPM/63025. That's how I got the power in the graph above, the average torque is 69 in-oz, or 4.3 in-lb. It's running at 7500, to  $4.3 \times 7500 / 63025 = 0.51$  HP.

#### Why you should care

The  $\sim \frac{1}{2}$  hp is a very relevant number because that's about what your engine puts out, too, while flying your airplane – 40VF to PA88, and pretty close to a OS 20FP. That's where the comment above about the power being *what it actually is* as opposed to *what it could possibly be*. The reason is that to fly around level at 60 mph *only requires about 0.4 hp* for most current competitive stunt planes.

Of course you have to run a 40 at a much larger fraction of its capability to get the  $\frac{1}{2}$  horse, and something like a PA75 (that could probably be made to generate five horsepower or more if necessary) is just loafing. What is critical for stunt performance is *not* the absolute horsepower capability. It is *how the engine reacts in a maneuver when you run it around  $\frac{1}{2}$  average horsepower*. This is a critical point and you can't really understand stunt engine setup unless you understand it.

Another interesting point to ponder: The bigger and more efficient your prop, the less power your engine puts out. Chew on that one for a while. *sn*

—Brett Buck  
brettbuck@comcast.net

**Robin's View Productions**

# Custom Foam Wing Services



*Here's Bob Hunt at the 2011 Nats with his new, electric powered, Crossfire Extreme. The model features a Masterflite foam wing that was cut and covered with the flaps integral to the airfoil. The flaps were then separated and framed with balsa. Photo by Gene Martine.*

Bob Hunt has been supplying the Control Line Stunt community with World Class, foam-based model airplane components since 1969. Stunt models built with foam components produced in his shop have won more World and National Championships than all others combined!

The vast majority of CL foam component innovations are traceable to his shop. He was the first to use triple-section coring for reduced weight. He was also the first to offer foam flaps that were cut as an integral part of the wing core and then separated from the wing after covering, ensuring a perfect fit between the flap and the wing.

Bob developed the system of using Lite-Ply landing gear ribs that install between the leading edge and the spar, and accept lightweight, load-dispersing landing gear plates instead of the heavier maple blocks. More recently, he has developed a system of accurately cutting fully rounded foam leading edges on the cores that he produces, along with a foolproof method for attaching molded balsa leading edge caps on the cores. This

system yields extremely accurate wings that are lighter and easier to construct.

These innovations and many, many more were born from constant research and development in the competition arena. Bob was the first to win a World Championship Gold Medal flying a CL Stunt model fitted with a foam-core wing. Foam wing cores and wings built by him have enabled hundreds of CL Stunt enthusiasts to realize superior model performance and have helped them to win consistently in aerobatic competition.

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Robin's View Productions offers custom-cut foam wing cores, covered foam wings that are ready for control system installation and joining, and also fully built wings complete with flaps, tips, adjustable leadout guide, tip weight box, and control system installed. RVP has templates for all the popular CL Stunt and Classic Stunt models, and can custom template and produce your original design wing for you. Bob personally cuts each wing core using only top-quality virgin bead foam. Covered wings are produced using only the finest, hand-selected, contest-grade balsa.

For a complete listing of the myriad products and services offered by Robin's View Productions, please send a large SASE to: Robin's View Productions, PO Box 68, Stockertown PA 18083, call (610) 746-0106, or email Bob at [robinhunt@rcn.com](mailto:robinhunt@rcn.com). Phone orders are welcome and RVP accepts Visa and MasterCard for your convenience.

Along with all RVP products comes the invitation to call with any questions about model building. RVP offers an evening "Hot Line" for questions you might have while you are building in your shop.

*Remember our motto:*

# ***Relentless Innovation!***

# Building a Foam Fuselage for the Japanese Zero

by Don Ogren



Way back in 1958, I designed and built a Japanese Zero based on the dimensions of Rolland McDonald's Strathmore design, which I called the Detrouiter. World War II warbirds were popular in the 50s, as Charles Mackey had designed and built a Bf 109 and a British Spitfire, while someone else in the Indianapolis area had designed and built a Stuka. (My Zero fell right in step.) Over the last few years, I've often thought of my 1958 Zero, and I was itching to have another.

Building from scratch is one of my favorite things, and producing a plane from my past was even more challenging. This project would have to start deeper than "scratch," because there were no plans from the past.

I had my old Detrouiter, which was a starting point, hanging in the shop with its 50-plus years of hanger rash. Several pictures of the original Zero proved invaluable in determining shapes, areas, and overall proportions. So next came the Zero plans. I had a lot at my fingertips for references.

I didn't really want to go after full-size drawings, so I settled on 1/4-scale plans on quad-ruled note paper, and this proved to be adequate, as only one Zero would be built. Those 1/4-scale plans are shown in Photo 1.

The original fuselage construction was of large balsa blocks, tack glued together and then shaped and hollowed. The compound curves of the fuselage did not lend themselves easily to balsa sheet molding, either. So I decided that I would try another construction method for this Zero using blocks of pink foam, which I figured would carve and shape more easily and be lighter than the balsa blocks. I'd cover the shaped fuselage with light fiberglass cloth and end up with a pretty quick build.

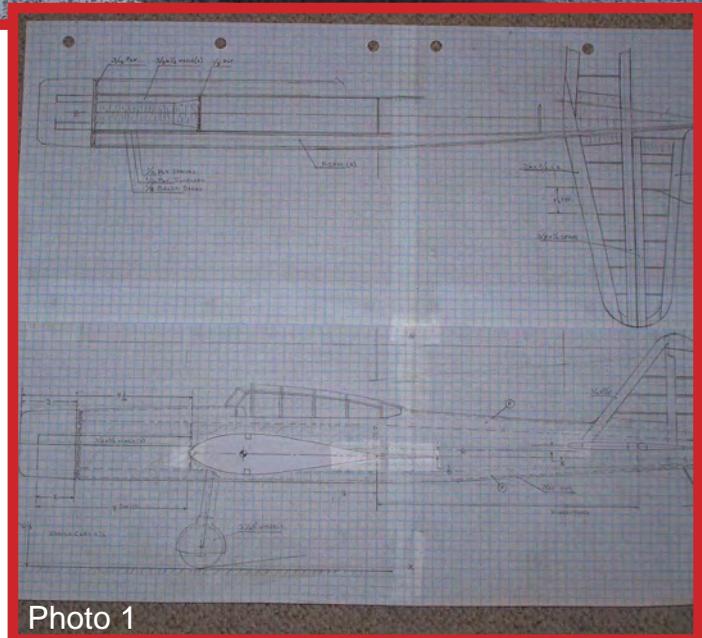


Photo 1

## Fuselage Construction

The first step in the fuselage construction is comparable to normal built-up fuselage design. The fuselage crutch was typical flat balsa, this time 3/32-inch sheet, with 1/16-inch plywood doublers as shown on the plane in Photo 1.

Prior to any foam work, the tank compartment, engine mounts, and firewall had to be built, as shown in Photo 2. Matching foam was cut slightly larger than the sides so that the foam could be

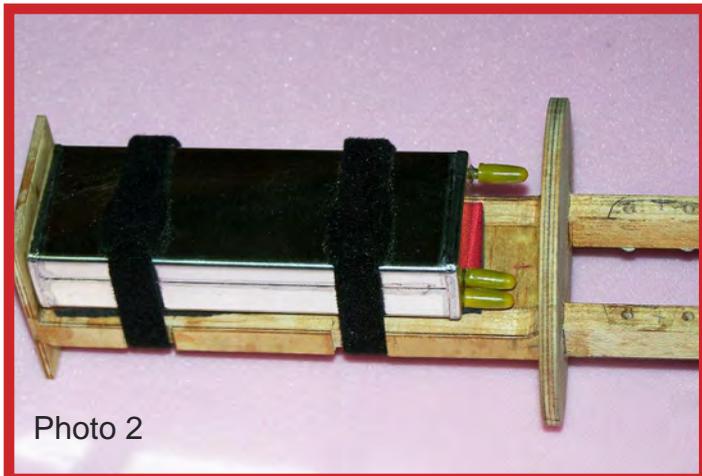


Photo 2



Photo 5



Photo 3



Photo 6

trim/sanded to match the sides, as shown in Photo 3. Gluing the foam parts to the fuselage crutch came next, and for this I used Titebond wood glue, as shown in Photo 4.

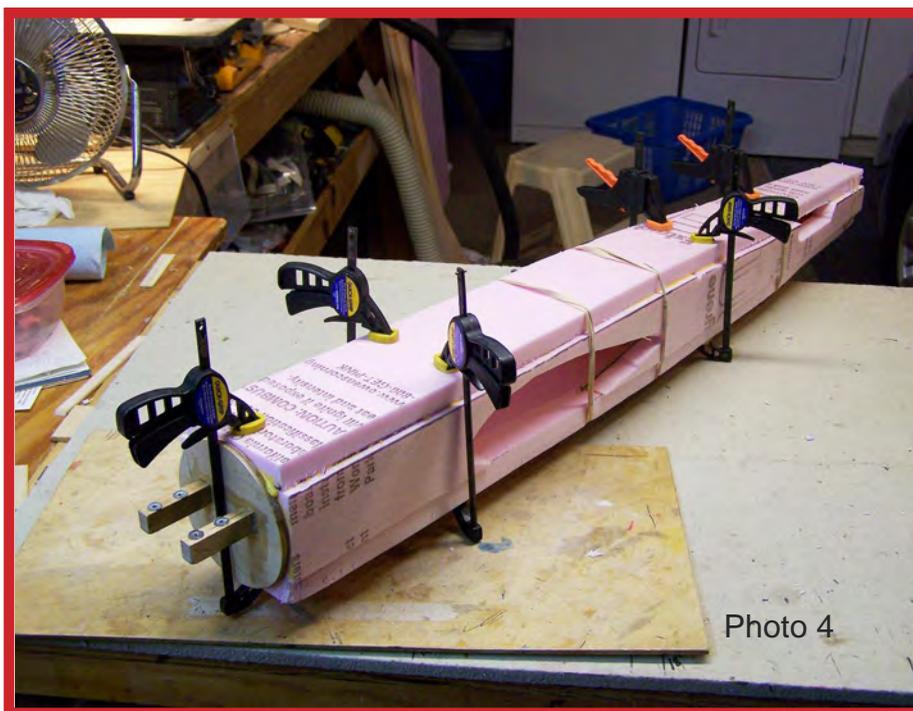


Photo 4

Photo 5 shows the first step in the carving process. My tools were a very sharp fish-filleting knife and a sanding block with #80-grit paper. When I got to the final sanding stages, I donned a respirator mask, used a contour gauge for symmetry checks, and changed to #150-grit paper as shown in Photo 6. Also, a window exhaust fan was turned on high, as you can imagine the amount of dust that was created. The shop vacuum was kept close by and used often.

#### Glassing the Fuselage

The foam will not stand up to any hangar rash, let alone the abuse of flying. I elected to cover the foam fuselage with fiberglass dry wall tape (see photo 7). This tape has sticky-back adhesive on one side, which adhered nicely to the foam. The tape, by the way, is rather an open weave which allowed the 30-minute epoxy that I used to work well.

Strips of the fiberglass that were about 10-12 inches long were laid diagonally around the fuselage, overlapping the ends slightly



Photo 7



Photo 8

until the full length was completed. (This took about two days for each layer, of which there were two.) Each layer was sanded with #150-grit sandpaper on a block to minimize the cloth's over lapping bumps (see Photo 8). For final filling and easy sanding, Bondo Light Weight Body Putty was selected and proved to be a good choice (see Photo 9).

The Zero in its final stages is pictured in Photo 10, and now it starts to look like a plane. The fuselage will be painted with Rust-Oleum Almond enamel from a spray can. Surprisingly, this paint is a very close color match to the UltraCote Cream.

The lead photo of this article shows the completed Japanese Zero. The project was well worth the time and effort. The foam parts were less work and weight than would have been experienced with balsa blocks.

I hope this has whetted your appetite enough to try a foam project. *sv*

—Don Ogren



Photo 9

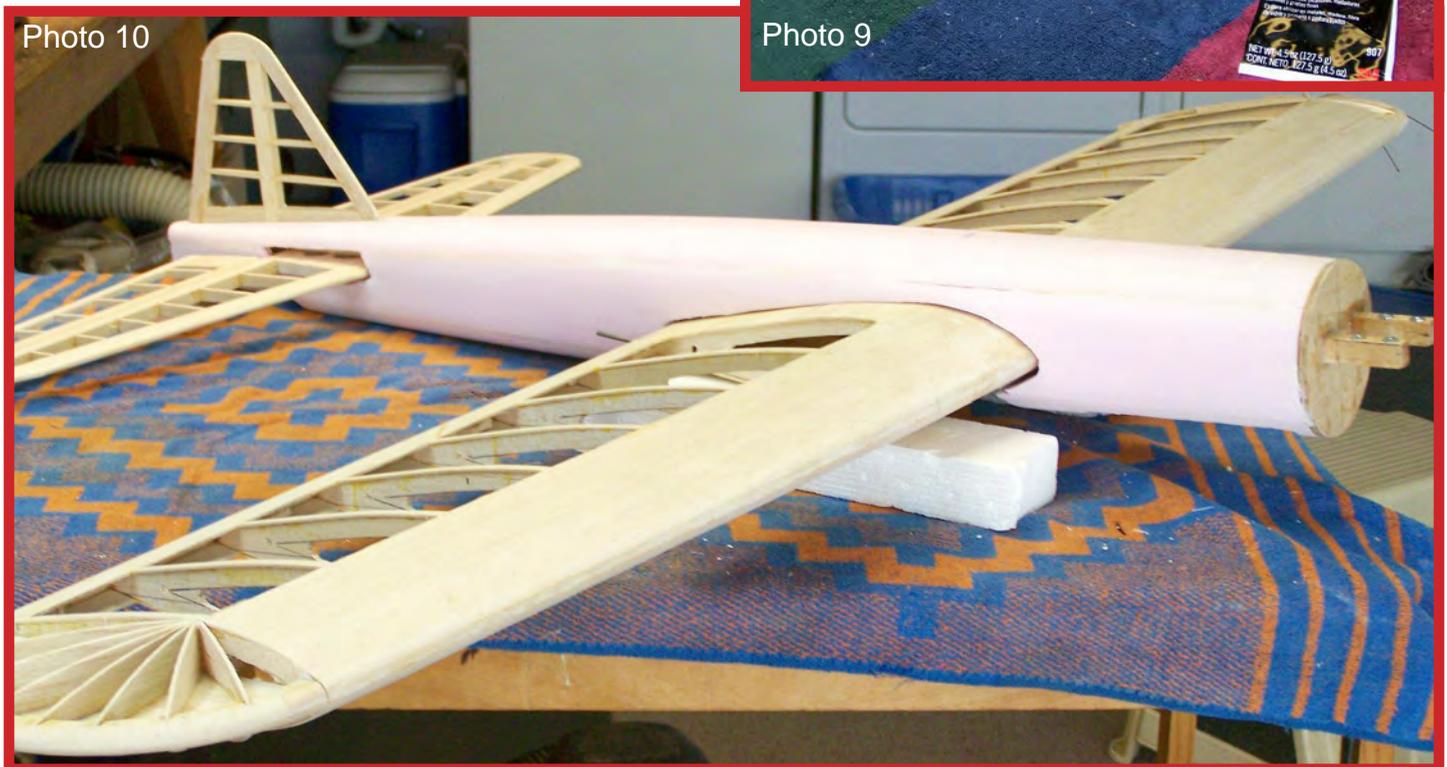


Photo 10

# Building a Fuselage Jig

by Don Ogren

This past fall, after talking with Allen Brickhaus, I decided that I would like to build one of his designs. He suggested the Legacy 40. In his opinion, that plane was one of the best to come from his drawing board. So the PAMPA secretary got an order for the plans, and I got started on the plane about mid-December, 2013.

