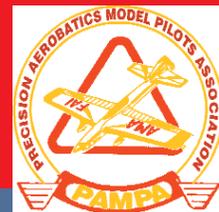


Stunt News

Precision Aerobatics Model
Pilot's Association

January/February 2010 \$5.00





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On the cover: Dr. Geza Egervary (at left) proudly poses with his protégé, Richie Kornmeier (holding plane) and Richie's father Fritz Kornmeier at the 2004 World Championships in Muncie, Indiana. The Stunt world is saddened by the news of Geza's passing, but we rejoice in celebration of his amazing life. Geza was a truly gifted and talented man who lived his life in a most distinguished manner. God Speed to you Geza ... Photo: Bob Hunt

Inside Cover: David Fitzgerald's Thunder Gazer wings its way to yet another victory. This time it was the 2009 Nats. David is the reigning F2B World Champion and in this issue he begins to tell us the story behind this worthy model. In the next issue David will continue with some construction details. Photo: Gene Martine.

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

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President's Column

By Bill Rich

Well here we are at the start of a new decade; where did the last one get to? This issue marks the first issue of my second term. I thought it would be fitting to look back at the previous two years and forward to the next two.

The key issues which led me to run for the President's office were described in my campaign statement in the September/October 2007 *SN* issue. Much has been accomplished but there is still much to be done. The fiscal condition of PAMPA had to be addressed and with the guidance of our EC, PAMPA is in a much sounder fiscal position.

Special thanks need to go to Dave Gardner for his great stewardship during the last two years. We have made great progress in healing the division within the Stunt Community. Returning members are enjoying Stunt and the camaraderie that PAMPA offers. I do not see the friction that was apparent between members and non-members during the previous years. I have made personal appeals to individuals to return and move Stunt forward. I am pleased to report that these efforts have resulted in members returning and everyone's enjoyment of Control Line Stunt increasing.

We have found numerous volunteers to replace a number of individuals that have certainly given more than their share to the hobby and PAMPA. I will not mention specific people because I am sure I would leave some out. Some examples are the current Nats volunteers, administrators, and judges. In the last two years PAMPA has found replacements for five District Directors. The outgoing Directors had served for numerous terms and all had done a terrific job.

Fortunately willing volunteers were found to replace these individuals. This represents a 45% turnover in our Directors. I am especially pleased with our ability to replace the former *Stunt News* editor with our current editor. He and his layout assistant bring many years of aviation publishing experience to PAMPA. He has "weathered" the storm and we will be on schedule in terms of publications moving forward.

The advent of our \$25 membership and the online availability of *Stunt News* has been a major accomplishment. This is a great value and we must do a better job of marketing this option to prospective members. If for some reason you have not looked at *Stunt News* online you really need to make the effort to do so. I like to preview the issue prior to it arriving in my mailbox. Another advantage of *Stunt News* online is the ability to review past issues. It's easy to find previous articles, specific pictures, and other information without having to thumb through a stack of previous issues. I often use the past issue online when designing new paint schemes and color combinations. The color aspects of all the pictures are quite thought provoking.

We have been able to redefine the position of Secretary and Membership Secretary; the old Secretary/Treasurer position was labor intensive and it was very difficult to stay up with the workload. This was especially true at the end of each year when our memberships were renewing. Russ Gifford decided to step down after the reorganization of duties. We all owe Russ special thanks for his efforts as membership secretary.

Noel Drindak has stepped forward to assume the redefined duties of the Membership Secretary. Dave Gardner agreed to another term as Secretary/Treasurer. *Stunt News* Editor, Secretary/Treasurer, and Membership Secretary are the most time and labor consuming positions at PAMPA; without capable volunteers for these positions PAMPA would have major

problems. We all need to keep in mind that all the administration of PAMPA is done by non-paid volunteers. This needs to be kept in mind when voicing specific complaints. It's fine to voice your opinion, however, if you have a better

solution to a specific problem voice that as well. I am continuing to work to develop relationships with AMA. This is a slow but ongoing effort that eventually will pay dividends. Our *Stunt News* Editor Bob Hunt and our Layout Technician Liz Helms certainly have insights into AMA that will help in my efforts to develop AMA relationships.

The issue of the Builder of the Model Rule continues to be a passionate and controversial issue. After the fiasco of my "survey" on BOM it became evident that PAMPA will not be able to resolve this issue. The majority of responders indicated they wanted to keep BOM, however, this was not an overwhelming majority.

Only about 20% of our members responded to the "survey." 90% of responders that wanted to keep the rule also felt the rule needed to be changed and updated. The BOM Rule is, and will continue to be, an issue for the AMA. The Control Line Rules Committee will continue to look at specific rule proposals, some of these proposals will undoubtedly address the BOM. At one time I was of the opinion that PAMPA could not define a position on BOM. There are just too many members with different opinions on this issue. However, after discussion with a number of EC members and Control Line Rules Committee Members I have come to the decision that PAMPA will have to advise the Control Line Rules Committee when asked to do so.

Rather than form another committee I will ask the EC to provide feedback to the board when asked. The EC is made up of PAMPA members that have been duly elected to their offices by the PAMPA members. Your responsibility is to give feedback to your elected representative on specific issues that PAMPA will be asked to comment on.

The EC will fully discuss and agree on a PAMPA response to specific request from the Control Line Contest Board. As a Control Line Special Interest Group (SIG) PAMPA will provide feedback to the AMA when requested or when PAMPA deems it necessary.

It is very difficult to get members to volunteer for special committees and projects; for this reason I have decided to utilize the EC to replace standing committees that have been used in the past. Actually, I found it next to impossible to determine what committees currently existed and who the members were. Our By-Laws are very clear in regards to the responsibilities of the EC. They will be your voice in issues previously assigned to special committees.

There are a number of issues and projects that will continue into 2010 and beyond. I will detail these in next month's President's Column. I hope your winter building projects are going well and the weather gives you a break once in a while so you can get a couple of flights. *SN*



Starting Points

A Great Sportsman

Dr. med. Geza Egervary

Physician—Dentist—Model Aircraft Builder—Design Engineer—Pilot—Coach—Champion



I received the news that Dr. Geza Egervary passed away on December, 17th 2009. It is reported that he went peacefully in the early morning hours in the arms of his beloved wife Alice. The model airplane world is deeply saddened by the loss of this man of character and grace. His contributions were many and his courage was obvious. We have truly lost a giant of our sport. His close friend, Fritz Kornmeier, has prepared a tribute to Geza and it follows.

—Bob Hunt

Born in 1933, in the former kingdom of Hungary, Geza, son of a doctor of medicine and a famous actress, fell in love with model planes at the age of 12. His parents provided him with a variety of glider model planes kits, which he built with great joy at home. This marks the beginning of Geza's experiences in the area of model aircraft building, as well as his knowledge of physical and aerodynamic principles.

