

# Stunt News

Precision Aerobatics Model  
Pilot's Association

September/October 2010 \$5.00

## THE 2010

## NATS!



14<sup>th</sup> Annual  
Brodak Fly-In



John  
Havel's  
Speed King



## features

8 2010 Nats  
by Paul Walker

27 2010 Brodak Fly-In  
by Tom Hampshire

38 Speed King  
by John Havel

On the cover

Top left: Tim Stagg's electric P-47 profile model was created from a modified Brodak kit. It was just one of Tim's electric stunt entries at the 2010 Brodak Fly-In. Coverage of that event is included in this issue. *Photo: Bob Lampione*

Top Right: Adrian Dominguez flew this very colorful Yatsenko Shark in the Advanced class at the 2010 Nats. Don't miss Paul Walker's Nats report in this issue. *Photo: Gene Martine*

Bottom: John Havel's Folkerts Speed King is one of the most beautiful models from the 1960s. The story behind this model and a construction article are featured within. *Photo: Allen Brickhaus*

Above: Mike Ostella credits Claus Maikis with many of his trim scheme ideas he uses on his beautiful models. This one is his Ted Snow designed Humongous. The scene is the 2010 Brodak Fly-In. *Photo: Bob Lampione*

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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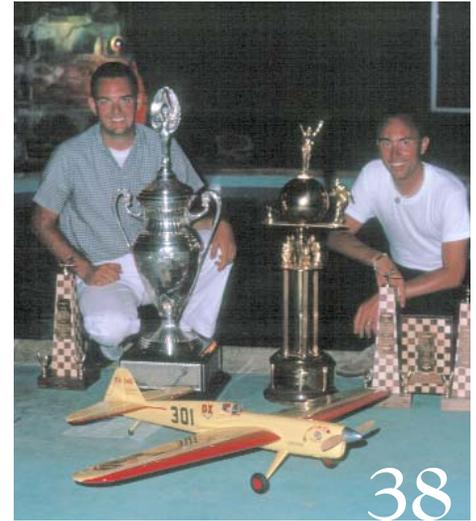
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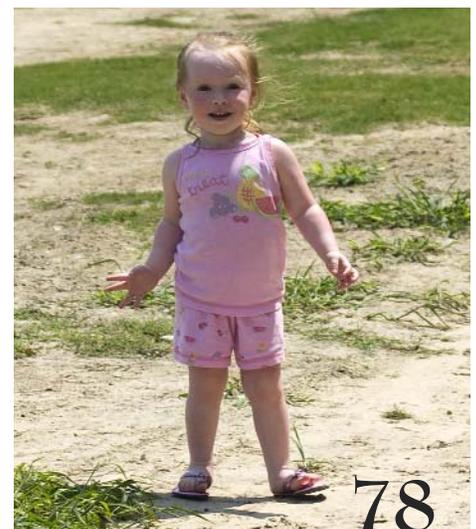
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# President's Column

By Bill Rich

Upon returning from the World Championships in Hungary I was greeted by an e-mail from our illustrious *SN* Editor indicating my column was "overdue."

Derek Barry will be writing the *SN* article on the World Championships and I believe it will appear in the November/December issue. Derek did an outstanding job of documenting the event; every evening before we would retire he would make notes on the day's activities.

I will leave the reporting to Derek but would like to make a statement regarding my performance at the Worlds. I thoroughly enjoyed being a member of the US Team; the Team worked well together and we actually managed to have some "fun" while in Hungary. My biggest disappointment was not being able to help the team standings due to my not qualifying in the top 15.

I was very disappointed with my 31<sup>st</sup> placing. Prior to leaving for Hungary I felt I was as prepared as possible. I had many coaching sessions and my plane and engine were performing very well. I thought I flew very well but certainly did not score well. Anyone that is familiar with World Championship competition will understand this statement.

My discussion with the World Competitors about PAMPA underscored the necessity to upgrade our website and allow online application for membership. I'm sure we would have picked up a large number of online memberships if our website could accept online applications.

This has got to get done this year, even if we have to go to an outside vendor to make it happen. I would guess that a number of our current members have the expertise needed to accomplish this. If you would like to help in this effort please contact me directly.

**I have been unable** to get anyone to step forward to be the 2011 Nats ED. PAMPA has the responsibility to provide administrative support for the Nats. As PAMPA President I will assume the ED position for 2011. Dave Fitzgerald has agreed to serve as my assistant. The one condition is that he will be able to compete at the 2011 Nats.

I was going to assist Paul Walker and fly in our recently completed Nats but my participation at the Worlds prohibited it. The practice of being an assistant ED prior to serving as ED should ensure succession of EDs moving forward. Dave has agreed to ED the 2012 Nats.

It is also my understanding Brett Buck has indicated a willingness to serve as ED in the future, either in 2012 or 2013. I will be attending the Nats planning meeting on September 25<sup>th</sup> at the AMA Headquarters.

I will do my best to represent Control Line Stunt interest at this meeting. I doubt that I will be able to effect any change to our "red headed stepchild" treatment but will do what I can.

I am in the process of evaluating our manpower needs; I will be contacting previous volunteers to see if they will help at the 2011 Nats.

Mark Overmier has agreed to stay on as Head Judge and Howard Rush will help with his programs from previous Nats. One area that needs to be addressed is our judges. I will work with Mark Overmier to try to make sure all areas of the country are represented by the judging corp. I do not want to see any one state or district more heavily represented than another.

I have asked each of the District Directors to provide at least one qualified judge candidate. Mark and I will talk with them to see if they can attend. My goal is to reduce or if possible, eliminate geographic bias in judging.

Dave Fitzgerald has already gotten a commitment from Les McDonald to judge at the 2011 Nats. I have a number of individuals that I will be asking to judge at the Nats; please answer the call when you are asked.

I believe we are approaching a crossroads in regards to the administration of PAMPA, our Nats, judging corps, and volunteers willing to donate time and effort to move Control Line Stunt forward. We must develop additional manpower to fulfill these needs.

Neglecting our responsibilities as US citizens has led to conditions that are less than desirable in America. We must not count on someone else to provide manpower so we can continue to enjoy our hobby. Someone else is us.

We as PAMPA members must be willing to give back to our organization so it can move forward. More members need to get involved.

Till next time, Fly Stunt Safely. *SN*



## Control Line WORLD

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all things related  
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# Level Laps

By Bob Hunt



**B**efore reviewing all the fun stuff inside this issue, I would like to take a moment to reflect on two staggering losses to our modeling community.

One of the most talented, supportive, fun-loving and service-minded individuals in the event's history has passed away. I'm referring to Arlie Preszler. Arlie had been seriously ill for quite some time before his passing and it was not unexpected. However, the loss of Arlie hits all of us who knew him very hard. He cannot be replaced in our hearts or in our lives. I've asked Arlie's very good and close friend, Lanny Shorts, to prepare a piece that will convey just how much we all owe to Arlie. It will appear in the next issue of *Stunt News*.

Shortly after the news came of Arlie's passing, we lost yet another outstanding modeler and human being. Jim Tichy passed in early August, and he too had been battling a long-term illness. If you ever had the pleasure of meeting this gentle man or seeing in person the amazing craftsmanship for which he was known then you have been blessed. Jim was a modeler's modeler and a man of principal and class.

I got to know Jim a bit by visiting with him at the Vintage Stunt Championships on several occasions. He was the type of person whom you felt close to even after having known him for but a few moments. Hopefully we will also have a piece in the next issue of *Stunt News* about Jim's life in modeling. We will dearly miss both of these gifted men...

**Better?** I meant to write about this in my last editorial, but forgot... (Getting old has liabilities!) Hopefully you will all agree with me that the black-and-white photo quality in the past two issues (and hopefully this one as well...) shows vast improvement over earlier issues. In fact,

many PAMPA members have contacted me and commented favorably on this point.

The reason for this improvement can be traced back to the post that Larry Fulwider made on one of the online forums about the poor print quality of the photos in *Stunt News*. I contacted Larry, who seemed to know what he was talking about when making some suggestions in his online posting, and discovered that he had spent the better part of his professional life in the printing industry.

Being smart enough to realize that Larry knew more than I did, I asked him if would consider volunteering to work with the *Stunt News* staff and try to improve things. Larry cheerfully jumped right in, isolated and solved the problems and then interfaced between our printer and Liz Helms, our graphic artist and layout person, to implement the needed changes. This change has caused Liz to have to do considerably more work with each photo that appears in each issue. She now has to prepare two sets of photo files: one for the online color version and one for the paper version.

I want to take this opportunity to thank Larry and Liz for working together so efficiently and well to make *Stunt News* a better publication.

I also need to pass on that Larry has contacted me and informed me that because of personal health reasons he will not be able to continue to try and improve things for us in the future. I'm asking each of you to have a thought or prayer for Larry's health issues. He's one of the really "good guys" who did more than just find a fault and criticize; he pitched in and helped fix it.

Thank you Larry, and Godspeed in your personal life.

**A sad amendment:** I'm adding this paragraph to my editorial at the eleventh hour before *Stunt News* goes online at the PAMPA Web site. It is with great sorrow that I must report that Larry Fulwider passed away on the morning of September 12, 2010. We all owe Larry a great debt of gratitude for his service to PAMPA even in the midst of a terminal illness. His spirit will be with us always...

**Inside:** This issue contains three main features: coverage of stunt events at the 2010 Brodak Fly-In by Tom Hampshire; coverage of the 2010 Nats Stunt program by Event Director, Paul Walker; and a

construction article by John Havel about his Classic-legal, Semi-Scale Folkerts Speed King Stunt model.

If you attended the Brodak Fly-In, the Nats, or both events, you already know that they were outstanding and fun happenings. There is no way to cover all that happens at major events, and a "blow-by-blow" report would be both long and probably boring. Hopefully we have captured the "feel" of each of these events with the text and photos.

Allen Brickhaus contacted me and asked me to explain that his reports on the Beginner and Intermediate programs at the Nats will appear in the next issue of *Stunt News*. Apparently Allen and Kathy went on a European vacation right after the Nats and he was not able to meet this issue's deadline.

I'm particularly pleased to be able to present the work of John Havel in the form of his legendary Speed King design. You may not have heard of this model if you are new to stunt flying, but to many of us "old-timers," this one is quite famous. Not for its championship wins, but because it was among the most beautiful and well-crafted models to ever appear at a Nats.

There is a lot to that story and I'll not steal any of John's thunder by letting the cat out of the bag here. I think you will find the story of the Speed King to be both entertaining and instructive. This model is a Classic-legal design and it can be reprised as the Speed King or as the Palomino, which was one of the gorgeous models campaigned in the 1960s by Gerry Cipra. The fact is they are the exact same design, just with different paint schemes! Rats, I let one of those cats out of that bag...

Part one of the Speed King story is featured in this issue of *Stunt News* and part two will follow in the next issue. Plans for the Speed King are available from Jim Snelson at PAMPA Products. Those plans, by the way, were drawn in CAD by Pat Johnston and he has graciously donated his work to PAMPA. Pat has always been a class act and this is just one more example of that. Speaking of class acts, I want to thank John Havel for contributing the article on the Speed King to PAMPA. Without such gestures we would not be able to present such outstanding work in these pages.

**Enjoy this issue** and, as always, Fly Stunt!

—Bob Hunt

# Starting Points

## July 2009-10 PAMPA Rules for Nostalgia 30 Stunt

**Applicability:** All pertinent AMA regulations (see sections titled Sanction Competition and General in AMA Rule Book), the General Control Line Rules, and Control Line Aerobatics Rules shall be applicable except as specified below. Any deviations from the above or those specified below should be clearly spelled out in contest advertisements.

The Nostalgia 30 event will use scoring appropriate to the vintage of the event, including the inclusion of Pattern Points.

The Nostalgia 30 event may be run as a separate event, or combined with Classic Stunt. If run as a combined event, with separate administration and separate sets of awards, the contestant entering a Classic-eligible airplane will have to make the decision of which event (s)he will be entering, prior to the start of the event.

**Philosophy:** As the years prior to 30 years ago (from current year) represent the heart of the evolutionary development of the Control Line Precision Aerobatics event, and as that era and those airplanes have great meaning to flyers about these significant aircraft which are the core of today's stunt event, and as those flyers are desirous of an event, fashioned around those aircraft, to bring together Stunt modelers to once again engage in friendly competition, camaraderie, and nostalgic reflection on the era; then let it be resolved the following rules will define such a competition, and BE IT FURTHER RESOLVED THAT IF ANY RULE SHALL CONFLICT WITH THE ENJOYMENT OF THE EVENT AT SUCH A COMPETITION, THAT CONFLICT SHALL BE RESOLVED SO AS TO PROVIDE THE GREATEST POSSIBLE PARTICIPATION AND PLEASURE FOR ALL INVOLVED.

**Model Requirements:** The purpose of the event is to encourage the construction and flying of control line stunt models designed, published, or kitted prior to a rolling 30 year cutoff, prior to the current competition year. Any design may be entered, provided the contestant has convincing evidence of the designs' compliance. Challenged contestants may show dated published plans, magazine construction article, dated photographs and/or letters of confirmation of the date of the design. Plans of un-kitted, unpublished designs must be made available to the PAMPA membership.

**Eligible Designs:** It is expected that the contestants will comply with the spirit of the event and enter only qualifying models which, as closely as possible, accurately reflect the aerodynamic layout and appearance of the original model. In order to assist the judges, it is suggested that the contestants provide reasonable proof that the model presented was actually designed, published, or kitted during the period of eligibility as defined in Paragraph 3.0 above. This proof could include kit plans, magazine articles and/or plans, photographs and documentation signed by the original designer. It is suggested that the judges ask the contestant if any changes have been made to the model presented.

**The PAMPA Executive Council may act as an approving body** for designs meeting the criteria above, but not necessarily published or kitted. The proof of eligibility is with the presenter of such designs for eligibility. The PAMPA Secretary will establish a list of such designs presented for approval, and approved. The list will be updated annually and will be available to all, via PAMPA Products and/or the PAMPA website.

**Any aircraft design meeting the requirements of being over 30 years old** is eligible for Nostalgia 30 competition.

**Eligible Designs which receive no Appearance Points:** Contestants may enter models which they have not constructed themselves. However, they will not be awarded appearance points for such a model.

**Mufflers:** The use of mufflers is encouraged and will generally be required at most contest sites. Event sponsors are encouraged to state in their advertising circulars as to such requirements. The use of mufflers will not be discriminated against and affect either appearance or fidelity points.

**Material and Modifications:** Models which more closely reflect the construction and finish of the original airplane will receive superior awards during appearance judging. Although a foam core-winged model of an aircraft which originally was of I-Beam construction is acceptable it could be expected to receive fewer appearance/fidelity points than an equally constructed and finished model of the

same aircraft using materials more closely reflecting those of the original.

**Fidelity Points:** Fidelity Points from 0 to 20 will be awarded for fidelity to the concept of the original design and to the spirit of the event. Obvious distortions of the original design of any eligible model to gain an actual or perceived performance advantage over the original design will also be subject to reduction of fidelity points. Again, the decision as to the level of distortion and the penalty appropriate for such will be at the discretion of the on-site officials and not subject to dispute.

Fidelity points may or may not be awarded at any given event, at the Contest Director's discretion. Advertising for such contests should note whether or not such fidelity will be judged and awarded.

**Appearance Points:** Appearance points, from 0 to 20, per current AMA Precision Aerobatics rules, will be awarded prior to the contestant's first flight. It is suggested that all models be judged together as the first official act of competition. This allows the greatest possible accuracy of comparison for judging and also will showcase these attractive models for photo opportunities. Appearance will be assigned by appearance judges based on the level of craftsmanship, finish, and overall beauty of the models.

If Fidelity Points (Para 5.0 above) are not awarded separately (Para 5.1), then the awarding of Appearance Points should include some consideration for the fidelity of the model.

**Trimming Adjustments:** Trim devices, such as adjustable tip weights, leadouts and replaceable landing gear which allow the entrant to adapt to the contest site and conditions are allowable. This would not allow the substitution of tricycle gear for a conventional gear, or vice versa, however such alteration of the original design would be subject to Paragraph 5.0 above.

**AMA Safety Rules:** All current AMA safety and general competition rules will apply.

**Rule Change Procedure:** The procedure for changing, amending or adding rules is similar to the procedures used by AMA, but are specific to PAMPA events (Old Time Stunt, Classic, Nostalgia 30). Rules change procedures and forms are available from PAMPA Products. *SN*



# PAMPA Membership Application or Renewal Form

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

Membership Year 2010	New Member	Renewal	Address change:
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Name: \_\_\_\_\_ AMA No. \_\_\_\_\_ Age: \_\_\_\_\_

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

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

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

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

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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

Annual Dues Options: Please Check One:		Method of Payment	
<input type="checkbox"/> Basic Member-internet access only	\$25	<input type="checkbox"/> Check	<input type="checkbox"/> M.O. <input type="checkbox"/> Cash
<input type="checkbox"/> US Member – Bulk Mail	\$45	Check No. _____	Date: _____
<input type="checkbox"/> US Member – First Class Mail	\$55	Credit Card: (only Visa and MC are acceptable)	
<input type="checkbox"/> US Family Member	\$5	Credit Card No: _____	
<input type="checkbox"/> US Compact Disk	\$45	Expiration: (Mo./Yr) ____ / ____	
<input type="checkbox"/> Canada / Mexico First Class Mail	\$65	V-Code: (3 digits) ____	
<input type="checkbox"/> International First Class Mail	\$90	Signature: _____	
<input type="checkbox"/> International Compact Disk	\$50	Membership Card, if desired:	\$2

**NOTE:**

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

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## Deadlines

### Ad and Editorial copy

Issue	Deadline
Nov/Dec 2010	Sept. 20, 2010
Jan/Feb 2011	Nov. 20, 2010
March/April 2011	Jan. 20, 2011
May/June 2011	March 20, 2011
July/August 2011	May 20, 2011

### Advertising rates: Page size and cost per issue

(H) x (W)	
1/8 page: 2.25 x 3.50 inches	\$10.00
1/4 page: 4.75 x 3.50 inches	\$35.00
1/2 page: 4.75 x 7.00 inches	\$70.00
Full page: 9.50 x 7.00 inches	\$140.00

**Postmaster:** Send address changes to: Dave Gardner, 15107 SE 145 Pl., Renton, WA 98059-7308

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Gene Martine  
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Jacksonville FL 32220-3706  
Phone: (904) 786-8650  
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# PAMPA Meeting Minutes

## July 14, 2010

The executive PAMPA meeting was to be held at 5:00 pm on the evening on the 14<sup>th</sup> of July 2010. When I got to the door, it was on a self-lock timer and I could not get in. The door was not unlocked until closer to six later that evening. Then those who could not get in, and I finally made it upstairs to the AMA Executive Board Room and began the meeting around 6:00 pm.

**06:02 pm:** The executive meeting was called to order by Dave Gardner and a roll call was given.

President Bill Rich was preparing for the FAI Worlds and was not in attendance.

Vice President Brett Buck was busy preparing to launch a satellite and was not in attendance

Secretary-Treasurer Dave Gardner was present and was chairing the meeting

Membership Chair: Noel Drindak-present

District I: Will Moore was not present and no one filled in for him

District II: Windy Urtnowski-present

District III: Patrick Rowan-not present and no one filled in for him

District IV: Steve Fitton-present

District V: Eric Viglione-present

District VI: Allen Brickhaus-present

District VII: John Paris-present

District VIII: Don Hutchinson represented by Dale Gleason

District IX: Carl Shoup represented by Jim Lee

District X: David Fitzgerald represented by John Wright

District XI: Bruce Hunt-present

Dave Gardner reported that we are now only printing about 30 to 45 extra copies an issue for each issue of *Stunt News*. He stated that we are maintaining our cash flow and that Jim Snelson is now the keeper and main sales focus of our PAMPA items. We, as per earlier status, are supporting our FAI F2B team members and manager with an individual

assistance of \$500 each for a \$2500 total expense. Dave let us know that only \$500 came in specifically for FAI F2B team support and designated for team support only. We did have a total of \$800 donations last year of which \$500 was the donation mentioned.

Back issue mailings have gone down. In 2008, we were sending out enough issues to cost PAMPA about \$2000. For the year of 2010 so far, the cost has gone down to \$172. It seems the new policy of sending out only the copies the new membership has paid for has kept our costs to a minimum. The policy is working. Full year subscriptions are for those who pay their dues on time. Dave also mentioned that Internet membership is up

**06:14 pm:** Old Business was begun by District reports.

District I: none

District II: various clubs were mentioned and Windy noted the yearly costs to maintain the Flushing circles and surrounding area was about \$11,000 a year. Windy also explained that Facebook might be a way to reach those unfamiliar with control line aerobatics and PAMPA.

District III: none

District IV: Steve Fitton noted that Larry Fulwider gave some assistance to Bob Hunt and the quality of *Stunt News* had improved.

District V: Eric Viglione described the Miami clubs and was hoping to get them more involved with PAMPA.

District VI: Discussed the availability of many contests within a decent driving distance of District VI. Allen also mentioned that the Peoria/Davenport contest will not happen this year.

District VII: John Paris mentioned the closing of the SIG contest due to hard rain and a very soggy field.

District VIII: Dale Gleason talked about the Dallas area and how they are modifying the area schedule to fit the needs of the fliers. He also discussed the new El Dorado contest in the schedule.

District IX: Jim Lee mentioned the new circle at Topeka and the contingent of Omaha, Denver, and Fargo fliers.

District X: John Wright talked about the solidity of the Northern California site, the two southern California sites and now the Napa Valley single circle.

District XI: none

**06:52 pm:** It was discussed, motioned and passed unanimously that we would provide PAMPA membership lists to PAMPA members only.

**07:00 pm:** Voted unanimously to post the new Nostalgia 30 rules to the webpage and make available through PAMPA products.

**07:10 pm:** Voted unanimously to approve the larger Madman into OTS as presented by Don Hutchinson. Dale Gleason made the local presentation on site.

**07:11 pm:** Voted unanimously to maintain the dues structure in 2011 the same as 2010.

**07:14 pm:** Motion to adjourn for a brief break prior to the general membership meeting.

**07:25 pm:** Opened the general meeting by Dave Gardner.

**07:28 pm:** Allen Brickhaus gave a brief overview of the executive meeting to those present for the general meeting.

**07:30 pm:** It was discussed, at that point in time; no one has stepped forward to run the Nats next year in the form of an Event Director.

**07:33 pm:** Nominations were opened for offices to be filled in 2011.

**Vice President:** still open with some thoughts to those who might serve.

**District II:** Windy Urtnowski if no one else could run.

**District IV:** Steve Fitton.

**District VI:** Allen Brickhaus.

**District VIII:** Don Hutchinson if no one else will serve.

**District X:** Jim Hoffman.

**07:37 pm:** Meeting called for adjournment. *SN*

Photography by Gene Martine and Will Hubin

# Nats 2010

By Paul Walker



This page: Bob McDonald's striking Apogee IV features a molded wing and a PA 75 for power.

Opposite page: Frank McMillan poses with his Nats OTS event-winning Big Job.

The 2010 Nats has come and gone. There was concern about the entry level, knowing that six quality fliers would not be in attendance. The entire FAI team was missing: Dave Fitzgerald, Orestes Hernandez, Bill Rich, and Derek Barry. Also not flying were Brett Buck and Paul Walker. Brett was launching a new satellite, and Paul was administering the Nats. However, there were many who looked upon this as an opportunity to bring the Walker Trophy back to their home.

However, there were now pilots entered that haven't been at the Nats for a while. All could see the Holy Grail within their reach. There were even others that were planning on attending, but in the end, were unable to. Jim Aron was able to convince Howard Rush to drive to the Bay area from Seattle to pick up his plane and take it to the Nats, just days before Howard was to leave. He had his eyes set on a target, and thought he had dead aim! Further, Paul Winter and John Benzing attended the US Nats once again from the UK. Paul as well had his eyes on a target. Finally, after a year of planning, and many, many practice flights, the Nats were about to start the once-a-year great adventure.

Rewind ten months prior to the start of the Nats, all the way back to the Nats annual planning meeting in Muncie, in late September. I attended this meeting, just the same as I had the previous two. This year, there was to be a World Championship

in an RC related event, later in the summer, and this created issues with the schedule. To accommodate the Championship, the RC scale aerobatics (note: LARGE aircraft) was moved to the week previous to Control Line Stunt. Shortly after that was RC Scale. I questioned the overall CD on our availability of the field, and was informed that the RC Scale Aerobatics would be done the Thursday prior to our arrival. I asked a second time, and the answer was the same. Yes, we were to have access to the grass field and the "L" pad. After all, Control Line Scale was going on at that same time! I then created the schedule that was distributed to PAMPA.

My wife and I drove to the Nats, and it was planned for three days. On the evening before the last day of driving, I became ill, and was unable to drive. I felt so bad; I turned off my phone so as to not be bothered. It turned out that was a smart move for me. As people arrived for practice flying on Friday, the grass field and "L" pad were closed to us. It was closed because of the RC Scale competition. Not the "LARGE" planes, just the RC Scale types. As such, people were upset that they were told they could fly on Friday and yet were turned away. I would be upset as well. About then, several enterprising pilots got the idea that they would call me on route so that I could "resolve" the problem, many hundreds of miles away. I guess it was my "good fortune" to be so ill that I



turned off the phone and missed these calls until I arrived on site Sunday morning. I quickly talked to Ron Morgan (Nats CD) and he told me that “everyone” knows that the entire site closes down for RC Scale. Ron, that’s why I asked you point blank when we could get on the field, and you responded Friday. What bothered me, and others, was the fact that CL Scale was running at the CL Racing pad. Yet, we were not allowed to use the grass field only a few feet away. I guess our lives are more important to AMA than the CL Scale flier’s lives! It was totally inconsistent. We managed to get through it, and the world settled down for some serious practice. To all, my sincerest apology for the miscommunication and the incorrect availability dates.

Well, the complaints didn’t stop there. It turns out that the only two lawnmowers that the AMA now has both broke down just prior to our arrival. The quick solution was to contract out the job. They did, but they also didn’t know our need for a really short cut. They mowed the available circles, but the grass was still a bit too tall for us. Beginner and Intermediate had to deal with it, and they decided to give all the same scores for takeoff and landing to all the contestants. The pilots all seemed to accept this solution. Monday afternoon, Allen Goff went home and brought out *his personal* mower and trimmed the circles so that Classic and OT would be able to fly. Many of those planes used

small wheels (in diameter or width) thus really needed the shortened grass. Thanks go to Allen for cutting the grass at our time of need.

On Monday the pilots’ meeting was held. The planes were weighed, the rules discussed, and the famous ping pong balls were drawn. After everyone had drawn their flight order, the meeting was adjourned and the pilots retired to the gym where the appearance judges had done their job, and assigned appearance points to all. The pilots then voted for their favorite plane. When done, many left for the field to get some evening practice in.

Once again, I did my prayers to the weather gods to bless this competition to have good weather. I emphasized the points about rain, wind and thunderstorms, but somehow forgot to ask about moderate temperatures. The result was a week of very nice weather, read that no wind, rain, or thunderstorms during the daylight hours of our competition. It was a bit warm though, and the heat index was over 100 degrees for several of the days. If there was a choice, I suspect that most everyone would have accepted what we had over any of the other alternatives, wind, rain or thunderstorms. There was one storm that came through on Thursday evening that had winds so strong that it moved two of the three port-a-potties about fifty yards. By the morning, all was



Left to right standing are Doug Moon (second place), Rich Oliver (fourth place), Kenny Stevens (fifth place), and Matt Neumann (third place). Kneeling with the Walker Trophy, emblematic of the Open National Champion, is Bill Werwege. This is the fifth time Bill has won this title!



**Senior Nats Stunt  
Champion, Sam Niebel,  
shows great poise while  
flying in the Walker Trophy  
Fly-Off.**



Bob McDonald launches Bill Werwage's P-47 Thunderbolt on its winning flight. This model is 14 years old and was the model Bill used to win the 2004 World Championships!

competition. He campaigned his new plane in the Northwest this year while preparing for the Nats. However, at the Nats the engine run degenerated flight after flight, and got to the point that it was impossible to fly. He tried other engines, tanks, pipes, etc. to no avail. Finally, he took the power train components, and mounted them in his back-up plane and all worked perfectly. Apparently, there was an issue with the motor mounts in the new plane. The old plane now worked, and he could

well, and the competition never knew the event happened!

Prior to the start of the competition, there were a few casualties. Doug Moon was looking good in practice, when all of a sudden his plane folded up and destroyed itself. He collected the pieces, and resigned himself to not flying. It wasn't long until his dad heard about it and, being retired, volunteered to drive another of his planes up from Dallas. By Tuesday morning he was back in business once again. This was brought up in the pilots' meeting, and all agreed that there was no problem with his plane missing the official appearance judging and weigh in. It was reviewed by the appearance judges the following morning, and weighed in at that time.

Mike Haverly built a new plane this year just for this

finally settle in to some flying.

On Wednesday morning the judges were warmed up and the competition ready to start. At 8:00AM, the qualification rounds started. Things went well, and

the flying was done by about 1:30PM. However, the tabulators were having issues with the scoring program, and things went slower than expected.

The problem was not with the program, but an



Advanced winner, Eric Vigilone, poses with his Randy Smith-designed Starfire. It's up to Expert for Eric next year!

occasional input in a cell that didn't want an input. The officials stayed "late" to get the scores done, and by Thursday they were on top of things and had the scores flying out rapidly. There were a few pilots who decided to take the bull by the horns and make a statement about their intentions with respect to the final five. Once the qualifying scores were in, the flight order was drawn for the Advanced finals, and the Open semi-finals.

In the Advanced finals, the pilots took turns in the first round posting the high score. In the second round, Paul Winter put up a great score to let everyone know his intentions. He stayed in first until the next to last score went up. The score that beat him was Eric Viglione's, who put up a great score to take first place in Advanced. Congratulations to Eric, and we look forward to seeing you in Open next year!



That's a neat trim scheme on Howard Rush's Impact. Does he do that just to confuse the judges?



Michael Paris won top honors in Junior Stunt flying this colorful Profile Cardinal.

In the Open semi-finals, Bill Werwage was the class, coasting to an easy number one qualifying spot. The battle for the next three spots was tough, and in the end  $\frac{2}{3}$  of a point separated three fliers, Doug Moon, Matt Neumann, and Kenny Stevens. Rounding out the top five was Richard Oliver. Not to be overlooked, in his bid to enter the real top five for the first time, Howard Rush had a big score on Circle 4, however, was unable to back it up on Circle 3, and just missed the top five. Bud Wieder took ninth place, and won the Rookie of the Year award. Very nice work Bud!

Once again, the top five draw was held just after the semi-final round was complete. These pilots went back to the motel knowing their order for the next day. Then the fight was on for the Open crown. Bill Werwage posted a nice score for an early lead, but not to be out done, Matt Neumann had the high score for round one. It looked like the nerves were showing and the scores in the second round and all but Doug Moon had lower scores in that round. After the second round, by virtue of the two scores posted for each pilot, Bill was in the lead and Doug second. Matt had slipped to third. The final round would determine the outcome! Again, the scores were lower this round than previous, except for Richard Oliver, who put up high



Scott Condon built this colorful version of the Bill Werwage-designed Junar.



Samuel Niebel displays his electric-powered P-47. With it he won the Senior division championship.



**Above:** Dan Banjock signals to start an official flight. That's good form, Dan!



**Left:** The legendary Charles Mackey (left) is very proud of the job Scott Condon did on the Mackey-designed Starlight stunter. It's Classic legal!

score for round three. In the end, Bill edged out Doug by five points, and Matt was third two points behind Doug.

The Juniors and Seniors also flew on Saturday. Michael Paris was the only Junior entered, but nonetheless, did very well. This was Michael's first entry in the Nats in this class. In Senior, Samuel Niebel defeated Pat Gibson for a shot at the Walker Trophy. Thus, Bill, Samuel, and Michael would fly-off for the Walker Trophy.

To make things more interesting, the wind had picked up and made things a bit uncomfortable for all. All three pilots opted for flying only two flights. Samuel had problems with his electric, which shut off prematurely in both flights. Michael toughed it out, and finished



Top: The ageless John D'Ottavio campaigns his own design Silencer. Is anyone surprised that it's painted orange?

Above: Stan Powell always shows up with a piece of flying artwork. This time it was a Paul Walker-designed Impact.

Right: Eric Taylor built this SV-23 Katana from Randy Smith plans. Its powered by a PA .61 and features a Warren Truss Lost-Foam wing. Note the transparent finish.

ahead of Samuel. Bill Werwage won the Walker Trophy once again!

This year the PAMPA banquet was held at the AMA museum education center. It was catered by Birds, in Muncie. They featured baby back ribs and pulled chicken, with numerous sides, and cobbler. The awards were handed out, leaving the Concours trophy. This year's winner was Jim Aron. Jim was not coming until the last minute, and Howard brought the plane for

him, so Jim could fly out. Good thing for Jim that he came! When the banquet was over, everybody said their goodbyes, and departed. All but a few liked the new banquet arrangement, and hopefully it will be there next year as well.

As mentioned previously, the weather was great for the 2010 Nats. At the end of the banquet, right on cue, the skies opened up and poured, seemingly in a parting gesture for holding off all week for us. Hope to see you all at next year's Nats. **SN**

A very happy-looking Rich Jacobone gives us a look at his Strega that is done up in P-51 Mustang racer motif. Power is a PA .61.



Bob Harness Jr. signals the judges and hits his stopwatch at the same time. Guess he doesn't trust the official timekeeper... Looks like Bob has picked up a lucrative sponsor for his program!





Above: This original-design Blueprint was entered and flown by Frank Williams. It features a side mount PA .75 engine and is piped. It weighs 69 ounces.

Above right: Bill Werwage had a pretty good week; he won Open Stunt and was inducted into the Model Aviation Hall of Fame!

Right: Mike Scott designed this sporty USA Cruisin around a Randy Smith Tempest wing. It is powered by a PA .65.

Below: Don Ogren reprised Charles Mackey's Junkers Gobbleswantz and brought it to fly in Classic Stunt. Bob Randall won the 1958 Nats flying this design.

Bottom right: Buddy Wieder's Ryan's Eagle flies its way towards a 9th-place finish and a Rookie of the Year berth for its designer/pilot.





Left: As always, the appearance point judging brought together a plethora of gorgeous ships!

Right: Richard Oliver flew this original design to a 4th-place finish in Open Stunt, It's powered by a RoJett engine.



Left: Roger Wildman named his original-design model, the Davis Special after his departed friend, John Davis.

Right: Jim Aron seems pleased that his Systemra design received 20 points in appearance. That's a perfect score! He also captured the Concours award. Not bad, Jim!