The first thing I did in the building process was to check the specifications. To my surprise, the horizontal tail surface area was 29% of the wing—a truly great ratio (164 sq. in./565 sq. in.). The large rudder was also attractive. I figured that this should be a really great plane for the CLPA pattern, and I was anxious to get the build started.

I had always built fuselages over plans; some would be straight and others only reasonably so ... This scratch-built Legacy would receive the best of my talents, so I would need a fuselage jig.

The basic design of a fuselage jig was sketched out on quad-ruled paper, with a list of materials. A trip to the local Home Depot for “lumber” was next. The base of the jig would be a 4-foot length of select pine, 8-inches wide, and flat. Believe it or not, several pieces were slightly curved/warped from side-to-side, and I always pick and chose my wood very carefully. (I took the most flat piece they had.)



Don used 8-32 T-nuts in the bottom of the base to anchor the Side Alignment Jig pieces.



Here's the baseboard layout with centerline and station locations.

Photo 1 shows the base laid out with the centerline and station positions, which are at 6-inch intervals. To anchor the jig pieces, 8-32 T-nuts were glued into countersunk holes on the underside of the base, as shown in Photo 2.

The Side Alignment Jig pieces were made from  $\frac{3}{4}$  x  $1\frac{1}{2}$ -inch select pine, with slots for the hold-down screws as shown in Photo 3. The 14 upright pieces (seven left and seven right) were made from

$\frac{3}{16}$ -inch aircraft-grade plywood and attached with #4 x  $\frac{3}{4}$ -inch flathead screws to the slotted adjustable parts. I tack-glued the alignment pieces together with CA before pilot-drilling for the screws, and then would check for perpendicularity, sanding any detected out of squareness. Thus, each of the uprights was “tuned” individually. Photo 4 shows another view of the 4-inch-high alignment pieces.

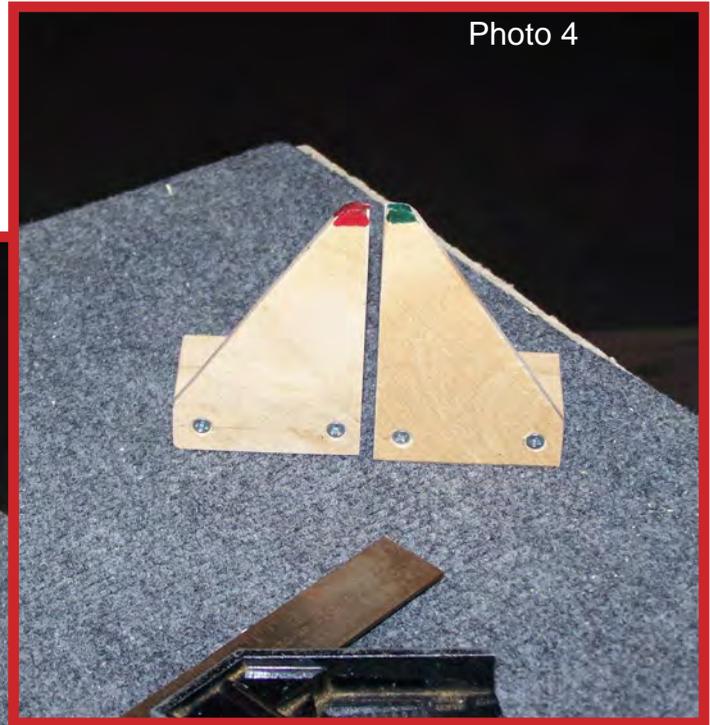


Photo 4

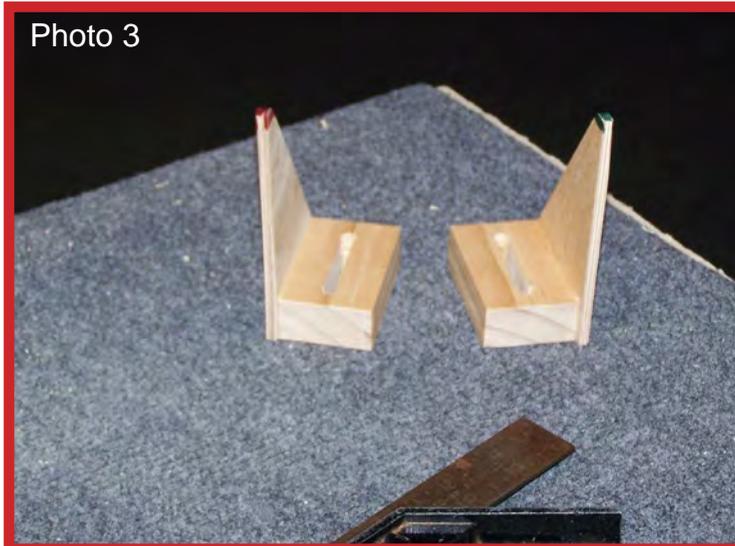


Photo 3

The left and right Side Alignment Jigs are 4 inches tall.

Here are the Side Alignment Jigs, showing the 1½-inch-long adjustment slots.

The holddown screws are 8-32 x 1½-inch long Phillips head units, with a flat washer on each. Adjustment is quick and easy with a screwdriver. The symmetry lines are spaced at  $\frac{1}{4}$  inch, however, I found that it to be more accurate to carefully measure from the centerline to the face of each vertical piece.

These fixture dimensions would accommodate fuselage widths up to about 4 inches, and lengths to about 50 inches, which is larger than any fuselage that I would be contemplating in the near future.

The time spent was well worth it, as I now have a truly straight Legacy 40 fuselage. And the total cost was less than \$30 for this great shop tool. The finished fixture is shown in Photo 5.

—Don Ogren  
Email: [clpa4029@gmail.com](mailto:clpa4029@gmail.com)  
Cell: (352) 428-9171

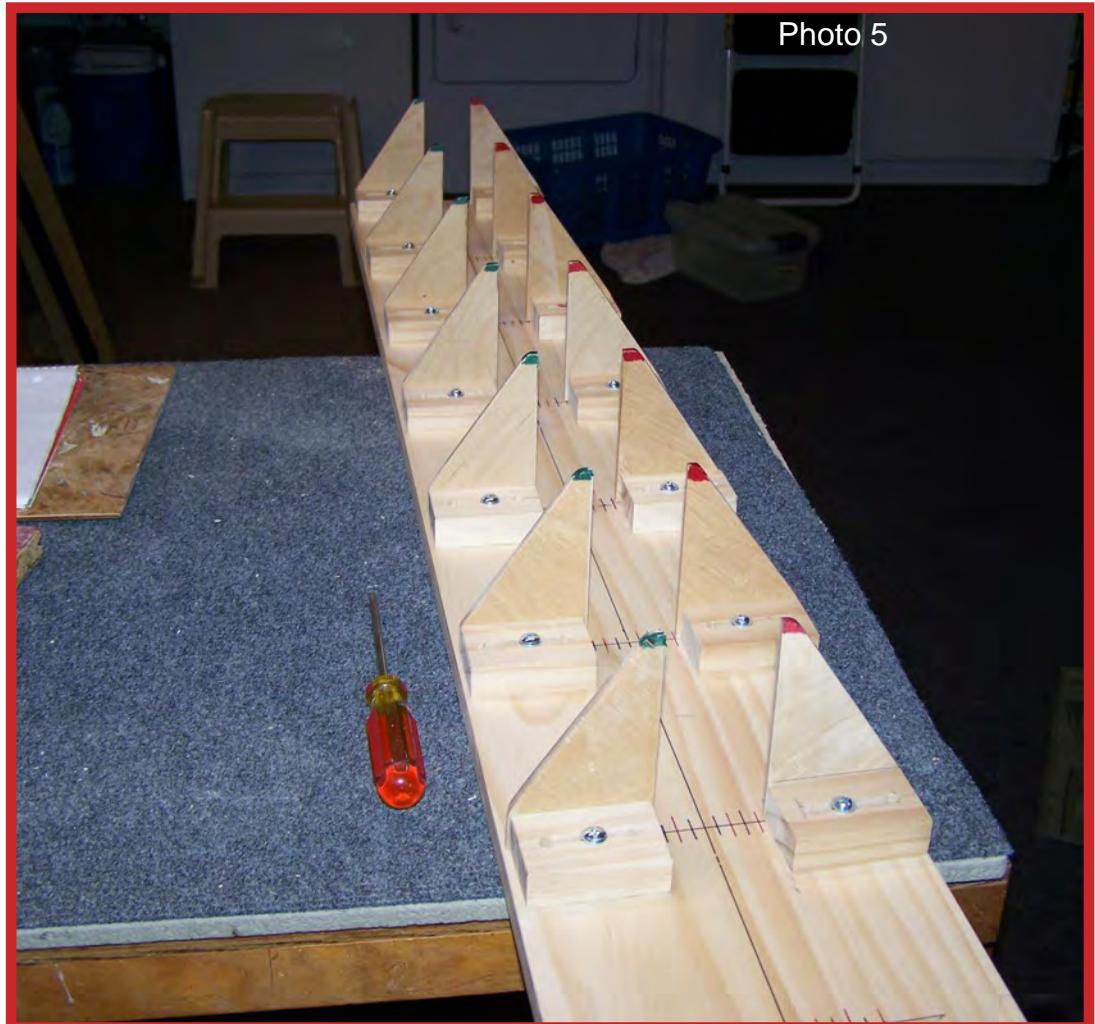


Photo 5

Here's the completed Fuselage Building Fixture.

# ***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, or by phone at: 610-746-0106.

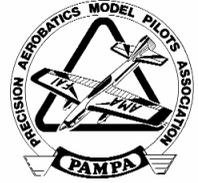
**We need your help –  
Now! Please join the  
ranks of those who  
share information and  
write something for  
*Stunt News*.**



# PAMPA News & Reports

## Vice President's Report

by Matt Neumann



**Precision Aerobatics (Stunt)** is a great challenge. Let's face it, in order to succeed we need to be able to design our own planes, build them, paint them, and then, after all that, fly them. To top it off, not only do we need to do those things, but to really succeed, we also need to do all of them quite well. Sounds daunting, doesn't it?

As many of you know by now, I have made a completely new (to me) plane this year—as in it is not a Stuka—or even a military plane of any sort. I started with a blank sheet of paper, and over the past 10 months, I have worked to try to overcome the challenges of designing, building, and painting my plane. I have just now started working on overcoming the final challenge of flying the plane, and to top it off, I started flying it just three weeks before the Nationals. Yep, no pressure there!

Fortunately, the Stunt community is made up of a bunch of wonderful people who are willing not only to help the rank beginners but also to assist even the more experienced when needed. Last year I had many conversations with Ron Burn on designing and building. Those techniques resulted in the Stuka from last year and have continued in the new plane for this year.



I give Ron a huge thank-you for answering my many questions. I would also like to thank Doug Moon and Derek Berry for my questions on stabilizer tip plates. This is my first design with them, and they were a great help with that part of the design. I would also like very much to thank Jim Aron who has spent countless hours working on the masks for my new plane. Not only did he come up with the precise font that I wanted for the name and AMA number, but he also created the computer files for the firebird on the bottom of the fuselage. Thank you, Jim!

As a side note, I approached Jim last fall about the idea of putting a firebird on the bottom of the wing. It is





noticed.) Of course, he must also be a bit crazy because he also said it would be fun to do this. So again, I am giving a huge public thank-you to Jim for all his work to make one of my dreams come true.

One of the biggest things for me was what to name the plane. I have to admit, I did have a short list of names that I had thought of. As I was thinking about what to call it, I wanted something different, just like the plane itself. I wanted something that would stand out among the rest.

Although Eagle, Falcon, and a few other birds-of-prey names come to mind, these have been used many times, so I was not keen on that. I had thought of Phoenix because of the design on the bottom, but how many people have called their plane the Phoenix after an unintended “landing” made it necessary to rebuild portions of the plane?

There were a few others, but when I looked up the definition of what I chose, I had to run with it. The definition of the name I chose is “To take on and overcome a great challenge.” As I have mentioned earlier in this article, this is so true of stunt in general. It is also the name of some ships, past and future, that have a reputation of getting the job done no matter what the odds.

So with that I will quote one of the captains of those ships, Captain Jean Luc Picard: “Let’s make sure history never forgets the name, Enterprise!”