In 1948, the young grammar school pupil from Budapest witnessed a model aircraft presentation held on the sporting grounds of the school he attended at that time, which, coincidentally, also was the home of Hungary's best model building club *Cavalloni*. Young Geza was thrilled, maybe due to an inner feeling that the sport of model aircraft might play an important role in the course of his life. After applying for membership in this honorable club, Geza became a member on probation. As a consequence, he was assigned with the task of building 3 model planes to show if he had what it takes. He was supported by one

of the more experienced members of the club. Succeeding in all the different assignments, eventually, he was officially announced a full member. Geza mastered the art of model building and flying at the highest stage and at the young age of 17 he won the Hungarian Championships in 1950.

It happened at this point in time that he set the still-standing world record of the FAI for a

rubber powered model with water start of 54 feet, 17 inches.

At his first international free flight competition in Vienna, in 1951, the medical student Geza Egervary placed first.

Several national, international records, and other world records, as well as his first participation in the European Control Line Championship in Brussels, crowned by his 5th place for aerobatics in 1957, marked this exciting era of the Doctor of Medicine too.

In 1957, he also took large steps in his profession as a doctor: As a reward for his extraordinary attainment in his studies of medicine and dentistry, and despite his critical opinion towards the ruling regime, the young physician Dr. Geza Egervary was announced a medical assistant at the university clinic of Budapest. Twenty years on the whole, later as a senior physician and lecturer for oral surgery and dentistry, he received a number of prestigious international awards for his scientific publications. Apart from his job at the university clinic, Geza had to work in his private dental doctor's office in order to ensure a necessary and reasonable maintenance.

In the middle of the 1950s Geza took part in several free flight competitions and had been Hungarian Champion with engine powered models more times.

He was also a world record holder with rubber powered helicopter models, successful at indoor flying with microfilm covered models, Control Line speed models (5ccm and 10ccm), Stunt team racing and combat too.

In 1957, Geza won the Hungarian

Championship in the discipline of Control Line Stunt. In 1958—the year of the World Exhibition (*Atomium*) in Brussels—as a member of the Hungarian National Team Model Aerobatics Team won the F2B Team World Championship. At the European Championship in the year 1959, again in Brussels, Geza finished in second place and again won the title for teams with the Hungarian National Team.

At this time the name Geza Egervary was well-known in the world of Control Line. In 1959 the People's Republic of China invited the expert Dr. Egervary and five other Hungarian Control Line specialists for a stay of four weeks in China. The trip started in Beijing, but trips to Shanghai, Canton, and Xian followed. The Chinese citizens were very much impressed with the perfect air presentations of the European professionals. The task of the team was to train and support the Chinese model aircraft fliers in the categories Control Line flying.

Geza was mostly responsible for aerobatics and did a very good job, taking into consideration the great results of Chinese Stunt pilots at the World Championships in recent years.

Between 1957 and 1976, Geza won the Hungarian Aerobatic Championship 15 times, achieved second place at the European Championships two times, and, as member of the Hungarian National Team, was a 4-time European Champion.

In the years of 1960/1961, Geza concentrated not only on flying models, but also got involved in the domain of tether speed cars with 2,5ccm and 10ccm engines. In both disciplines he won the Hungarian Championship in 1960 and the international competition in Poznan (Poland), 1961.

In 1977, Geza with his family left the Republic of Hungary without permission, in consequence of a change from bad to worse in the reigning regime. Since then, he, his wife Dr. dent. Alice Egervary and their daughter lived in Germany.

Since 1977, Geza has been permitted by the German authorities and the FAI to take part in international model aircraft competitions, European and World Championships. Supported by the Aero Model Club in Bochum and further the Aero Model Club in Bietigheim (Baden-Württemberg), Geza was able to continue his career in Germany without any interruption.



Geza talks with Klaus Maikis.



Geza and Bob Hunt discuss Stunt matters at the 1978 World Championships.

Since 1957 his wife, Alice, (herself being a non-practicing F2B judge) has always been shoulder to shoulder with him and has been a great supporter of his career and personal life.

Between 1977 and 2005, Geza participated in over 180 national and international model aircraft competitions. He very often achieved a top ten placing in the 12 European Championships and 13 World Championships in which he competed. He finished his active participation at European and World Championships in 1992, at the age of 60, as a finalist at the World Championship in Hradez-Kralove (Czech Republic). Geza is a proud owner of 11 German Championship Titles and 8 Second Place Titles. In the German counties of Baden-Württemberg and Northrhine-Westfalia, he achieved 18 County Champion Titles and placed second 10 times.

In 2005, Geza quit his active career at national and international competitions due to reasons of health and concentrated on the

task of coaching the competitive F2B pilot, Richard Kornmeier.

In 2000, at the international World Cup in Bitterfeld, Germany, Geza noticed the skills and potential of the 15 year old beginner in Stunt model flying, Richard Kornmeier from Heidelberg. Geza watched the young grammar school pupil for a while before he approached him to advise him on some of the basics of Stunt flying. Geza's knowledge of human nature, his vast experience, and a high level of educational competence convinced him that his choice

of the young Richi was a wise one. Richi was a fast learner and displayed a lot of talent. So Geza officially became Richi's coach. The outcome was an affectionate, and at the same time professional collaboration, based on a deep friendship. Geza's coaching was naturally augmented by the help and infinitive care of Richi's father.

The coaching task was very complex: A huge amount of time, many thousands of driven kilometres, thorough mental and psychological preparation, and accurate technical briefing are the basics the coach used to train his student hard and successfully.

Richi won the 2001 and 2003 German Junior Champion, received the bronze medal at the 2002 Junior World Championship in the discipline of Control Line Stunt, came in first at the European Junior

Championships in 2003, graduated from grammar school in 2004, and took part in the finals of the Aerobatics World Championship in Muncie, USA, that same year by qualifying amongst the seniors.

Up to this point the 24 year old economy and sports student at the Universities of Mannheim and Heidelberg is a 7-time Baden-Württemberg Champion, 2-time German Champion, winner of the Gold Trophy at the British Nationals in 2007, Top-Ten Finalist at the World Championship in Landres (France), 2-time 2nd place finisher at the European Championships (in 2005 and 2007), and European Champion in 2009.

In the course of his career, Geza has built 60 Control Line Stunt models. Standing out is his invention of the *Marionette*: The name is taken from puppets which are controlled through thin lines ... (in a similar manner as Control Line).

Between 1960 and 2005, the Marionette has been improved and

optimized steadily; construction drawings for this model have been published all around the world.

Dr. Geza Egervary has been honored with awards many times for his extraordinary achievements in sports by German sports organizations and aviation associations. Of special importance is the honour he received for his great service over decades in the area of aviation sports—in 2006, he got the “Wolf Hirth Medal” as well as the “Golden Daidalos Medal” through the hands of the president of the German Aero Club.

The international modelflying sport loses with Dr. Geza Egervary a great personality who merits our sincere respect, admiration, and gratefulness. *SN*

—Fritz Kornmeier

Deadlines

Ad and Editorial copy

Issue	Deadline
March/April 2010	Jan. 20, 2010
May/June 2010	March 20, 2010
July/Aug 2010	May 20, 2010
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Level Laps

By Bob Hunt



Happy New Year! I know I'm probably not the first to wish that to you.

It's a new decade and with it we have the opportunity to start a completely new agenda for PAMPA. The trials and tribulations of the past decade are behind us and the sky ahead is clear and ready to be explored.