## AMA National Championships, 2010

### Event 322 (Open) Qualifications

Contestant	Wednesday, Circle 4				Thursday, Circle 2				Total Score	Place
	Round 1		Round 2		Round 1		Round 2			
	Flight Order	Score	Flight Order	Score	Flight Order	Score	Flight Order	Score	Best score from day 1 + best score from day 2	
Bill Werwage	2	528.00	6	530.67	8	560.00	6	0	1090.67	Q
Winfred Urtnowski	7	512.33	8	524.00	1	547.50	7	0	1071.50	Q
Kenny Stevens	4	515.00	4	508.33	9	524.50	8	0	1039.50	Q
Allen Goff	9	489.33	3	504.33	3	507.00	2	518.50	1022.83	Q
Gene Martine	8	492.67	2	482.33	2	492.00	5	524.50	1017.17	Q
Wayne N. Smith	6	485.00	5	500.00	5	511.50	4	0	1011.50	25
Dale Gleason	1	470.67	7	485.67	7	509.00	9	524.50	1010.17	26
Allen Brickhaus	3	479.33	1	493.33	4	493.00	3	0	986.33	32
John Leidle	5	456.67	9	476.00	6	481.00	1	481.00	957.00	33

## AMA National Championships, 2010

### Event 322 (Open) Qualifications

Contestant	Wednesday, Circle 3				Thursday, Circle 1				Total Score	Place
	Round 1		Round 2		Round 1		Round 2			
	Flight Order	Score	Flight Order	Score	Flight Order	Score	Flight Order	Score	Best score from day 1 + best score from day 2	
Doug Moon	6	539.00	2	538.67	6	497.00	6	535.50	1074.50	Q
Matthew Neumann	8	542.67	4	542.33	4	495.00	4	497.50	1040.17	Q
Dan Banjock	4	514.67	3	527.00	5	492.50	1	495.50	1022.50	Q
Robert McDonald	9	511.00	9	523.33	7	490.00	7	0	1013.33	Q
Joe Gilbert	1	485.33	8	512.67	1	493.50	8	473.50	1006.17	Q
Stan Powell	3	456.00	1	507.00	8	464.50	3	471.00	978.00	28
James Smith	5	498.00	6	501.00	2	476.00	5	0	977.00	29
Michael McHenry	2	501.33	7	505.67	3	468.00	9	471.00	976.67	30
James Lee	7	482.33	5	487.67	9	412.50	2	423.00	910.67	34

## AMA National Championships, 2010

### Event 325 (Advanced) Qualifications

Contestant	Wednesday, Circle 4				Thursday, Circle 2				Total Score	Place
	Round 1		Round 2		Round 1		Round 2			
	Flight Order	Score	Flight Order	Score	Flight Order	Score	Flight Order	Score	Best score from day 1 + best score from day 2	
Adrian Dominguez	5	469.00	3	485.33	5	499.50	7	0	984.83	Q
Roger Wildman	8	428.00	5	479.00	2	449.00	5	503.50	982.50	Q
Greg Voumard	4	453.00	2	468.67	8	507.00	1	0	975.67	Q
David Heinzman	3	468.67	7	470.00	6	491.00	8	487.00	961.00	Q
Jason Greer	1	460.67	1	466.67	3	464.50	4	476.50	943.17	Q
Sina Goudarzi	7	453.33	8	459.67	7	476.50	6	455.50	936.17	22
Wesley Eakin	2	436.33	6	441.67	1	452.00	3	0	893.67	23
Walter Brownell	6	445.00	4	443.00	4	436.50	2	440.50	885.50	26

## AMA National Championships, 2010

### Event 325 (Advanced) Qualifications

Contestant	Wednesday, Circle 3				Thursday, Circle 1				Total Score	Place
	Round 1		Round 2		Round 1		Round 2			
	Flight Order	Score	Flight Order	Score	Flight Order	Score	Flight Order	Score	Best score from day 1 + best score from day 2	
Mike Greb	4	466.33	1	485.33	1	459.50	6	453.50	944.83	Q
Dennis Vander Kuur	6	464.67	6	492.33	5	436.00	3	431.50	928.33	Q
Paul Winter	1	474.67	4	472.67	3	450.00	5	0	924.67	Q
Donald Ogren	7	457.67	5	419.00	7	413.50	7	407.00	871.17	Q
Scott Condon	5	431.33	3	443.33	6	421.50	4	364.00	864.83	Q
Ronnie Thompson	2	431.00	2	449.00	2	408.00	2	390.50	857.00	24
Robert Brookins	3	357.67	7	411.33	4	346.50	1	368.00	779.33	28

## AMA National Championships, 2010

### Event 325 (Advanced) Qualifications

Contestant	Wednesday, Circle 4				Thursday, Circle 2				Total Score	Place
	Round 1		Round 2		Round 1		Round 2			
	Flight Order	Score	Flight Order	Score	Flight Order	Score	Flight Order	Score	Best score from day 1 + best score from day 2	
Adrian Dominguez	5	469.00	3	485.33	5	499.50	7	0	984.83	Q
Roger Wildman	8	428.00	5	479.00	2	449.00	5	503.50	982.50	Q
Greg Voumard	4	453.00	2	468.67	8	507.00	1	0	975.67	Q
David Heinzman	3	468.67	7	470.00	6	491.00	8	487.00	961.00	Q
Jason Greer	1	460.67	1	466.67	3	464.50	4	476.50	943.17	Q
Sina Goudarzi	7	453.33	8	459.67	7	476.50	6	455.50	936.17	22
Wesley Eakin	2	436.33	6	441.67	1	452.00	3	0	893.67	23
Walter Brownell	6	445.00	4	443.00	4	436.50	2	440.50	885.50	26

## AMA National Championships, 2010

### Event 325 (Advanced) Qualifications

Contestant	Wednesday, Circle 3				Thursday, Circle 1				Total Score	Place
	Round 1		Round 2		Round 1		Round 2			
	Flight Order	Score	Flight Order	Score	Flight Order	Score	Flight Order	Score	Best score from day 1 + best score from day 2	
Mike Greb	4	466.33	1	485.33	1	459.50	6	453.50	944.83	Q
Dennis Vander Kuur	6	464.67	6	492.33	5	436.00	3	431.50	928.33	Q
Paul Winter	1	474.67	4	472.67	3	450.00	5	0	924.67	Q
Donald Ogren	7	457.67	5	419.00	7	413.50	7	407.00	871.17	Q
Scott Condon	5	431.33	3	443.33	6	421.50	4	364.00	864.83	Q
Ronnie Thompson	2	431.00	2	449.00	2	408.00	2	390.50	857.00	24
Robert Brookins	3	357.67	7	411.33	4	346.50	1	368.00	779.33	28

## AMA National Championships, 2010

### Event 325 (Advanced) Qualifications

Contestant	Wednesday, Circle 1				Thursday, Circle 3				Total Score	Place
	Round 1		Round 2		Round 1		Round 2			
	Flight Order	Score	Flight Order	Score	Flight Order	Score	Flight Order	Score	Best score from day 1 + best score from day 2	
Eric Viglione	4	471.50	4	475.00	7	492.00	1	491.67	967.00	Q
Scott Reynolds	2	435.00	7	450.50	2	462.33	2	471.00	921.50	Q
Mike Schmitt	1	433.50	5	443.00	1	443.67	4	464.00	907.00	Q
James Borrelli	7	448.00	1	459.00	4	437.67	6	106.67	896.67	Q
William DeMauro	6	433.00	3	434.00	3	443.00	5	453.00	887.00	Q
Lesley Byrd	3	404.50	6	434.50	6	399.33	7	394.00	833.83	27
Alan Buck	5	370.50	2	386.50	5	407.00	3	395.00	793.50	29

## AMA National Championships, 2010

### Event 325 (Advanced) Qualifications

Contestant	Wednesday, Circle 2				Thursday, Circle 4				Total Score	Place
	Round 1		Round 2		Round 1		Round 2			
	Flight Order	Score	Flight Order	Score	Flight Order	Score	Flight Order	Score	Best score from day 1 + best score from day 2	
Eric Taylor	4	486.50	3	498.00	1	484.00	6	469.67	982.00	Q
Stephen Fitton	6	468.50	6	500.50	4	470.33	8	478.67	979.17	Q
Enrique Diez	7	481.00	7	492.50	3	470.67	1	474.67	967.17	Q
John Paris	2	463.00	4	494.00	8	470.67	5	453.33	964.67	Q
Robert Harness, Jr	3	477.00	2	484.50	7	480.00	4	460.00	964.50	Q
Mike Haverly	1	429.50	8	471.50	2	441.00	3	464.33	935.83	21
James Mills	5	436.50	5	434.50	6	453.33	7	441.00	889.83	25
Samuel Niebel	8	403.50	1	375.50	5	391.33	2	307.00	794.83	30

C/L Precision Aerobatics						
Event 322 (Open) Semifinals						
Contestant	Circle 3		Circle 4		Total Score	Place
	Flight Order	Score	Flight Order	Score		
Bill Werwage	11	546.67	5	526.67	1073.33	Q
Doug Moon	3	519.33	11	533.00	1052.33	Q
Matthew Neumann	10	529.67	18	522.33	1052.00	Q
Kenny Stevens	8	525.33	13	526.33	1051.67	Q
Richard Oliver	1	512.67	20	530.00	1042.67	Q
Howard Rush	20	528.33	10	508.33	1036.67	6
Kenton Tysor	16	519.67	7	507.00	1026.67	7
Dan Banjock	17	514.33	6	511.33	1025.67	8
Bud Wieder	12	517.00	3	506.00	1023.00	9
Josias Delgado	6	514.00	17	502.67	1016.67	10
Robert McDonald	13	505.33	1	510.33	1015.67	11
Frank McMillan	9	509.67	15	502.00	1011.67	12
Mike Scott	5	499.00	19	510.67	1009.67	13
Randy Smith	18	509.67	8	495.67	1005.33	14
Allen Goff	14	506.33	4	493.33	999.67	15
Frank Williams	2	486.33	12	513.00	999.33	16
Joe Gilbert	7	500.33	14	490.33	990.67	17
Jose Modesto	19	491.00	2	490.33	981.33	18
Gene Martine	15	490.33	9	490.00	980.33	19
Winfred Urtnowski	4	442.67	16	0	442.67	20

C/L Precision Aerobatics						
Event 325 (Advanced) Finals						
Contestant	Circle 1		Circle 2		Total Score	Place
	Flight Order	Score	Flight Order	Score		
Eric Viglione	19	492.50	8	506.00	998.50	1
Paul Winter	13	478.50	3	505.00	983.50	2
Eric Taylor	10	489.50	17	480.00	969.50	3
Adrian Dominguez	6	471.00	14	494.50	965.50	4
Enrique Diez	2	467.00	12	498.00	965.00	5
Mike Schmitt	1	479.50	15	477.50	957.00	6
John Paris	9	473.00	11	483.50	956.50	7
Jason Greer	12	477.00	10	479.00	956.00	8
Stephen Fitton	3	456.00	16	498.50	954.50	9
Mike Greb	5	471.00	19	478.50	949.50	10
Scott Reynolds	8	458.00	18	481.50	939.50	11
Dennis Vander Kuur	20	473.00	6	462.50	935.50	12
Greg Voumard	16	475.50	9	460.00	935.50	12
Robert Harness, Jr	14	449.00	2	471.00	920.00	14
William DeMauro	4	444.00	20	475.00	919.00	15
Roger Wildman	11	448.00	7	467.50	915.50	16
David Heinzman	7	446.00	13	469.00	915.00	17
James Borrelli	15	457.50	4	437.00	894.50	18
Donald Ogren	17	429.50	1	419.50	849.00	19
Scott Condon	18	333.50	5	0	333.50	20

C/L Precision Aerobatics								
Event 322 Open Finals								
Contestant	Flight 1		Flight 2		Flight 3		Total Score	Place
	Flight Order	Score	Flight Order	Score	Flight Order	Score		
Bill Werwage	3	536.83	1	530.67	4	527.83	1067.50	1
Doug Moon	2	529.67	2	533.00	3	529.67	1062.67	2
Matthew Neumann	4	538.33	5	522.50	5	517.33	1060.83	3
Richard Oliver	1	526.17	4	523.50	1	532.17	1058.33	4
Kenny Stevens	5	524.67	3	512.17	2	507.33	1036.83	5

C/L Precision Aerobatics								
Event 322 Junior								
Contestant	Flight 1		Flight 2		Flight 3		Total Score	Place
	Flight Order	Score	Flight Order	Score	Flight Order	Score		
Michael Paris	1	353.75	1	357.00	1	0	710.75	1

C/L Precision Aerobatics								
Event 322 Senior								
Contestant	Flight 1		Flight 2		Flight 3		Total Score	Place
	Flight Order	Score	Flight Order	Score	Flight Order	Score		
Samuel Niebel	2	384.00	3	366.25	2	372.00	756.00	1
Pat Gibson	3	207.25	2	307.75	3	282.00	589.75	2

C/L Precision Aerobatics								
Event 322 Walker Cup Flyoff								
Contestant	Flight 1		Flight 2		Flight 3		Total Score	Place
	Flight Order	Score	Flight Order	Score	Flight Order	Score		
Junior Champion	1	346.50	1	328.67	1	Pass	675.17	2
Senior Champion	2	336.33	2	264.83	3	Pass	601.16	3
Open Champion	3	513.00	3	479.33	2	Pass	992.33	1

# *PAMPA Hall of Fame Nominees*

Compiled by PAMPA HOF Chairman, Wynn Paul

## **Procedure for Voting 2010**

The nominations for the 2010 Hall of Fame listed in this issue will be voted upon by three groups of individuals, (1) Living members of the PAMPA Hall of Fame—23, (2) Current elected Officers of PAMPA—15, (3) Past Presidents of PAMPA—11. An individual who appears in more than one group may cast only one ballot. A nominee needs a simple majority of votes cast to be selected.

Those persons eligible to vote should send their ballots via email to Wynn Paul, Chair, PAMPA Hall of Fame Committee (winnie3435@insightbb.com). Persons who do not have email capability should request a ballot from Wynn Paul at 3332 Carriage Lane, Lexington, Kentucky, 40517, telephone 859-271-3394. The deadline for voting is October 1, 2010. The voting members are listed below.

Hall of Fame members (with date of induction): Wynn Paul (Charter—'92), Bob Gieseke ('94), Les McDonald ('94), Keith Trostle ('94), Bill Werwage ('94), Bob Gialdini ('96), Bob Hunt ('96), Paul Walker ('96), Art Adamisin ('98), Lew McFarland ('98), Bill Netzeband ('00), Al Rabe ('00), Don Still ('00), Jim Casale ('02), Jack Sheeks ('02), Jim Silhavy ('02), Davis Slagle ('02), Art Pawloski ('04), Larry Scarinzi ('04), Charles Mackey ('06), Arlie Preszler ('06), Dennis Adamisin ('08), Leon Shulman ('08).

Current (2010) elected Officers of PAMPA: Bill Rich, Brett Buck, Dave Gardner, Noel Drindak, William Moore, Winfred Urtnowski, Patrick Rowan, Steve Fitton, Eric Viglione, Allen Brickhaus, John Paris, Don Hutchinson, Carl Shoup, David Fitzgerald, Bruce Hunt.

Past Presidents of PAMPA (in order of service): Keith Trostle, Arlie Preszler, Dennis Adamisin, George Higgins, Tom Dixon, Ted Fancher, Steve Buso, Mike Keville, Frank McMillan, John Brodak, Paul Walker.

All eligible voters, numbering a total of 45, are encouraged to vote for the 2010 PAMPA Control Line Precision Aerobatics Hall of Fame.

The Nominees are as follows.

## **John E. (Johnny) Clemens**

Spanning a modeling career from 1922 to 1991, Johnny Clemens was a Hobby Shop operator in Dallas, Texas for 50 years (originally from Indiana, however), was AMA President (1971-1978), held every elected and appointed position within the AMA, served as Vice-President of the FAI committee for International Aeromodeling (the CIAM), served as head of the AMA's annual Delegation to FAI meetings, handled public relations for the Nats for over 30 Years and traveled for Comet Models in the 1930s.

From the Precision Aerobatics perspective, Johnny and Jim Walker drafted the first set of rules for the inclusion of "Control Line Stunt" in the Nationals for the first time in 1946. From a 1976 Nats interview by Wynn Paul, John stated that Jim Walker and he met in a hotel room in California in early 1946 to draw up a set of rules because at the time each portion of the country seemed to have a different set of guidelines.

John was interested in all phases of modeling and won many Free Flight contests using his design, the Hellsfire, a version of Carl Goldberg's Zipper. John placed 3<sup>rd</sup> in Open in Control Line Stunt at the 1947 Nationals behind such notables as

Robert Tucker and J. C. Yates. He placed 9<sup>th</sup> in Open Stunt at the 1948 Nationals. John is credited by AMA as creating the Control Line Air Show Team.

In 1974, *Stunt News* editor Wynn Paul asked AMA President John Clemens to visit the very first banquet of the fledgling Precision Aerobatics Model Pilots Association in hot and humid Lake Charles, Louisiana. Never at a loss for words, Johnny gave us an inspiring talk, handed out some of the awards and stayed for the entire banquet. In the following years, he championed the status of Special Interest Groups such as PAMPA.

John Clemens was elected to the Model Aviation Hall of Fame in 1979, and to the National Free Flight Society Hall of Fame in 1989. At the time of his death in June, 1991, Johnny Clemens was still involved in modeling.

## **Don Ferguson**

Don was a protégé of Lou Andrews in the Massachusetts area (Newtonville) in the late 1940s and early 1950s. His first appearance at the Nationals was in 1949 in Kansas when he finished in 4<sup>th</sup> place in the Junior CL Stunt event. He flew a Lou Andrews designed Trixter Invert.

The next year Don flew Lou's design the Barnstormer and won the Senior Division of the Nationals in 1950 as Lou won the Open Division.

Don went back to the Nationals in 1951, again flying a Barnstormer, and not only won the Senior Division again, but outscored his mentor Lou Andrews and won the Walker Trophy. In addition, in the Senior division he beat a couple of guys who would hang around for a couple of years—Don Still (2<sup>nd</sup>) and George Aldrich (4<sup>th</sup>).

After a two year layoff from the Nationals, Don went to Willow Grove, Pennsylvania for the 1953 Nats, still a Senior, and finished in 4<sup>th</sup> place behind George Aldrich and Hill Hutchins. Don was flying a Barnstormer.

In 1954 Don moved up to the Open division and with the Nationals back at Glenview, Illinois, he finished in a good 4<sup>th</sup> place behind Don Still, Rolland McDonald, and George Aldrich. A couple of other familiar names were 5<sup>th</sup> (Bob Palmer) and 8<sup>th</sup> (Harold "Red" Reinhardt). Don was flying a Shoestrung semi-scale, a plane which his mentor Lou Andrews had designed and flown at the 1951 Nationals.

The most significant accomplishments of Don's brief career were winning the Walker Trophy as a Senior division flyer and winning the Senior Division at the Nationals twice.

## **Don Hoag**

Don Hoag was the first person to fly a "Jet Style" Stunt plane in the Nationals.

He worked for the YMCA in Newark, Ohio and designed a jet style looking Stunt plane in 1952. This plane had a 51 inch wingspan, no flaps, and had a side mounted Fox .35 engine. The paint scheme was that of a Navy jet with a dark blue color, a large "NAVY" on the side of the fuselage, and the U.S. star roundels on the wing and fuselage. The plane sported a forward placed large bubble canopy similar to early full-size jet planes. The only drawback to the jet scheme was that the plane was a tail dragger. A small picture of this plane appeared in the "Dope Can" column in *Air Trails*, April, 1953, P. 56.

Don's next design, prior to the 1953 Nationals, was a more realistic Jet Style Stunter as first of all it had tricycle gear and

also sported an inverted engine, a large bubble canopy placed in front of the wing leading edge, a jet looking fuselage outline, a dark blue Navy paint scheme with "NAVY" prominently displayed on the side of the fuselage in front of the wing and the traditional U.S. roundels on the wing. The plane had a 51 inch wingspan and weighed in at a light 35 ounces, including a small aluminum cow! The plane looked a lot like the early F-86 Sabre Jets.

Don did not name either of these two planes, but just called them "Jet." He entered the 1953 Nationals with his latest design. This was the year of Robert Elliott and the Black Tiger P-40 (1<sup>st</sup> place), Thornton Hoffman and his Conquistador (2<sup>nd</sup>), Wesley Dick and his Stuka (3<sup>rd</sup>), and Frank Grant and his Ace Backwards canard (4<sup>th</sup>).

Don had flown several practice flights with his Jet and everything was working fine. On Don's first official flight his engine quit near the end of the flight which negated his last maneuver, landing and pattern points. Don did not fly a second pattern as he was having trouble with the engine/tank. He neglected to go back to the Stunt circle to look over the results.

Forty-seven years later when Wynn Paul finally contacted Don Hoag in December, 2000, now living in Estes Park, Colorado, Don learned that he had finished in 5<sup>th</sup> place at the Nationals! Had he finished the pattern he might have finished as high as 2<sup>nd</sup> place.

His story is not over.

Shortly after the Nationals, in his "Sketch Book at the '53 Nats," (*Air Trails*, September, 1953), H.A. Thomas had a two view of Don's Jet Style Stunter, which listed the engine, weight, asymmetrical wing with 2-inch difference, no flaps, and included a scale to determine the wing span. The side view definitely was a jet style fuselage and showed the "NAVY" logo and the US roundel.

Fast forward to the Nationals of 1955 held at Los Alamitos and Jose Sadurni, from Mexico, places 2<sup>nd</sup> in Open Stunt with a Jet Style Sabre airplane that looked almost identical to Don's 1953 plane. George Aldrich recalled that the plane looked like an F-86 Sabre.

Don did publish a further development of the jet style Stunt plane in the "Wicked Witch." It appeared in the November, 1955, *Young Men* (formerly *Air Trails* magazine). This is probably the first published true Jet style Stunt airplane. Some may argue that Vincent Manfredi's Loopy (1950) or Hank Bourgeois' Jamboree (January, 1955) gave the appearance of jet planes, but it is the Wicked Witch that completely fills the bill. Don stated that he wanted the plane to resemble the F-86D Sabre. Departing from the silver finish of most F-86 planes, Don painted his Wicked Witch a bright red, based on a photograph he had of an experimental F-86D. The wingspan was increased to 56 inches over the previous "Jets," the fuselage length was 33 inches and the weight was 47 ounces. Power again was the Fox .35. This plane did have working flaps, a tricycle landing gear, and a forward placed bubble canopy.

Then, Jetco came out with the jet style Sabre Stunt kit as advertised in *Flying Models*, December, 1956, p. 48 (also in *American Modeler*, December, 1956, p. 65). This plane is a dead ringer for the "Sketch Book" jet plane from the pen of H.A. Thomas, as well as resembling almost exactly the Wicked Witch. The kit had a 50 inch wingspan. Don was never contacted about design, or flight characteristics, or endorsement or anything relating to the Jetco kit.

Don did not enter any more National competitions and continued his career in the YMCA.

The fact remains that Don Hoag was the first person to fly a

Jet Style Stunter at the National Championships. He also had the first true Jet Style Stunt plane article in the magazines. The Jet Style Stunt airplane would enjoy great popularity in the late 1950s and all through the 1960s and 1970s.

## John Lenderman

John Lenderman has been a long time Control Line and Free Flight flier and competitor dating from the late 1940s. Born in the Philadelphia area, he was 18 years old at the start of World War II, entered service before graduating from high school, earned high school and college credits, entered the pilot's training program in Texas, but had an ear problem, and then proceeded to serve in the Army Air Force as a radio operator on B-25s in various assignments in the U.S. until the end of the war.

He began modeling at age eight with interests in scale and indoor events. He was a member of the West Pennsylvania Gas Model Association in the Philadelphia area.

After World War II, he returned to Philadelphia and then got a job offer in California in the banking business. He married Goldie in 1948 and they lived in Santa Clara, Bakersfield and Stockton, California. While in the service in 1943 he had become interested in Control Line flying with a friend. He built and flew Control Line models, competing in the Western Associated Modelers (WAM) contests in Stunt after the war.

When the National Model Airplane Championships came to California for the first time, in 1952, held at Los Alamitos, John entered the Stunt event. As a first time participant in the Nationals he did quite well. He won the Open Division Stunt event, beating fellow Californian Bob Palmer with another Golden State flyer Ralph Yount in 3<sup>rd</sup>. John was flying a semi-scale replica of Don Still's Stuka. The plane had flaps and was powered by a Fox .35. It happened that this was the year that George Aldrich got all the bugs out of his two year old plane known as the Nobler and as a Senior division flyer won the Walker Trophy. There was a Walker Trophy fly-off that year before one set of judges.

Again, in 1955 when the Nationals came to California, John Lenderman flew Stunt and placed 4<sup>th</sup> (Palmer—363.00, Sadurni—352.00, Lee—342.00, Lenderman—331.30; scores from *West Coast Model News*, August, 1955, p. 14). John flew an original model at this Nationals.

During this period John was very active in the WAM competitions and was the WAM point champion in Control Line Stunt in 1956.

With the Nationals returning to California in 1959, John entered Stunt again and this time finished in 3<sup>rd</sup> place behind Bob Palmer and Robert Haren. John was flying his original design named the "Orpheus."

John Lenderman continued his interest in Free Flight and at the 1963 Nationals he earned the title of Grand National Champion as well as Open Class National Champion by entering and placing in nine events in Control Line and Free Flight. He flew Stunt and Proto Speed in Control Line. In Free Flight he won the prestigious Wakefield event with a new National Record of 25:36. He placed 2<sup>nd</sup> in A-2 Nordic glider, flew A-1 Nordic Glider, Unlimited Rubber, and B and C gas, plus one other event.

John represented the United States in the Wakefield event at the 1966 Free Flight World Championships in Finland. He finished in 21<sup>st</sup> place with three maximum flights. He also made the USA team in Wakefield for the 1968 Championships but had to withdraw because of work obligations.

In 1974 John and Goldie, who have three sons, moved to Clatskanie, Oregon (about 70 miles northwest of Portland, near

Longview, Washington) where he continues with interest in Free Flight and Indoor events.

While John Lenderman has been very successful in Free Flight, particularly the Wakefield event, it is a unique feat that he won the Open Division of Control Line Precision Aerobatics at the National Championships in his very first attempt, flying against the legendary Bob Palmer. He also placed in the Top Five in two other Nationals as well as winning the Western Associated Modelers points championship for Stunt. It is also unique that John was an Open Division National Stunt Champion and was also a member of a USA World Championships team in a Free Flight event.

## **R.H. Roof**

When the first Model Airplane National Championships after World War II was scheduled for late summer of 1946, Control Line events were added for the first time. The "Control Line Stunt" rules were drawn up by Jim Walker and Johnny Clemens, with Walker providing most of the input for the various maneuvers.

There were actually three types of maneuvers, (1) Precision, (2) Aerobatics, (3) Novelty. Pilots were to inform the judges ahead of time as to which of the 32 maneuvers possible they would perform.

There were five contestants in the Open Division, including J.C. Yates. However, R.H. Roof, from Tulsa, Oklahoma had the highest point total for the Open division with 56.00. He was flying a Semi-Scale Taylorcraft with an eight foot wingspan, powered by a Forster .99 engine. One of the Novelty maneuvers he performed was a glider pickup.

Of course, the bare footed Junior Division flyer Davis Slagle, from Burbank, California, stole the show as he not only flew two planes at once, but also flew a plane inverted as he scored a whopping 102 points to capture the Walker Trophy.

Nevertheless, it was R.H. Roof who was the first Open division champion in Control Line Stunt. It is for this achievement that he has been nominated for the PAMPA Hall of Fame. Wynn Paul talked with R.H. Roof's son in 1976 and found out that he had passed away.

## **The Stanzel Brothers**

Victor and Joe Stanzel, Schulenburg, Texas, designed, manufactured and marketed model airplane kits, gliders and supplies starting as early as 1929 with solid display models. Their initial customers were government air cadets at the airfields around San Antonio.

In 1935 the brothers built their first "plant" for manufacturing models. They expanded their offerings to include rubber powered and gas powered free flight planes.

The brothers jumped on the aviation craze after Lindbergh's flight and designed and built two "airplane rides" for carnivals. The second ride was named the "20<sup>th</sup> Century Strato Ship" and was immensely popular at the State Fair of Texas in 1936. They also designed an electronic pinball machine.

The Stanzels brought the first Control Line kit to market. It was the Tiger Shark as advertised in the January, 1940 airplane magazines. Called "G Line" flying, there was a fishing pole or stick with one line leading out to the airplane. The line was fastened to the plane structure forward of the center of lift so that by moving the pole's outer end up and down the model was made to climb and dive. There was no elevator control for this first kit. The Tiger Shark was a sleek low winger with a 36 inch wingspan, 31 inches length, and intended for engines of the day such as the Brown, Ohlsson 60, Bunch Tiger, Aero and Herkimer. The Tiger Shark was all-stick built and therefore more difficult that its chief

competitor the Fireball of Jim Walker which had an upper and lower pre-formed fuselage and solid wing. The Fireball came out a few months after the Tiger Shark and was controlled by two lines, a bellcrank and the movable elevator.

During World War II the brothers worked as draftsmen and welders in the aircraft industry. In 1943 they conceived the Big Tiger Shark as a target airplane for gunnery. The 5<sup>1/2</sup> foot wing span airplane was powered by a 1.2 cubic inch two cylinder engine. The plane was flown on a 100 foot line from a pylon attached to the roof of a 1942 Chevrolet!

After World War II, they offered Super G line kits which featured a two line "roller control" unit mounted outside of the plane with two wires to the elevator. The planes were named the Super V Shark and the Baby V Shark.

They invented the Monoline control system in 1949-50. After Dale Kirn put 80,000 miles on his automobile demonstrating Monoline around the country for three years, the system became the norm for speed planes around the world. Dale campaigned the Monoline Stunt plane for several years, but the single line operation for Stunt never really caught on. However, the early speed fliers saw an increase of 8-10 MPH using Monoline, so it didn't take long for the system to become standard equipment.

The Stanzels were supporters of AMA throughout their careers and donated many trophies to the Nationals.

In 1957 the Stanzels marketed an electric powered airplane with a flexible shaft from a control handle with batteries. Numerous other electric powered aircraft have been developed and marketed after their initial product showed the way.

The Stanzel Foundation was created in 1991 to provide college scholarships to worthy local students.

The Stanzel Family opened the Stanzel Model Aircraft Museum on March 28, 1999. Dale Kirn restored many of the original airplanes designed by the Stanzels that are on display at the Museum in Schulenburg.

Joe Stanzel died July 6, 1990 and Victor died April 6, 1997.

The brothers were elected to the Model Aviation Hall of Fame in 1985.

## **Howard Thombs**

Howard blasted on the scene at the 1949 Nationals with his unconventional profile biplane with approximately 15 degrees of offset in the K & B .29 engine. He finished in 4<sup>th</sup> place in the Open event behind Robert Dailey (the inventor of the I-beam wing), Lou Andrews, and Henry "Hank" Bourgeois (flying the first twin engine Stunt plane at a Nationals). Pretty good company, along with Harold deBolt and his huge Stuntwagon in 5<sup>th</sup> place.

The Novelty Stunt event was still a part of the Nationals and while it was run as a separate event, it appears that points from the Novelty event were added to points from the Open event to figure standings for the Walker Trophy. In the Novelty event, Lou Andrews finished 1<sup>st</sup> with Howard in 2<sup>nd</sup> place.

If the raw scores were added, it would appear that Andrews (542.3) would beat Thombs (501), however, at this time appearance points (as added to the Nationals in 1948 under the leadership by Roy Mayes) could total up to 80 points. It is thought that the appearance points were deducted from the Open Stunt scores and this allowed Howard Thombs to win the Walker Trophy!

Telephone interviews by Wynn Paul of Howard Thombs, Event Director Roy Mayes, Don Still, Henry Bourgeois and Harold deBolt shed no light on the system used to determine the Walker Trophy winner. Roy Mayes recalled that after the three age divisions were completed and people were leaving the area,

*Continued on page 26*

# Crash Repairs

By Windy Urtnowski

At the Brodak Fly-In each year we repair a few crashed ships. We always video these repairs so we can show how they went back together. This year Bob Brookins crashed his Strega, and we assembled our “crash team” of Kent Tysor, Bob Brookins, and yours truly.

Repairing the stabilizer was a simple process; we made a spar to reinforce the center section. Unfortunately, during the repair we got thin CA adhesive in the horn bushing, and it locked up solid. What fixed the problem was to use a soldering iron to apply heat to the bushing. CA melts at about 165 degrees, and once it does, you just keep the controls moving while the horn—and the C.A.—cools.

Kent used a unique method to attach the front fuselage half to the rear fuselage half. This method is similar to the “biscuit

joining” method used in woodworking, and it really adds a great deal of strength to this kind of joint, and it’s not hard to do. After the two fuselage pieces were aligned and glued securely, Kent used a parting wheel to cut slots through the butt joint in several places.

For maximum final strength, each of these cuts was made at an angle to the joint line and also at an angle to the fuselage surface. Then he inserted  $\frac{1}{32}$  inch plywood strips into the slots—the strips should be a tight slip fit, the tighter the better ... but not so tight as to deform the joint—and glued them in with thin CA. When sanded smooth, the plywood strips disappeared down to the fuselage surface level and the joint was extremely strong, especially since the plywood strips were glued in at compound angles, and ready for refinishing. *SN*

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## Hall of Fame cont.

someone came up to him and said, “When are we going to have the Novelty event?” So Roy and assistant director Earl Witt hastily rounded up some judges and ran the Novelty event for those who hung around for it. He did not remember how they arrived at the scores that awarded the trophy to Howard Thombs.

The only known photograph of Jim Walker presenting his trophy to a Nationals winner was his awarding of the Walker Trophy to Howard Thombs, as pictured in *Air Trails*, November, 1949, p. 39.

By the end of 1949, Howard had kitted his Di-Doe Stunt biplane which sold for \$3.95 and featured a wingspan of 28 inches and fuselage length of  $18\frac{1}{2}$  inches. Evidently Howard was doing the work himself as the address of the manufacturer was the D.D.C. Model Mfg., in Warren, Ohio, Howard’s home town!

At the 5<sup>th</sup> Mirror Model Flying Fair, held June 11, 1950, Howard Thombs won the Stunt event (which for this year had only one division). The *Air Trails* magazine stated, “Howard Thombs, Warren, Ohio, walked off with the Stunt event by amassing 994 points under the Mirror’s very tough Stunt rules. Thombs stunted two ships at once, reportedly Di-Does, for hundreds of added points.” Incidentally, at this Mirror Meet (which usually had around 1000 contestants for all events), Howard bested Walton Hughes, Lou Andrews and Nathan Rambo.

At the 1950 Nationals, Howard did a 180 degree turn as he won the Testors Best Finish award.

After that, he disappeared from the model scene, although Wynn Paul was able to contact him in 1978, but no further information was forthcoming on the awarding of the Walker Trophy.

However, Howard Thombs does have the distinction of winning the Walker Trophy in 1949.

## Bill Zimmer

Bill Zimmer grew up in Lacon, Illinois, graduated High School in 1956, attended Illinois State Normal University and served in the U.S. Army. He then was a 30 year Teamster truck driver. He learned to fly with a Firebaby with an Atwood .049 Wasp and later flew .35 size models on the High School football field. He married Doris Coleson on May 16, 1961 and they raised two daughters, Gail and Sheryl.

He was one of the early PAMPA members, joining in

September, 1973. He later served as the Midwest Representative in the 1980s when there were three directors (East, Midwest, West). He attended his first Nationals in 1979 as a recorder for Stunt judge Art Adamisin. Starting in 1980 he was a Judge at the Nationals and continued this for 12 years. Zim initiated the practice of a Judges’ meeting on Monday evening to go over the rules rather than to try to review the rules and practice judging at the same time on Tuesday of Nationals week.

Zim judged at four FAI Team Trials (’81, ’83, ’85, ’87) and was the Chairman of the FAI Team Selection Committee 1986-1990. After the 1985 Team Trials, Bill brought about a change in the format to cut the field to 10 finalists on Sunday; this to the delight of pilots and judges. He was an alternate Judge for the 1984 World Championships held in the USA and nominated as a USA judge for three World Championships but was unable to attend because of family health problems.

Bill judged at the Vintage Stunt Championships in Tucson in 1991, 1992, 1993, and 1997

Bill Zimmer was a member of the committee that instituted the “Beginners Pattern” for Stunt. In the Old Time Stunt event Bill proposed the scoring of 1 through 10 with a “K” factor multiplier which was adopted. He was a member of the committee that replaced the up-wind maneuver drawings with down-wind drawings for the AMA pattern on the premise that the down-wind figures are what the pilots and judges see. He also authored the rule that the maneuvers must be flown in sequence and this was adopted.

Zimmer and Ed Robbert drafted the final version of the first “PAMPA CD and Contest Guide” which was approved by the PAMPA Executive Council in 1986.

Bill flew the Old Time Stunt event at the Nationals from 1983 to 1993 finishing as high as 4<sup>th</sup> and in the top ten all but once. His plane of choice was the Barnstormer.