Okay, yes, I am a Star Trek fan as many of you know, but once I found that definition I just had to go with it since it so much fits what I am saying. Besides, how many of you can say you are Captain of the Enterprise? I can!

Now, here are a few of the particulars about the ship. The wingspan is 62 inches with a wing area of 700 square inches. Power is electric, an E-Flite 32 swinging a 14-inch carbon prop from a quad copter. The batteries I have are 3300 mAh, and as of this date I am using around 2100 to 2200 mA per flight. The weight did not come out quite as good as I had hoped (looks like I need a little help fulfilling the challenge of painting light) at 73 ounces. I have yet to polish the plane out; it should lose a little bit then. However, it does seem to fly and turn fine with the flights I have on it at the moment.

The basic shape came together fairly easily for me, as I mentioned in an earlier article. Except for the firebird on the bottom, the paint scheme came in to being kicking and screaming. I wanted to use a font like what was on the Starship models since the first Star Trek movie back in '79.

The “Big E” on the rudder is a nod to the nuclear carrier CVN-65 that has just been retired after 50 years of service. It had something similar painted on the back of its island. The reason for this is the crew of CVN-65 and her previous namesake from World War II, CV-6, called their ships the “Big E.” So I figured this was a good way to merge the past with the future. The rest is just something I, for the most part, just came up with out of my head after many thoughts on the subject. (My head hurts!)

The moral of this story? I want to challenge you to challenge yourself. Come up with something unique. Push yourself just a bit more than the time before. Improve. It is very satisfying when asked about the plane to say you designed it, you built it, you painted it, and now you fly it.

Take on a great challenge and overcome it. And if you have trouble along the way, don’t be afraid to ask for help. You will get it. That is also what Stunt and PAMPA is all about: helping each other. I would not have been able to make this dream come true without the help of others. Thanks again, guys! *sw*

—Matt Neumann

something I felt would be unique and look awesome if correctly done. I asked Jim in an email if it was possible, or am I just crazy? He answered with one word: *yes!*

Okay, I also have to admit I had to clarify that answer. Yes, it was possible (obviously), and yes I am crazy. (Really? I had not



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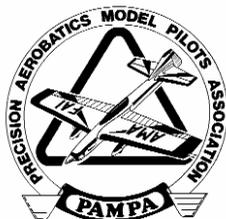
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# District I

by Steve Yampolsky

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

One of the most unusual aspects of writing for this newsletter is the fact that it takes two months from the moment one submits the article to the day it comes out in print. One almost has to anticipate the future events. Sometimes it's hard, but this time it's super easy; it's Nats time! Everyone will either be in Muncie trying to get the last practice flight in or sitting by the computer anxiously awaiting any news from the L-Pad. To alleviate some of this anxiety, I'd like to bring you a Nats story with an unusual twist. Here we go!

There are many ways to enjoy our hobby. Some build five airplanes during the week only to crash them over the weekend. Some fly 500 patterns a year trying to find that extra edge over the competition. Some take extra time to get that perfect, front-row type of finish. And then there is judging. There were two reasons that brought me to Muncie last July. I was looking for an opportunity to "finish" my education as a judge and also to observe top fliers from the best vantage point possible in order to understand the level of flying that is required get to the Walker Trophy fly-off. Allow me start from the beginning...

I am a newcomer as far as stunt is concerned. Yes, I flew as a

kid but dropped out and did not pick it up again until spring of 2003. That summer I learned how to fly inverted, then progressed rather quickly.

Coached by the likes of Dave Cook and Rick Campbell, I made it to Expert by the summer of 2005. I continued to compete in Expert until 2008 when I won the prestigious New England Cup. After that win—and still high off the win—I wanted to go after the Walker Trophy! Unfortunately, by that time Dave and Rick had stopped active participation in the sport and I was without a coach. I needed to find a way to improve my flying skills.

Luckily, soon after that realization, I was asked to judge a contest. It became apparent rather quickly that judging was a great tool for educating oneself in what the pattern should look like. For the next four years, I volunteered to judge at every contest I could get to! I read and re-read the rules and judge's guide! When Dave Fitzgerald (CD for the 2013 Nats) put out a call for judges, I felt I was ready for the ultimate in a judging experience.

On the Sunday before the contest, I packed the suitcase in my Piper Archer and flew to Muncie. On approach to Muncie airport, I managed to take a snapshot of the famous L-Pad!

I was ecstatic and nervous and for a good reason: I would get an opportunity to observe some of the best flying this country has to offer! To get my feet "wet," I volunteered to judge Classic and learned quickly the importance of hydration and sun protection! I saw pilots fly significantly worse second flights looking exhausted while the majority seemed to maintain the same level of performance. So here's lesson #1 for you Nats folk: If you think you are hydrated enough, *drink more water!* If you want to fly better, *drink more water!*

The following day I'd met other judges at the Judges' Meeting and learned another great insight: every individual there wants to do their *utmost best* when it comes to judging. While most were hanging out at the L-Pad, enjoying the company of fellow pilots, we were inside pouring over rules and regulations to make sure everyone understood the smallest of nuances.

That wasn't the only sacrifice judges had to make. Oh no! Like everyone else, we love hanging out with our friends in the shade of the



The AMA flying site and the famous "L" pad.

L-Pad pagoda, but instead we stay away on a chance we might glimpse a score that might impact our judgment. We had to avoid any topic that might give a pilot an advantage or appear as coaching!

Unfortunately, when you are at the Nats, that's pretty much the subject of every conversation. This is why judges act so aloof; we want to be fair in judging. So here's lesson #2: judges are not avoiding talking to you because they are stuck up snobs; they are just extremely focused on delivering most fair judging possible.

Things did not stop at the Judges' Meeting, either. Every morning, while everyone was still getting out of bed, judges were out on the L-Pad getting tuned up for the day by group judging several warm-up flights. Of all amazing things I've experienced at the Nats, morning group judging has got to be the most interesting experience of all.

It was incredible to see what errors others saw, and what they considered to be an appropriate score. It was very satisfying to see that the errors I saw, other judges saw, as well. It gave me confidence that I could score flights correctly. I was ready!

What I wasn't ready for was the level of expertise that is exhibited by the folks who eventually make it into the Top 20. We often hear the phrase "rulebook pattern." But what does it mean?

It is an easy and somewhat amorphous answer. Let me try to give more concrete pointers. To have a chance at the Top 20, it

means 5-foot bottoms not some of the time, or for some maneuvers, but all maneuvers all of the time. It means all vertical legs of square maneuvers *are* vertical. It means perfect take-offs, level flight, and landings. This definitely does not mean that these are the only things judges look at, but it does mean that if you can't do these things to begin with, your chances at the Top 20 are almost non-existent.

And then there is the Top 5 group. These guys are amazing! A single error is what typically separates one guy from the next. It is this very closely matching set of skills that makes comparing equipment more predictable. Everyone in the Top 5 had a different engine/motor, as well as model design. It wasn't all electrics as some have predicted, or piped engines, either. In the end, it was pilot skill that determined the winner.

As I was leaving the Nats, I had a clear picture of what proper flying should look like, and, after coming home, I began applying what I saw in Muncie to my own patterns and was amazed at how quickly I was improving!

After four years of not actively competing, I managed to take second place in Expert at the very next contest followed by a win at yet another contest three weeks later.

I am convinced that the time I took to become a good judge, and my Nats judging experience, had made me a better flier. So, here lies the very last lesson: If you want to improve your flying, learn to judge well and go judge at the Nats! *SW*

## New Jersey, New York

**Hi, guys.** I hope everyone is doing great and that your winter projects are all complete, trimmed, and flying well.

I have a fairly significant family problem that kept me from attending the Brodak Fly-In for the first time in about seven years, and I may have to miss the Nationals, also. My wife had an accident and broke her back in two places. So far no surgery has been scheduled, but she has to wear a very restrictive back brace 24/7 for 12-14 weeks. No lifting, bending, driving, or twisting.

I usually help out with the shopping and housework, but doing it *all* is really putting a damper on finishing my new ship. That new ship, by the way, is an electric-powered, twin-motored, retract-equipped design that I named "Ryan's Twin." It is actually a fraternal twin of Bob Hunt's new electric twin design. The numbers for the two ships are the same, but the aesthetics are quite different. Bob's is a very jet-like design, while mine is more of a classic style ship.



Buddy is busy masking out the trim on his new, classically styled Ryan's Twin design. He and Bob Hunt built new "fraternal twins" over the winter and just missed having them ready for the 2014 Nats. Photo by Buddy Wieder.

## District II

by Bud Wieder



Bob Hunt's American Spirit twin is a more jet-like design. Both ships feature tricycle retract landing gear systems and built-up, fully sheeted Lost-Foam wings. Photo by Bob Hunt.

There were two events in our District II area recently. One was in Flushing, New York, and the other one was a Classic and Old-Time Fun-Fly at the legendary Garden State Circle Burners flying field in Lincoln Park, New Jersey.

Ron Testa and Ron Heckler were good enough to help me out with covering the two events. First up is the President of the GSCB club, Ron Testa:

The first Garden State Circle Burners Fun Fly was for OTS & Classic models. The turnout was great and the field was in perfect condition thanks to Mike K. Everyone had a great time, and there was no pressure like at a contest. There was, however, plenty of reminiscing and 'slinging of the bull.' There were plenty of great airplanes and quite a few electric-powered Classic ships flown.

—Ron Testa—



Here are most of the models that were brought to the GSCB Classic and Old-Time Stunt Fun-Fly. Photo by Ron Testa.



Mike Ostella's George Aldrich-designed Nobler does some inverted laps. This model is also electric powered. Testa photo.



It was a relaxing day of show-and-tell and fun flying. Testa photo.



Some of the very best silk work ever seen in this hobby is done by Doug Benedetti. Here are two of his masterpieces. At left is his Lew Andrews-designed OTS Bamstormer, and to its right is Doug's Hal deBolt-designed All American. These models each feature flawless checkerboard silk covering jobs. Testa photo.



Bob Hunt readies his tribute rendition of Gene Schaffer's Oosa-Amma (Stunt Machine 1) for flight as Mike Ostella looks on. Bob's ship is powered by an E-flite 15 electric motor. Testa photo.



Rick Huff made the trek down from Vermont to attend the Fun-Fly. Here he is preparing to start his Bob Palmer-designed Thunderbird II. Testa photo.



Rick puts his T-Bird II through its paces on one of the most beautiful days anyone could remember at the famed GSCB field. Testa photo.

Thanks, Ron. Sounds like everyone had a lot of fun. Next up is Ron Heckler with a report on the Memorial Day Weekend contest at Flushing Meadows:

It was a perfect day for the New York Control Line Stunt Team to have a PAMPA contest. There were approximately 25 people who attended, 16 of which were contestants. We were very happy to see and meet people from Washington, DC and Baltimore.



Matt Colan starts the Overhead Eight during his winning flight in Expert. Photo by Ron Heckler.

To start the festivities, a pilots' meeting was held by Joe Daly, the Assistant CD, and then a prayer was said to commemorate Memorial Day.

Joe introduced the Executive Committee of the club, explained which circles would be used for each category, and the names of the judges. Jim Borrelli and Andy Lee would judge the Advanced and Expert classes while Sina Goudarzi and Ron Heckler would judge the Beginner and Intermediate classes.

After the awards were presented, Joe Daly thanked everyone for attending and said we will have another contest the same time and place next year. We hope to see those who attended this year again, and we extend an invitation to those who didn't make it to come and visit our historic site and join in the fun.

—Ron Heckler



Here's Matt finishing his winning flight. Heckler photo.



Joe Daly Jr. receives the Beginner first-place award from Assistant CD Joe Daly Sr. Heckler photo.



Al Takatsch gets his second-place Beginner award from Joe. Heckler photo.



Tom Tucker captured first place in Intermediate. Heckler photo.



John Passalacqua took second place in Intermediate. Heckler photo.



Frank Kern placed third in Beginner. Heckler photo.



Ryan Barry beat his dad for a first place in Advanced. Heckler photo.



Ed Barry, Ryan's dad, did manage a second place in Advanced. Wonder if he made Ryan walk home. Heckler photo.



Will DeMauro flew to second place in Expert. Heckler photo.



Matt Colan receives his first-place Expert trophy. Heckler photo.



Mike Chiodo gets his third-place Expert award from Joe. Heckler photo.

I apologize for having to cut this month's report short, but duty calls. I promise the next issue's report will be better. *SN*  
—Bud Wieder

## Ohio, Pennsylvania, West Virginia

**Finally**, winter has departed and spring has arrived. It's time to fly! I just returned from Woodruff, South Carolina, where we attended the Joe Nall Fun Fly. This is the third year that control line was flown at Joe Nall and my second year in attendance.

In case you were unaware, Mark Weiss has headed up the CL participation at the Fun Fly from its inception. Mark was assisted this year by some of his regular helpers (Bruce Jennings, Craig Gunder, Wayne Robinson, Derek and Dale Barry, William Davis, Dave Wentzel, and Ken Armish) and a couple of new helpers, Merry and Jerry Phelps.

I am sure I missed some names, and for that I apologize. These folks spent the week working themselves to death but enjoying every minute of the time they put in.

It is very gratifying watching the youngsters' faces as they come off the circle after getting to fly for the first time. It is

## District III

by Ken Armish

equally gratifying to see some of our 60-year-old-plus "youngsters" as they reconnect with an activity that they tried as a kid. For a little while this day, they forgot about the aches and pains we all have as senior citizens.

The control line fields are set up so that only the center circle is used for introductory flights. The circle to the right is used for exhibition flights, and the circle to the left is for the use of more experienced fliers or, in other words, all those who brought their own planes. This circle seemed to be busy most of the time.

Earlier in the morning and at break times, most all of the helpers would get a couple of flights in. I had hoped to have my new Nostalgia plane finished so I could spend some time trimming and working out the bugs; but, alas, life's projects keep getting in the way!



Here's a great photo of one of the little guys flying for the first time at The Nall. The flying instructor is our good friend from North Carolina, William Davis.



Merry and Jerry Phelps enjoying a little down time watching some of the youngsters.



The leader of the group, Mark Weiss, looks to be hard at work keeping the Stevens Aero Ring Rats in flying condition.

