

Stunt News

Precision Aerobatics Model
Pilot's Association

May/June 2011 \$5.00



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On the cover: Here are three generations of the Harness family at VSC 23. Left to right are Bob Harness Jr., Scott Harness (kneeling), and patriarch of the clan, Bob Harness Sr. Bob Jr. and Scott flew their replicas of Dennis Shauer's Gladiator at VSC in Classic Stunt. Bob Jr. was featured in a photo in the issue of *American Modeler* in which Dennis' Gladiator article appeared. He's changed just a bit since then... The entire Harness family attended VSC this year and they were a delight to be around. Photo by Bob Hunt.

Inside cover: Watch out next year at VSC guys. Chris Brainard has been teaching his wife, Linda, how to fly. Here's she's shown taking off on a practice flight with her ARF Nobler. She's making fast improvement and just might forego judging for a year and give us a run for our money next March in Tucson! Rickii Pyatt and Mack Davis photo.

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 Bill Rich

The 2011 Nats will be held during the week of July 4th. I can't believe how much fun I've had just trying to figure out under which rules this year Nats will be run. As of this writing no definite ruling on BOM or control handles has been finalized. It is my understanding both issues will be settled by the end of April. The AMA will announce its position, and once I have the okay, I will post both rulings on Stuka Stunt and Stunt Hangar.

On a personal note, the last month has been very challenging and I have not had the energy level that I usually have. On top of all the health and Nats issues, I had experienced a major crash of my computer. Rush Limbaugh was right; I should have been backing up my data. This will not happen again. Unfortunately, I was unable to transfer all my documents to my new computer. A lot of my PAMPA data has been lost.

Eric Vigilone, with input from other members, has been working on our Rules Proposal Process. I asked him to finalize this document. We will post it on PAMPA website. I am going to take advantage of his efforts and have it included in this column. Following is the document:

PAMPA Rules Committee Procedures

1. Forward. The purpose of this document is to assist the PAMPA rules committee members in effectively monitoring and accomplishing PAMPA rules and guide revisions.

The rules committee shall consist of the PAMPA Executive Council and one non-elected member, appointed by the president, who shall serve as committee chairman. If the president chooses not to appoint a non-elected person as chairman, the president shall serve in that position. The president should choose a person for this position based on his/her knowledge of the PAMPA and AMA rules and the rules making process.

The responsibility of the rules committee is to provide standards and policy which promote healthy development of the sport. The committee must act to maintain high competitive standards and good sportsmanship. Proposals counter to this view, while not made intentionally, often are unknowingly generated, so each proposal should be carefully studied before action is taken.

Proposals should be reviewed for ambiguities in scoring, judging, and interpretation which might create hardships at the contest level for contestants and contest directors alike. Committee members should discuss proposals with the PAMPA membership to obtain a consensus of the merit or possible faults in the proposed change.

2. Analysis of Proposals:

- * Will the net effect of the proposed change, if passed, encourage or discourage contest participation?
- * Will the change tend to eliminate a source of protests, or are they more likely?
- * Will the change tend to increase or decrease the time required to process models for competition?
- * Will the proposal obsolete current model designs or favor a particular design?
- * Will the proposal unreasonably increase administrative workload on contest officials?

3. Rules Schedule. These procedures provide for a single-year

schedule. Rules become effective January 1 the following year.

January 1, 2011, PAMPA Rules Change Procedures Page 1 Rules Schedule continued:

A) Submissions for RULES CHANGES will only be taken

from January 1st through June 1.

B) All submissions shall be posted on the PAMPA web site in a new section called "Rules Proposals for XXXX (current year)" and submitted to be published in *SN* by the June 20 deadline.

C) EC Discussion from June 1st through Oct 31.

D) EC Vote call for on November 1 and due by November 19.

E) New rules to be posted on PAMPA web page ASAP and published in the next issue of *Stunt News*. (This meets the November 20 *Stunt News* deadline to publish in first issue of the following year.)

4. Proposal Preparation and Submittal: Any open class PAMPA member may submit a rule change proposal by filing a completed PAMPA Proposal Form with the PAMPA rules committee chairman by the specified deadline. Upon receipt of the proposal, it will be reviewed by the rules committee chairman to assure that it has been properly submitted (correct form, properly filled out, required signatures, clearly stated proposals, etc). If the proposal, as submitted, does not pass the review by the chairman, it will be returned to the proposer with an explanation of what is required to present it correctly.

5. Numbering. Proposals will be numbered by the PAMPA rules committee chairman. A proposal number should have three basic sections:

- (1) Category for which the proposal is filed.
- (2) Year in which the proposal is to become effective.
- (3) Proposal number for a particular category which is to be assigned by the chairman in order of proposal receipt.

Example:

Category Year proposal is Effective Proposal
OTS (Old Time Stunt) 2011 1
NOS30 (Nostalgia30) 2011 2

6. Proposal Distribution: If the chairman is satisfied that the proposal has been properly filed, it will be distributed to the rules committee members.

7. Rules Committee Voting: An affirmative 60% majority vote of those responding will be required for acceptance of the proposal.

January 1, 2011 PAMPA Rules Change Procedures Page 2



8.) Multiple Choice Votes: In the event that similar rules proposals occur, they will be assigned numbers by committee members beginning with the value 1 and concluding with the total number of similar proposals with 1 being the most desirable and the highest number being the least desirable. The proposal with the lowest number of total points shall be the only one to pass. See sample ballot below.

Example:

Change Nostalgia model eligibility to one of the following:
For Against Preference

- ___ ___ ___ OTS-2011-2 Change eligibility to published or kitted designs
- ___ ___ ___ OTS-2011-3 Change eligibility to published and kitted designs
- ___ ___ ___ OTS-1011-5 Change eligibility to published but not kitted

9. Vote Tabulation: All votes will be taken in writing on official forms supplied by the Rules Committee chairman. The chairman will forward to all committee members copies of the official voting form which shall contain a listing of the proposals by number upon which the committee member must vote. Each member will cast his/her vote and return it, along with pertinent comments, to the committee chairman by the date indicated in the "Rules Schedule" section of this document. In determining the validity of a vote, the ballot must be postmarked by the date specified as mentioned above. Upon receipt of the ballots, the chairman will tabulate the vote. Copies of the tabulation along

with either copies of the ballots or a resume of the comments will then be distributed to the committee members and *Stunt News*. Publication of the vote tabulation shall be made in *Stunt News*.

10. Proposal Editing: The chairman may at any time prior to final rule publication edit a proposal wording for the purposes of clarity or to minimize conflicts and ambiguities, where he deems this advisable. He shall not, however, edit the proposal in such a manner that its intent is altered. If any committee member or the proposer feels that the intent has been altered by the change, he/she may appeal the editing action to the PAMPA president. The president shall then rule if an alteration of intent has occurred and either return the proposal for rewriting or adoption as is. The president's decision will be final.

11. Publication Requirement: Publication of proposals (in abbreviated form) prior to voting is mandatory. The intent being to provide the membership with an opportunity to comment to those voting before final action. Publication of proposals passing the vote shall also be published. Publication shall be in *Stunt News*.

12. Revisions to Rules Committee Procedures: Revision to these procedures shall require a 60% majority approval of the PAMPA Executive Council. January 1, 2011, PAMPA Rules Change Procedures, Page 3.

Until next time, enjoy Stunt and fly safely. I hope to see a number of you at the Nats.*SN*



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Level Laps

By Bob Hunt

In what is getting to be a very sad pattern in this column, I must once again write about the loss of a member of the CL Stunt family. By now I'm sure that most of you have heard of the passing of one of the most beloved, successful, and talented modelers in the event's history, Lew McFarland.

Of course, when most of us hear that name, we think immediately of the Shark 45, which was, arguably, the most famous of Lew's many great designs. With the Shark 45 Lew won the 1961 and 1962 Nats. I was privileged to have been an eye witness to Lew's performance at the 1961 Willow Grove, Pennsylvania, Nats. In that timeframe the Shark was a behemoth among the other, much smaller models that were entered. That dramatic size difference only made the performance seem more impressive.

Lew's life story is a fascinating one, and in this issue Wynn Paul will share just a small portion of it with us in a heartfelt tribute. Wynn was very close to Lew, and they flew and competed together for several years before Lew retired from active contest flying.

God Speed, Lew McFarland. You showed us the way in designing and flying and certainly in being a very classy, friendly, and approachable human being. Your passing leaves a void in our lives and in our hobby/sport that can never again be filled.

I got some help! I'm very pleased — and relieved — to announce that Chuck Holtzapple has graciously volunteered to help out with the production of *Stunt News*. One of the most important aspects of any publication is grammar. Proper use of speech and grammar can make a good publication even more impactful and more respected.

Chuck's background is in education. He has an associate degree in engineering and under- and post-graduate degrees in secondary education. He was certified by the Pennsylvania Department of Education in Comprehensive English and taught Language Arts in the Central York School District in Pennsylvania for thirty-three years prior to his retirement in 2004.

Chuck's duties primarily will be to read the articles and columns and adjust the texts to conform to a specific grammatical convention, without, hopefully, altering the character and personality of the author's intent. From what I've seen from Chuck so far, this idea is working!

You should know that Chuck is also a longtime CL Stunt designer, builder, and flier. He is returning to the CL Stunt fold after an extended hiatus, and is already gathering the bits needed to build a new, electric-powered stunter.

I've always been impressed by Chuck's designing prowess and especially his styling talents. Two of his many ships that come to mind in this respect are his impressive Mr. Cee biplane stunter and his magnificent twin engine stunter that he called Limited Edition. That ship had several styling cues that were reminiscent of the Rockwell Aero Commander twin, but it also had a bunch of

unique original touches engineered by Chuck. In 1988 at the Tidewater Nats, Chuck saw Bob Whitely's LA Heat twin, and it inspired him to design and build the

Limited Edition. That was a big project and it took a lot of design and build time. Fortunately, the 1993 PA school season was interrupted often by inclement weather, so Chuck had plenty of "home time" to work on the project.

Please join Liz Helms, Bob Kruger, and me in welcoming Chuck to our *Stunt News* publishing family, and if you get a moment, drop him a note with a personal "thank you." His email address is: ckholtzapple@aol.com.

Plea for articles – again. Okay, I couldn't resist the obvious segue here... Now that we have Chuck prepared and eager to edit stuff, how about sending some stuff in for him to edit? Seriously, the files are about empty again, and we desperately need articles and even a few new column authors. How about following in Chuck's service-oriented footsteps and volunteer to write for *Stunt News*?

Feature articles about any aspect of CL stunt flying, building, finishing, competing, personalities, philosophies, etc. are welcome. If you are in doubt about how to prepare an article, please do not hesitate to get in touch with me and I'll talk you through it.

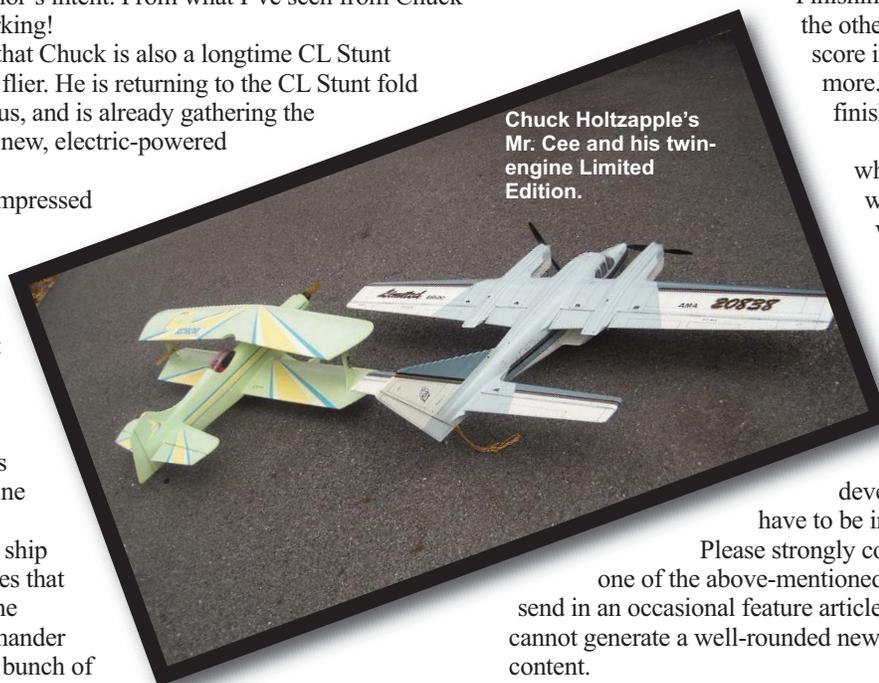
We need some columns. This hobby/sport is mostly about flying (97 percent of the possible score comes from the flying portion...), so it is just natural and obvious to have a column dedicated to all aspects of flying. Any takers on that one? Finishing and appearance account for the other three percent of the possible score in stunt, but it always seems like more. We need someone to write on finishing and detailing.

Building is also a huge part of what we do, and guess what? Yup, we need a column on that, as well.

Other columns that I would like to see in *Stunt News* include Competition, Personalities, a true Beginner's column — one that takes newcomers through the process of a first build and early flying development. This would probably

have to be in the form of a series.

Please strongly consider volunteering to author one of the above-mentioned columns, or at least please send in an occasional feature article. Our publishing group simply cannot generate a well-rounded newsletter/magazine without content.



Chuck Holtzapple's Mr. Cee and his twin-engine Limited Edition.

A difficult piece to write. This *is* a difficult piece to write... for more than one reason. I have accepted the resignation of Rudy Taube, our outstanding "E-Stunt" columnist. If you are an electric CL Stunt aficionado and have been reading Rudy's column for the past few months, then you know what a treasure this man has been to us all. His knowledge of electric power and his grasp of how it can be best applied to our hobby/sport have been an invaluable asset for all of us who deplete electrons rather than burn methanol and nitro to do tricks in the sky.

Rudy has decided to return to full-time RC flying in IMAC events. This decision came, Rudy told me, in part because of the less-than-cordial treatment that he feels he has received in the area in which he lives and flies in respect to his involvement in electric CL aerobatics. Rudy is also disappointed in how he feels the rules concerning airplane legality at the Nats are being handled. I won't comment here anymore on that, but I have allowed Rudy some latitude in his final column to voice his concerns and his gripes. For his past service to this community, he deserves at least that consideration.

You would think that in light of Rudy's feelings about CL Stunt at this point in time that he would simply sound off on his feelings and leave without expending anymore effort on our behalf. This is where this really becomes difficult to write. Rudy has left us with what is perhaps the very best outline of just what is required to become involved in electric CL stunt flying. His farewell treatise is very long and very detailed and is required reading for all E-CLPA enthusiasts.

I'm taking this opportunity to thank Rudy, from the heart, for not only his service to this community, but also for his personal friendship. He and I have not always seen things eye-to-eye, but we have always been able to communicate in a more than civil manner about our differences in modeling and in "real life," and I've actually come to see many things from his perspective and have gained a lot of respect for his teaching and communicating abilities. Thank you, Rudy, for enriching my life; I'm sure you've done the same for many others, as well.

VSC retrospective. In this issue there is a report by yours truly on the 23rd edition of the Vintage Stunt Championships. I haven't actually written a report on VSC since my days as Editor of *Flying Models* magazine. In the interim I did produce a few videos and DVD's about various VSC's. Lately, however, I've been attending as just a competitor. And, in that mode I really haven't been cognizant of many of the really neat things that happen during the contest; I was focused on my flying program. It was kind of interesting to return to "reporter" status and try to find an interesting slant on delivering the story.

What I quickly realized is that it is not possible to effectively "cover" a contest of this magnitude. The best one can hope to do is to capture the "flavor" of the event and make it sound so interesting that the reader will feel compelled to attend the next year. I decided to just jot down some impressions about the people and planes that impressed me and, of course, augment that with lots of photos from the happening. Not being a gifted photographer, I took a few snapshots of things I liked. But, the lion's share of the photos you will see in the enclosed VSC report were taken by people who really like and understand photography. My most heartfelt thanks go out to John Miller, Pixelpete (Peter Martin), and Rickii Pyatt and Mack Davis for their most artistic digital contributions.

I would also like to thank my two longtime friends, Lou Wolgast and Robin Sizemore, for their outstanding service to the CL Stunt community as the Contest Directors of this annual gala affair. Thanks also to the Cholla Choppers club and the Central Arizona Control Line Club. Without the unselfish dedication and hard work of the members of these two clubs, VSC would just not happen.

Mike Keville's miraculous vision of a vintage control line stunt event is alive and well in the Arizona desert, and each year it provides another dose of magic to sustain those of us who love and revere this event's bright and vivid history.

Till next time, Fly Stunt!*sn*

—Bob Hunt

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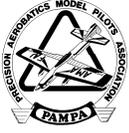
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Term of ALL Memberships and Subscriptions are from January 1st through December 31st.

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Issue	Deadline
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November/ December 2011	September 20, 2011
January/ February 2011	November 20, 2011

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VSC



The appearance point judging for Classic Stunt is conducted on Wednesday evening of VSC week and it is one of the many social events that everyone looks forward to each year. Pixelpete photo.

XXIII

By Bob Hunt





“The weather could have been better.” How many times have you heard that when someone is talking about a Nats, FAI Team Trials, or a VSC? Well, that was not the case this year at VSC. One of the big stories at VSC XXIII (that’s 23 to you non-Roman-Numeral types) was the glorious weather we had there for not only the contest days, but also the week leading up to the meet. There was no wind to speak of during the practice days, nor during the competition rounds. It will be a tough meteorological event to follow in that respect.

This was my twenty-first trip to Tucson to compete in the Vintage Stunt Championships. This is a contest I have vowed not

to miss since I attended VSC II, the first one held in Tucson (I did miss one a few years back due to a severe kidney stone attack just before I was due to leave). For those of you who are not aware of the history of VSC, the very first gathering was at Whittier arrows in California in 1989. Mike Keville had this dream (perhaps it was a scheme) to get all his CL Stunt heroes to come to where he lived and fly in a contest so that he would not have to travel to see them fly. Moreover, he wanted to see them fly the models for which they became famous, and that meant in most cases models from the event’s earliest days on through the models from the 1960’s. He devised a contest at which Old Time models and Nostalgia, or Classic models, would be flown exclusively.

Actually, Mike wasn’t very interested in the competition aspect when he devised VSC, but realized that a competition would be the only way to attract, well, competitors. He



envisioned it mainly as a fun-fly gathering at which there would also be a low-key contest. And, to be fair, many who attend VSC even to this day embrace Mike's concept. Fortunately, this is a format in which even the staunchest competitors can meet to do battle within the framework of Mike's idea. I like to refer to it as, "A contest where you are allowed to try to win, but they frown on it."

Anyway, the time was right for an idea like VSC, and it blossomed in the desert when Mike and JoAnn moved from California to Mesa in 1990. The Cholla Choppers club that is

Far left: VSC Contest Director Lou Wolgast signals the judges to begin an official OTS flight while Ed Capitainelli holds Lou's Jamison Special. Bob Hunt photo.

Left: Joe Gilbert "done himself proud" by winning the Ignition OTS event and the regular OTS event with the same ignition-powered model. Here he poses proudly with his wife Colleen and his winning Humongous. John Miller photo.

Above: Perennial OTS favorite, Bart Klapinski takes a moment to pose for the clickers with his wife, Dona and his Don Hutchinson-built Madman. Bart and Dona got married during a VSC a few years back! Bob Hunt photo.

based in Tucson embraced Mike and JoAnn Keville and the idea of VSC, and the rest is, as they say, history. VSC has become one of the most popular CL contests on the planet and routinely pulls contestants from not only all over the United States, but also from



Above: Brazilian Bene Rodrigues prepares to start his Ringmaster while Thomas Case Jr. holds and Thomas Case Sr. watches. These gentlemen are always fun to be around and they always seem to be having a great time. Bob Hunt photo.

Right: One of the really good guys, Bill Heyworth, takes a moment to show us his OTS Jamison Special. Bill and Elaine Heyworth threw one heck of a BBQ dinner at the field and everyone in attendance at the contest was invited. No one went away hungry! Bob Hunt photo.



challenge. I've decided to write just a bit about the things that caught *my* eye and those that made *me* smile.

I must first thank my hosts for the week and for the past few years that I've attended VSC. When Warren and Barbara Tiahr moved to the Tucson area in 2005, they opened their beautiful home to Bill Werwage and me for not only the week of VSC, but also for most of the preceding week so that we could chip the rust off our reflexes that had gathered during the long, northern winter months. Not only are they extremely gracious hosts, but they are also great friends with which we have tons of fun. Since Billy has not been able to make the trip to VSC for the past few years, the invitation to stay with them has been extended to another of our mutual close friends, Bob McDonald.

There are a number of traditions that have been established at the Tiahr home during VSC week, and one of them is that since they have moved there, the VSC Classic Stunt Champion has slept in the bed nearest the window in the guest bedroom. Billy had that honor for two years, and I've been privileged to have

many countries around the globe, as well.

The scope of VSC is such that a blow-by-blow accounting of the competition is impossible for any one reporter, and it is also not the best format in which to highlight just what it is that makes this meet a resounding success: Fun!

I've written many reports about the happenings at many VSC's over the years – mainly when I was the Editor of *Flying Models* magazine – but have not reported on it in recent years. Finding a new and fresh approach to telling the story of the week there is a



How many fliers do you know who put this much effort into a trim scheme for the bottom of their airplanes? Keith Trostle's new, Dick Mathis-designed Chizler is just outstanding from all angles. Rickii Pyatt and Mack Davis photo.



Left: Gregg Elling does a bit of maintenance on his Frank McMillan-built Super Zilch at the Ignition OTS circle. Gregg and his brother, Gaylord, have quickly become an integral part of the VSC community. They are just fun to be around! Bob Hunt photo.

individual maneuvers that were as good as I've ever seen from anybody. My profound congratulations go out to Warren for what he has achieved. He has reached the next plateau and is now focusing on a possible win at VSC in the not-too-distant future. Way to go, old buddy! Hmmmm, if that happens I wonder if he will want the "Window Bed" in the guest bedroom...

At this point I should mention that a number of the fliers who have moved to Tucson have opened their homes and hearts to friends to stay during VSC. They are all extremely gracious hosts, and we who stay with them really appreciate the gesture and the hospitality.

Another highlight for me - and everyone else it seems - was seeing John Callentine's absolutely flawless, PA 61-powered Rabe

slept in that bed for the past four years. Almost lost it last year when Bob McDonald led the pack for two of the three days of Classic competition with some fantastic flying. I snuck by on the last day and once again claimed the right to the coveted "Window Bed." I knew that Bobby wanted that bed badly, and I also knew that he was scheduled to arrive at the Tiahrts home a few hours before me this year. I feared that he might commandeer that bed before I arrived in an attempt to achieve a coup of gamesmanship. Fearing this, I called Barbara and had her print out a placard to put on the pillow of the "Window Bed" that read: Reserved for the reigning VSC Classic Stunt Champion. We all had a good laugh over that one, and it is just representative of the antics that go on during our stays with the Tiahrts. We love them both and will remember the happy, fun-filled weeks we spent at their home for the rest of our lives.

While I'm on the subject of the Tiahrts, I would like to write about the biggest highlight and thrill of the week for me. It was watching Warren fly his new, Gene Schaffer-designed Blackbird Classic stunt model. Warren is, as most of you know, a gifted builder and finisher. He has produced many outstanding OTS and Classic stunt models over the years. You may remember his gorgeous OTS Musciano Stunt Rocket and Andrews Trixter Invert Junior models. You might also recall his fantastic Pawloski Lunar and Ebejer Venus Classic stunt models. What few have made much mention of about Warren in the past has been his flying prowess. I'm here to tell you that everyone's perception about that changed this year big time. Warren has arrived as a formidable top-ten competitor in Classic. He has been practicing hard with the Aero Tiger 36-powered Blackbird and it has paid off with a brand new Warren at the handle. For the record he finished in eighth place this year and had everybody watching his flights. One of them was virtually devoid of any errors with

Mustang. John is a master professional woodworker and he has produced several amazing ships over the past few years. He honored me by building a gorgeous Caprice a few years back and also honored my dad, James A. Hunt, by reprising his Travel Air biplane for OTS. Both of those ships were just flat beautiful, but he has outdone himself with his latest masterpiece. He easily won the Classic Pilot's Choice award. That one is voted on by the Classic competitors and it was reported that John won in a landslide. The model flew very well, too.

Although almost brand new at VSC this year, John and his Cholla Chopper buddies had most of the flight trimming sorted out by contest time and he delivered three very nice flights... and one very nice landing. It seems that John had a few "issues" with getting the Mustang back on the ground in competition. No damage was done to the model, however, and John took the resulting ribbing in stride. He did have a big gallery for his final flight on Saturday. Everyone cheered when he smoothly landed the gleaming fighter. With a bit more time on this one, John will be formidable in Classic in the future. Al, if you are reading this I can assure you that you would have been very proud of the job that John has done with this rendition of your classic design.

The really big winner at VSC this year was Joe Gilbert who flew his Anderson Spitfire 65-powered OTS Humongous to first place in the Ignition OTS event and also in the regular OTS event! That is a first at VSC. Joe took full advantage of the ten bonus points that are given to an ignition powered airplane in regular OTS and just squeaked by the OTS winner of the past two years, Bob Whitely. Bob was also flying a Humongous.

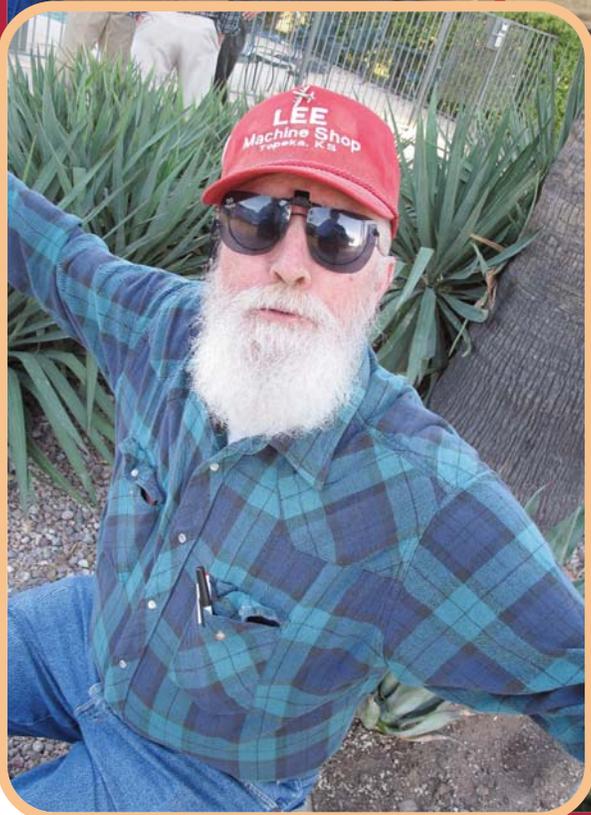
Second place in Ignition OTS went to Frank McMillan with his brand new Madman 56. This is the larger Madman that has just been deemed officially legal for OTS competition. Frank's



Left: One of the regulars at VSC is John "Doc" Holliday. He enjoys some quiet time at the appearance point venue with his pal, Sandy. Pixelpete photo.

Lower left: Another beloved fixture at VSC is Jon Standingbear. It just wouldn't be a complete VSC without his presence. Pixelpete photo.

Below: East Coast transplant, Ed Capitainelli loves Tucson life and has produced a number of beautiful aircraft at his new home. Here's Ed with his colorful Jamison Special. Rickii Pyatt and Mack Davis photo.





rendition is just beautiful and he is still sorting it out, so watch out next year! Frank chose a K&M replica Orwick 64 to power his Madman 56.

Jim Kraft flew yet another Humongous to third in Ignition OTS. Jim used an Anderson Spitfire .60 for power.

Although it has been at VSC before, I never really took the time to look closely at Bob Lipscomb's Casburn Bandit. Bob, as many of you may remember, showed up at VSC a few years back with a virtually flawless example of David Gierke's Novi III for Classic competition and easily walked away with the Classic Pilot's Choice award. His Anderson Spitfire .65-powered Bandit is far more subtle, but no less impressive in craftsmanship and finish. This is an unusual design and it

Above: Bob Whitely applies a pull test to his two-time-VSC-winning OTS Humongous prior to an official flight. He just missed making it three in a row. Bob Hunt photo.

Inset: Frank McMillan built the newly legalized OTS Madman 56 to a close second in the Ignition OTS event. It features a replica Orwick 65 for power. Bob Hunt photo.



Left: Stan Tyler and Allen Brickhaus display their Adams' Special OTS entries. This Frank Adams design was originally built in 1950 and was republished in the January/February 2007 issue of Stunt News. Plans for this model are available from the PAMPA Plans Service. Bob Hunt photo.

Below: What would an OTS contest be without at least one Hal "Pappy" deBolt design? Mike Ostella accommodated us with his rendition of the All American. Bob Hunt photo.



is fitting that Bob walked away with the Most Unusual Entry award. The model features a lot of molded parts and the fuselage shape is very fluid looking. I predict that we will see more of these in the future at VSC, especially since Bob seems more than willing to share his fuselage molds with others who want to build one. This is one really nice guy!

Nine of the top-ten places in Old Time Stunt were captured by a Humongous, a Jamison Special, or a Big Job. The only other design in that group was the Madman flown by Bart Klapinski. It seems that these few designs have been found to fly very well and are extremely competitive. Many think that this is a bad thing and that the real spirit of the event is suffering. Early on at VSC it seemed that everyone was trying to come up with an OTS design that no one had used there before in competition. Winning wasn't the priority then, but it seems to be more of a factor these days. This is, after all, the Vintage Stunt *Championships*, and like it or not, some people want to try to win. I can appreciate that.

There were a number of outstanding Classic models present this year. The aforementioned Al Rabe designed P-51D Mustang by John Callentine will no doubt be the one that is most remembered from this VSC. There were a few other models that were also virtually flawless, but, alas, only one can be declared the best and John certainly deserved all the accolades he

received.

Two models that really caught my eye were Ray Firkins' Sting Ray and Lou Wolgast's Fury. Ray showed up last year at VSC with the unfinished airframe for the Sting Ray, and everyone told him that it would be a crime to put paint on that flawless piece of woodwork. He finished it anyway. And it is now a piece of flying artwork. Bob Gialdini flew the original Sting Ray to a first place finish at the 1963 Los Alamitos Nats, and he would be very proud of the job that Ray has done in faithfully reprising that ship. Fortunately, Bob was at VSC last year and did get to see the unfinished "bones" of Ray's ship. Ray

was still trimming the ship when he arrived at VSC and didn't finish as highly as he would have liked. Watch out next year when he has this one sorted out and gets a few practice flights on it. The Aero Tiger .36-powered Sting Ray presents extremely well in the air, and I'll bet that we will see more of these in the future at VSC. Hopefully, Bob Gialdini can once again attend and get to see his Sting Ray design in competition.