He served as the AMA Associate Vice-President for Region 6 for 18 years and was a Contest Director for 21 years. Bill used a most unique clipboard at contests as on the back was a listing of every contest judged at from 1977 to 2001—a total of 167 outings in sun, wind, rain and even snow! Some health problems forced a retirement from the judging circles after 2001.

Bill Zimmer has been nominated to the Hall of Fame for his service as a Nationals and Team Trials Judge, as an administrator concerned with various rules interpretations as well as establishing the Beginner Pattern for Stunt. *SN*

**T**he 14<sup>th</sup> annual Brodak Fly-In fell on June 15-19 this year. It ends the Saturday before Father's Day to allow long distance entrants to drive home on Sunday. Due to heroic efforts on the part of the VP—Weather, who shall remain nameless, it only rained a little on Monday, before the contest got under way. For the first time in living memory, no rain delays happened during the official flights.

Entries totaled 161, with about 734 official flights. It was the second biggest ever, eclipsed only by the year that the Brazilian contingent attended, at 162 entrants. But the stats don't tell the story and don't begin to convey the flavor of the gathering. It's only a contest in a limited way. The central theme is variously a customer appreciation picnic, family reunion, fun fly, clan gathering or maybe even bordering on a fellowship-based spiritual event. The practice, help, parts, advice and know how is willingly shared. Wives, kids, grandparents are in attendance in abundance.

It's great to watch the kids take a day to get acclimated, and then jump in, learning how to fly with Mike Danford, making new friends. Mike has done amazing work as the Ladies and Youth Coordinator. The work of the Event Directors, Phil Cartier in Combat, John Vlna in Carrier, John Saunders and Phil Spillman in Racing, and John Brodak, Jack Sheeks and Pete Klepsic in Scale continues to make the Flyin grow and prosper. This year had two very full days of Carrier, and a record entry in Scale. All of the volunteers and judges pitched in to make all the pieces fit. Seems like everyone is eager to help with whatever needs doing.

One thing stands out as to honorable behavior. A competitor flying in Expert CLPA got a low score for his first (Friday) flight because he had



Tim Stagg grins his way through a field repair on his electric Tsunami. It flew extremely well.

# BRODAK'S

Photography by Will Hubin and Bob Lampione



# 2010

By Will Hubin



Jimmy Borelli, Bob Brookins, Tom Capadonna, and Don Herdman seem to be enjoying the flavor of the afternoon.

only done 1½ laps before entering the Overhead Eight. It was questioned and the rule book came out. Keith Trostle was called for a ruling and the judges' call was determined to be correct. Case closed? No, not yet. The flier had won Expert Classic on Wednesday. The scores were posted, and the event was over. The flier reviewed his video tapes of his Classic flight and found the same error. He brought it to the attention of the CDs and



Tom Dixon tweaks the needle valve on his Nobler while Ken "Sleepy" Dawson holds.



Windy Urtnowski's Tribute leaves Kent Tysor's hands for an official.



John Saunders launches Windy Urtnowski's Big Job.



Jack Weston releases what appears to be a Humongous. It looks to be four-stroke powered. Any idea whose ship this is?



Michael Paris launches a profile Oriental.

Top right: Tim Stagg in flight with his electric P-47 profile.

Middle right: That's Dave Adamisin flying his electric-powered Profile Hellcat. The Adamisin family has really taken to electric!

Below: Jim Borrelli's 46 size Patternmaster in level laps.



Archie Adamisin's striking electric Pathfinder grooves along in level flight.

withdrew from Classic. Well done, Mr. Urtnowski, very well done.

There will be a few changes for next year. Watch the Brodak website for them. One will be to add Phase II OTS, for airplanes with flaps. It will be flown with OTS on the same circle, but tabulated separately. So you might want to blow the dust off your Smoothie, Stuka, Nobler or Chief. You can fly it in OTS without the points deduction for flaps.

John and Buzz replaced their swimming pool with a new courtyard and used it as the backdrop for trophy photos. It was the focal point for social gatherings and conversation throughout the week. The Brodaks seem to have some innate ability to outdo each year's efforts at hospitality. We ran short on barbeque space on the grill last year. John's answer? Build a second grill!! And the whole thing happens at the Brodaks' home. The spirit of the event goes way beyond a mere sales gimmick. This is real heartfelt hospitality. Come see for yourself next year. **SN**

*(See scores on page 66.)*



Above: With this very colorful Yatsenko Shark, Adrian Dominguez won the advanced Stunt event.

Left: Jack and Shirley Sheeks relax in the shade.



Mike Ostella shows off his Nobler that has a Claus Maikis-inspired paint scheme. It's beautiful.

New Jersey sends its regards. Pete Hermans, John D'Ottavio, Mike Ostella and Doug Benedetti gather after hours.



Above: Dan Banjock built this twin Fox 35 and used it in his Bearcat in Expert Profile Stunt. It ran well until it suffered a broken crankshaft. It drew huge crowds.



Right: Scott Condon designed and built this stunning Dedication in memory of his father.



Left: Matt Colan's Oriental Plus looks great. He is a graduate of the Brodak Fly-In's first class of formal on-the-job judge's training.



This Hawker Hunter was built by Mike Ostella to Bob Whitely's original design.

This Cyclone original was built by Gary Tultz.



Left: Bud Wieder's Saturn based, Ryan's Eagle is a beauty.



Lou Ruger returns to the Stunt scene with his Iron Horse. It features a RoJett 76 power train.

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By Rudy Taube

## “E” Power at the Nats!



Will DeMauro signals before pushing the start button on his Hubin FM 9 timer prior to the start of one of his Advanced class flights at the 2010 Nats. His SV-11 is powered by a Scorpion 3026-890 motor running on a 4-cell 4000mAh battery. He uses a Phoenix 45 ESC.

We had several E powered planes at this year’s Nats. Below is a chart showing a sample of four of the setups used by our E-Stunt pilots. Noel Drindak and Bud Wieder were the E-Stunt “on site” reporters and photographers. They provided the great photos and all the information. Thank you, guys, for all your help.

This chart below will help you match our photos with the pilots. The handsome young man posing next to Bud’s plane is Bud’s son Ryan after whom the plane is named. Our E powered pilots did well at the Nats.

### “E” power at the Worlds

Igor Burger had a very high placing of 6<sup>th</sup> out of 80 of the world’s top CLPA pilots. Igor flew the same E powered plane that took him to an awesome 2<sup>nd</sup> place at the Worlds in 2008. Igor gave us the following information.

Here are the teams that had one or more electric planes at the

Features	Walt Brownell	Bill DeMauro	Jason Greer	Bud Wieder
Design/Name	Emotion	“E” SV-11	Omega	Ryan’s Eagle
Designer(s)	Walt Brownell	Randy Smith	Jason Greer	Wieder/Hunt
Wing Area	645	670	570	651
Weight	72	66	45	63
Motor	E-flite 32	Scorpion 3020	Scorpion 3020	AXI 2826-10
Prop	13 x 6.5 APC	13 x 4.5 APC	11.5 x 6 APC	13 x 4.5 APC
Lines (E to E)	64 x .018	64 x .018	64 x .015	65 x .015
Battery S mAh	TP 4S 3900	TP		Hyperion4S 4000
ESC	CC Ice 50	CC Phoenix 45		CC Phoenix 45
Timer	Hubin FM9	Hubin FM9		Hubin FM9

contest; Hungarian, Czech, Polish, Japan, and Spain. Several of them used Igor’s A123 system for power. There is even more good news for electric power. Igor states that the new World Champion, Richard Kornmeier from Germany, has two electric systems ready to go for next year’s contest season. This could make for a very interesting World Championships in 2012. We could have Richard, Igor, Dave Fitz., and Paul Walker all flying with electric power and all competing for the #1 position on the podium. The years 2011 and 2012 are going to be fantastic ones for E-Stunt!

### E-Stunt pioneer Walt Brownell

ECL (Electric Control Line) has many pioneers that paved the way for the quiet, powerful, off the shelf, reliable systems we have available to us today. A partial list of these pioneers would include the following: Mike Palko, Dean Pappas, Bob Hunt, Kim Doherty, Paul Walker, Will Moore, Ron King, Igor

Burger, and our guest today, Walt Brownell. This is the fourth installment in our interview series.

Walt Brownell is known throughout the ECL community as one of the original CL fliers to change to electric power. Some have called him the father of E-Stunt. His E powered planes have paved the way for all those who followed. Below is the interview I had with Walt after having several enjoyable conversations and correspondence with him this summer.

**PAMPA:** When did you first start flying CL? When did you first start flying with electric power and what is your WAG for the total number of CLPA electric flights you have made since you started flying with E power?

**WALT:** I started flying CL in 1945. It was WWII and my father was in the Marines, we lived in National City CA. My first CL plane was a “Dreamer.” It was a twin boom Speed plane with a

“Vival” .35 Ignition engine.

My first flight with electric power was in August, 2004. My plane was a “Polyampa” using a MEGA in runner and a 3S battery. It was smaller and lighter than a Nobler, I designed it light for E power. I never flew electric RC; I started flying ECL from scratch. I enjoyed the experimentation. I found out early that we needed a 4S



Buddy Wieder captured 9th place and "Rookie of the Year" at the 2010 Nats flying his Ryan's Eagle. The model is powered by an AXI 2826-10 motor and a 4-cell, 4000mAh Hyperion Lipo battery pack.

battery to fly well in the wind.

My guess for the number of E flights I have made is around 300 to 400 since 2004. I only fly electric CL, I never went back to wet power systems. In fact I converted my CL Scale DC-3 from wet power to electric, it weighs 10 pounds.

**PAMPA:** After decades of using wet power systems, what were some of the reasons that caused you to convert to electric power?

**WALT:** My main reason was to get away from the too rich/too lean variability of our glow engine settings. Where I live the weather changes constantly and our engine runs always needed to be adjusted for these weather changes. I wanted to concentrate on my flying the pattern without always worrying about how my engine was running on each flight. It was the consistency and the repeatability that attracted me to E power. The fact that it was clean was an added plus. I also wanted a lighter, easier finishing method. No nitro gave me this. It is also nice to be able to select non-toxic, low odor paints because there is no nitro to stand up to.

**PAMPA:** What advantages do you feel you have over the wet power systems at contests? Any disadvantages?

**WALT:** I don't see any big advantages using E power, other than those already mentioned. One advantage is having Reliable Power when flying in the wind. If your NV setting is off with your wet engine it is a problem in the wind. One more advantage is being able to make precise RPM selections for different wind conditions. I call it an "electronic needle valve" that we can use to accurately set our motor's RPM and know that it will hold that exact RPM during the whole flight.

The only disadvantage could be cost. But when compared with a top of the line wet setup it is comparable in cost and almost the same in weight now. The electric system costs are coming down, and wet fuel costs are going up, so the cost difference is much less now than it was when I started.

**PAMPA:** We would all like to know the details of your beautiful electric powered twin aircraft. What is its size, weight, power system, airfoil, etc.?

**WALT:** I built my E Twin in 2006. It weighed 64 ounces. It used one 4S 4,000 mAh battery and two Atlanta Hobbies "Torque, Extreme Power" 2818-900 motors (weight: 3.6 ounces each), with two Castle Creation 35 ESCs. I used the JMP timer.

**PAMPA:** Had you been flying electric RC and then used this knowledge in CL? Do you have an electronics background? Or did you just jump right in?

**WALT:** I jumped right in. I had never flown E RC. I am a mechanical engineer and worked in the aerospace industry all my working life. The only electronic training I had were the electrical engineering classes that were part of my Mechanical Engineering degree. I enjoyed all the experimentation it took to get the first successful E powered CL flights.

**PAMPA:** Are you surprised that there are not more electric powered planes at the CLPA contests you attend?

**WALT:** Not really. There are a lot of E-Stunt fliers in my area, but they do not all compete in contests, and none of them go to the Nats. I always expected that it would take awhile for E power to catch on in CL. It is growing at about the pace I thought it would. Like most things, it will start growing slowly but it will soon speed up this growth in the near future.

**PAMPA:** Why do you think CLPA pilots have been so slow to move to electric power?

**WALT:** There are several reasons. Many still think it is too expensive. We need to get the word out that the prices have come down and that our batteries are now less expensive than the cost of wet fuel. Each battery is equal to about 10 gallons of glow fuel, and a high-quality battery only costs between \$90.00 and \$115.00 today. Another reason is that there is a learning curve to anything new. Many pilots don't want to spend the time and energy to learn a whole new power system that is totally different from the one they are used to. Pilots using a wet system really know their system, they have a lifetime of learning invested in these systems and they are comfortable with it and it works for them. They also have a lot of *stuff* that makes up their wet

systems. Engines, fuel, tanks, starters, pipes, plugs, more engines, etc. It is hard for guys to turn their backs on all this stuff.

One more important thing that I have heard my friends say: "I'm not going to go to electric power because *my wife will kill me* if I tell her I am going to buy all new equipment!"

**PAMPA:** What were some of the questions other pilots ask you about your E powered plane at contests and at your local field/club?

**WALT:** In the beginning it was always about the *performance* of the system. They asked; will it complete the whole pattern, can it fly in the wind, does it pull enough overhead etc.

At one early contest, the local CL club "expert" came up to me and said: "Those things can't compete in CLPA. I will bet you \$100.00 that your electric powered plane won't even be able to do the whole pattern." After I put in a full pattern and placed high in the contest I looked for the expert, but he (or his \$100.00) were nowhere to be found!

People also wanted to know how everything worked. They wanted to know how to program the timer. I had made a programmer with a servo like Will Moore's. The guys were always impressed by how well this setup worked. Crist Rigotti was one of the early guys who asked me questions. He saw me fly and win a contest and got hooked on E power. When I was the first electric powered entry to win the St. Louis annual CLPA contest, most of the "does it have enough power" questions stopped in our area.

**PAMPA:** Do you think we will see more ECL planes at next year's 2011 Nats and at the next World Championships in 2012?

**WALT:** Yes, I think we will see about a 25% to 30% increase at both the Nats in 2011 (about 12 or 13 E entries) and at the Worlds in 2012 (about 15+). ECL growth won't be sudden, but it should be steady over the coming years.

**PAMPA:** Is there anything you would like to add about your electric CLPA experience?

**WALT:** Doing something all new was very enjoyable. Designing planes for electric power and having success at it is a very good feeling. I found that Electric power is perfect for Twin motor CL planes. It has been nice to fly with less noise. It has allowed me to fly at more places, and much closer to home. It has been fun to



show that electric power can be a viable power source for CLPA.

Thank you, Walt, for being so generous with your time and for sharing your CLPA electric

knowledge with the PAMPA community in the above interview.

You were among the first in the movement to E powered CLPA and we all appreciate your pioneering spirit.

You have been a big help to all of us by being so willing to share your information with everyone over the past several years.

Thank you, we all owe you a great deal for your efforts on our behalf.

When the first National CLPA

Championship winner using an electric powered plane holds up the trophy, they can turn around and see the path that led them there is filled with many talented people. These people all added to the steady improvements needed to produce this reliable, repeatable, powerful, clean, and quiet electric power system that



These three electric P-47 models were actually modified Brad Walker T-Rex designs. They were flown at the 2010 Nats by Jim and Wayne Smith and Sam Niebel. Sam won the Senior crown with his ship.

helped the pilot win the Nats trophy. But when that pilot looks all the way down the path to its very beginning, there he will find you and a few others with big smiles on your faces and handles in your hands, ready for more enjoyable electric powered flights.

#### **“You get what you pay for!”**

Our CL planes are valuable. Even a new CL ARF that is converted to electric power takes at least 20 to 30 hours of our valuable time to become flight ready. A CL kit or a scratch built CL plane can take anywhere from 100 to several hundred hours of time to complete. Add the several hundred dollars for materials and equipment, and we have more plane in the air than we would like to crash due to a power system failure.

Many people have asked me for help in choosing their equipment. I always start out by saying: “You get what you pay for.” I think this pertains to most things in life, but even more so to aviation. I have been fortunate enough in life to have a career

where I was paid to fly some very fine aircraft. When you look at the quality of a plane made by Boeing or MD, you see the positive side of the phrase: “You get what you pay for.” I have tried to encourage those who are joining us in E-Stunt to select quality equipment. We are very fortunate to have excellent companies like Castle Creations making great ESCs, Hacker (from RSM), E-flite, AXI/Jeti, making great motors and ESCs for our use. Thunder Power and Hyperion batteries are the best for our use. These are all quality systems that make our E power so reliable. Plettenberg is at the top of the list, but its very high quality is not really needed to get started. Any of the above brands are of very good quality for our CLPA use.

I have said many times; please stay away from very low cost (cheap?) brands. Our planes literally do a high wire act; we need good quality systems that almost never fail. To help drive the point home I thought that hearing from someone else might be in order. Below are some quotes from other E-Stunt fliers on this subject.

From Wynn Robins:

Turnigy motors seem to be giving me grief.

Of the three I have been running; one screams like a banshee, one is so loose on the magnets you can spin the can and it keeps going, the other one makes a growling type noise and binds REAL bad.

I have now replaced them all with AXI ... which seem to run a LOT nicer.

I guess you really get what you pay for!!!!

From Bob Branch:

I have had 2 Turnigy motors fail this year, one in 3 months. My flying partner had one that drew too many amps right out of the box. On opening the motor, it had loose parts inside. Not pretty! But the real cost can be the loss of an airplane which is another matter entirely! Like others I have also gone towards more robust motors. It's a reliability issue, and a day lost flying is ... Well, priceless.

From Rob Smith:

There is a reason that Hacker, AXI and Plettenberg motors cost more. My Plettenberg Orbit 15-18 was one of the smoothest running electric motors I have ever owned. A funny fact to remember is that AXI used to be considered a "budget" motor. In the beginning of E power for models only expensive geared E motors were considered "high performance." Now we know our runners are great for our use.

From Russell Bond, in beautiful Australia:

The Arrowwind 2832-05 is no better than the Turnigy motors!

A group of us in Australia have been using them, some are ok and others not.

The problem is these motors are long and only have 2 bearings, so the "can" flexes and the magnets get scraped. This causes the motor to become noisy and vibrate. My friend Bruce has tried to grind on the magnets a little ... we shouldn't have to do this though!

I think we have had close to a 50% failure rate. As they say, "You get what you pay for." It is less expensive to fit a quality motor first up than to replace the cheaper ones on a regular basis.

I have now just fitted a Plettenberg to my model. I do know that it will work well. J

Bob Hunt:

"Amen!"

That is what Bob said after reading the previous comments.

Bob, and his "E-Stunt Skunk Works" partner Dean Pappas, have long been advocates of using quality electric power systems to ensure their reliability.

I could give you many more examples of motors and cheap ESCs failing. But hopefully the above comments will help those that are thinking about joining us in flying E-Stunt make the wise choice and select reliable, quality equipment.

### Safety tip: Helpers briefing

Until everyone is flying E-Stunt we will have helpers (human stooges?) holding and carrying our ECL planes. This is most common at contests where people want to pitch in and help us. I think it is very important that we give a good briefing before any helper gets near our planes.

They need to be shown where the On/Off button is and understand that this is the *first* thing to push if anything goes wrong on a launch, (nose over, wind gust moves plane, etc.) They need to know that this will shut the system down. But they should also be shown the "Safety Plug" and know that this should be pulled out to completely disarm the system. This safety plug is most important *after* the flight is over. Anyone who is going to pick up your plane must know where this is and how it is removed. Most people assume that when our flight is over that everything is now safe. This is a common misunderstanding. It is actually a potentially dangerous time if someone who is not familiar with our planes picks it up for us. Unless they have a good safety briefing first, they could easily push the button by mistake while picking up our plane. Of course they would *not* be expecting the motor to start up!

This is one of my biggest worries at a contest. After the plane lands, in the rush to exit the circle quickly, some well meaning person near where the plane lands will go to it to help move it. I always try to brief my helper about this so they get the plane. If someone else starts to go near it I wave him or her away and ask him or her to come to the handle and then "I" go retrieve the plane. The more we inform our fellow CL fliers about our safety systems the safer we will all be. Please take the time to give a good briefing the next time you fly.

If you do not have a safety plug in your ECL plane yet please look into getting one. A few years ago I had some photos of one here in *SN* but it is worth doing it again.

If you use a single power cable with a plug (like the plugs we use on the motor to ESC wires) please make sure you use a solid male plug, not the ones with the expanded metal. The ones that are expanded metal are made for occasional use *only*, they "will" fail if used every flight; that is not what they are made for. I will have a short Safety Plug "How to," with photos, in a coming issue of *SN*.

Until next time, may the power of Tesla be with you! *SN*

Jason Greer flew this Scorpion 3040 powered Omega original at the Nats. It has a wing area of 545 square inches and weighs a svelte 45 ounces with the battery on board!



# Folkerts Speed King SK3

## 1960s Vintage Stunt Model

By John Havel

### Speed King Forward from Allen W. Brickhaus

I have been “on the chase” for John Havel’s model for about 20 years. It has almost been the plot for a Cold Case Files scenario. My first recollections of John’s model came in some of the first model magazines I read in 1963 and that piqued my interest in the Folkerts SK-3 Jupiter, “Pride of Lemont,” built, painted and flown by John Havel. John competed in Open Stunt at the 1963 AMA Nats with his Speed King and was chosen as the Testor’s Best Finish Award winner for that year. Although the Granville Brothers “barrel” Gee Bee racers were a bright spot in my mind, the sleek Menasco six cylinder speedsters equally captured my fancy.

Many early leads to find John ended in dead ends, but I received substantial help from the elder Archie Adamisin and his father “Big Art.” From them I received the home telephone number for John Havel. I found John to be a very open and friendly person. He was surprised to hear of the interest in his model, which had been out of the limelight for so many years. After several telephone conversations we made a plan to meet at the Brodak Fly In June of 2007.

I was so excited to finally meet the man who designed the 1963 Testor’s Best Finish award winner and see not one, but two

models. And now presented here are the results of my search. Fellow modelers, I give you the one and only John Havel.

### Part I

I can’t remember the exact year that I started flying; I think it was sometime in the mid 1950s. After consuming a broad assortment of training planes, I finally built my first Nobler in 1959. That’s about the time I started flying with the Cipras. That first Nobler got damaged when I crashed at the first contest I ever entered at Columbus, Ohio in 1959.

Over the winter of 1960-61 I built another Nobler that I flew at the 1961 Nats and placed 11<sup>th</sup> in qualifying, just out of the finals. I started sketching up my own design later that year. I built the new plane during the summer of 1961, but it wasn’t quite finished by late fall. In order to test fly it before winter set in, I test flew it with just



L to R: Watt Moore, John Havel, and Allen Brickhaus at the 2007 Brodak Fly-In. The airplane is the Speed King II that was built in 1965.

a clear dope finish. I have it written down that it weighed 46 ounces in that condition. I thought it flew pretty well especially for not having had any time to work with it. I met Gerry and Emil Cipra and Jim Silhavy at a spot Jim used for practice and Gerry and Jim both flew it. Gerry liked it; Jim was a little less committal. He said that if he built one he could make it fly better.

We painted that plane silver-blue with navy blue and red trim before Christmas, but I didn’t rub it out till the next spring. From this we accidentally learned that the normal two or three weeks



Top: The original Testors Award-winning SK I crashed at FAI qualifications in Milwaukee in 1964.

Bottom: SK II. Note the difference in AMA numbers.

we had been waiting before rubbing wasn't enough. Dope dries fast to the touch, but it takes a long time to fully dry. That Silver plane still retains its original finish to this day—45 years after it was originally rubbed out—with no evidence of “Paper Grain” showing. It sat for at least three months after painting before I ever touched it. Apparently someone (there's only one person I can think of ... )



Here's an actual photograph of the original Folkerts Speed King SK3 that won the Thompson Trophy Race at the Cleveland Air Races in 1937.

told the story that my silver plane was a copy of George Aldrich's Magnum because at the 1962 Nats I was denied originality points for having a Magnum that the judge said I had copied from George Aldrich. I argued, with no success, that there was no such thing as a Magnum since no plans had ever been published or a kit marketed. I got 23 appearance points at the Nats with that plane and from then on I called it “The 23 Pointer” or just “The Silver Airplane.” I flew early and was at the top of the board for a while but it didn't last. As I recall I ended up qualifying 11<sup>th</sup> by less than 2 of those appearance points I didn't get.

Did I copy the Magnum? Well I used much of the verbal description relayed by Jim Silhavy, so it's no coincidence that the Silver Airplane looks like a Magnum, but I never had anything in detail as to moment arms or airfoil or any other actual measurements, so it couldn't have been an exact copy. I've never seen plans for the Magnum, so I've never been able to figure out what the differences are.

Right: Fliers at the 1963 California Nats. L to R: Jim Silhavy, John Havel, Bob Gialdini, Mario Rondinelli, Bill Werwage, Gerry Cipra (kneeling) and Eddie Kammerer. Picture taken by Emil Cipra.



Below: Here's John Havel with the Testors Trophy and Gialdini with the Walker Trophy at the conclusion of the 1963 Nats.



The "Silver Plane" became my regular flier for 1962. It came out a little heavier than I wanted. With just clear it weighed 46 ounces. But after color, trim and some more clear dope it ended up at 51 ounces! That's too heavy for this 560-square-inch design, but it still flew and turned well. Upon finally seeing it at the '65 Nats George Aldrich said, "It's a Magnum." Then while watching it fly he commented to Jim Silhavy, "How does he get it to turn like that?" The '62 Nats taught me a lesson: don't ever build a plane that looks like

somebody else's! So, right after the '62 Nats I began drawing up the "Speed King" based on the silver plane but with numerous refinements to the earlier design.

At that time, except for the occasional plane painted to look like a Navy aircraft, about 90% of the Stunt models were painted with some type of geometric graphic design. I wanted something different. I picked the Speed King for its appearance potential. First of all, it looked like a real airplane with a history. Plus, I figured if I could pull off all the graphics used on the original SK3 along with its sleek racer profile I'd be assured of high appearance points (at least more than 23). I ordered a set of scale model plans from the old Cleveland Model and Supply Co. and that's what I used as the basis for all the markings as well as the shapes of the tail planes, wing tips and fuselage profile.

So just what are the unique features of this airplane other than its paint job? Probably the most noticeable feature is the 2:1 taper of the wing, which has a root chord of 14 inches and a tip chord of 7<sup>1</sup>/<sub>4</sub> inches totaling 560 square inches. The wing has a progressive airfoil that tapers from 18% at the chord (flaps not included) to a slim 14% at the tips. Why the taper? Bob Gialdini and I have debated this point endlessly and if he reads this I fully expect him to call me and tell me I'm still wrong. Bob says the tips ought to have a thicker airfoil to provide greater tip stability if the wing stalls. I contend that the wing in any airplane intended to turn tight corners had better *not* stall. My other thought is that this isn't a real airplane in the sense that it's tethered in flight and tremendously over powered. We don't want the wing tips to react to wind gusts or turbulence so the center of stability for the wing should be close

in to the fuselage. That's why I used the wide thick section at the center and only  $\frac{2}{3}$  span flaps. It seems to have worked just fine.

This design, like the one before it, incorporates variable lead-out positions at the wing tip and radial engine mounting. Engine offset is controlled by a tapered aluminum mounting plate that bolts to the engine back cover. The engine plate is then mounted to the front of a plywood box that also incorporates fuselage side doublers, a floor to position the gas tank and the mounting platform for a torsional landing gear. The fuselage only measures 2 inches at its widest point ahead of the wing. This slender form is possible with the radial mounting system.

Why radial mount the engine? I feel that there's less vibration plus you get absolute control of engine offset and thrust line that will never change. You can change engine offset if you want to by changing the amount of taper in the engine mounting plate. You don't have to worry about up or down thrust creeping in, and you'll never have to shim the engine to restore the thrust line because the engine has sunken into the motor mounts. After an estimated 1000 flights, the original silver plane still has no stress cracks!

The narrow fuselage prevents use of a standard fuel filter so I modified the O.S. Max needle valve I used by adding a small brass filter housing angled at 45 degrees and soldered to the inlet end. This is just big enough to take the filter screen from a standard nylon fuel filter. Then I cut down the male part of a nylon fuel filter to fit inside. This can be seen in the photograph of the engine installation.

Once you get past the different engine mounting system, the rest of the construction is pretty straight-forward; if you've ever built a Nobler you can build this model, but with a few refinements in the detail.

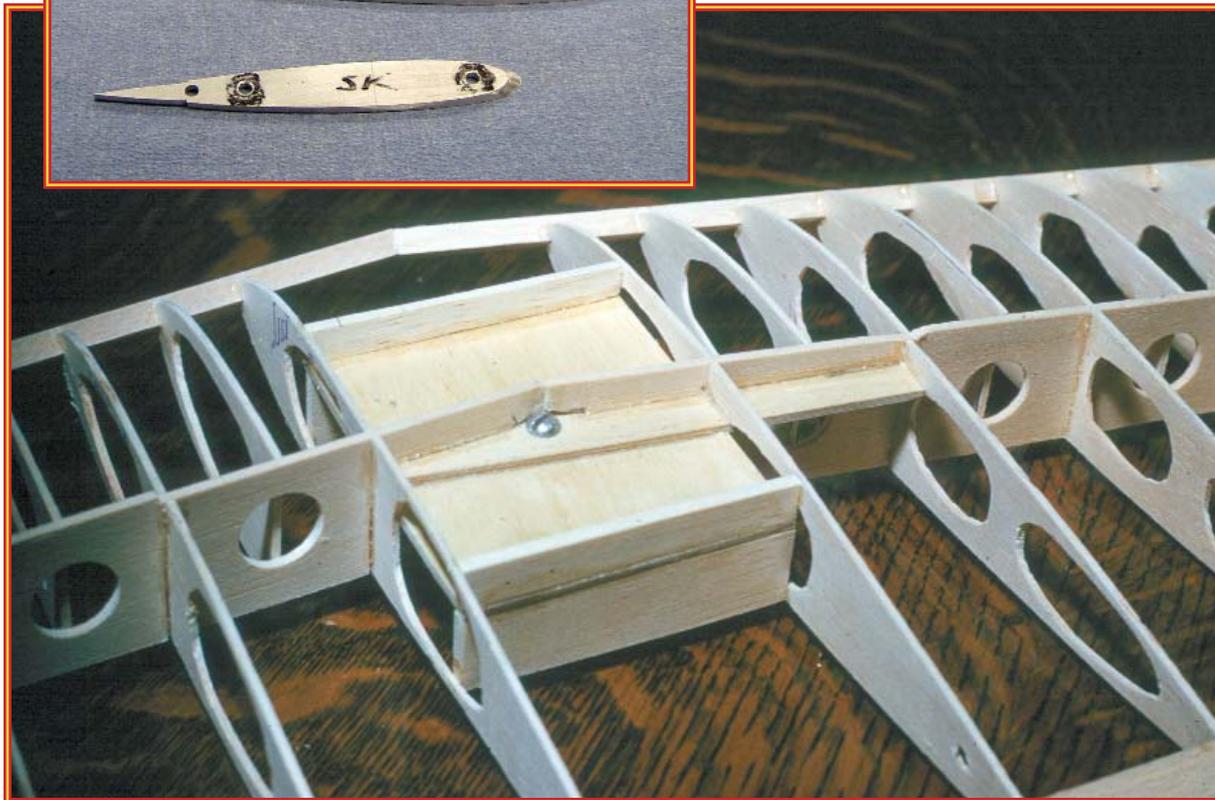
### Wing construction

I always start with the wing, probably because that seems to take the most time. This is a standard "D-Tube" wing with the exception that you need a slot in the inboard spar for the rear lead-out due to the wing's extreme taper. Ribs for each half of the wing are produced separately by stacking 25 pieces of  $\frac{3}{32}$  inch thick, roughly cut oversize, balsa blanks between root and tip rib templates. I used  $\frac{1}{8}$  inch aluminum, but you could also use plywood for the templates. The trailing edges are all aligned and the ribs bolted together with a couple long #10-24 bolts. The ribs are then sanded to match the profile of the templates. Then using a file I notched the tops and bottoms for the trailing edge while the ribs are still stacked together. After unbolting the stack the odd numbered ribs are separated from the even numbered ones. I marked each even numbered one with an "F" to signify "Filler." These even numbered pieces will be used again as spacers between every other rib for the other half set. Spacers are used to widen the stack and reduce the amount of taper you get on the edges of the ribs.

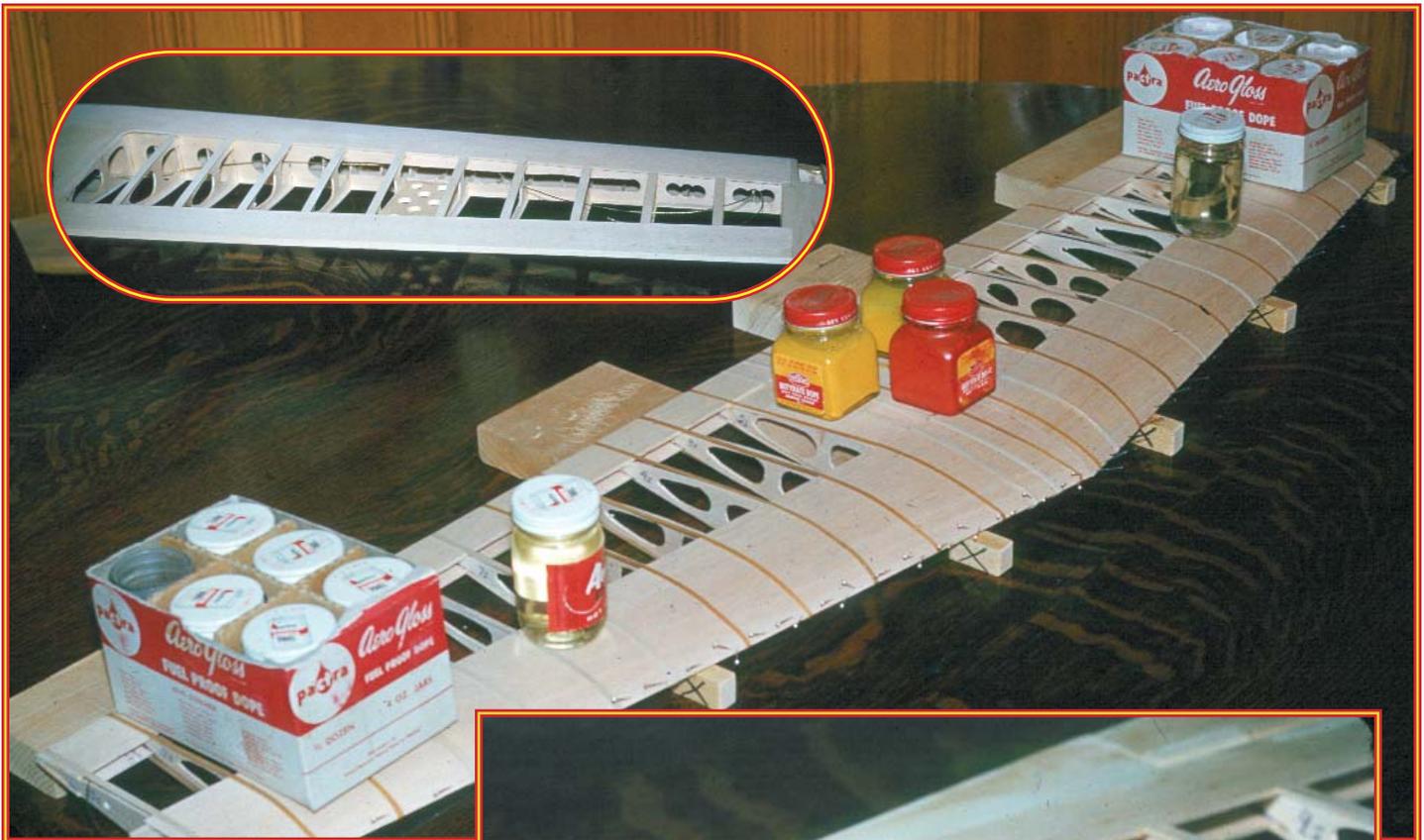
The same number of ribs are used to build each wing panel. The inboard wing is made one inch longer than the outboard by spacing the ribs farther apart. After the ribs are all sanded to shape, restack them with all the leadings aligned and cut the "V" notches for the leading edge spar. I use pins to hold the stack together while doing the secondary operations. Next, restack the ribs with their trailing ends stepped in  $\frac{1}{4}$  inch intervals. Again, pin them together and cut the slots for the main spar. I did this



Left: This photo depicts a completed set of wing ribs and aluminum master templates for root and tip airfoils.