The circles at Joe Nall are perfect for breaking in a new plane, as they are very large and spacious and the morning winds are very light, if at all, and very consistent.

Once you have been on the fields, it makes you at least think about traveling back to Triple Tree to do all your test flying. The cost of travel nowadays, however, brings your thinking back to earth very quickly.



Merry Phelps helped out greatly by signing in new fliers and keeping everything flowing smoothly. Merry is seen here talking to a former District III member, Bob Zambelli.



Bruce Jennings rounds out a set of lines on his Tom Morris Electric Cavalier to get a flight in and take a break from the training schedule.



Craig Gunder fills fuel tank with a few electrons. You may recognize the plane. It's Bob Hunt's Genesis Extreme, which Bob so graciously lent to Craig for the trip to Joe Nall.



Craig in deep discussion with Mark Weiss. I think maybe there was a plot afoot on how to convince Mr. Hunt that the Genesis was lost to some unknown bandit. (Craig, for some flight time, I will corroborate your story!)

I believe that you could say fun was had by all. My thanks go out to Mark Weiss for allowing me to be a part of this project. If you or your club is looking for a training airplane to teach new prospects to fly, I would highly encourage you to look at the Stevens Ring Rat. When coupled with an electric propulsion system, the little plane is almost bullet proof, and they are very tough little planes.

#### Other DIII News

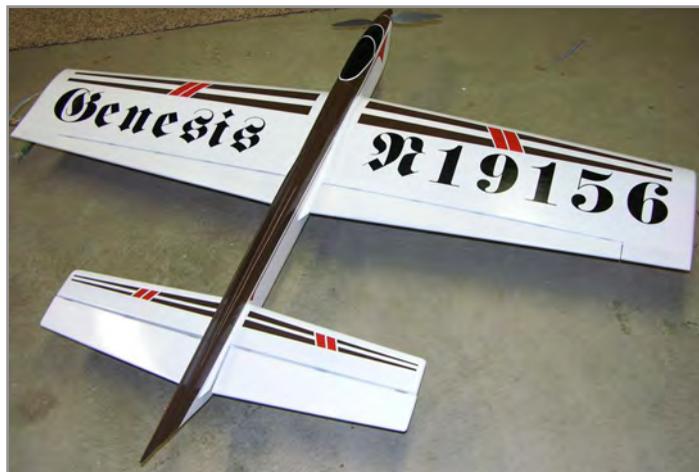
Reading through the North Coast Control Liners, I see Bob Hudak is flying a new electric Cavalier. Bob seems to be amassing some very nice e-powered aircraft. I have always liked the Cavalier and definitely liked Bob's F-105 with retracts. I am anxious to see these planes fly.

By the time this gets into print, hopefully we will all have gotten together at the Brodak Fly-In and I can do the efforts of

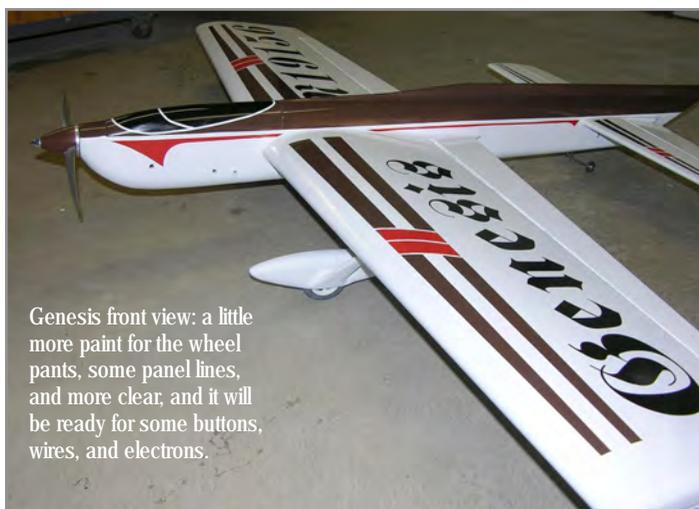
the NCCL Club justice with a good collection of photos.

This brings up a point. If you have photos of your work and would like to see them in print, send me digital photos in an email along with the particulars of the project: power, size, weight, etc. When you take digital photos, be sure to set your camera to its highest resolution setting. If the pictures are not large enough, they will not translate into a good magazine print. The photos I take generally come out at 2.5 MB to 3.5 MB, or somewhere in the neighborhood of 3264 x 2448 pixels plus.

To follow up on my last column where I showed my Genesis in primer, I have included a couple of shots of the plane in color waiting or a few panel lines and more clearT.



The Genesis is getting closer to flight.



Genesis front view: a little more paint for the wheel pants, some panel lines, and more clear, and it will be ready for some buttons, wires, and electrons.

I hope this plane flies really well, because I am very pleased with the progress so far. With any luck, maybe the designer could help out with the trimming process (hint-hint, Mr. Editor). As they say, "This is my best effort to date... but not as good as the next one!"

Finally, let me remind D III of some upcoming events.

- July 14-19 – Nationals
- August 9-10 – West Ohio Stunt Meet
- August 13-14 – WKSI (Allen Brickhaus Memorial)
- September 20 -21 – Akron/Cleveland Contest

I'm looking forward to meeting with many of you at some of the upcoming events. Until then, tight lines. *sv*

—Ken Armish

# District IV

by Steve Fitton

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

Well, gang, summer is finally here and flying is going on in earnest. The NVCL guys are reporting in with all sorts of fun going on at their home field, and down south the MCLS guys just wrapped up their contest at Huntersville. Your scribe for this column managed to finally finish his new plane and have it flying in time for the spring MCLS contest. With any luck, it will trim out and be ready for the Nats!

A brief random thought before I jump into the rest of the column: almost all of us love to build the latest hot plane with the best engine we can find in there and fly the heck out of it. What many of us (myself included), do not work on much is trying to find the best possible air in which to fly our new creation. If your field is a “mixing bowl,” with many trees or other obstructions close by, you will be hard pressed to ever fully trim out your model and always be at a high risk of crashing it.

The best models, best engines, flown by the best pilots, are going to be junk if the field they fly on has terrible air. Just look at some back issues of *SN* and read about pretty much any World Championship article written by one of our guys, and you will see what I am talking about. In many cases, it takes the best pilots in the world just to have their model survive the awful conditions when they compete with it.

In my case, just a few weeks ago, I relearned the importance of good air by driving past our usual mixing bowl field in Chesapeake and continuing on a half hour down the road to Fentriss NALF, where my buddy John Tate had found a spot with much better air than the old flying circle. My new plane felt fantastic, and we were able to devote the time to trimming and prop testing. The next week the plane was at the Chesapeake site, and it flew like total junk there. Nothing was changed except the air moving around the many tall trees, making a light breeze into an unflyable swirl.

The bottom line is that if you fly at a site with clean air (and I am thinking about the Eastern Shore guys as I type this), you can sit back and enjoy your good fortune. The rest of us might consider devoting some of the time and energy we put into building planes into scouting out flying sites that offer that rarest of commodities, clean air. You will be a much better pilot for it!

Typing about clean air lets me segue into a bit more on the Eastern Shore guys. Those lucky dogs will have their Jim Coll contest up there this August, which means a chance to partake in that clean air. Their flying site is about as wide open as anything this side of the L Pad at Muncie. They also have a practice circle, which means you can pretty much fly all day long if you want. Last year they had pizza and beer provided on Saturday night, which pretty much makes an already great contest an icon of towering awesomeness.

One of the planes you will most likely find at the Jim Coll will be Tim Stagg’s new electric-powered Sig Chipmunk. Tim has done a fantastic job at taking a heavy die-crunched Sig kit and creating a top-notch model out of it.

One of the slickest tricks he has done on this build was to use the heavy, ABS plastic cowl as a master to mold a stronger and much lighter cowl out of fiberglass and carbon fiber. Replacing all the sheeting, using a built-up tail and balsa wheel pants will help him keep the finished weight below 50 ounces for this model, with a doped finish.



Tim Stagg made this fiberglass/carbon cowl for his Sig Super Chipmunk by using the kit's ABS plastic cowl as the mold. This gives him a part vastly superior to the plastic unit. Photo by Tim Stagg.



More Chipmunk components for Stagg's new Nostalgia 30 model. Stagg photo.

The spring contest season got rolling this year with the Huntersville event on the first weekend of May. The weather was mostly cooperative, with abundant sunshine but some strong afternoon breezes that didn't let up until long after dark. That didn't stop everybody from having a great time flying airplanes and shooting the bull all weekend.

Among the notable happenings at the contest was David Smith's victory in Intermediate, flying a Vector 40 loaned to him by his soon-to-be father-in-law William Davis. That's right, William's charming daughter Sarah and David were married the week after the contest. Mostly David and Sarah fly Carrier, but if Sarah wants to cheer David on in Stunt, it will be in Advanced because he pretty much got the “boot” after his win. I watched his flight and it is plain to see David has a lot of talent, whether it's flying Stunt or Carrier. So, congrats again to David, and I know everybody in District IV will join me in wishing Sarah and David a long and very happy marriage.

The breezes at the Huntersville event produced the only real downside of the weekend. Several models got pretty banged up. Most notable was Charlie Reeve's famous Big Job OTS bird. I didn't see it go in, but apparently it got shot down by a gust while in a loop. It didn't look completely creamed, but Charlie said it

was pretty dinged up, nonetheless. Artie Jessup lost his well used XP-40 profile job to a heavy crash when the wind kicked up down on the profile circle, and Jimmy Welch had the stab collapse on his profile on Saturday, and then had his SV-22 go in hard on Sunday during Advanced.

By the time you read this, everybody who lost a plane should have regrouped and will have something even better to fly. Charlie even regrouped so fast that he went out on Sunday and won Expert flying his Lark classic entry!



The pilots' meeting at Huntersville occurred as the sleepy contestants were herded into some semblance of order.



Young Shawn Hicks hangs on as he puts up the winning flight in the Basic Flight event. Great job!



Eddie Ruane cranks on his Tucker Special on Friday afternoon at Huntersville. Eddie must really like this plane, because he keeps flying it!



Don Jenkins's awesome Gieseke Nobler takes off on a Nostalgia 30 flight.



Larry Draughn is intrigued by John Tate's e-power Jetco Dolphin as he prepares to launch it for a Nostalgia 30 flight.



The contestants for profile cast a critical eye on the latest contestant's pattern.



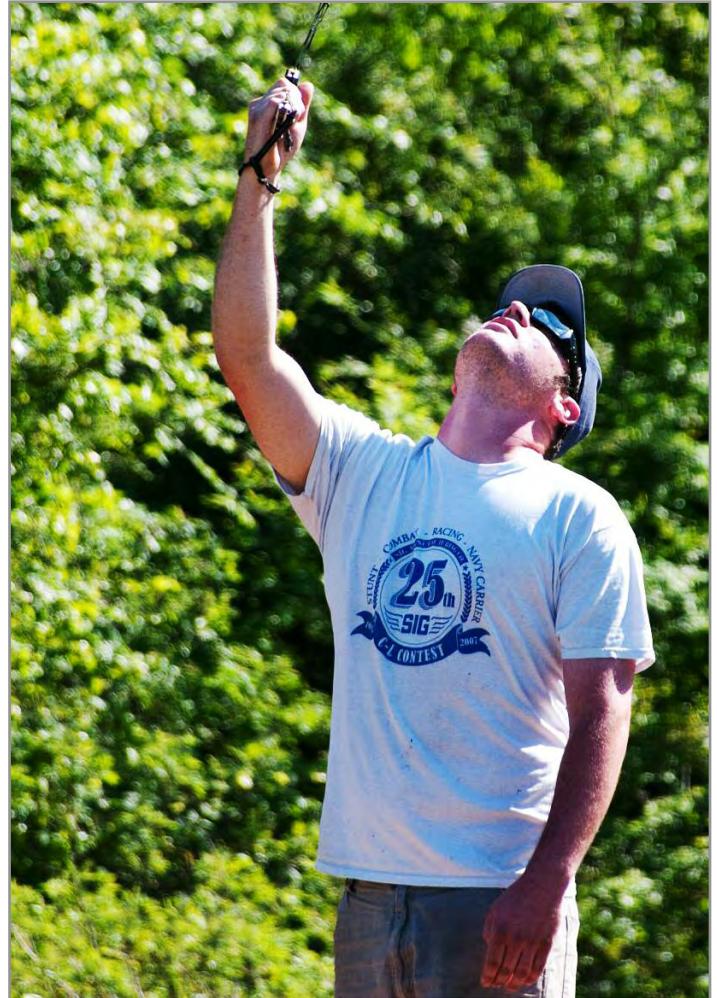
Ray Copeland walks his baby blue P-40 profile back up from the Profile Stunt flightline.



Jimmy's SV sweeps past the judges in the level laps. Unfortunately, the model had only moments to live at this point.



Bob Zambelli is evidently sharing a fish story with John Rakes as they have a brief break between judging flights in Profile Stunt.



David Smith guides his model through the overheads to earn the winning score in Intermediate.



Jimmy Welch's SV-22 takes to the air for a flight in Pampa Advanced.



Disaster: a gust of wind shoots down Jimmy's SV at the top of the vertical eight. The resulting impact not only killed the model but also the battery and timer, etc.

The big contests are right around the corner—Brodaks and the Nationals! I hope everybody gets a chance to hit one or the other or both and have a great time.

One last note for this issue: this December will mark the end of my term as District IV director. I have been privileged to be your Pampa rep since 2008, but I figure six years is more than enough, and I will not run again. It will be time for somebody new to step up and take over the job. *SN*



Rusty Knowlton came up to Huntersville and won the Beginner event. An unexpected surprise came in the form of Rusty being presented one of Mike Garmon's old models as a prize from John Tate and Howard Shenton. Rusty was quick to take advantage of the Sig Magnum and has been flying it and learning about how bigger models fly.

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## District V by Derek Barry

**Well, guys,** the contest season is upon us, along with warmer weather and longer days. I hope that you all are doing well and that you have had ample time to fly.