Lou Wolgast's new Dodge-red Fury is just a gleaming masterpiece. It is also a new ship, but Lou is flying it very well and should only improve on his sixth place finish this year in Classic in years to come. He lost an equally beautiful red Fury last year in a freak accident. Let's hope this one lasts a long time. The Double Star .54-powered Fury, by the way, is an original design by Lou in the early 1960s and it has been recently kitted by Eric Rule of RSM Distribution.

The people and the planes ...



Above: John Callentine completes his last official flight in Classic with his Al Rabe-designed P-51D Mustang. Pixelpete photo.

Left: Like all of John's creations, his Mustang is simply gorgeous, and it handily won the pilots' choice Concourse award for the best-appearing Classic Stunt model. It sports a PA 61 for power. Pixelpete photo.

Below left: The look of disbelief on these fliers' faces was caused by their first look at the flight order! No matter what "picks" you get, they never seem to be the ones you wanted ... Pixelpete photo.

Below right: Steve Holt flew this very clean Ringmaster in OTS competition. Steve is one of the many unsung heroes of VSC who put in a lot of work for very little recognition. Pixelpete photo.



Right: Ray Firkins produced this magnificent rendition of Bob Gialdini's 1963 Nats-winning Sting Ray. It was virtually flawless and flew very well. Watch out when he gets some time on it! John Miller photo.



Below: At the front of this three-plane lineup is Warren Tiahr's beautiful, Gene Schaffer-designed Blackbird. With it Warren captured his best-ever VSC finish by placing eighth. Behind Warren's plane is Bob Hunt's Caprice, which is a design that was derived from the Blackbird. John Miller photo.



Below: Bob Harness Jr. flew this Dennis Shauer-designed Gladiator. Bob was featured in the original Gladiator article in *American Modeler* magazine when he was just a (younger) kid. Pixelpete photo.

Bottom: Here's Mark Gerber's fabulous example of Bob Palmer's Hurricane. Pixelpete photo.



Above: Noted RC Pattern specialist, Roger Kramar, produced this stunning Nobler. Watch out for this guy once he gets acclimated to flying on wires! John Miller photo.



History of the Vintage Stunt Championships



(Note: Much of this story, dated 31 January 2006, appeared on Ken Dowell's "Vic Stunt" website in Australia. Some of the wording has been changed to bring it up-to-date.)

Because several people have asked, here is the story of the origin and ideas behind the Vintage Stunt Championships (VSC).

When this thing began back in 1989, we had no idea it would become so successful—much less writing about its origins and progress twenty-three years later! Much of this story can be seen in the magazine article dealing with the inaugural event, which I wrote for the June 1989 issue of *Model Aviation*, although I can still “see” that venue as if it happened yesterday. (Like many of us, I can’t remember what I had for lunch but can recall with crystal clarity model aircraft incidents from a half-century ago.)

This all actually began very early one foggy morning in 1988. While sipping coffee and doodling with a sketch of a Veco Chief, I began wishing I’d met some of Stunt’s more prominent fliers. At that time I had just returned to Control Line after a passionate twenty-year involvement with competition Free Flight, and was intrigued by something I’d read somewhere about a novelty event called Old Time Stunt.

As most of us know, OTS was the brainchild of John Miske, Jr. of the *Garden State Circle Burners* club in New Jersey. My early years had been spent as a hanger-on or observer (okay: “wannabe”) at a Haddonfield, New Jersey CL site c.1950-1956, watching with envy as others flew such magical creations like Barnstormers, Warriors, All Americans, and so on. By 1970 those had all but disappeared — until John and his club hosted an event for designs “kitted or published before 31 December 1952.” By the way, that first one was won by Bob Hunt, flying a Veco Mustang. As I toyed with the pencil sketch, it began to dawn on me that it might be possible to invite people to a reunion of sorts—to include some of the more prominent designers and fliers from that bygone era.

There were two problems with that. (1) We were located on the far West Coast (California), thus requiring extensive travel for many. (2) No one in the Stunt community had ever heard of this obscure ex-Free-Flighter. Conventional wisdom indicated that the idea had little chance of succeeding.

So we did it anyway.

The first VSC was held at Whittier Narrows, located in South El Monte, CA, on a cool, foggy, and drizzly February weekend. My wife at the time, JoAnn, was an AMA Contest Director, and volunteered to act as CD (a task she performed admirably for the first fourteen VSC’s). Tony Drago, then-owner of the kit company *Control Line Classics*, sponsored the postage cost for mailing more than two-hundred contest announcements to various points around the USA, and a fellow named Don Nix, who then owned Powermaster Fuels, donated a hundred bucks to help defray expenses. (It’s also no secret that the late Dick Wolsey was a major financial supporter of the first several VSCs.)

We did not send any announcements to other countries, since the idea that anyone outside the USA might be interested in travelling such a distance to fly obsolete CL designs was ludicrous. We of course were unaware that not only would this gathering grow, but within a few short years would attract entries from Australia, Switzerland, Germany, Canada, South Africa, the Netherlands, Japan, and England. When planning the first one, *we just hoped someone would show up!*

They did. To our great surprise and delight, the inaugural event included George Aldrich, Bob Palmer, Ed Southwick, Ced Galloway, Cecil Mead, Joe (Veco) Wagner, plus a host of others from Stunt’s golden era, and several contemporary top fliers. (Paul Walker was one of the judges.)

In 2003 JoAnn and I moved from Arizona to Maine, thus we had to transfer the VSC to a responsible entity – the *Cholla Choppers of Tucson*. (Note: *cholla*, pronounced “choy-a”, is a desert plant, native to our Sonoran Desert. When the club was established in 1947, members literally “chopped cholla” in order to create their first flying site — hence, the club name.) Lou Wolgast, a NJ transplant now living in Tucson, became the CD, ably assisted by Robin Sizemore. They then enlisted the assistance of members of the Phoenix-area *Central Arizona CL Club*, who continue to be a very important part of the preparation and running of this annual event.

Prior to 2003 the VSC was essentially a “Mom and Pop” operation, with JoAnn doing 90% of the preparation (in fact 100% in some of the years I worked in Kuwait and couldn’t get home). Having combined forces with the *Central Arizona Control Line Club*, their combined efforts have resulted in a magnificent job of administration. At about the same time, several prominent Stunt flyers began migrating from Southern California to Tucson. Keith Trostle, Bart Klapinski, Bob Whitely, Bill Heyworth, and the late Lucky Pyatt were instrumental in helping make the VSC the largest attended Stunt-only contest in the country. It’s incredible to think that in two short years we’ll see the twenty-fifth running of something that in 1989 many (including us) thought would be an insignificant one-time gathering.

Although I am no longer actively involved with hosting the VSC, except for the minor role of helping secure hotel accommodations (and the occasional role as emcee at the awards banquet), I am overwhelmed by the positive response gained by something that at one time was just a pipe dream.

We never saw this coming! SN

—Mike Keville
Tucson, Arizona



Above: Sean Chuang built this very clean version of Lou Wolgast's Fury for Classic Stunt. Sean is a real "thinker" and has come up with some very interesting and helpful building techniques. See his Take-Apart Vector update article on page 60 in this issue. Pixelpete photo.

Keith Trostle flew his brand new, Dick Mathis designed Chizler. This is the third Chizler that Keith has built, and he feels that with a bit more trimming it will be among the best flying stunt models he's owned. The ship features a very "active" or "kinetic" red, white, and black paint scheme with lots of contrasting trim. He powers this one with a Double Star .40 and it weighs a very svelte forty-three ounces. With it Keith placed second in Classic this year. That's a fantastic result for a brand new ship and means that this one will surely do well for Keith in the future.

Bob McDonald flew his faithful replica of Bill Werwage's legendary USA-1 again this year. It is both beautiful and light and sports a PA .40 R Ultra Lite Merlin (This engine has more nicknames than Apollo Creed did in Rocky IV!). Bob covered the I-Beam wing with Polyspan and trimmed the ship identically to

Bill's 1972 World Championship winning ship. Bob placed third for the second consecutive time with the USA-1 and is flying it extremely well. Look for him to break through with a win at this meet soon.

Another unusual and beautiful ship was entered by Bene Rodrigues. His Billy Werwage designed 1959 Ares might not seem to be too unusual until you examined it closely and discovered that it is a take-apart I-Beam model! Bene did a fantastic job of keeping the model both light and rigid. The seams where the model came apart for shipping were almost invisible and the model sported a fantastic finish. Bene powers this one with the venerable Fox .35.

Bene, by the way, accompanied his long time friends, Thomas Case and Thomas Case, Jr., to VSC. They hail from Sao Paulo Brazil, and are always fun to be around and always seem to have a great time in Tucson.

John Miller captured the Jack Sheeks award for his sleek and stylish rendition of Jack's sleek Torino twin-boom design. John had this one at VSC last year and had some trim problems on that occasion. He seems to have the bugs worked out now



Above: Bene Rodrigues brought this immaculate Ares with him from Brazil. It is the first I-Beam wing take-apart ship that anyone could remember, and it was almost impossible to find the parting lines where it came apart. Nice job! Rickii Pyatt and Mack Davis photo.



In what has been come to be known as “The Order of the Tree,” these three models were set apart as the three best models at the appearance point judging. Left to right are Frank McMillan with his Gypsy 46, John Callentine with his Concourse-winning Mustang, and Lou Wolgast with his original-design Fury. Nice plane guys! Rickii Pyatt and Mack Davis photo.

and this one looks great in the air. It’s powered by a Magnum .36 XLS engine.

Other ships that caught my eye in Classic were Wes Eakin’s Chief, Clint Ormosen’s Tempest, John “Doc” Holiday’s King Sweep, and Roger Kramar’s 1957 Nobler. Truly the level of craftsmanship and finishing across the board at VSC is improving, and we are starting to see some outstanding examples of the great designs of yesteryear.

Wes Eakin’s Chief looked like it was flying on rails. The Chief is a real sleeper in Classic. Its constant chord wing has acres of area and they usually build up light. That combination produces a lot of cornering ability. Ted Fancher won VSC a while back flying a very nice Chief, but we haven’t seen too many of them since then. Wes’ OS .40FP-powered replica looked and flew great. Again, I’ll bet we see more Chiefs in the future at VSC.

Clint Ormosen built an example of one of the most storied ships in the stunt event’s history. His faithful replica of Bart Klapinski’s 1967 Nats winning Tempest is just splendid and it was a real kick to see Bart take it for a ride at the end of the contest. It is powered by a Brodak .40. Very nice job, Clint!

Talk about an obscure one... Doc Holiday showed up with one from the pages of an ancient *Flying Models*. His Brodak .40-powered King Sweep stood out from all the other “normal configuration” designs on the field with its severely swept wing and short nose moment. Doc didn’t get it trimmed well enough to fly it in competition this year and



Here’s another design without which it just wouldn’t be a VSC. Wes Eakin flew this outstanding example of the Veco Chief in Classic. It flew as if on rails. Rickii Pyatt and Mack Davis photo.



Left: Here are the top three placers in Classic Stunt. From left to right in the photo are Keith Trostle with his new, Dick Mathis-designed Chizler (second place), Bob Hunt with his veteran Caprice original (first place), and Bob McDonald with his Bill Werwage-designed USA-1 (third). This was the fifth consecutive win in Classic Stunt for Bob. Bob retired the Caprice after this contest because his "friends" threatened to burn it if he returned with it! Susan Giacobone photo.



The Big Job Club! Clockwise from the back left are Frank McMillan, Keith Trostle, Charlie Reeves, and Bob Whitney. They all seem to be very pleased with their colorful renditions of the very popular Naccarato OTS design. Rickii Pyatt and Mack Davis photo.

had to fall back to his trusty Bill Simons' designed P-39 Airacobra. Hopefully Doc will get the King Sweep sorted out in time for the next VSC.

And, lastly, I was very impressed with the Nobler entered by Roger Kramar. Roger is an FAI class RC pattern pilot of some note and he is now venturing into CL competition. His metallic red Nober was just stunning. It was very cleanly built and finished. If this is an example of what Roger is capable of, we will need to watch him closely in the future as he gains flying experience on two lines. He'll be a good one, I predict!

Again, the above reflects just a few of the models that caught my eye at VSC. Perhaps you might be attracted by some of the other amazingly beautiful models. The only way to know is to attend and see them yourself.

The Vintage Stunt Championships is much more than a contest in the desert. It is a yearly gathering of the CL brethren and a chance to rejoice in and remember the amazing past of this modeling discipline. Truly, the people who attend VSC are far more important than the competition or even the beautiful models. This is brought into focus at the many parties that have become major social events at this meet.

The first of these parties traditionally is Bill and Elaine Heyworth's BBQ dinner that is served at the field on Monday evening. Bill and Elaine used to have this



John Miller won the Best Jack Sheeks Design award with his very sleek and stylish version of Jack's Torino. Pixelpete photo.

party at their home but decided to move it to the field so that more people could attend and so that the fliers could continue to practice later into the day. Thankfully, there is a very nice pavilion at the Christopher Columbus field, and it even has power outlets. Bill starts setting up tables and chairs early in the day and keeps busy all day staging the soft drink and water coolers and making everything ready for the caterers.

To insure that the food to be served is of the highest order, Bill assembles a "Taste Team" to go around to the various eateries that cater and try out their menus. Tough gig... By the way, if you liked the Macaroni and Cheese this year, thank Bob Whitely; that was his favorite during the "Taste-off."

Tuesday evening at VSC is "Pizza-Night" at Rickii Pyatt's beautiful home. Actually, the fare has expanded over the years to not only great pizza, but also to a wide variety of "finger food" and some really decadent deserts. It's hard to lose weight at VSC...

Of course, along with each of the VSC feeds comes major bull sessions. This year at Rickii's party I had the pleasure of spending some very enjoyable time chatting with Bob Harness, Sr. about the CL Stunt scene in southern California during the 1960's. Mr. Harness is a very interesting man and is depicted on this issue's cover along with his son, Bob Harness, Jr. and his grandson, Scott Harness. In fact, the entire Harness clan was present. Rumor has it that we may see one of the female members of the Harness family flying at VSC in the future.

We get two days rest from partying after Rickii's shindig. We are left to sample the many amazing restaurants in the Tucson area on Wednesday evening after Classic Appearance point judging. In what has become a tradition for the group I hang with,

we all head for Bianchi's Italian restaurant on the corner of Speedway and Silverbell. If you ever go there and have a craving for pizza, do yourself a favor and order only one slice at a time; you will never finish two of them! Great food and lots of it at very reasonable prices, and we have become known by the owner over the years. Great guy; great place.

Thursday is another party-free evening, but on Friday night the feast continues at Keith and Barbara Trostle's stunningly beautiful home. The fare there is called, "Pot Luck." But, trust me, it's from a pretty good pot! This year's main dish was vegetable lasagna, but there were gobs of other delicacies and more decadent deserts. No one goes home hungry from any of these parties.

Our thanks go out to Bill and Elaine Heyworth, Rickii Pyatt and Mack Davis, and Keith and Barbara Trostle for their hospitality and generosity. We all look forward to those gatherings which have become a huge part of VSC lore.

The last big happening at VSC is the Saturday evening banquet. The planning for this event is handled by Jim and Sharon Hoffman each year, and they do a great job of varying the menu. Our thanks go out to them for all they do to make this last evening together each year a memorable one.

Mike Keville handled the Emcee duties this year, standing in for the perennial speaker, Ted Fancher, and did a great job. I especially like the way Mike adds personal insights to the VSC experience. It is fitting, I think, that the father of VSC presides over this gathering.

Bob Whitely spoke for a few minutes about the loss of his great friend, Jim Armour, and also about the other fliers who



Above: Mike Scott's Cavalier flashes past the camera during an official Classic Stunt flight. This John Simpson design is a very popular choice for Classic competition at VSC. Rickii Pyatt and Mack Davis photo.

passed away this past year. We mourn the loss of Jim, Tim Meeks, Arlie Preszler, Bill Sawyer, Willis Swindell, Jim Tichy, Jeff Welliver, Dick Wolsey, and others that I may have missed. In fact, as I am writing this piece I found out that legendary stunt flier and designer, Lew McFarland, has passed away. Truly, we are watching our numbers diminish each year.

Each year at VSC we are happy to welcome CL brethren from around the globe. As mentioned earlier, Thomas Case, Sr., Thomas Case, Jr. and Bene Rodrigues from Brazil joined the festivities this year. We were expecting to see our very good friends Kaz and Oki Minato and Masaru Hiki from Japan. As you all no doubt have heard, Japan was rocked by a 9.0 magnitude earthquake on Friday before VSC week. Obviously, our friends could not make it because of that disaster. I'm relieved to report that they and their families are safe. We hope they will return next year for VSC XXIV.

Besides the trophies for the VSC competition events, there are a number of "special" awards given out at the banquet each year. There is a list of all these awards included with this article. My heartfelt congratulations go out to all the winners. I was most honored to have been chosen to receive the coveted "Keeper of the Flame" award. When Walt Menges introduced this award at VSC II, I was asked to present it, and I did a bit of studying as to the meaning of the term. For several years I gave the following speech prior to awarding the Keeper of the Flame perpetual trophy:

"It seems that in ancient times when a tribe decided to move from one place to another a trusted elder would be charged with ensuring that the tribal flame did not go out during the move. It was deemed a very solemn and important task."

Those who have received the award before me have each embodied the essence of that thought; they each have kept the flame of CL Stunt burning bright through their actions on and off the flying field.

I am humbled and proud to have been included in this group of amazing people. I will try from now on through to the finish line to be worthy of this high honor.

I would like to call your attention to the block in this layout that contains the names of all those who worked hard to ensure that VSC XXIII was a resounding success. Please take a moment and focus on all the names included



Above: The Classic Appearance Point Judges, Jim Beaman (left) and Ken Gulliford (right), scrutinize Joe Dill's magnificent, original-design Chipmonk. These two had a tough time trying to find faults with the planes presented this year! Rickii Pyatt and Mack Davis photo.

there. And when you see any of these individuals on the field next year, please thank them once again for their service.

In closing I would like to personally thank the VSC Contest Director, Lou Wolgast, his Assistant Contest Director, Robin Sizemore and the members of the Cholla Choppers club and the Phoenix-based Central Arizona Control Line Club for their work in assuring that the flame of vintage stunt continued to burn brightly for one more year.

May this tradition continue for eons to come.*SN*

VSC XXIII CLASSIC RESULTS - MARCH 2011

Last Name	First Name	CLS Plane	CLS Engine	R1 D 1	R1 D 2	R1 D 3	Total	PLACE
Hunt	Bob	Caprice "Original"	Aero Tiger 36	580.5	565.0	601.5	1182.0	1
Trostle	Keith	Chizler	DS-42	558.5	587.0	555.5	1145.5	2
McDonald	Bob	USA-1	PA-40 Lite	565.0	578.0	563.0	1143.0	3
Whitely	Bob	Formula 'S'	DS-54	551.5	568.5	573.5	1142.0	4
Rodrigues	Bene	Ares	FOX 35	556.0	559.0	536.0	1115.0	5
Wolgast	Lou	Fury	DS-54	538.5	546.0	567.0	1113.0	6
McMillan	Frank	Big Gypsy	PA-65	557.0	529.5	551.0	1108.0	7
Tiahrt	Warren	Black Bird	Aero Tiger 36	539.0	562.5	541.0	1103.5	8
Hoffman	Jim	57 Nobler	Aero Tiger 36	526.0	544.0	558.0	1102.0	9
Black	LeRoy	Joe Dill Chipmunk	DS-54	521.5	545.0	556.0	1101.0	10
Delaney	Gordan	All American Eagle	PA-40 Light	533.5	534.0	560.0	1094.0	11
Gilbert	Joe	Gieseke Nobler	FOX 35	547.0	538.0	530.5	1085.0	12
Moon	Steve	Southwick Lark	ST-60	442.0	531.0	553.0	1084.0	13
Firkins	Ray	StingRay	Aero Tiger 36	422.0	552.5	528.5	1081.0	14
Sizemore	Robin	Gladiator	Enya SS-50-S	531.0	541.5	509.0	1072.5	15
Scott	Mike	Cavalier	Stauker 40	530.0	541.0	512.5	1071.0	16
Brickhaus	Allen	Olympus	PA-61 Muff	538.0	528.0	531.0	1069.0	17
Callentine	John	P-51 Mustang	PA-61	524.0	517.0	542.5	1066.5	18
Tyler	Stan	Chizler	Brodak 40	523.0	538.0	522.5	1061.0	19
Harness Jr.	Robert	Gladiator 45	ST-51	517.5	537.0	493.5	1054.5	20
Brainard	Chris	Caprice	OS 46LA	516.5	526.0	512.5	1042.5	21
Gleason	Dale	Ed Southwick Skylark	ST-51	506.0	528.5	502.5	1034.5	22
Compton	Robert	Shoestring	OS 46LA	511.0	522.0	415.5	1033.0	23
Case	Thomas	Shark 45	DS-60 Lite	462.5	536.0	489.5	1025.5	24
Barry	Dale	Jamison / Humongous	Aero Tiger 36 / PA-40SE	481.0	503.5	508.5	1012.0	25
Dick	Wesley	62 Ares	Aero Tiger 36	483.5	498.5	511.0	1009.5	26
Chuang	Sean	Fury	Saito 40 4-Stroke	500.5	508.0	498.0	1008.5	27
Wright	John	ARF Nobler	OS 40FP	437.0	501.5	506.5	1008.0	28
Elling	Gaylord	Shark	PA-40 UL	455.5	481.5	519.5	1001.0	29
Gerber	Mark	Veco Hurricane	ST-46	436.5	513.5	477.5	991.0	30
Miller	John	Jack Shecks Torino	Magnum 36XLS	446.5	498.5	488.0	986.5	31
Eakin	Wes	Chief	OS 40FP	435.0	501.5	480.0	981.5	32
Cunha	Pete	Olympic	Aero Tiger 36	487.5	491.5	483.0	979.0	33
Case	Thomas JR	Fock Wulf	PA-40 Lite	418.5	512.5	458.5	971.0	34
Ormosen	Clint	Tempest	Brodak 40	448.5	471.5	499.5	971.0	35
Brokaw	Burt	Skylark	McCoy 40 Red Head	473.0	480.5	487.5	968.0	36
Smith	Mark	Chizler	Electric	446.5	505.5	460.0	965.5	37
Donovan	Mike	Tucker Special	OS 40LA	494.0	465.5	0.0	959.5	38
Harness	Scott	Gladiator 35	ST-51	438.0	468.0	486.5	954.5	39
Hazle	Bob	Vulcan	Aero Tiger 36	431.0	498.0	453.5	951.5	40
Ostella	Mike	Pow Wow	Brodak 40	460.5	473.5	475.0	948.5	41
Hutchinson	Don	Tucker Special	Aero Tiger 36	464.5	469.0	479.5	948.5	42
Rhoades	Jim	Humongous	Magnum 36XL	452.0	451.5	490.0	942.0	43
Kraft	Jim	Magician	McCoy 40	443.0	464.0	467.5	931.5	44
Elling	Gregg	Venus	ST-36	418.0	469.5	448.5	918.0	45
Lemak	Nick	Palmer 'T' Bird	Electric 2826/05	454.0	436.0	189.5	890.0	46
Corbett	Lew	Blue Angle	OS 46LA	422.5	421.0	458.5	881.0	47
Renger	Larry	Jamison	Brodak 40	424.5	434.5	444.5	879.0	48
Woolard	Lew	Smoothie	Brodak 40	366.5	456.0	408.0	864.0	49
Holliday	John (Doc)	King Sweep	Bordak 40	440.0	416.5	46.0	856.5	50
Riggs	David	Trophy Trainer	ST-40	386.0	459.5	0.0	845.5	51
Green	Rick	Lark	OS 40FP	402.0	425.5	416.5	842.0	52

VSC XXIII CLASSIC RESULTS - MARCH 2011 (continued)

Last Name	First Name	CLS Plane	CLS Engine	R1 D 1	R1 D 2	R1 D 3	Total	PLACE
Borgogna	Andrew	Trophy Trainer	Brodak 40	392.0	435.0	401.5	836.5	53
Kramar	Roger	'57 Nobler	FOX 35	309.5	333.5	431.5	765.0	54
Whitney	Bob	Big Job	ST-60	33.5	415.5	338.0	753.5	55
Brookins	Robert	La Donna	Silver Fox 40	179.5	329.0	397.0	726.0	56
Armish	Ken	Olympic	RoJet 40	434.0	281.0	0.0	715.0	57
Abbott	Rex	Oriental	OS Saito 40	266.0	273.5	221.5	539.5	58
Werner	Henry	'57 Nobler	Brodak 40	195.0	0.0	0.0	195.0	59



Left: Elaine Brookins (left) and Ginny Emmett handled the Classic Stunt tabulation chores. Our thanks go out to all the VSC helpers, without whom this contest would not be able to take place. Rickii Pyatt and Mack Davis photo.

Below: Steve Moon takes a moment at the appearance point venue to display his beautiful rendition of Bill Simons' Shoestring Stunter. Those colors are accurate to the "real" Shoestring racer! Pixelpete photo.



Left: Taking a bow for a job very well done are the Assistant Contest Director, Robin Sizemore (left in photo) and Contest Director, Lou Wolgast. Bob Hunt photo.



VSC 23 OTS-IGN Contest Results

Last Name	First Name	AMA NO	IGN_SCORE_1	IGN_SCORE_2	Final	IGN_PLACE
Gilbert	Joe	771377	320.74	330.50	330.50	1
McMillan	Frank	9080	292.48	326.50	326.50	2
Kraft	Jim	78415	173.00	305.63	305.63	3
Hutchinson	Don	5402	301.86	303.48	303.48	4
Lipscomb	Bob	17556	300.00	294.74	300.00	5
Brokaw	Burt	L206	298.43	290.49	298.43	6
Parker	Bob	64383	282.00	294.24	294.24	7
Allison	Glen	5715	294.00	0.00	294.00	8
Elling	Gregg	777306	270.00	284.24	284.24	9
Gleason	Dale	12938	0.00		0.00	10
DeCamara	Roy	26434	0.00		0.00	11



Above left: Jim Lee poses with his fine example of the OTS Glo Devil. Note the small flaps! Pixelpete photo.

Above: Pete Cunha launches Clint Ormosen's gorgeous version of Bart Klapinski's 1967 Nats winning Tempest. Rickii Pyatt and Mack Davis photo.

Left: Gaylord Elling has a real flair for paint schemes. Here's his Lew McFarland Mako Shark resplendent in yet another interesting trim scheme. Rickii Pyatt and Mack Davis photo.

VSC 23 OTS Contest Results

Last Name	First Name	AMA NO	1stDay	2ndDay	RND 1	RND 2	Total	PLACE
Gilbert	Joe	771377	17	10	316.00	325.00	641.00	1
Whitely	Bob	68900	15	12	307.00	324.00	631.00	2
Klapinski	Bart	7531	3	24	306.00	322.50	628.50	3
Trostle	Keith	3533	14	13	307.75	319.00	626.75	4
Elling	Gaylord	8164	5	23	294.00	314.75	608.75	5
Sizemore	Robin	70985	11	16	295.50	309.00	604.50	6
Wolgast	Lou	7442	7	20	290.75	311.00	601.75	7
Reeves	Charlie	141	9	19	295.00	306.25	601.25	8
Black	LeRoy	5900	19	9	307.00	290.75	597.75	9
Barry	Dale	2220	24	4	305.50	288.75	594.25	10
Brokaw	Burt	L206	18	10	301.00	287.75	588.75	11
McMillan	Frank	9080	4	23	277.50	311.00	588.50	12
Hoffman	Jim	59362	26	2	301.50	285.75	587.25	13
Scott	Mike	164852	1	27	288.50	287.00	575.50	14
Lee	Jim	50050	22	5	297.25	277.00	574.25	15
Gleason	Dale	12938	18	9	265.50	305.00	570.50	16
Wright	John	13567	6	21	266.75	302.50	569.25	17
Lipscomb	Bob	17556	17	11	296.50	272.50	569.00	18
Tyler	Stan	3239	2	26	264.50	300.75	565.25	19
Brainard	Chris	606049	4	24	284.00	280.50	564.50	20
Brickhaus	Allen	801	22	6	274.00	286.50	560.50	21
Whitney	Bob	RAD	10	18	280.00	269.00	549.00	22
Capitanelli	Ed	77319	10	17	272.00	274.50	546.50	23
Allison	Glen	5715	21	6	305.75	237.50	543.25	24
Eakin	Wes	71880	2	25	247.00	295.00	542.00	25
Elling	Gregg	777306	7	21	271.50	266.00	537.50	26
Woolard	Lew	2765	23	5	279.50	253.00	532.50	27
Brookins	Robert	7818	19	8	256.75	275.00	531.75	28
Lemak	Nick	209256	9	18	243.50	288.00	531.50	29
Rhoades	Jim	31047	21	7	293.50	237.00	530.50	30
Berger	Rene	562007	13	14	237.00	290.50	527.50	31
Ostella	Mike	33557	20	8	284.50	239.50	524.00	32
Smith	Mark	263528	27	1	268.00	234.50	502.50	33
Harness	Scott	763415	8	20	252.50	237.50	490.00	34
Donovan	Mike	427764	25	2	201.75	274.50	476.25	35
Holt	Steve	753562	25	3	248.00	222.75	470.75	36
Rodrigues	Bene	815279	12	15	207.00	257.00	464.00	37
Case	Thomas JR	841071	14	14	232.00	202.50	434.50	38
Corbett	Lew	759259	16	12	217.00	203.50	420.50	39
Holliday	John (Doc)	23530	20	7	223.00	184.50	407.50	40
Abbott	Rex	694089	8	19	113.00	274.50	387.50	41
Kramar	Roger	73761	3	25	148.50	204.50	353.00	42
Heyworth	Bill	610	1	26	239.00	0.00	239.00	43
Green	Rick	102324	13	15	0.00	217.50	217.50	44
Phillips	George	889123	11	17	61.50	75.00	136.50	45
Hutchinson	Don	5402	6	22	0.00	0.00	0.00	46
Edwards	Paul	342295	12	16	0.00	0.00	0.00	47
Williams	Frank	4831	15	13	0.00	0.00	0.00	48
DeCamara	Roy	26434	5	22	0.00	0.00	0.00	49
Case	Thomas	815277	16	11	0.00		0.00	50
Trantham	Roy	606666	23	4	0.00		0.00	51
Harris	Steve	22271	24	3	0.00		0.00	52
Dixon	Tom	1028	26	1	0.00		0.00	53

VSC XXIII Special Award Recipients

Keeper of the Flame: Bob Hunt

Gialdini Sportsmanship: Elaine Brookins

Spirit of '46: Frank McMillan: (Madman 56)

Spirit of '52: Wes Eakin (Feno)

Spirit of '64: Bene Rodrigues (Ares)

GMA Memorial: Roger Kramer (57 Nobler)

Most Unusual Entry: Bob Lipscomb (Bandit)

Classic Pilots Choice: John Callentine (Rabe P-51 Mustang)

Best Appearing Old Time: Charlie Reeves (Big Job)

Best I-Beam (Fred Carnes): Ray Firkins (Sting Ray)

Jack Sheeks Best Appearing: John Miller (Torino)

Jack Sheeks Highest Scoring: John Miller (Torino)

Best Appearing Bob Palmer: Mike Ostella (Pow Wow)

VSC Eagle: Bob Whitely (Best Placing in OTS and Classic)

Pachyderm: Rene Berger (Double OTS Pattern)

Nick Lemak kneels down next to his OTS Humongous as we bid farewell to VSC for another year. Don't miss VSC 24 next March! Rickii Pyatt and Mack Davis photo.