Left: This bottom view of the wing shows the bellcrank platform and plywood brace extending along inboard spar. Note that the bellcrank platform is "boxed" on the top side.



Above: Here the wing is blocked and weighted to maintain straightness while the glue dries on leading edge sheeting.

Inset caption: This photo shows the brace that supports the slotted spar on the inboard panel.

Right: The hollowed inboard wing tip with brass tubing leadout guides and access panel allows for variable leadout positioning.



with a hacksaw blade. If the slots don't come out wide enough they can be widened with a fingernail emery board.

Half ribs were used between the full ribs ahead of the spar. This is an optional construction used to prevent the leading edge sheeting from sagging between the main ribs. To make these use ribs 1 through 12 as templates and cut the half ribs by hand. By installing the half ribs outboard of the full ribs they were cut from they will be a little bigger than they should be so they can be sanded down to match the rest after the wing skeleton is assembled. Before assembling the wing the two innermost full ribs (largest ones) must be trimmed  $\frac{1}{16}$  inch to allow for double sheeting of the center section.

After the wing skeleton is assembled block sand the tops and bottoms of all ribs with a Great Planes aluminum sanding bar with fine sandpaper glued to it. This will bring the half ribs down to size and assure all ribs are level. Be careful not to sand too much! You don't want to change the airfoil.

Next add the center and leading edge sheeting and then the cap strips. I block the wing up with  $\frac{3}{4}$  inch spacers under the leading and trailing edges and stack weights on it while the glue dries on the first side of leading edge sheeting to insure straightness. After

all cap strips and sheeting are applied block sand once again to level everything out.

The wing tips are made from solid balsa; it's much neater and easier and they weigh about the same as built-up ones. Hollow only the inboard tip; add just enough weight to the outboard tip to make it  $\frac{3}{4}$  ounce heavier than the inboard one. The inboard tip contains a small removable hatch on the bottom so lead-out positions can be changed. Make a thin wire hook that will pass through the tip guides ( $\frac{3}{16}$  brass tubing) to pull the flexible lead-outs through. The lead-outs end up very close together and need to be staggered with one at least 4 inches longer than the other so they won't get fouled. Having the lead-outs close to each other eliminates any change in outward yaw of the plane when lead-out tension changes from up to down control or visa versa.

I went to great lengths to insure a solid mounting for the bell crank. Maybe this is overkill, but I use the typical plywood platform between the two innermost ribs below the bell crank. Below that I used a narrow strip of  $\frac{3}{32}$  inch plywood that runs

out along the spar to the second rib on the inboard side for additional bracing. After the bell crank is installed place another narrow strip of  $\frac{1}{8}$  inch plywood above the bell crank and between the two inner ribs so the bell crank axle can't bend. After the wing is installed in the fuselage add still another narrow strip of  $\frac{1}{8}$  inch plywood over the bell crank axle and between the fuselage sides. This keys the wing to the fuselage.

The wing is covered and clear doped before installing it in the fuselage. I kept very close tabs on the weight of every component and you'll see the weights in some of the construction pictures. I also took the pictures you see here to document every stage of the construction. Rather than quote the various weights throughout the text, I've included a table showing this data. I consider the ideal flying weight for this airplane to be anything under 46 ounces. The original Speed King weighed 45 ounces. As I recall Gerry Cipra's Palomino was almost exactly the same. At this weight the plane will turn tight corners and doesn't need to be flown fast in spite of its relatively thin airfoil.

Note: After having written the above I learned about Bob Hunt's Lost-Foam method of building. The Speed King's wing is a perfect candidate to be built using that system. For more information on the Lost-Foam system contact Bob at Robin's View Productions, PO Box 68, Stockertown, PA 18083. Phone: 610-746-0106. E-mail: robinhunt@rcn.com.

#### Engine mount construction

Before starting to build the fuselage you must decide what engine you will use because the distance from the rear surface of the spinner back plate to the rear of the engine back plate plus  $\frac{1}{4}$  inch will determine where you locate the firewall in the fuselage. If you think you may want to use more than one type of engine, base the location of the firewall on the longest engine. You can always add a crankshaft extension to adapt a shorter one. It's more difficult, although not impossible, to compensate when adapting a slightly longer one.

I used early small case Johnson engines to power both the 23 Pointer and the Speed King. The 23 Pointer has a Johnson "Stunt Special." The Speed King used a Johnson 35 that was converted to an "S" by switching to a "29" crankshaft. That lowered the compression and "tamed the engine down." People frequently



Finished wing with paper and clear dope. Note masking at center to prevent dope coating in area to be glued to fuselage.

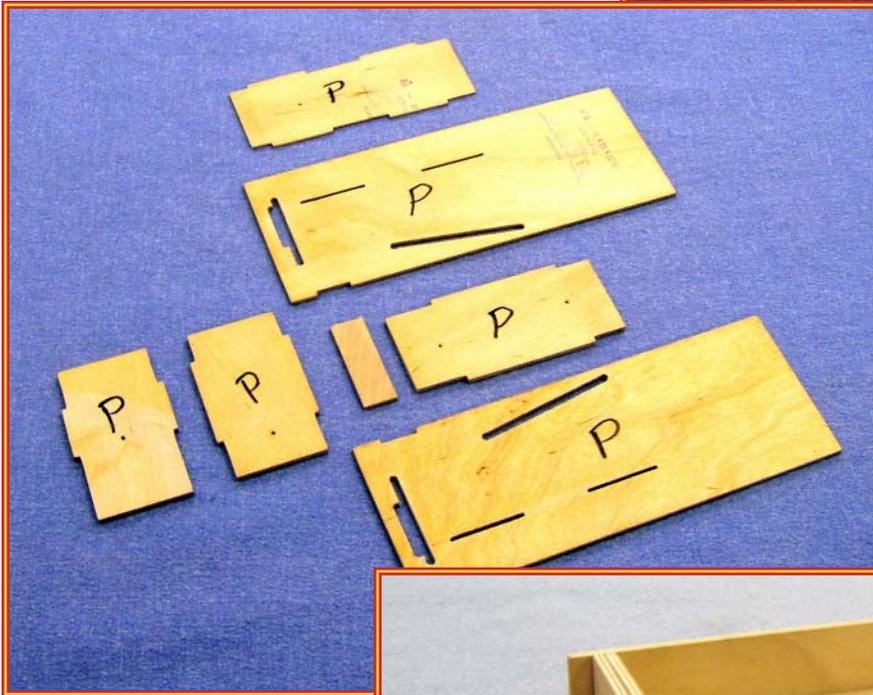
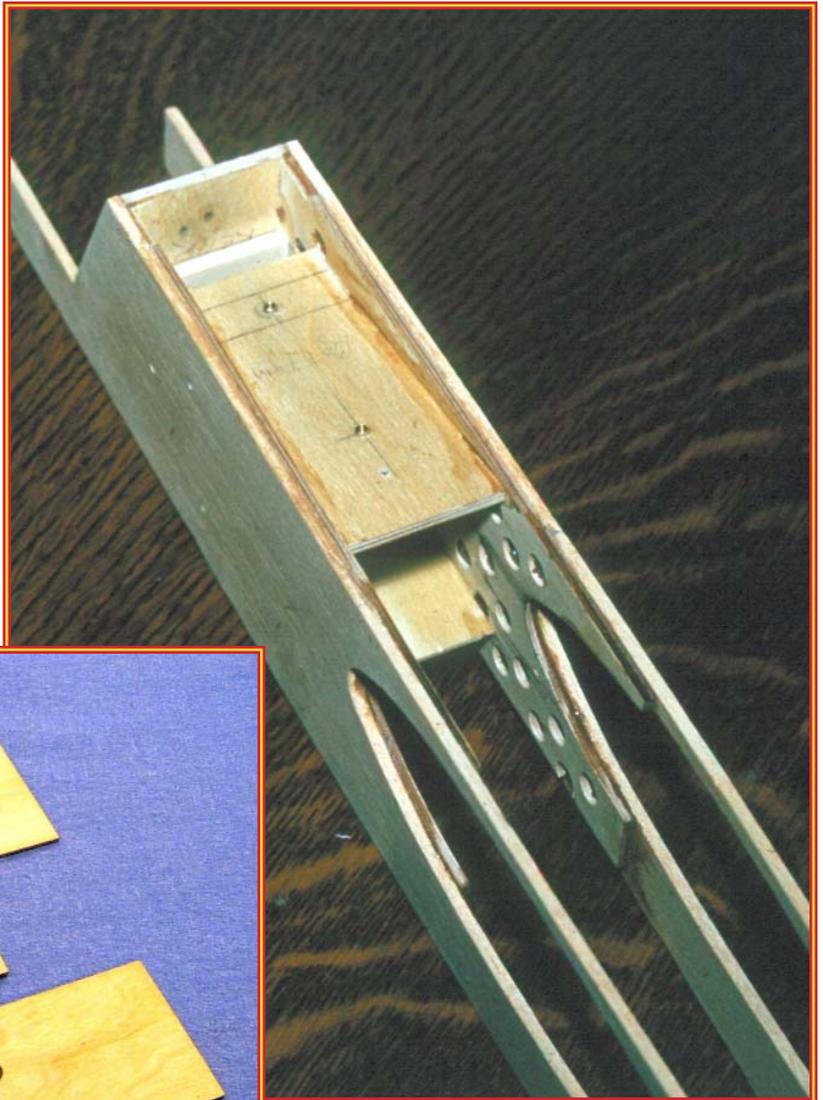


Current picture of the SK II.

commented what a fine running Fox I had in those planes and they were shocked when I told them what was actually in them. By now you may be getting the impression that I enjoy doing things a little differently than the rest of the crowd. I won't deny that. I like trying new and different things.

At this point you should make the engine mounting plate. Plans for this are included. It's made from 1/4 inch aluminum. I cut the rectangular blank pretty close to finished size before machining the taper. Tapering is done on a metal working lathe equipped with a four-jaw chuck. Place a .045 shim or spacer against one of the chuck jaws so it will be positioned behind one of the long edges of the plate. I used a piece of steel about 1/8 x 1/4 x .045 inches. Next you'll have to make sure that the plate is square to the axis of the lathe along its long sides. Once you think the plate is squared up take light facing cuts until the entire front face of the plate is cleaned up.

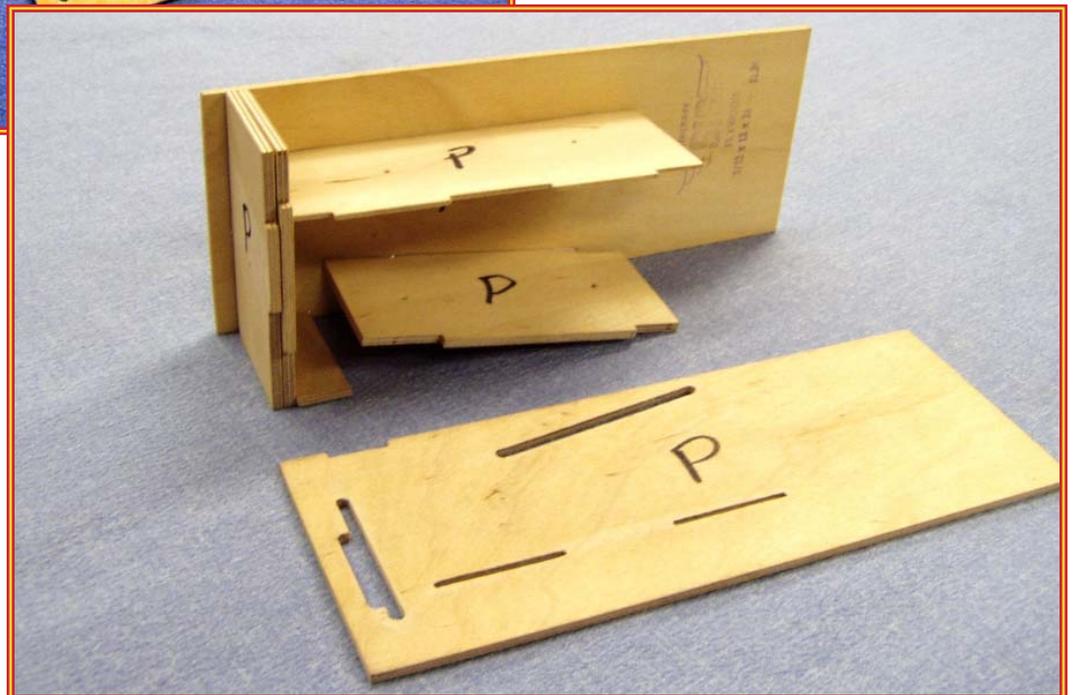
You'll see almost immediately if the plate is square across the long sides by the way it machines. As you

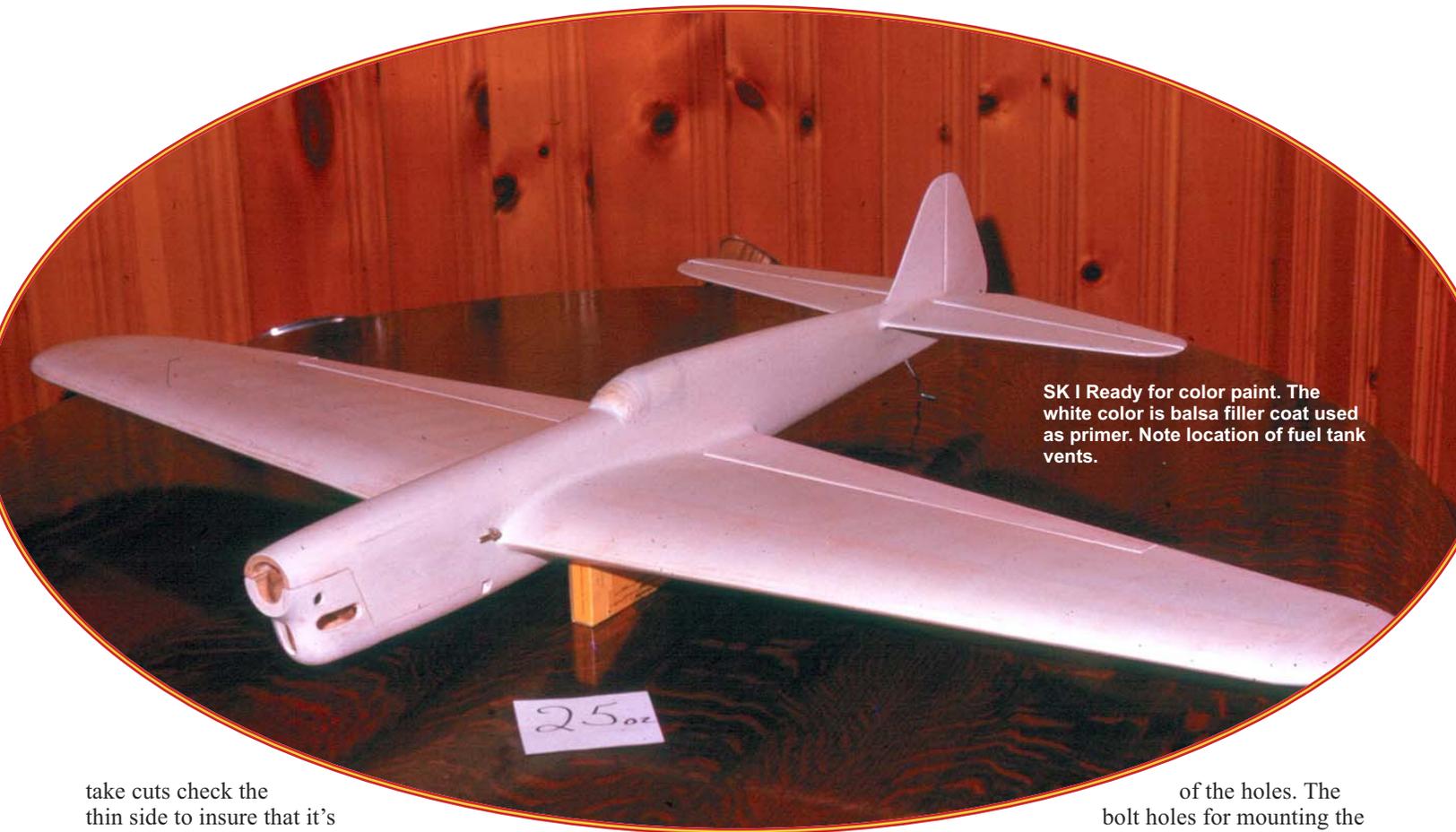


**Above right:** This bottom view of the fuselage nose section shows the platform for landing gear and one for locating fuel tank. Note the lightening holes on the sides.

**Above:** Here are the parts for the nose section box laid out prior to assembly.

**Right:** The nose section box partially assembled. Note: Drill holes for lightening before assembling.





SK I Ready for color paint. The white color is balsa filler coat used as primer. Note location of fuel tank vents.

take cuts check the thin side to insure that it's coming out the same thickness all the way across. Make adjustments as required before reaching total cleanup. Next I clean up the edges of the plate on a disk sander to remove any marks left by clamping in the lathe chuck. After the plate is tapered, locate the engine mounting holes. The crankshaft centerline should be located  $15/16$  inch from what will be the bottom edge of the mounting plate when the engine is mounted inverted in the plane. After the first hole is located I use the engine back plate to locate the rest of the holes.

The engine mounting holes should be counter bored for the heads of the mounting bolts on the back side of the mounting plate so it will rest flat against the firewall. Note that the engine is located .060 off center on the mounting plate toward the thick edge of the plate. This will compensate for the engine offset angle and place the centerline of the crankshaft on the centerline of the fuselage at the spinner back plate. This will disguise the fact that the engine is off set.

Once the engine is mounted to the plate you can spot the rest

of the holes. The bolt holes for mounting the plate to the firewall don't need to be counter bored. I did, but it's not necessary. These must be located so you can get bolts and a screwdriver or an Allen Wrench past the engine to install the bolts. All of the hole locations shown on the plans are for use with a Fox .35. You will need to figure out the locations for use with other engines. This isn't that difficult.

I've also radial mounted early Johnson .35s and a Merco 35. Making this plate sounds more complicated than it really is. The key of course is having a metal working lathe or knowing someone who does. The top corners of the plate should be rounded off to fit in the engine compartment as you hollow out the nose section of the plane. After the plane is completed the mounting plate can be drilled to lighten it if necessary to achieve the proper balance point or of course the mounting plate will also conceal any lead you might have to add inside the back plate.

The Speed King came out nose heavy and after lightening the mounting plate I still had to add  $1/2$  ounce of weight to the tail.



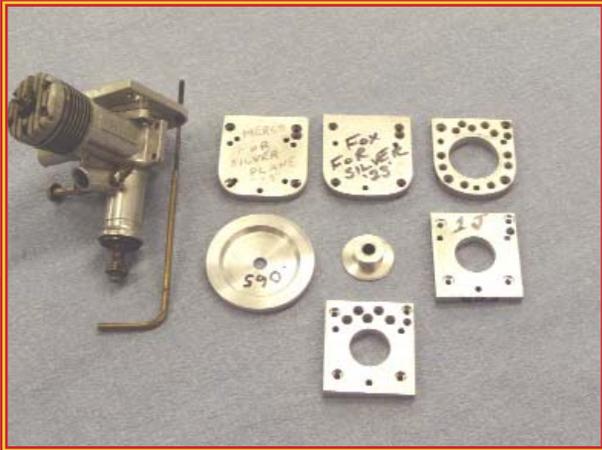
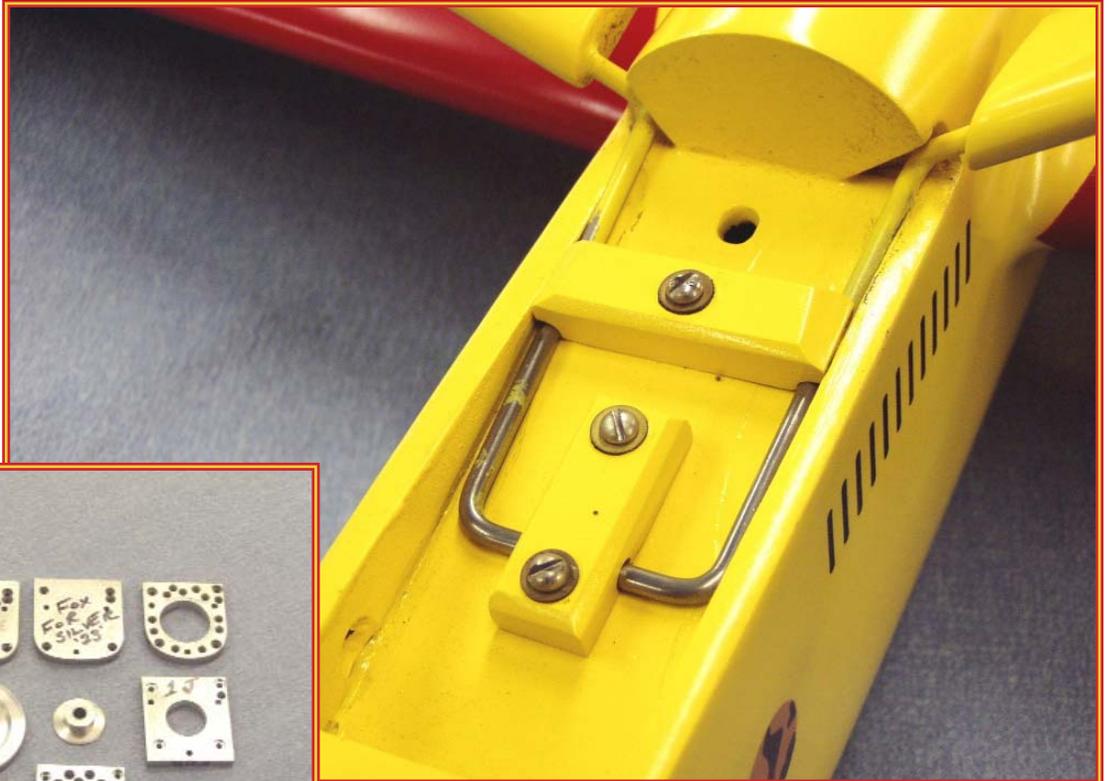
### Fuselage Construction

Fuselage construction starts with the plywood box for the nose section. This is constructed using a combination of  $1/16$ ,  $3/32$  and  $1/8$  inch thick plywood. Everything is slotted and tabbed to fit together. See photos

Left: This is the engine cowling from SK II. Note left side is cut at exhaust port to allow for installation of a silencer.

Right: Removable torsional landing gear mounting detail.

Below: Early Johnson engine with tapered aluminum mounting plate attached and various other mounting plates. Also shown are a crankshaft extension and a recessed spinner back plate used to compensate for a longer engine.



Radial mounted Fox 35 in SK II. Note that the fuel filter is an integral part of the needle valve, and the crankshaft has an extension.

and plans for the details. Again, this looks more complicated than it is. I clamped each piece of plywood in a vise and used a file to form the notches. The plywood sides of the box are drilled for lightening after the slots and tabs are all located.

The front side of the firewall uses two pieces of standard  $\frac{3}{8}$  x  $\frac{1}{2}$  inch hard maple motor mount oriented vertically and tight against the inside faces of the box sides. A block of balsa fills the space in between. The pictures and plans will help clarify this. The hardwood strips and the balsa filler make the surface that the engine adapter plate bolts to using four 4-40 or if you prefer 5-40 blind nuts on the back face of the second thickness of plywood firewall.

I used a piece of  $\frac{1}{4}$  inch thick balsa between the tank and the blind nuts to protect the tank from the motor mounting bolts which should extend about  $\frac{1}{16}$  inch through the blind nuts. This is to guard against pulling the stem section away from the flange of the blind nuts. I learned this the hard way. Note the notches in the bottom of the box sides just at the rear of the firewall. These are for later addition of a strip of plywood that will hold the cowling on.

The box section for the nose is assembled first so it can be accurately clamped and squared. If the slots and tabs are cut accurately it should snap together and square up by itself. The top edges of the box form the reference plane that everything else is checked from. I have a 12-inch disk sander that I used to insure that the firewall is perpendicular to the top and sides of the box. I also used the sander to form the bevel on the bottom  $\frac{1}{3}$  of the firewall to match the angled cut on the fuselage sides. I found that the angled parting line makes fitting the cowling easier. Once the box is assembled the fuselage sides are joined to it with epoxy glue. Check to make sure that the fuselage sides are aligned with the top of the box and each other before clamping. Make sure the rear ends of the fuselage align vertically but don't join them at this time. These will be joined later when the fuselage bulkheads are installed.

Once the front of the fuselage is assembled, the engine should

be positioned, mounting holes drilled and blind nuts installed on the backside of the firewall. The engine crankshaft centerline should be located  $\frac{7}{8}$  inch below the top of the fuselage sides. For reference purposes I scribed a line on each side of the engine mounting plate in line with the bottom of the motor mounting lugs on the engine, which also coincide with the crankshaft centerline.

The tank design is similar to that shown on Nobler plans with the exception it must be made narrow enough to fit inside the plywood box. That should be just a hair less than  $1\frac{5}{8}$  inches. Emil Cipra had a solid steel die made to form the tanks around to insure consistency.

For this installation the tank vents require a little additional plumbing. Since the tank has to slide into the box from the rear the vents are both located on the centerline of the tank on the outside of the fuselage. Of course they still need to be located as usual on the inside of the tank. I left the inner one (filler) about  $\frac{3}{8}$  inch longer than the outer (overflow) vent. The left side of the plywood box and left fuselage side are both slotted for a short distance just ahead of and slightly above the leading edge of the wing to allow the vents to slide into position. The slot is then filled in with a piece of balsa after the tank has been installed. You can see the location of the tank vents in one of the photographs of the fuselage under construction as well as the finished airplane.

Rather than mount the landing gear permanently with "J" bolts, I chose to use two hardwood blocks notched to fit over the landing gear and held in place by bolts and blind nuts. This keeps the landing gear from getting in the way during construction and painting. It also allows you to change the length of the torsional section of the landing gear to suit you. Make it shorter to stiffen or longer to soften. The silver plane's gear was permanently installed and longer and was too soft.

In Part 2 of this article which will appear in the November/December issue of *Stunt News* we will finish the construction and discuss finishing in detail. **SN**



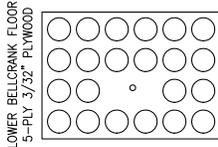
The Speed King II as it appears today. Built in 1965, the paint was never rubbed out.



**WARNING— DANGER!**  
DO NOT NEAR POWER LINES.  
DO NOT TOUCH POWER LINES  
OR CONTACT WITH OR PROXIMITY TO  
ELECTRIC POWER LINES.

3/32" SHEET SPAR (RIGHT WING)

1 55/64" (1.8574")  
UPPER BELLCRANK FLOOR  
5-PLY 3/32" PLYWOOD



LOWER BELLCRANK FLOOR  
5-PLY 3/32" PLYWOOD

3/16" BRASS TUBING  
(FINE PLUGS)

MAKE LOOPS SMALL ENOUGH TO  
FIT THROUGH 3/16" BRASS TUBING

SUB BELLCRANK FLOOR  
5-PLY 3/32" PLYWOOD

CARVED AND HOLLOWED TIP

CUTOUT SPAR AND RIBS TO CLEAR REAR  
LEADOUT AFTER THE LEADING EDGE  
SHEETING IS IN PLACE.

3/32" SHEET SPAR (LEFT WING)

1 59/64" (1.9293")  
DOUBLE THICKNESS 1/16" SHEETING  
BETWEEN R2 (RIGHT) AND R2 (LEFT)

DOUBLE THICKNESS 1/16" CENTER SECTION SHEETING  
1/16" L.E. SHEETING

5/16" SQUARE LEADING EDGE  
FINISHED RADIUS= 11/64"  
(+ OR - 1/64")

3/32" SHEET SPAR

REMOVABLE TIP SECTION  
TO ALLOW ACCESS TO LEADOUTS  
(BOTTOM SIDE)

3/32" RIBS

1/16" X 1/4" CAP STRIPS

3/16" FIXED TAB

1/8" X 1/4" T.E. CAP

3/32" T.E. SHEETING

HINGE POCKET REINFORCEMENT

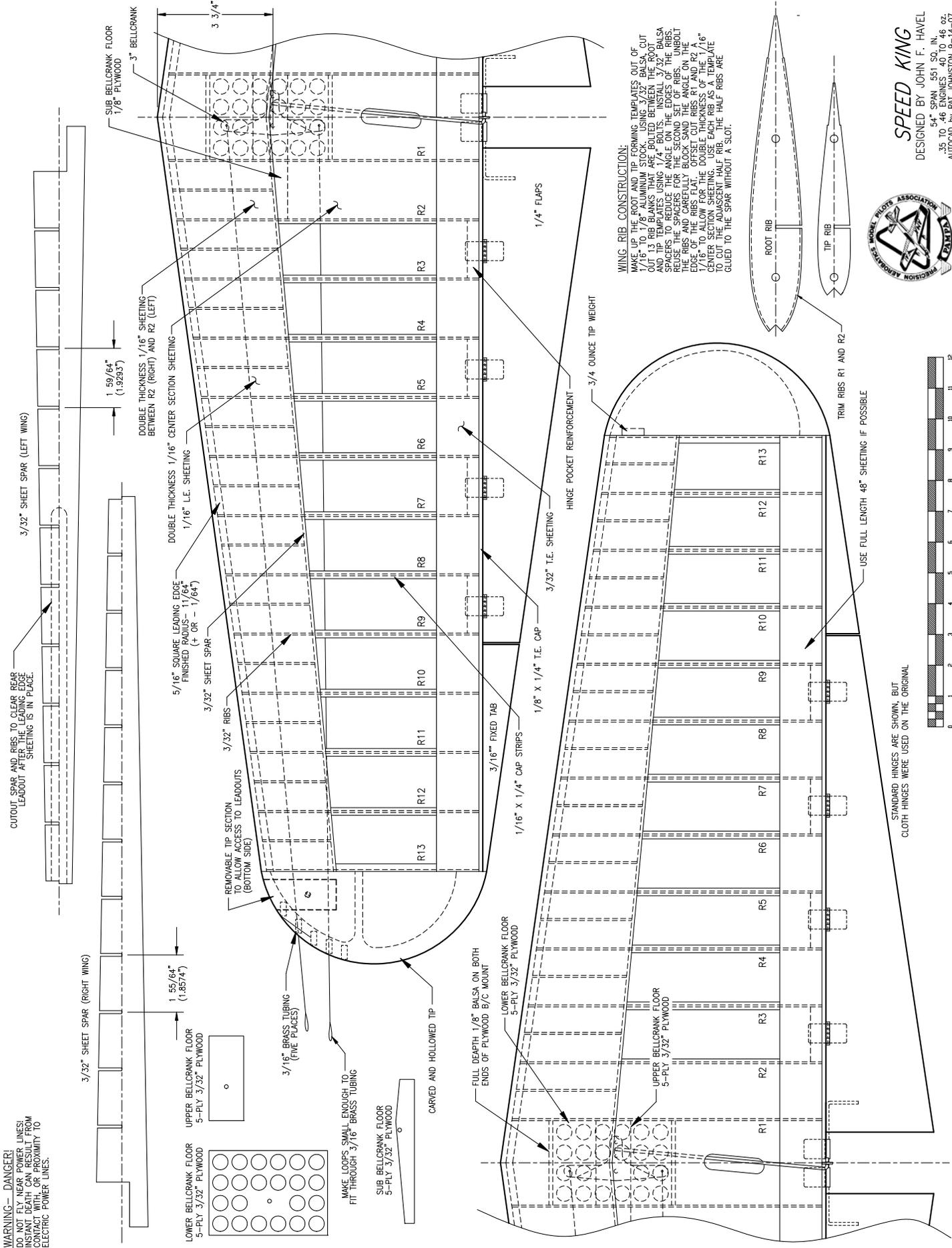
3/4 OUNCE TIP WEIGHT

1/4" FLAPS

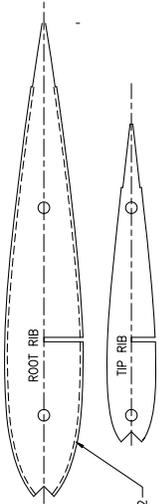
FULL DEPTH 1/8" BALSAs ON BOTH  
ENDS OF PLYWOOD B/C MOUNT

LOWER BELLCRANK FLOOR  
5-PLY 3/32" PLYWOOD

UPPER BELLCRANK FLOOR  
5-PLY 3/32" PLYWOOD

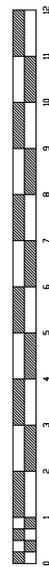


**WING RIB CONSTRUCTION:**  
MAKE UP THE ROOT AND TIP FORMING TEMPLATES OUT OF  
1/16" TO 1/8" ALUMINUM STOCK USING 3/32" BALSAs CUT  
OUT 13 RIB BLANKS THAT ARE BOLTED BETWEEN THE ROOT  
AND TIP TEMPLATES USING 1/4" BOLTS. INSTALL 3/32" BALSAs  
AND TIPS TO REDUCE THE ANGLE ON THE EDGES OF THE RIBS.  
REMOVE THE SPARS FROM THE EDGES OF THE RIBS. BOLTS  
THE RIBS AND CAREFULLY BLOCK SAND THE ANGLE ON THE  
EDGE OF THE RIBS FLAT. OFFSET CUT RIBS R1 AND R2 A  
1/16" TO ALLOW FOR THE DOUBLE THICKNESS OF THE 1/16"  
CENTER SECTION SHEETING. RIBS R3 THROUGH R13 ARE  
GLUED TO THE SPAR WITHOUT A SLOT.



TRIM RIBS R1 AND R2  
USE FULL LENGTH 48" SHEETING IF POSSIBLE

STANDARD HINGES ARE SHOWN, BUT  
CLOTH HINGES WERE USED ON THE ORIGINAL



**SPEED KING**  
DESIGNED BY JOHN F. HAVEL  
54" SPAN 551.00 IN. L6 02  
35 TO 46 INCHES WING  
AUTOCAD BY PAT JOHNSTON 9-14-07

# The Next Generation

By Matt Colan



We get to Brodak's by any means possible. That means taking the second row out of a Chevy Traverse for the planes, and having me sit in the third row behind the planes, and with the coolers.

For the second time, my grandparents and I made the trek out to Carmichaels for the Brodak Fly-In. After getting a new vehicle, it took us awhile to finally figure out a way to bring 4 airplanes, 3 people, luggage and tools into a Chevy Traverse. The end result was taking the second row out for the planes, and the newest version of the old mother-in-law seat. We left early Sunday morning at about 7am, and reached the Holiday Inn of Uniontown around 8:30. Once we entered the room, we were immediately impressed by the quality of mattresses and pillows. My grandmother immediately noticed that the air conditioner didn't sound like a cement mixer like the hotel we stayed at the year before. We enjoyed a balcony view of the indoor pool, and then decided to retire for the night in preparation for the next day's flying.

## Monday

We got to the field around 9 o'clock, and after getting our tent set up we decided to head to the hobby shop right around the corner. I only wish we had a hobby shop near my house, let alone one like John Brodak's; it truly is a modeler's dream to be in there.

We got back to the field and decided to get some practice in. My repaired Oriental Plus seemed to feel the same as back at



My Ares made its second trip out to the Brodak Fly-In.



Rich Giacobone's new Strega is powered by a PA .65.



Here I'm giving Scott Condon a launch.

home, except for the extra mileage because of the higher altitude. My grandfather's LA 46 in his P-47 had a lean run. Thinking he just set the needle too lean, he richened it up for another flight, and it still ran lean (more to come on this issue later).