The Barry gang has been very busy over the last month or so. In early May we traveled to one of our favorite contests in Huntersville, North Carolina. As usual, we had a great time and the weather was great! My daughter, Layla, flew in her first contest that weekend, taking a second in Basic Flight.

I want to thank Watt Moore for talking Layla into flying. We had not really thought about entering Layla, but when Watt saw



Layla Barry walks out to the center of the circle at the Huntersville contest for her first-ever official flight in Basic Flight. Photo by Steve Fitton.

her practicing, he came up to her and asked if she was going to enter Basic. She looked at me with a puzzled look, and I told her that if she wanted to compete I would enter her.

She nodded at Watt and off we went to the registration booth. Layla flew her first flight almost entirely by herself, and when the engine shut off, I decided to let her land it solo. Maybe I should have discussed holding a tiny bit of up, because the plane came in really hot and broke the prop.

On the next flight she was prepared and made a landing that I would be happy with for myself at the Nats. All in all it was a great weekend, spending time with many friends and watching my little girl compete. To say I was a proud papa at the award ceremony would be an understatement.



Left: Layla flying with father Derek trying to keep up. Fitton photo.



Gene Martine gives a wave to cameraman Steve Fitton. Fitton photo.



Bob Zambelli's Nobler making an impressive takeoff. Fitton photo.



Tom Dixon mentally preparing for a flight on his profile P-51 Mustang. Fitton photo.

Our next trip was to the Joe Nall Fly-In in Woodruff, South Carolina. My dad Dale went up on opening day, but because of work, I was only able to come up on Wednesday through Friday. I always look forward to the Joe Nall; it is one of the most fun and entertaining events that I am able to go to each year. Any kind of flying model that you can think of is there, and we have three great control line circles to fly on. One circle is always designated for training flights, and what has become known as the Green Hat Brigade are there from sun up to sun down doing hundreds of training flights each day.



Will Davis doing some rain flying at the Joe Nall Fly-In. Photo by Derek Barry.



Don't tell our editor, but I think someone stole his airplane! Bob loaned his venerable, electric-powered Genesis Extreme to Craig Gunder to fly at the Joe Nall gathering. Barry photo.



Here's the newly-constructed gazebo at the Joe Nall Control Line circles. Barry photo.



This is a view of the lower two circles at the Joe Nall; this place is *huge!* In the distance you can see a small portion of the campers up near show center. Thousands of people from all over the world come to this event. Barry photo.



Dale Barry gives Mike Scott some assistance with a very patriotic Nobler. Barry photo.



The author's Cutlass and Matrix planes are dwarfed by the Sweeper. I get to fly this plane once a year, and it is always the highlight of my trip to the Joe Nall. Barry photo.



Jerry Richards and Mark Weiss look over this year's Joe Nall shirts. Mark does a great job of designing a new one each year. Barry photo.



Will Davis is giving a young man some pointers before his first flight on the Ring Rat trainer. Barry photo.



A large group of people wait for their turn on the trainer. Hundreds of flights are put on the trainers during the course of the week. I am still amazed at how much abuse Ring Rats can take and keep on flying. Barry photo.



Mark Weiss gives a young lady some assistance flying the Ring Rat. I think she made a few visits to the Control Line circles. We see a lot of repeat visitors to the training circles. Barry photo.



Dave Wentzel watches a low pass with the Ring Rat. Barry photo.

Mark Weiss does a great job of managing the Control Line area, and he puts in an unbelievable amount of effort leading up to and during the event. Thanks for all your hard work, Mark and the Green Hat Brigade! The Control Line area has grown in popularity each year, mainly because it is the only place on site where you can go and fly someone else's airplane. People of all ages show up to fly the little Ring Rat trainers, but this year it seemed that women outnumbered men 2 to 1.

The top circle is reserved for Mr. Bob Shaw, who has been the main contributor to the Control Line area. He and Pat Hartness—Pat is the owner of Triple Tree Aerodrome where the Joe Nall is held—have done an amazing job of giving us a great place to fly. This year there was a new addition—a large gazebo right next to Mr. Shaw's circle. This provided a nice place to get out of the sun and rain, and it is large enough to keep a number of planes on display. We had a great time this year and we look forward to going back next year!

The first weekend in June was our annual Randy Smith Stunt Camp. This year we had guys from all over the eastern US come to practice at my flying site that is known as the "sod farm" to those who come.

Eric Viglione came up from Clearwater, Florida; Eric Taylor came down from Henryville, Indiana; Steve Fitton drove in from Williamsburg, Virginia; Gene Martine came up from Jacksonville, Florida; and our Stunt Camp Coach, Randy Smith, came over from Dacula, Georgia.

My flying site is truly a sod farm located just outside the city of Thomson, Georgia, and it has been the home to our stunt camps for the past four to five years. The grass was not as good this year as it was in years past because of the longer than normal winter we had, followed by the hot, dry days of late spring and early summer here in Georgia. We did manage to find a spot in the middle of the 800-acre farm to do some flying, and the weather was truly stunt heaven for the day and a half of flying that we put in.

The weekend was a big success, and everyone left flying much better patterns than when they arrived. A big thank-you goes out to Randy for coaching us up to prepare for the upcoming AMA nationals.



Top left: Randy is a *fountain of knowledge* when it comes to critiquing patterns. Photo by Eric Viglione.

Right: A group of SV planes sit in the pits at the sod farm. Steve Fitton's new Dreadnought is in the foreground. Viglione photo.

Above: Derek Barry makes an inverted pass on Saturday at the stunt camp. Viglione photo.

Well, guys and gals, that is all I have to report for now, and I hope to see you all soon. If you have never traveled to Muncie for the Nats, I urge you to dust off your planes and make the trip. It is the pinnacle of control line stunt competition! *sw*  
 —Derek

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# District VI

by Dennis Adamisin

Illinois, Indiana, Kentucky, Missouri

**More news** from Joe Thompson from out St. Louis way. Joe sent me a couple of the vinyl decals designed in memory of Allen Brickhaus. There is also a movement afoot to have a commemorative flight of Allen's designs at the Nats. I do not have anything specific to Allen, but I have a Barnstormer that is nearly ready to cover. Allen was a big fan of the Barnstormer, so that is where these decals will go.

In my column in the last issue I told you about my "50 years in the making" Ringmaster; I have been flying it off and on and having a good time with it. As built, it was nose heavy, but it still flew very well with a groovy feel and "Ringmaster-good" corners, but who leaves well enough alone?

Later, I tried moving the CG aft, eventually switching to sequentially smaller handle spacing. That is an interesting interaction, empirically showing the cause-effect between CG and handle spacing. It is one thing to talk about the cause-effect, but another to directly experience it.

Speaking of handles, last summer I tried a couple different designs of "hardpoint" style handles. Many folks have tried these and report a vast improvement in control feel with elimination of dead band. While I did not experience that, I like the elimination of the handle cable as a potential failure point. I will always have a couple cable handles in the flight box, but I am in the process of switching over to hardpoint types.



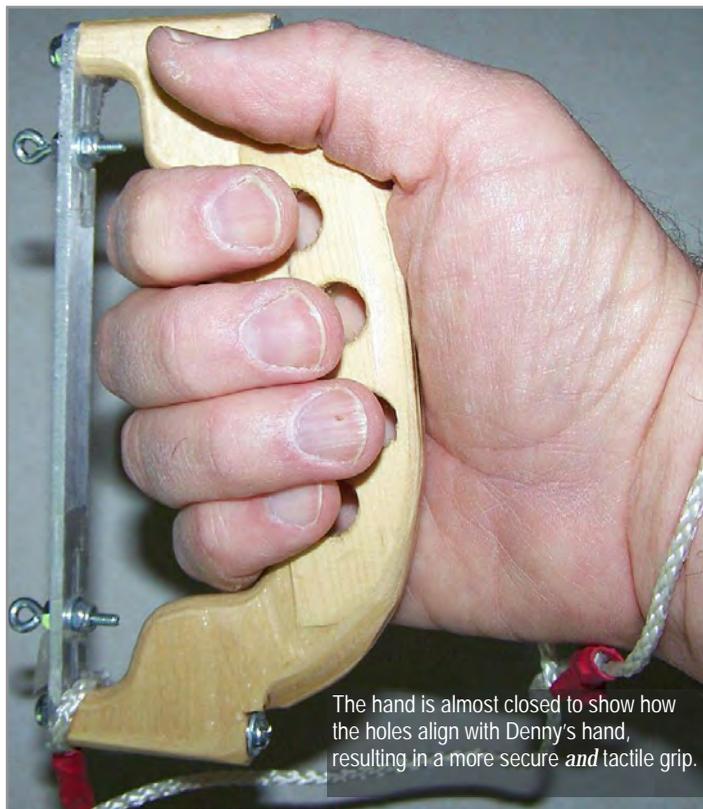
Tom Morris' Hardpoint Handle with grip adapted to Denny's hand. The fingertip grip holes were added to explore a new idea.

My first hardpoint handle was the Brodak Small Adjustable (#BH-363), Brad Walker-designed "Rock Crusher." It is a robust design with some nice adjustable features, like fine-adjust on the neutral and alternate line spacing. The grips are light years ahead of the old EZ-Just.

Next I got a couple of Tom Morris' bar-style hardpoints. I had

flown this handle before with a cable and was not really crazy about it. The grip felt good at home in the shop, but it felt different when I was flying. I eventually figured out that I needed to change the grip to accommodate my fingertip style. This required thinning the handle by removing almost all of the side pieces.

Next, I took my Dremel drum sander and reshaped the finger grips and added a thumb rest. This was close, but then I hit on an idea that I have never seen before. The picture shows how I drilled 4 x 1/2-inch holes through the sides of the handle. The positions of these holes roughly equate to my fingertip positions. The improvement in grip comfort is phenomenal, and the handle has a much more "grippy" feel to it. I finished the handle with three coats of water-based polyurethane without sanding; it has a certain roughness to it that completes the package.



The hand is almost closed to show how the holes align with Denny's hand, resulting in a more secure *and* tactile grip.

Based on this experience, I am drilling holes in my other handles. It improves the grip immensely and saves a few grams, too! I have an old "Super" cast aluminum handle (made by the same folks who made the Super Cyclone engine) that weighed in at almost six ounces! This handle had been manufactured as a hard point design (late 1940s?), and it had been modified with a cable in the front bar. I sawed off the bar, drilled/tapped it for eyebolts (4-inch spacing), and drilled the fingertip through-holes. I got the weight down under four ounces, but none of that weight overhangs anymore.

I have a couple of Larry Renger-designed "15" handles from RSM that are *carefully* getting the mods since the grips are hollow and already so very light! After that is one of Tom Morris' new Ted Fancher-style handles.



Denny's new favorite charger is the X-Loader which is AC/DC capable and charges up to six cells.

Experienced electric fliers will tell you one of the best places to spend your money is on a good charger. I recently started using a new charger that has quickly become my favorite—mostly because it is super convenient. The Black Magic X-Loader-1 (Brodak #BH-1859) handles all the popular battery types and will charge Lipo packs up to 6S at 6A, with two charging modes and two discharge modes.

That is all pretty standard fare. What sets the X-Loader apart is that it has a built-in power supply for home charging, but it can also field charge off a 12V power source. I do not have a place where I can just set up my power supplies and chargers and leave them out. Every charging or discharging sessions begins with getting all the equipment out, clearing a space, getting everything set up, then getting down to business. With the X-loader all I need is a space to set it on near a wall outlet.

Most chargers have a bank of receptacles for the balance plug built in and only accept one style of balance plug connector. If you have a pack with a Thunder Power or other unusual connector, you have to go find an adapter plug. The X-loader takes a different approach. It has a single large connector built into the unit, then takes a plug in board with numerous connector styles from 2S to 6S.

*I like this a lot because it not only is friendly to all my packs*

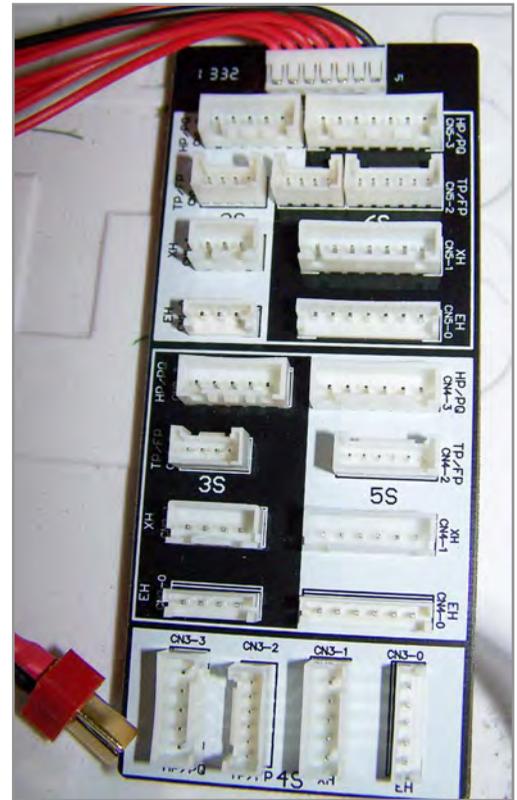
but also because it adds some length and flexibility to the set-up.

It is much easier to charge inside a bag.

As for the X-Loader's performance, the biggest difference I have noticed is in the Lipo Storage Discharge mode. It is a little faster than my other chargers, but more importantly, it stays cool. There is a built in cooling fan that really takes care of the unit.

There are folks gang-charging packs using big chargers and 24V power supplies. The X-Loader cannot match any of that! However, it is a good charger with the convenience of AC or DC inputs. I typically spend my work week on the road, then I'm home on weekends. The X-Loader is my traveling charger, because it is less hassle than a discrete charger with a separate power supply.

Getting ready for Brodak's, and the Nats after that. Summer is ON! sv



The X-Loader comes with a universal adapter board which accepts all the popular (and several obscure) balance plugs.

## Iowa, Michigan, Minnesota, Wisconsin

**Time for a little** news from District VII, and I mean a little. Not much new input this time around, but hey, I just finished my New Apogee 6. At this point I have not flown it yet, so I cannot rave as to how wonderful the performance is, but I can say it weighs about three ounces less than the last one.