March 2011 VSC XXIII JUDGES AND HELPERS

VSC Banquet Organizers:

Jim & Sharon Hoffman

OTS Ignition Event Director:

Jim Lee

OTS Ignition Judges:

Doug Taffinder
Bill Heyworth

OTS Ignition Tabulation:

Mickey Taffinder
Aubrey Elling

OTS Judges:

Pete Peterson
Jim Thomerson
Larry Renger
Bob Emmett

Classic Judges:

Rickii Pyatt
Bill Byles
Linda Brainard
Ed Capitanelli
Larry Foster
Jim Renkar

Pit Bosses:

Linda Gleason
Bill Lee
Steve Holt
Warren Tiaht

Pull Test:

Jack Comer
Rene Berger
Lou Crane
Bill Lee
Warren Tiaht

Score Sheet Runners:

Jack Comer
Rick Green
Bob Emmett
Steve Holt
Lew Corbett
Mack Davis

OTS & Classic Tabulation:

Elaine Brookins
Ginny Emmett

Appearance Judges:

Jim Beaman
Ken Gulliford

Score Sheets/ Flight Order / Contest Forms, & Scoreboards:

Nick Lemak
Leroy Black
Robin Sizemore

Sale of 'T' Shirts / Pins / Hats / etc.:

Peggy Capitanelli
Joan DeCamara
Linda Wolgast

Official Hugger:

Cassidy Delaney

Name Tags:

Barbara Trostle

Contest Director's:

Lou Wolgast CD
Robin Sizemore Assistant CD

Field Setup

Rene Berger
Bart Klapinski
John Callentine
Rick Green
Jack Comer
Lew Corbett
Bill Lee (Honda AC Generator)
Meri and Gerry Phelps
Jack Mullinix

Airplane Data: Registration Check-In

Lila Lee

Airplane Weigh-In:

Mark Smith

Hotel Arrangements:

Mike Keville



Lifetime Achievement Report: Cyril William “Bill” Draper

Instructor—most unusual for National Servicemen to be promoted to Senior Non-commissioned Officer level.

Already married to June, Bill accepted—basically because sergeants got more pay than “ordinary” soldiers! After completing his Army service, Bill went back into the electrical power industry where he stayed until retiring (officially at age 65, but actually working on a “part-time” basis until he was 68).

At the time of this interview in fall 2010, interviewer Andy Sweetland adds: Bill was entered in the Barton F2B event and placed sixth out of the total entry of ten. From the F2C Jury

Bill Draper was of an age when “National Service” (compulsory military service) was still in effect in UK (I think it ended in 1960, just before I [Andy Sweetland] joined the RAF in 1961). Everyone had to go into the military for a continuous two years from age 18 (or three years if you were a commissioned officer), but if you were in formal study/apprenticeship at University, then entry to the military could be deferred until the study was completed.

At that time Bill was undergoing initial apprenticeship with EMEB (East Midlands Electricity Board) where he then held an early engineering position. Bill later joined CEGB (the Central Electrical Generating Board—UK’s nationalised electrical “company”) studying both national power generation and national power distribution.

When he’d completed his studies, he was sent (virtually no choice for most National Servicemen; you just got sent to the Army, Navy, or RAF, wherever the most bodies were needed at the time of your “call-up”!) to the REME Apprentice Training School near Reading in Berkshire—Arborfield, a very prestigious outfit (REME is Royal Electrical and Mechanical Engineers, the Army’s engineer corps, supplying engineers for all the rest of the Army).

Within the first few weeks of his training, it became apparent that Bill knew more about electrical theory, Maths, Physics, Basic Electronics, etc, than those instructing him. So he was pulled out of his class and offered the chance to become a Sergeant



Top left: Here’s Bill Draper at the European Championships in France with his original design, ST 51-powered Superhawk.

Above: Here are two of Bill’s Superhawk models ready for action. He’s well known throughout the Stunt world for this beautiful and capable design.

Tower I saw one of his flights—that nearly-all-white Kittyhawk is very distinctive—and although at the time the wind was quite calm, it looked like a pretty competent stunt flight to me—admittedly, from a distance.

AS: Bill, what was year and place of your birth?

BD: 1934; Mansfield, Nottinghamshire, England.

AS: What year did you start to fly Control Line?

BD: 1947.

AS: What are your other areas of interest and/or other Aeromodelling categories practiced?

BD: Free Flight (Rubber; Glider; Power, Indoor) C/L (Team Race; Speed; Combat.) Started “seriously specialising” in Stunt in 1965.

AS: For you, which have been the outstanding F2B events in your career?

BD: I flew first in the UK Team for the European Championships in 1975. I won my first UK Nats Gold Trophy in 1981. I won the UK Nats Gold Trophy a total of nine times and qualified for the UK team (for World and Euro Champs) a total of 30 times, and, of course, winning the European Championships in 1989 was very special.

For a period of 20 years I was always in the top three when competing for the (prestigious and always keenly contested) SMAE/BMFA Gold Trophy.

Andy Sweetland adds: The National Airports Control for UK—the equivalent of AMA in the US—was originally called SMAE (Society of Model Aeronautical Engineers) and was founded in 1922. In 1987 they changed the name to BMFA (British Model Flying Association) as a “working title” (by which they are now universally known, although legally it is still SMAE—it’s just that SMAE is now never used).

AS: Which has been your best so far F2B airplane and why?

BD: The whole P40 Hawk, Kittyhawk, and Superhawk series. It all started back in the days when the UK rules for Stunt (run by what was then called the SMAE) awarded appearance points (as they still do in the USA). I liked the looks of the full-size Kittyhawk aeroplane and the moments were already pretty good for a stunter, so clearly, a “scale” model stood a good chance of gaining some extra appearance points before the flying even started!

I developed the original Hawk into the Kittyhawk (plans for which were published in *Aeromodeller*), and then as stunt models got bigger, I moved up to the Enya .45, which needed a bigger model overall. That was the start of the Superhawk series (which is what I guess I’m best known for) and, in all, that series spread over a series of eleven airframes, all of which were clearly “developments” of each other (and of the Hawk and Kittyhawk).

My personal favourite is Superhawk 32, which I campaigned with good results from 1984 until 1991. Of course, when you design your own model, you build in your own “tweaks” to suit your own particular flying style, but somehow “No. 32” always felt like it was the best model of all of them—it flew off the board with minimal trimming required.

You may also like to know that when a local model shop closed down, I bought a whole load of balsa from them. Of course, the best wood went into the first model (which weighed 57 ounces); the next best wood went into the second model, and so on. The eleventh model weighs 67 ounces, but to be fair, I’m now using ST .51 power, which is a heavier engine than the Enya .45.

And why did I go to the Enya .45 when I first stated to move from .35-size models? Simple. The local model shop had one in stock; it seemed pretty light, and it was inexpensive. So I tried it and it turned out to be very reliable and needed few mods. I stuck with Enya .45’s until I decided I needed still more power, hence the move to the ST .51.



Bill's Superhawk evolved from his Kittyhawk series. The semiscale looks of the plane were chosen to take advantage of the old SAME rules that favored realistic models. Truly, Bill Draper is one of the real gentlemen of the Stunt event and he has friends and fans worldwide.

AS: From your point of view, what are the essential inner values of building and flying CL stunt models?

BD: Enjoy it. Find out what works for you and stick to it. Don't worry about the “latest fashions/what won the World Champs this year.” As far as I'm concerned, once you've learned to fly all the manoeuvres properly, it's all about a lot of practice and *you* flying *your* model in *your own way*.

AS: Your opus has been and is undoubtedly significant for the Control Line Stunt Community. Today, what would be the message you would like deliver to the community?

BD: I'm now 76 and still flying stunt and still enjoying it. I've had two heart attacks and one stroke (all of which occurred on the flying field—fortunately quite close to the hospital!), and although I have some stiffness in my joints, I still enjoy my flying.

I really like to see the newcomers doing well—people like Rob Kitely, for instance. And a particular friend of mine, a really clever bio-chemist called Kevin Morgan, who's also very practical and who's tried his hand at virtually all types of aeromodelling with considerable success—and that includes jet turbine RC—tells me that as far as he's concerned, CL Stunt is by far and away the most demanding discipline if you really want to get it right.

I agree with those sentiments entirely and hope that more and more newcomers like Rob and Kevin will be seen on the F2B circles everywhere. *SN*

Farewell Lew McFarland 1931-2011

By Wynn Paul

A photograph of Lew McFarland kneeling on a tarmac, holding a large white and green model airplane. The airplane has "LEVEN" written on the fuselage and "AMA" on the wing. He is wearing a white shirt, sunglasses, and a dark cap with a pilot's emblem. In the background, there are several vintage cars and a building under a clear sky.

Here's Lew McFarland at the 1967 Nationals, which was held at the Los Alamitos Naval Air Station in California. He finished in fourth place there with the Veco 45-powered Shark 45. Don Shultz photo.

Lew McFarland, two-time National Champion and designer of the landmark stunt plane, the Shark .45, died on March 30, 2011, in Lexington, Kentucky. He is survived by his wife of 59 years, Donna, and by two sons, Russ and Steve. Lew won the United States' Control Line Precision Aerobatics Championship in 1961 and 1962, and the Walker Trophy in 1961. He was a member of two United States FAI F2B World Championship Teams - 1964 (6th place individually along with long time friends Bob Gialdini and Bob Gieseke), and 1966 (3rd individually along with Jim Silhavy and Steve Wooley). Lew designed, built, published and flew in National competition the Shark, Ruffy, Akromaster, Dolphin, and Vega. Five of his airplanes were kitted in the 1960's and 1970's: Shark, Shark 15, Ruffy, Dolphin, and Akromaster (as control line or radio control). He also published the semi-scale P-38.

After graduating from the University of Kentucky, Lew served

in the United States Air Force as a navigator for four years, and during that stint made 72 trips across the Atlantic. Leaving the Air Force, he returned to Lexington, Kentucky, where he graduated from the School of Pharmacy. While in school he opened the first of thirteen hobby shops that he operated in and around the Lexington area. He always had one hobby shop in operation while also holding down a full time job as a Registered Pharmacist.

Lew's first Nationals appearance was in 1956 where he finished in fourth place with his Ruffy. At the 1957 King Orange Internationals in Miami, he won the Open Stunt event, Rat Race, Flying Scale, and Hand Launch Glider, and he finished second in the Carrier event. In 1960 he brought the big (700 square inches of wing area), noisy (un-muffled K&B .45), and sleek jet-styled Shark to the Nationals. The distinctive sweeping tail fin reminded one of an actual shark, and the color scheme of gray and blue



Above: Lew's Shark 45 was one of very few Nats-winning CL Stunt models to feature tricycle landing gear. It can be clearly seen in this view of the bottom of the ship. Don Shultz photo.

Right: Again at Los Alamitos in 1967, Lew kneels with the Shark for Don Shultz's camera. The red plane in the foreground is Bob Gieseke's Nobler. Don Shultz photo.



added to the impression. It turned corners like nobody's business. Bill Werwage has often said of the 1960 appearance, "When I saw the Shark perform, I knew that stunt was changed right there." Indeed, Bill went home and designed the Super Ares. Lew followed up the introduction of the Shark with Open National wins in 1961 and 1962. In 14 Nationals appearances Lew McFarland finished in the Top Ten a total of ten times with seven of those finishes in the Top Five. He flew in six FAI Team Trials finishing no lower than eighth place.

Lew was one of the founders of the Lexington Model Airplane Club and was instrumental in securing two flying sites which were used by control line and radio control. He was a long time Contest Director. Ever the promoter of the hobby, Lew arranged for the Club to demonstrate control line flying at the annual July 4th Fireworks Display at the University of Kentucky Football Stadium throughout the 1960's and 1970's. In the 1980's Lew received his Commercial Pilot's License with instrument and complex rating. He owned three Piper *Archers* and at one time a *T-34* Air Force and Navy Trainer which he called, ".....the poor man's *P-51*."

In addition to a full service hobby shop in the 1970's and 1980's, Lew operated Mid-Am Distributors, a concern that provided supplies to many hobby shops around the country. Lew tutored Charles Reeves, Randy Hancock, Dickie Bishop, Ken Stevens, Sr., and Kenny Stevens. Each of these modelers placed in the Nationals in the 1960's and 1970's. He also taught many modelers how to fly radio control airplanes in the Lexington area.



In this scenic view of the CL Stunt pits at the 1967 Los Alamitos Nats, many famous planes can be seen. Left to right they are the white Novi III by Dave Gierke, the Chipmunk by Jim Van Loo, Jim Sihavy's red Nobler, Dick Mathis' white Chizler, the Shark 45 by Lew McFarland, the Toronado by Jim Mayfield (upside down in photo), the camouflaged FW TA-152 by Keith Trostle, Steve Harris' brown His Majesty, Bart Klapinski's white Tempest, and Pat Collier kneeling by his Starduster. Don Shultz photo.

Below: An unknown holder with "buzz haircut" prepares to launch the Shark 45 for Lew McFarland at the 1967 Nats. Don Shultz photo.



Lew McFarland was inducted into the Precision Aerobatics Model Pilots Association Hall of Fame in 1998 along with Robert Dailey, J. C. Yates, and Art Adamisin. Lew continued to operate a small hobby shop in Lexington up to the time of his death.

The 1978 World Champion and longtime modeler, Bob Hunt, said of Lew, "It's the end of an era. He was a true modeler and a gentleman. The Shark has to be included in the Top Five All-Time stunt planes."

My first observance of control line stunt was watching Lew McFarland fly the big Shark in August, 1962, at the Bluegrass Field flying site in Lexington, Kentucky. After watching three flights, I decided that I had to learn how to fly a model airplane. Lew served as a mentor, coach, and friend from that time forward. We attended many contests together.

Lew McFarland was the absolute prototype of the truly dedicated modeler. He was soft-spoken and inclined to listen to people. He relished in every aspect of the hobby, including design, building, flying, competition, innovation, publishing, manufacturing parts, acting as a Contest Director, promoting the hobby through various exhibitions, operating hobby shops, officiating, assisting newcomers, and he did all of these with a professional and pleasant demeanor. *SN*



Another famous Lew McFarland design is this Spinks Akromaster. The 57.5-inch-span model had 620 square inches of wing area. Lew had his set up to fly as a CL Stunt model or as an RC stand-off scale model. At different times it was powered by either an ST 46 or an HP 40. Wynn Paul photo.

Here's how many of us will remember Lew, preparing to takeoff for another spectacular Nats flight. In this photo taken at the 1967 Nats, note the Blue Angels' Grumman F-11 Tiger Jets in the background. Don Shultz photo.



It's in the Details

By Matt Neumann

How to make easy and accurate hinge slots

Hinge slotting is one of the simplest things that is often overlooked and yet one of the most important. If you get your hinge slots and/or hinges misaligned, your plane could have binding controls or alignment/trim problems that could be very difficult, if not impossible, to fix. Many of us, including myself, have used the hand-held devices to cut hinge slots with mixed results. These tools can work fine, but it takes a steady hand to get the hinge pockets perfectly straight when using them. Well, as it turns out, David Fitzgerald has graciously written an article on what he does using a Dremel cutoff wheel and a drill press to get his hinges perfectly straight.

Here is what David has to say:

This is an absolutely fool-proof way to cut perfectly straight hinge pocket holes. I have found that even small misalignments in hinge holes affect control smoothness and binding. This is absolutely critical to get right, so no more free-hand punching tools for me. The following is the method that I use to make hinge slots.

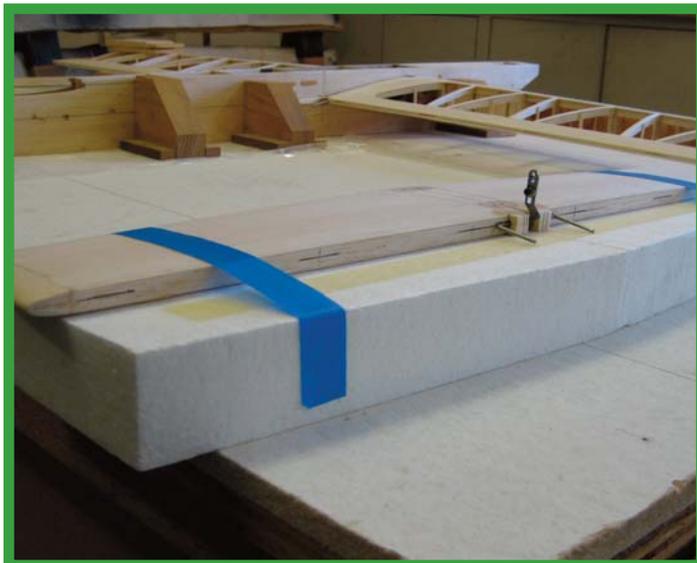
1. Use a drill press with a thick fiberglass Dremel (motor tool) cutoff wheel chucked up in the drill head.

2. You can either build a flat stab or airfoiled stab. The technique is different depending on what you want to do. If you build an airfoiled stab, build and finish it using the Lost-Foam method or foam core. Then tape the finished stab in the foam cradle. This ensures the entire stab to be perfectly straight and level.

3. Chuck the Dremel cutoff wheel and set the table height to the center hinge line.



Cut the slot by pushing the trailing edge into the cutoff wheel at the appropriate spot. For rounded control surface edges you will need to slot the rounded edge or bevel to allow for the hinge barrel. The goal is to perfectly line up the hinge barrel with the rotating plane of the control horn. I use a plywood tool to sand the slot in the hinge line.



A note from Matt: To make one of these tools, cut a piece of plywood that is at least a half-inch wider than the width of the hinge you are using and about two to three inches long. Then cut another piece of plywood that is half the thickness of the hinge barrel, equal to the width of your hinges, and equally as long as the other piece, and glue it to the center of the first piece. Now glue on a piece of #220 grit sand paper to the center plywood piece. I have a center mark on each end to help me align my tool when making my slots. Now simply sand a slot at the appropriate location. The #220 grit sand paper will neatly cut a slot in the hinge area the width of your hinge while the extra width of the block will stop you from going too deep.)

section of the flap blank. Now, just run the stab/flap along the drill table at the right spot and cut each hinge hole, assuming you are using a Dubro/Klett type hinge. Then do the same on the elevators, making sure you cut everything with the same surfaces up. By cutting with all the same surfaces up, you ensure that all the holes are in the same line. If you are off, say a nanometer high from the center line, all the holes will be that same nanometer off, ensuring that they stay perfectly in a straight line. If you have a foam-core tail, put the stab in the foam cradle the tail was built in after it is finished to make sure the trailing edge is true and level with the drilling table.



5. Now for the new part: the wing. For years I've built wings using Bob Hunt's Lost-Foam Wing Building System. After the wing is complete, I put it in Lost-Foam cradle.



After the hinge slot is cut and notched, use the sanding tool to bevel the interior edge of the slot, top and bottom, to give a little extra room for the hinge barrel. This operation prevents anything from touching the barrel. If part of the hinge line does touch the barrel, you could experience binding at certain deflection angles. Not good.

4. The technique is the same for both flat stabs/elevators and flaps. I'll use $\frac{3}{8}$ -inch flaps as an example. Lay $\frac{1}{8}$ -inch balsa along the control edge, and then draw a line along the edge of the balsa, once on each side. This will give you a $\frac{1}{16}$ -inch reference on either side of the center line (totaling $\frac{1}{8}$ -inch) for the trailing edge thickness when shaping the surface.

Then use $\frac{3}{16}$ -inch balsa, or whatever thickness that is half the total thickness of your control surface, and draw your control centerline. This is the line you will use to cut the hinge slot on the drill press.



I have found this to be the easiest method I've ever seen to draw reference lines on the edges of control surfaces.

We need to cut the hinge holes before any shaping, so we need to use the rectangular cross

The cradle is cut square, so with the wing in the cradle, it is guaranteed to give dead level slot holes cut by the drill press and in a perfectly straight line. You can use small shims to level the piece on the drill press table if needed.

6. The last step comes in assembly. I'm not there yet with this plane, so you will have to use your imagination. Using a Klett/Du-Bro type hinge, get rid of the hinge pins they come with. You will replace these with a single hinge wire that runs the entire length of the control surface.

Using the one-piece wire ensures perfect alignment, fore and aft, as well as getting it even and not twisted in the slot. Using the single piece wire to ensure proper alignment of the hinges makes a huge difference in how free you can move all the hinges for both halves of each control.

I cannot overemphasize this enough. You want to push the hinges around with the single hinge wire installed so every hinge is perfectly square in its slot and at the exact same depth. Sealing hinge lines also becomes much easier than it would be without the entire length one-piece wire. I don't have to try to get a narrow hinge gap. In fact, I don't want a narrow hinge gap; I want an even one. As a bonus to using the single hinge wire—this is an idea stolen from Paul Walker—hinge sealing tape adheres to the wire and not the plane when you seal it. This way it doesn't make the control sticky.



The extra time you spend making sure the hinges are perfectly aligned while building will directly affect how well the plane flies due to the free controls and control feel. This pays direct dividends on your performance, so spend the time!

—Dave Fitzgerald

Thanks, Dave. I appreciate the effort you put into this. I will be trying this on my next project, and I think the readers should try it, too.

I will add one more little note. Because the cut-off wheel is going to be wider than the hinge, you will most likely have a wider slot than necessary. No problem. Just use a little light weight spackling compound to fill the extra width of the slot.

That's it for now. Remember, it is in the details. *SN*

Robin's View Productions

BOB HUNT'S LOST-FOAM WING BUILDING SYSTEM

In 1968 Bob Hunt began experimenting with foam wing cutting, eventually becoming one of the world's most acknowledged and accomplished experts at the art. He liked the inherent and easy-to-achieve accuracy that a properly cut and covered foam wing virtually assures.

Bob has developed a wing building system that takes advantage of the accuracy of the foam cradle pieces, which are just as accurate negative airfoil shapes as the foam cores are positive airfoil shapes. He has devised a system in which the foam wing blanks are marked for desired rib positions for a built-up wing, prior to being cut into a wing shape.



Once the core is cut, the rib positions are marked accurately onto it and labeled, and they are also marked and labeled in the lower cradle section. The core is then cut up into extremely accurate rib stations to be used as templates for generating equally accurate balsa ribs. An absolutely perfect built-up representation of the original foam core shape can then be assembled in the lower cradle half, which is at this point a form-fitting building fixture.

Bob first tried this process in 1993, and the very first wing built in the system was absolutely accurate in every respect. That wing was

built for Bob's Tucker Special, which went on to win the Vintage Stunt Championships. Its wing was light, strong and true!

Since that time, Bob has been constantly developing and improving his Lost-Foam Wing Building System, incorporating many unique innovations and ever more accuracy-ensuring techniques. Its success is evident by the large number of top aerobatic champions who have chosen Lost-Foam as their preferred wing building method. Included on that list are Bill Werwage, the 2004 World Champion, and David Fitzgerald, the current World Champion.

The Lost-Foam Wing Building System has many advantages over any other type of built-up wing fixture system. The ribs that are generated from the cut-up foam core templates are accurate to within a few thousandths of an inch, and they fit perfectly into the lower foam fixture to yield a perfectly shaped wing. No other system keys on and trues the outside shape of the wing as it is being built! Foam leading edge molds—which are exact replicas of the front of the wing shape—are used to generate hyper-accurate leading edge shells that have a perfectly shaped leading edge radius. Improperly shaped leading edges are a major cause of poor model performance. The Lost-Foam system solves that problem completely!

Lost-Foam Wing Building Systems are available for any straight taper or constant chord wing, and either straight or Warren Truss rib schemes can be ordered.

RVP offers a two-DVD set that takes you through every aspect of

the Lost-Foam process For those of you who have your own foam cutting equipment, the DVD program covers all aspects of making your own Lost-Foam fixture components. For those who do not have foam cutting equipment, the DVD program offers a complete step-by-step narrated video tutorial on making a perfect Lost-Foam wing with fixtures purchased from Robin's View Productions.

Bob Hunt's Lost-Foam Wing Building System DVD set (two DVDs totaling 207 minutes) is available from Robin's View Productions, PO Box 68, Stockertown PA 18083. Phone: (610) 746-0106 or e-mail Bob at robinhunt@rcn.com. The two-DVD set is list priced at \$39.95, but is available for a limited time to PAMPA members for \$24.95, plus \$5.00 postage and handling (US only).

Start building better, lighter, stronger, and much more accurate wings today! This system and these techniques are, according to Bob, his most significant modeling contribution to date.

Bob also offers a custom building service for Lost-Foam wings. Please contact Bob at RVP for pricing and delivery times and terms. Bob has built more than 250 Lost-Foam wings to date!

Robin's View Productions
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Our motto:

RELENTLESS INNOVATION!

How Did You Do That?

By Warren Tiaht

Removable Tailwheel

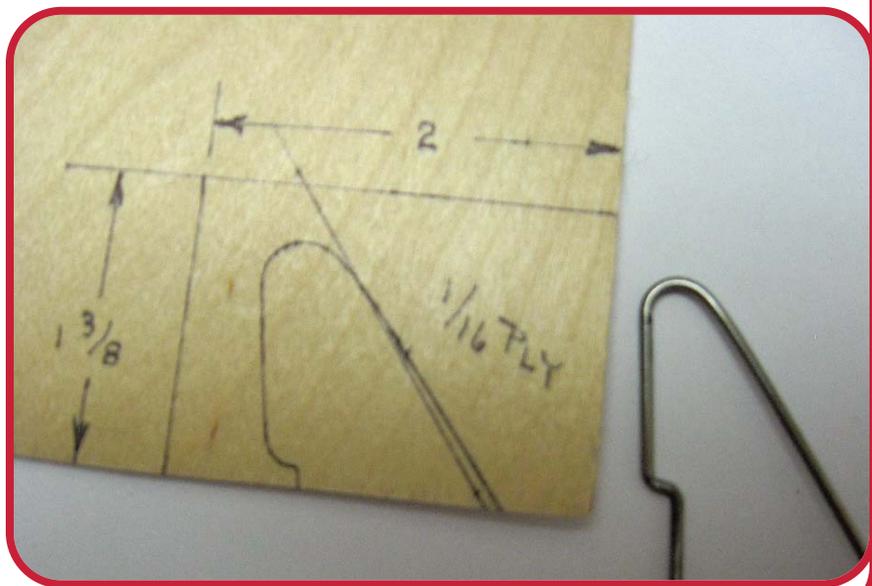
There are lots of little jobs to do when building your newest model. Some of them are fun and then there are others that are not. I have never liked fussing with tail wheels. I have tied the wire to a piece of plywood with copper wire and prayed the wire didn't break because replacing it would be a real pain in the neck. I have folded the wire into a U shape and mounted it to a piece of plywood on the bottom of the fuselage with one or two screws to blind nuts. I have spent hours fitting a hatch to hold the tail wheel wire in place with screws and blind nuts. I was never really satisfied with any of these alternatives.

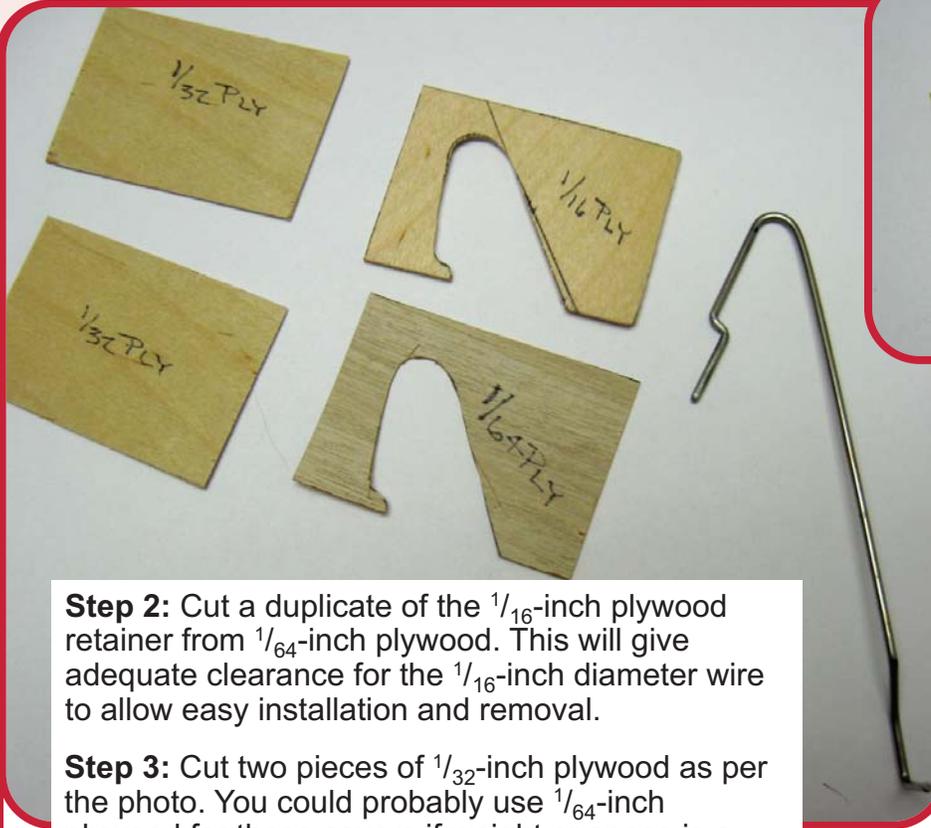
While working on my new Gene Schaffer designed Stunt

Machine, I was contemplating how to solve the tail wheel dilemma. I remembered being really impressed at the 2004 Control Line World Championships in Muncie, watching Ukrainians Yuriy and Andriy Yatsenko opening those pretty blue boxes and watching them assemble those beautiful, well engineered, take-apart models. They screwed the flying surfaces and fuselage together and then merely snapped the main gear legs and tail wheel into their appropriate slots. It only took me six-plus years to remember this solution to the problem. As the singer Tom Lehrer's little ditty said, "Don't hide your eyes, plagiarize." All it takes is some $\frac{1}{16}$, $\frac{1}{32}$, and $\frac{1}{64}$ -inch thick plywood, a bit of epoxy and a length of $\frac{1}{16}$ -inch diameter piano wire.



Step 1: A pair of Z-bend pliers makes forming the wire easier but isn't necessary. The photos show how to make your Z-bend with a regular pair of pliers. After completing the Z-bend, measure about $\frac{3}{4}$ inch from the Z-bend and form an approximate 150° U bend. After completing this, trace the outline on a piece of $\frac{1}{16}$ -inch plywood. The photo shows a line drawn on the outline that narrows the angle of the U bend. Cut along this line and the rest of the outline resulting in a piece of $\frac{1}{16}$ -inch plywood that will snugly retain the wire in place.