We feel that way at *Stunt News* as well. We are nearly caught up to cover date with this publication. If you think that was an easy task, think again! I want to take this opportunity to thank my amazing staff, the officers and directors of PAMPA, and the many members who submitted materials for these pages over the past year and a half. Without the work and contributions from all these folks the publication of this newsletter/magazine would not be possible.

A newsletter or magazine is much like a wood burning stove: They each consume a massive amount of material over a given period, and when it's gone, it's gone! With each issue we have to start over and try and find enough "stuff" to fill the pages with interesting and relevant CL Stunt information.

Okay, so what's the plan for the first year of this new decade as it concerns *Stunt News*? I'd like to ask each of you to examine your knowledge bank and determine what you can contribute to make *Stunt News* a better, more interesting, more informative, more entertaining, and more subject-relevant publication. It doesn't have to be a technical piece filled with mathematical equations (although they are also needed and welcome).

It can be as simple as writing a piece for the ongoing "Why I Fly Stunt" series of articles, contest coverage of a local

meet, or a how-to piece on virtually anything in the world of CL Stunt. How-to articles are the most sought after by magazine/newsletter editors.

We are always looking for good history pieces like the ones that Jim Vornholt wrote last year and the one that is currently running as the six-part series, "The Stiletto Chronicles," by Les McDonald. Columns are also very important, and if you have an idea for a new column, please let me know.

Unlike the trade and consumer modeling magazines that exist to make money for their publishers, *Stunt News* is the showpiece publication of a non-profit, special interest organization. We don't pay for our articles, but we do rely on the membership to want to contribute in order to make the organization grow and prosper. Without your help we cannot achieve that goal.

Please write something and send it in!

Special Issue Mystery Man

That eager looking youngster holding the deBolt All American on page 6 of the Special Issue was none other than New Jersey's own Mike Ostella! The first to make a correct guess on that issue's Mystery Man was Tucson, Arizona's Mike Keville. Mike wins a super-sized tube of sunscreen for his guess. If you've ever been to Tucson, you'll agree that this isn't much of a prize ...

The Wrong Moon!

Okay, I've been away from the Nats and the Team Trials for the past couple of years, but that's no excuse for mistakenly captioning the photo on the back cover of the November/December issue of *Stunt News* of Steve Moon flying at last year's FAI Team Trials as his brother, Doug Moon.

Sorry about that guys! By the way, which one of you was insulted?

The Double Exposed Man

We were sweating bullets until the printed copy of the Special Edition of *Stunt News* arrived in the mail. It seems that on the online version of that issue the cover photo of John Calentine had a double exposed image where John's head was silhouetted into the *Stunt News* logo, making it appear "slightly" larger than it is.

We missed that. Once we were alerted to it by John it was too late to change the files we had sent to the printer. We feared

that it would show up on the printed version ... it didn't!

Our apologies go out to John for over-exposing his head. Predictably those who saw the online incorrect version kidded John about getting a "big head" over being on the cover! Our thanks go out to Charlie Arp, our alert printer who must have discovered the mistake and corrected it at the eleventh hour.

In case you missed it, John's how-to on producing molded compound curve wing tips in the Special Issue was among the very best informational articles I've ever seen. We have received a number of compliments on that one, and I want to once again publicly thank John for writing it and supplying us with fantastic step-by-step photos to go along with the text.

The Appearance Point

A number of members have contacted me and have asked how they go about having their model featured in one of our "The Appearance Point" model spotlight pieces. It's simple: e-mail or call me and I will send you the instructions on how to prepare one for publication in *Stunt News*.

Basically we need a short story about the model and all the pertinent specifications. We have a specification form that we can send to you and all you have to do is fill in the required information. We will also need several high-resolution photos of the model taken from different angles and as many close-ups of special focal points on the model as possible. This will allow us to produce a pleasing layout that highlights the model to good effect.

In the spirit of full disclosure, the idea for The Appearance Point came about in an effort to use the inevitable open space in *Stunt News* in a meaningful manner by printing useful information instead of just plugging in a bunch of "filler" photographs. Newsletter space is too valuable to waste!

So, send in those "The Appearance Point" submissions and let everyone see and learn about your handiwork!

Contest Scores

If you want to have the scores from your contest appear in *Stunt News*, please remember that they must be sent to James Mills. James has volunteered to collect the scores and get them ready for us to present in the newsletter.

You can e-mail your scores to James at jamesmills@centurytel.net. If you

haven't yet become part of the computer age, you can mail your scores to him. His address is: James Mills, 1206 S. 15th St., Ozark MO 65721.

If you need further information about how to prepare the scores for James, please either e-mail him or call him at (417) 581-1271.

I'd like to take this opportunity to thank James for performing this service for PAMPA. He volunteered for the job ...

Dr. Geza Egervary

In the "Starting Points" section of this issue you will find the sad news of the passing of one of CL Stunt's all time greats: Dr. Geza Egervary. Please take the time to read the touching obituary authored by his very good friend, Fritz Kornmeier.

I started reading about Geza in *Model Airplane News* columns when I was just a boy. The "Foreign Notes" column by Peter Chinn chronicled the exploits of all the famous European modelers, but his stories about Geza Egervary were what caught my eye. I was a Dr. Egervary fan from afar for many years.

My story now fast forwards to 1978, which was my first year as a member of a

United States F2B team. The World Championships that year were held near Manchester, England, on the Woodvale RAF base, and all the teams were billeted at Carnatic Halls in Liverpool.

One afternoon, a number of us decided to visit a local hobby shop in Liverpool. In that shop I saw a distinguished looking man talking with the proprietor and instantly recognized him as Dr. Egervary. He was inquiring about a set of Pylon brand flying lines. The shop owner regretfully said he didn't have any more sets of those lines.

After Dr. Egervary was finished talking with the proprietor I took the opportunity to introduce myself and declare my longtime fan status. He was very gracious and said that he had been reading about me as well! We hit it off immediately. I told him that I had overheard his conversation with the shop owner about lines and told him that I had a number of extra sets of Pylon brand lines. I offered to give him a set. He said that he would gladly pay me for them, but I wasn't about to let one of my all-time heroes pay me for a measly set of lines. I told him the pleasure was mine and that I'd bring them down to the

cantina where we were served our meals.

I gave the lines to Geza later at lunch and he profusely thanked me. I thought that was the end of it and I felt very good about being able to help out and also very pleased to have finally met this great man.

Later that evening I was getting ready to go to bed when I heard a knock on the door. When I opened the door I was surprised to see Dr. Egervary and the entire West German F2B Team standing there with trays of cheese and wine! I invited them into my diminutive cubicle and we had a terrific party. That was when Dr. Egervary became Geza to me and we started a friendship that lasted until the day he passed away.

I corresponded on and off with Geza and always looked forward to the Christmas cards that he would send, as each one had a very special message written in it.

Truly we have lost a giant in our field, but more to the point we have lost a very distinguished, accomplished, and gifted human being. I will treasure the memory of our friendship until the day I die.