The design is nearly identical to the Apogee 5, except I used a foam core wing for the first time in many years. I decided to try this again after I visited Bob Hunt about a year and a half ago and saw how he was doing the wings he sells to many of us.

I liked using the molded sheet leading edge instead of the usual 1/4-inch balsa cap. I also liked his method of joining the two halves, which includes a light plywood spar on each side out to about 10 inches with about a 4-inch birch plywood joiner in the center. After a little coaching from Bob, I cut myself a wing—I did it myself 'cause I am too cheap to pay him.

Bob mentioned that lately he has been using layered carbon veil throughout the wing joint area rather than the usual fiberglass

## District VII

by Bob McDonald



Bob McDonald's Apogee 6 is powered by a P.A. .75 fitted with a Smith/Werwage pipe. McDonald photo.

and epoxy. What that means is you cover the center of the wing with about a 5-inch strip of light veil, then cover either the right or left panel past center and about two or three inches past the center strip, and repeat for the opposite panel. Now you just add three or four coats of dope to the whole thing and sand as normal. What you get is a partially prefinished wing ready to install. I figure this is probably about 2 ounces lighter than a standard foam wing and every bit as strong.

The finish on the rest of the airplane is also veil and dope. I use a catalyzed primer from PPG, as well as their Deltron or Shop Line colors, and Stratoclear polyurethane top coat.

This is equivalent to finishing methods described in some of Bob's articles, except he has been using ChromaBase based products which are, I believe, Dupont's equivalent to the Deltron I have been using for years.

That's all for now. Please send me stuff for the column. *SN*

—Bob McDonald



The same airplane as before, but with Bob holding it and standing on the new stunt circle at the Michigan Signalseekers' field in Westland, Michigan. Our club had been working on this for about 18 months at this point, and it has come out great. We will be adding a concrete center circle shortly, hopefully before our August contest. Photo by Curt Nixon.

## District VIII

by Doug Moon

Arkansas, Louisiana, New Mexico,  
Oklahoma, Texas

**The hills are alive** with the sounds of stunt! And that, my friend, is no joke. Read on to find out what I mean.

As of this writing, we are nearing the end of May and I am late on my deadline for this column (sorry, Bob). I have been busy in the shop, and family life has been even busier. We are about to say good-bye to kindergarten, second grade, and fourth grade in this household and hello to another summer of fun. I am sure many of you are busy this time of year, as well. Today we celebrated Memorial Day. A huge thank-you goes out to all our vets who gave everything for us!

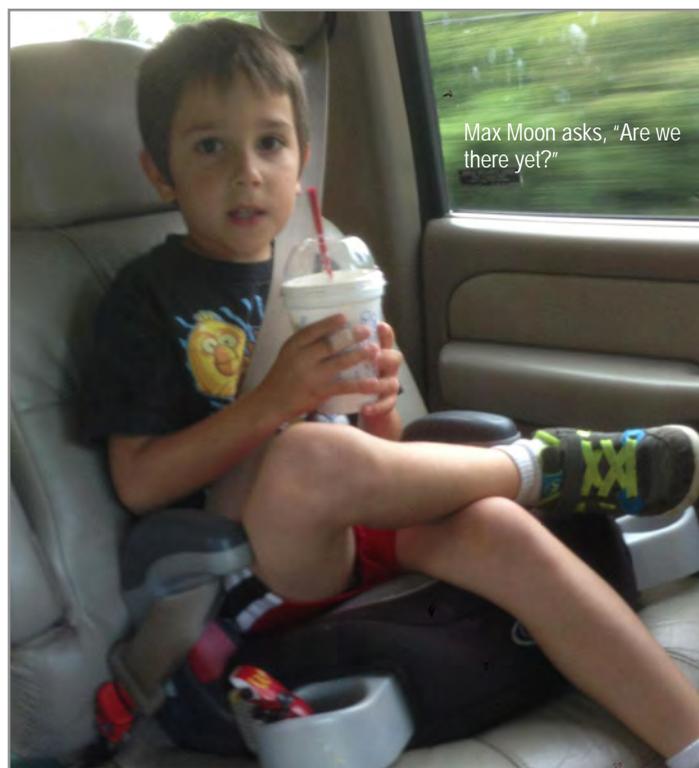
The contest season is on the move in District VIII. On May 17 and 18, the John Gunn Invitational was held in El Dorado, Arkansas. Everyone is invited to this event. The event is a tribute to John Gunn, who ran the Texarkana contest for so many years. The fine folks over in El Dorado have decided to take on the contest at their site and keep the tradition alive.

The Contest Director was Doug Patterson, and the assistant CDs were Jason Cunningham and Norm Faith.

Unlimited Profile was flown on Saturday. I was not able to attend Saturday's events. The PAMPA events (Beginner, Intermediate, Advanced, and Expert) were flown on Sunday, with appearance points for those who built their models. My brother, Steve, went to this contest several years ago and has said nothing but good things about the people, the atmosphere, and the overall good time he had.

This year my son turned six, and I thought it would be a good time to take him on his first trip to a contest. We decided to make this an overnight trip. We headed out Saturday afternoon in the Moon Mobile (2002 black Suburban). We weren't too far into the

trip when the little one in the back seat asked, "Are we there yet?" He was anxious to get there and see Arkansas.



Four hours later we pulled up to the field. Steve told me the circle was on the site with an RC field, as well. They have one paved circle and one grass circle. There is an RC runway with a nice awning and charging station for electric equipment. Steve also told me that the paved circle was uneven—*just a bit*.

I have to say that it was like flying on the side of a small hill. Hence, the opening line to the column ... But it only took a flight or two to realize it doesn't matter much. You get into the air and into your groove and it's no longer in play until landing. The story is they didn't notify the CL guys before they paved it, so they weren't told it needed to be graded level. It's no big deal, really, and it's a great place to fly. Also, the people make it that much more fun!

After a couple of practice flights some nasty winds came up and told us we were done for the day. We headed over to the motel and had dinner. We were a little late to the party, as most of the day's competitors were finishing up as we arrived, but it was good to see some familiar faces. Gil Causey and John Gunn were there, and I hadn't seen them a while.

This was my first trip to a contest that wasn't the Nats in a really long time. We got a room, grabbed our gear, and headed in for the night. My son was having fun. He thought this was just so cool. We turned on the NASCAR all-star race, and it wasn't too long before my son was out and I was dozing off myself.

Sunday morning came and we found the field abuzz with fliers getting ready for their officials. Andy Stokey was flying his Buccaneer profile; Louis Keller had his Cardinal profile; Norm Faith was there with his Thai Angel; Ron Rasberry was in the mix; Stew Moore, associate District VIII vice president, had his Flight Streak working; John Hill was wielding his freshly finished Cavalier; Don Cranfill flew the Whatever in the circle (and his wife Sheila helped administer the contest); Steve Moon brought his CCCP-powered Furias 96; Jason Greer had his Nats-



John Hill strolls through the pits surveying the competition.

winning Impact on hand; and I was flying Steve Moon's old red and yellow Impact. (I would receive no appearance points.) Our judges for the day were Doug Patterson and Brent Rogilia.

Steve and I both asked my son, Max, if he wanted to enter Beginner. He was pretty firm on his answer, "No." But that's just fine by me; he has many years ahead of him to give it a try. We did get in several practice flights and it was great. I even let go of the handle a few times and he made some real progress on getting toward his goal of flying by himself.



Max and Dad get some stick time. Fred Kocher photo.



More handle time and Max says he is ready to do it alone. Kocher photo.

Also on hand was one half of our District VIII photography team, Fred Kocher. Fred's son, Steve, is usually on hand, as well, but he was attending a family event this same weekend.

Fred got some great shots of the fliers in action.



Lewis Keller holds her steady all the way through. Kocher photo.



I got a photo on my phone of Fred getting a photo of Norm Faith.



Andy Stokey and his profile Buccaneer. Kocher photo.



Don Cranfill concentrates on level flight. Kocher photo.

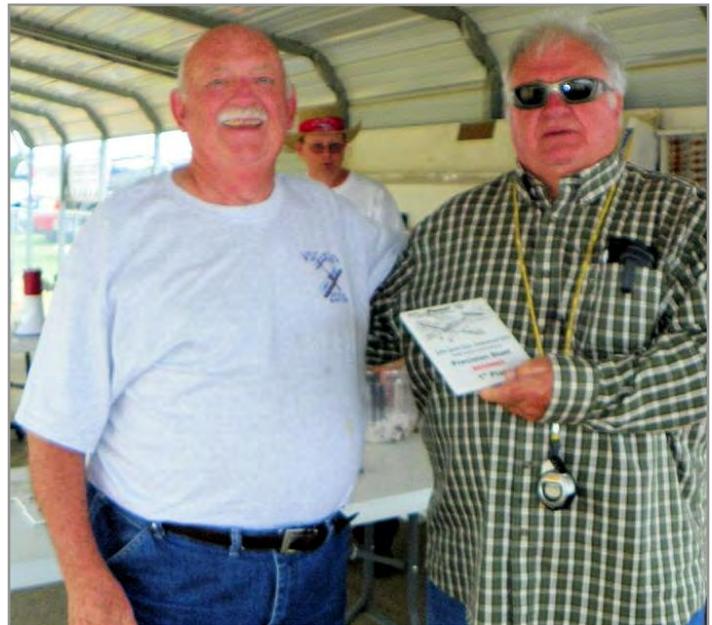
The first round went smoothly, and there was some excellent flying on hand. Jason Greer told me that he hadn't been flying much this year, but you sure couldn't tell. John Hill said his Cavalier was still drying as he headed out to VSC with it, but it sure looked pretty good.

Steve Moon and the Furias were smooth as usual—two grams of tail weight in the plane helped some with line tension (just as Paul Walker said it would)! (Read Paul's "Flying" column for lots of great trimming tips.)

Don Cranfill was solid as a rock with the Whatever. This plane has seen it all and won him the District VIII points award, as well. This guy means business. Andy Stokey and Louis Keller were battling for every point in Advanced. The flying was great and the weather was absolutely perfect.



Steve Moon gets ready for another flight. Kocher photo.



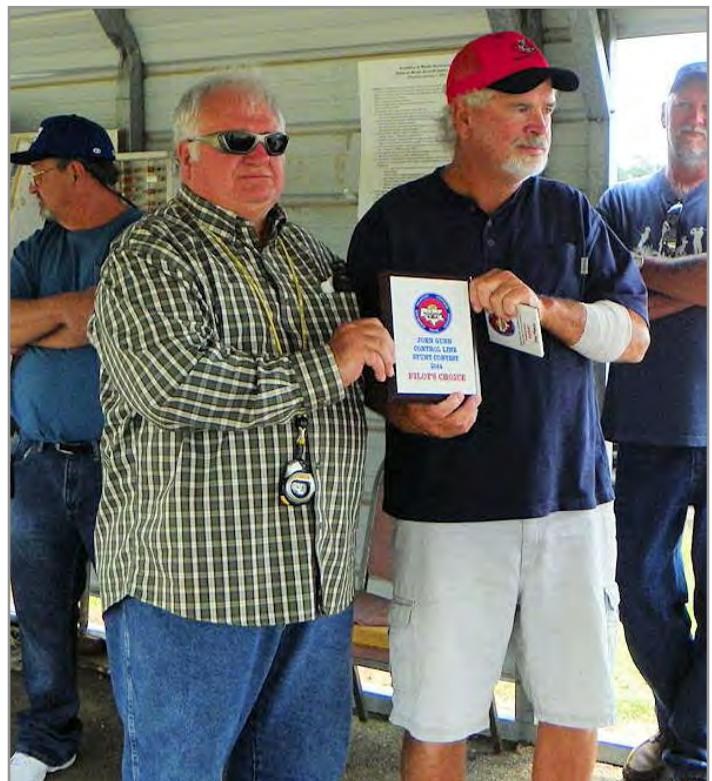
Stew Moore receives his award from Doug Patterson.



Jason Greer and his Impact keep things nice and level. Kocher photo.

At the break between rounds we were treated to some awesome grilled hot dogs and hamburgers. The meal was provided by some of the RC club members who were on hand for the festivities. A big thank-you goes out those guys for cooking a great meal for us.

The second round went just as smoothly as the first. The conclusion of the contest found us all under the awning for the awards ceremony and the raffle. I sent the results to our contest results volunteer, Howard Rush. You can find the results listed, along with results from other contests across the US. Thanks, Howard, for compiling the numbers for us in every issue.



Don Cranfil won Pilots' Choice Award with his Whatever. Kocher photo.

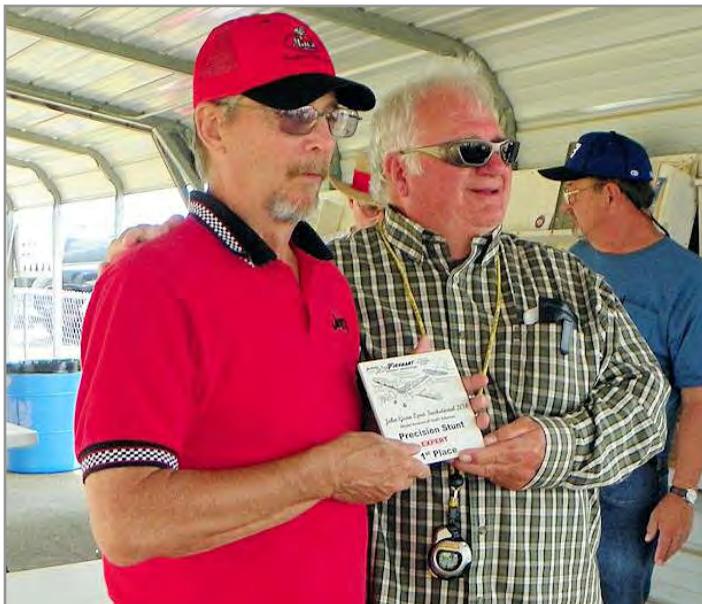


Stan Fronabarger and his Ringmaster. Kocher photo.

On the grass circle, Stew Moore and Ron Rasberry were fighting hard for every point and smiling the whole way through. In fact, there were smiles everywhere you looked around this contest.