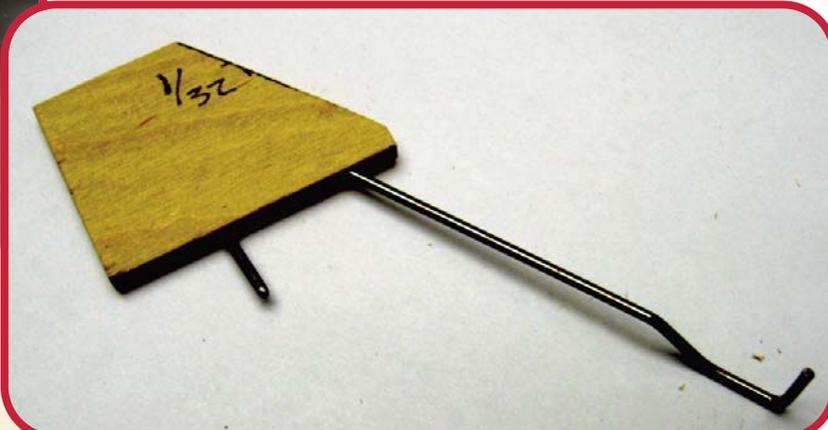


Step 2: Cut a duplicate of the $1/16$ -inch plywood retainer from $1/64$ -inch plywood. This will give adequate clearance for the $1/16$ -inch diameter wire to allow easy installation and removal.

Step 3: Cut two pieces of $1/32$ -inch plywood as per the photo. You could probably use $1/64$ -inch plywood for these covers if weight or space is a concern.



Step 4: Mix a batch of 30-minute epoxy (I am a slow worker) and apply a thin coat of epoxy to one side of the $1/32$ -inch plywood pieces and to the $1/16$ and $1/64$ -inch plywood retainers and assemble as follows: The $1/32$ -inch cover is attached to the $1/16$ -inch plywood retainer which is attached to the $1/64$ -inch plywood retainer/spacer which is then attached to the remaining $1/32$ -inch plywood cover. Weight the laminated assembly and let it cure.



Step 5: By putting a thin coat of epoxy onto the $1/32$ -inch ply covers, you will seal the cavity against the inevitable oil seepage. Now the rectangular tail wheel housing assembly may be trimmed to suit and inserted into the fuselage. I epoxy the front of the housing to a fuselage former and fit the bottom surface flush with the bottom of the fuselage.



The photos on this page show the tailwheel assembly installed in Warren's new, Gene Schaffer designed, Stunt Machine. It is a simple matter to pinch the wires together and remove the tailwheel when required. This allows the ability to try different length tailwheel struts at will and also makes the model thinner from top to bottom for shipping in a crate. It's a light, simple and logical system!



E-CLPA is taking off!



My other model plane. Extra 300L, DA-100, 28 pounds. I built this from a kit 10 years ago. Still flies like new. My other IMAC planes are all ARFs, and I can fly them in any contest without a penalty.

I started flying with E-Power more than 25 years ago. Our systems were primitive by today's standards. Our batteries were only slightly lighter than boat anchors. Slowly things improved. With the availability of LiPo batteries about nine years ago, E-Power became equal to, or better than, glow power.

We knew that glow was doomed when we got our hands on the first LiPo cells and made up our own LiPo batteries. They were small, light, and powerful—everything we dreamed of for model power.

As most of you know, E-Power has almost completely taken

over RC. Almost all top pattern pilots are now using E-Power; glow power is rare. One of the large hobby shops in the Los Angeles area told me that they used to sell two or more glow engines per day. Now they sell one or two a month.

Given CL's very strongly held traditions, it is not surprising that the conversion to E-Power started out by moving very slowly in CL compared to other areas of the model industry. But by CL standards it is actually moving faster than I imagined it would. Actually, slower than I hoped, but faster than I feared.

There are many people who have helped CLPA move forward into the modern world of E-Power. I have mentioned the E pioneers many times in this column; we owe all of them a large thank-you for all the work they have done. We all have benefited from their efforts in E-CLPA.

One who stands out is the first writer of this column, Will Moore. Years ago, Will did an excellent job of experimenting with many different systems to find the ones that worked best in CLPA. Being a top Expert pilot, he was perfectly positioned to know exactly what was needed in a power system to fly at the very top of the CLPA heap.

Will kept us all informed on what was going on with other pioneers and got many started in E-CLPA. He laid the groundwork for all of us. Will, and our editor Bob Hunt, will always be remembered as the two guys who got the "E-Power" word out to the entire CLPA community. (*Let's not forget to mention the real pioneer of electric power for CL aerobatics, Mike Palko! – Ed.*) Without them we would still be in the early stages of development instead of being where we are now, which is on the verge of having an E-CLPA Open Nats champion. If not in 2011, it will be in 2012. The next time you see Will or Bob (*or Mike – Ed.*), shake their hand and say, "Thanks. We could not have done it without you."

Will owns a very busy business and is always building a prize-winning model. So one day a few years ago he asked me to fill in for him on this column. Will is a good friend of mine, so I said, "Sure, I'll gladly do it for a few months." Well, here we are more than a few months later.

This is my last column. I am going to spend more time with my "dark arts" IMAC planes, where there is much more fun, where everyone is warmly welcomed, and where there is no war. My re-entry into CL has not been an enjoyable one.

I came back toward the end of the "Great PAMPA Wars" which, out here, was not a good experience. The constant battle to be allowed to fly with E power out here took its toll right from the beginning. Being protested at my first several contests, having the rules literally thrown in my face, being denied entry into one contest, being called a cheater in front of everyone for using E power, etc. all took a toll.

Now, as I planned on going to the Nats this year, we have the very contentious BOM/AP War going on. At least here in my SW area, it always seems that CL is at war with itself about something.

Now we have a movement here to adopt the "Flat Kit Society's" new/old BOM/AP rules. There is a strong push, from my perspective, to move backward, not forward. It is not a very inclusive place, but it is very exclusive. Just the opposite from what it should be in my opinion.

I hope that CLPA can work out its problems in the US so that it does not continue to drive people away. Maybe if the entire nation adopts the open-minded, welcoming vision shown by some of the districts on the East Coast, then CLPA may have a better future.

On a much brighter note, I would like to thank all those who have sent me such nice emails over the years. And a big thank you to all those who sent me so many beautiful photos and helped

make this column much better than I could ever have done alone.

Our editor, Bob Hunt, has been a pleasure to work with. Bob has always put a nice polish on my rough work, and if there were any good columns, they were his doing, not mine. Thank you, Bob.

Bob already has some very good people lined up to write this column. I hope you all continue to support them as you have supported me. Please send them your photos and your comments; they are always appreciated.

I promised you all some information on LiPo batteries. The info below is my take on the subject after thousands of LiPo-powered flights and the input of many experienced friends. I would also like to thank fellow dark arts flier John Salt for all his expert input and writings on LiPo's for this column.

LiPo batteries for CLPA

It would seem by the number of emails I get on the topic of CLPA LiPo batteries, it is time to help answer the most common questions and perhaps dispel some myths.

This is an important topic that I have touched on in the past. Some of this many of you already know, but it may be new to others. I am not going into a deep explanation of battery physics here; if you want that kind of information check out this site: www.batteryuniversity.com.

That site is one of the best battery theory resources I have found to date. The info contained here in this short report on CLPA LiPo batteries goes over the most common questions I seem to be getting asked. I also get asked about RC battery chargers. That is a topic for another time. It is enough to say that there are many excellent chargers out there, including Thunderpower, iCharger, Multiplex, FMA, etc. For our CLPA needs you should spend at least \$70 to \$120 for a quality charger; \$200-\$260 for a full feature charger; and \$500+ if you want to be in Dean Pappas' league.

What are LiPo batteries and why are they so popular in the CLPA world?

LiPo batteries (short for Lithium Polymer) are a type of rechargeable battery that is the main reason electric flight is now a very viable option to wet fuel powered models. For our CLPA flying, high quality LiPo batteries are now less expensive than glow fuel per flight.

Our LiPo batteries have three main things going for them that make them the perfect battery choice for CLPA planes over conventional rechargeable battery types such as NiCad or NiMH.

- LiPo batteries are lightweight and can be made in almost any shape and size.
- LiPo batteries have large capacities, meaning they hold lots of power in a small package.
- LiPo batteries have high discharge rates to power the most demanding electric motors during our hard CLPA corners, like those at the top of the hourglass, square eights, etc.

In short, LiPo's provide high-energy storage to weight ratios in an endless variety of shapes and sizes.

These benefits are important in any CLPA model; they are the reason electric flight is becoming so popular. Thanks to the E-RC world (aircraft, helis, cars, and boats), we have many sizes and shapes of LiPo batteries readily available for our CLPA use.

There are a few down sides with LiPo batteries, however, once again proving there is no perfect solution. These batteries don't last forever, but then a gallon of glow fuel doesn't, either. The LiPos we used a few years ago gave us between 150 to 250 flights before degrading to below the 80% capacity state that

makes them too weak for our use in CLPA (but still good enough for a sport CL plane). The very latest generation of high quality batteries from Thunderpower and Hyperion are reported to give us 300 to 400 flights and more if treated with TLC, and “if” all the longevity rules are followed.

Safety issues: Because of the volatile electrolyte used in LiPos, they can catch fire if not charged properly. This is extremely rare today because all the name brand chargers have many built in safety features to protect our batteries. If we follow the clear instructions that come with quality chargers and take normal precautions, these batteries are very safe.

LiPo batteries require unique and proper care if they are going to last for any length of time more so than any other battery technology. Charging, discharging, and storage all affect the lifespan—get it wrong and a LiPo’s life can be very short. If you read your charger’s instructions and show reasonable care, you will not have any problems.

Before I start talking about the actual care ratings of LiPo batteries, I thought I should go over the basics first. Feel free to skip down the page if you don’t care about the actual makeup of a lithium battery and just “want to know what to do with them and what to look for when buying them.”

Differences in Lithium Ion (Li-Ion) Lithium Polymer (LiPo) batteries...

In the RC and CL world today, most battery packs are of the LiPo type. I thought I should include a short discussion on the Li-Ion type of pack just in case you see this term in your charger instructions, and/or you decide to use one. Li-Ion and LiPo batteries have essentially the same chemical makeup and are cared for in the same way; the differences are in how the cells are packaged and the type of electrolyte that is used.

Li-Ion

Li-Ion batteries use an organic liquid solvent as the electrolyte. This electrolyte is responsible for the ion exchange between the electrodes (anode and cathode), just like any type of battery. This organic solvent-based electrolyte is highly flammable and the reason why Li-Ion batteries are more volatile and can catch fire or explode if mistreated.

Li-Ion batteries are usually encased in a hard metal can (again like a more conventional battery) adding weight and not allowing many different options as far as shape and size. There are a lot of these batteries out there. The battery industry produced *two billion* of these per year for most of the past decade.

LiPo

A true LiPo battery doesn’t use a liquid electrolyte but instead uses a dry electrolyte polymer that resembles a thin plastic film. This film is sandwiched (actually laminated) between the anode and cathode of the battery allowing for ion exchange – thus, the name lithium polymer. This method allows for a very thin and wide range of shapes and sizes of cells.

The problem with true LiPo cell construction is the ion exchange through the dry electrolyte polymer is slow and thus greatly reduces the discharge and charging rates. This problem can be somewhat overcome by heating up the battery to allow for a faster ion exchange through the polymer between anode and cathode, but is not practical for most applications.

If they could crack this problem, the safety risk of lithium batteries would be greatly reduced. With the big push towards electric cars and energy storage, there is no doubt some pretty huge developments will be made in ultra lightweight dry and

safe LiPo’s in the coming years. Seeing that theoretically, I suggest that this type of battery could be made flexible, almost like a fabric. Just think of the possibilities. Someday our batteries may become part of our CLPA planes structure doing double duty!

LiPo Hybrids

All RC and CLPA LiPo batteries out there at this time are actually a hybrid lithium polymer battery. The correct name for this type of battery is lithium-ion polymer, but the battery world of today simply calls them lithium polymer, even though they are not a true dry type LiPo battery.

By introducing a gelled electrolyte into the polymer, the ion exchange rate is improved immensely. Since the electrolyte is gelled, there is less chance of leakage, but it is still flammable. LiPo hybrids are not as dangerous as Li-Ion’s but they can still catch fire if overcharged, shorted, or punctured.

When first introduced, LiPo batteries were more expensive than Li-Ion because they are more difficult to manufacture. Fortunately, prices have dropped substantially since they have become more popular than Li-Ion battery technology. This holds especially true for electric-powered RC and CLPA aircraft and the real driver behind LiPo battery research—portable communication/entertainment devices.

LiPo hybrids use the same flat cell structure as their dry counterparts, meaning they have the same flexibility with sizes and shapes allowing for very specialized shaped battery packs perfect for use in our CLPA models.

Almost every LiPo battery cell is packaged in a foil pouch coincidentally called a pouch cell. Pouch cells are the perfect solution for building multi-celled battery packs since the flat pouch cell can be stacked with no wasted air spaces as found within round celled battery packs. Of course, since LiPo’s use this lightweight pouch instead of a metal can, less weight is the result, making LiPos the best choice in a weight conscious application such as CLPA aircraft mandate.

One interesting characteristic hybrid LiPo batteries share to an extent with their dry counterparts is that they do get more efficient at ion exchange once warmed up. On a cool day you will want to bring your battery up to a temp above 60 f before you fly. This should have you thinking that if you fly your electric CLPA plane in the wintertime, you might want to keep your LiPo battery packs in a warm place prior to the flight.

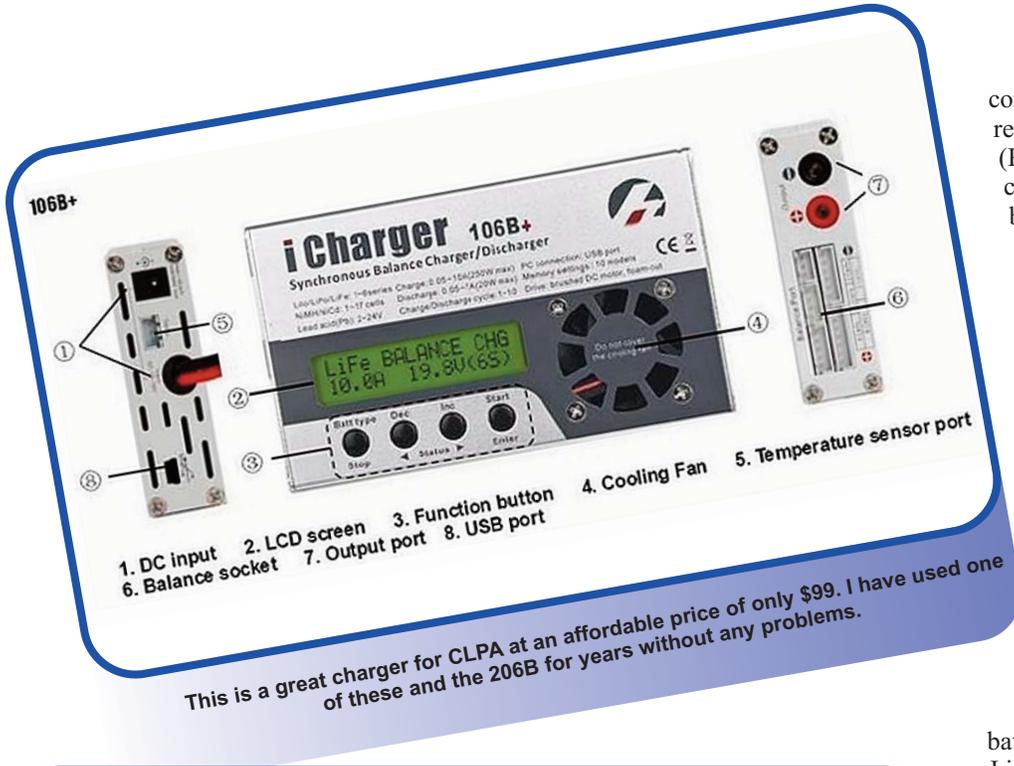
LiPo RC Battery Ratings

Now that I have bored you to death on LiPo battery basics, it’s time to get into the main topics at hand. First are ratings, specifically voltage and capacity. *These are the two main numbers you will need when going battery shopping.* There is a third number you will also need to be aware of which I will get to in just a bit.

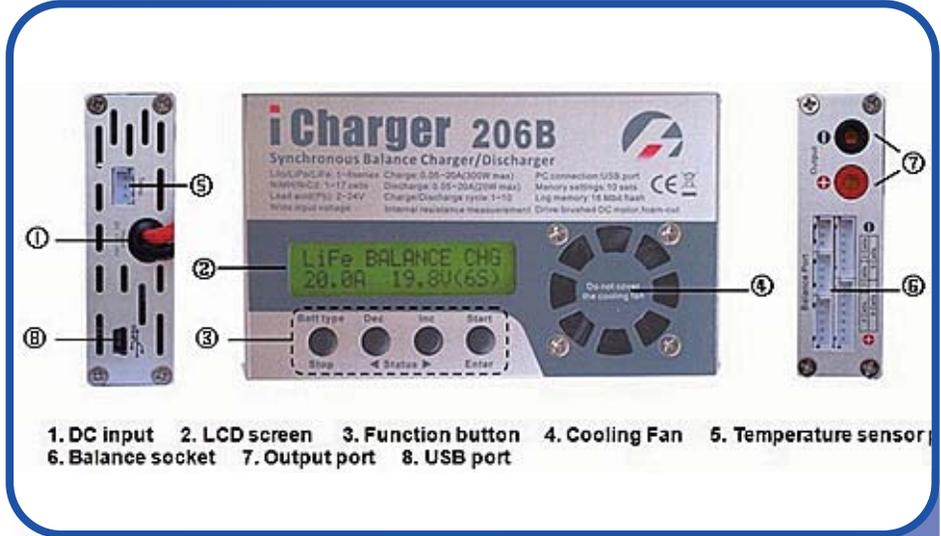
Voltage

Unlike conventional NiCad or NiMH battery cells that have a voltage of 1.2 volts per cell, LiPo battery cells are rated at 3.7 volts per cell. The benefit here is fewer cells can be used to make up a battery pack and in some cases on smaller ½A size CL models; one or two 3.7 volt cells are all that is needed to power the model.

Other than the smallest of electric CL models, LiPo battery packs will have at least two or more cells hooked up in series to provide higher voltages. For larger CLPA models that number can be as high as six cells. Here is a list of LiPo battery pack voltages with cell counts most beginners will be using. If you are wondering what the 2-6S in parenthesis means, it is a way the



This is a great charger for CLPA at an affordable price of only \$99. I have used one of these and the 206B for years without any problems.



This is one of the best bangs for the buck for E-CLPA flying. Can charge at a 5C rate for our batteries. Both chargers at: progressiverc.com They are in the USA and provide great customer service. With an excellent website.

combination will indicate what voltage is required for correct operation/RPM. (Please see my last two “E-Stunt” columns for more info on selecting battery size.)

A quick word on motor ratings...

Many people new to electric flight get confused by brushless electric motor ratings, specifically the Kv rating, thinking Kv = kilo-volts (1 kV = 1000 volts). This is “not” the case at all. The Kv rating of a brushless motor refers to how many RPM it turns per volt. An example might be something like a 1000 Kv motor with a voltage range of 10 - 25 volts. That would mean this motor will turn at about 10,000 RPM @ 10 volts up to around 25,000 RPM @ 25 volts.

I don’t want to start into motor ratings; battery ratings are plenty to get through... I just thought I would make mention of it since I do get that “Kv, Kilo-Volt” question often.

Capacity

Capacity indicates how much power the battery pack can hold and is indicated in milliamp hours (mAh). This is just a fancy way of saying how much load or drain (measured in milliamps) can be put on the battery for one hour, at which time the battery will be fully discharged.

For example, a LiPo battery that is rated at 1000 mAh would be completely discharged in one hour with a 1000 milliamp load placed on it. If this same battery had a 500 milliamp load placed on it, it would take two hours to drain down. If the load were increased to around 30,000 milliamps (30 amps), the time to drain the battery would be only about two minutes.

As you can see, for a model with that kind of current draw, it would be very advantageous to use a larger capacity

battery pack such as a 4,000 mAh pack. This larger pack used with a 30 amp draw would quadruple the time to about eight minutes till the pack was completely discharged. (Six-minute flight to bring the pack down to the 80% safe depletion number of 3200 for a 4,000 battery.)

The main thing to get out of this is, if you want more flight time, increase the capacity of your battery pack. Unlike voltage, capacity can be changed around to give you more or less flight time. Of course, because of size restrictions and weight, you have to stay within a certain battery capacity range seeing that the more capacity a battery pack has, the larger and heavier it will be.

Discharge rate

Remember that third number I was talking about when you go CLPA LiPo battery shopping? Yes, discharge rate is that number. This one is probably the single most overrated and misunderstood of all battery ratings.

battery manufactures indicate how my cells hooked in series (S) the battery pack contains.

- 3.7 volt battery = 1 cell x 3.7 volts
- 7.4 volt battery = 2 cells x 3.7 volts (2S)
- 11.1 volt battery = 3 cells x 3.7 volts (3S)
- 14.8 volt battery = 4 cells x 3.7 volts (4S)
- 18.5 volt battery = 5 cells x 3.7 volts (5S)
- 22.2 volt battery = 6 cells x 3.7 volts (6S)

I should point out that you may run across packs or cells hooked up in parallel to increase the capacity. This is indicated by a number followed by a “P.” Example: 3S2P would indicate 2, three-celled series packs hooked up in parallel to double the capacity.

So, those are the voltages you need to know and each CLPA model or, more specifically, the motor/speed controller



A good balancing charger from Thunder Power at thunderpowerrc.com.

Discharge rate is simply how fast a battery can be discharged safely. Remember that ion exchange thing further up the page? Well, the faster the ions can flow from anode to cathode in a battery will indicate the discharge rate. In the RC and CLPA LiPo battery world it is called the “C” rating.

What does it mean? Well, “capacity” begins with “C,” so that should give you a pretty good idea. A battery with a discharge rating of 10C would mean you could discharge it at a rate 10 times more than the capacity of the pack; a 15C pack = 15 times more; a 20C pack = 20 times more; and so on.

Let’s use our 1000 mAh battery as an example. If it was rated at 10C, that would mean you could pull a maximum sustained load up to 10,000 milliamps, or 10 amps, off that battery (10 x 1000 milliamps = 10,000 milliamps or 10 amps). From a time standpoint, this equals 166 mA of draw a minute, so the 1000 mAh pack would be exhausted in about six minutes.

This is calculated by first determining the mA per minute of the pack. 1000 mAh divided by 60 minutes = 16.6 mA’s per minute. You then multiply that number by the C rating (10 in this case) = 166 mA of draw per minute divided into the packs capacity (1000 mA) = 6.02 minutes.

How about a 20C rating on a 2000 mAh battery? $20 \times 2000 = 40,000$ milliamps or 40 amps. Timewise, a 40 amp draw on this pack would exhaust it in about three minutes ($2000/60 = 33.3$ MA minutes multiplied by 20c = 666 mA per minute, divided into the pack’s capacity of 2000 mA = three minutes). As you can see, that is a pretty short flight, and unless you are drawing the maximum power for the entire flight, it is unlikely you would ever come close to those numbers.

Most of our LiPo Battery packs will show the continuous C rating, and some are now indicating a burst rating, as well. A

burst rating indicates the battery discharge rate for short bursts of extended power (usually for 15 seconds maximum time, which is fine for our CLPA use where we have very short bursts for only a few seconds at a time). An example might be something like “Discharge rate = 20C Continuous / 40C Bursts”

The higher the C rating is, usually the more expensive the battery is, the more it weighs, and the larger it is, too. This is where you can save some money, bulk, and weight. Getting a high discharge rated pack when there is no way you could possibly pull the full amount of power is not required. The most important thing is that you can’t go with too low a discharge C rating or you will damage your battery and possibly your ESC (electronic speed control), and you will not have enough power during those “bursts” needed at those tight CLPA corners.

So how do you know what C rating to get when purchasing your LiPo battery pack? We used to think that a 15C rating was suitable for CLPA. Our Eagle Tree onboard test equipment shows that we really need a 20C to 25C rating. Fortunately for us, most LiPos come in this rating for the lightest batteries that are

perfect for our use.

If you buy quality name brand batteries from Thunderpower or Hyperion, the C ratings are accurate, and they also have a high “burst” C rating that works perfectly for our CLPA mission.

TLC for your LiPo batteries

Overheating is bad for our batteries. The general rule is that if you can’t comfortably hold a LiPo pack tightly in your hand after using it, it’s too hot. This equates to anything higher than about 60C (140F). That is even too warm as far as I’m concerned. Nothing higher than 50C (about 125F) is ideal for longevity. So, if you find your packs are getting warmer than this, it’s a good bet you should consider better cooling for your battery in flight.

Leaving your packs in the car on a hot sunny day can certainly heat them up past 50C, as well. Internal or external heat makes no difference; hot LiPo’s are miserable and they won’t last long.

The other thing that will heat a pack up fast is if you push it right down to 3.0 volts per cell under load. Even if you have a 40C pack and can only draw half that amount, if you push it hard right down to 3 volts per cell, it will become very warm/hot and will shorten its life substantially. Don’t try to use too small of a pack just to save a few ounces. Extra mAh gives us safe “headroom” and extends battery life and safety by not having to push them too hard.

Another good rule to follow here is the “80% rule.” This simply means that you should never discharge a LiPo pack down past 80% of its capacity to be safe. For example, if you have a 2000 mAh LiPo pack, you should never draw more than 1600 mAh out of the pack ($80\% \times 2000$). This is assuming that you have a healthy pack, as well, that has the full 2000 mAh capacity (as packs age, their capacity drops).

This again is where computerized chargers pay for themselves many times over, so you can see how much capacity the battery takes allowing you to adjust your flight times accordingly to stay within that 80% rule to get the most life out of your pack.

Internal resistance (Warning: Nerd alert for this section. Read at your own risk!)

Another rating? Yep, the first three are industry standards and, as was mentioned with that last one (C discharge ratings), are used by the manufacturers to market their product or justify a higher price. Realistically, they can't be verified, but they are still a good general guideline when choosing a pack.

Internal resistance to the rescue! This one is verifiable and one of the best ways to monitor your RC LiPo batteries' condition. Most decent higher discharge rated LiPo cells will have roughly two to six milliohms (0.002 to 0.006 ohms) of internal resistance when brand new.

To calculate the total internal resistance of a series wired pack, you would then add these numbers together so a 4S pack with each cell having 4 milliohms of resistance will show a total internal resistance of about 16 milliohms (0.016 ohms).

As I mentioned, as packs age, the internal resistance goes up and the warmer they run. Lower discharge rated packs will generally have higher internal resistance readings. It is not unusual to measure internal resistance numbers in the region of 200 milliohms on tiny 10C park flyer LiPo packs when they are brand new, for example.

Some of my older higher discharge rated packs are now showing 20 to 30 milliohms per cell, but they are still working

fine; they do heat up a little more, however, during a flight, so that increasing internal resistance is certainly showing up. As I said, it is great way to monitor the condition of your LiPo packs over the months and years of service.

How do you measure internal resistance? This is where good computerized chargers come into play. The good ones that support this feature with built-in balance boards will check the "IR" of each cell as well as the entire pack. Pictured above I am taking the IR reading of each cell in this new 6S Turnigy LiPo. It is hard to make out in the photo, but the IR of cells 1-6 are 2,2,1,1,1,2 milliohms, each giving a total IR for the entire pack of 9 milliohms—pretty respectable!

Internal resistance really opens up a huge and complex topic of how to accurately calculate voltage drop in the pack and the total amount of watts being expended in the form of heat within the pack.

I am not going to get into those calculations here for the simple reason that I just saw your eyes start to glaze over already. If you are a number cruncher or just really want to dive head first into LiPo calculation and ratings, have a look at FMA's Lipo Evaluation ... Great stuff in there!

Charging RC LiPo Batteries

Charging our LiPo Batteries is a topic in itself. LiPo and Li-Ion batteries obviously have some very different characteristics from conventional rechargeable battery types. Therefore, charging them correctly with a charger specifically designed for LiPo batteries is critical to both the life span of your LiPo battery pack, and your safety.

Maximum Charge Voltage and Current

A 3.7 volt RC LiPo battery cell is 100% charged when it reaches 4.2 volts. Charging it past that will destroy the battery cell and possibly cause it to catch fire. This is important to understand once I start talking about *balancing* our LiPo batteries, so keep that in the back of your head for right now.

It is critical that you use a charger specified for Li-Po batteries and select the correct voltage or cell count when charging your LiPo batteries if you are using a computerized charger. If you have a 2-cell (2S) pack, you must select 7.4 volts or 2 cells on your charger. If you selected 11.1V (a 3S pack) by mistake and tried to charge your 2S pack, the pack will be destroyed and may even catch fire. If you buy a quality name brand charger, it will have a safety feature that reads the battery voltage *before* it begins a charge and stop,



An excellent, full-feature, high-quality balance charger from Thunder Power at thunderpowerrc.com. This is one of my favorite chargers. Very easy to use and problem free at only \$199. They also have a new dual-port, high-power charger for 5C charging of two of our CLPA batteries at the same time in 12 minutes. It's the new TP820CD for only \$270. Available now.

giving you an error message on the screen if you have set the wrong voltage.

Most good quality LiPo battery chargers will use the constant current/constant voltage charging method (cc/cv). All this means is that a constant current is applied to the battery during the first part of the charge cycle.

As the battery voltage closes in on the 100% charge voltage, the charger will automatically start reducing the charge current and then apply a constant voltage. The charger will stop charging when the 100% charge voltage of the battery pack equalizes with the charger's constant voltage setting (4.2 volts per cell). At this time, the charge cycle will be completed. Going past that, even to 4.21 volts, will shorten battery life.

LiPo battery charging current

Selecting the correct charge current is also critical when charging RC LiPo battery packs. The golden rule here used to be, "*Never charge a LiPo or Li-Ion pack greater than 1 times its capacity (1C).*" For example a 2000 mAh pack would be charged at a maximum charge current of 2000 mA or 2.0 amps. Never higher or the life of the pack would be greatly reduced. If you choose a charge rate significantly higher than the 1C value, the battery will heat up and could swell, vent, or catch fire. But, the times they are a'changin'...

There are more and more LiPo packs showing up stating 2C and 3C charge rates, with even a couple of quality manufacturers indicating safe 5C rates. The day of the 12 minute charge is here (assuming you have a high power quality charger and power source capable of delivering that many watts and amps). To charge over the 1C rate, you need to follow your charger's directions and use a balance/charger. *Please do not use any of the Turnigy chargers at over a 1C charge rate. They are not safe at higher charge rates.*

Once again, the three main things that shorten LiPo battery life are *heat, over-discharging, and inadequate balancing.*

LiPo Battery Balancing

Finally, on to LiPo battery balancing. What is balancing and why is it important?

Remember my telling you to keep the 100% charged voltage value of 4.2 volts per cell in the back of your head? Well, here is where that number comes into play. For a single cell (3.7 volt LiPo battery) you don't have to worry about balancing since the battery charger will automatically stop charging when the 100% charge voltage of 4.2 volts is reached.