Till next time, Fly Stunt! *SN*

—Bob Hunt

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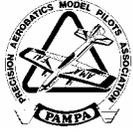
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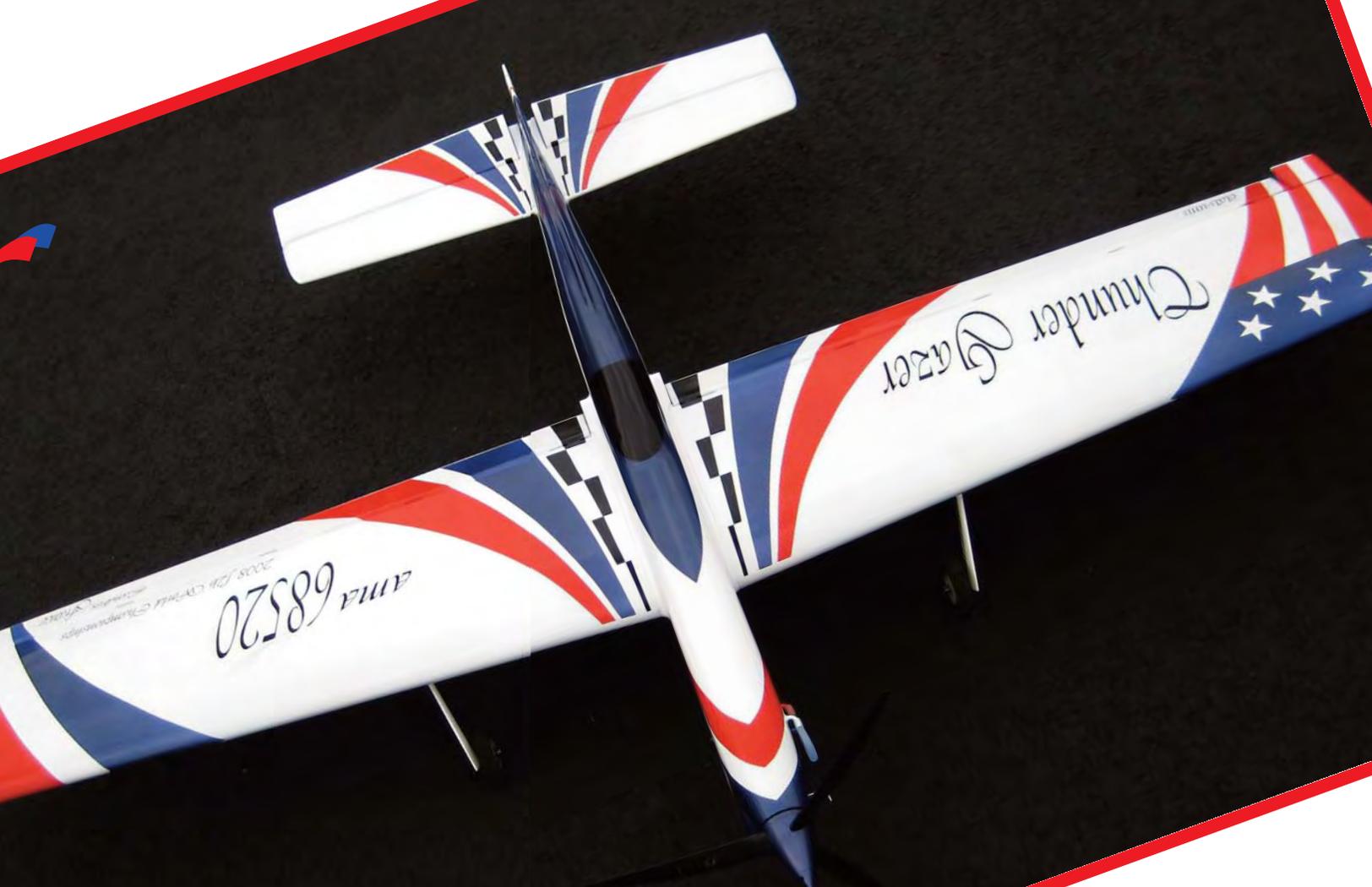
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Thunder Blazer

By David Fitzgerald



Thunder Gazer. This is my first new plane since building the last Star Gazer in 1998. Boy, did I have to relearn how to build!

plane was a Sig Banshee with another Fox .35. I flew that in my first Nationals in 1975, Lake Charles, to a second place in Junior, behind Joe Musemecci. Joe was a Bob Gieseke protégé who was flying a red Gieseke Nobler powered by—you guessed it—a Fox .35. Next came the first in a long line of Sig Super Chipmunks powered by Big Art O.S. .35Ss. The last Chipmunk, however, had a SuperTigre .46. This started my tendency to fly with more power than I thought I really needed. I *liked it*. Jim and Dan McClellan used the ST .46 engines with good success for years also.

After the Chipmunk phase, I moved on to some Fancher designs. The first one was a full-bodied Imitation. I had a chance to fly Gid Atkinson's Imitation at a local contest, and it was an instant hit, again with a SuperTigre .46. I flew these for several years. Then I took a break from Stunt while I got a career going and a family started. When I returned to competition Stunt I converted my first Imitation to O.S. .46 VF power, again with a tuned pipe. Then I built my next Fancher design, the original Trivial Pursuit; my first plane of the modern pipe era.

I eventually built 4 of the Trivial Pursuits. Each of them is modified in some way from the original Fancher design. The point of this introduction is that my dad had a saying: "New planes don't win contests." The current Thunder Gazer has a long line of design, experimentation, and trial and error. If you want to try something, go for it. You never know when you might just build a World Championship model.

The following is a summary of my Trivial Pursuit series leading up to the Thunder Gazer.

Well, here I am after 15 years of flying on US teams and at 7 World Championships.

I was finally able to bring home the individual World Championship in F2B. Bob Hunt asked that I write an article and publish my plane, the Thunder Gazer, in *Stunt News*. What follows is a history of the development and lineage of the plane along with some methodology and theory.

It all started with a Sterling Ringmaster in 1974. My brother and I learned to fly first on a 1/2A Carl Goldberg Wizard, then on our Ringmasters, which were fitted with Fox .35 engines. We each got a Ringmaster for Christmas, my dad was away on a trip, and we couldn't wait for him to return to get started. We each read the instructions, and figured it can't be that tough. Well, evidently, we needed some instruction on how to do it. The next

Original Trivial Pursuit or first Star Gazer

This plane is a stock Trivial Pursuit by Ted Fancher, just renamed Star Gazer. Wynn Paul took a great shot of Ted and me after the 1993 Team Trials. Ted is still flying his plane. All versions have $\frac{3}{4}$ -inch wing asymmetry.

The original Star Gazer, Built in 1992/93:

- Weight: 62.5 ounces
- Wing area: 660 square inches
- Nose moment: $10\frac{1}{2}$ inches
- Tail moment: $17\frac{5}{8}$ inches
- Power: O.S. .46 VF on Randy Smith

Carbon tuned pipe,

- Propeller: Brian Eather 3-blade
11.25 x 3.25-inch under-camber prop

I qualified for the US FAI team in 1993 for the World Champs in 1994 that were to be held in China. I used this plane in the 1995 US Nats with a PA .40, and the same pipe/prop combination. Then I flew this plane in September, 1995 to qualify for the US FAI team to go to Sweden in 1996. It had a PA .51, using a Randy Smith pipe, Eather 12 x 3.5-inch 3-blade under-camber prop cut down to 11.5 inches. This is the plane I used to win my first Open Nats in 1997. It was fitted with a PA .61, Eather #6 pipe, and a 12 x 3.5-inch 3-blade under-camber prop at that time.