We stopped flying in the middle of the day due to extremely shifty winds and increasing turbulence. Before getting ready for the evening flying session—which we've heard gives you the best air of the day—we weighed our models, and did a bunch of socializing with the guys.

That night, I got a few more flights in, and received some coaching from Bob Lampione, Windy, Kent Tysor and a couple others. The last flight I had that night was, from what people told me, one of my best ever.

### Tattoos

After I put in my last flight on Monday night, I decided to roll my lines up and head over to the paved circle to watch some of the flying going on up there. As soon as I showed up, Windy decides it's time to man me up. Kent Tysor put me in a headlock and brought me over to the yellow tent and sat me down in a chair. Kent's wife, Shelly, and Karyn Urtnowski put a tattoo on my arm, and the back of my leg. They also had a bandana that they put on me. After Windy saw my tattoo, he wanted one. Karyn said that Windy didn't want one.

### Tuesday and OJT

This was the first year On the Job Training occurred if somebody wanted to be a judge. Sometime in April, Tom Hampshire sent me an email asking if I wanted to participate in OJT. Without hesitation I told him I would be glad to be taught how to judge. The person who was going to teach me how to judge was none other than Windy Urtnowski. The both of us along with my grandfather judged Expert Profile.

One of the benefits of judging is you can see what many people do wrong, and you can improve your pattern by watching many flights. One thing I noticed is that many people fly above 45 degrees, so I took that to heart and tightened up my pattern a little bit.

When I signed the form saying that Windy could teach me how to judge, I didn't read the fine print that said I had to give Windy donuts and coffee to keep him functioning. In other words, I became his slave ...

After Expert Profile was over, I went to the paved circle with my Ares in preparation for Classic the next day. I received a little more coaching from Windy that night as well.

### Wednesday

Wednesday was Classic and the first day of competition for me. The night before, I realized the motor in the Ares was running around 8 minutes, so I had to think up how much fuel to pull out. I asked Dan Banjock what we thought about how much fuel I should pull out, and he agreed with my idea on how much to pull out:  $\frac{3}{8}$  ounce. Welcome to the world of Stunt.

There was a pretty stiff wind that day, but I knew that the Ares



Don Herdman's (he's my granddad!) classic legal P-47 awaits its turn for a practice flight on the paved circle.



Here's Dick Carville's pretty P-51 Mustang.



My new Oriental Plus made its first trip to the Fly-In.

Below: Joe Adamusko designed and built this pretty and great-flying Bucks 550.



could punch through it without a problem. My first official flight had winds that were actually pretty consistent and not that turbulent. My second official flight had winds that were similar to the winds that occurred the year before in Round 2 of PAMPA Stunt, just not as severe. Once again the Ares punched through



Adrian Dominguez flew this colorful Yatsenko Shark.

that air really well. At the end of the day, I wound up in 6<sup>th</sup> in Advanced, same result as last year.

On grandpa's official flight, the LA 46 once again started to overheat by the time he got to his triangles. Once again, we couldn't figure out what was going on with the motor, and just richened it up a little more thinking it was just set too lean. On the next official flight, it did the same thing; cause for this is still TBD.

That night, Joe Adamusko let me fly his Bucks 550. I was immediately impressed with the quality of corner and just overall how well it flew. I got another flight with the Oriental Plus, and decided to roll my lines up, watch the rest of the flying that was going on the paved circle.

#### Thursday

The original plan for me flying Old Time Stunt was to fly my grandfather's Black Tiger. Due to a lack of space, that plan didn't

work. When we got there, Windy said he would let me fly his Big Job in old time since we were in a separate class. Up until that morning, it looked like I was going to be able to fly the Big Job in Old Time. I checked the flight order, and Windy and I were up at the same time. Now I didn't have an airplane to fly. My grandfather tenderly resigned his spot in Old Time advanced to let me fly his Big Job. I accepted that, and I went ahead to fly it. *(I hope you bought him dinner for that! —Ed.)*

Aside from the handle being off from my neutral, I flew decent with it. That decent flight put me in second in Advanced, behind Roy DeCamara. Not bad considering I haven't flown that plane since March when it was still being trimmed, and since I hadn't flown an Old Time pattern since early April. Now imagine if I had more practice.

Appearance judging was at 3:00PM, which turned out to be right in between rounds, so I had enough time to put some polish on my Oriental Plus with the help of Bob Lampione and 15 year old car polish (that stuff still works if you shake it up enough). A lot of the planes that were presented for judging were some very pretty model airplanes. I put the Oriental Plus next to Windy's Tribute, and took some pictures.

For my second round flight, I tried hard to catch up to Roy, but he was just in a class of his own. I did gain some ground but still needed 15 more points to get up to him. The end result was Roy DeCamara winning, with me in 2<sup>nd</sup>, about 15 points back, and then Zuriel Armstrong in 3<sup>rd</sup>, about 13 points behind me.

By the time Old Time Stunt was finished, appearance judging was done also, and we went to go and retrieve our models and get some practice in.

I decided to fly with the Philly Flyers on the Expert circle because it was closer to our tent and I was just getting too lazy to walk *all*



Ken Cerny flew this very clean, four-stroke-powered Trivial Pursuit.



Here's Dick Carville's Raven.



Mike Ostella showed up with this gorgeous, Bob Whitely-designed Hawker Hunter.

the way over to the paved circle. My first flight I had a lean run, so I made sure to put a tach on it for the next flight. My grandparents wanted to get dinner, so they said they were going to go to Subway to get some sandwiches for us to eat at the field. I think I'm getting spoiled since it was about another hour until my next flight and they let me stay at the field and socialize with Dan Banjock, Mike Palko and the rest of a large contingent of Philly Flyers. My grandparents got back,



Can you guess what baseball team I like?

Round 1. Mason Brown was on the paved circle, along with 2 other very young fliers, Michael Paris, and Nick Evar, which made a total of 4 fliers younger than 16 years of age, all on the same circle, flying Stunt.

### Friday

Round 1 began in a thick fog where it was difficult to see the other end of the circle. The fog quickly burned off and turned into a fantastic flying day, straight air, and just enough wind to keep you from flying into your wake turbulence. I watched some great flying on the Expert circle, and had a good time spectating and critiquing patterns with Buddy Wieder, Windy, Rich Giacabone, and others.

One of the highlights of the day was when Mike Chiodo was flying his Old Time airplane in Expert because he lost his Olympic, and his Cardinal earlier in the week. He spent quite a long time trying to get the needle set right, and Windy says, "Watch, he'll spend 15 minutes setting the needle, and he'll nose over on takeoff and hit the prop." Sure enough Mike noses over and hits the prop, but what happened after that was amazing. Mike picked up the handle wrong, where up is down and down is up. He nosed over, hit the prop,

and then the plane went straight up, started to come back down to the ground, and then starts an outside loop, stops at the top of the loop and continues flying level. Somewhere during that, Mike flipped over his handle, where everything would be normal again, and flew the pattern. It was really amazing to watch and this is the one time where Windy didn't have that video camera running.

On grandpa's official flight, the needle was set perfect, giving him good a good 4-2 break, and once again by the time he got to the triangles, it began



Buddy Wieder based his Ryan's Eagle on Bob Hunt's Saturn design. It's electric-powered.

gave me my sandwich, and had to guard it from Bill Richards who wanted to take a bite out of what was a very good Sub. On a full stomach, I got my second flight in after turning the needle out almost a half turn. It wasn't until halfway through my flight, I realized I was getting tired, because I could see I was making mistakes where I don't usually make mistakes so I decided to put the plane away before I did something stupid and lose the plane.

Once I rolled my lines up, I walked over to the paved circle where my grandfather was. He was helping Mike Chiodo with his Cardinal in preparation for



Mike Palko repeated his win in Expert Stunt with his electric-powered, Bob Hunt-designed P-51 Mustang.:

overheating and running lean once again. We decided we would try to figure out what was wrong that night.

My official flight came, and I felt like I flew well. With me being one of the last to fly in the round, I was able to check the scores and see how well I scored. I was in 2<sup>nd</sup>, 20 points behind Adrian Dominguez, and 2 points ahead of 3<sup>rd</sup> place, Tim Stagg.

Once the round ended, grandpa and I asked Dan Banjock for some help on the motor run and to solve the overheating issue. First he looked at the holes in the muffler, and we opened the holes in the muffler. That didn't do any good, although it may work on a really hot day. Then we changed to a smaller prop with less pitch, and it seemed to work, except the needle was set way too lean and I was starting to worry if the motor was getting cooked. Grandpa flushed out the tank,



Here's Scott Condon's Dedication. He dedicated this plane to his father, Mike Condon.



Left: Don Herdman's (did I mention he's my granddad?) Classic-legal P-47.

Below: Ron Keith's Al Rabe-designed Critical Mass was flawless.

and he tried again. The motor was so lean, it was screaming. Danny kept richening the needle, turns at a time, not clicks until the needle valve actually ran out of threads and flew out. After that the motor quit. We quickly figured out something was clogged somewhere in the plumbing. We blew out the tank, replaced filters, and it worked. Now the motor was happy. One thing we did discover was the crap trap filter we used with the fuel jug for fueling the plane up was defective, and not picking





Above: When Windy Urtnowski's very pretty Tribute is in the air. It reminds me of a custom Ferrari.

Below: Kent Tysor flew his trusty, veteran Strega.



Right: Here's Bob Lampione's stunning, PA 75-powered United.



up junk that was in the fuel. We replaced both filters, and then the motor was happy for the most part.

### Saturday

Round 2 and the last day of Brodak's ... I was one of the first up since they reverse the order from Round 1. I had a decent flight, even though it went lean half way through, and I was trying to put a decent pattern in. What caused the PA 40UL to go lean was one of the zip ties came loose. I watched the flying in Expert, and saw Dan Banjock, Windy, and Mike Palko would have a 3-way tie for the top spot in Expert if there weren't any appearance points. But there are appearance points, which helped Mike Palko take the top spot once again in Expert, with Windy in 2<sup>nd</sup>, and Dan taking 3<sup>rd</sup>. Mike and Windy tied for 1<sup>st</sup>, but Mike had a better first round flight so he got 1<sup>st</sup> place.

The awards came, and I got 2<sup>nd</sup> in Old Time Advanced, 2<sup>nd</sup> in CLPA Advanced, and 1<sup>st</sup> place Senior.

The weather was fantastic compared to last year, not

Left: Joe Adamusko's RO-Jett 76-powered Dreampiece is a piece of flying artwork.



Above: Pete Klepsic's flawless scale Spitfire, and Joe Adamusko's Bucks 550 await appearance judging.

Below: Gary Lutz's Spitfire displays beautiful surface detailing. This contest sure brings out the beauties!

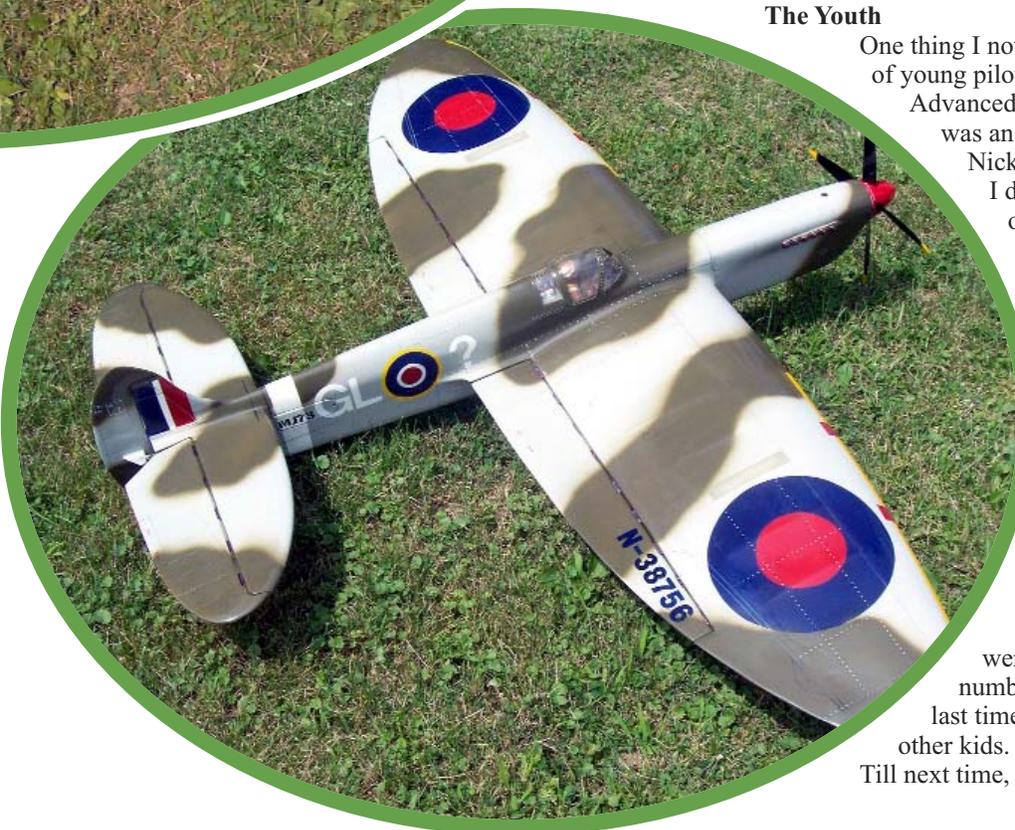
one day that there was any significant rain. The only rain that there was a very brief shower on Monday. Only on one day was the wind any factor during the competition unlike last year.

### The Youth

One thing I noticed, that I didn't see last year, was the number of young pilots that were flying this year. I was flying in Advanced, Mason Brown was a Beginner, Michael Paris was an Intermediate, and another young flier I met was Nick Evar. I don't know if he flew in any events, but I did see him fly a 1/2A biplane on the paved circle one night. There are other fliers that I know of who flew during the week, but I never got the chance to meet them. During the awards, I noticed that all the ladies that flew in ladies basic flight were all very young. *(You should consider being a politician ... —Ed.)*

Earlier I mentioned how I got a tattoo to get manned up in preparation for judging on Tuesday from Windy. I wasn't the only young person to get tattoos during the week. Michael Paris decided he would like to get a tattoo, and get manned up like me. *(Of course these were "temporary" tattoos ... —Ed.)*

On Thursday night, 4 next generation fliers were all flying together on the paved circle. A number of people saw that and I wondered when the last time was that those people saw kids launching for other kids. Maybe Stunt isn't dying out after all! Till next time, Fly Stunt! **SN**



# It's in the Details

By Matt Neumann

**Fuselage Doublers:** This is just a simple matter of slopping some glue on the balsa fuselage sides and the doublers and then sticking them together, right? Well, if you have been reading my columns lately, you may know that the simple-sounding answer is not always the case. It is in the details. And this is very true when approaching the subject of gluing doublers. And it applies to all types of doublers, whether we are talking about using the more common plywood doubler or a balsa doubler that has carbon fiber glued to both sides.

In this column I would like to cover the tried-and-true method of gluing plywood doublers to the balsa sides. Next time I will explain the second method which should prove to be a little lighter and which I have just tried out on my new plane where I used a  $\frac{3}{32}$ -inch balsa doubler that is sandwiched between some carbon fiber.

As for the plywood method, you, the builder, will have to decide what thickness of plywood to use for the doubler in your particular application. Most, if not all plans will show what thickness the author used. (I might note here that most early plans show  $\frac{1}{8}$ -inch birch plywood being used because that is all they had at hand. Today you will find some who will switch to  $\frac{1}{8}$ -inch poplar or "Lite Ply" in order to maintain the same thickness while saving weight. But birch plywood is about twice as strong as poplar, so if  $\frac{1}{8}$ -inch poplar plywood is sufficient, then  $\frac{1}{16}$ -inch birch will probably suffice as well. Some have even gone down to  $\frac{1}{32}$ -inch birch plywood for doublers. It all depends on what the rest of the structure looks like.)

Again, I am not a structural engineer and I am not telling you what to use, but bear in mind that the doublers serve two purposes: they strengthen the nose area for one. And they give a harder surface, other than balsa, on which to glue the maple motor mounts. Since this is such an important area, although we want to save weight, if you are not certain as to which material or thickness to use, it is best to err on the side of caution.

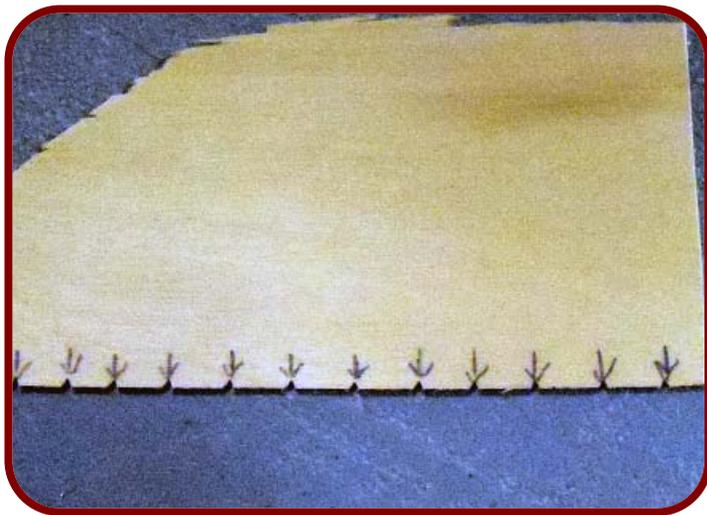
Now some may think that all you need to do is mark which side is which, slop some glue on the pieces and stick them together. And, yes, while this method will work, it also results in adding a lot of weight. Glue is heavy. There is a lighter way of doing things.

The first thing I would like to address is what type of glue is best. I highly recommend using 30-minute epoxy. Do not use finishing epoxy. Finishing epoxy does not have the strength of the regular 30-minute epoxy. Also, do not use slow-setting, instant glue. This will result in a joint that is too brittle. (And we are talking about a surface for motor mounts here.) Normal yellow glue is also not recommended because it dries from exposure to air.

The balsa sides and doublers have a lot of side area where air cannot get to the glue. If air does not get to the glue, it will not dry. Not good. Also, the moisture from this glue penetrates both the balsa and plywood and can (actually will) cause the wood to warp giving you twisted or bowed sides—also not good. And faster-curing epoxies are generally not as strong as the 30-minute epoxies and their use can also rush you timewise—still not a good idea. So my glue of choice for this purpose is the 30-minute epoxy, hands down. (And the use of one-hour or two-hour epoxies suitable for our purposes would also be fine.)

Now that we know what type of glues to use, we need something to spread the glue around. I made a spreader out of

some  $\frac{1}{32}$ -inch plywood and added some shallow triangular notches approximately  $\frac{1}{4}$ -inch apart. You could also use a rubber spreader like those used to spread auto body filler. Just add the notches the same way that you would if you were using a plywood spreader.



Here is a picture of the plywood piece that I used to make the spreader. Notice the notches along the long flat end. These notches are approximately  $\frac{1}{4}$ -inch apart and  $\frac{1}{32}$ -inch deep. I put some arrows at each of the places that I made a notch to make things a little bit more clear.

Here is a picture of a hitchhiker that wanted to come along for the ride at the Nats. A little frog decided to sit on top of my rudder in between rounds at the Nats. I had placed the plane in the shade and left to do other things.

Doug Moon came up with his cell phone and said, "Look what is on your rudder."

I then got my camera and took some pictures myself. The part of the rudder he is sitting on is only about a half-inch wide. He's really a little guy!



Okay, now we know what type of glue to use and the tool needed to spread the epoxy around. It is time to get to spreading the glue. But first, it would be wise to mark your pieces so you do not accidentally make two left-hand sides or two right-hand sides. It is surprising the number of people who have actually done this. I suggest making some witness marks on the side that the glue is to be applied with a black felt tip marker. Make sure you mark both the balsa and the plywood pieces. The less confusion after the glue has been mixed the better.

behind a slightly wetted piece with thin ribbons of glue showing. This may not seem like a lot of glue, especially when you notice that the area between the ribbons is almost dry.

Don't worry, however, for once the sides are weighted down, the glue will spread out giving you sufficient strength while keeping the amount of added weight due to the addition of glue down to a minimum.

After the pieces are aligned, lay them on a flat surface and apply weight in an even manner so the assembly cures properly.

Once the glue has cured (leave it weighted overnight to be sure) you can then trim the excess plywood away.

Presto! You now have a set of plywood doublers on your fuselage sides.

As mentioned earlier, this is the traditional way of doing things. Next month I will show you the method I used with my new plane, where balsa and carbon fiber take the place of plywood doublers. This has been done for a number of years by some modelers, but is new to me. It should result in additional weight savings.

Remember, it is in the details! *SN*

**Left: Here is a picture of the parts to be glued together. This is of my 2007 plane and before my high-resolution camera so the picture is probably not super great. Sorry. Sitting on the bottom right of the lower side you can see the tool I used at the time to apply the glue. At this time I did not put witness marks on the plywood but I still recommend that you do so if you have a tendency to mix things up easily.**



After the witness marks have been applied, mix up enough glue to be able to lightly cover both plywood doublers. You want to put glue on the plywood doublers only. This is because the plywood will not absorb the epoxy glue quickly like balsa wood does. Again, this will save weight. Smear the glue on about a quarter of the doubler. Then take the spreading tool that you made and run it vertically along the doubler while spreading the glue all the way.

The reason for only covering about a quarter of the area of the doubler is because you will be scraping off most of the glue. You can then use this scraped off glue to cover the rest of the doubler. This helps prevent waste, saving money; also a good thing. Once you run the spreader over the entire doubler, wiping off most of the glue, you will leave



Although this set does not have the witness marks, you should be able to see the small ribbons of glue in the upper doubler and through the wing cutout of the balsa side in the lower fuselage side. These pieces are then set in place and weighted down until the glue has cured.

What is Gyroscopic effect? Although this seems like a very simple question to answer, it is one of the most avoided questions in control line flying. So, I'll try to answer in plain English.

**Short Answer:** Gyroscopic effect, usually generated by the propeller, is a member of the magical invisible forces that affect your plane in flight. They are all very handily available to be blamed for poor situational awareness because after you crash it is hard to prove that they didn't do it.

**Long Answer:** There are many forces generated by your engine through your propeller; it's complicated. Gyroscopic Precession is the one referred to in the question, and the last one to be explained here. The other forces that are about to be defined are often confused with Precession because they have very similar effects on the aircraft. We should note that all of the forces have a very slight effect on your plane, cannot be easily measured, and could gang up on your poor plane and work in unison to make it fly wacky.

*Propeller Torque Effect*, or simply Torque, is governed by Newton's Third Law: "For every action there is an equal and opposite reaction." Your engine generates horsepower to spin the prop. For most engines that is in a clockwise direction. (Note: All directions as referenced on any aircraft are as seen from the cockpit.) The resulting equal and opposite force is in the counterclockwise direction. The common error made is to assume that since the airplane turns to the left under "torque," it is corrected with right rudder and, because we normally use right rudder for other things on control line airplanes, the assumption of rudder correction is a plausible mislead when in fact the rudder input is for totally different reasons. That is not to say, however, that right rudder is not the proper correction. See, I told you it was complicated...

Torque Effect generates Roll as an equal and opposite force. Clockwise (right) propeller rotation generates left roll. Control line planes do not allow very much roll to take place because the lines are impeding the roll. The equal and opposite reaction from Torque Effect looks to us as though the airplane is trying to turn left into the circle. So we apply right rudder which, for the most part, corrects the effect. The inboard wing may still fly low in upright flight and high during inverted flight, which then prompts us to correct the roll by adjusting the symmetry (split) of the flaps, or by adding a trim tab on a flapless plane to gain level flight both upright and inverted.

*Helical Slipstream Effect* (also called Prop-Wash) has its strongest effect when the airspeed is low and there is lots of power being delivered to the propeller. The air being pushed

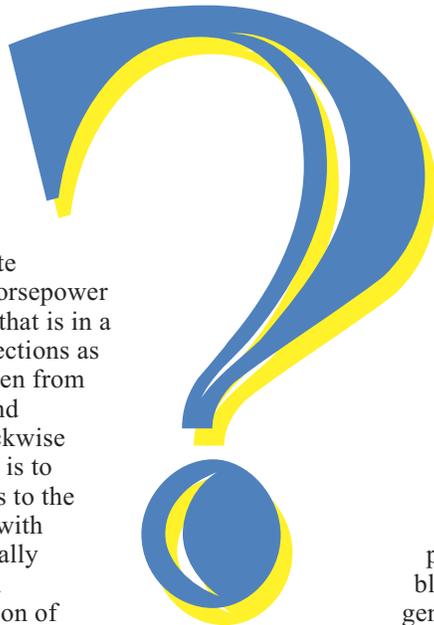
back over the fuselage by the propeller is not flowing straight back nose-to-tail. Rather, it corkscrews around the fuselage so that a propeller with clockwise rotation will generate a clockwise helix of air flowing around the fuselage that actually strikes the left vertical surface of the rudder and vertical stabilizer. This produces a left Yaw (left turn) generally during takeoff, acceleration, or slow flight—like at the top of a square maneuver.

We again correct this with right rudder. Rudder, being the correct input for unwanted Yaw, is good for only those portions of the flight that are slow or accelerating. Normal speed will see the helical effect dissipate (straighten out) and the increased speed will then enhance the effect of right rudder, probably resulting in too much right rudder for normal flight, but we live with it. There is some right Roll from the helical slipstream that is opposed by, but not canceled by, pure reaction torque.

*P-Factor* is probably the most misunderstood force generated by your propeller, when in-fact it is the easiest to explain. First you need to see your propeller blades as tiny wings generating lift that results in thrust. As your propeller spins, one blade is going up (ascending) as the other is going down (descending). If you have a tricycle-gear airplane both blades will be presented to the airstream at nearly the same angle, level, or approximately 90 degrees to the direction of flight. So, the ascending (up) blade has nearly the same angle of attack on the airstream as the descending (down) blade. This means both blades are generating the same amount of thrust (lift), and therefore very little P-Factor.

If you have a conventional gear (two-wheel) tail-dragger airplane the tail is sitting on the ground and the nose is in the air. That means the ascending blade is being presented to the airstream at a more positive lift angle (angle of attack) than the descending blade. The left (ascending) half of the prop disc is generating more thrust (lift) than the right (descending) half, and that wants to pull the tail of the airplane to the right for left turn. This is where the aircraft has one of its first encounters with the gyroscopic effect, and the effect from P-Factor dissipates quickly as the tail reaches level.

*Gyroscopic Precession* simply stated is a result of the input and output of motion on the spinning disc (propeller). The rule is that when a force is exerted (input) on a spinning disc, that force will show up or be seen as an output, 90 degrees away from the input against the direction of rotation (before the input point). Because the output precedes the input in the direction of the rotation, it is referred to as *precession*. So, with your tail-dragger airplane's tail sitting on the ground, your helper releases the airplane, and as the tail lifts quickly the output precedes it by 90 degrees exerting left yaw (turn) on the airplane. In a clearer view, if the prop was not spinning, force input on the top of it would generate an opposite force at the bottom of the prop just like a teeter totter. However, when you are spinning that same prop, the output precedes that same input on the top of the blade by 90 degrees before it, so it would come



out on the left side ascending blade of the propeller instead of its normal non-spinning output spot on the bottom. See, I told you it was magic.

All of the forces listed above are overcome, to one degree or another, by forward momentum, the stabilizing effects of flight, and centrifugal force. The forces that aren't, overcome are the ones we need to trim out, along with our building errors, for better performance.

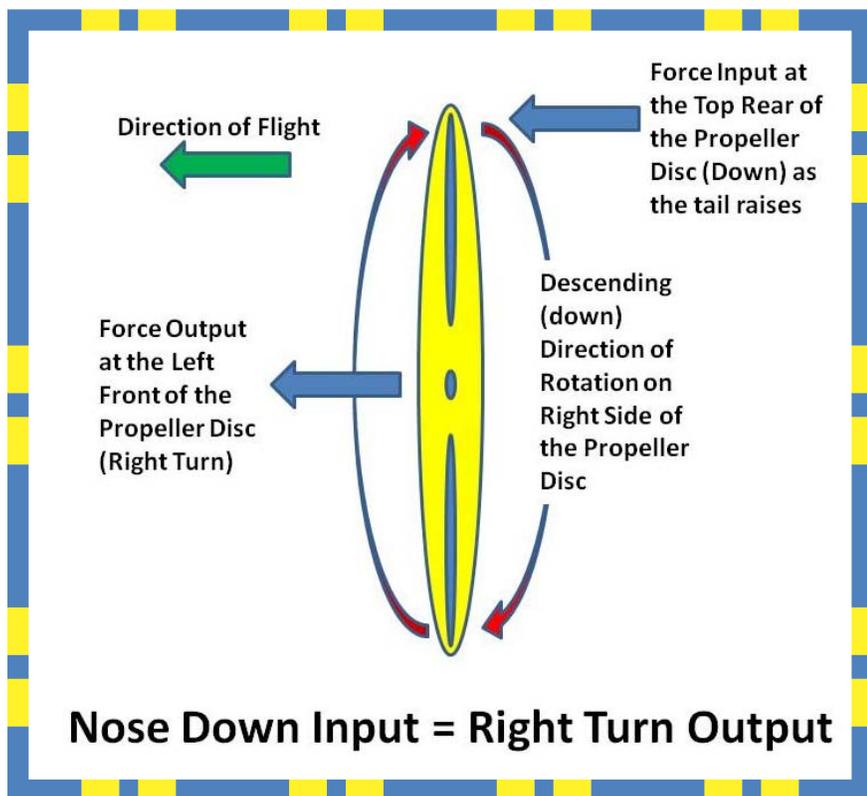
### Summary

If you change the direction of your plane in an up direction, Precession will cause the plane to turn slightly left. Inversely, if you add down, the plane will react with slight right turn. If right turn is input, then the output will be up, and if the input is left turn, then the result will be down. Still confused? Well, you can see these forces in action by exercising a gyroscope. You need to imagine it is your spinning propeller disc and look straight down at the axis with the spin being right-hand or clockwise. Tedco Gyroscopes are available at your local toy store, or online, for between \$5 and \$10.

The bottom line is; precession effects are easily observed on a gyroscope, and not so easily observed on your airplane. Precession is easily measured on a gyroscope, and measured with great difficulty on your plane. The bad news is that there are so many other different magical contributing forces on your plane in-flight, it is very difficult to identify which one is causing what. Basically, if you want to try and correct, or take advantage of, any of these forces then you will need to use the "Scientific Approach" and change only one thing at a time until you see what the actual effect of that one thing is.

The good news is that many, many designers and experimenters have been working on getting control line planes to fly correctly for many, many years. So, there are dozens of great designs out there already. Put that with clean, straight building and finishing, add a little luck, and you should be okay. Don't forget the magic...

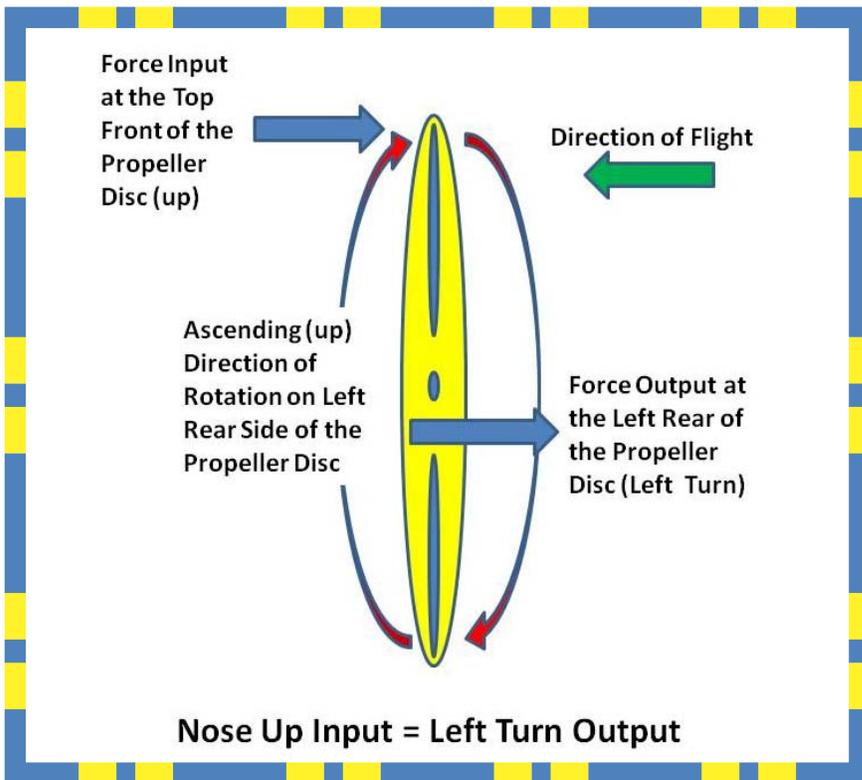
Happy Trails, Ken. *SN*



So, what happens in the first few split seconds when you take off with a conventional gear tail-dragger airplane? First, Torque will be spinning your plane in a slight left roll, which exerts slightly more pressure on the left wheel than the right. This causes slight drag on the left wheel that looks like a slight left turn. As your plane accelerates, the propeller will experience P-Factor from the differential of angle of attack on the left and right halves of your propeller disc causing a slight left yaw movement.

Prop-wash will have its heaviest effect on the plane as it accelerates with helical force generating left yaw and roll. The left yaw/roll from Prop-Wash and Torque will usually dissipate with acceleration.

P-Factor is more or less gone when the plane is flying straight, and Precession is only present when the prop disc is actually changing direction. Did you ever wonder why your plane seemed to over-rotate and prop bite the ground on take-off? Well, it got hit by Torque, P-factor, Gyroscopic Precession, and angular momentum just before Lift, Centrifugal force, and forward momentum worked together to steady everything all out.



# We Have the Technology

By Noel Drindak

**Judging**—I was a judge this year for the second time, and I want to share a few observations. The first day of qualifications, Wednesday, brought very light air. At times there were just brief little puffs of wind. Most of the fliers had enough power and line tension to ignore little puffs. However, a number of fliers moved their maneuvers around, chasing the air and leaving the judges to chase them.

A few fliers signaled the judges and gave them a chance to move, but many just moved maneuvers around helter skelter. One flier on my circle positioned the judges and flew the first maneuver in front of us. His second maneuver was 90-degrees to our left and the third was all the way across the circle 90-degrees to our right. *You can't judge a maneuver looking at it from the side.*

**Fly in front of the Judges**—You're not going to get a good score for something the judges can't see. The rules say that the judges should move no more than 1/8-lap in either direction during a flight. However, judges want to see the maneuvers and will move

more if necessary. If you want the judges to move a significant amount, signal them to move and give them a little time to move.

**What judges look for**—It seems that fliers always wonder what the judges are looking for. In accordance with the Judges Guide, judges are looking at four things in each maneuver:

- 1) Shape
- 2) Size
- 3) Intersections
- 4) Bottoms

On takeoffs they're looking for a smooth takeoff with a ground roll between 15-feet and 1/4-lap. The climb to level flight should be gradual take a full lap. Level flight should be smooth with no variations in height.