Balancing is recommended, however, on any LiPo battery pack that has more than one cell since many chargers can't identify from different cells and know if one might be overcharged, even though the total voltage of the pack indicates otherwise. For example, let's look at a 3-cell LiPo battery pack (three LiPo cells hooked in series or 3S). This would be an 11.1 volt battery pack (3.7 volts per cell x 3 = 11.1 volts). The 100% charge voltage of this LiPo pack = 12.6 volts (4.2 volts x 3 = 12.6 volts).

Our trusty charger set up for an 11.1 volt LiPo battery pack will then stop charging at 12.6 volts. Simple, right? Well, what would happen if one of those three cells is charging a bit faster than the other two? There could be two cells at only 4.1 volts, and the one that is charging at bit faster could be getting overcharged up to 4.4 volts before the charger stops charging at 12.6 volts. That would certainly cause damage to that one cell.

This is an extreme example, and that kind of voltage difference between cells is unlikely with a healthy pack, but even a 0.1 (100 mV) voltage difference between cells can cause issues and damage over time.

The other end of the spectrum is if there is one cell in the pack that is not reaching full charge when the pack is charged and then gets discharged below 3.0 volts, even though the 3-cell battery pack is indicating a voltage of nine volts or higher.

Balancing ensures all cells are always within about 0.01-0.03 volts per cell so overcharging or discharging of one or more cells won't ruin your battery pack, or worse, become a safety issue from overcharging a cell.

You don't have to balance your LiPo battery pack each time you charge it. Most will agree every tenth to twentieth time is fine with a healthy battery pack. The problem is knowing if your pack is healthy. Can cells in older packs may become unstable? As far as I am concerned, if you have a good balancer or balancing charger, use it at every charge. That might be overkill, but if it prevents a damaged battery or fire just once, well, you decide.

Your local hobby shop usually carries small, inexpensive "battery cell readers" for LiPo batteries. (They may be in the car section of the hobby shop.) I use mine all the time to do a quick check to see how my cells are doing. If you use ThunderPower or Hyperion batteries, you will be starting out with very closely balanced high quality cells and should not have any problems.

Balancing taps and charging

Okay, so now you know why a LiPo battery has to be balanced. The question now is how do you do it?

Every multi-celled LiPo battery will have what is called a balance tap or balance plug. This plug allows individual charging or discharging of each cell in the battery pack. Here are the four main ways to balance a LiPo pack:

LiPos can be balanced while charging the pack through the balance plug with a balancing charger. This method uses the charger to individually charge each cell and ensure the voltages are the same in each cell as they charge. The limitation here is the maximum charge rate. Since the gauge of balance plug wiring is small, this method only works on smaller LiPos or charge rates not much higher than 2.5 amps maximum. A good clue if you are pushing too many amps through the balance leads would be a warm/hot balance plug/wiring. Please read your charger's instructions on this. As usual, please read your charger's directions on this feature.

LiPos can be balanced with a stand alone balancer while the pack is being charged through the main power plug. The stand alone balancer will monitor the voltage of each cell in the pack and apply a small load to discharge any cell that is indicating a charge voltage higher than the other cells in the pack, keeping all cells within about 0.02 volts (20 mV) of each other.

A LiPo pack can also be balanced with a stand alone balancer after charging the pack through the main power plug. Again, the balancer is hooked up to the balancing plug, but this time after the pack was charged.

Obviously, this method of balancing is theoretically not as safe for the LiPo pack since one or more cells could be overcharged during charging, but it will balance all the cells and keep them in check for the discharge cycle and subsequent charge cycles.

Finally, the *very best* way to balance and charge a LiPo battery is by using a computerized charger with built-in balance circuitry. With this setup, the battery is charged through the main power plug, and the balance plug/tap is plunged into what is called a balance board which is in-turn plugged into the computerized charger in most cases; however, some chargers will have the different balance ports built into the charger, eliminating the need for a separate balance board.

Good computerized chargers (like that little TC-610C pictured) with built-in balance circuitry will confirm correct cell

count and alter the charge and balance rates, and when balancing actually occurs in the charge cycle, they will ensure a “stress free” and safe charge/balance cycle that extends the useful life of the LiPo pack.

This is by far the safest way to charge higher capacity multi-celled LiPos and opens up a whole new world to more advanced charging methods such as multiple pack parallel charging (the way I charge my LiPos most of the time now).

Balancing plugs/taps

Balancing plugs/taps currently come in four different configurations (for the most part), and it is important to know which one your balancing charger, stand alone balancer, or balance board supports so you choose the correct plug type when purchasing your RC LiPo battery.

JST-XH Plug: This is a common balancing plug type. Used on: Align, E-Flite, Common Sense RC (V2), Great Planes, Dualsky, Esky, Electrify, Losi, Rhino, Team Great Hobbies, Trinity, Turnigy, Venom, Zippy - just to name a few.

Thunder Power Plugs: Used On: Thunder Power, FlightPower, Apex, EVO, MPX, Outrage, and a few other battery brands.

Polyquest Plugs: Used On: Polyquest, E-tec, True RC, Extreme Power, Impulse, Enermax, Hyperion, Poly RC, Xcite, Fliton, and a few others.

JST-EH Plugs: These are probably the least common type of balancing plug, but you will find them on a few big name battery brands, such as Kokam, Graupner, Core, and older Vampower battery packs.

You can get converters/adapters to use with different balancing plug configurations, but it is much easier and less costly if you just make sure you get the correct plug/tap that works with your charger when you purchase your LiPo battery.

Main power plugs

Once again, there are several out there depending on your power handling requirements and own personal preference. Getting one type and sticking with it is the easiest way to go, since all your connectors will be the same as will your charging plug(s).

Here are a few common plugs (there are certainly more):

JST Connector: This is a small power plug rated for up to five amps of continuous load. It is used on smaller battery packs (usually under 1500 mAh) for powering small 1/2A size CL planes.

Deans Ultra Connectors: These are a very popular connector type (also called “T” connectors) with a very loyal following, which unfortunately has driven the price up and made them one of the most expensive connectors around. They are rated for up to 50 amps of continuous load. These are very good for our CLPA use.

I have always used the Deans Ultra plugs and they have worked well. Most E-CLPA modelers also use this plug. In the end, it is personal preference and dependent on your current handling requirements so you purchase the correct plug or choose a battery that already comes with the right plug.

Many LiPo batteries actually don’t come with any plug type (just the two wire ends insulated with heat shrink). If you

purchase a battery like that, make sure you purchase the correct main plug type and ensure your soldering skills are up to the task.

On a side note, if you are looking for a good little soldering station with adjustable heat control, check out the WELLER 40 Watt unit. I have had one myself for over 10 years now, and it is perfect for the hobbyist or electronics student. Practice soldering, if you’re new to it, before you solder the plugs to your battery.

Please be careful; the battery is “alive.” Make sure you do one cable at a time while keeping the other cable end protected. A short here will destroy the battery. (Please don’t ask how I know this.)

I should also point out balancing and main power plugs come in “male” and “female” orientations. If you are purchasing plugs for your battery or ESC, make sure you get the correct “sex.” *All your batteries must be female!*



Charging safety

I am not going to go into a lengthy safety speech here; there are enough warnings that come with LiPo battery instructions that will give you all the information needed. Specifically, you should charge your LiPos in a fire-safe area/fireproof charging container and never unattended. That last point is easy to print in the instructions, but rarely practical in the real world.

Personally, I don’t have the time to sit down by my charging station in the workshop to keep an ever watchful eye on my LiPo packs’ charging - that is akin to watching the grass grow.

Here are my five simple LiPo Charging Safety Tips that I follow:

- I charge all my LiPos in fire resistant “LiPosacks.” I place everything on large ceramic tile surfaces. Fireproof bags are a great item to get. They are light and make for easy transport and storage.
- If warm, I always wait at least 15 minutes after using a LiPo to let it cool down before charging it. This prolongs the life of the

LiPo and prevents possible overheating and damage.

- I never leave the house (preferably the room) when charging LiPos. I never charge them inside my van at the field.
- I have a fire extinguisher mounted on the wall in my workshop for any fire that may occur, not just a LiPo fire.
- Lastly, I purchased an inexpensive 10-year battery operated smoke detector that I have mounted above my charging station so in the unlikely event a pack bursts during a charge cycle or while in storage, the smoke detector will sound and I will be alerted.

All this may seem excessive; chances are it is, but I feel these are worthwhile precautions. Almost every documented LiPo fire has occurred as a result of physical damage to the pack (after a crash for example) or during charging, and resulted from a human error. Keep that in mind if you feel these batteries are too dangerous. They are in fact very safe if the rules are obeyed. Human error causes LiPo fires, not the LiPos.

Here is an excellent site describing the best LiPo safety bag you can buy: liposack.com. Please get the large 13-inch x 18-inch charging sack. The smaller one is not made for our CLPA size batteries.

Don't waste your money on cheap imitations. They *do not* work and only give you a false sense of being safe. The LipoSack brand is made of expensive, effective materials that are made in the USA. The product is also totally made in the USA. They work, and I use them every time I charge.

I often get questions about swollen or "puffed" LiPo packs. LiPo cells can and will swell a very little bit, especially if they are getting pretty warm during use. This is nothing to get too alarmed over. It is actually somewhat normal (again based on how hard you run the packs and how much they heat up), and as long as it is very, very minor swelling *and* goes away after the pack cools down, you have nothing to worry about.

As packs age, the swelling can get a little worse (again because the internal resistance is higher and they start running hotter). As a LiPo pack is nearing the end of its useful life, it can show some very minor swelling that won't go away, even after the pack cools. This pack may still have some nice "sport" CL flights left in it; however, it is *not* good enough for our CLPA mission. Treat it kindly with gentler sport flying in its early retirement before sending it to the LiPo graveyard (AKA, the trash can). Yes, LiPos are nontoxic so they can be disposed of in the trash *once fully discharged*. See the Thunderpower website for disposal instructions.

Breaking in our LiPo batteries

Breaking in a new LiPo pack is a good practice, even though many say you don't have to do it. Just like a new engine, not pushing your new LiPo to the maximum limits the first time out may give it added life and performance over the years. The general break-in method is very simple. You can use the discharge feature on your quality charger to discharge the battery a few times. Keep the discharge rates low and the charge rates low (1C or lower), and don't discharge down past 50% of the battery's capacity.

RC LiPo battery storage

Well, you now know how a LiPo battery works, the safety concerns, what to look for when purchasing one, how to charge and balance one and why it's important. What more is there? Storage!

How you store your LiPos between uses will greatly affect their life span. As I mentioned, a LiPo cell that drops below three volts under load is almost always and irreversibly damaged

(reduced capacity or total inability to accept a charge). Three volts under load generally equates to about 3.5 volts open circuit resting voltage, so if your batteries are stored for any period of time after you use them at close to that magic 3.5 volt per cell number, you risk damaging your battery.

As batteries sit, they will naturally self discharge. LiPos are actually very good in this respect and self discharge much slower than most other rechargeable battery types, but they still do lose voltage as they sit. If you leave them for a number of weeks or months at close to 3.5 volts per cell, chances are they will drop below that and will be irreversibly damaged.

You must store them charged, but not fully charged, either; that will also damage them. Basically, the speed at which a LiPo pack ages (during storage) is based on both storage temperature and state of charge. You are likely okay to store a fully charged LiPo battery at room temperature for up to seven days without doing much damage. Never store a LiPo in a hot car fully charged for an extended time. That will certainly cause damage as I explained earlier, but it's worth repeating.

For optimum battery life, store your LiPo batteries at room temperature and at about 50% charged. That equates to around 3.85 volts per cell (open terminal resting voltage). Since computerized chargers set the storage charge at 50% (3.85 volts per cell) that's what I recommend and what I follow myself.

You can actually extend the fully charged storage time from days to weeks by storing your batteries in the fridge (not freezer). If you do store your fully charged LiPos in the fridge, pack them in a zip-lock freezer bag and squeeze out all the air before sealing the bag. This will prevent condensation forming on the battery packs when you take them out of the fridge as they warm up. You should allow the LiPo pack to warm up after removing it from the fridge before using it, of course. I have never done this, but I have friends who do. To me it seems more trouble than it's worth, but for someone living in very warm climates it may work well.

CLPA LiPo Battery Recommendations

I know, recommending a certain brand of LiPo battery is akin to telling you what beer is best—it is personal preference and everyone has his or her own opinion.

People often ask me what LiPo batteries I use and recommend. I have used all types of LiPos over the past nine years, and I am pretty much a loyal ThunderPower, Hyperion guy. FlightPower is also very good, but I have standardized on the first two I mentioned. These are excellent quality batteries and well worth the few extra dollars they cost. I feel that our CLPA planes are far too valuable to put them at risk with a cheap battery.

Some have used the very cheap batteries (Turnigy, etc.) and are okay with their risk. Others have tried these cheap batteries and motors and have regretted their choice. I think the old saying, "Buyer beware!" applies here. You do get what you pay for in E power, just as one of Randy Smith's beautiful PA engines is worth every penny because of its high quality parts, excellent design, reliability, awesome power, and longevity.

CLPA LiPo Battery Conclusion

Hopefully, you have a better understanding of what makes a LiPo battery tick, how to properly and safely care for one, and noted a few recommendations. They are very easy to use.

Once you read a few simple directions that come with your charger, combined with the hints I outlined here, you will find that E power with LiPos is very simple: *Push the button and fly, charge, repeat!*

May the power of Tesla always be with you. *SN*

—Rudy Taube, imacone@aol.com

Slot and Eyelet Adjustable Leadout Guide

By Bob Hunt

In the last issue of *Stunt News* (January/February 2011), Matt Neumann, in his “It’s in the Details” column, described his method of making and installing a “slider” type adjustable leadout guide. That type of guide is perhaps the most common and popular for CL stunt models. It does allow for infinite adjustment of the leadout position within the slot in the guide plate. The downside is weight; that type of guide does weigh at least ½ ounce.

I promised Matt that I would describe the “Slot and Eyelet” type of leadout guide that I prefer. I want to make it clear here that I was not the one who came up with this idea. I got it from Bill Werwege, who prefers this type of guide because of its light weight. True, it does not give unlimited adjustment, but it does offer adjustment down to ¼-inch increments. I don’t know about anyone else, but I don’t think I can “feel” adjustments that are any finer than that.

The building of a Slot and Eyelet leadout guide begins with a piece of ¼-inch thick basswood that is about a half inch longer than the actual adjustment range that you desire. The width of this piece of basswood depends on the shape of the tip it will be glued into. If the tip has a large round planform shape, the piece of basswood will have to be wide enough to allow it to fit into the tip with approximately a ½-inch width throughout its length. That means the initial guide blank will have to be quite wide. It will be cut to planform shape after the holes have been drilled and the slot has been cut.

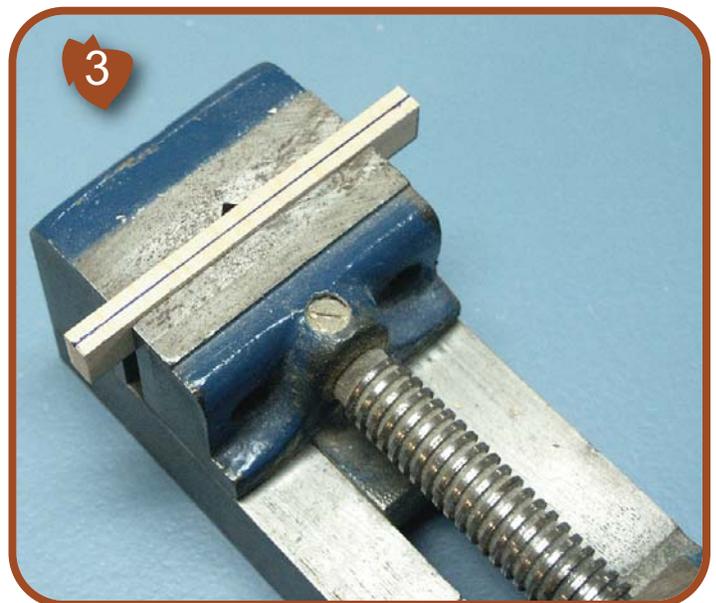
For simplicity’s sake I am going to show how to install a Slot and Eyelet guide into a “square” tip. Photo #1 shows the basswood blank cut to length and a ¼-inch slot cut in the hollowed tip to accept the blank.

Photo #2 shows the basswood blank fitted to the slot.



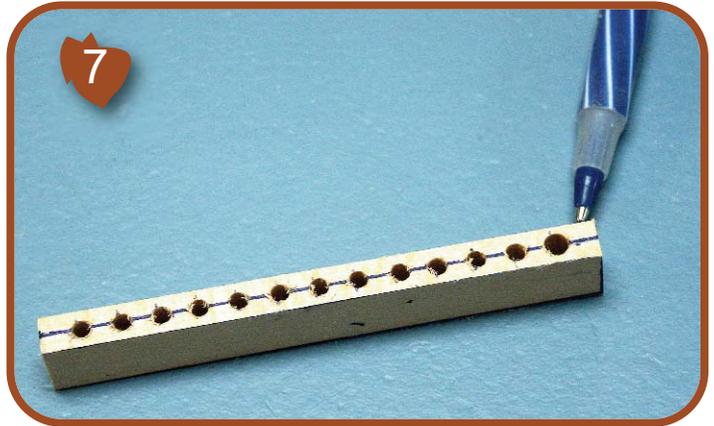
Note, do not glue the blank into the slot at this time; just be sure it fits snugly into the slot without spreading the tip, top to bottom. Adjust the slot until a perfect fit is achieved.

Place the blank in a drill press vise and draw a pen line down the center of the blank as shown in photo #3.



Measure in $\frac{1}{4}$ inch from one edge of the basswood blank and make a mark with the pen that is perpendicular to the lengthwise centerline. Next, make a mark every $\frac{1}{4}$ to $\frac{5}{16}$ inch along the basswood blank as shown in Photo #4.

Note that the last hole on one end of the basswood blank needs to be opened to $\frac{5}{32}$ -inch diameter to allow a scroll saw blade to pass through. See photo #7.



Using an awl or scribe, make an indentation at each mark along the centerline on the basswood blank as shown in photo #5.

Tack glue a piece of $\frac{3}{8}$ x $\frac{1}{2}$ -inch maple motor mount stock to the side of the basswood blank. Be certain to do this on a flat table so that the bottom of the maple block is flush with the bottom of the basswood blank. See photos #8 and #9.



Using a $\frac{1}{8}$ -inch diameter drill bit (or a bit that is the diameter of the O.D. of the eyelet you are using), drill holes through the blank at each indentation. See photo #6.



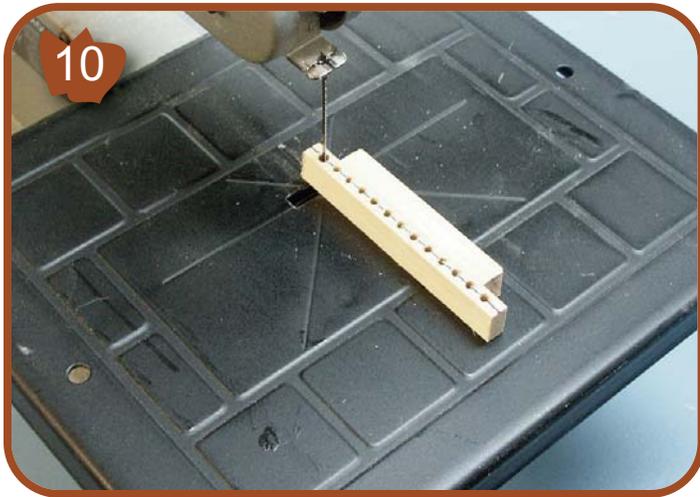
Mount the maple block into the drill press vice as shown in photo #12.



Feed a thin scroll saw blade through the $\frac{5}{32}$ -inch diameter hole in the basswood blank and then reattach the upper end to the saw arm as shown in photo #10.



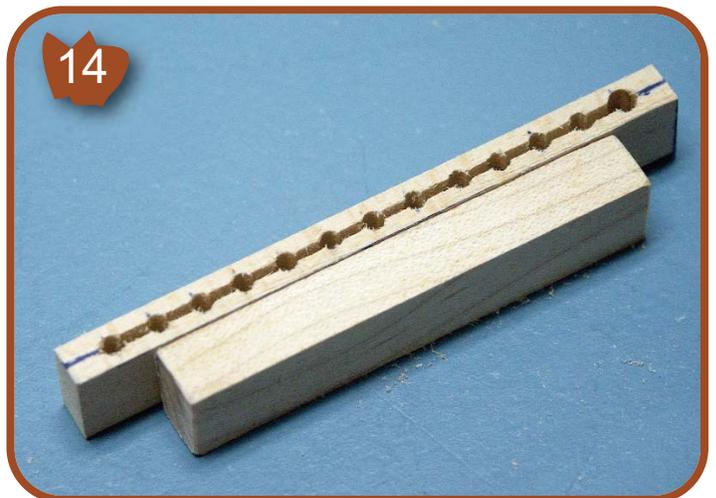
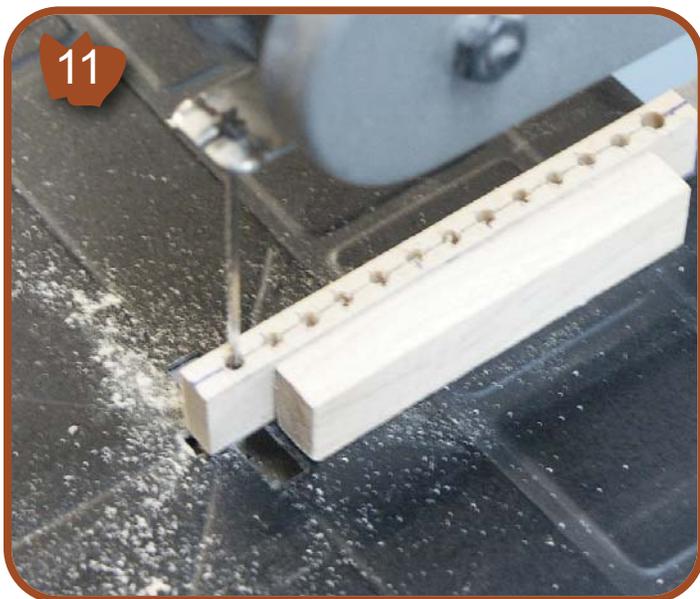
Use a thin Permagrafit blade to open the sawn slot between the holes to a dimension that allows the desired leadout wire clearance. See photo #13.



Carefully saw down the centerline on the basswood blank as shown in photo #11.



Be sure to reverse the Permagrafit blade and sand both sides of the slot smooth. See photo #14.

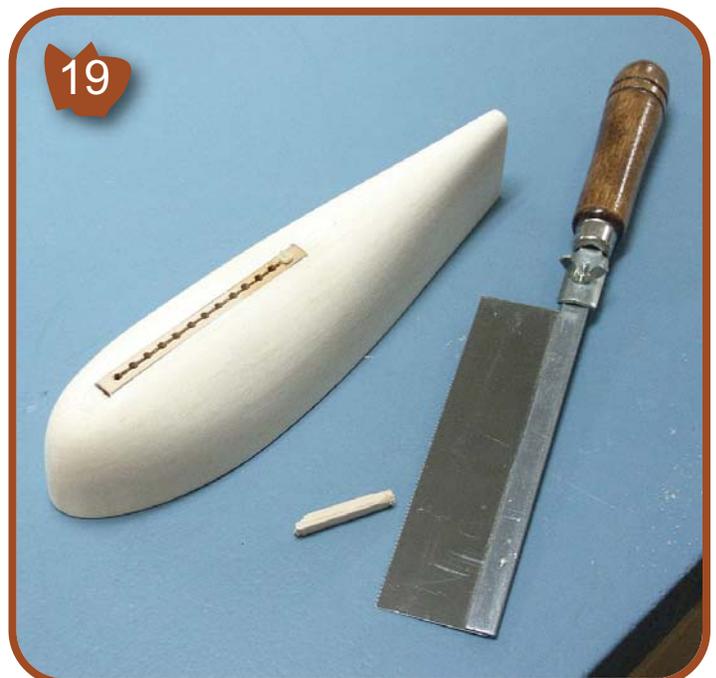


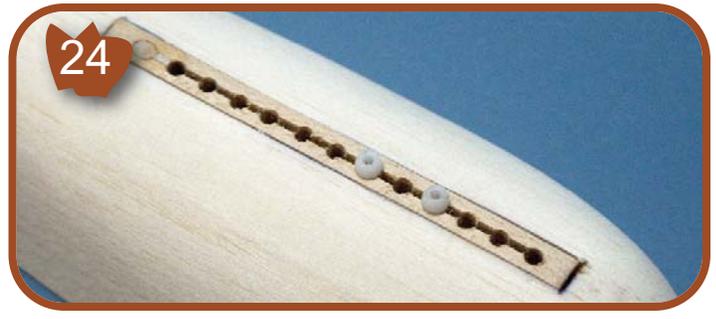
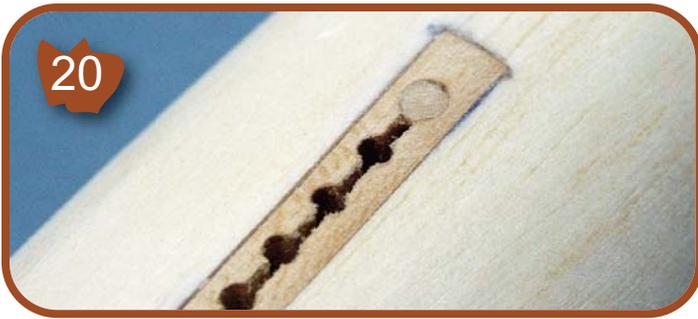
Carefully fit the basswood guide piece into the slot in the balsa tip and use thin CA glue to adhere it permanently. See photo 15.



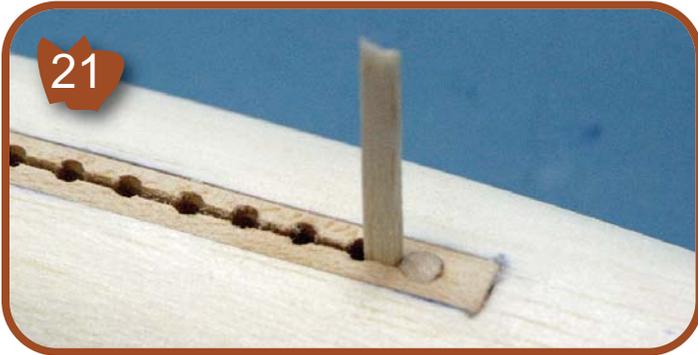
Photos #18 thru #22 depict the filling of the $\frac{5}{32}$ -inch saw blade clearance hole at the rear end of the basswood leadout guide.

Use a Permagrafit hand sanding tool or other favorite sanding tool to sand the basswood guide to fit flush with the outside contours of the balsa tip. See photos 16 and 17.





snugly into the holes in the basswood guide that is necessary to insert a flat blade screwdriver into the slot adjacent to the eyelet I want to remove, and twist the screwdriver blade in such a manner to open the slot slightly, as shown in photo #25.



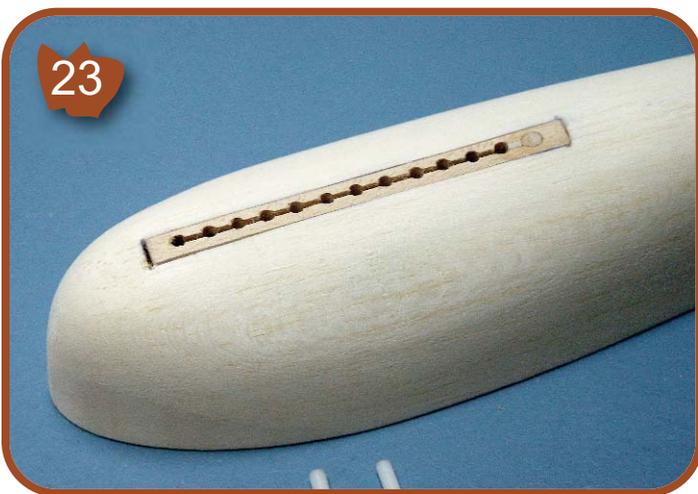
I reverse this procedure to insert and “clamp” the eyelet in place in the desired adjustment hole.

I hope to soon be able to commercially provide the Delrin eyelets that I use in these guides. You can find many suppliers of brass eyelets online. Here’s the webpage of one source from a company called Fundametals: www.fundametals.net.

If you type in your browser the search words “long brass eyelets,” you will find an abundance of suppliers for these eyelets. *SN*



The leadouts must pass through eyelets that will in turn press fit into the holes in the basswood guide. I use custom-made, 1/8-inch O.D. Delrin eyelets for this. You can either make these eyelets on a lathe, or use brass grommets that are commercially available. See photos #23 and #24.



To adjust the leadout position, I pull one of eyelets out of the hole in the basswood guide and move it forward or aft as required and then insert it into a new hole. The eyelets that I use fit so

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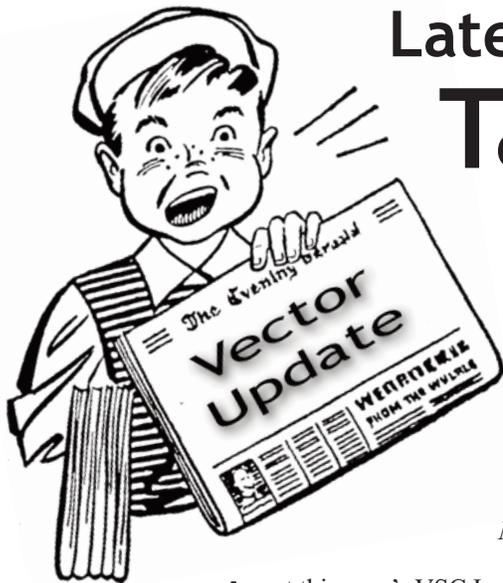
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Late Breaking News! Take-Apart Vector Update

By Sean Chuang

—Tucson,
Arizona
May 5, 2011

At this year's VSC I was asked to do a show-and-tell session about the improvements I have made to my original take-apart wing technique. This session was conducted in the workshop during the open house party at Keith and Barbara Trostle's beautiful home. Bob Hunt asked me to write an update to the How-To piece I did on my original take-apart Vector in *Stunt News*. That piece was published almost two years ago. The subject used in this update is a new Vector.