Above:
This is my first effort at an all out competition plane since getting a job, wife, and life. Not bad. This plane captured my first Open Nats win in 1997.



Left: The foam wing and tail cores for this one were cut by Ted Fancher and Brett Buck. This is pretty much how it looks today. The Sig yellow Ply-Span fades a bit.

Right: I wish everyone could have seen this plane when it was new. That's Sig dope on the wings and tail, K & B Superpoxy on the fuselage. Now, I'm not just saying this, but this plane was just gorgeous. Unfortunately, Mike Pratt said the blue Sig Ply-Span fades a bit more than the yellow. Yeah, first it turned grey, then eventually lost all of the blue color and turned white, even the bottom! It wasn't bad as white, but the blue was just incredible when it was new.



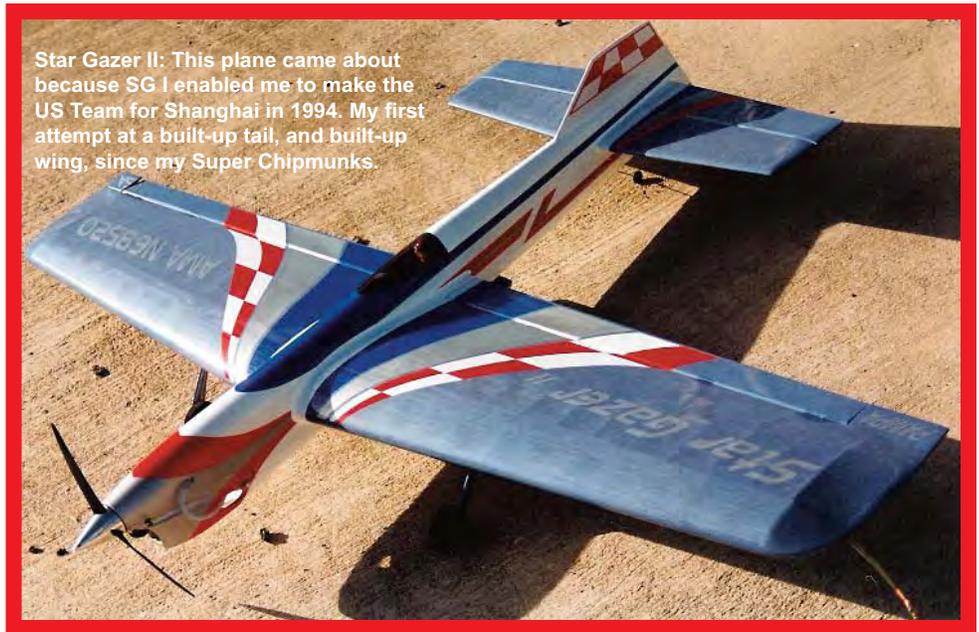
Star Gazer II:

- Nose moment: 10.0 inches
- Tail: 18.0 inches
- Weight: 62 ounces
- Wing: 660 square inches
- Original Engine: O.S. .46 VF

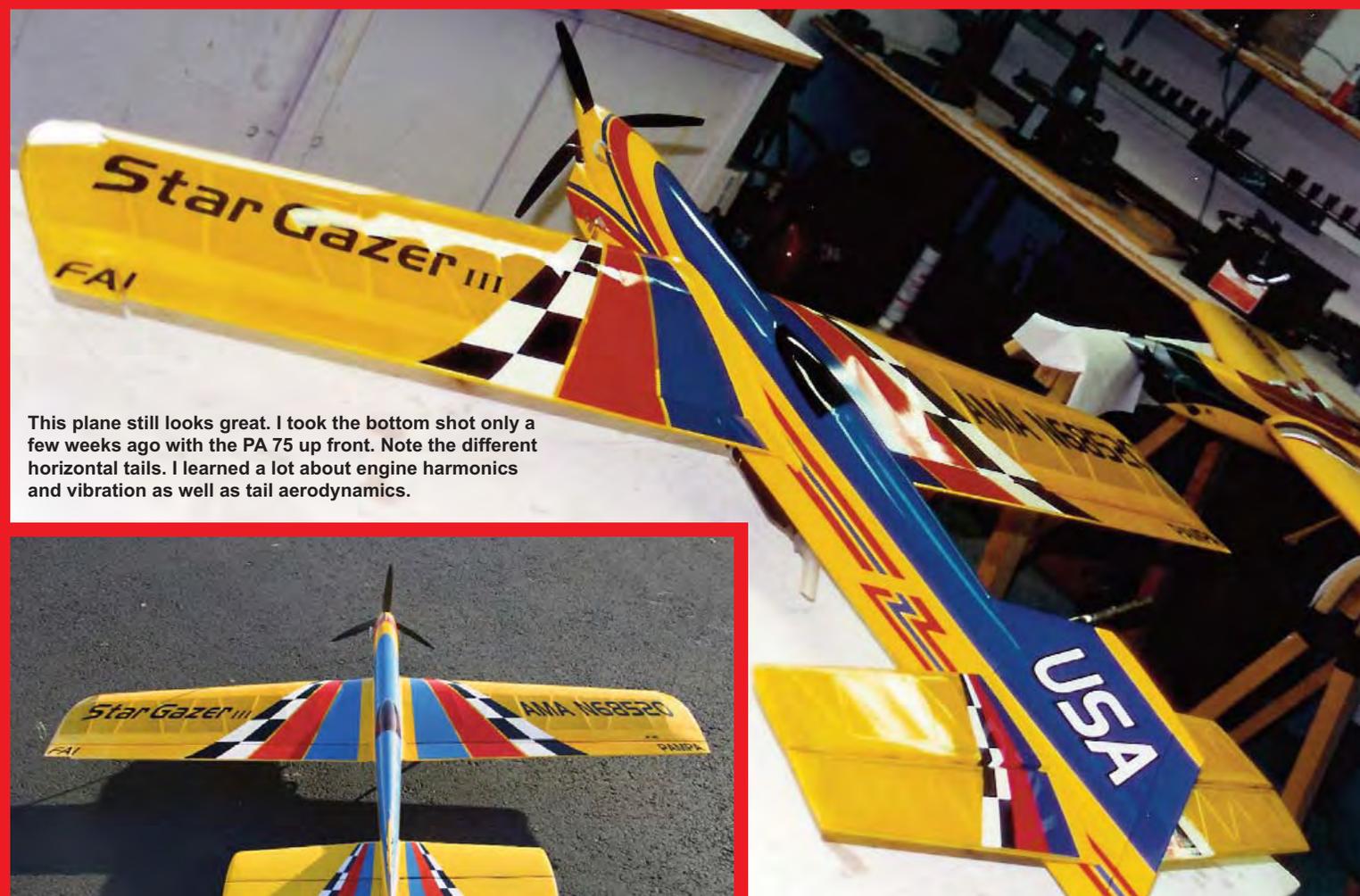
This plane was built in 1993/94 for use at the World Champs in China in 1994. I originally had an O.S. .46 VF in it, but found it flew just as well using the new PA .40 from Randy Smith. I flew it with the O.S. .46 VF at the 1994 US Nats in Lubbock, Texas, but switched to the PA .40 at the World Champs. They were fitted with a Randy Smith pipe and Brian Eather 11.25-inch 3-blade under-camber prop.