## Nats 2010 Technology Survey

### (Open and Advanced Fliers)

NAME	DESIGN	DESIGNER(S)	WING AREA	WT (oz)		ENGINE # of blades in ( )
Aron, Jim	Systrema	Jim Aron	585	65	PA 65RE	12x4 Eather (3)
Banjock, Dan	Vista 39	Dan Banjock	700	74	PA 75RE	13x4.8 Majic (3)
Bob Brookins	Strega	Windy	740	70	RO-Jett 67RE	13x4 APC (2)
Borrelli, Jim	Patternmaster 46	Big Jim Greenaway	630	70	ST 51	12x6 Rev-Up (2)
Bowman, Joe	Juggernaut (Modified Dreadnaught)	Smith/Bowman	690	65	RO-Jett 67RE	12.5x4.5 Majic (3)
Brickhaus, Allen	Olympus	Louis van den Hout	724	56	PA 61RE	12x4.2 Bolly (3)
Brownell, Walter	Emotion	Walter Brownell	645	72	Pwr32 Electric	12.8x6.2 Ace Pusher
Buck, Alan	Staris	Randy Smith	650	62	PA 40RE	11.8x4.5 Bolly (2)
Byrd, Les	Pathfinder	Delaney/Byrd	620	48	O.S. 46LA	11x5 APC (2)
D'Ottavio, John	Silencer	John D'Ottavio	675	74	PA 65RE	13x5 Brodak (2)
Delgado, Josias	Shark	Andri Yatsenko	680	58	Retro 60	13x7.5 Yatsenko (2)
DeMauro, Bill	SV-11	Randy Smith	670	66	Scorpion 3026-890	13x4.5 APC (2)
Dick, Wesley	Velvet	Wesley Dick	600	64	PA 65RE	13x4.5 Aero Products
Diez, Enrique	Shark	Andri Yatsenko	680	63	Retro 60	13x5.9 Yatsenko (2)
Dominguez, Adrian	Yatsenko Kit	Andri Yatsenko	700	64	PA 65RE	13x6 Homemade
Eber, Michael	Impact XL	Paul Walker	720	65	K&B	11.5x4 Winship (2)
Fitton, Steve	Time Machine	Tom Dixon	650	60	DS 60	12.5x5.2 Majic
Giacobone, Rich	Strega	Windy	740	74	PA 61RE	14x4 Majic (3)
Gilbert, Joe	Rex/P-47	Walker	685	70	PA 61RE	12.2x3.8 Eather (3)
Gleason, Dale	Impact	Paul Walker	720	72	PA 75RE	13x4.5 Eather (2)
Goff, Allen	Petra	Allen Goff	710	72	PA 75RE	13.8x4.2 Bolly (3)
Goudarzi, Sina	Tempest II	Randy Smith	695	63	PA 65RE	13x4.5 Bolly (3)
Greb, Mike	Strega ARC	Windy	740	74	RO-Jett 76RE	14x5 Pro Zinger
Greer, Jason	Omega	Jason Greer	570	45	Scorpion 3020-890	11.5x6 APC (2)
Harness, Robert	Bob Hunt Lost Foam Wing	Bob Hunt	650	63	PA 65RE	13x4 Bolly (3)
Haverly, Mike	Shrike	Randy Smith	635	66	RO-Jett 67RE	12.5x4.2 Majic (3)
Heinzman, David	Jaguar	Steve Buso	595	55	O.S. LA 46	11.5x4 APC (2)
Lee, James	Sunflyer	James Lee	668	57	O.S. 46SF-S	12x4 (2)
Leidle, John	Junar	Bill Werwage	702	68	PA 51RE	12.8x4.5 Bolly (2)
Martine, Gene	SV-11	Randy Smith		70	PA 65RE	12.8x5 Own (3)
McDonald, Bob	Apogee 4	Bob McDonald	750	72	PA 75RE	14x4 McDonald (2)
McHenry, Mike	Starr Ship	Steve Starr	680	68	PA 65RE	14x4.2 Eather (2)
McMillan, Frank	Super Caldron	Frank McMillan	740	72	PA 75RE	
Mills, James	Shark 45	Lew McFarland	698	66	ST 51 (Barker)	12x5.5 RSM (2)
Moon, Doug	Riff Raff	Doug Moon,	705	65	PA 65RE	13x4 Eather (2)
Neumann, Matthew	2007 Stuka	Matthew Neumann	690	70	PA 75RE	14x4.5 Bolly (3)
Niebel, Sam	Nobler	George Aldrich	520	40	Brodak 40	11x5 Evolution (2)

On landings they're looking for a smooth descent with a constant rate of descent, and a smooth landing with no bounce.

**Nats 2010 Technology Report**—This is the eleventh annual technology report detailing the equipment used by the Open and Advanced fliers at the Nationals. As usual, we passed out questionnaires at the pilot's meeting, and almost everyone responded. A few notes on the data:

1) The Open and Advanced classes are combined and listed alphabetically. If you want to look at the Open fliers, the top 20, or some other grouping, the information is there. Sorting it is left as an exercise for the reader.

2) The weights listed are from the official weigh-in before appearance judging.

**As before, I'm not going to analyze** the data for you. It's more fun to do it for yourself. I'll confine myself to a few comments:

1) Power Train—This year there were four fliers with electric planes—twice last year's total. There was one flier using a four-stroke engine—down from four last year. Over half the fliers

surveyed used Precision Aero engines; about half of them were PA 65REs. The other half was equally split between PA 61REs and PA 75REs with two PA 51REs and one PA 40RE.

2) Ball Links—I was an early and ardent advocate for ball link control systems, so I'm interested in seeing how many fliers are using them. As was the case last year, about two thirds of the fliers at the Nats were using ball link control systems.

3) Control Lines—I was curious to see how many fliers are taking advantage of the new rules to go to smaller control lines (planes weighing less than 64 ounces can now use 0.015 braided lines). Of the 18 fliers with planes under 64 ounces, five did this.

4) Handles—Again this year I asked fliers to tell me what control handle they used. The most popular choice was Kaz Minato's handle (20% used it). Eighteen percent made their own and 11% used Ted Fancher's handle. There were eight other types listed, all in the single digits for percent.

That's it for my observations. Have fun analyzing the data. I hope it helps you decide what to build next. Good luck with your next plane. *SN*

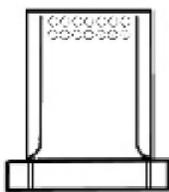
PROP	EXHAUST	LINES	FUEL	GLOWPLUG	SPECIAL FEATURES
Pipe	64x.018 Braid	Power Master 12.5%	T-bolt		Automotive pigments in clear dope, PPG Automotive urethane clear coat, magnets for hatches and cowl.
Muffler	66x.018 Braid	Power Master 10%	T-bolt		
Pipe	66x.018 Braid	Power Master 10%	T-bolt		
Muffler	62x.018 Braid	Sig 5%	Glo Devil		
Pipe	63x.018 Braid	Richard's Brew 5%	T-bolt		Automotive base coat and clear coat paint.
Muffler	62x.018 Braid	Sig 10%	T-bolt RC Hot		<i>Flying Models</i> , April and May 2010 issues.
NA	64x.018 Braid	NA	NA		
Pipe	62x.018 Braid	Sig 10%	T-bolt		
Muffler	64x.018 Braid	Power Master 5%	K&B 12		Crashed Brodak Pathfinder ARC. Rebuilt with 3D fuselage. Carbon-fiber reinforced leading edge, trailing edge, and spars. Good flyer.
Pipe	64x.018 Braid	Power Master 5%	Fox Black		
Muffler	63x.018 Braid	Omega FAI	T-bolt		
NA	64x.018 Braid	NA	NA		Castle 45 ESC, Will Hubin FM9 timer.
	66x.018 Braid	Power Master 5%	T-bolt		Removable flaps, elevators, gear, and tail wheel.
	63x.018 Braid	Omega FAI	T-bolt		
Muffler	64x.018 Braid	Omega 10%	Majic		
Pipe	64x.014 Solid	Power Master 5%	K&B 100		
Muffler	63x.018 Braid	Power Master 12.5%	Sig 003		800 total flights.
Pipe	66x.018 Braid	Power Master 10%	T-bolt		
Pipe	62x.018 Braid	Homebrew	Thunder Tiger		
Pipe	64x.018 Braid	Richard's Brew 10%	T-bolt RC Long		Standard construction, automotive finish.
Pipe	65x.018 Braid	Sig 5%	T-bolt		
Pipe	64x.018 Braid	Sig 5-7%	T-bolt		
Muffler	65x.018 Braid	Richard's Brew 5%	McCoy 55		
NA	64x.015 Braid	NA	NA		
Pipe	66x.018 Braid	Byron	Fox RC Long		
Pipe	62x.018 Braid	Wildcat 10%	T-bolt 4-stroke		
Muffler	65x.018 Braid	Power Master 5-10%	Sig #3		Balsa-covered foam wing, stab, and elevators.
Muffler	66x.018 Braid	Sig 10%	Sig		Sig dope and tissue.
Pipe	67x.018 Braid	Byron's Helo 15%	Enya #3		
Pipe	64x.018 Braid	Sig 7.5%	T-bolt 4-stroke		
Pipe	66x.018 Braid	Sig 10%	Merlin Big Bore		Balsa, fiberglass, and carbon composite wing.
Muffler	66x.018 Braid	Sig 5%	T-bolt		
Pipe	62x.018 Braid	Own 10%, 20% Oil			See <i>Stunt News</i> Article.
Pipe	62x.018 Braid	Sig 10%	T-bolt		Brodak Dope, Windy Controls, Plane is 9 yrs old.
Pipe	65x.014 Solid	Sig 15%	Enya #3		Automotive finish. Old plane came apart in practice.
					Replacement was delivered 950 miles day of contest.
Pipe	67x.018 Braid	Sig 5%	T-bolt		
Muffler	60x.015 Braid	Sig 5%	T-bolt		

NAME	DESIGN	DESIGNER(S)	WING AREA	WT (oz)	ENGINE	# of blades in ( )
Ogren, Dan	Gobbleswantz	Charles Mackey	610	52	O.S. 40FP (Randy Smith)	11x5 Brodak Y&O (2)
Oliver, Richard	Maverick 2010	Richard Oliver	700	69	RO-Jett 67RE	3.8 Eather (2)
Paris, John	SV-11	Randy Smith	670	60.5	Stalker 51	12x6 MA (2)
Powell, Stan	Impact	Paul Walker	720	71	PA 61RE	12x4.8 Bolly (3)
Reynolds, Scott	Ultima	Bill Reynolds	744	58	PA 65RE	13x6 BYO
Scott, Mike	Cruisin	Mike Scott	720	65	PA 65RE	12x3.8 Eather (4)
Smith, Jim	Tracer	Wayne and Jim Smith	720	67	PA 61RE	12x4 Bolly (3)
Smith, Randy	Katana	Randy Smith	675	61	PA 51RE	12x4 Majic (3)
Smith, Wayne	Tracer	Wayne and Jim Smith	720	67	PA 61RE	12.5x4.25 Eather (3)
Stephens, Kenny	SV-22	Randy Smith	690	65	PA 65RE	12.5x3.8 Bolly (3)
Thompson, Ronnie	Dreadnaught	Randy Smith	690	64	PA 65RE	13x4 Majic (2)
Trible, Dave	Only Vegas	Dave Tribble	716	69	RO-Jett 61RE	12.5x4.1 Majic (3)
Tysor, Kent	Strega	Windy	740	68	RO-Jett 76RE	14x4.2 Eather (2)
Urtnowski, Windy	Tribute	Windy	700	62	RO-Jett 76RE	14x4 Windy (3)
Vander Kuur, Dennis	Legacy	Allen Brickhaus		62	PA 65RE	13x4.5 Bolly (3)
Viglione, Eric	Starfire SV30	Randy Smith	685	65	PA 65RE	12.5x4.5 Majic (3)
Voumard, Greg	Trivial Pursuit	Ted Fancher	670	71	RO-Jett 67RE	13x5 Brodak (2)
Weider, Bud	Ryan's Eagle	Weider/Hunt	651	63	AXi 2826-10	13x4.5 APC (2) Reverse Pitch
Werwage, Bill	Thunderbolt	Bill Werwage	700	54	PA 61RE	12.1x3.4 Werwage/ McDonald (2)
Wildman, Roger	DAVIS Special	Roger Wildman	670	68	PA 75RE	13x4.5 Mesnick (3)
Williams, Frank	Blueprint	Frank Williams	670	69	PA 75RE	13x4 APC Electric
Winter, Paul	Strega	Windy	740	73	Saito 72	13x5.2 Eather (3)
Wright, John	SIG Magnum	Mike Pratt	720	64	Merco 64	12.5x5.5 Mejldo (3)

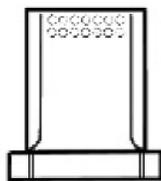
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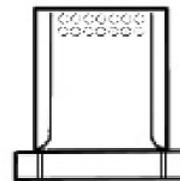
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Pipe	65x.018 Braid	Richard's Brew 10%	RO-Jett	Foam core wing.
Muffler	64x.018 Braid	Sig 5%	Tower	Flap trim tab that moves with the flap, fully adjustable ball
Pipe	65x.018 Braid	Sig 7.5% link control system.	T-bolt Big Bore	
Muffler	66x.018 Braid	Brodak 5%	T-bolt	Replaceable flaps and elevators. Automotive clear coat finish.
Pipe	65x.018 Braid	Sig 15%	T-bolt	Brodak dope over carbon-fiber veil and Japanese tissue.
Pipe	64x.018 Braid	Sig 7.5%	T-bolt	Special routing for hinge pockets.
Pipe	64x.018 Braid	Sig 5%	Majic	Many carbon-fiber parts and assemblies.
Pipe	64x.018 Braid	Sig 7.5%	T-bolt	Special routing for hinge pockets.
Pipe	65x.018 Braid	Sig 7.5%	Enya	
Pipe	66x.018 Braid	Power Master 5%	T-bolt	
Pipe	64x.018 Braid	Byron's 10%	Glo Devil	
Pipe	64x.018 Braid	Power Master 10%	T-bolt	
Pipe	64x.015 Braid	Power Master 10%	T-bolt	Carbon-fiber tank, prop, spinner, and wing (Midgley composite wing). Brodak dope finish buffed with Gorhams.
Pipe	66x.018 Braid	Wildcat 10%	T-bolt 4-stroke	
Pipe	64x.018 Braid	Sig 5%	T-bolt Idle Bar	Second Starfire, they keep getting better. Klass Kote primer, color, and clear.
Muffler	64x.018 Braid	Brodak 10%	O.S.	
NA	65x.015 Braid	NA	NA	Battery—CX G3 LiPo Power Pack Hyperion 4S/14.8V 25C 4000 mAh, Castle Phoenix-45 ESC, SM9V Will Hubin Timer.
Pipe	65x.015 Braid	Sig 7.5%	T-bolt	Hunt foam wing, flaps, and elevators covered with balsa. Fourteen-year old plane, developmental pipe and prop. Lost-Foam wing.
Pipe	66x.018 Braid	Sig 5%	T-bolt	Removable cockpit, all molded parts.
Pipe	64x.018 Braid	Sig 15%	Glo Devil	Sidewinder engine.
Muffler	67x.018 Braid	Power Master 20%	O.S. F	Take apart foam wing.
Muffler	64x.018 Braid	Xcaliber 10%	Glo Devil Idle Bar	Old and proven (16 years old). Merco has an overbore piston and sleeve.

The big assortment of engines, mufflers, spinner, props, spare parts

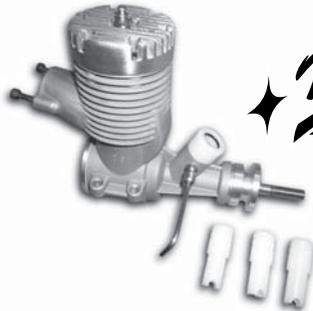
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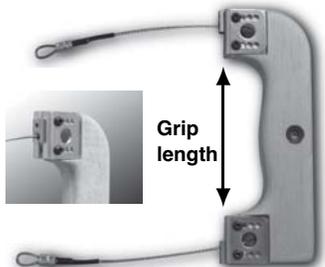
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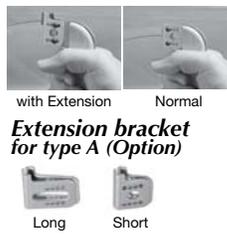
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Grip length 80(A-80), 85(A-85),  
90(A-90), 100(A-100) mm



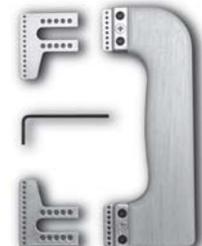
with Extension Normal  
**Extension bracket for type A (Option)**



Spare wire (Option)

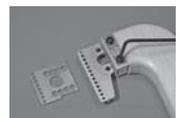


**MNT Handle Type B**  
Grip length 85 mm



**MNT Handle Type C**  
Grip length 85(C-85) or 90(C-90) mm

**!NEW!**



# Contests

## 2010 Brodak Fly-In CL Stunt Results

Note: Top five places listed

### CLPA Beginner:

1. Tony Kubes	Primary Force/OS40	254.0
2. Bob Hudak	Legacy 40/LA46	240.0
3. Jack Rosemere	Cardinal/LA 46	222.0
4. David Felinczak	Pathfinder/ST 51	196.0
5. Mason Brown	Top Flite Score/OS40	187.5

### CLPA Intermediate:

1. Pete Schlessler	Vector/40	454.5
2. Joe Grash	Ares/Brodak 40	451.0
3. Ken Armish	Intrepid/PA 61	444.0
4. Eric Keller	Vector/Aero Tiger 36	439.5
5. Bernie Trent	Brodak 40	439.0

### CLPA Advanced:

1. Adrian Dominguez	Sunshine/PA 65	469.5
2. Matthew Colan	Oriental Plus/PA40UL	449.5
3. Tim Stagg	Tsunami/Electric	447.5
4. Zuriel Armstrong	Nobler/Rojett 40	433.0
5. William Davis	Dancer/ST 60.	428.0

### CLPA Expert:

1. Mike Palko	P-51 Mustang/electric	551.5
2. Windy Urtnowski	Tribute/RoJett 76	551.5
3. Dan Banjock	Vista 39/PA 75	548.5
4. Kent Tysor	Strega/Rojett 76	542.0
5. Bud Wieder	Ryan's Eagle/AXI 2826-10.	542.0

### Profile Precision Aerobatics Beginner:

1. Larry Talley	ARF Cardinal/OS 46	224.0
2. Mason Brown	King Cobra/Enya 40	222.0
3. Bob Hudak	Smoothie/Webra 32	215.5
4. David Felinczak	Pathfinder/ST 51.	204.0
5. Robert Schroeder	Teal Deal/Fox 36.	196.0

### Profile Precision Aerobatics Intermediate:

1. Eric Keller	Pathfinder/LA 46	451.5
2. Alan Buck	746 Buccaneer/ST 5	443.25
3. Brad LaPointe	Tutor/LA 46	435.5
4. Larry Fulwider	Harmony/FP 40.	433.0
5. Ray Rowh	Cardinal/LA 46	428.5

### Profile Precision Aerobatics Advanced:

1. Tim Stagg	P-47/Electric	493.0
2. John Ashford	Naughty Girl/Brodak 40	484.5
3. Bob Reeves	Shoestring/Saito 40	478.5
4. Price Reese	Cardinal/OSLA 46.	478.0
5. Bob Brookins	Primary Force/Fox 35.	472.5

### Profile Precision Aerobatics Expert:

1. Mike Palko	ARF P-40/Electric	440.5
2. Joe Gilbert	576 Ringmaster/LA 46	432.0
3. Ken Cerny	Cardinal/Brodak 40	428.0
4. Dan Banjock	Bearcat/Fox 2-Cyl.	426.5
5. John Paris	Profile Oriental/Tower 40.	426.0

### Classic Stunt Beginner:

1. Bob Hudak	ARF Smoothie/Webra 32	230.0
2. Robert Schroeder	Oriental/FP 40	224.0
3. David Felinczak	Brodak Magician/Fox 35	222.0
4. Lydia Moore	Ares/46	112.5

### Classic Stunt Intermediate:

1. Joe Grash	Ares/Brodak 40	430.0
2. Ted Heinritz	Nobler/OS 40	83.5
3. Thomas Cappadona	ARF Nobler/OS 40	367.5
4. Bill Mandakis.	Thunderbird/OSFPS 40	364.5
5. Richard Antoszewski	Oriental/OSLA 46	335.0

### Classic Stunt Advanced:

1. Michael Ostella	Nobler/Aero Tiger 36.	471.0
2. Tim Stagg	Magician/Electric	462.5

3. Bob Reeves	Skylark/ST 51	458.5
4. William Davis	Skydancer/35S.	457.5
5. John Tate	Oriental/OSFP 40	449.0

### Classic Stunt Expert:

1. John Simpson	Cavalier/Aero Tiger	496.5
2. Buddy Wieder	Caprice/Aero Tiger 36	496.0
3. Dan Banjock	Ringmaster/Fox 35	482.5
4. Windy Urtnowski	Big Job/Rojett 61	(W) 499.5
5. Tom Dixon	1952 Nobler/DSBB 40	478.5

### Nostalgia 79 Beginner:

1. Jody Messinger	Seafire/ST 60	230.0
2. Mason Brown	P-63 King Cobra/Enya 40	226.0
3. Dennis Baer	Twister/FP 40	203.0
4. William Sargent	Joses Torres/Tiger 60	193.5

### Nostalgia 79 Intermediate:

1. Jim Morway	Cavalier/ST 51...	369.0
2. Alan Buck	Twister/OSFP 40	363.0
3. Chris Sarnowski	Stunt Machine/LA 40	360.0
4. Dick Hodge	Twister/OSLA 46	328.5
5. Steve Schlessler.	Stiletto 35/54	319.5

### Nostalgia 79 Advanced:

1. Paul Smith	Magician/OS 40	431.5
2. Richard Wolsey	Hallmark/Aero Tiger 36	423.5
3. Watt Moore	Oriental/OS 40	78.0

### Nostalgia 79 Expert:

1. Jim Damerell	Patternmaster/ST 60	475.5
2. John Paris	Profile Oriental/Tower 40	441.0
3. Phil Spillman	Midwest Skyraider/LA 46	402.0

### Old Time Stunt Intermediate:

1. Mike Danford	All American Sr/Fox 35	254.5
2. Nelson Erbs	Dragon/DS 40	230.0
3. Eric Keller	Viking/LA 40	227.0
4. Bob Reeves	Ringmaster/Fox 35	221.0
5. Ian Smith	Windy/Magnum SP 40	218.0

### Old Time Stunt Advanced:

1. Roy DeCamara	Jamison/DS 40	287.5
2. Matthew Colan	Big Job	271.5
3. Zuriel Armstrong	Ringmaster/Brodak 25	258.0
4. Michael Chiodo	Zilch X/Fox 35	256.5
5. Bernard Suhamski	Viking/35	254.0

### Old Time Stunt Expert:

1. John Saunders	Humongous/ST 46	281.0
2. Joe Gilbert	Ringmaster/FP 25	279.0
3. Dan Banjock	Ringmaster/Fox 35	272.0
4. Windy Urtnowski	Big Job/RoJett 61	271.0
5. Jack Weston.	El Diablo/Fox 35	264.0

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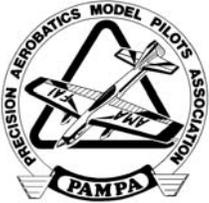
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# PAMPA Products Price List

## *Prices Effective April 2010*

Please Note: Some items are now available only as a download from the PAMPA website. You can visit the website at [www.control-line.org](http://www.control-line.org) for these items and past issues of Stunt News. Download items may be available to PAMPA members only.

**STUNT BIBLIOGRAPHY:** ..... 10.00  
*42 Page List Chronologically By Subject of (4000) Published Stunt Articles*

**ARTICLE REPRINTS:** *As Listed in Bibliography per Page* ..... .25

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*Life Time Competition Records* by Wynn Paul (20 Pages) .....2.00  
*Master Plans List* by Bill Dawson (30 Pages, 600 Planes) .....3.00  
*Control Line Source Book* by Ralph Wenzel(14 Pages, 140 Suppliers) ..2.00

**PAMPA BOOKS:**

*Old Time Stunt Page Plans* by Tom Morris (84 Pages) ..... 8.00  
*Classic Era Page Plans* by Tom Morris (148 pages) ..... 12.00  
*Pioneers of Control Line Flying* by Charles Mackey (184 pages)..... 12.00

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September/October 67

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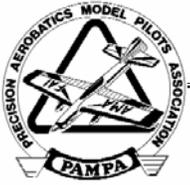
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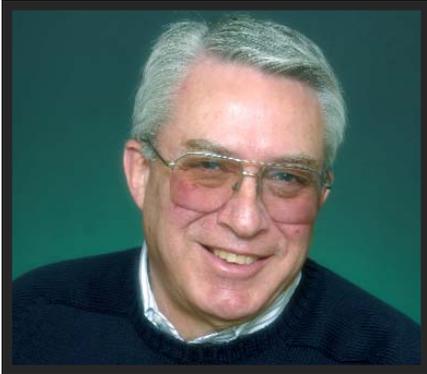
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# PAMPA News & Reports

## Secretary/Treasurer's Report

By Dave Gardner



The Nats have come and gone ... with surprising results (see elsewhere in this issue)!

At this writing, it's early August in the Northwest and a dandy November we're having this summer! Our contest and fun-fly days, however, have been amazing!

One of the things that goes with the Nats

is the annual PAMPA meeting. A meeting of the Executive Committee precedes the general meeting, to get active business taken care of. A current set of minutes is not available for this issue, but an overview is presented here.

President Bill Rich was upholding the USA honor at the CLWC in Hungary, VP Brett Buck was swamped on the work front, so it fell to Dave Gardner to preside.

1. A timely Treasurer's report was presented, showing that PAMPA is financially stable. Due to some reasonable "due diligence" on the financial front, we'll end the year in the black! In spite of the increasing costs of postage, we will run another year with no dues changes.

2. Nostalgia 30 Event: Even though this event, proposed originally by Randy Smith in 2009, was approved at the time, it was never documented in a set of rules. Dave Gardner volunteered to "codify" a set of rules, similar to Classic, for the benefit of CDs and modelers. These rules will be posted in *Stunt News*, on the website, and available from PAMPA Products.

3. Nominations for upcoming open positions were held for the offices of Vice President and District Directors for Districts 2, 4, 6, 8, and 10. Ballots should be in the mail by the time you get this copy.

4. Don Hutchinson had presented an unearthed Old Time Stunt design, a larger Madman, by J.C. Yates. With proper documentation from Don, the EC approved this design for future OTS competition. Plans are available from Don.

5. Along with this, Dave Gardner volunteered to create a current list of "approved" OTS designs, to be updated annually, for availability to CDs and builders. This will include all currently approved designs from lists from Garden State Circle Burners, PAMPA, and other international listings, including the latest contenders seen in the OTS circles!

6. Due to a communications misunderstanding, we had a constricted meeting time. Consequently a few items were tabled for further discussion:

- a. Formation of a rules committee.
- b. Discussion of membership cards: yes or no?

The General Membership meeting followed the EC meeting. The members present were given an overview of the EC meeting. Nominations for the open offices were requested from the general membership present. None were presented, so the nominees stood as selected.

The membership meeting was lightly attended due, I believe, to two issues. We had no real controversial issues on the table and Bill Werwege was giving an impromptu concert at the field and folks didn't want to leave!

For the future meeting in 2011, keep in mind that the positions for odd-numbered Districts' Directors, as well as the President and Secretary-Treasurer are going to be open for the election in 2011. That time will be on us before we know it!

In particular, the Secretary-Treasurer position will be vacated because I took the position for one term (2 years) nearly 3 years ago. It's time for new and (hopefully) younger blood to handle this position.

I'm putting out an early "heads-up" because it takes a bit of a transition time, with moving the money around, possibly a new bank setup, along with a new setup for managing credit cards. It's not insurmountable, but it takes deliberate planning ... a bit like a retirement move!

All you need is to be somewhat fiscally literate, with a good set of ethics and a desire to "give back" to PAMPA and the hobby/sport for all the years of services and benefits it has given out. You don't have to be a 'brain' or a financial whiz to manage it ... just some attention to detail ... and that's just what you do when you build your models, isn't it!?

In any case, think about someone to do this job ... or possibly yourself ... and let us know!

**Tight lines! SN**

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# Membership Message

By Noel Drindak

Noel Drindak: Membership Chairman  
180 Lake Hill Rd. Burnt Hills NY 12027-9403  
(518) 399-5939: drindak@gmail.com

**I**t's time to renew. If you receive *Stunt News* by mail, a 2011 Membership Renewal Form was inserted in the September/October issue. If you're an Internet or CD member, your form was mailed to you.

**Fill out your form and send it off.** Whether you scan and email your renewal or send it in the mail, get it out. Last year many members put their renewal aside, forgot about it, and ended up being late.

I'm still renewing late members for 2010. The deadline is December 31, but many of those who wait wind up forgetting—*do it now*. If you renew late you risk missing issues of *Stunt News*. Late renewals *will not* have back issues mailed to them. They are available for purchase at PAMPA Products or you can view them and download them from the PAMPA website.

**Give an application to a friend.** We all have friends in Stunt who don't belong to PAMPA. Tell them what they're missing, and invite them to join. You can copy the form you received or print a copy off the website. We need your help to grow PAMPA.

Yours in Stunt. *SN*

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

# District I

By Will Moore

The New England Stunt Team held a Fun Fly at Wrentham on June 12 and 13 and we had a really good turnout. More pilots came on Saturday because there was a chance of rain and wind on Sunday, but, I have to tell you, both days were fun. A few pictures are included with this report. It is nice to see most of the “gang” and we had a few new planes and the usual good conversation.

We have been trying to get a storage shed from the state school at Wrentham to house grass cutting equipment and some safety cones, and whatever else would come in handy. But getting the shed has proved challenging. But we are still trying. The struggle is the red tape and trying to find the person who can make the decision for the shed. In the meantime, we have been cutting the grass when we can and lately, it has all turned brown anyway, because of lack of rain.

The contest at Lee is coming up fast. It will be on Sunday, August 22<sup>nd</sup>. Saturday, August 21 can be used as a practice day at the field. We hope some of the New York crowd can make it. A full report will be in

the next issue. Until then, fly safe and enjoy the Summer. *SN*

Right: Gary Buyers and his Tutor.

Below: Steve Yapowski fiddling with a Score.



Will Moore and his Shark.



Jim Sumner and his multiwing creation.



Damian Sheehy brought out a new RingMaster.



Perry Rose who flew his Pathfinder.

# District II

By Windy Urtnowski

New Jersey, New York

**A**t this year's Brodak Fly-In there were some things you may not read about in other articles.

Danny Banjock had a twin-cylinder Fox .35 that he custom made to fire at 180-degree intervals. It had two needle valves, and you could adjust either cylinder richer or leaner while it was running. It was in a .60-size Bearcat, and I was judging the event in which he was flying it. It sounded like a typical twin-engine model with the engines in perfect sync. Danny said he'd flown it a dozen or so times with no issues, but unfortunately it suffered a mechanical failure during his official flight. Danny has already made whole motors from scratch, and I look forward to seeing more very innovative models and motors from his talented hands.

Pete Klepsik was demo-flying his B-25 for us just before the "Quad Fly" when his line snagged in the grass, and the model headed out toward him in the center of the circle. I didn't know Pete could run so fast or scream so loud; he's a very quiet and bashful guy, as you probably know. Luckily, the only damage was cosmetic and some props. The next flight was very impressive, and the other participants lined up for the "Quad Fly"—two B-17s, a B-25, and a P-51 flying at the same time—and it was very impressive with all models using throttles, taxiing ... and, of course, it ended with Pete's B-25 snagging the grass and chasing him again!

The Adamisin family demonstrated a bunch of electric models of various sizes and they all seemed to fly well. My favorite was an electric-powered Strega affectionately nicknamed Stregasaurus. Everyone in the family has some innovative things going on, and they all work well. I remember back to 1990 when Big Art demo-flew an electric-powered Ringmaster. Electric was just coming of age then, but it was one of those things that you just knew had a bright future. Buddy Wieder's new electric-powered Ryan's Eagle flew impressively, but the best part was Buddy's front-row-caliber, hand-rubbed finish.

I'm assuming that everyone has seen Clint Eastwood's classic movie "Grand Torino." In the movie he takes a young friend to the barber shop to "man him up." This year Tom Hampshire asked me to train Matt Colan to judge. Matt and I

exchange DVDs all the time, so I asked Tom if I could "man him up" a bit before judge training. Matt's mission was to rent "Grand Torino," get a tattoo, and get a doo rag ... so the judge training would be a snap. Well, he showed up without any tattoos, no doo rag, and hadn't seen Grand Torino ... so we had a "man him up" ceremony in the pits. The women gathered to apply kiddie tattoos to his arms and legs, then they got him a doo rag and posed him on Billy Sargent's Motocross bike; Matt loved every minute. Mike Paris (who was also "manned up") and Matt Colan showed off their "dragon" tattoos all week with pride. (Maybe next year John Brodak will have tattoos available for the 2011 Fly-In instead of trophies!)

Joe Gilbert won several trophies and also the coveted "Best Fedora" award. Joe is definitely the best-dressed pilot on any circle, but his trendsetting wearing of clean clothes to fly isn't catching on the way Bob Gialdini's "white everything" did. The Philly Fliers are, however, considering button-down collar club shirts for 2011!

Billy Sargent is a pro Motocross rider who always brings his pit bike to the Brodak Fly-In. This year he was doing wheelies and stoppies when I asked him if



he could fly a Stunter while riding his motorcycle. We're going to try this at home first, but don't be surprised to see this as a demo at next year's Fly-In. Both John Cafaro and Billy got to test-fly my Big Job during one of many practice sessions, and I finally got to see it from the outside of the circle.

Thirteen-year-old Mason Brown blew us all away with his raw talent and intensity. He was a non-stop practicing machine all week long. His family wore ID badges saying "I'm Mason's mom," "I'm Mason's grandma," "I'm Mason's sister," etc. all week long and cheered for him after every flight. He had the biggest rooting section this year, but didn't stop by our tent to get a "tattoo."

Tom Morris showed off several of his pre-fab models in various stages of construction. They come in their own shipping boxes and look like an excellent value if you're strapped for time or just want a straight, light model almost ready for finishing.

Ron Keith loves Reno air racers. In the past he's built a Voodoo, and this year had a Critical Mass very similar to Al Rabe's. The ship had an almost scale cockpit detail, a Brodak dope finish with beautiful detailing, and a static scale four-blade prop. A new rule was formally proposed to replace appearance points next year with the pilot's age ... It's still being discussed.



**Ron Keith brought this Critical Mass to the Brodak Fly-In ready to buff out. Saito 72, Brodak dope, 65 oz, excellent detailing in cockpit.**



Reuben MacBride adjust the needle on his ship at a GSCB Snow Bird meet.

As you may know, Reuben MacBride will be moving to Las Vegas in the near future. I asked Reuben to recap his modeling here in District II, which he's done below. What Reuben has done for the Garden State Circle Burners club (GSCB) over the years is a major contribution to our club and our sport. Thank you, Reuben!

"I started flying model planes at the age of 10, in 1959. My first plane was a plastic P-40 with an .049. As with most plastic planes, it was too heavy to fly well. So I built the solid wood plane called the Firebrat.

"In 1959 I could go with my father to Garrett Mountains in Patterson to fly.

When that was closed to flying I went to Lyndhurst parks. They made us a fenced in circle just for planes. I stayed away from joining the Circle Burners, as my father was not too happy with cutting the club's grass. But in 1963 we were chased away from all our free flying parks, and the GSCB looked like it was our only place left to go. Yes, we cut the grass with lawnmowers that were kept on the field in a wooden storage shed. Dues were \$1.25 a month for adults and 75¢ a month for kids. The club field being in the swamp was subject to flooding and theft. The two industrial lawn mowers were stolen, and later the storage shed was set on fire.

"I got interested in CL Scale as a junior and always thought Scale was a crowd pleaser, as the crowd of spectators seemed to stay till the end to watch the planes fly. As a member of the GSCB I took on many jobs, including Membership Chairman, Vice President, President, and for the last eight years, Treasurer. In 1983 and 1985 I entered Scale at the Nats, flying a Mitsubishi Zero. I came in fifth place, a proud moment for me. After that I took up flying Stunt and learned the pattern without crashing a single plane. I was building too heavy as in scale, where weight did not affect the level flying, so I had to learn how to build light and paint

light. I attended as many contests as I could and always offered to help out in any way I could.

"Going to the Brodak Fly-Ins was a vacation in paradise. The friends I met there are so precious to me. One year I went there and I could hardly walk, never mind fly a plane, due to a bad hip. I volunteered to work the pits in PAMPA Stunt for intermediate, and there were a lot of fliers. The pain I was going through was high, but my love for the hobby made it all worth it.