The old:

If you recall, the first take-apart Vector was based on an ARC kit of the model, and now it resides in Alex Tsai's house in Taiwan (Alex is a top CL pilot in Taiwan) so that I can fly over there when I go back to visit my parents. I was able to cramp it all in a utility case that measured $9\frac{1}{2}$ x

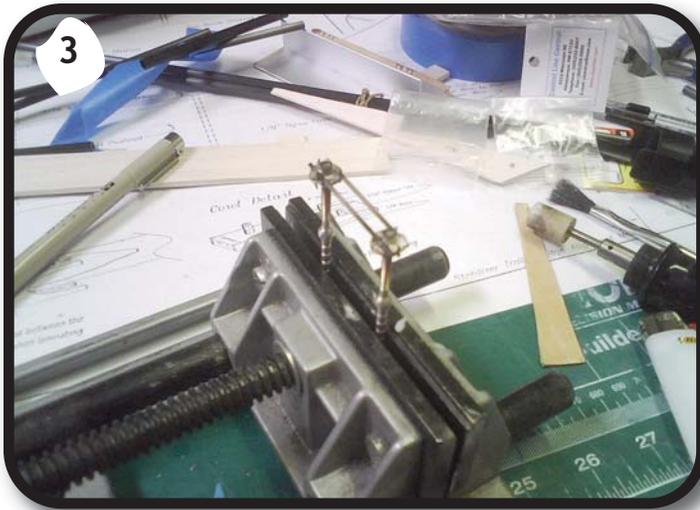


$38\frac{3}{8}$ x $13\frac{11}{16}$ inches (see Photo #1) as luggage and took it back with me last summer. This one got a pair of new wings and a Saito .40 as a power plant instead of an ST .46.

A new pair of wings, you ask? Yes! After about 350 flights, the wing started wobbling in the air. Upon close inspection I noticed that the blind nuts used to secure the wing tubes on the inboard wing had started to spin freely.

In Photo #2 you can see that a single blind nut was used to secure the wing tube in place, and it eventually "ate" the plywood plate. Later, I went ahead and CA glued the wing tubes to the inboard wing permanently to solve the problem. The issue is that the carbon wing tubes stick out and they won't fit into the utility case anymore. It forced me to build a new wing.

Without showing the detail construction, the new system has two back-to-back blind nuts bridged through two music wires to both sides of wing tubes to prevent the blind nuts from rotating. Photo #3 shows the new system. Silver solder with brazing torch was used to build up this structure.



The new:

I acquired a die-cut version of the Brodak Vector kit a while ago and decide to build it with two main objectives:

1. Build in the take-apart hardware during the wing construction.
2. Build it lighter (44-ounce target weight).

It's easy to align the take-apart structure, especially wing tubes, while building up the wing. Photo #4 shows how to align all the ribs for easy drilling of the wing tube holes.

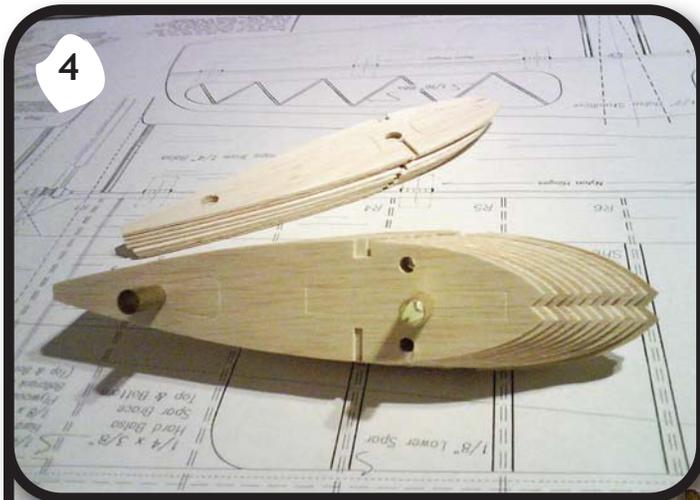
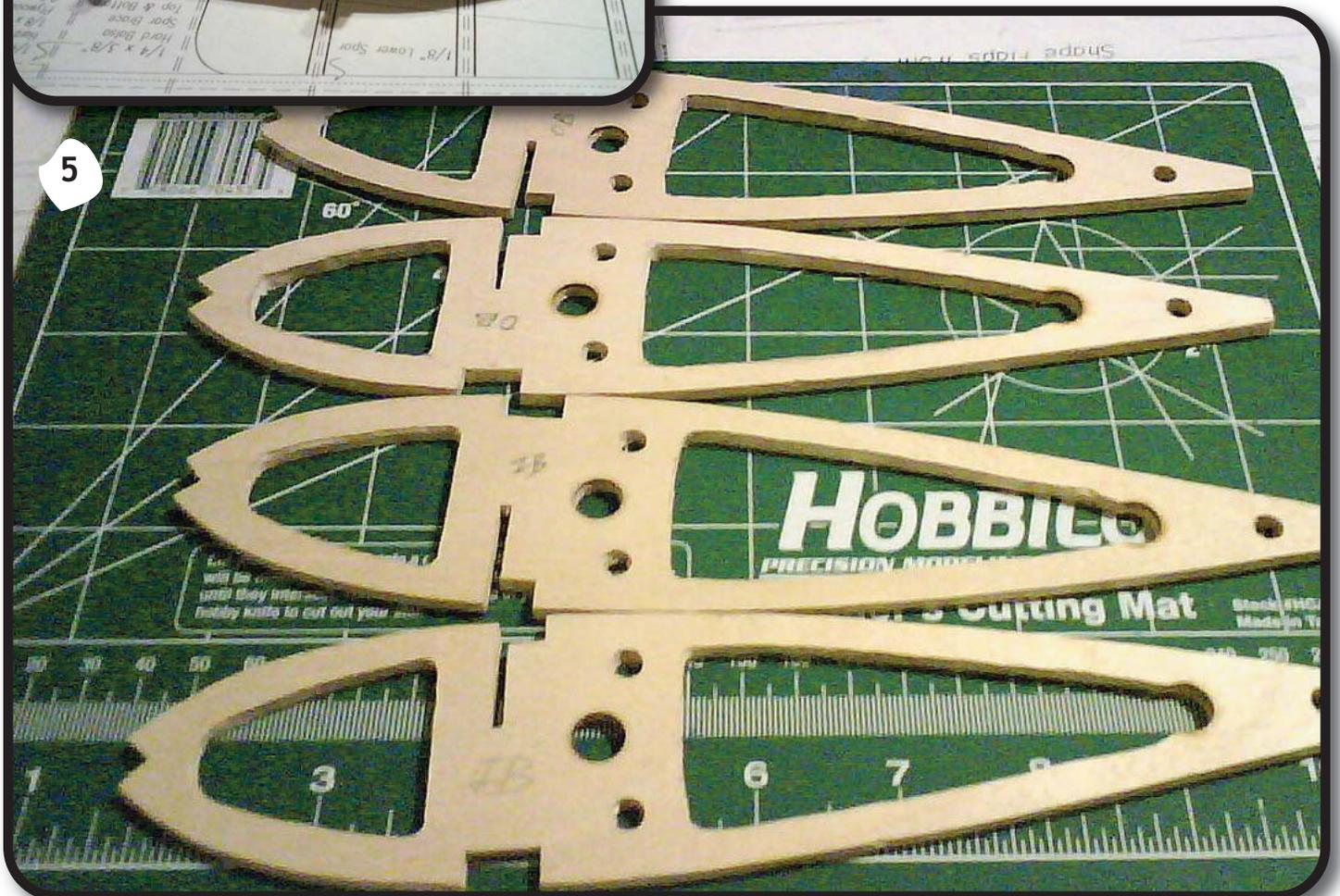


Photo #5 shows the construction of the wing joint plates.
Photo #6 shows the construction of wing center section.



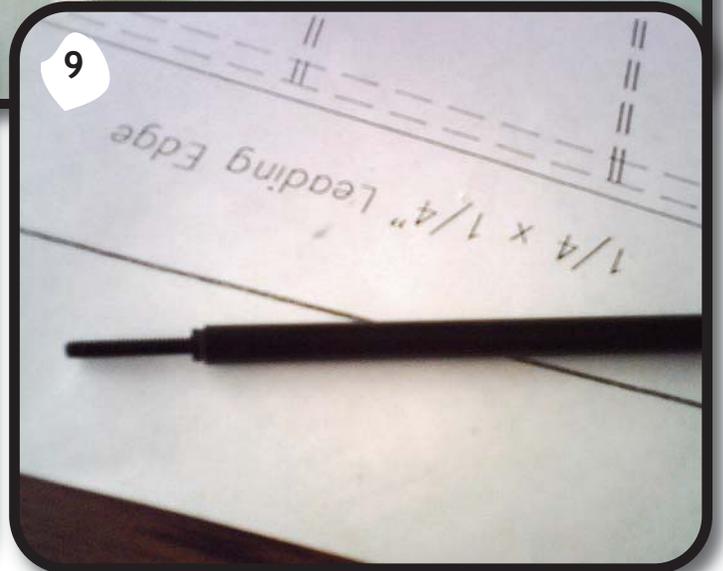
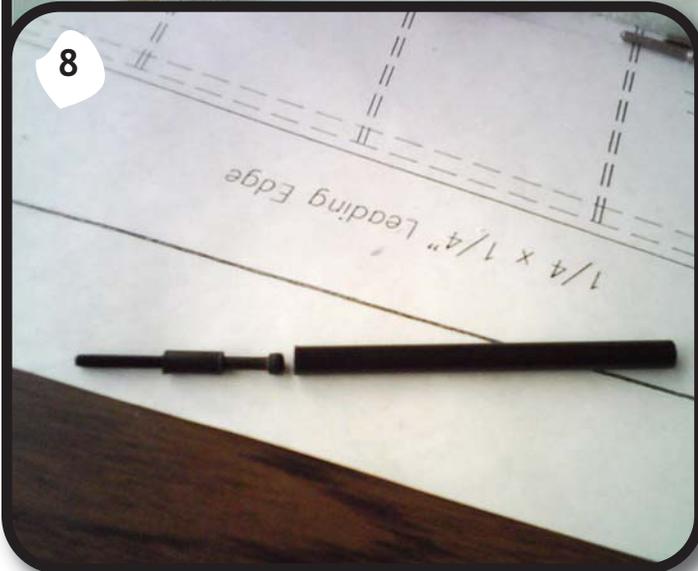
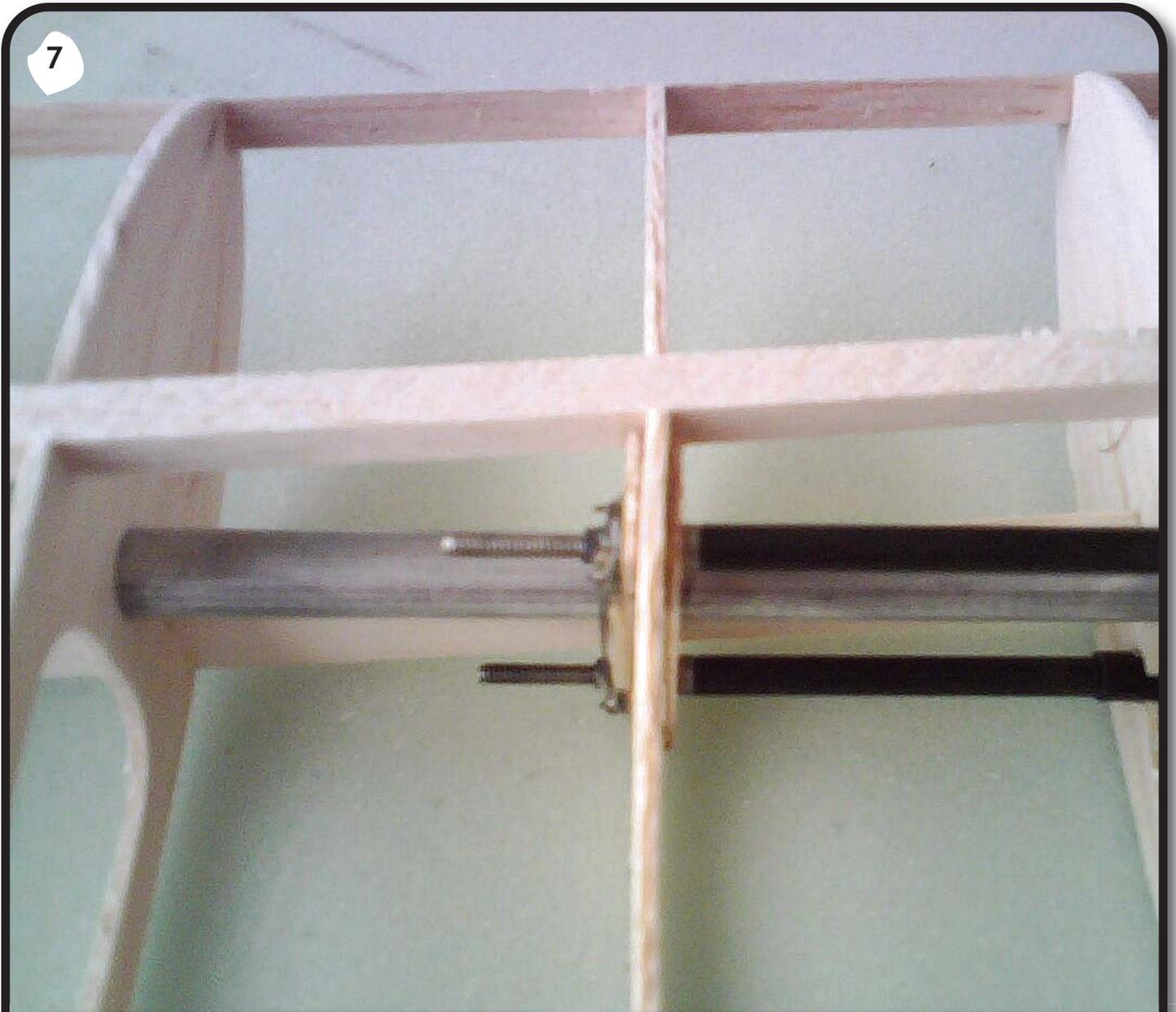


Photo #7 shows the new inboard wing with wing tube secured to the blind nuts.

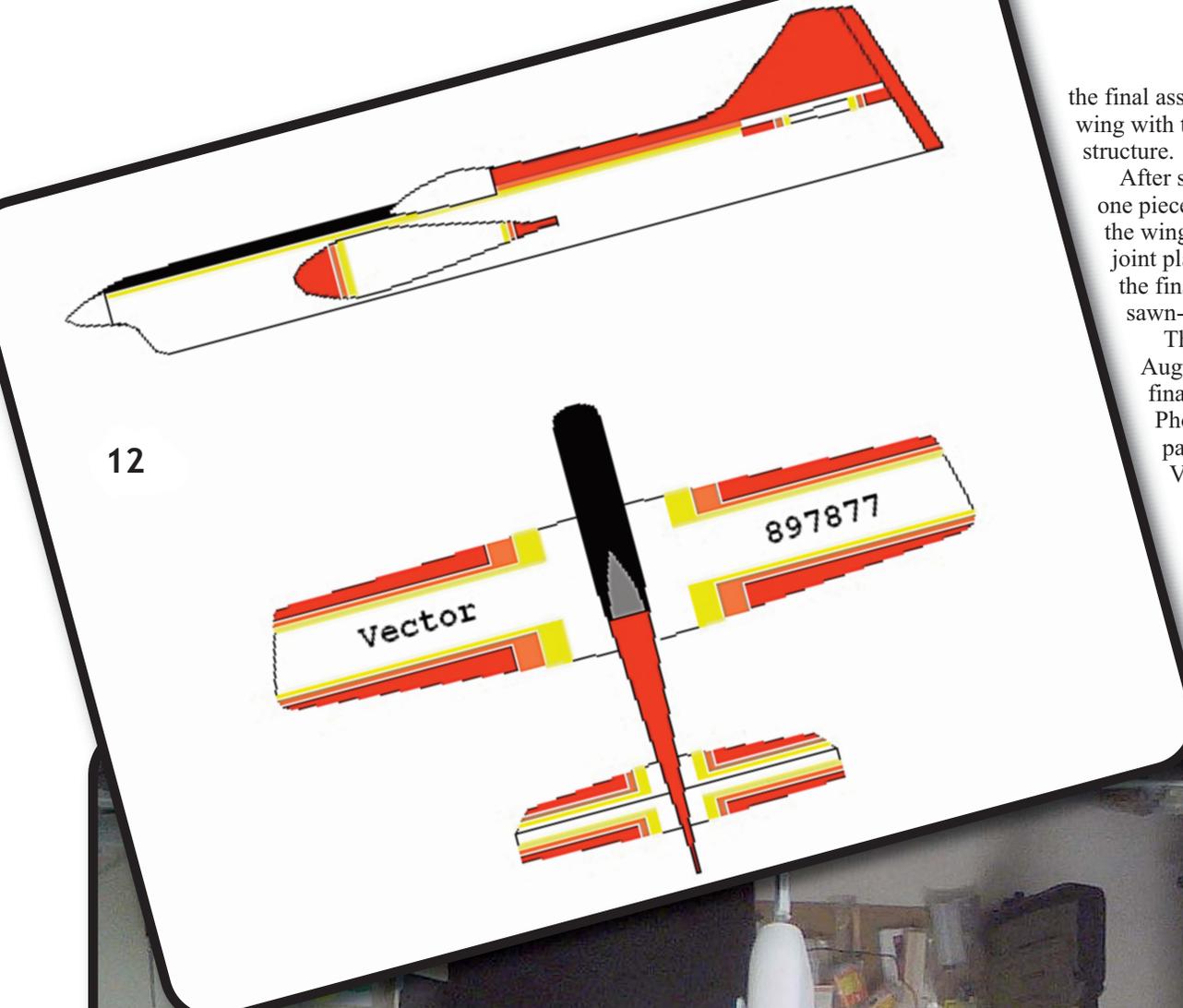
Photos #8 and #9 show the construction of the wing tube secure mechanism in the outboard wing, and Photo #10 shows

10



11



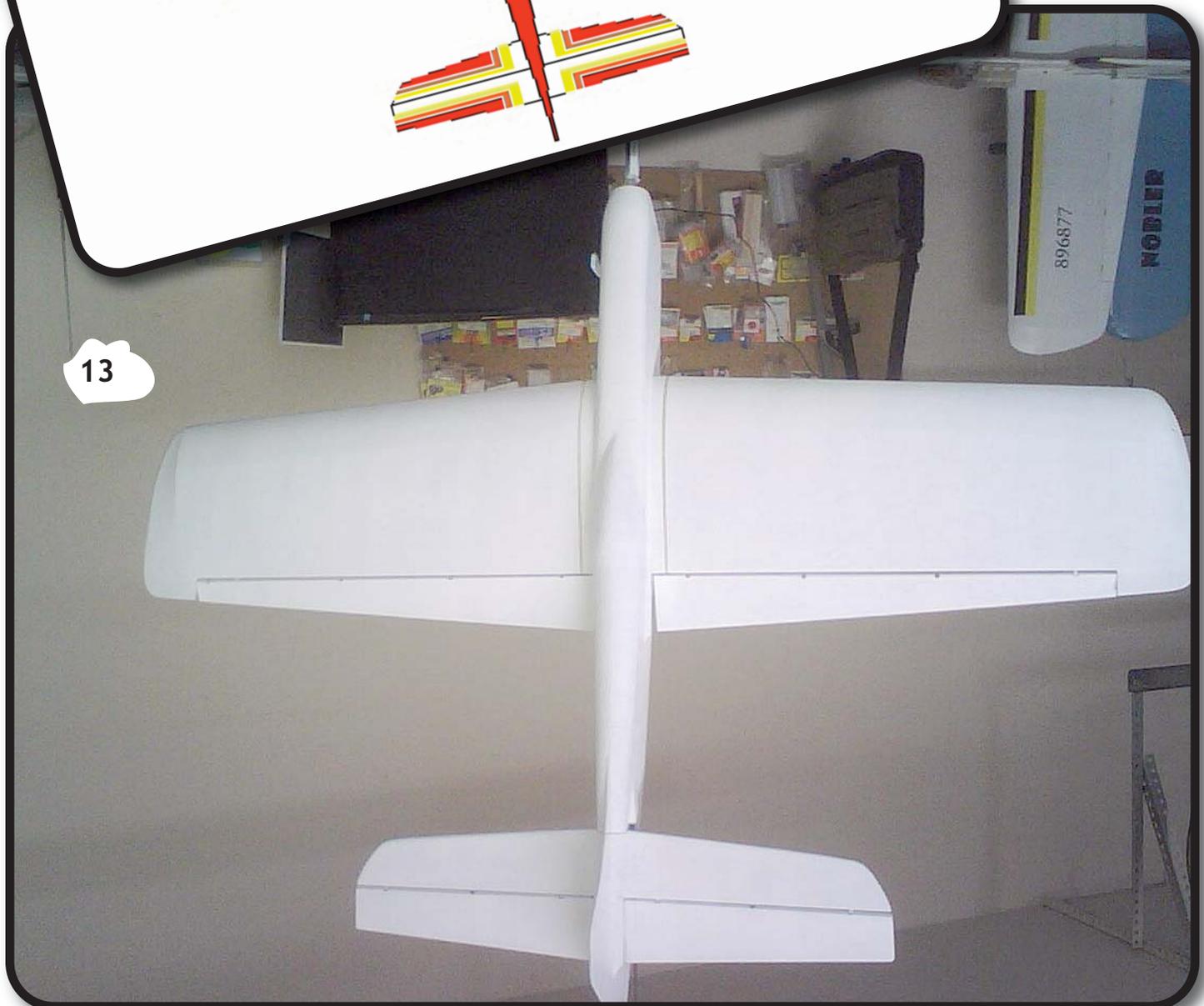


the final assembly of the outboard wing with the take-apart structure.

After sheeting the wing in one piece, it's time to saw off the wing between the wing joint plates. Photo #11 shows the final product, the sawn-off wing.

The project started last August and now is in the final stage of finishing. Photo #12 shows the paint scheme of the Vector and

Photo #13 shows that the white base coat has been applied. If everything goes smoothly, it should take air within few weeks. *SN*



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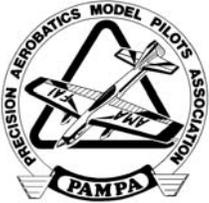
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We also need some new columnists. The subjects of Finishing, Building, Flying and Competition need to be addressed on a continuing basis. If you would care to take on the responsibility of writing one of these columns, or have an idea for another column 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*.



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PAMPA News & Reports

Vice President Report

By Matt Neumann



It has been an interesting first couple of months as vice president. I had hoped we would all start off a little slow to help me get up to speed—you know, avoid any hot-button topics like BOM and OTS.

Naturally, Murphy's Law stepped in and the first thing that comes up has both. I feel like I am learning to ride a bike and instead of using training wheels; someone puts me on the seat, gives me a push and says, "You're on your own." No training wheels, and then to top it off I find I am on a unicycle!

Okay, maybe not quite that bad, but it has been a little interesting when the first thing that came up this year was an OTS rules change proposal containing BOM. And the results have gotten a bit of flak, unfortunately. But then, I guess that is common with change of any kind. Even though this probably will be duplicated elsewhere in this issue, I am going to touch on what happened and my thoughts on each of the changes that were proposed and approved.

First off, it is in the bylaws that the EC is to vote on proposed rules changes to OTS. If someone wants to make a change, they are to submit it to the EC for consideration. I know that some people, at first glance, may think that the changes were enacted in a sneaky fashion, but this is what the current bylaws require, and the EC acted accordingly.

The biggest problem that I see is that it took a number of people by surprise. Even I was surprised when Bill Rich came to us and said we needed to discuss and vote on

this. I do know that at least some of the district directors polled their people before voting and then voted according to their poll results, so it wasn't as if this was done in secret.

It is a good reminder that if you see something from your district director asking for your opinion, that you respond by telling him what your feelings are (along with any reasons that you may have). If you don't, then, in my opinion, you should not complain about the results.

Now, about the proposals themselves. The first proposal was to add 5 points to a flyer's score if he is the builder of the model, and it was approved. I want to make one thing very clear about this: it does not say people cannot fly other people's planes. It doesn't say you must be the builder of the model. It only gives 5 points to you if you *are* the actual builder. That is it.

You can still fly your buddy's plane, assuming he trusts you with it, or fly one that you purchased from someone else. However, if you are the builder of the model, you will get a 5-point bonus for building your own plane.

The second proposal was to cut down the flap penalty/bonus for flapped/non-flapped planes. This also was approved. Before the change, if you had a non-flapped airplane, you got a 10-point bonus. Now, with the approved rule change, this is reduced to 5.

To me, this helps to even things up a bit. I have always felt that the 10-point bonus was too much. Let's face it. The OTS pattern is flown very big compared to the modern pattern. You don't have any really sharp corners to contend with and a properly trimmed, flapless plane will fly the Old-Time pattern just as steadily as a properly trimmed flapped plane.

I can't recall seeing a Nobler, or any of the other flapped airplanes of the time, being flown very often in Old-Time Stunt. And the reason why is simple: the 10-point bonus was too much of a penalty to overcome. Reducing the bonus should help even the odds. It won't make them lopsided (which they were before). It won't make this into a Nobler or Smoothie event. It will just help to even the odds and make the flapped designs of

the time more competitive. In other words, it should add more interest to the event, allowing people to bring in designs that previously were unfairly discriminated against.

The last change that was adopted was to better define pattern points. If someone does the incorrect number of loops for instance, the score is zero and there is a loss of pattern points. This is pretty much like it is with the modern pattern.

Before the change someone could do more—say 6 loops instead of 5—and not be penalized. This has now been changed. It really is not a new concept to anyone and it is relatively self-explanatory. Just do the maneuver in the correct order with the correct number and get credit for the maneuver and pattern points.

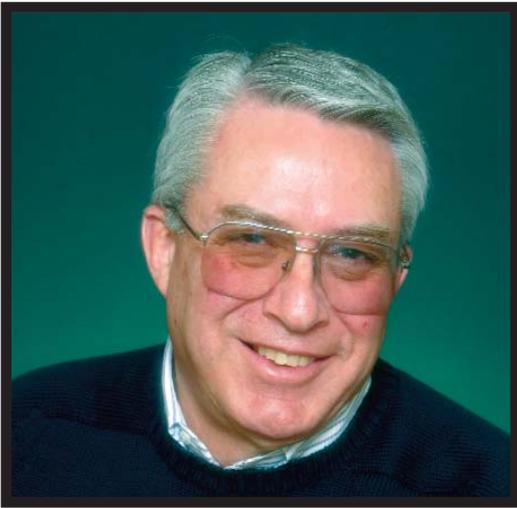
I have heard some talk saying that these new rules will take the "fun" out of OTS. I am not sure how. Let's face it, for those who really want to win, they will build their own plane and practice the pattern to ensure that they do everything in the correct order, the correct amount, and with the proper precision, whether these or the old rules are in effect anyway.

I don't see a strong competitor borrowing someone else's plane to fly in a contest. Why? Because it is extremely difficult to pick up the handle of someone else's plane that you have not flown before or flown very little and do well with it. You will give away far more than the 5-point penalty now being imposed by not being the builder of the model. Most contestants will have their own plane set up to their own standards anyway.

The reduction in flap points means nothing to them because they will probably still use a non flapped plane just for that slight advantage that the five points gives them (or maybe they will finally bring a Nobler or a Smoothie, or one of the other flapped planes of the era, feeling that they can finally be competitive with it). As for the pattern points, they will practice the OTS pattern so they won't forget how many loops and in what order to do them. Now there is a novel idea: *practice!*

And, as for the people who are not as competition-minded, those who come to the contest "just to have fun." They will still have the same fun picking up the

Transition ...



Okay, we have a candidate! (Apparently, it pays to advertise!)

By the time you read this, most of your plans for the Nats and the flying season will be well underway. In the case of this office, we have one solid candidate for the position, to be on the ballot this late summer.

As a “heads-up,” Jim Vornholt has volunteered to move into this slot. Jim is well known and respected in the Stunt community and he will be an asset to PAMPA.

Because it takes a bit of a transition time, we'll probably start early, with moving the accounting program and establishing a new bank setup, along with a new setup for managing credit cards and possibly PayPal. It just takes some deliberate planning...like a retirement move!

A couple of quick notes:

1. Financially, PAMPA is in good shape. We've paid for the first two issues of *Stunt*

and have more than enough in the bank to pay for the next four issues for the year. There is also enough for all the contingencies, including tax preparation costs, Nats expenditures, and miscellaneous operating costs.

We're in this position essentially because we've managed publishing costs for *Stunt News*. That doesn't mean a cutback on the publishing quality. No, we've just watched the printing volume and have controlled printing overruns to just the few extra copies needed to fill back orders, etc.

In the past, we had run well over 1000 extra copies per issue. Only a few of these actually were used for the intended purpose, so they ended up in many, many boxes in the garage of PAMPA Products...ultimately being sent to the landfill. Now, when we have a specific need for these copies, we have those copies printed...but no more.

2. On that topic, we're still seeing late renewal subscribers who want back issues prior to that late renewal date. Which issue you get first obviously depends on the actual renewal date relative to the *Stunt News* printing date. Note that anyone renewing after the printing date, regardless of which issue, will only receive the issues from that point forward. (See Note 3 of the renewal instructions.)

Having missed that point, you'll have to purchase those issues from PAMPA Products. Sorry about that, guys. It's just part of the incentive plan for timely renewals...and we've done it for a couple of years now.

3. The website work continues; some of the items we'd like are not necessarily part of the existing program, so we're looking at some upgrades to make it all work.

Credit card security /fraud prevention are of primary concern and have to be addressed, but it can provide smoother membership transactions, immediate website access, and quicker response in general.

Links to PAMPA Products will allow easier transactions there, as well. Additionally, there will possibly be additions of membership numbers and universal membership cards. It takes a lot more time and effort to put out individual cards than you might think.

4. As previously said, we still only have a few players making PAMPA work.

Folks, we need your input and actions to keep it a going concern. Unfortunately, we're a diminishing group, perhaps the last stronghold of our wonderful part of model aviation.

This is not to denigrate the efforts that many of you put forth in overseeing our districts, running contests, being flight judges, and just providing support for Stunt in all of its many forms.

However, age—and its attendant ultimate end—is reducing our active ranks, and the gaps are not being filled from below. Each of us, with some small efforts, can be a source of strength for the whole organization. Simply stated, every single thing you or I do (or do *not* do) matters. Collectively and individually, we all continue to make a difference.

Have good air and tight lines!*SN*

Vice President's Report continued

handle of someone else's plane for the first time and trying to remember what comes next. For them, that is their fun and their challenge. They are not there to see if they can win, they are there just to see what happens and to have a laugh at forgetting something somewhere and hoping that they don't re-kit their buddy's plane. That opportunity has still been left in the rules.

So, for those who like to compete and win, they can do that. For those who are in it for a laugh, they can do that. In effect, not much has really changed.

Now that I have said all that, and explained my position in agreeing with all of the changes that were made, I have put on my heavy duty flak jacket for those who still want to fire away. It appears it could be a “fun” two years.

Although we may not all agree on the changes that were made (do we ever?), maybe we can agree that the procedure used to change the rules for OTS, Classic, and Nostalgia 30 probably could use some fine-tuning itself. This last issue brought this to light. I am going to call this one of those things you don't

think of until it happens.

With that, I am glad to say that there has been put into motion a proposal to write up a new process for people to submit rule changes. It is just now in its infancy so there is not much to report on at this time. But the hope is to provide more openness and less chance of “surprise,” which I feel was the main objection that some people expressed on this particular occasion.