This plane had major problems with stability. It would not fly straight and level. It hunted constantly. I tried many fixes, controls, changing flap vs. elevator neutral, finally biasing elevator down showed some positive results. This is what led me to believe that the stab location and configuration was not good. I eventually changed

Star Gazer II: This plane came about because SG I enabled me to make the US Team for Shanghai in 1994. My first attempt at a built-up tail, and built-up wing, since my Super Chipmunks.



the shape of the leading edge of the stab, and added small wires span-wise at the leading edge to act as vortex generators to change the way the local airflow affected the tail, and the effect of down wash from the wing on the tail. This made about 90% of



This plane still looks great. I took the bottom shot only a few weeks ago with the PA 75 up front. Note the different horizontal tails. I learned a lot about engine harmonics and vibration as well as tail aerodynamics.





I had a learning opportunity with SGVI in 2002. It seems that at a World Championship, if you elect to fly on a team race practice circle, you should make sure all the fences are back far enough for a F2B plane to fly. This picture was taken before I hit the fence and took off the outboard wing tip in flight.

the hunting go away, and it was at that point a competitive plane. After years of research on tails, and a bunch of trial and error, I came to the conclusion that the flat stab tail, which was changed from the original Trivial Pursuit, was a mistake—at least on this design. I had air-foiled the leading edge of the flat tail, and this seemed to be the worst possible configuration tried to date. I was just lucky enough to get it exactly wrong on the first try. Ted's original design had an air-foiled tail and was much better than this one.

However, this was by far my best wind plane, but it was not consistent in good to calm air. It evolved into my “test, guest, and loaner” plane. It had about 900 flights on it when it met its demise two years ago. I loaned it to a friend to fly at our 2007 Team Trials; the engine quit at a bad spot at the end of a flight and it went straight in. It exploded into a cloud of confetti. Nothing left. Eventually this plane had a PA .51, PA .61, PA .61 series II, and with it I did most of the testing on the PA .75. Its last configuration was: PA .75, Eather #8 pipe, Eather 13.0 x 3.75-inch 3-blade flat back prop, using 7.75 ounces of fuel. This combination made this plane a very good competitor.

Star Gazer III:

Because of my bad experience with stability on Star Gazer II, I decided to completely change the tail layout on #3. This plane had a removable tail, in hopes of eventually doing experiments

on different types of tails, tail locations, airfoils, leading edge radius, incidence, hinge line changes, and different tips on the tails.

Original configuration:

- PA .51
- Aero Products pipe
- Eather 12 x 3.5-inch 3-blade under-camber prop cut to 11.5 inches
- Flat Impact style stab with round LE
- CG 6³/₈ inches forward of the trailing edge
- Nose moment: 10 inches
- Tail moment: 18.25 inches
- Wing Area: 660 square inches
- Weight: 63.5 ounces

The plane was built in 1995/96 for the World Champs in Sweden where it placed 3rd. I also flew it in France at the 2000 World Champs. I eventually put in a PA .61, which flew it very well, and this combination won the 1999 US Nats.

I did complete my tail experiments and ended up with a tail configuration very close to Star Gazer I. SG #2 had a flat section





I don't think anyone can do a cowl quite as well as Ted Fancher. I'm more for functionality than form.



From this picture at the left, you can tell how shiny SG IV is. Well, it is all Sig dope except for the top clear coat. That's PPG. I was being cheap and used an old can of hardener - automotive paint ain't cheap. Well, it didn't quite harden all the way, ohhhh ...! Even after the heat and sun of Spain in 2006, it is still tacky in places. Jim Aron doesn't like to launch this plane. He says that when you let go, maybe you can un-stick your hands and the airplane will take off ...



2003 Walker Cup winner.

stab, patterned after Paul Walker's Impact, however with an air foiled leading edge instead of a round LE. As I said before, this was not a good choice. I found, with the Impact tail and a round LE, the plane flew very well, but did not track round maneuvers as well as I had hoped. It did fly level flight very well with no hunting. After further experiments, I found the air foiled tail section with a relatively sharp LE worked the best. Again, very close to the original Trivial Pursuit design. This is how it sits today, but with a PA .75. The PA .75 made this combination come alive; much the same as it did for Star Gazer II. The terminology might be a bit confusing, so let me make this clear. The cross-section of the stab on Star Gazer II was flat with an air-foiled leading edge only. Star Gazers I and III ended up with the entire tail an airfoil instead of the flat cross-section of the Impact.

As I said earlier, don't be afraid to experiment. Unfortunately, this plane almost didn't go to Sweden in 1996. I wanted to try Jim Hunt's (Bob's father) soft engine mount that was working so well for Bob Hunt in his "Bronze Dog" Saturn. I wanted to reduce the noise, vibration, and sound of a piped engine so the European judges would like the presentation a little better. This was a complete disaster. I could not get an engine run for 200 flights. I tried everything I could think of. I would take the engine, tank, prop, and pipe out of Star Gazer II—running just fine, and put it in the new plane. It would not run. In fact, this eventually led to this plane's premature retirement. There was a vibration caused by the soft mount that I could not overcome. I consulted with "The Man," Bill

Werwage, and asked him what his experience with the soft mount was. He said he had a similar experience, and his fix was to take a hack saw and saw off the nose. I was a little dejected. In fact, with a 2-blade prop, it hit a resonant frequency; the vibration was so violent I thought the plane would explode in the air. This led to my only plane retired because of worn out controls; mainly the bellcrank bushing. The fix was to hard-bolt in the soft mount plate and get rid of the soft mount bushings; it ran great after that.

Star Gazer IV:

This was built in 1997/98 for the World Champs in Kiev, 1998. This plane won the US Nats in 2001, 2003, and 2004. It has come in second in the World Championships twice: 1998 Kiev and Spain 2006.

Original configuration:

- PA .61 series I
- Eather #6 pipe
- 12.0 x 3.9-inch Eather 3-blade flat back prop
- Howard Rush carbon Gear
- Weight 56 ounces
- Nose moment 10.25 inches
- Tail moment: 18.25 inches
- Wing Area: 660 square inches

From my tail experiments on Star Gazer III, I decided to go with the flat stab of Paul Walker's Impact. This stab flew about 95% as well as the best configuration of an air-foiled stab with a



Ted Fancher and Dave at the 1993 FAI Team Selection that was held at the Mt. Comfort Airport in Indiana.

sharp LE, but the flat stab was going to be a lot easier to build, and importantly, much easier to build straight and light.

This has evolved to the PA .75, Eather #9 pipe, Eather 13 x 4.1-inch 3-blade flat-back prop, using 7.75 ounces of 10% fuel and a 57.5 ounce flying weight. The plane has well over 2,000 flights.