"I even offered to launch planes for several modelers and literally *rolled* off the circle, because I couldn't stand up without help. I guess several people thought I was a good sport, as they awarded me the "Spirit of the Sport" award. That year I had my hip replaced right after the Fly-In. The doctor wanted to do it before, but there was no way I was gonna miss out on that event.

"I am moving to Vegas this year to be with my only grandchild. He is what my heart and love are all about. Once I settle out in Vegas I will plan trips each year to visit my friends at VSC.

"The photo is from the 1968 Snowbird meet. I'm on the LH side of the photo, holding the fuselage and outboard wing during a pull test." *SN*

## Ohio, Pennsylvania, West Virginia

# District III

By Patrick Rowan

Another Brodak Fly-In is in the books. Anyone who won or placed deserves a lot of credit as participation was the highest ever. Not an easy task for the CDs Allen Brickhaus and Tom Hampshire. Very rare to see any of the 6 circles empty of fliers. Much fun.



Ken Cerni holding his LA 40 powered Viking OTS entry. At Brodak's.



Ray Rowh from Norton, OH holding his LA 46 powered Cardinal on Friday morning in heavy fog. At Brodak's.



Scott Reynolds, a member of the Dayton Buzzin Buzzards, holding his new Jet styled Stunter. Powered by PA 61 side exhaust. At Brodak's.



Dalton Hamett from Albion, PA holding his PA entry. At Brodak's.



Randy Holcroft, a member of the Philly Flyers, about to pull test his Cardinal. At Brodak's.



Lorna Keller holding while her husband Eric gets ready to start his official Intermediate flight. Aero 36 powered Vector 40. At Brodak's.



From Akron, OH Gary Tultz holding his Cyclone PA 61 powered PA Expert entry. At Brodak's.



Alan Buck holding his PA 40 piped Staris. At Brodak's.



Ken Armish from Selinsgrove, PA working on his PA 61 powered Intrepid Friday late afternoon. His efforts paid off with a 3<sup>rd</sup> place in PA Intermediate. At Brodak's.



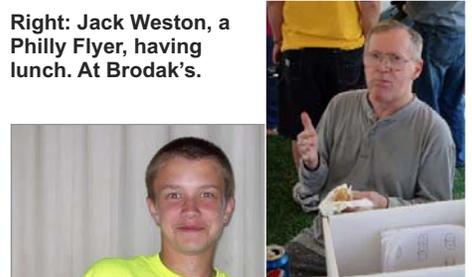
Roger Strickler from Akron, OH holding his Sharp Wild Bill Fierce Arrow. At Brodak's.



Roger Strickler's OTS McCoy 35 powered Darling. At Brodak's.



Dan Banjock launching Mike Palko's nice electric P-51. Mike won PA Expert. They are both members of the Philly Flyers club. At Brodak's.



Right: Jack Weston, a Philly Flyer, having lunch. At Brodak's.



Mason Brown from Townville, PA with his awards from his 1<sup>st</sup> contest. At Brodak's.



Dave Heinzman from N. Olmsted, OH holding his LA 46 powered Jaguar. Friday at the Nats. Dave made the top 20 in Advanced. Muncie, IN.

Till next time fly Stunt. *SN*

# District IV

By Steve Fitton

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

Hey everybody, I hope you are enjoying the summer! This has been the peak of summer Stunt activity, with a huge chunk of the district members going to the massive Brodak event, and a much smaller contingent venturing to the Nats.

I was not able to attend the Brodak gathering due to conflicts in school schedules, however, William Davis was kind enough to send me over a thousand pictures on a CD from the contest, and through his hard work behind the camera I have been able to document the activities of many of the District IV members enjoying the contest.

Don't forget that we have several more contests coming up in District IV this season. The weekend of August 14-15 is the Jim Coll memorial contest in Maryland, then at the end of September we will have the Northern Virginia contest, and things will finally wrap up for the season with the October Huntersville contest. Keep practicing out there and be ready for the upcoming contests!



Metrolina club member Col. Duckworth puts up some flights at Brodak's.



Gary Lutz brings his gorgeous Spitfire off the circle after a flight.



After so many flights, Duck is ready for a nap!



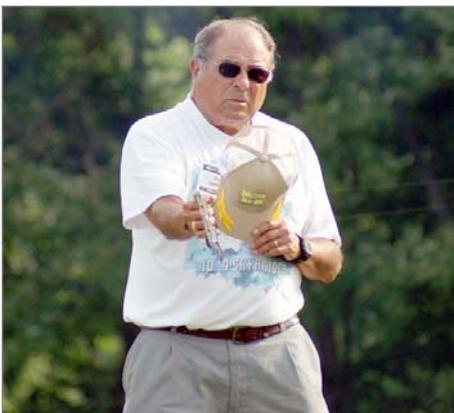
Bub Reese puts in a flight.



Brodak's seems to be the natural habitat for the Bi-Slob.



Watt Moore readies his old time plane for an official flight.



Phil Spillman puts in a flight early in the week at the Brodak's contest. Phil would go on to judge Expert PA later on.



Watt pens a suitable inscription onto a junkyard wars model at Brodak's as Banjock and Ted Heinritz look on.



Everett and Jo Shoemaker came out to Brodak's for some Carrier action.



Larry Fulwider tinkers on his plane at Brodak's. If you are wondering why the photo quality has improved so much in the last two issues of SN, it is largely due to this man's contribution!



The giant Philly Flite Streak dwarfs a sizable bunch of the Carolina gang. The expression of shock on Duck's face indicates that Banjock may have threatened to make Duck fly the beast!



The giant Streak generates considerable line tension ...



Not quite Paul Walker's Stunt B-17, but this scale rendition makes an incredible sound when it goes around!



I don't know what exactly Clayton Berry is up to with this Fokker Triplane and old K&B motor, but it's sure to be noisy if nothing else!



It looks like a lightbulb just went on over Bill Mandakis's head in this picture. Perhaps some sort of trimming epiphany?



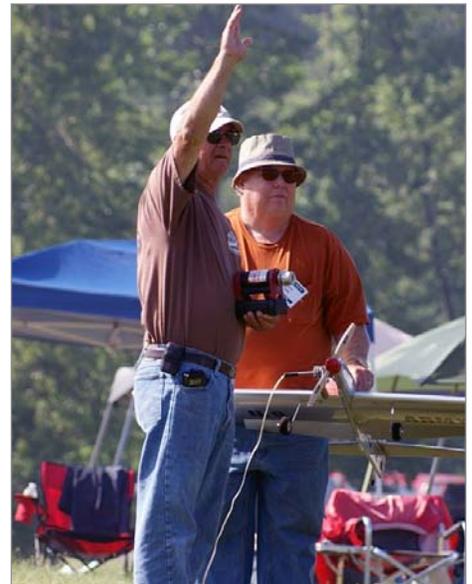
Willis Swindell makes the long trek back to the parking lot after his official flights.



Adrian Dominguez's new Shark model sits ready for Advanced at Brodak's. Adrian removed the Retro 61 and uses a PA-61 instead. Somehow, he has managed to capture the quiet Retro style run with the PA, just with more power. Adrian would go on to win Advanced at Brodak's, earning him the BOOT to Expert.



John Tate puts in a pattern in the Advanced PA. Inset: Tate's Vector 40 makes a smooth landing on the grass of the Advanced circle.



Artie Jessup signals the start while John Tate holds Artie's XP-40 profile model. Engine failure caused this fine model to be demolished two days before Artie left for Brodak's. Working day and night, Artie was able to do a masterful rebuild and have the model ready to fly at the contest. That's dedication!



Kent Tysor is a study in patient concentration as he needles his Strega's RoJett 76 before a flight in Expert.



William Davis walks his model out for a flight in Advanced. All the fine pictures of Brodak's you see here were shot by William. (Well, except this one ... )



William Davis's ST-60 powered Skydancer does its thing!



For those of you who remember Rusty Brown and his dog Sugarbaby, this memorial trophy should have special meaning. Here, CD Allen Brickhaus prepares to present the trophy to Marvin Denny.



Lydia Moore gets a trophy and a jug of fuel with what looks like some cartoons scrawled on it. There must be a story here ... !

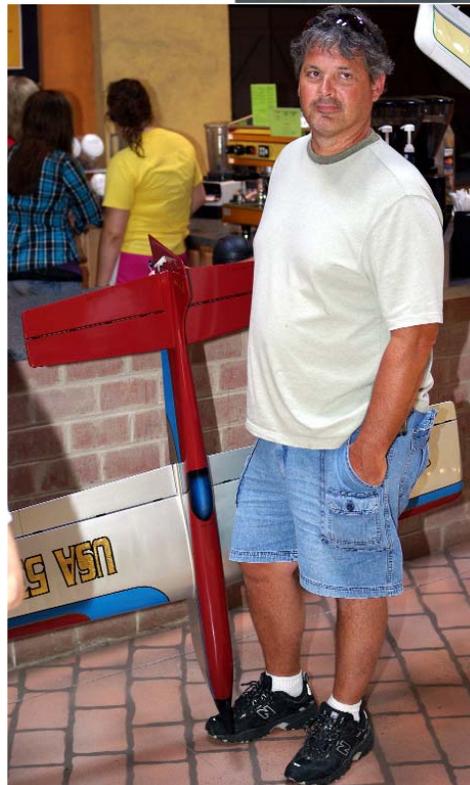
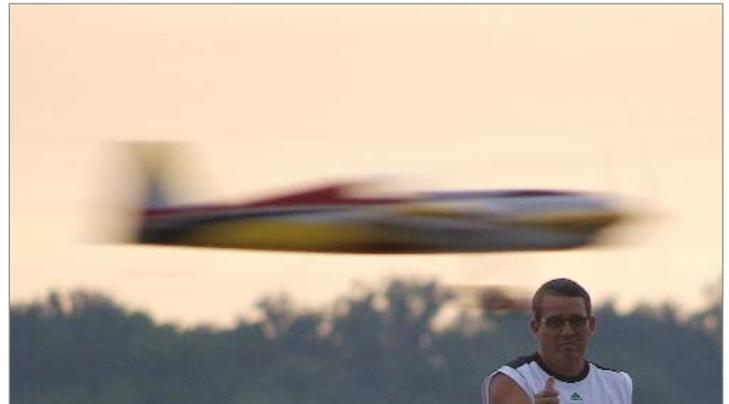
Lastly, a bit about the Nats. I cannot include massive amounts of pictures in this issue, because otherwise they will have to be shrunk to the size of a postage stamp to fit in my allotted space.

But I would be remiss not to recognize fellow District members Adrian Dominguez, who placed fourth in



Tim Stagg earns a third place finish in Advanced with his awesome new electric Tsunami Stunter. Great job Tim! Tim also won Advanced profile and came in second in Advanced classic.

Advanced at the Nats, and Kent Tysor, who placed a personal best seventh in Open at the Nats. Great work for both of you guys! *SN*



Above: Adrian Dominguez practices late in the evening on the L-Pad at Muncie with his PA powered Shark.

Left: Kent Tysor waits in line at the 180 building for his Strega to be judged.

# District V

By Eric Viglione

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

This past couple months has seen a flurry of activity, not the least of which is our three District V fliers prepping for the FAI World Champs in Hungary. Derek Barry and Bill Rich have their new planes trimmed out and ready to do business! I assume Orestes Hernandez is up to his usual gold standard by now, but did hear that he lost his regular flying site.

**Stunt Camp:** Every year, Randy Smith holds a “Stunt Camp” for local Stunt fliers who are trying to improve, and those willing to travel. This year, it included our two WC Team members Bill & Derek. I attended a funeral Saturday morning and had to arrive late. So, I only flew Sunday, but even that one session was well worth the 8½ hour drive. Derek & Bill are looking solid. We all got some pattern critique and some minor trim adjustments were made as well.



Gene Martine giving Bill Rich's WC plane a launch at Stunt Camp.



Gene's tail wheel about to drop after greasing it in.



Derek & Dale Barry share a lighter moment as Derek preps his new WC plane for a flight.



Derek's new Dreadnought makes a pass over the top.



Derek's little Layla, a future Stunt flyer?

**The Nats:** District V was well represented at the Nats, despite missing 3 of the usual Nats attendees who will be at the FAI WCs, making up 3 of the 4 team members for F2B.

I made the sojourn to Muncie for the second time, but spread the drive across two days instead of trying to do it in one shot like last year. I felt much better as a result, and I think I flew better for it too.

On the day of my arrival, there was some fiasco about AMA not letting us fly until an RC event was done, for fear of us getting hit in the fly over zone ... Other than that the only other hitch was the condition of the grass circles which one of the locals (thanks!) ran home and got his mower to cut, making the venue once again one of the best in the country. (*That individual was Allen Goff. —Ed.*) Sure beats my turbulent home field for clean air!

Appearance judging and pilot meeting went as usual, with once small hitch on one flier finding himself in the wrong class. We re-drew our numbers and Howard Rush's spread sheet rolled with the punches just fine.

During the week, we had just about every kind of weather Muncie had to offer. Practice day threatened rain off and on but never did much more than mist on us. The heavy rain was saved for after hours, thankfully!

On day 1 of qualifying the air was so dead, you had better been back pedaling during your tricks, or you would get nailed by your wake. As a matter of fact, the air was so dead (Ok, everybody, all together now, “How dead was it?”); it was so dead that I hit turbulence from the previous maneuver *after doing two level laps* and starting the next maneuver! That muggy dead air coupled with the extreme heat, made for a tough and uncomfortable day of flying.

On day 2 qualifying got a little wind going later in the day, but it was very flyable. Someone told me the local airport measured it at 17 mph on the top end during the second rounds.

Some Nats highlights for District V: Dale Barry took 4<sup>th</sup> place in Old Time Stunt with his new Jamison. In Classic, Don Ogren took 6<sup>th</sup> place with his Charles Mackey designed Gobbleschwantz. In Advanced, yours truly took 1<sup>st</sup> place with my new Starfire. Enrique Diez took 5<sup>th</sup> place with his Shark. Don Ogren took 19<sup>th</sup> with his classic Gobbleschwantz plane. Ronnie Thompson took 24<sup>th</sup> flying a Tempest also.

Sam Niebel placed 30<sup>th</sup> flying his Nobler. In Senior, Sam Niebel took all the marbles with 1<sup>st</sup> place flying his electric modded T-Rex/P-47.

In Open, Josias Delgado took 10<sup>th</sup> place with his Shark. Randy Smith placed 14<sup>th</sup> with a Katana. Gene Martine qualified and finished out in 19<sup>th</sup> place with his SV-11. Wayne Smith almost qualified, but passed on a flight because he thought he was a lock; unfortunately that got him bumped to 25<sup>th</sup> with his Tracer. His brother Jim Smith placed 29<sup>th</sup> with his Tracer. Stan Powell placed 28<sup>th</sup> with his Impact. Seems like Stunt is alive and well in District V!



Charles Mackey signs Don Ogren's wing. (Martine photo.)



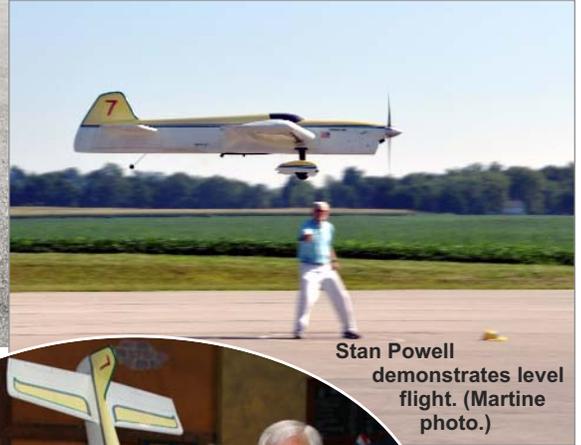
Don Ogren with Gobbleschwanz. (Viglione photo.)



Josias releases Enrique Diez's Shark. (Martine photo.)



Ronnie Thompson with his Tempest ... scored well in appearance judging too, as I seem to remember it being a couple rows ahead of mine. (Viglione photo.)



Stan Powell demonstrates level flight. (Martine photo.)



Left: Stan Powell with Impact, in line for weigh-in and appearance judging. (Viglione photo.)



Gene Martine with SV-11, ready for appearance judging. (Viglione photo.)



Josias with Shark, ditto. (Viglione photo.)



Enrique Diez with Shark, ditto. (Viglione photo.)



Phil Coopy, Pitt Boss Extraordinaire. This is Phil's second year volunteering. THANKS PHIL!!! (Martine photo.)



Dale Barry wanders up from OTS circles to chat, sans Derek who had to forgo Muncie for Hungary. (Viglione photo.)



Viglione makes an inverted pass with Starfire. (Martine photo.)



Above, right: Smith Brother Stunt Team brings 3 electric T-Rex/P-47s. Sam Niebel flew his to win Senior. The other 2 weren't ready for prime time, so Jim & Wayne flew their original Tracers. (Martine photo.)



Sam brings it in for final landing in Walker Cup fly off. (Viglione photo.)



Above: Randy Smith pilots Katana. (Martine photo.)



Above right: Randy feels for the wind. (Fitton photo.)



Above: Sam Niebel with Senior Trophy and E-T-Rex P-47. I need to come up with a shorter name for this one! (Martine photo.)



Some poor schlep who is getting fed to the wolves next year in Open. (Martine photo.)

Dan Banjock is not a District V member, but we did fly each other's planes after the competition was over, so I've made him an honorary member for this column. His Vista with that big PA75 purring along is one sweet ride.

Thanks Dan! Dan had nice things to say about my Starfire too.



Dan Banjock's Vista gets a launch from Steve Fitton.

Other people involved in the fly-around were Steve Fitton and Randy Smith. Steve's Time Machine is in greatly improved trim over last year, and I felt instantly comfortable with it. Steve flew it extremely well in competition, especially in the wind on round 2.

Another real treat was flying Randy Smith's Katana ... Hard to put into words, but the steady and symmetrical pull of his PA51 in that well-trimmed plane feels great. It flies a lot like my Starfire, but with lighter control feel and slightly faster response. Thanks for the ride Randy.



The inestimable Dan Banjock, with accomplice Jim Lee, launches the Death-O-Matic 2000. You can see Dan running for cover as Jim braves the launch. (Viglione photo.)

Danny's "Death-O-Matic 2000" as I coined it (can't remember official name, but it was no where near as fun) was a bizarre free flight deal he found in some old magazine and built. It looks about like a helicopter rotor, with a 1/2A engine mounted on one blade, and a little stab/tail on the other with a dowel rod in a third blade configuration that seems to serve no other purpose than to provide balance/ballast with a little bit of clay on the end.



Fueling the Death-O-Matic 2000. (Viglione photo.)

It launches off of a post in the ground which it starts its rotation on until it rises off of the post. A very scary looking deal to the un-informed, hence the name I gave it. A real Rube Goldberg kinda deal you would think, but it flew very well right off the board, soaring up almost out of sight, and counter rotated back down perfectly when the engine cut out. Danny is a one man traveling party.

I apologize to any District V members I missed or left out. Please contact me and let me know if I missed anyone.

Hopefully we will have more success stories for the USA FAI F2B Team District V participants to tell in the next issue as to the outcome at the FAI World Champs.

To leave you all with a warm fuzzy, I'm most happy to report Owen Richards' return to the flying ranks. Owen's undaunted attitude with his physical therapy following his illness mentioned in my last column has paid off big. And I even have photographic proof! You go Owen!



Owen Richards puts his profile Cardinal, LA 46 through the inverted laps. (VanDuzer photo.)

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

Illinois, Indiana, Kentucky,  
Missouri

## District VI

By Allen Brickhaus

We open with a brief email from Larry Renger:

"Thanks for your mention of the Leprechaun event in the latest *Flying Models Magazine*. I thought you might like some photos to use if you care to blow more ink on the subject.

"I am holding the Leprechaun Pot 'o Gold trophy that is given out to the highest placing Leprechaun model at the Palmer Memorial meet. Leprechaun is flown as a sub-set of 1cc Aerobatics. The thing that makes a model 'Leprechaun legal' is that it is a scale model (1:1 is a valid scale) of an OT or Classic design. I have never won the cup; I just built the trophy and sponsor the event.

"Next up is a Baby Nobler built by—and refinished by—me. It is a bit squirrely due to control setup and balance, but will do the whole pattern. It is too small with a wing area of 165 square inches.

"Then there is the scaled down Twin Flite Streak held by Stan Tyler. Currently

powered by a pair of Medallion .049s (multi engine allows up to .102 cubic inches) it turns a simply amazing pattern. I believe it is 340 square inches and has a 52 inch span.

"Finally, there is the Baby Magician, available as a Carsten's Plan! At 230 square inches, it is a smooth flyer capable of 500+ point patterns with the AP Wasp .061 and Jan Holuszko's venturi. It is a scale down of the .35 size Magician as originally prototyped by Jim Silhavy, and I have the letters and photos to prove it! I think I sent all the original photos to *FM* when I did the article, so a scan of the first page is the best I can do on short notice. I'll have to track down the slide or negative to make an original.

"Currently available kits that meet the Leprechaun standard are the Pinto from RSM and the Baby Flite Streak from Brodak. At the last Palmer meet, we flew 1cc mixed into the Advanced fliers. The 1cc models *all* beat the winner in Advanced! We mix the models in for two reasons. First, it eliminates the need for extra judges for a small event (pun

intended) and second, it assures that the judging is graded on 'size, shape, intersections and bottoms,' not, 'that's pretty good for a small model.'"

I would suggest talking to Jim Renkar about building a Leprechaun for his event at the Sandwich Airport in the September time frame.

**Two area events ran into problems** with timing and weather. I would normally have plenty of shots of the Ice O Lated contest at Buder Park near St. Louis, but rain attacked the date and few shots exist of the late February event. Rain and very soggy ground, brought the Sig contest to its knees, due to the excess precipitation. Mike Gretz had to use his tractor to get the RC modelers out of the flying field in Montezuma, Iowa the previous weekend and Hazel Sig hated that the yearly event did not happen. We certainly wish that 2011 Sig event is sunny and successful. For that reason I am running pictures sent to me via email from fliers around our fine nation. *SN*



Here is a shot of Larry Renger's Baby Nobler and powered by the diminutive engines recommended for the Leprechaun event.



Larry's very well known Jim Silhavy early Magician. This has been a very successful model for Larry in the event.



Les Byrd has attended the WKSI in the past and his new Oriental was finished on July 4<sup>th</sup> of this summer.



Pictured is Stan Tyler with his Twin Flite Streak and twin power plants to motivate the bird through the pattern. Stan also brought a very nice Adam's Special and a Cavalier to the VSC the past two years.



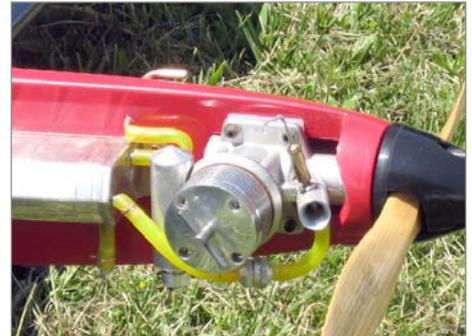
Chuck Feldman, participant to the WKSI not too many years ago, hails from Stuart, Florida and is now near finishing his new Ringmaster. The roundels are hand painted.



Les is especially excited about the checkerboard on the bottom. It is hard to do, and Les has accomplished the task well.



I really like the yellow scheme, the roundels and the paint on the rudder portion of his Ringmaster. I believe Chuck is running a smaller than .35 O.S. Max engine for power.



Do I see a diesel power plant on the nose of Les Byrd's new Oriental?



Larry Renger grapples with the Leprechaun Pot 'o Gold trophy as put together by himself. He built the trophy, but has yet to win it.



Floyd Layton of Davenport, Iowa is gaining strength from his kidney surgery. We wish him a speedy recovery. Floyd's Buccaneer 740 is powered by a .40 O.S. Max.



Your columnist drove to Springfield, Missouri to host a flying clinic. The wind kept everyone else away, but we got about a half a dozen trim flights on James Mills' Randy Smith Tempest. Nice twin rudders on the bird, James!



A bit closer look at James' new Tempest with a Randy Smith .61 and a pipe. Seems this will be a great windy weather model.



Andy is now the proud owner of two Buccaneer 746 Profiles and is ready to get them on the circles. One has flown, and the other is yet to be in the air.



The bottom of James' Formula S is coming along well. James uses Byron Barker's C.F. Slattery paint stand to its full potential.



I roped this pack of wild horses on route 60 while traveling along the bottom of Missouri to work the flying clinic at the Springfield, Missouri circle.



Another shot of Andy's Buccaneer 746 Profiles. Paint scheme stolen from Don McClave of Oregon.



I had dinner at this table in James and Beth's house in Ozark, Missouri. It works well to display James' new Formula S.



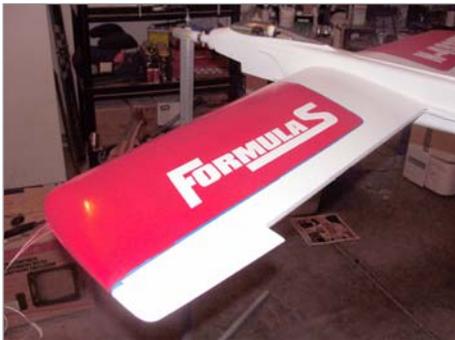
Here is the collection of pilots who flew at the Mike Schmitt Windy City Classic over the Memorial Day weekend. I left early due to lack of flying machine as the Rayette caught the grass again inverted. It seems like I would stop doing that, with more practice.



I wanted all to see James' work on the air scoops on Jim Kostecky's design.



Andy Stokey is building a Buccaneer 746 Profile, and it is shown in bare-bones from his New Orleans area home.



Here is a collection of shots of James Mills' new Jim Kostecky Formula S Stunt model. One of Kostecky's models still hangs in Schaffer's Hobby Store on Gravois Avenue in southwest St. Louis.



James has since added a bright blue, and the model really begins to shine.



Mike Schmitt of Greyslake, Illinois has now an Encore 40 with a piped power plant for motivation.



Mike Griffin of Georgia is also completing the painting portion of his own Buccaneer 746 Profile.



Jim Lee, Mike Schmitt and Bob Baldus accomplish hangar-talk at the Polk City Iowa event.



My Do-335, begun while I was in high school around 1963, is nearing completion. To solve a balance problem, I am going to replace the .049 with a .020 Cox engine.



Does Mike have an affinity and strong feelings for enemy combatants?



Fred Miles, last seen at an FAI Team Trials in the late '70s brings his Warlord back to the Stunt circles. It is great to see him back and on the trail.



I wish this were the take-off shot of my Do-335, but this picture is wishful thinking on my part.



Crist Rigotti discusses the day's events at the Polk City Iowa event with Ivar Greizins in the early portion of May.



Fred is carrying his Warlord to the Advanced Circles at the Polk City Iowa contest.

# District VII

By John Paris

Iowa, Michigan, Minnesota, Wisconsin

Finally it is contest flying season. The first contest in District VII that I was able to attend with some Stunt action was the Kalamazoo leg of the Tour D' Michigan. There were 14 fliers in Fun Stunt with Jim Morway coming out on top flying his Playboy themed Cavalier. These contests are a great way to get some exposure of the various CL events for the many sport flyers out there.



This year Michael and I made the trip out to Brodak's Fly-In. Based on the success from last year Michael was ready to try things out in Intermediate. Frank Carlisle was there as well and we all camped out in John's side yard. The weather held out fine with only a little rain during the pilots' meeting on

Left: Terry Bently getting his Super Clown ready for action.

Tuesday morning, District VII was a little light on competitors with me, my son, Frank Carlisle, Jim Morway (1<sup>st</sup> Place in Intermediate Nostalgia), the Adamisin Clan and Tony Kubes (1<sup>st</sup> Place in Beginner CLPA) in attendance. There may have been a few more, but at such a big event it is easy to miss someone. As luck would have it, Michael forgot to put the memory card back in the camera so I was not able to take any pictures. Patrick Rowan from District III and Frank Carlisle provided the following:



Michael and me getting ready for his first shot at an OTS event.



Frank Carlisle launching Michael's Fox 15 equipped Flying Clown.



I set the needle on the O.S. 20 just a little lean on Michael's Skyray 35.



Dad to the rescue in John Brodak's shop.



Frank Carlisle and Gary Lutz preparing the LA Heat for action.

Because of the issue with fuel load on the Skyray 35 I thought it might be a good time to upgrade Michael to a different airplane for the Nats. After some thought and consideration of the rules and requirements we came to the conclusion that a Brodak Cardinal ARC might be best. Michael got to experience the final fitting, sanding, covering and assembling the airplane in the little time that was available between the events. True to form, we were up the Friday night before leaving for the Nats until about 3:00 am fitting things together. Saturday was spent trying to work out the engine and tank combination as well as trimming the airplane and Saturday evening was spent loading up for the trip to Muncie. In conjunction with the build, Michael was able to be accustomed to the design by flying my ARF Cardinal.



Michael with his new airplane for the Nats.

When we arrived on Sunday the wind was blowing pretty well and I thought it might be a good time to get some handle experience with typical Nats weather. We both flew a couple of flights and called it a day while we both still had airplanes.

The grass circles were mowed and from a distance appeared to be fairly short but this was not the case when we got on the circle. As it turned out for both of the Beginner and Intermediate events the Event Directors decided to give the same points to everyone for takeoff and landing. This took a lot of pressure off the pilots for a somewhat difficult condition.

For Intermediate we had two pilots from District VII; Michael Paris and Vince Bodde. Michael managed to finish 7<sup>th</sup> on his first outing while Vince placed 2<sup>nd</sup>.

The Cardinal that Michael worked hard on not only brought him 7<sup>th</sup> place, he was also awarded the Best Brodak and Pilot's Choice awards.



Vince Bodde takes 2<sup>nd</sup> in Intermediate with some very good flying.



Michael's take home from Intermediate.

Some of the local Muncie fliers came out to watch the event and returned shortly after it was all over with a tractor to help get the grass to manageable levels for the OTS and Classic events the next day. As it turned out, fixed scores were set for takeoff and landing again, but it was nice to have the grass trimmed for easier take offs. The OTS and Classic events went along well with Bob Brookins as the Event Director. It was a little misty in the morning, but no serious rains came down.



Allen Goff bringing the grass down to better levels for the Classic airplanes.



Michael and me preparing for my OTS flight.

With the unofficial events behind us it was time to get ready for some quality time on the L-pad. I entered Advanced this year and managed to qualify and come in 7<sup>th</sup> for my best finish yet.

While I think that I could have done better with a little more practice, I think that my time was much better spent guiding Michael through his build. As a surprise, Frank Carlisle and Dan Miles showed up to cheer on the District VII fliers.

They kept themselves busy helping out with some coaching for me and launching for others.



Getting ready for my first Advanced flight of the Nats.

The only other District VII person I saw up on the L-pad was Bob McDonald. He was there with Bill Werwage (eventual Open and Walker Trophy winner) and had a new Apogee IV for this year.

There was a PA 75 under the hood and he was swinging a 14-inch two-blade propeller that he had made. I joked with him about having to get his props at the ultralight store since they are getting so big.

Bob also qualified for the Top 20 fly off and finished at number 11.



Bob's new ride for this year.



Time to fly.



Eventual Open winner Bill Werwage launching Bob's airplane.



If flying at head level is where you are supposed to be, Bob has it nailed.

Michael flew the 322 event as the lone Junior this year. Since he was so new to the pattern I tried to help out with some signals from the outside of the circle (at Brodak's I sat in the center with him flying).

I think that some of the guys got a kick out of this and my wife took some shots. The only thing I have to say is that he had better memorize the pattern. The end result was certainly worth it though as he was awarded the Junior Trophy and got to fly for the Walker Trophy.



Above: Overhead eight.

Right: Impress the judges and do the clover on one foot!!!

I had hoped to have a report for the Sig event this time around, but as I am sure that most are



aware, the heavy rains in Iowa led to the cancellation of that event for the first time in its history.

Mike Gretz sent along some pictures of the field and it was certainly the right thing to do. As of this writing, I am still hearing stories of the rains out in that area. Hopefully things remain manageable for people out there and we can give it a shot again next year. This would have been year 18 for me and would have been accompanied by Dan Miles, the guy who took this military refugee out there for his first time.

As a note of caution, Bill Werwage had his engine start while he was flipping the propeller even though there was no battery hooked up. Luckily Bob was there holding the airplane so no serious damage was done, but Bill did have to fly with a bandaged index finger.

I have had some of my Fox engines do this as well so I guess the best approach when flipping a prop is to assume that the engine could start and to be ready for it.

I am still looking for some input on the contests and activities that I am unable to make within our district. So please drop me a line or a call so I can include a summary in our column. Until next time, fly safe and have fun. **SN**



Left: The winners for Junior, Senior, Open and Advanced.

Arkansas, Louisiana, New Mexico, Oklahoma, Texas

## District VIII

By Don Hutchinson

“Igor! Fetch me a brain.” It’s deadline time and I have no idea what to write about. The Nats starts next week so no words from there yet. Besides, it will be history by the time this reaches your mailbox. So, instead of District 8 dirt, having been there, I will do a little history of the OTS pattern and how it evolved from the early days of control line modeling, starting back way before most of you were born. A bit of trivia first. How many Ringmaster kits did Sterling sell?

Here is my first (and only) chapter of “Stunt History.”

The first post-WWII Nats were held in Wichita, Kansas in 1946 and for the first time they held control line events for Speed and “Stunt” which included the “Stunt” champion winning a new perpetual award, the Walker Cup. Now, since Jim Walker generously provided the trophy, he also generously provided the rules by which it would be awarded. He being a showman as well as a shrewd businessman, liked to demonstrate his famous Fireball doing

things like the “Sabre dance,” flying two or three at once, glider pickups etc. He even had one that could do a roll! Hence the rules were set up to emulate what he thought the whole thing should be about. Thus the rules at that time consisted of three classes of maneuvers: Precision, Aerobatics and Novelty. Pilots were allowed three official flights to amass points.

Precision: Take off, overhead flight, wheel touching, landing and spot landing (dead stick).

Aerobatics: Wingover, vertical dive, stall and recovery, inside loop, consecutive loops, square loop, inverted flight, outside loop, inverted inside loop, inverted outside loop, pair of spectacles, rolls, full, half and reverse(!), Cuban eight, Immelmann, flying two planes at once, waltz or formation shift.

Novelty: Unassisted takeoff, pick up glider, pick up other object, release (glider, sign or parachute), laying smoke screen, retract landing gear, carrier flight, dive bombing, balloon bursting, motor control, multiple motors, remote control.

Unfortunately, I do not have the “next page” of the rules which give details of description and points but you get the idea; it was quite different from the OTS pattern we know and love today.

This pattern was also used for the 1947 Nats held at Monticello, Minnesota, right near St. Paul where I lived then. Unfortunately, I was sick and had to miss the show, but fellow Piston Pusher club members did quite well, Keith Lightfoot, 4<sup>th</sup> and Norm Mayeda, 6<sup>th</sup> in Senior Stunt. With these rules, one can easily see why JC Yates didn’t win it with the Orwick 64 Madman!

Oh yes, in the published results info, it is called the Walker Cup! (That may be true, but subsequent to this the FAI Team award was named the “Walker Cup.” That award is indeed a “cup” not a trophy, and so the award given to the overall winner at the Nats each year has come to be known as the “Walker Trophy. —Ed.) And the high point winner of any age class got it, no fly off! Make it two in a row for Davis Slagle. He also won it again in ’48 but that is a

different story for another time.

Rule change time! For 1948 and 1949, the rules committee, chaired by Roy Mayes set up new rules much closer to what we fly today in OTS. It is the same pattern we now fly except the horizontal eights did not require the model to be vertical at the intersection nor was being horizontal at the vertical eight intersection specified.

One additional maneuver following the square loop was the "special maneuver" which was the pilot's choice. One favorite was flying through a wall of fire! Oh yes, they also added appearance points based on realism, workmanship and finish and the pull test at that time was 15 Gs. The novelty rules were still on the books and had a large influence on who became the Walker Cup winner.