As always, fly stunt and enjoy the hobby.*SN*

District I

By Will Moore

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

I was very saddened to hear of the passing of Dick Wolsey just a few weeks ago. I competed and flew with him since the 1960s. He entered all the contests I entered, around New England back then. When I got active again in the hobby recently—after college, the Air Force, and Viet Nam, and growing a family and a business—I met up with Dick Wolsey, again.

It was nice to see him after all those years. He was the Contest Director and Judge in the Expert division of the past Mass Cup last year. And now he's gone. To me, he was always a gentle man, who spoke softly, and had a big heart for this hobby, and a big heart for everyone around him. He was much more active than I was through the years, and I think he had gone to every Brodak event since the beginning. He was well known and well loved.

Dave Cook sent me a note and this is what Dave said about Richard:

"We lost one of our most avid modelers this past month. Dick Wolsey was a regular fixture at the VSC, Brodaks, and the Nationals. I first met Dick at the 500 Meet in the 1960s at Brockton, Massachusetts. He and his friend, John Wright, were talented seniors and very competitive. Over the years Dick became a fixture in New England and Northeast model aviation both as a competitor and administrator. He put together one of the country's outstanding collections of model engines and kits. He also contributed to running and funding many contests over the years. He will be sorely missed in Northeast model aviation as a friend and dedicated modeler. Dick was never a top-rated Expert, but his dedication and commitment to the sport were absolutely top notch."

I asked John Wright, Richard's close friend who lives in California, to write a little about him, and I want to share it with all of you in this report:

Richard W. "Dick" Wolsey
1944-2011
by John Wright
The Early Years: 1956-1968

Dick Wolsey moved to town, Lynnfield, Massachusetts, when we were

in the sixth grade. I had only flown rubber at that time, mostly slip-together AJ Hornets, but Dick's uncle had been stationed in Japan while in the military and had given Dick a teardrop exhaust-style Enya .29. We were so afraid to start that engine that we went out and bought .049s. Dick got a Cub .049B and me, a Baby Bee. Dick built a Guillows P-51 with the engine mounted on the outboard on a metal bracket, as was common in those days. Our first flight attempts were unsuccessful. After a few nose-overs and a few mounting screws coming loose, I hand launched it. It climbed steeply to about 45 degrees, then stalled and headed straight for him, crashing at his feet. My first attempts were similar.

It would be 1958 before we were successfully flying, Dick with the same P-51/Cub .049B and me with a Golden Hawk/Cub .049A. By then I had moved ten miles up the road to Winchester. Dick thought it would be prudent to increase engine size gradually, so we got some .09 and .15-size engines. Dick's Veco Papoose was underpowered but flew successfully. My Whipsaw flew very fast, and on Dacron line! We learned wingovers and loops on these planes.

The Enya .29 no longer intimidated us, and we progressed rapidly to a Sterling P-51 with the Enya. I bought a McCoy .29 and put it on a Veco Tomahawk. With these planes we learned outside loops and inverted flight. We continued on to .35s and full stunt planes. Dick built a Berkley P-40 Black Tiger and I built a Veco Chief. We continued to sport fly by ourselves. There were a few other fliers in

Winchester, but none in Lynnfield. We continued to learn the stunt pattern, and while on family vacation in late summer 1962, Dick entered a contest in Maine.

There was no stopping us at that point. I also got an

AMA license, and in the summer of 1963, Dick's parents drove us to the Barnum Festival in Bridgeport, Connecticut. I had become adept at catching Dick's Nobler/Olympic after inverted flame-outs, so he wouldn't break off the dual rudders. The culprit turned out to be little red particles from the red rubber fuel bulbs. We got a round of applause for that stunt, and we didn't come in last! Notable attendees at Bridgeport were John D'Ottavio and Ed Elasiak, and later I learned that Bill Suarez also attended.

We continued to fly at New England contests together until 1968. Once, when my parents went on a European vacation, Dick and I "borrowed" my dad's 1961 Studebaker Lark Station Wagon to go to Littleton, New Hampshire. But when dad (also an engineer) returned, he noticed an extra 1,000 miles on the odometer. My brother and I tried to blame it on each other, but we were busted! Other contests included Springfield, Massachusetts, where we bumped into Bob Baron, who was using a tachometer! Also, we attended the Pine Tree State Championships, Portland, Maine, Nashua, New Hampshire, New Bedford, Massachusetts, and Dave Cook's season finale in Brockton, Massachusetts. Several pictures at Brockton have been published in magazines and now on the PAMPA District I website.

You will see Dick and me, your District I rep Will Moore, Moses Quintana, Fred Miles, Bob Lampione, Gene Schaffer, and the lovely Dawn Cosmillo. (In the picture, Richard Wolsey is on the far left, Will Moore next to him,



Bob Lampione on the far right, and John Wright next to Bob.)

Days after my graduating Cornell University and days before leaving for a job at Douglas Aircraft in Long Beach, California, the Lawrence Aristocrats club



Dick Wolsey.

put on their annual contest at the Topsfield Fairgrounds. Since all the open fliers wanted to enter and fly, Dick and I, then Seniors, judged open stunt.

In previous New England contests, one of the New Jersey fliers felt slighted by the judging. This time, I think a New England guy won but only by 1.5 points, Don Shulman was second, and he felt that he was judged fairly.

Dick and I continued to stay in touch over the years. We got together when I would come home for visits in the 70s. When my folks moved away, visits with Dick were infrequent, but in the late 80s Dick's work brought him to Los Angeles. We flew sport and in contests when he was in town, and he always scheduled a trip west for VSC.

I went to the Nats in Chicopee, Massachusetts, in 1992 and we linked up there. When he finished his work in Los

Angeles, he still attended VSC regularly, as did I. It was a great loss when Faith called last month to let me know of his death. I'll miss him as we all will.

—John Wright

And we all will. If you wish to send a card to Faith, Richard's wife, her address is in the PAMPA directory.

Don't forget our contests and fly-ins this year.

Here's a recap:

Wrentham MA fun-fly	May 21 & 22
Wrentham Kid's Day	June 11
Lee MA, Stunt in the Bershires	August 27 & 28 (tentative)
Wrentham MA Cup	Sept. 10 & 11

See you on the field!*SN*

New Jersey, New York

Hi, guys. I was just informed by Bill Rich a few minutes ago that I am now the new District II Director for PAMPA. How amazing is this. I thought I was involved in model airplanes, not railroading.

Bill told me that if I would take this position he would pay me double Windy's

salary. Help me out here. Windy, what's two times nothing? Next, I talked to Bob Hunt and found out that I'm already two



The new District II PAMPA Director, Buddy Wieder, is shown here with the electric version of his Ryan's Eagle design. It features an AXI 2826-10 motor. Photo by Bob Hunt.

District II

By Bud Wieder



Here, Buddy and his son, Ryan, hold the original, glow version Ryan's Eagle at the 2009 Nats in Muncie. This one featured a PA 40 and a Smith/Werwage tuned pipe. Photo by Gene Martine.



Buddy's longtime friend and mentor (and second "dad"), John D'Ottavio prepares to launch Buddy's Caprice for an official flight at the 2010 Nats. Photo by Noel Drindak.



Here, Buddy takes a moment to celebrate with John D'Ottavio after being presented with the Bob Palmer Classic Perpetual Trophy for his win in Classic Stunt at the 2010 Nats. This happened at a special ceremony at the GSCB club field in New Jersey.

weeks late getting my Director's report in to him for inclusion in this issue. So, without any time to prepare, I am writing a quick note to introduce myself and ask for your help.

Perhaps I should introduce myself to those in the district who may not know me. I got into modeling when I was thirteen years old. For my birthday that year my parents gave me a Jim Walker Firebaby. (That was a famous-for-its-time .049-powered pre-constructed balsa airplane.) That got me started and soon I was flying Flight Streaks and Ringmasters. It was that same summer that I met John d'Ottavio and Larry Scarinzi. John took me under his "wing" and taught me how to fly and do the pattern. Larry taught me to fly combat and also introduced me to rat racing.

The following summer I won the New Jersey Air Youth State Championship crown, just barely beating out another junior flier by the name of George Jones. By winning that championship, I was sent to the 1962 AMA Nationals in Dallas, Texas, to represent New Jersey. John and Larry helped me build one of John's designs called the J.D. Falcon for me to compete with. With their help I placed fifth that year at the Nats. For the rest of that contest season, and the next two years, John and Larry drove me to every contest we could get to, and I had a great time. I flew in three Nationals in a row and finished in the top five every one of those years.

Next came baseball, girls, and cars, and that didn't leave any time for airplanes.

After being out of our hobby for forty-five years, I decided to get back into competing. With the help of Larry and John, I got started again. Now six years later and with a lot of help from my friend, Bob Hunt, I find myself flying an electric-powered plane that I designed around the "numbers" of Bob's Saturn, and again competing on a national level.

Now for the part where I ask for your help: This column is *your* column and I need *your* input! I will also be asking you how you want me to vote on any issues or rule changes that may come about. I will be representing all of you! This is your district, not just mine.

If you have any new projects or other items of interest to the members of District II, please send me the information via e-mail, and please include photos and photo caption information so that I have something to offer in future issues. I will try and get in touch with you by e-mail or by phone on any issues that may arise. You can reach me at bw427@ptd.net or by phone at 973-940-1921. Thanks *SN*

—Bud Wieder.

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

On March 20, 2011, I attended the Skylarks of Sharon, PA Swap Shop. For Stunt/Control line, this is one of the best swap shops in northeast Ohio/northwest Pennsylvania. Lots of stunt stuff.



Dalton Hammett carrying his latest deal. Skylarks.



Three Stunt customers from the Bean Hill Club working deals at Phil's Hobby Shop. On right: Sandra and Phil Spillman at the Skylarks Swap Shop.



Les Nearing, Gary Tultz and Joe Maxwell looking over Les's table. Skylarks.



Clyde Ritchey with his OTS Ringmaster. Cleveland, Ohio. Evar photo.



Rob Young with his ARF Nobler. Cleveland, Ohio. Evar photo.



Jim Skinner holding his OTS entry. Cleveland, Ohio, contest. Dave Evar photo.



Above: Nelson Erbs holding his OTS Dragon. Cleveland, Ohio. Evar photo.



Above: Frank Carlisle holding his PA Minute Man stunter. Cleveland, Ohio. Evar photo.



Right: John Paris with his PA SV Stunter. Cleveland, Ohio. Evar photo.

Till next time, fly stunt.*sn*

District IV

By Steve Fitton

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

Hello, District IV. Spring is here! This is traditionally the slowest news cycle for our district, since little flying gets done in the district in winter, and not much building gets done either, especially considering that we are one of the smaller districts as far as numbers go.

About a year or so ago I ran a few pictures of Kent Tysor's brand new shop that is in a purpose-built and climate controlled shed next to his house. Having seen it now that it is finished and being used, I suspect that Kent has the nicest shop in the entire district. Anybody who has a better shop, send pictures this way! If I had Kent's shop, I might never return to the house, that's all I can say.

Kent has been working on yet another RoJett .76-powered Strega which is in the finishing stage as of this writing. Kent has built, refined, and tweaked on this combination enough that he will have another superbly light and well-finished plane for places like Brodak's Fly-In and the Nats. Kent is also considering starting a Classic JD Falcon as a follow-up project to this latest Strega, so Classic competitors beware next year!



A view of Kent Tysor's incredible model shop. What a place to build models!



Kent is hard at work finishing another Strega. Seen here in clear dope, it should be flying by Brodak's contest.

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Here's a view of the Strega's powerplant layout for the piped RoJett .76. Of note is the way that the cowl and pipe tunnel cover is a one piece removable unit, allowing a completely enclosed pipe with the ease of a drop-in power train fit with no messing with unhooking the pipe. Kent will be using a carbon fuel tank on what will be another very light 700+ square inch model.

Another person busy in the shop this past winter has been Frank Dobrydney. He has been working on a Dixon Time Machine. He has also been working on what he calls his Teosawki Supreme. The Teosawki Supreme is a 120% enlargement of the late Clayton Smith's design that yields a monster of 992 square inches and almost six feet of wingspan! This puts his new plane in the realm of Sweepers or the infamous Philly Flite Streak size, albeit in a package that is much thinner-winged and a bit cleaner than those other monster planes. Frank wants to start out with an LA .46 for power, but he has a .50 he can try, as well. Your columnist was thinking ST .60 as a starting point, but only flight testing will prove what engine is needed. Stay tuned for more reports on this project, as it should be flying by the time you read this.



Frank Dobrydney's 120% Teosawki is a 992-square-inch behemoth! The model takes apart just behind the wing to make it car-transportable.

From new stuff, I need to step back and revisit some items from the last issue. Gene Martine had sent a CD with many great pictures from the 2011 KOI, but I couldn't get them into my report because the KOI contest falls right against the deadline for article submission. Nonetheless, I wanted to use some of Gene's pictures of some District IV guys having a great time down in Florida.



William Davis poses with his brand new modified SV-11 ARC. Note well the throwback #21 Wood Brothers paint scheme. Who knew, when this photo was shot in January, that a month later the Wood Brothers' car, with the same 1976 throwback paint scheme, would be rolling into Victory Lane at the Daytona 500? I don't know what inspired William to paint his new plane in those colors, but his timing was perfect! Gene Martine photo.



Kent Tysor poses with his Strega between rounds at the KOI. After his new one is completed, Kent should have enough Stregas for local contests as well as a Nats and backup Strega. Gene Martine photo.



Jimmy Welch poses with his SV-11 ARF. Long after the KOI, I found out that between official flights Jimmy switched between his PA .61 and his new Enya .61 rear exhaust. On a pipe they sound and run pretty much identical, and I doubt anyone at the contest knew about his swap. Jimmy has been working with the Enya for months now and has it running well. Gene Martine photo.

Now that the winter is coming to a close, flying is starting up again and reports of activities are creeping in. In Northern Virginia, the NVCL guys have been braving the snarky March winds with mixed results. Scott Richlin sent me a picture of his first Silver Lancer looking a bit battered after dealing with the winds at their Lorton field.



Scott Richlin's Silver Lancer #1 a bit the worse for wear after being swatted out of inverted flight by the March winds. A new prop and some paint should have it back in the air. Scott Richlin photo.

In Carolina, the Metrolina club has been taking advantage of the spring, as well. They have an ever-expanding group of active fliers there. Eddy Ruane took advantage of the good recent conditions to fly his 1964 vintage jet-styled model. All who were there came away impressed by the old bird's flying qualities, especially



The MCL crew enjoys a warm March day to get in some field time. William Davis photo.



Eddy Ruane's Classic-eligible 1964 jet model sits on the circle after a great flight at the Huntersville field. Eddy replaced the vintage Fox .59 with a ST .46. William Davis photo.

with an ST .46 providing the power. The aged model has an aluminum bellcrank, and Eddy has elected to retire the model rather than try to deal with the metal bellcrank issue. It's rumored that Eddy is going to draw up some plans, and if he does, there will be another Classic eligible model for people to choose from.

Not as much to report from the central part of the Virginias, though. I think half of us are injured in some way this spring.



Here's another photo of Will Davis's SV-11 ARC at the MCL flying session. I think the District needs to charge William with going down to the Daytona speedway museum and seeing if he can get a picture of his plane next to the winning car! William Davis photo.

Whether injuries from exercise or faceplants off of ladders, if you can think of it, somebody here has probably done it. So let's be careful out there, and we will see everybody at the circle and at the Huntersville spring contest!*SN*

District V

By Eric Viglione

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

Hello, District V! Is that balsa dust and dope drying that I smell? I certainly know there's some coming from my shop. I hope this issue finds you in good health and in your shops finishing up your winter projects, as well.



From Paul Sequeira, his Primary Force takes shape and gets aligned on the workbench.



Paul brought his Force to the field for up close inspection. It looks great!



Chuck Feldman sent this picture of his latest, a cute yellow and checkered Bi-Slob.



Bob Whitney sent in his latest picture of him with his trio of OTS planes. Front and center, his new ST .60 Big Job.

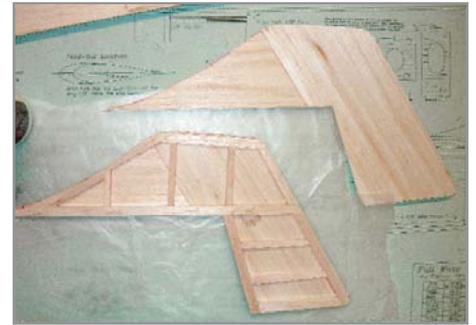
Well, as long as we're on the subject, here's what's been going on in my shop. This year I'm building a Randy Smith-designed Rapier, or SV31 in the numeric count of Randy designs. I do have fun with my razor plane! Saves lots of sneezing, since I can avoid hitting the blocks with the 80-grit paper until well after it's roughly taken shape. Of course, molded shells would do away with all of it, but I'm still more comfortable with the rigidity of a light weight balsa block, at least in the last six inches up to the spinner ring.



Fuselage roughed out for Viglione's new Rapier after attack by Master Airscrew razor plane.

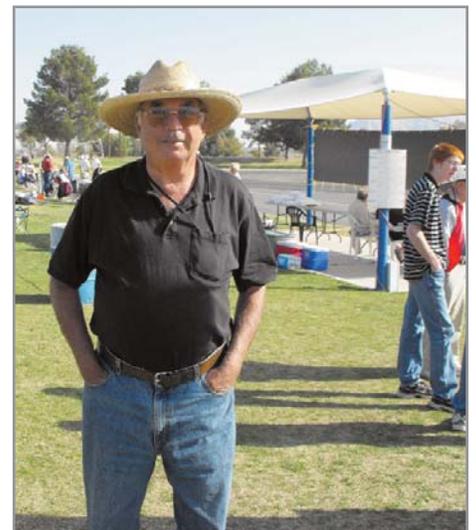


As the Rapier sits at the moment, wing silkspanned and tail glued in. Blocks taped on for photo. It will be ready to begin the fill and paint process soon.



Rudder for the Rapier is built-up and sheeted. This is the second rudder. I wanted a fat rudder at the fuselage joint to eliminate any kind of fillet or rough transition. The first rudder out of 1/2-inch block was too heavy at more than 1 1/2 ounces. The built-up rudder came in under 1/2 ounce. Framed up out of 3/8 x 3/8-inch strips and sheeted with 1/16 to get 1/2-inch at the joint. Framework sanded down like an airfoiled rudder to 1/8 inch at back, then sheeted. It's very rigid and light.

I'm not sure if VSC coverage will make it in time for this issue, but we did have some of our District V pilots attend. Dale Barry reports that there were at least three District V pilots there: himself, Bob Whitney, and Roy Trantham. Dale finished 10th in OTS; Bob Whitney finished outside the top 10 but in the top third of the field. Dale said Roy lost his plane early in the week, so he enjoyed being a spectator instead. Bob and Dale both used their old-time planes for Classic, as well. Full score results should be available elsewhere.



Roy Trantham mugs it up for the camera at VSC. Dale Barry photo.



Wes Eakin gives Bob Whitney's Jamison a launch in OTS. Barry photo.



Bob Whitney takes a breather and enjoys the show at VSC. Barry photo.

Until next time, see 'ya on the circle!*SN*

Illinois, Indiana, Kentucky,
Missouri

District VI

By Allen Brickhaus

I am opening this issue with District VI people in Clanton, Alabama; Springfield, Missouri; Huntersville, North Carolina; St. Louis, Missouri; and a swap meet in Sellersburg, Indiana.

I will have about 15 more shots of the Broken Arrow contest at Buder Park in the July/August issue of *Stunt News*. The next issue will also include pictures from the Ice-O-Lated in St. Louis and the Vintage Stunt Championships of 2011.*SN*



A Saturn moon booster rocket adorns the rest stop as one heads south of Nashville on I-65 and enters Alabama. This rest stop is only available to the south traffic.



Your columnist is seated at the Central Alabama Flying Field near Clanton Alabama as he preps his Louis van den Hout Olympus for a Classic flight on Saturday.



Beth Mills holds for her husband James at the Fall Fly In at the Springfield Missouri flying site. A bunch of guys showed up and we all helped each other.



Tom Morris, Andrew Stokey, Michael Griffin and Louis Rankin get Andy ready for his Profile flight at the fall Clanton Alabama meet.



James Mills is helping his son Ben with a flight at the Fall Fly In at Springfield Missouri.



James finishes the flight with Ben. They are flying a model built by Kenny Stevens and donated to the Nats Beginner event last year in Muncie. Donated items are well put to use by the winners.



Darwin Ulledahl really enjoys the Rabe P-51 in his stable of stunt models.



Howard Terrell assists Terry Bolin on one of his flights at the Fall Fly In at Springfield Missouri in 2010.



James Mills launching Kansas City based flyer Darwin Ulledahl with Darwin's AI Rabe P-51.



Terry Bolin of Neosho Missouri assists James Mills in launching James' Jim Kostecky Formula S stunt model.



Terry Bolin attacking level flight in Springfield Missouri.



Here we see Darwin's AI Rabe P-51 during inverted flight at the Springfield Missouri Fall Fly In.



James and I spent some time getting his Formula S trimmed at a nice Springfield Missouri day in 2010.



Darwin Ulledahl helping "Doc" Holliday get in the air at the Fall Fly In.



Darwin's P-51 upright at Springfield.



Gerald Cheney is being launched by James Mills.



Here is the entire flying crew at the Springfield Missouri Fall Fly In.



Allen is here centered at Huntersville by Ken Armish on the left with his Bob Gialdini Olympic Mark VI, Allen with his Louis van Den Hout Olympus and Todd Lee with his Bob Gialdini .35 sized earlier Eclipse.



Bob Pardue at the Sellersburg Indiana swap meet sponsored by the New Albany Skyliners in January of 2011.



At the Broken Arrow St. Louis based contest, Gary Frost is kibitzing with Gary Hajek (R).



Charra and Charlie Reeves enjoy the sun at the Huntersville North Carolina fall contest.



Seated is Kenny Stevens (red jacket), Wes Eakin, Eric Taylor (gray sweat-shirt) and Mike Stinson at the New Albany Skyliners swap meet.



Charles Reeves, John Brodak and Crist Rigotti at the September version of the Lafayette Esquadrielle Broken Arrow contest at Buder Park/St. Louis.



Charlie's version of the Big Job, as published in Flying Models, sits awaiting its winning flight at the Huntersville fall event.



Seated at the New Albany Swap Meet is Allen Brickhaus, Charlie Reeves, Lew McFarland (standing), Jack Sheeks and Jim Pirtle.



The sign in table at the Broken Arrow 2010. Shown are James Mills, Steve Smith, Bob Arata and Allen Brickhaus.



Bob Evans brings these fine fellows to breakfast prior to the Broken Arrow contest in St. Louis during the month of September 2010. Seated left to right: Allen Brickhaus, Crist Rigotti, Michael Schmitt, Dennis Vander Kurr, Larry Lindburg, Floyd Layton, Mrs. Spriggs and Keith Spriggs.



Terry Bolin took this shot of James Mills' Formula S stunter as designed by Jim Kostecky. Terry donated this shot to the column.



Floyd Layton and Buzz Brodak awaiting tabulation results at the Broken Arrow in Buder Park in the southwest corner of St. Louis.

District VII

By John Paris

Iowa, Michigan, Minnesota,
Wisconsin

We should be into the swing of things for the early contest season by the time you read this month's column. I certainly hope that the building season was a good one for you and that all the initial trim has been worked out of this year's new ride. True to form, I am running a little behind on this month's column, but it worked out into my favor for news for the district, as I saw that Bob McDonald took third place at VSC in Classic. Congratulations, Bob!

There has not been much building progress on my home front since my home stuff just arrived, but I hope to get a couple of electric powered Vectors ready for flying over the next few weeks. I have been taking notes and observing what others have done, and I hope to incorporate what they have learned with some own ideas of my own to come up with a good system. According to some of the local RC fliers, there still is a contest at the Air Force Academy sometime in May, so I hope that I can get airplanes prepared for both Michael and me to fly in time.

I have put up a few flights with the Electric Skywriter and even did a demo for the local RC group. They were both surprised to see someone fly CL and even more surprised to see a 1/2A- size electric airplane. When everything was done and I was back in the pits, there were a number of questions and a ton of pictures taken. Let's see if a seed has been planted...

Last year Terry Bentley shared some pictures of his new Cardinal here in *Stunt News*, and I was present for a couple of the first flights. After some initial adjustments he took it out for a demo flight at an event that the Lansing Flying Aces attend in their community called Delta Rocks.

Terry put the airplane into the air and then proceeded to do a tight loop in a non-optimal location. The result was not pretty. Needless to say, Terry was not very happy, but he did listen to advice about picking up all the pieces, carefully packing the cleaned parts away, and then taking a look at it a little later on. He ended up asking another local flier (and avid model airplane restorer), Rich Kacmarsky, to give him a hand with piecing the Cardinal back together. The following is a summary from Rich on what they did along with a few pictures:

"When Terry Bentley crashed his brand new Cardinal, he asked me to help with the repairs. There was damage to several areas. The most interesting part of the project was the wing restoration. The right wing was severed at the first bay beyond the sheeted center section.

"Although the repair itself was not very complex, what made things interesting was Terry's wish to preserve the existing wing covering and paint as much as possible. This meant performing the repairs through the one open bay. This was the aeromodeling equivalent of laparoscopic surgery.

"The biggest challenge was splinting the leading and trailing edges and the upper and lower wing spars. Since these all consisted of 1/4-inch square balsa, we used the same material for the splints.

"Using long-handled scalpels and #11 blades, 1/4-inch holes were cut through the ribs on either side of the open bay *plus* the next rib into the wing and center section. These holes were placed behind the leading edge, in front of the trailing edge, and inside the upper and lower wing spars. This allowed the reinforcements to extend across three bays for strength. Each set of holes was 'cut and tried' numerous times before progressing to the next. When all four operations were completed, the splices were epoxied into the wing panel and allowed to dry.

"The final operation was to glue the wing panel to the rest of the plane using slow-setting epoxy to allow for adjustments.

"Strips of masking tape were used to stabilize the repair while the epoxy cured. The remaining repairs consisted of re-covering the open bay and repainting. The repairs added about an ounce of weight, but Terry found that the plane flew every bit as well as before."



Initial repairs on Terry's Cardinal. Kacmarsky photo.



The Cardinal with repairs complete and only clear dope prior to first flight. Kacmarsky photo.



Terry ready to test the winds again. Kacmarsky photo.



The final product. Kacmarsky photo.

I am happy that Terry did the rebuild on the Cardinal. For me the crash was not a personal event. I saw what happened with the flight. I saw the damage and I knew that it would not take that much to get this airplane back into the air. Terry and I spoke about this a number of times, as I tried to get him to get the repairs done and the airplane airworthy before the end of the season. As I had read in some of Windy's crash repair columns, I suggested that he get the repair done and the airplane in clear before working on the final finish so that if more repairs are needed, that not so much work is required.

I don't recall where I was, but Terry called after that first flight after the rebuild and was pretty excited. A big thank you should go out to Rich for helping with the

repair. I hope that everyone who that has mishaps like this one takes a step back to and looks at are the real damage before they decide to scrap an airplane. I really think that it takes less time to repair some airplanes than to build a new one.

Speaking of building new airplanes, I have some additional pictures of Frank Carlisle's modified Ares prior to sanding. I have had some interest in this build, as I have not built an I-beam as of yet, so I was trying to get some pointers as he went along in the build. Frank has reported that most of the sanding is done now, but I think we will not see these until next time around. I have also heard that he has recruited some District VII help for the color scheme as he did for the LA Heat.



Picture 1 of the modified Ares. Note the longer tailwheel. Carlisle photo.



Picture 2 of the modified Ares. Note the longer main gear. Carlisle photo.

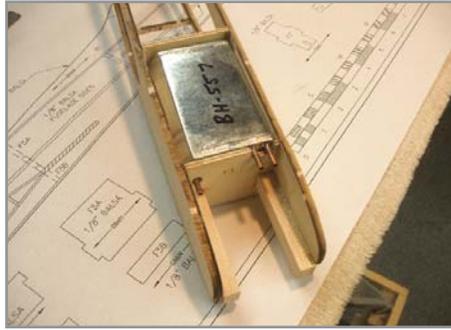


Picture 3 of the modified Ares. It might be hard to see, but the needle valve is on the outboard side. This makes for more room and less heat when setting the needle. Carlisle photo.

I have heard from Wayne Willey that the Zero he was building is complete. I have not heard anything as far as a flight report, so I will assume that he did not take it out for their New Year's Day event and is waiting for a little better weather. Wayne did start on a Super Combat Streak from Walter Umland that he plans on powering with a ST .35 stunt. Some of the modifications that he has planned are to add a tail wheel and a set of dural gear to

make it a bit more more-friendly on the ground.

I have read that Wayne temporarily fell victim to a chair magnet that has impeded progress, but he is back on track now. The wings are covered and the tank is locked in the fuselage, so I guess he will be looking at doing the paint sometime soon. If I recall, he will duplicate the scheme on the box. This is another build that I have been following as I recently won one at the FCM event in 2010 and have always thought it would be a cool build.



Wayne is using every cubic inch of the short nose for fuel. He had to remove some of the plywood doubler material to make it fit though. Willey photo.

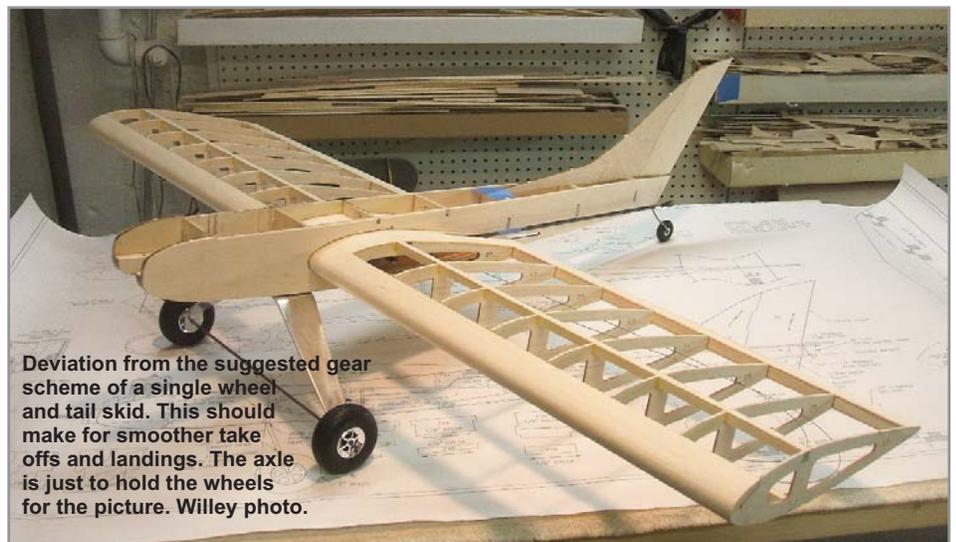


Getting that LE radius just right. Willey photo.

Keep the news coming in so that I can keep the pages filled with our activities. Remember to check over your equipment before going out to fly for the first time and to ease into the flying activities, as many of us have been a bit less active over the winter months.