Now, for the Thunder Gazer:

- Nose Moment: 10.5 inches
- Tail moment: 18.5 inches
- Wing area: 630 square inches
- Power: PA .75, 2-port
- Pipe: Eather #9 pipe, at 19.25 inches
- Propeller: Eather 13 x 4.2-inch 3-blade flat-back prop
- .026 head shim
- #7 spigot venturi
- ThunderBolt 4-cycle plug
- 8.25 ounce carbon fuel tank. The engine burns 8.0 ounces at 9,500 RPM during a flight and yields 5.4 second laps and a 6:30 minute run time.
- Bru-Line Air Cleaner, Fine, Cat #202
- PowerMaster 10-18 fuel.
- CG 30% or 3⁷/₈ inches aft of the LE at the center section
- Leadouts 3¹/₈ inch aft of CG

Two things mark this new plane. It has a new wing and airfoil, and it is a take-apart design. The wing comes off the fuselage, and the tail comes off as well. My other planes were

one-piece, except for the tail on Star Gazer III. I felt the weight penalty was too high. However, with the new travel realities, the plane's travel box must be smaller to fit into a baggage X-ray machine. I had to build a new plane for 2008.

In extreme wind, the Trivial Pursuit wing has a lot of drag, and will fly ok in bad weather, but not fly well in the heavy wind. The new wing has a thinner airfoil than the original Trivial Pursuit. I had hoped that with a thinner airfoil, I would get better penetration without sacrificing the overall handling and lift required. This plane also has the air-foiled tail section. I had always felt the air-foiled tail tracks rounds much better than the flat stab, but the flat stab performs better in corners. Since I have backed off corners from yesteryears, and larger props don't like very hard corners, I thought better tracking was a bit more important—at least for the moment.

The wing design is Bill Werwage's Geo-Bolt wing. Since this plane is a conglomeration of designs and compromises, so is the name. An homage to Bill's Thunderbolt and the Star Gazer/Trivial Pursuit by Ted Fancher. Not to mention the very manly power up front in the form of Randy Smith's Aero Products PA .75. My philosophy is to not try and re-invent the wheel. If I see something that works, worked out by someone else, I'll try it. Good examples of this are Paul Walker's take-apart design, and Bill Werwage's Geo-Bolt wing. The Geo-Bolt wing has a narrower root chord, but the same tip chord, resulting in a higher aspect ratio, which again results in less drag. The combination of the thinner airfoil, higher aspect ratio, and smaller wing greatly reduces the airframe and form

drag, thus reducing the power required. So, why go with the PA-75 when I don't need all that power? *Landres, France!* Yes, I'm shouting!

The Thunder Gazer was designed for only one contest—the 2008 World Champs in France. My experience at that same venue in 2000 (the B-17 year) was not good. The site is surrounded by trees, on top of a knoll with an 8 foot high stone wall to deflect the local wind—which causes it to roll with the slightest of breezes. This all goes to create turbulence like you have never before experienced. I needed a plane with less drag, huge power to get through the raw wind, and handle the turbulence without question. As it turns out, the Thunder Gazer is pretty good at it. Because it is a smallish plane, the engine needs to be absolutely perfectly behaved. The slightest surge in the engine causes the plane to speed up, and not in the kindest places. The PA .75 fits the bill all around. A very big thank-you goes out to Randy Smith at Aero Products for this ...

Along those lines, there are many people who, without their help, I could not have finished the plane for this year, let alone been prepared all those years leading up to this last summer. First on this list is my dad, coach, and inspiration, Bill Fitzgerald. Others who come to mind in this respect are Ted Fancher, Brett Buck, Paul Walker, Orestes Hernandez, Randy Smith, Bill Werwage, Bob Hunt, Bob Gieseke, Jim Aron, Jim Tichy, Phil Granderson, Gary McClellan, Arlie Preszler, and, most importantly, my wife Kathy, and many more.

Lessons learned

I have many vivid impressions of the legends of Stunt from my much younger years. A couple of my fondest memories stand out. I was standing next to Bob Hunt in 1976 at the Dayton Nats (Junior and Open winners), being in the Walker Cup for the first time. Bob said, "... nice job, but never let 'em see you sweat." This was Bob's first Nats win, just after he had run over the nose of his plane with his car, necessitating an emergency repair to win. Wow, it doesn't get any more real than that. What I've taken that to mean over the years, along with a healthy dose of Paul Walker philosophy, is always be prepared and look like you know what you're doing, at all times, even if you have no idea what to do. Thanks Bob.

Thanks are also in order for another Bob—Bob Gieseke. My dad was

standing with Bob Gieseke watching one of my practice flights in 1977 at the Riverside Nats when Bob said, "Remember it's a show." That's all he said. What he means is, everything you do is being watched—before and after the pattern, between maneuvers. Give the judges a show and never give them reason to doubt your expertise. What he was referring to was my 3-foot pullout from the Overhead Eight. It was unnecessary, but his meaning stands. Remember this is a subjective event. Don't give the judges any reason to doubt your performance. Make them look for mistakes instead of serving them up on a platter, don't give anything away. Thanks Bob.

Some final lessons and parting remarks: Don't ever trust Ted Fancher with car keys at a Nats, or Howard Rush in France with a GPS saying, "What ... we can't get lost, I have a GPS!"

Thunder Gazer construction

In the next issue of *Stunt News* I will go over the construction details of the Thunder Gazer. I'm including the list of suppliers here in this article and I will include it again at the end of the construction piece.

Eric Rule of RSM is going to have the Thunder Gazer plans, by Robin Sizemore, done in about one or two months. They should be ready and for sale at VSC, with the kit available shortly afterward.

For further information contact: Eric Rule, RSM Distribution, 21899 Heliotrope Ln., Wildomar CA 92595-7815; phone: (951) 678-1406; RSM1RULE@rsmdistribution.com; www.rsmdistribution.com. *SN*

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Question: Is there a way to provide some sort of Stunt training so that judging will be the same all over the country?

Short Answer: No.

Long Answer: Here we go again ...

The topic of how to train Stunt judges has been, and really is, a problem. Mainly because the whole thing is subjective, and the training itself becomes even more important because of it.

With Stunt judging there are two very different perspectives at play: the one from inside the circle (pilot's view), and one from outside the circle (judges'/spectators' view). Our AMA rule book makes note of these two different perspectives, and encourages the judges to make allowances for their lack of an ideal view of the flight. OK, so during the frenzy of the never-stopping thought processes jammed into the two scoring laps, you also need to remember all the elements of each segment, then decide on the perspective handicap to be added to the score that you have carefully evaluated ... are you beginning to see why there are so few judges?

Lately I've been doing some internet surfing on GPS systems, and I have discovered that there are several telemetry type GPS units available for model airplanes. Glider guys use them for altitude and speed information, and other RC fliers use them for mapping the terrain they were just over. The question is: what would happen if you put one of those things in a Control Line plane and flew the Stunt pattern? In the best case, instantly you would no longer need to train and trust judges, the subjectivity would disappear into cold computed objectivity, and arguments over a particular pattern, maneuver, or even segment of a maneuver would disappear as well. In the worst case, you would get a printout of a data blob that may conspire with your operating system to take over your computer from the inside.