Wynn Paul: check the scores from the '49 Nats! What happened to Lou Andrews? Oh yes, these were also the first Navy Nats, both years at Olathe, Kansas. I flew in the '49 Nats but have no idea where I ended up. Norm Mayeda did well again, tied for 3<sup>rd</sup> in Stunt and won C free flight. Dick Olwin from St Paul was 5<sup>th</sup>, both in senior class. Note: I have omitted the "starting points" from this dissertation as they were a big deal back when spark ignition was all there was, but now, hardly a factor so we don't use them today.

It's that time again! For 1950, they specified vertical and horizontal intersections to the eights and dropped the novelty event but still had the special maneuver in the schedule.

The next iteration is of course the 1951 and 1952 rule book. Pretty much a copy of the 1950 rules except the special maneuver

was taken out and what was left is what we fly today in OTS. You all owe Roy Mayes a huge thank you! He did not like the ugly barn door Stunt models of the day so he instituted the appearance points to steer us in the right direction as well as leading the development of a good pattern.

So now ya'll know what I was doing 60+ years ago! The first Stearman was built then. It had a 32-inch wingspan and an Ohlsson 23 front rotor engine for power. I still have the plans it was derived from but don't know if they would consider a new build legit for OTS. A new challenge to face? Anybody interested?

**We held the annual Dallas Model Aircraft Assn. "Summer Heat" contest back in June.** We had decent weather but it was hot and breezy. We had a nice turnout and it was a good warm up for Nats attendees! By the time you are reading this we will know how it all played out in Muncie! As there was a lot of coverage of our meet on the internet forums, I won't go into detail here other than to say we all owe thanks to CD Dale Gleason, his wife Linda, and all the volunteers that made it a success. Folks

around the country that do this are the glue which holds our event together! Go help out at the next contest. Uncle CD needs you!

**Sterling ran a contest** to guess the number of Ringmasters sold back in the late fifties. The closest guess came from Pierre Hartshorne in Los Alamos, NM. His guess? 238,333. The actual number was 237,582! Info is from a Sterling ad in the January, 1959 *Model Airplane News*. A lot of Ringmasters! Where did they all go?

There was a model magazine cartoon years back where astronauts landing on the moon found all the lost free flight models but Ringmasters? Bet there are still some gathering dust in garages and attics around the country.

I will give you all a rest from the usual dippy ditty this time, Igor hasn't come back with a brain yet! Actually, I'm not getting a new brain, the old one is "low mileage" but I am having a pacemaker installed the day before the deadline for this issue, thus the early submission. Just to give you something to look at, I will post a couple of photos here that do not show any models! **SN**



A lot of Stunt fliers are also train buffs. This came ripping through my area about 65 MPH recently. Only got one shot at it!



Yours truly. Once considered one of the best fliers in the country, just not very good in the city!

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# District IX

By Carl Shoup

**H**ello. I received two letters from Gary Hetrick who lives in Fremont, Nebraska, and he had this to say.

“Here are some photos of our Fremont Days Fun-Fly, held July 9, 10, and 11. Fremont Days is a celebration of the man who pioneered this part of the country and town. It is a three-day affair.

“We put on flying demonstrations on Saturday, all day and I offer free flying lessons to anyone who is interested. I gave 15 lessons by the end of the day and the plane finally quit running and so did I. Fourteen of the people who took a lesson were kids—ages 6 to 16—and one adult.

“I have hosted this event since it started 18 years ago and have been the CD for all. People come and go. They watch the flying throughout out the day and seem to really enjoy it a lot. Many of them are amazed at what you can do on lines.

“The people who flew were the following: Bob Furr, Ed Prohaska, Dan Hilger, Tom Egbert, Wade Pearson, Scott Molk, Robby Olson, and me.”



Dan Hilger holds while I get the trainer ready for another flight.



Bob Furr looking at the remains of his Primary Force.



(L-R) Ed Prohaska, Wade Pearson (seated), Robby Olson, Bob Furr (back to camera).



Bob Furr and Ed Prohaska get Bob's Primary Force ready to fly.



Gary Hetrick doing a fly-by.



A few other planes that were flown.



More of the pit area.

“On Saturday, July 24, we (The Orbiting Eagles of Omaha) were supposed to have a Fun-Fly at the Strategic Air Command Museum. However the wind gods saw otherwise and the parking lot, where we normally fly was taken over by three military helicopters.

“The museum director (a really nice guy) gave us a room to display out planes right next to the restoration hangar. There was enough room in the hangar for two electric-powered 1/2A size models to fly so Bob Furr and Ed Prohaska gave flying lessons all day. By the end of the day they had given close to 80 lessons, mostly to kids.

“The restoration hangar can be viewed through a glass wall right next to the cafeteria so people could watch while they ate.”



As you walk into the museum you come face-to-face with an SR71. Impressive!





Scott Molck showing off his latest airplane.



Some of the display.



I have no idea what Ed Prohaska (L) and Don Dugan were talking about.



Bob Furr giving lessons.

Thanks Gary for the letters and photos. It has been a long 10 weeks as I broke my right ankle at work and I had to have surgery to repair it. So while I was not

working, Gordan Delaney called and asked me to go with him to the Sir Dale Kirm's Knights Joust at Whittier Narrows in California. He told that we would be staying at Warren and Ramona Walkers home and I have to thank them for a wonderful time and hospitality while we were there. Warren's hobby room was amazing he has a real paint booth at one end that is large enough to paint auto parts in. He also holds the club's meetings and building sessions in his hobby room.

Just before I left home the doctor said that I could use one crutch some of the time so I took my Belfrey Bound to fly in Old Time. I asked Gordan to fly my Belfrey Bound also because I did not know if could fly with one crutch. I wanted Dale to get to see it fly again.

My first flight I only flew one inverted lap and was in next to last place and Gordan was in sixth place. Dale finally got to the contest just before second round. Gordan flew before me and he moved into first; I flew last and ended up with second and thought that was very good. Gordan won Old Time and Profile and was second in Classic and Expert. It was a fun time and it was really nice to get to see and talk with Dale and his son.



Dale Kirm at the Knights Joust.



Gordan Delaney, Dale Kirm, Carl Shoup with Carl's Belfrey Bound



Carl flying in Old Time.



Burt Borkaw, Gordan Delaney, and Carl Shoup getting ready for Gordan's flight in Old Time.



Gordan flying in Old Time.



Gordan with Carl after the contest.



I am working on a classic airplane that was designed in 1962 by Nick Bullick named Con Brio when he was in Logan, Utah. He has been in Grand Junction for about 12 years and we have been friends most of the time that he has lived here. He found his old plans from 1962 and some photos and I drew a new set of plans so we can get the parts laser cut.

He had a Johnson Stunt Supreme in his. I do not have one so I weighed his Johnson and it only weighed 8 oz. The only engine that I think will have enough power is an O.S. LA46 but it is 9 oz. I am not working so I put it on diet. It took about 6 hours of grinding and machining and it is now 7.8 oz.



Carl's 7.8 oz. O.S. LA 46.

One last thing: Steven Diaz did not like that I was getting all of the attention with my broken ankle so he tried to out jump Evil Knievil with his bicycle and he broke his left wrist. When his dad got home and took him to the hospital and they found out that it was broken, the first thing that Steven said was, "I can still fly with my

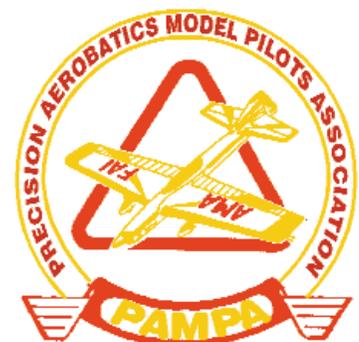
right hand." He is in a cast and his wrist is doing well. *SN*



Nick Bullick with his Con Brio in 1962.



Can anyone guess who this is?



# District X

By Dave Fitzgerald

Arizona, California, Guam,  
Hawaii, Nevada, Utah

I have a lot to write about this issue, but first things first. The boys' Little League season is over. Eric made the All-Star team. He caught almost the entire game. I had the pleasure of helping coach this team. These kids are good, they listen, they know what they are doing, and they know where to go on every play. Boy that was fun. Anyway, back to the All-Star game, Eric was throwing at base runners stealing 2<sup>nd</sup>, 3<sup>rd</sup>, and had one play at home plate; all were outs. He also got on base every at bat against the best pitchers the league had. Not bad. Also remember, Michael is every bit as good as Eric is now, at 2 years younger. Michael had a particularly spectacular play in left field in his last game. It was an ESPN highlight real type play. Running, diving full extension catch and he hung onto the ball. It'll be fun. Napa Saints football practice starts next week, and Rachael will again be on the cheer leader squad for the boy's team. Eric will be middle linebacker, and left guard, Michael starting running back and corner. When I take the kids to practice, I am the conditioning coach, running 2 miles before the 2 hour practice. Fun, fun, fun.

**The Nats are over**, and once again, congratulations to "The Man," Bill Werwage on a well deserved Walker Cup win. I think I read his first win was 1959 at age 17. He's been doing this for a very long time. Notwithstanding Bill's performance, I was hoping we might get a new name on the Walker Cup this time. A huge "Good Job" to Doug Moon. From what I hear, Doug had to overcome a bit of adversity. Matt: also an excellent job. My surprise is Kenny Stevens. I remember from last year, Kenny was a threat, but I think this is his first top 5 finish, way to go! Rich Oliver, always a top flier.

My most proud moment I think was hearing that Jim Aron not only got a very rare 20 appearance points, but he also took home the Concours trophy. Simply outstanding! Those of you who have seen Jim's plane are not really surprised and pictures do not really do it justice. There seem to be two universal reactions upon first sight of Jim's plane. 1, nausea and vomiting or, 2, he is completely crazy and unbalanced. I did notice the other day, that there are no straight lines anywhere on the plane. Nicely done Jimby, and to think, I helped him MonoKote his first plane on

returning to Stunt all those years ago, Franken Stunt. No really, that is the plane's name—should have been an omen of things to come. Boogaloo 3? What happened to 1 and 2? And so on ...

**And now for something completely different.** Jim Hoffman was nominated to run for District 10 director, and I think is unopposed. Congratulations Jim, and thanks for stepping up! Jim Aron was nominated for PAMPA VP, and reports are that he reluctantly accepted. I don't know if there are any other candidates, if not, congratulations Jim!



Jim Aron, 2010 Concours Award. Picture courtesy of John Wright.

**I have some very interesting news** from the Alameda flying site by way of Larry Wong and Dan Gomez.

Hi Dave:

Larry said you wanted some info on the Avanti. Well a guy shows up at the field and said he knew Bob Baron. When he died, his wife gave him some of his planes. He said he couldn't keep them anymore. I know he sold some other planes to other guys at the field, but anyway I bought this plane, no engine. I didn't know what engine went in it. People said he used Super Tigres. A plane that big, I figured a 60? So I had Tom Lay build me a ST 60. After getting the engine, it wasn't close, so out came the Dremel Tool. After cutting, chopping, sanding, I shoe horned the 60 in, patched up and painted the nose. I installed a Uniflow 6 ounce tank, new gear, new leadouts and

bellcrank, cleaned up the linkage, and bolted on a Majic 12 x 6.5" 3-blade prop. It weighs 95 ounces! What a monster. The 60 pulls the plane around no problem. I launched at 9,700 RPM on .018 solids. The plane flies very well for its weight. I taped the hinge lines and it turns on a dime. I did some more patch work on the paint and buffed it out. I think I gave the old gal a new life. I will be using it for this year's competitions. I hope Bob approves wherever he is. Hope this helps Dave.

—Dan Gomez



Dan Gomez with Bob Baron's Avanti.



Another view of the late Bob's Avanti, this is one of Bob's planes, not a copy.

**Next up, an update** from David Chang.

Hi Dave:

This is my newly finished PA 75 (two-port) plane. I used the numbers from my last red plane that you published in *SN* for me. I took a Ukrainian airfoil and drew the entire plane on a piece of paper. I then made lots of fixtures and molds, installed your PA 75 set up. Almost a year later ... this is what I get.

I made one for my friend, and he loves it. I am looking forward to flying it this month. I'll let you know how I made out.

—Best Regards, David Chang



David Chang's latest PA 75 effort.



**Business end.**

You know, a few of us that got started in model aviation went into the big stuff for a living. I had an E-mail conversation with Matt Colan. This is fairly generic advice so buyer beware. Here's what we talked about:

**Subject:** what does it take to be an airline pilot?

Hi Dave:

As I understand it, you are an airline pilot for United Airlines (now United and Continental). I'm interested in becoming an airline pilot, so I was wondering what school you attended, and basically how you became a pilot.

I've been looking at Embry-Riddle as the school to go to, to become a pilot.

Thanks and good luck at the Worlds.

—Matt Colan

Dear Matt:

Thanks for taking the time to write to me. Yes, I am a pilot for United Airlines. I have been flying for them since 1987. I am currently a 767 captain based in San Francisco.

I got started flying through models, Stunt in particular. My dad was a pilot as well as a bunch of other modelers here in the SFO bay area. We attended nationals, and local contests. Then a bunch of pilots got together and got a Piper Cherokee 140 and formed our own flying club. (With Ted Fancher, and Gary McClellan.) Gary McClellan got his flight Instructor license,

CFI, and taught me to fly in the Cherokee. I went up to my CFI in the Cherokee, then taught the other kids in the modeler's families to fly as well. It was a lot of fun, but hard work too.

I went to San Jose State University. They do not have a flying program, but they do have an excellent Aeronautical Engineering department. I pursued my licenses on my own with our Cherokee, and my engineering degree separately. *Have a backup plan to flying for a career.* Aeronautical engineering was my backup. Most of my class was hired by Northrop, and Lockheed. I easily could have had an engineering job with either of them. Instead, after I got out of college, I applied to small airlines, but also pursued a military pilot opportunity.

There are basically 2 different tracks into the airlines.

**1. General aviation.** This is where you get your private license, instrument, multi-engine, flight instructor, and commercial. Then you fight instruct until you have enough time to qualify to fly some charter work, and hopefully are able to wrangle some multi-engine time. Then you probably have enough experience to apply to some express airlines, or small cargo outfits. After you have worked these jobs for a few years you may have enough time to start applying to some major airlines if the economic outlook is good and airlines are hiring.

However, the pay during these years is horrible. In most cases, not much above minimum wage. And you work 2 hours for every hour you get paid: One on the ground unpaid, one in the air. You will amass a lot of debt getting your flight time to get your licenses and the low initial pay does not come close to paying off these debts. You will not start making enough money to live on until you are hired at a major airline. Even then, your first year probation pay is barely above the poverty level.

In the last decade, many airlines have gone bankrupt and have slashed pilot wages and benefits. These cuts have been severe and the piloting profession is not what it once was. Many airlines currently have thousands of pilots on furlough and may not hire for years. I do not recommend this to anyone that is not completely dedicated to a love of flying.

So, you have to be very persistent and want to fly planes a lot to take this road to the airlines.

**2. Military. Active duty.** I would say the best chance of military flying is in the Air Force. Navy, Marines, and Army have aviation careers, but you have a higher chance of not getting through and going to

a non-flying job. The commitment for the military flight program is long; 10 years after pilot training. Pilot training takes a year, then you transition to your weapon system school.

Within the active duty there are a couple of tracks to take.

A. Military academy, meaning Air Force academy, Annapolis, West Point. These are fairly difficult to get into. You have to have a congressional recommendation or a General nominate you to get in, plus about a 3-3.5 high school GPA. Also, you need to start applying the start of your *junior year in high school*. So you have better want it bad to try for this. Plan ahead.

B. College ROTC. This is a series of courses in college that prepare you to be an officer or pilot in the military service. The ROTC will also pay a large chunk of your college expenses. A great way to go.

C. Lastly, finish college on your own, and go into Officer Training School, OTS. This is a 3-month long course before you enter flight school. All of these, you have a better chance of completing flight school (not washing out) the more flying time you have when you go in. If you have your private pilot license, that is a really good start.

My recommendation would be a military flying career in the Air Force. You can fly in the Air Force for most of your career, up to 20 years. The other services, you end up in non-flying jobs towards the end. You can retire as early as 20 years, then move on to a civilian flying job at an airline if you like. You will have an active duty retirement plus whatever pay for a civilian job you can get.

I went a slightly different route. I went into the Air Force Reserves. You have to apply to a specific unit. You will already know your base and plane. It helps a lot if you know someone in the reserves or the unit you are applying to. If you get through the interview process and are accepted, then the Reserves send you to OTS and pilot training. When you finish your OTS and pilot training, this will take about a year; you will only have a reserve commitment, meaning 10 years of service, but only part time. However, in recent years, this part time job can feel like a second full time job. The reserves do a lot for the active duty now and demand a lot of time, particularly if you are in a fighter unit. I flew C-141's at Travis AFB. Large transports, this got me the experience I needed to apply to United Airlines.

So, in conclusion, my first choice would be the military route. There are some problems getting in, namely you

have to have good physical condition, no allergies, not even hay fever, whether you do or not, the answer is, *no you do not*, and you have to have 20-20 or better uncorrected vision. This is probably the hardest part of getting a military flying career, and there is not much you can do about it, luck of the draw. If you can't qualify for the vision or medical, then you might consider the civilian career path.

I hope this answers your questions, and is probably more information than you wanted. Embry-Riddle has been a good place to start, but there is a move afoot in the FAA to change the experience requirements at an entry level for the express airlines. It may soon get a lot tougher to go the Embry-Riddle route.

However, *I do mean to discourage you*, if you are considering any other career path, that might be a better move. As I said earlier, the piloting profession is no longer a very attractive job. Too much work for too little return. Please feel free to ask any more questions you might think of.

—Dave Fitzgerald

**And next, to continue my conversation** with Joe Parisi about the fuel system for the PA 75 and other big bore PA's:

Dear Joe:

After discovering the leaking needle valve collets, I have had a fairly large breakthrough. This particular engine has a big problem with the spray bar leaking at the sides of the case at the spray bar. I have to seal the spray bar to the case, and make sure the needle valve collet doesn't leak. I have to reseal it every time I remove the spray bar or venturi. Once I relearned this lesson, then the ground RPM is stable enough to set the needle.

I've been changing the fuel system components one piece at a time. My usual MO is to not make more than one change at a time. I was not sure if I was getting any results. I thought I could tell an improvement, but it was one of these things, where I thought it was better, but wasn't sure.

Well, I went back to my baseline setup, which reminded me why I have been looking for a better run in the first place. It's been a very cold, wet and windy spring and summer. The engine was coming on hard in the exit of the maneuvers. Coming on hard going downhill in the hourglass, not a good thing. Then I changed out to the drilled out oversize spray bar, large fuel line, Sullivan large crap trap fuel filter, and Kaz new carbon tank with the  $\frac{5}{32}$  OD copper fuel tube. Dramatic improvement!

The engine is now very stable in all the maneuvers and the exits.

The clues have been there for years. I've known for a long time that the 75 is very sensitive to sharp bends in fuel lines, or restrictions in the tubes leading up to the spray bars. Also, when it was warmer out, the engine ran better. I just thought it liked warmer temperatures, the 61 and 65 also exhibit the same tendency. Now after thinking about this more, it may have more to do with the fuel temperature and viscosity. The oil viscosity changes a lot with variations in OAT. Warmer, thinner oil, thinner fuel, easier to draw fuel through the lines for the engine. Maybe the lower viscosity, warmer fuel was just enough different to settle the engine down. All clues that have been there for a long time. The 75 uses so much more fuel than other engines, I have to think that your calculations tell us why with regard to fuel draw and line losses in the delivery system.

Interestingly, the larger less restrictive fuel system also affected the tank shim height. I have to run the tank  $\frac{1}{16}$ -inch higher now than I did before. Maybe it was just a symptom of the engine surging, maybe not.

I may write about this in my next column, but would like your thoughts as well before publishing any conclusions.

Hi David:

Great to hear that you've made major progress, that's really good news. The theory on friction losses certainly predicts that there are significant benefits in using the less restrictive system, so I'm very pleased that your results are in line with the theory and that these changes have paid off for you.

Your comments about the fuel temperature & viscosity are really interesting. From my own experience I would certainly agree that the engine runs better in warmer conditions and I never previously linked that to fuel temperature & viscosity but it makes a lot of sense. Over the past month, the weather here has become much colder as we head towards mid winter and I've had to drop the nitro from 10% to 7.5%. I have noticed that it doesn't needle as well on 7.5% and I put this down to the reduced nitro but maybe it's also due to the colder, less viscous fuel. So the use of a less restrictive fuel delivery system becomes even more important in the winter months, unless you can compensate by using reduced viscosity oil in your fuel.

I do try to keep my fuel at a relatively constant temperature and I transport my fuel in an esky (not sure what you call

them in the US, a plastic container for keeping food & drinks cold, normally used with ice or ice packs). The esky is big enough to hold 2 of the round gallon fuel jugs. I keep the fuel in the esky for as long as possible and I only take the fuel jug out when fueling the model. I started using the esky last summer to keep the fuel out of the very hot conditions.

Interesting comment about the tank shim height. I can't explain why the less restrictive fuel system affects the tank height.

Certainly all this information and experience will make a great article for your next column. I think a lot of people will benefit from it and gain an understanding of how fuel delivery systems need to keep up with the advances in engine development in order to get optimum results.

—Regards, Joe.

Also some notes from Brian Eather on the same subject:

David:

Thanks for the info. I note that the spigot hole is one drill size smaller (#57) than the original hole in the spray bar (#56). What have you found made the greater difference—the spray bar mods, the increase in fuel line ID or both?

Regards and thanks. —Brian Eather

Dear Brian:

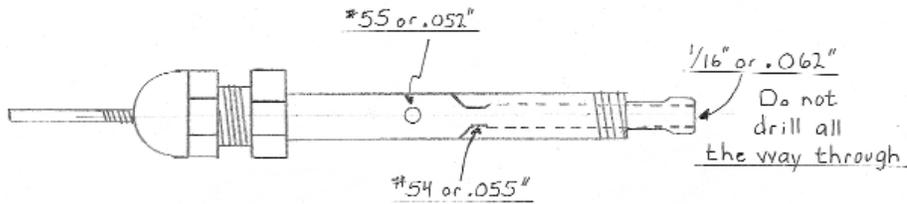
I've found all mods to be cumulative. Total effect is dramatic while each individual change is hard to quantify. I liken it to a freeway expansion. Opening another lane for a couple of miles only moves the choke point in traffic. Open a new lane all the way, traffic disappears.

—Dave

(The spigot is #57 ID. It is a Sig small brass or copper leadout eyelet. Jim Aron also has great success with the fuel mods on his PA 65.)

**Lastly, an update from Erik Rogers** on his ongoing electric battery research with his new Thunder Gazer. By the way, Eric Rule of RSM, now has the plans and kit available. <http://www.rsmdistribution.com>. Here's Erik:

My best battery right now is a Zippy Flightmax 2650 4s1p 278g (under 10 ounces) from [www.hobbycity.com](http://www.hobbycity.com) (\$18.79). I was surprised to see that I was only using 2175mAh on 66-foot lines, with 5 minute 25 second run time, APC 13x6.5 pusher prop, and 5.3 lap times on



This is the modified PA spray bar. I make no warranties on the modifications. Joe Parisi has not tried it yet, and Matt Neumann has tried it but saw no appreciable difference in how his engine ran, but he does run it differently than I do. Be very careful drilling out the narrow passage with the 1/16" drill. Do not drill all the way through or you will not be able to close the needle enough to regulate the engine. All 3 dimensions specified are oversize for the stock PA spray bar. Also check the Needle Valve collet for leaks around the needle threads.



Well, maybe it wasn't that cold, but it was for us Californians. T-shirt weather for Canadians. Brett Buck, Pete Peterson, Bob Emmett.

what is now a 60 ounce plane (including battery). I think I can shave off another 3 ounces by using a smaller motor (the Plettenburg 20-12 that I believe Paul Walker is using), a lighter spinner and a little less tail weight.

I was also trying a Turnigy 2200 5s1p that was about an ounce heavier. I thought the 5s might perform better than the 4s, but I was not able to detect any difference in power and my in-flight logger didn't show any greater drop in rpm with the 4s than 5s (there is a drop in rpm as you hit tight corners, but it is very small in both cases).

The conventional wisdom seems to be that you shouldn't discharge your batteries to below 20% of their rated capacity, but I've heard some people say that these batteries are under-rated, so I'm going to try a still smaller battery. At these prices, one can afford to experiment a bit.

The Zippy I'm using now is 4 ounces lighter than the one I was using at the Northwest Regionals.

I have more, but I think Bob Hunt needs the room for the Nats coverage. It'll have to wait for next issue.

**I have some good photos** from the NW Regionals.



Gordan Delaney's Twin flown by Jim Rhodes.



Randi Gifford and Paul Walker judging Classic.



Classic lineup on Saturday.



Paul Isenhower's Dolphin.

Another view of Paul and Randi. Many people outside of the west coast do not know Paul's proclivities for being a jokerster.

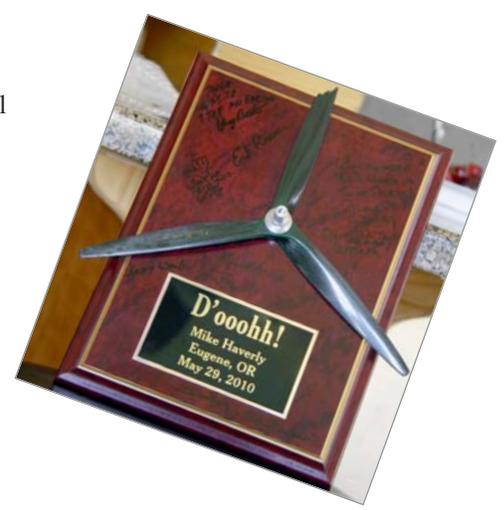


Yes, this is the Pacific NW. Bundle up!

This next one needs a little setup. There were at least 3 different serious hand/prop accidents at this NW Regionals. The most serious was by Mike Haverly. Many of

you got the story directly from him at the just completed Nats. The bottom line is, Mike was going to try one of my Eather 3-blade props. We thought it might work on his new plane. He started it up and promptly stuck the better part of his hand in the prop. This wasn't a slight graze, but full hand in the prop damage. Broken bones, mangled fingers. The engine stopped with a whuuump! That sickening sound that everyone at the field knows,

and stopped to see what happened. Several hours at the emergency room, and plastic surgeon consultations, it turns out all is well. What Mike didn't know was, that after he left for the Nats, I mailed the borrowed prop back to him mounted on this plaque. Take a close look at the middle blade. Major contact to break a carbon blade like that. I've never seen this before and hope to not see it again. Be careful out there! *SN*



## District XI

By Bruce Hunt

Alaska, Idaho, Montana, Oregon, Washington

It's mid-summer and the Northwest is well into the contest season. The Northwest Regionals, our premier annual control line contest, was held over Memorial Day weekend and, for once, the weather cooperated. The 44 precision aerobatic pilots and a full schedule of events made up over half the flights that weekend. As usual the Expert class was very competitive with four National Champions, Paul Walker, Dave Fitzgerald, Brett Buck and Ted Fancher, among the twenty competitors. The top five places were, in order, Paul Walker, Dave Fitzgerald, Brett Buck, Howard Rush, and Ted Fancher. Eric Rogers of San Francisco, California was first among the 10 competitors in Advanced. Richard Entwhistle of Scappoose, Oregon was first among the 8 Intermediate fliers and Robert Ladd of Milwaukie, Oregon was first in Beginner. With 17 contestants, Classic Stunt had the second highest entries. The top five places in Classic were, in order, Ted Fancher, Bruce Hunt, Alan Resinger, Pat Johnston, and Pete Peterson. Jim Aron won the Old-Time at the top of 15 fliers. The Sportsman Profile event was won by Derek Moran and the Expert Profile event was won by Norm Whittle.

By mid-June it was time for the annual Stunt-a-Thon (sometimes called the Stunt-a-Thun because it is held at Thun Field, a small airport outside of Puyallup, Washington). With absolutely perfect weather and Mount Rainier in the background 24 pilots flew in the four PAMPA skill classes. Paul Walker, Bruce Hunt and Pete Peterson took the top three spots in Expert. Keith Varley, Mark Scarborough, and Steve Helmick took the top three spots in Advanced. Richard Entwhistle, John Witt, and Mike Denlis

topped the Intermediate class with Robert Ladd, Jim Harper, and Jack Mulinix leading the Beginners. Pete Peterson, Dan Rutherford, and Bob Parker were the top finishers in Old Time while Bruce Hunt, Dan Rutherford, and Mark Scarborough finished atop the six entries in Classic.

After the Nats, the contest goes international to the Western Canadian Stunt Championships held in Richmond, British Columbia, just south of Vancouver. With a light turnout this year, due to it following the Nats by a week and Oshkosh occurring the same week taking official hosts Chris and Joan Cox out of town, the weather was bright and clear with steady breeze to challenge the pilots. The largest entry was in the Profile Event with eight fliers. Dan Rutherford, Dave McCheyne, and Keith Varley took the top honors in Profile. Classic Stunt was won by Bruce Hunt followed by Keith Varley and Bryan Carr. In the PAMPA classes Expert was won by Bruce Hunt followed by Dan Rutherford and Keith Varley in second and third. Advanced was won by Hube Start, followed by Steve Helmick and Dave McCheyne in second and third. Bryan Carr was the lone entry in Beginner.

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*



Pete Ferguson's new Impact.



Mike Haverly's Nats entry. It made the trip to the Nats only to undergo structure failure to the nose causing Mike to go with his backup model.



Randy Powell's recreation of his Super Ringmaster Profile that, in its previous incarnation, met an untimely end last year before it had a chance to make its competitive mark.



Jim Aron's Systema that garnered 20 points and this years NATS and won the Concours Award both there and at the Northwest Regional Championships. Inset: A close-up view of Jim Aron's tail art.



Where the action is a Salem's Lucky Hand Fun Fly. Fliers put in five flights and receive a card for each flight. The best poker hand wins half the entry fee. A drawing then determines who wins additional donated prizes.



The view from the pits toward the action at the Salem Lucky Hand Fun fly.



Dan Rutherford holds court with the future of the Canadian Stunt Cox Legacy at the Western Canadian Stunt Championships. Watching the action from the pit at the Western Canadian Stunt Championships.



The Classic pit at the Northwest Regionals.



Appearance judging at the Northwest Regionals.



Mark Scarborough tachs his Avenger's engine prior to a flight in Classic at the Northwest Regionals.



Chaos adjacent to the official pit as models await their turn for Profile and PAMPA events. Practice occurs in well maintained grass circles in the background.



Left to right, Mike Haverly, Bob Parker, and Bob Duncan, show off their wounds from losing fights with spinning props. Accidents were much too common at the Northwest Regionals.



Richard Wallbridge, weighs in his beautiful recreation of an Urtnowski Spitfire at the Northwest Regionals.



Phil Granderson's latest piece of art, Zealot, as seen at the Northwest Regionals. Inset: A close-up of Phil Granderson's Zealot's tail art.



Dan Rutherford poses with his All-American Flighstreak with Mt Rainier in the background.



Perfect weather at the Stunt-a-thon as Beginner and Intermediate pilots await their flights.

# The Appearance Point } Super Tucano Specifications:

By Thomas Case

The Super Tucano is a semiscale rendition of the Brazilian turbo prop fighter made by the Brazilian air frame manufacturer Embraer. Bene Rodrigues, many-times Brazilian F2B Champion, designed the Super Tucano at my request as the plane to be built by the 28 Brazilians who went to Brodaks in 2008.

The Super Tucano revealed itself to be a superb stunter that flies well in the wind. The design is an evolution of Bene Rodrigues' P-51 design flown by the Brazilian Group at the Muncie Nationals in 2006. Both models have tapered wings with dihedral that handle the wind well. The wing taper includes a tapered trailing edge/leading edge/rib height. The Super Tucano, however, is a better flyer than the P-51. It makes sharp square corners.

Bene's initial design had a wingspan of 1.45 meters (57 inches). Through its several iterations the wing has grown by 4.8% to a wingspan of 1.52 meters (59.84 inches).

The construction of the Super Tucano uses very light molded balsa extensively in the fuselage, wings and tail. The weight of our most recent Super Tucano is shown in the accompanying photos and is powered by a Stalker .76

**Model Name:** Super Tucano

**Designer:** Bene Rodrigues

**Construction Type:** Built-up sheeted wing and molded balsa fuselage.

**Wingspan:** 59.64 inches

**Wing area:** 600.54 square inches

**Length:** 43.3 inches

**Moment arms:** Nose -  $8\frac{5}{8}$  inches; hingeline-to-hingeline - 18 inches

**Weight dry:** 64 ounces

**Power package:** Stalker .76 side exhaust with tongue muffler. 5-ounce metal clunk tank

**Propeller:** Rainbow 14.2 x 5.9-inch Ukrainian prop

**Finish:** Automotive polyester paint plus clear automotive polyurethane varnish

**Line length:** 66-foot eyelet-to-eyelet.

Approximately 70-foot center of handle to center of plane

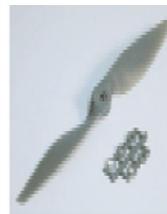
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Thomas Case gives us a head on look at the sleek Super Tucano (above). Note the clean engine installation and the perfect cowl fit. The Stalker .76 gets plenty of cooling air in this model. Note the number of screws in the muffler!



side exhaust. Its weight is 1.82 kilograms (64 ounces).

Many different engine combinations have been tried with the Super Tucano. The Brazilian contingent at the Brodak meet in 2008 used everything from the Super Tiger .51 and 60s to four-stroke O.S.70 Ultimates and Saito .72s.

Bene Rodrigues prefers the O.S. .70 Ultimate four-stroke engine and uses it very successfully. He gets an absolutely constant engine run with good power in the overhead maneuvers. I prefer the simplicity of the two-stroke. My engine is the Stalker .76 side exhaust which gives a very nice non-pipe steady engine run with a great 4/2 break that comes in nicely in the overhead maneuvers.

Bene's four-stroke Super Tucano has the advantage of using much less fuel. The O.S. .70 uses about 70 ml of 20% nitro for a 6-minute engine run. The Stalker .76 uses 130 ml of 10% nitro fuel. The 60 ml difference adds about 60 grams to the weight. Another advantage of the O.S. .70 four-stroke is cleanliness. It leaves very little oil residue. The two-stroke Stalker .76 leaves a mess of castor and synthetic oil all over the plane.

Another item of interest in the Super Tucano is the "take-apart" feature for removing the wing from the fuselage. This is really necessary if you are going to travel with the plane as we do. Bene's design is simple and effective. The wing is held to the fuselage by four 4 - 40 bolts with blind nuts behind the plywood bulkheads.

We have found that it is not necessary to have a removable tail assembly. Removing the wing allows us to put the plane in a box that will go through the x-ray scanner for unaccompanied baggage of the airlines. Our Super Tucanos have travelled to the USA, France, Argentina, and now will make the trip to Hungary for the 2010 World Championship.

The tricycle landing gear is seldom seen on stunt planes. I believe it is because of the added weight of the nose wheel. Our tricycle landing gears on the Super Tucano works wonderfully! Super-smooth takeoffs and landings. It is almost impossible to have a bounce on the landing with the tricycle landing gear because you can feed in down elevator as soon as the wing-mounted wheels touch the ground.

Bene Rodrigues produces a wonderful laser-cut kit for the Super Tucano that we used to build the plane. The kit will help you get a lightweight Super Tucano. The cost of the kit is US \$200 plus postage (about USD 50 to the USA). Bene's e-mail is [aerorodriguez@terra.com.br](mailto:aerorodriguez@terra.com.br).

The Super Tucano has realism and performance. It is a delight to fly and especially good on windy days. *SN*



Two pilots and details of the cockpit.



Above: The Super Tucano.

Below: Thomas Case shows a top view of his Brazilian Champion Super Tucano in beautiful São Paolo.