Don Cranfill's Whatever. Kocher photo.



And the Expert winner is...John Hill. Kocher photo.

After the contest was over, we were treated to an RC demo by one of the local pilots and griller extraordinaire. He flies a large scale Extra 300 sporting a Desert Aircraft 150cc twin gas engine fitted with twin tuned pipes. This thing was awesome, and the guy on the sticks knows his stuff. Jason Greer called for him as he put up a nice IMAC-type flight, complete with stall turns, rolls, loops, Cuban 8s, and, of course, the drifting down the runway prop hanging with a slow roll. It was really cool and impressive.

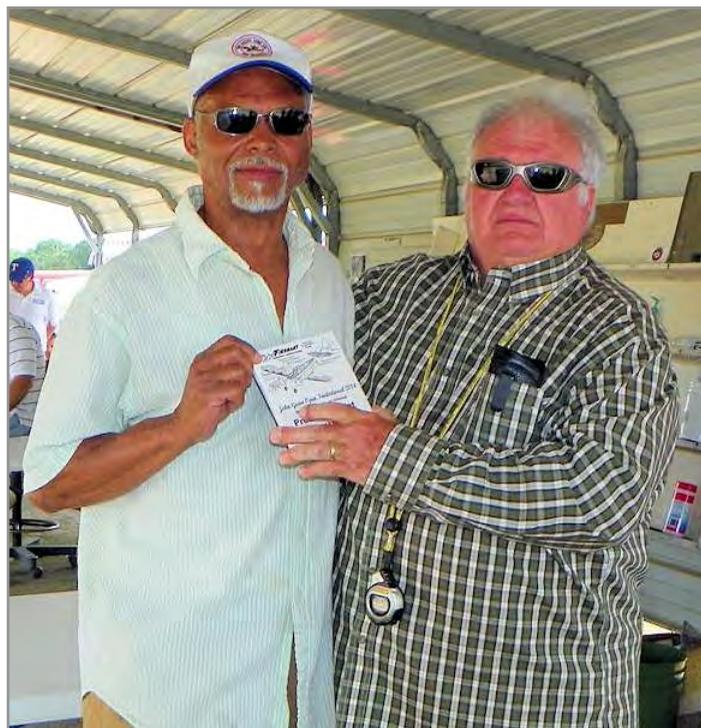
Later, I was treated to ride on Jason Greer's Impact. It's electric and sports the accelerometer. This thing really works well and totally mimics the on/off of a good running IC stunt engine. I was very surprised by the setup's consistency. It just felt easy to fly. It was fun. Keep working on the other interesting things you have in mind for CLPA!

I want to thank tabulators, judges, runners, the CD, the assistant CD, cooks, and anyone else who helped put on this great

contest. We had a blast and I can't wait to go back next year. If you can somehow attend this event next year, I certainly would recommend you make the trip.

That's all I have this time. Thanks again. *sv*

—Doug



Louis Keller wins Advanced.

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## District IX

by Jack Pitcher

**In Colorado**, if we were to nominate a First Family of Stunt, it would almost certainly have to be Chris and Linda Brainard of Arvada, Colorado. Chris and Linda are very active in stunt activities both locally and regionally, where Chris flies most of the stunt events available at contests.

**Stunt News 84**

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

As well as being a top-level craftsman, Chris is also one of the top Expert Class PA fliers around these parts. Linda is frequently seen serving as a judge at local and regional contests. Chris and Linda are regulars at VSC and, courtesy of Mark Gerber, we have a couple of photos of them in action taken at VSC this year.



Chris Brainard flies his Bob Hunt-designed Caprice in Classic at VSC XXVI. Photo by Mark Gerber.



Linda Brainard is on duty judging Classic competitors at VSC in Tucson this year. Gerber photo.

Linda decided to try a new phase (for her) of stunt this year, building her own airplane for the first time. Linda sent a report on her building experience along with some pictures showing the progression of the project.

### Linda's Barnstormer Construction

"Chris and I made our annual trek down to VSC this year and found a Barnstormer kit by Brodak that Chris felt I could build. The club we belong to in Arvada has an annual I-Built-It contest, and I thought it would be fun to enter in 2015. Chris, of course, thought I could have it done for this year's contest on May 6.

We left VSC March 23rd at 12:40 a.m. (the hotel was having a comic convention and everyone was partying, doors constantly opening and slamming, drinking, joking, etc., we could not sleep). We drove 915 miles, picked up our cat, mail, ate dinner, and started working on the Barnstormer.

"I made up the bellcrank, added plywood reinforcement for the control horn on the elevator, and sanded and shaped the stabilizer, elevator, and rudder." I steamed out my first set of half-

moon-shaped indentations, made hinges out of dressmaker's lining material, applied dope and tissue to the stabilizer, elevator, fin, and rudder, and then steamed out another set of dents.

"I glued formers into the fuselage, epoxied the engine mount, and started assembly of the first half of the wing. It was perfectly straight until I put on the leading edge. Warp! How can that be? I cut off the 5/8-inch leading edge (thinking it was too small to begin with) and attached a new 1-inch leading edge. Perfect! No warp.

"I doped hinges onto the stabilizer and elevator and started on second half of the wing. It's absolutely amazing how these dents keep showing up! I added cap strips, sheeted the center and end of the inboard wing, started shaping the canopy, and made a bellcrank support.

"Next, I glued the trailing edge to the outboard wing, added cap strips and sheeting, and joined both halves together. I did so much sanding that I enlisted the help of my three-year-old granddaughter, London. I then steamed out more dents ...

"I installed the bellcrank, continued shaping canopy, cut out the cockpit area, and hollowed out the underside of fuselage. I then glued the top of the fuselage to the sides, and then worked on detailing the cockpit with 'Minnie Mouse' as my pilot. I made the seat as per plans, but for the pillow, I made it plush pink just for Minnie. I put in an instrument panel and a joystick with bling. Since I had so much room behind the seat, I made up some sparkly luggage with bling.

"Next, I started on the tip weight box, built up the inboard wingtip, built and attached the adjustable leadout guide, and since I couldn't steam out certain dents, resorted to spackling paste. I cut out and glued the outside wingtips together, sanded the wing, added more spackling, fiberglassed the fuselage, and glued in the wingtip weight box. Next, I built the outboard wingtip and attached it, and glued in extra support for the tip weight box.

"Finally, on April 14, I set the airplane in the jig and installed the wing, using epoxy. Next, I installed the pushrod, landing gear, and tail wheel, sanded the ship, and added wing fillets. I added the ventral and dorsal fins and the rudder, and installed the pushrod cover.

"Then I started working on the canopy and noticed it had a super glue 'bugger.' Chris suggested we make our own canopy, so I poured a Plaster of Paris mold and tried molding a plastic bottle to it. That didn't work, so I took a standard 12-inch Sig canopy and cut and glued it into place.

"I sanded and fiberglassed around the edges of the canopy for strength. The next day, I noticed glue squeezed out inside the canopy! I said to myself, 'I am *not* going to get this done in time!' So I ignored it and continued on attaching flaps, stabilizer, elevator, and tail to fuselage and fiberglassed it all. Next came sanding, sanding, sanding, and some more sanding. Then it was more steaming to remove dents and even more sanding.

"On April 24, I started covering the wings. On April 28, I primed everything else, and then sanded, filled, sanded, and put on my second coat of primer. I fitted up the fuel tank, O.S. .25 LA engine, Delrin venturi .250 bore with O.S. spray bar, needle valve, APC 10 x 4 prop, mounted the muffler, and tested the engine, which peaked at 10,400 rpm's. I tied off the leadouts and adjusted the controls.

"On May 2, I cleaned airplane to ready it for paint and decided to try to get the scratches out of the canopy that appeared out of nowhere! I sprayed white ... 'Wait, what is this? Contamination? No! I am *not* going to get this plane done in time! There is no way.'

"I sanded out the fisheyes, reprimed, and repainted. On May 4, I removed the wing covers, applied the Barnstormer decals, and then attached the landing gear. On May 5, I ironed on some pin

stripping and applied my AMA number. I connected the controls and mounted the fuel tank, engine, and tail wheel. 'I don't believe it. I finished it! With one day to spare.'

"On May 6 I entered the 2014 I-Built-It contest of the Arvada Associated Modelers Club. Yeah! I don't care how many vote for it. I finished it! I have come to the conclusion that fingernails and balsa wood are not a good combination. After all the filling and a second coat of primer and paint, the plane weighed in at 35 ounces with everything attached; heavier than we wanted, but what an accomplishment for me. Chris said my next challenge is an airplane from scratch. Oh yeah! Bring it on!"

—Linda



Here's Linda's Barnstormer in the jigs for assembly. Linda Brainard photo.



Linda's granddaughter London is pleased with the work so far. Photo by Linda Brainard.



Linda is finishing up the final details on her Barnstormer. Chris Brainard photo.



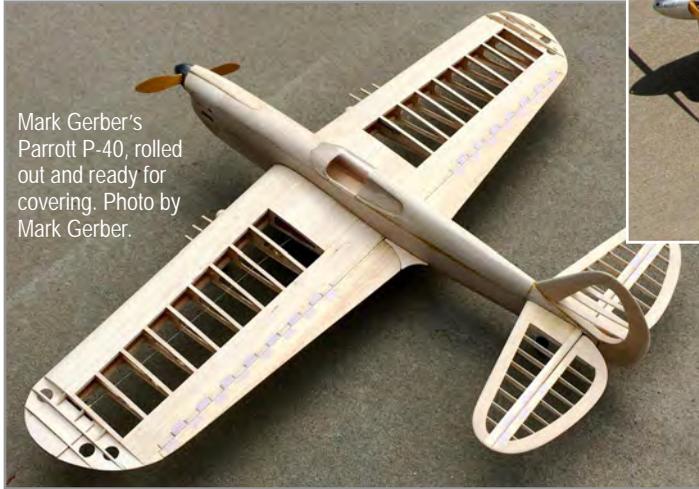
Here are some pieces of Linda's Barnstormer. It's beginning to look like an airplane. Minnie approves! Linda Brainard photo.



Here's Linda Brainard presenting her finished Barnstormer for judging at the Arvada Associated Modelers "I-Built-It" contest. Jerry Higgins photo.

And, finally, I received this additional report from Linda: "Last night at our board meeting, I was told that I won the builder's category of the I-Built-It contest. That means if I enter this contest next year, I will be competing against Chris in the Master Builders category."

To close out the column for this issue, here are a couple of photos sent in by Mark Gerber of the initial roll-out of his Parrott P-40. Mark says it's ready to start covering and finish.



Mark Gerber's Parrott P-40, rolled out and ready for covering. Photo by Mark Gerber.



Another view of Mark's P-40. The wheels and gear fairings look just right. Gerber photo.

If you'd like to send me comments and pictures, please note that my correct email address is [mjpitcher67@gmail.com](mailto:mjpitcher67@gmail.com). *sv*  
—Jack

## Arizona, California, Guam, Hawaii, Nevada, Utah

## District X

by Jim Hoffman

I was unable to attend the Palmer contest this year, but Paul Westcott did a great job of capturing the event in photos which we can share. The weather was mixed. It was cool and windy on Saturday, but better on Sunday. The folks did not let the weather deter them from having a good contest.

Warren Walker served as CD, with help from John and Kathy Wright, Randy Heydon, Mike Costner, and Tom Collier. The judging was done by Dave Kick, Bill Byles, Joel Chesler,



Roy DeCamera presents the VSC Keeper of the Flame Award to Bob and Ginny Emmett. Photo by Joan DeCamera.



Warren Walker and Chris Forbes at weigh-in. Photo by Paul Westcott.

Rich Walbridge, Al Heiger, Larry Renger, Steve Harris, Stan Tyler, Anton Kephart, Eric Rule, Gary Akers, and Dennis Coleman. Apologies to anyone I failed to mention. It takes a boatload of folks to make this type of contest happen.

It's nice to see Dave Sabon back in the fray. It was also nice to see folks traveling from Arizona (Leroy Black, Dave Riggs, Bob Whitely, and Lou Wolgast) and northern California (Pete Cunha, Al Heiger, and Phil Granderson) to participate.

The contest results will appear elsewhere, so I will not

repeat them here. I really miss not attending the social events, especially the Saturday night food fest in Warren Walker's man cave. *SN*

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



Leroy Black and Kenny Heyworth prep Leroy's Madman for an OTS flight. Westcott photo.



Ray Firkins' winning profile Electric P-Force at the Palmer Contest. Westcott photo.



Robert Harness designed this Creamsicle-inspired piped stunter. Westcott photo.



Dave Sabon takes off with his Pathfinder Twin. Note the classic Sabon launch stance. Westcott photo.



Leroy Black's Yak 9 ready for a flight at the Palmer Contest. The model is Roy Trantham Doublestar-powered. Westcott photo.



Lou Wolgast's new Pentastar features a Roy Trantham Doublestar .76 for power. Westcott photo.



Steve Harris and his Chizler usually score near the top end of Expert. Westcott photo.



Kestas Dvarvydis gets his ship ready. It appears to be similar to a Yetsenko Shark. Westcott photo.



Kirk Mullinix's Sweet Thing design features an open cockpit and featherweight construction. Westcott photo.



Warren Walker and Mark Wasnick at weigh-in. Westcott photo.



A very relaxed Phil Granderson putting in a sport flight. Westcott photo.



Dave Sabon's Twin Pathfinder flew in the profile event. Westcott photo.



Dave Sabon won the Bill Heyworth-sponsored Most Fun award. Westcott photo.

# District XI

by Mike Haverly

After emerging from the Northwest's drizzly, moss-growing, gloomy, yet mild winter, the contest season kicks off every year in Portland, Oregon, with the Jim Walker Memorial Spring Tune-up. The venue was Delta Park on the circle provided by Jim Walker. With the less than ideal weather forecast, attendance was down but the contest went on and all of the scheduled events took place.



The lineup for Advanced PA. Second in line is Greg Hart's JD Falcon. After a hiatus it's good to see Greg him back. Photo by Mike Haverly.