If your travels bring you to Korea, drop me an email and we can see about logging an international flight while you are here.*SN*

Below: The suspended bellcrank is locked in so there is no chance for a systems pull out. Willey photo.



Deviation from the suggested gear scheme of a single wheel and tail skid. This should make for smoother take offs and landings. The axle is just to hold the wheels for the picture. Willey photo.

District VIII

By Don Hutchinson

Arkansas, Louisiana, New Mexico, Oklahoma, Texas

Column time once again. This one is going to be a bit short, as the deadline comes right at VSC time and I need to get this in before I make the annual trek to Tucson.

As usual, I am going in cold and untested, but VSC is for fun so we'll go to have fun and see what happens!

I will leave the actual VSC coverage to the pros, the results of which I expect will make it into this issue.

The Texas weather is cold and windy this time of year, so there has not been much activity at the flying field.

The DMAA did have a "social fly" in February—Saturday was pretty nice but Sunday was a good day to go to church. I did get three flights on my classic model, resulting in a flap adjustment and an engine change for Tucson.

I built a trick flap horn into this model. I stick a 4-40 driver through a tiny hole in the fuse, loosen the clamp screw, adjust the flaps position, and retighten. That way I don't change the neutral bellcrank/elevator relationship.

I published this deal in *Stunt News* some years back and was totally

underwhelmed by the response from ya'll! Does anybody read this stuff?

If you dally in the stunt forums, you have probably seen Tom Niebuhr's note "The Hobo is coming!" Read about it here first! Tom describes his new project thus:

"The Hobo is a multipurpose airplane. Fast building, it has no blocks to carve, an upright engine, and uses either internal or external controls for easy changing control ratios.

"The Hobo is for Intermediate, Advanced and Sport flying. It has a wing area of 487 square inches and is designed for .25 to .46 engines. Four prototypes are being built with different fuselage variations, and 'kit bashing' is encouraged.

"This is the first sport airplane presented in a long time, and possibly the first that is convertible for variable usage."

Now, ya'll get a hold of Tom at blueskymodels@mypbmail.com and tell him you want one!

That will make Tom a happy camper, plus then I will know some of you actually do read this column!

Moving right along, here's more on the "T-Bird." After going through the disastrous covering process, the next step is finishing.

I applied the initial coats of Randolph nitrate but noticed a few spots on the wing leading edges I didn't like, so I hit them with Duplicolor White sandable primer.

Beware of this stuff. It no longer is "sandable" as we are used to. It gums up and is a pain, but I did finally get it to look okay.

Next, I shot Randolph Polar Gray all over. I had planned to put red and blue trim on the wings, so I masked along the wing root. *Wait, that isn't quite right so I will move the tape. Hmm, why does the gray come right up with the tape? Okay, reshoot the gray.*

I had already shot the red and blue on the fuse so off comes the 1/8-inch wide trim tape along with the gray! Since I couldn't mask the blue to fix the gray, so I made some gray decal paper and laid gray decals over the bare spots. *Almost invisible so next is clear! What disaster awaits me on this step?*

See the next column and all will be revealed. One might think I had never built a model before!

My espionage network came up with an interesting tidbit. I got a call to say that laser-cut parts for the Madman 56 were available from an outfit in Wichita Falls, Texas. Checked, and sure enough there it is. They do not handle the plans, just the cut parts. Not even a "short kit," only the laser-cut items. Lots of different models listed there, including CL, FF, and RC.

Check it out. You may even find one of your own designs! Go to Lazer-works.com for airplane stuff and specialty planes.

This page under construction, so for now click on the word "This." They also have the Madman and the Madman Jr. as well as a number of other items I was rather surprised to see there.

Signing off with another inane ditty., Ssee ya'll in Tucson.*SN*

*There once was a tightwad named Dave,
Who built his stunt ships in a cave.
He said, "I'll admit
That it's quite dimly lit,
But think of the money I save."*



Tom Niebuhr with his new design, almost completed "Hobo". Photo by Mike Ostella.

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

District IX

By Carl Shoup

There will be no District IX column
in this issue.*SN*

Arizona, California, Guam,
Hawaii, Nevada, Utah

District X

By Jim Hoffman

Hi, all. How would you like to see
your airplane in *Stunt News*? It's
easy to do; please send me photos
and other input for this column. Large
photo files are preferred. This is your
column!

Jim Tichy Memorial Flying Circle
Dave Fitzgerald attended the Napa City
Council meeting in mid January, 2011,
where they authorized the establishment of
the Jim Tichy Memorial Flying Circle.
This is a renaming of the Napa Kennedy
Park Flying Circle. Dave Fitzgerald
polished up one of Jim's planes and
brought it to the City Council meeting.
Jim's wife Doris and his family were there
for the approval of the resolution. The
Parks Department will be mounting a
brass plaque at the circle.

The circle is located at Kennedy Park
in South Napa behind the playground, but
before the baseball fields. The cross street
is Streblo Avenue from Soscol Avenue.
The one and only rule they have is you
must use some kind of muffler, even Old
Time (well, maybe two rules—AMA
membership, as well.) The speed guys
might be there also, but most use pipes
anyway. So this also means nojets. The
circle is open anytime the park is open,
which are daylight hours. The circle has
relatively new pavement, only about five
or six years old.

Jim Tichy was instrumental in getting
the old Napa circle replaced when the
Napa flood control project took over the
land the old circle occupied. The Army
Corp of Engineers paid for the
replacement with flood control project
money. Jim handled all the city council
and parks department meetings to make
sure it was replaced properly. The circle
was built to modern parking lot standards,
with a 1% slope away from the center for
drainage. A speed pylon is buried in the
center of the circle. The flying surface is

outstanding for aerobatics and excellent
for speed and racing. The stunt guys share
it with several world class speed fliers and
all get along very well. About 1/2-mile
south of the CL circle, the Napa Valley RC
club has a covered dirt runway. The
regular group that flies at Kennedy Park
includes Dave Fitzgerald, Jim Aron, Erik
Rogers, Brett Buck, Ted Fancher, Paul
Pomposo, Phil Granderson, Jerry Rocha,
Arnie Nelson, Luke Roy, and many others.

Southwest Regionals Contest

The contest was held at Christopher
Columbus Park in Tucson on January 29
and 30, 2011. I won't provide a contest
report, except to say that the weather was
beautiful and we were pleased to have
guests and contestants from pretty far
away. Kirk Mullinix came from Southern
California; Brett Buck came from
Northern California; Robert Compton
from Texas; and Russ Gritzso from New
Mexico. Roy Trantham traveled the
farthest, all the way from Palm City,
Florida. Thanks to Warren Tiahrt for
serving as CD and Stunt Event Director. I
saw nothing but good flying and smiles all
weekend.

This year marked the 10th anniversary
of the Ed Southwick memorial trophy. The
trophy was retired and awarded to Rickii
Pyatt for perpetuity.



E-Cobra by Robert Compton. Pyatt photo.



Ken Gulliford, Rickii Pyatt, Mark Smith,
LeRoy Black, Nick Lemak and the Southwick
Award. Hoffman photo.



LeRoy Black and Joe Dill with their Joe Dill
Chipmunks – now an RSM kit. Hoffman
photo.



Jack Comer, pull tester extraordinaire.
Hoffman photo.



Brett Buck enjoying a little sun in Tucson. Hoffman photo.



Roy Trantham and Humongous at SW Regionals. Hoffman photo.

New Airplanes

It's always a pleasure to get photos of a new project. This month I have two new District X airplanes to share. Robin Sizemore has finished a Van Loo Chipmunk, powered by an O.S. LA .46. John Callentine has finished a Rabe Mustang with a PA .61 rear exhaust. John is a craftsman extraordinaire and his latest airplane is his best yet. Last word is that the Mustang will make its contest debut at VSC in March.



Van Loo Chipmunk by Robin Sizemore. Hoffman photo.



Advanced pilots at SW Regionals in Tucson. Pyatt photo.



Rabe Mustang built by John Callentine, PA61 RE. Hoffman photo.



Intermediate pilots at SW Regionals in Tucson. Pyatt photo.

PAMPA Rules Change Process

In December, 2010, an OTS rules change was voted on and approved by PAMPA leadership (executives plus the district reps like me). It was very clear that the process is broken because there was not a cycle that allowed the proposal to be presented and discussed among the PAMPA membership. Currently, there is proposal to enact a process to rectify this gap and allow all proposals to be made public for discussion and feedback prior to any voting. In February, 2011, I solicited the input of District X folks via my personal email list. My list is far from complete; if you'd like to be on that list for these types of communications, please contact me.*SN*

Alaska, Idaho, Montana, Oregon, Washington

District XI

By Bruce Hunt

Every year for the last four years, Northwest Control Line clubs have sponsored Winter Fun-Fly events to break up the monotony of overcast skies and never-ending drizzle. The last three of these events took place in Roseburg, Salem, and Eugene, Oregon. Only the Roseburg event failed to live up to the required rain and drizzle. Fifteen pilots brought 36 airplanes and made 52 flights at Roseburg's Sunshine Park.

The next fun-fly was scheduled for Salem, Oregon. As is normal for this time of year, the weather was windy and wet. However, the best alternative to flying is always to adjourn to a local restaurant for a helping of calories and comradeship.

The last fun-fly of the season was held in Eugene. This year the event could be best described as schizophrenic. The weather just didn't know what to do. The wind would change from calm to gusty. The sun would come out closely followed by clouds and rain. There was even a bit of hail thrown in at times.

One of the best things about a fun-fly is the variety of models that show up—everything from small .010-powered micro Ringmasters, to biplane versions of Flight Streaks, to unique Old-Time designs that only Floyd Carter can remember.

As always, you can get an excellent report on everything going on in the Northwest by checking out the news on the website: <http://flyinglines.org>. *SN*



Gordon Rea models the latest in Northwest spring attire.



Gordon Rea was the only pilot flying at the Salem Fun-Fly. The day was a normal Northwest wet breezy "spring" day.



The local Salem Airport restaurant was the location of the real action at the Salem Fun-Fly. Left to right: Gerald Schamp, Mike Hazel, Jim Harper, Gordon Rea, John Thompson, Richard Entwistle, Bruce Hunt, and Brenda Schamp.



Bruce Hunt passes on some trimming advice to Gordon Rea at the Salem Fun-Fly.



The pilots and their models made the Roseburg Fun-Fly a very successful day.



Dave Shrum shows off his recently completed Mackey Lark at Roseburg Fun-Fly.



John Thompson poses with the Evil Twin. I never noticed, but that thing is almost as tall as John.



Mike Hazel stands by his Banshee, the official back-up to his favorite Fun-Fly model: "Mr. Stubby."



Floyd Carter puts in an eventful flight at the Eugene Fun-Fly. It started out in sunshine with calm winds and ended with gusty rain and hail.



Jim Corbett showed up with his nicely finished P-40 profile at the Eugene Fun-Fly.



The colors of this PT-19 go really well with green grass and sunshine (a rare sight this winter).



Here's a view of the pit at Sunshine Park in Roseburg. There were 36 airplanes and 56 flights by the end of the day. For once the name of the park was well chosen and not just NW wishful thinking.



Dave LaFever starts his Flying Fool with Gordon Rea assisting.



Dave LaFever's Cyclone built from AMA plans shows the effect of an Oregon shower.



Bob Lewis takes his Tail Twister overhead at the Eugene Fun-Fly.



Here's another of Floyd Carter's unique models. The Hiboy is reported to be a very good flying model.



A couple of Ares: Pete Benning's Ares Jr. is in the foreground and John Thompson's '59 Ares is in the back.



Dave Shrum's Junior Firecat gets a little sun at Eugene.



Don McClave's Jamison Special is ready for the 2011 Old-Time Stunt season.

Why Do I Fly Stunt? by Jim Lynch

Why do I fly Stunt? I had an experience in my workshop today that once again gave unquestionable confirmation as to why I am a modeler.

I was working on the wingtips of a new "52" Nobler when my mind began to think back. It was like entering a time machine. There I was on Christmas morning in 1957. It was time to open that neat-looking box, all wrapped in the colorful paper. I was convinced that the package was some kind of kit. I dove in as children do on Christmas morning and to my surprise—it can't be—no it isn't—a Nobler! There it was with a Fox "35," a knife set, and all the necessary accessories. Wow! Santa is so good!

That building experience was one I will never forget. I remember those wingtips too. Balsa sheet base, a handful of tip formers and two pieces of brass tubes for the solid lead outs, all glued in place with Ambroid cement. I enjoyed the feeling of being 14 years old again totally and passionately involved in a hobby that I enjoy so much.

Where did this passion come from? My parents told me that March 10, 1943, I entered this world doing loops and rolls. They cannot remember when I did not have a love for airplanes. I would do anything to rub and touch the real thing. I would always turn my eyes and ears skyward when a plane flew over. I ran out on many occasions at night to see the fire of the exhaust of a DC-3, DC-4, or Convair.

I remember at age six my grandmother taking me to the local dime store. The store had a small area devoted to model kits. You guessed it—stick and tissue. What great memories of time spent with her trying to figure out what all that was. How can I forget the spice cake and hot tea we shared during those moments? Yes, we finally put one together. A Comet kit Taylorcraft. The thing kinda looked like a Taylorcraft and it was yellow, for sure.



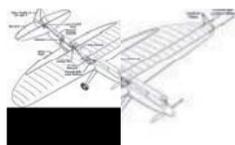
One day my dad came home with a package and called me to him. We opened the box together and I saw my first powered model. I could not believe my eyes. What was a Firebaby? Red and blue in color with a small engine and metal prop. In the canopy area was a balloon. I later learned this was the fuel tank. If memory serves me right, my father tore that little fellow up on the first flight.

Shortly after that my dad had another surprise. What is a Ringmaster? I asked as we opened the kit. I remember that smell of a fresh kit and the enjoyment of taking each piece out of the box. I think the boxes shrink after you remove the contents because I have never been able to put them all back and close the

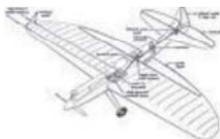
top. We spent several nights together as I watched him assemble my first kit. Red and yellow it was and yes, he canned it on the first flight. I began to get the picture. Maybe I should learn to fly, and learn I did. In my shop today is a red-and-yellow Ringmaster, just like my first in 1954.

Now that the monster had been released I could not get enough. If it had wings I built it. If there was competition in the area I entered. My only income was odd jobs and returning glass bottles for a deposit fee. Needless to say all my chores at home were done, most yards in my neighborhood were groomed, and not a bottle was to be found. There is a lesson here somewhere for today.

In 1968 my mailbox contained a surprise that would launch me to another level. *Flying Models*,



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January 1968, page 21. Jack Sheeks told the story of the FW-190. He spoke of “many moons he had been interested in semiscale stunters and how the FW-190 would work.”

The plans were ordered and soon the FW-190 was under construction. My goal with this ship was to enter my first Nats. I believe the Nats in 1968 was in Chicago and I was there. I could not believe it. There I was. The first plane I saw fly was the “Stunt Machine” with designer, pilot, and builder, Gene Schaffer. All I could say was WOW!

I felt out of place. My little ship did very well. I was qualifying on my circle until I left out the inside squares. The first person to my aid was—you guessed it—Jack Sheeks. His kind words were needed at that moment and a time I will never forget. On my wall now is a Jack Sheeks FW-190 signed by him at the “97” Nats.

I wanted my name associated with a plane that came from my hangar. Something people would identify with me. The result as “The Man” would say: my beloved “Volunteer.” This thing was everything and more than I had hoped it would be. Would you believe a Testors .40 engine and a plastic tank? We certainly plowed new ground there.

My dear friend Charles Reeves tells the story of his wife, Nancy, seeing my little ship for the first time. Her response was, “Why can’t you build a plane that flies and sounds like that?” Charles and I still laugh about that to this day. The “Volunteer” story and plans are available through *Flying Models*. It was featured in the May 1973 issue of that magazine.

I cannot remember the exact Nats but I had the occasion to meet a man that became a good friend and remains a friend today. His name is Al Rabe. How can we forget his designs and contributions to our event? Al thought I would be interested in building one of his designs called “Bearcat III.” Was I? You bet! Did I? You bet! And, the rest is history. I say then and now that my most memorable experience in

T&L SPECIALTIES CATALOG - Tom Lay

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control line modeling was the first flight on the "Bearcat." Thank you, Al.

I continued my thoughts in my trip through time, remembering all the planes, people, and events. How wonderful it is to occasionally review the past. I awoke from my time machine experience and realized again the wingtips of the "52" Nobler. Not the crude ones I experienced as a boy, but hi-tech, 4- to 6-pound wood, straight grain and cross grain used where needed. No tip weight glued in with Ambroid, but an adjustable weight box. No crude tube for leadouts, but

adjustable ones. Isn't progress great! My grandson, Tyler, will enjoy flying this plane at the 2009 Nats. (*Editor's note: This piece was written in early 2009.*)

Now retired and in love with a hobby more than ever before, people ask, why do you do this? Volumes have been written about planes, and we say it is the people and certainly this is true. Most of my dearest friends are fellow modelers. But, it's more than this; modeling is an adventure; an adventure in the past, present, and future. An adventure shared with friends and adventures of accomplishments and defeats.

How could I go on without sharing with you my closest partner in the adventure? Her name is Jo Ann, my wife, encourager, and coach. Jo Ann and I have been married now for 44 years. I am blessed with a partner who truly cares about what I do and is always there. Thanks "Jo." I love you!

It's late now and time for bed. I thank my Lord for allowing me to experience this day and all His blessings. As I lay my head on my pillow I close my eyes thinking about tomorrow. Shall I cover the wing or install the stab?

—Jim Lynch



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Contests

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7:00 a.m. Control Line Precision Aerobatics Practice Grass 600 x 600 Only

Monday, July 4

7:00 a.m. Control Line Precision Aerobatics Practice L-Pad, Grass Circles
8:00 a.m. Beginner & Intermediate Stunt Registration* Grass Circles
8:30 a.m. Beginner & Intermediate Stunt Pilots Meeting* Grass Circles
9:00 a.m. Beginner & Intermediate Stunt Event* Grass Circles
11:00 noon Old Time and Classic Stunt Registration* Grass Circles
12:00 noon Jr/Sr/Open/Advanced entries close Nats Headquarters
2:30 p.m. Open/Advanced Models Presented for Appearance Judging 180 Building
3:00 p.m. Pilots meeting 180 Building
4:30 p.m. Concours Voting 180 Building

Tuesday, July 5

7:00 a.m. Control Line Precision Aerobatics Practice L-Pad, Grass Circles
8:00 a.m. Old Time & Classic Stunt Events Pilots Meeting* Grass Circles
8:30 a.m. Old Time & Classic Stunt Events* Grass Circles
7:00 a.m. Judges Seminar Phase (Flight) L-Pad Circle 4
6:00 p.m. Judges Seminar Review (Rules review) AMA Board Room

Wednesday, July 6

7:00 a.m. Control Line Precision Aerobatics Practice L-Pad, Grass Circles
8:00 a.m. Open/Advanced Qualifications Rounds 1 & 2 L-Pad
5:00 p.m. PAMPA EC meeting AMA Board Room
6:00 p.m. PAMPA General meeting AMA Board Room

Thursday, July 7

7:00 a.m. Control Line Precision Aerobatics Practice L-Pad, Grass Circles
8:00 a.m. Open/Advanced Qualifications Rounds 3 & 4 L-Pad

Friday, July 8

7:00 a.m. Control Line Precision Aerobatics Practice L-Pad, Grass Circles
8:00 a.m. Open Top 20 L-Pad
8:00 a.m. Advanced Finals L-Pad

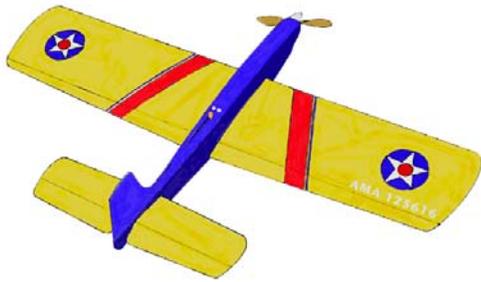
Saturday, July 9

7:00 a.m. Control Line Precision Aerobatics Practice L-Pad, Grass Circle
7:30 a.m. Jr/Sr processing and Appearance Judging L-Pad
8:00 a.m. Jr/Sr Finals L-Pad
8:00 a.m. Open Finals L-Pad Circle of choice
12:00 noon. Walker Cup Fly-off L-Pad Circle of choice
6:00 p.m. PAMPA Reception AMA McCullough
7:00 p.m. PAMPA Banquet Education center
(by AMA Museum)

*Unofficial Event

If you are flying only unofficial events, you still must register with NAT's headquarters and pay a site use fee, \$10.

The 40th annual...



Control-Line Northwest Regionals

Eugene, Oregon

May 27-28-29, 2011

Championship Control-Line flying competition

With 39 events, the Northwest Regionals provides the largest selection of CL competition events and awards available in a single contest in North America.

You can compete in these great championship events:

- AEROBATICS — 4 PAMPA classes of Precision Aerobatics, Old-Time Stunt, Classic Stunt, Nostalgia 30 Stunt and two classes of Profile Stunt!
- COMBAT — 1/2-A (high-performance), 80-mph and Vintage Diesel!
- NAVY CARRIER — Profile, Class I, Class II, .15 and Nostalgia (Profile and Class I-II), Sport 40!
- RACING — Mouse I, NW Sport, NW Super Sport, NW Clown!
- SCALE — Precision, AMA Sport Scale and AMA Profile Scale!
- SPEED — 1/2-A, 1/2-A Proto, A, B, D, FAI, Jet, Formula 40, .21 sport, .21 Proto, NW Sport Jet, F2D Proto and the new NW C Speed!

Enjoy the Regionals at Eugene Airport!

Smooth paved surface ... Ample parking ... Camping and RV space ... Rest rooms
Food concessions ... Restaurant at airport terminal ... Motels a short drive away
TROPHIES ... MERCHANDISE PRIZES ... EVENT CHAMPIONSHIP TROPHIES

Follow the signs to Eugene Airport: Take the Belt Line Road West exit from Interstate 5 (Exit 195). Take Belt Line to the Highway 99 North exit. Go north on Highway 99, turn left on Airport Road. Stay on Airport Road all the way to the flying site, on the right side of the road across from the airport terminal.

For your convenience: Advance registration!

Sign up early and purchase your T-shirts and sweatshirts in advance.

Discount for all early entry and shirt sales! Write for entry package:
John Thompson, 2456 Quince St., Eugene, OR 97404; JohnT4051@aol.com

Regionals lodging: A major sporting event is taking place in Eugene at the same time as the Regionals, so book rooms early! See flyinglines.org for the latest hotel/motel information.

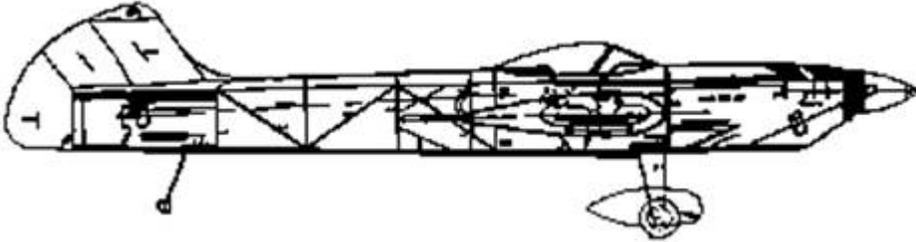
FOR INFORMATION, CONTACT:

Contest Director John Thompson, 2456 Quince St., Eugene, OR 97404
E-mail johnth4051@aol.com, telephone 541-689-5553

The Northwest Regionals are brought to you in part by
Eugene Toy & Hobby, 541-344-2117, www.eugenetoyandhobby.com

Western Kentucky/Southern Illinois Stunt Champs

AA Contest at McCracken County Model Air Park



**Paducah, Kentucky: Sat. &
Sun., August 20 and 21,
2011**

Located just off of I-24 at either Exit 3 or Exit 4 just south of the Ohio River between Metropolis, Illinois and Paducah, Kentucky. Sanction number applied for 2011.

Three competition and two practice (well manicured grass) circles will be available.

This traditional date contest will begin registration at 8:30 a.m. Saturday (20th) morning. Pilot's meeting for OTS, Nostalgia 30, Profile, (Basic Flight, and Beginner 6 min. time limit) will happen at 9:00a.m with first flights at 9:30 a.m. Sunday (21st) will have Intermediate, Advanced, and Expert classes with registration at 8:00a.m. Pilot's meeting will be at 8:30a.m. with their first flights at 9:00a.m. All events are JSO. Pilots are asked to fill out their own score sheets and present them to the judges prior to each flight.

BOM will not be in affect; no appearance points will be awarded. Each event member will vote for Pilot awards for Best Appearing OTS model, Best Appearing Nostalgia 30 model and Best Appearing PAMPA model. OTS pilots only will vote for OTS, Nostalgia 30 pilots for Nostalgia 30 and PAMPA pilots for PAMPA. Flyer must have built and finished his/her model to be eligible for any Concours award. ARF models are not eligible for any Concours awards. One B.A.R.F. award will be given to the highest scoring ARF model/pilot in PAMPA. An "OOPS" award will be given. A High Point Champion will be chosen upon results of Profile, OTS, Classic, Int., Adv., and Exp. Entry fees: \$15.00 for the first event, \$10.00 for 2nd event. \$25.00 allows pilot to fly any events with no extra cost. All Junior and Senior fly FREE. Awards to third in all classes, note local rules posted at the tabulation table and on line.

Contest Directors: Allen W. Brickhaus, P.O. Box 206, Golconda, IL 62938
Email at abkb801@shawneelink.net
Phone: 618-683-7611 (Home), 618-841-0089 (Cell)

Charles Reeves, 8310 Moore Road, Paducah, KY 42001
Email at chasreeves@comcast.net
Phone: 270-554-9920

Your proper AMA or similar association numbers or letters **MUST** be permanently affixed to the upper right wing, fuselage side, or rudder area of each model. ID numbers must be a minimum of 1" in height. **SAFETY THINGS MUST BE USED PER AMA RULES.**

Maps to the Paducah area and known hotel telephone numbers are listed this page. The event is located on the "old land-fill" near the "current soccer fields." I might suggest the Thrifty Inn for a stay at the contest.



Directions:

<http://www.pampaducah.com/directions.php>

GPS coordinates: 37° 05.413' N and 088° 39.928' W

Exit 3 on I-24
 America's Best
 Value Inn
 270-575-9605

Comfort Inn
 270-442-1616

Super Eight
 270-575-9605

Ramada Inn
 270-442-4191

Fern Lake Camping
 270-444-7939

Exit 4 on I-24
 Motel Six
 270-443-3672

Courtyard
 270-442-3600

Drury Suites
 270-441-0024

Drury Inn
 270-443-3313

Thrifty Inn
 270-444-0157

Holiday Inn Express
 270-442-8874

Days Inn
 270-442-7500

Pear Tree Inns
 270-444-7200

Comfort Suites
 270-442-2080

Hampton Inn Suites
 270-442-0200

Country Inn Suites
 270-442-2201

Candlewood Suites
 270-442-3969

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Old Time Legal Stunter

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- * Length 31-1/4"
- * Engines .35 - .40
- * Formed Wire Gear
- * Full-Size Plans
- * 100% Laser Cut Parts
- * Accurate Rib Cut Outs for Jig Construction
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PRECISION STUNTER FOR .46 OR .60 ENGINES

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Designed by Lou Wolgast
Build Either Size

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|--|---------------------|
| * Wing Span 58" | * Wing Span 61" |
| * Area 660 Sq. In. | * Area 700 Sq. In. |
| * Stab/Elevator 28" | * Stab/Elevator 30" |
| * Engines .46 - .55 | * Engines .50 - .60 |
| * Both Models in the Kit. Builder Chooses Which to Build | |

\$189.95

Phone: 951-678-1406

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The Appearance Point

by Glen Alison

Bert Metkemeijer originally designed the Trianic as a 35 sized stunt model in about 1965. This later version, enlarged for a ST46, was built in 1969 and therefore qualifies for Classic. There is an even later version in 1974 that has a tricycle undercarriage and does not qualify.

I modified the build details to make the wing detachable for ease of transport and also it helps to make adjustments to the trim. I use arrow shaft pushrods with a screw adjuster in the end. I have not got round to using those new fangled ball links yet!

Glen Alison's Trianic

The build is entirely conventional and it is covered with polyester tissue and finished with Brodak dope in the usual way. It has a metal uniflow tank with pressure from the Merco silencer. The wing is unusually thin by modern standards, which has the advantage of producing an exceptional glide after the engine quits due to its lower drag. It also helps a lot with penetration in the overhead eights. It flies very well but is not as "groovy" as modern ships, however as with any model, trimming is never complete and I am still working on flap ratios and CG position to get it better.

Best regards.

—Glen Alison

Specifications:

Model Name: Trianic

Designer: Bert Metkemeijer (Holland 1969)

Construction type: Built up conventional construction

Wingspan: 57 inches

Length: 43.5 inches

Moment arms (Measured from the front of the wing to the back of the spinner and from hinge line to hinge line:
Nose: 9.75 inches Tail: 12.5 inches

Weight dry: 53 ounces

Power package:
Super Tigre 46 fitted with Bri-Stunt ABC piston and liner set.

Propeller: Wooden 11.5 x 6

Finish: Brodak dope

Line length: 19.5m





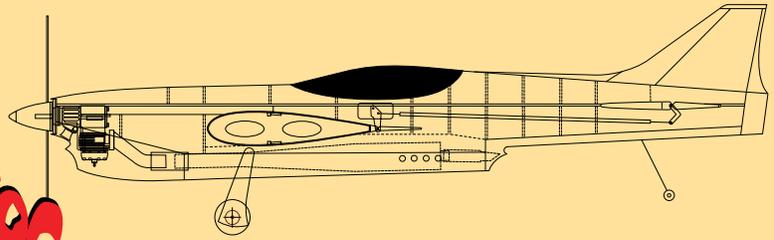


Triamic

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concentric behavior

www.concentricbehavior.com



Control Line Precision Aerobatics
2011 Contest Schedule

FIXIT WRIGHT Featuring Bunny & Tailskid



GREAT AMERICAN ARF-OFF and Stunt Clinic
 JULY 30-31, 2011 / WOODLAND, CA

7/30-7/31

The Great American ARF-OFF
 (Due to the unusual format of this contest, Pre-Registration is required)

9/17-9/18

Meet 'n Meat XIII
 Featuring the Fox 15 Hurl

10/2

**2nd Annual
 Jim Tichy Memorial
 Vintage Stunt Contest**

Meet 'n Meat XIII

A Baker's Dozen
 Strictly Stunt & BBQ Fall "Classic" (BYOM)
September 17-18, 2011
 Woodland, CA

Featuring the World Famous
FOX 15 HURL



Lucky 13



MR. NATURAL says:
 "Always Pre-Register!"

2nd Annual
Jim Tichy Memorial

Napa Valley Vintage Stunt Contest

Jim Tichy Memorial Circle
 Kennedy Park, Napa, California
 October 2, 2011



Pre-Registration Forms, Flyers and Maps available at www.concentricbehavior.com