John Leidle concentrates on his flight. Delta Park is known for its sometimes severe turbulence. It's also known as, The Washing Machine. Haverly photo.



Paul Walker examines Alan Resinger's new Crossfire and the hand-built three-blade propeller. The props are a fine product and are available from either Alan or Chris. Haverly photo.

## Alaska, Idaho, Montana, Oregon, Washington



Chris Cox's new Crossfire is a complete take-apart model and appears to fly great. Of course, Chris is no slouch at the handle. Haverly photo.



Mike Hazel returns John Thompson's Vector 40 to the pits after another flight. Who knows how many flights this ship has racked up? John has been flying this model for several years. Haverly photo.



The Canadian contingency checking in with Don McClave during our only bout with rain on Sunday. The weather cleared soon after and the rest of the day was nice. Haverly photo.



Greg Hart is back at it. It's nice to see him back. Haverly photo.



Joan Cox relaxes in the shade while hubby, Chris stays busy judging. Haverly photo.

The weather at the Jim Walker meet was, in fact, nearly perfect for Sunday's events. Due to the low turnout the contest finished up early, making the trip home for the out-of-towners much easier. The contest is sponsored by The Northwest Fireballs and another hot lunch was provided. Many thanks to the club, and let's hope the contest can get back to its normal, if not traditional, attendance next year.



Alan Ladd cooked a hot lunch for the entire crew. Alan is "Mr. Do Whatever It Takes." Haverly photo.

For 43 years the traditional Memorial Day weekend has been the date reserved for one of the largest control line contests in the country, if not the world. The most recent site has been in the overflow parking area on Mahlon Sweet Field Airport property. After an exhaustive search for a new venue large enough for a contest of this size by the Northwest Regionals Management Association, they were forced to scale down and run separate contests to accommodate all of the normal events.

Memorial Day weekend used to hold Northwest Stunt and Combat Championships at Bill Reigel Model Airpark at the Salem Municipal Airport. This is the home field of the Western Oregon Control Line Flyers, also known as WOLF. The weather, for the most part, was very nice.

Unfortunately, attendance was again down compared to the regionals of past years. The probable cause was due to having only one paved circle for practice and contest events. Another cause was the fact that many fliers came from out of state to compete in more than one event—not only stunt, but also carrier, speed, racing, and scale.

Old Time Stunt was held on Friday with Dave Royer coming out on top, followed closely by Scott Riese and Bob Duncan. The event wrapped up early allowing for practice for the rest of the day.

Saturday turned out to be the busiest of the three days with the running of Classic/Nostalgia 30 Stunt, Advanced PA, Profile Stunt, and of course the combat events on the grass circle.



Here's Bruce Hunt's Siletto. Haverly photo.



Mike Massey's airplane awaits attention for his next flight. Haverly photo.

Classic was won by Scott Riese, with Mark Scarborough and Mike Massey close behind. Nostalgia 30 saw Bruce Hunt on top, followed by Bob Duncan. Jerry Olson came out on top in Beginner PA. Intermediate PA had Fred Underwood in first, followed closely by Tom Brightbill and Marc Winz. Advanced PA was won by Mark Scarborough, with Steve Helmick and Bob Duncan in close pursuit.

Profile Stunt—previously known as P-40 stunt—is broken into two divisions: Sportsman and Expert. In the Sportsman category, Bob Duncan, Gordon Rea, and Mike Hazel finished on top in that order. Expert Profile places were occupied by Mike Haverly, John Thompson, and Tim Westcott. Noted here is the fact that Tim's flying is improving nicely.

Expert PA, held on Sunday, had a rematch of last year's



Leo Mehl is still at it. This is his Nobler awaiting its turn in Expert PA. Haverly photo.

regionals, only with much more competitive weather. At the end of the day, Dave Fitzgerald and Paul Walker were tied with a 591.5 high score with the tie-breaker going to Paul with 1.5 higher second score. That is a mere 1.5 total for two flights. Following closely behind were the contingency from British Columbia, Chris Cox and Alan Resinger. Alan got the Concours d' Elegance award for the second year in a row with another copy of the Bob Hunt-designed Crossfire.



Paul Walker's 2014 Predator has all the trick stuff and is Nats ready. Haverly photo.



The author's Fifth Element sits next to Paul's Predator, hoping the "killer instinct" will rub off. A person can hope, right? Haverly photo.



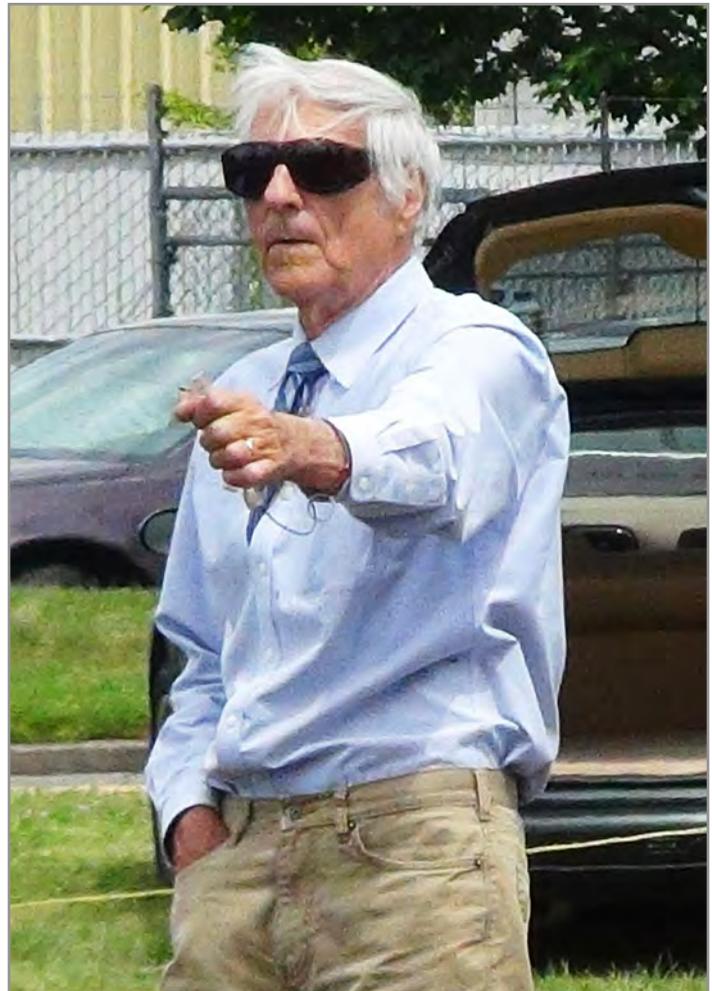
Appearance judging for Expert PA. Regionals attendance was way down and everyone is hoping for a resurgence in numbers next year. Haverly photo.



The demise of Greg Hart's JD Falcon. Upon his return, Greg is showing great promise. This was a nice airplane; it's a shame it went in. We were informed that he'll be back with a new one soon. Haverly photo.



Dave Dennison's new profile entry, the Python. Dave is an experienced builder with excellent skills. The entire model is covered with heat-shrink film. Haverly photo.



Floyd Carter is still at it and is a force to reckon with in Advanced PA. Haverly photo.

As usual, the contest was well run, with all of the usual suspects carrying the bulk of the load. The field setup was accomplished by WOLF with direction from Mike Denlis, Eugene Prop Spinners' president. Mike Hazel, who also served up the Sunday barbecue, was in charge of the whole operation with Don McClave being event director for Stunt. Gene Pape ran the Combat events.

There were many, many more names to recognize and are recognized in the complete reports provided by John Thompson and others on the Flying Lines website at <http://flyinglines.org/nwstuntcombat.14.html>. Please visit the site,

as John does a wonderful job of staying current with the news of this region. He has been seemingly tireless and is much appreciated.

The Northwest Regionals Management Association is in search of a different flying site for a 2015 Northwest Regionals event equal in relevance as the contests in the past. Here's hoping they are successful.

We are a little spoiled here in the Northwest with our relative mild winters. With the past winter weather being especially brutal this year in many parts of the country, I thought I would present some facts you may not know or even care about. I'm going to tell you anyway!

In the early days of sailing ships, each one had cannons for protection. Cannons of the times required round iron cannonballs. To store the cannonballs, so they could be used on short notice and yet not roll around the gun deck, was to stack them up in a square-based pyramid next to the cannon. The bottom of the pyramid had sixteen balls, the next with nine, then four, and so on to the top level with one.

The four levels would provide a stack of 30 cannonballs. The

real problem was how to keep the bottom level from sliding out from under the weight of the higher levels. To do this, they devised a small brass plate (called a brass monkey) with one rounded indentation for each cannonball in the bottom layer. Brass was used because the cannonballs wouldn't rust to the brass monkey, but would rust to an iron one.

Most of us with a rudimentary education understand the principals of expansion and contraction due to temperature change—coefficient of expansion. When temperature falls, brass contracts in size faster than iron. As it got cold on the gun decks, the indentations in the brass monkey would get smaller than the iron cannonballs they were holding. If the temperature got cold enough, the bottom layer would contract, causing the entire stack of iron cannonballs to spill onto the deck.

Thus it was, quite literally, "Cold enough to freeze the balls off a brass monkey." While these facts may not be substantiated by any actual evidence, and might even be urban legend, you probably have a completely different definition of the quote.

Time to fly some stunt, and be safe! SW

—Mike Haverly

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## Control line forum

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October 17, 18, 19 2014



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No Appearance points in any stunt event. No Builder of the Model Rule. All PAMPA & AMA Rules Apply.  
**Entry Fees: \$10.00 each event ( \$30 Max ) Jr./ Sr. \$ 5.00 each event (\$15 Max)**

## THURSDAY October 16

All Circles open for Practice all day. Field gate locked. Need Key or MCLS member with key present on Thursday

### Friday Oct 17

**1/2A Combat** (.061 plain bearing ok) 4:00 PM start  
.....4:00 - 6:00 PM Friday Stunt Judges Seminar.

### SATURDAY Oct 18 Registration ... 8:00 to 9:30

Stunt pilots mtg. .. 9:30 AM

**Stunt** - OTS, Nostalgia 30, Profile Ö 10:00 AM Start  
Basic Flight Start Ö Ö Ö . .12:00 Noon Start

**Navy Carrier** - Class I & II Glow & Elect, Profile Glow & Elect, 15,  
Nostalgia I, II & Profile, Ö . 9:00 AM Start



**Combat** - Speed Limit Ö . 9:30 Start. Vintage - Mod/Eng before 1976  
No comp. Pilots choice for best upright/Sidewinder

## SUNDAY Oct 19 Registration ... 8:00 to 8:30

Stunt pilots mtg.... 8:30 AM

**PAMPA** – Beginner, Intermediate, Advanced, & Expert. ... 9:00 AM Start  
Combat & Carrier if needed Ö TBD by ED

### CONTACTS (for event rules) Hotel Info / map by request

Everett Shoemaker \_ (CD) evjoshoe@embarqmail.com

James Duckworth \_ (Admin) colduck@netzero.net

Will Davis \_\_\_\_\_ (ED Stunt) willddavis@msn.com

David Smith \_\_\_\_\_ (ED Carrier) smitty8126@gmail.com

Howard Shenton \_\_\_ (ED Combat) panzer4hs2001@yahoo.com



# AKRON CLEVELAND 2014 STUNT CONTEST

Hi,

I Just wanted to let you know that the 2014 Akron Skymasters / Cleveland NCCL Stunt Contest is scheduled for September 20 and 21. Last years contest had a weather issue Saturday but a great Sunday and all events were completed. We put our good weather request in early this year so maybe we will be more successful. Our preliminary inquiries show a probable increase in attendance. Many of our contestants were so impressed that they promised to bring even more of there friends and fliers.

We learned many things last year that should help to make this years contest come off much smoother and rewarding. The raffle awards are already starting to come in and it looks like there will be some significant additions.

Last year was only our second attempt with a stunt contest held here at the MAPS Air Museum. It was also only the second time the Akron Skymasters Control Line Associates hosted an event like this. I truly hope you enjoyed your visit. Since we are new at this, we are looking for ways to make the next event even better. We know that your personal recommendations and suggestions can only help to make this happen and would greatly appreciate any input you may have. PLEASE don't hesitate to let us know what you would like to see added or changed.

If you google <http://mapsairmuseum.org/> You can find local hotels and motels and there are several close by. OR contact me personally.

Respectfully,

Roger A. Strickler (Pres. Akron Skymasters)

You can reach me at:

Home 330-645-1435

Mobil 330-815-3982

Email [rstrickler1@neo.rr.com](mailto:rstrickler1@neo.rr.com)

Snail mail 390 W. Caston Rd. Akron ,Oh 44319

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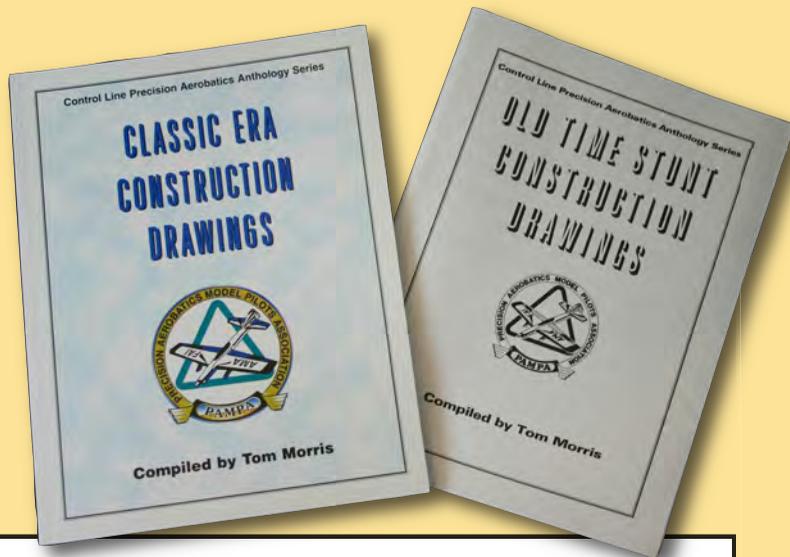
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