Maybe if you put the GPS outputs from the plane into a software program you might be able to actually score a pattern objectively, with the Stunt plane input being directly converted into score (output) for each maneuver. If that was to happen, my guess is that many long-time, firmly established, top-ranked pilots would find they are not as clean in their maneuvers as the optical illusion of cleanliness that they have come to perfect for the judge's eye would suggest. However, those gentle egos are in no immediate danger, because absolutely no one right now is even looking into it. (*Actually that's not entirely true, Ken ... —Ed.*)

If they were, just think about the follow-on effects that would be carried into RC Precision Aerobatics, both helicopter and airplane. The realization between what appears to be correct and what is actually correct could be only an electronic heartbeat away. Hmmmmm, no flight judges ... Hmmmmm. I suppose we would have to keep them for Old Time and Classic. Hmmmmm.

So, getting back on topic of how to train judges, there have been some very good schools of thought on that put into practice by some very good top-level pilots for both the Nats and World Championships, and I would not even presume to challenge any of that. Basically, if it's not broken don't fix it. However, I do have some pragmatic (that's one of my favorite words) observations to make.

Observation One: If the best perspective of the flight is from inside the circle, then why don't the judges move to the inside of the circle? I've heard that it's more unsafe to be in the circle with the pilot. Really? Your chances of being hit by a stray plane just got significantly slimmer by moving to the inside of the circle. Sure, the judge will need to be more careful not to interfere with the pilot or flying lines. But if they are seated, and move (carefully) only at the request of the pilot (whom they can now hear more clearly because they are in the circle with him/her), they should get the same perspective that the pilot gets and therefore score the flight more objectively without the need to handicap for outside the circle positioning and perspective variances.

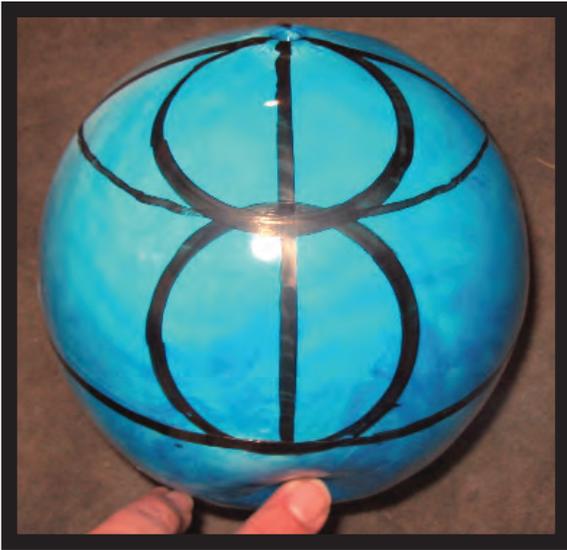
Observation Two: We go to some lengths to ensure our contest directors have the proper qualifications to run an event. Yet, we have no other qualifications than personal knowledge and a willingness to serve for our judges. FAI has yearly qualifications and a test. We (AMA) should at least have a category of membership between membership (J-S-O) and Contest Director, say "Judge" or "Event Director," with at least a one-time test to fill the position. How many times have you gone to a contest and the hosts were scrambling for a judge? At least there would be an indication of qualification on his/her AMA card.

Observation Three: We don't have any standard training aids for Stunt judges to reference, other than the 2-D depictions of the maneuvers in 3-D descriptive from the inside of the circle. OK, if you back up far enough you will eventually be outside the circle, but that significantly changes your perspective and you should have a 3-D model or example to use as a reference. I can't do much about the first two observations, but I can do something about this one.

There are many better men than I who have attempted to provide Stunt training aids with some limited success. Some are precise gadgets and wire frames that are truly impressive and equally difficult to construct and use. Some are detailed drawings and sketches, with equally detailed instructions and explanations. What I will attempt to do is neither. Approaching from the KISS (*Keep It Simple Stupid*) school of thought, let's go to our local 5 and Dime (I went to Toys-R-Us) and buy a clear plastic ball that is around 12 inches in diameter. The diameter is not critical, as long as it is big enough for you to draw on it fairly accurately with a marker. Twelve to 18 inches is just fine.

Step One: Mark the ball in halves. Use your favorite marker and follow the molding seam. I used dry erase marker because I can't color inside the lines, and needed to correct the line several times. If you don't have a seam, use a piece of kite string wrapped from the filler point all the way around to the same point again, which will give you a guide for marking the centerline. It does not need to be super accurate; close enough will do. This will give you two halves or hemispheres to work with. Don't throw away the string; you will need it again later.

Step Two: Find 45° elevation and mark that circle onto your ball. Using your string, measure down from the top to the center, fold the string in half, and mark the center. That distance is half-way between the top and the center and is automatically 45°. Transpose the mark to the ball in as many places as you want (the more you use the more accurate the line will be), then connect the dots. Now you have a centerline to represent the bottom of the flying circle (not the ground) and a line to represent the 45° elevation.



Vertical Eight transposed onto a ball for 3-D view of the maneuver.



Ground level view of the Vertical Eight. Notice how the top loop is distorted from this perspective.



Horizontal Eight transposed onto a ball for 3-D viewing of the maneuver.



Ground level view of the Horizontal Eight. Notice how the loops are distorted, and verticals lines that would be the sides of a Square Eight are curved from this perspective.

The maneuvers containing loops are going to be the easiest to mark on your hemispheres. Find a cup, glass, lid, roll of tape, or, if you must, a compass, and mark the ball on the outside with a circle that is between the centerline and the 45° line. This size circle will be the same size circle that you will use for all the loop maneuvers. Okay, the Four Leaf Clover is actually 3° smaller, but academically impossible to accurately transpose with a dry erase marker.

At this point I need to give you some information from the school of “I did something stupid.” In an honest effort to be accurate, I used a drafting compass to make the 45° circle and the circles for the loops, eights, etc. This turned out to puncture the skin of the ball (in several places), which began to slowly shrink from loss of air. I had to quickly take all the photos you see in the text before the ball was not a ball any longer. OK, it cost all of a dollar, but if I had been thinking, I would have put several layers of masking tape where I was going to stick the compass and avoided the whole deflation scenario. It did make the ball easier to hold, but it looks more like a gumdrop than a globe as I finish up this piece of work. Better yet, use a cup or a glass for the round lines on your ball. I ended up using a wine glass, and promised on penalty of eternal ridicule that the dry-erase marker would indeed come off the glass . . . it did, and I’m safe.

If you look at Picture One, you will see the vertical eight head on. In real life you would need to be some 50-60 feet in the air looking down to get this perspective, so the next picture, Picture Two, will show the same maneuver at ground level. Notice what happened to the nice round circles when the perspective changed. This is what the AMA rule book wants the judges to compensate for.

I have also put the horizontal eight on the ball for reference. This whole thing took me around an hour to do for the loop maneuvers. However, if you look at the verticals that are laid-in next to the loops in the horizontal eights in Picture Three for square eight reference, then look at the ground level picture of the same maneuver from the proper perspective, Picture Four, you can get an idea of just how tricky it can be to judge Stunt. Did you notice the verticals are no longer vertical?

The use of the \$1.00 tool (plastic ball) is a very effective method to freeze a maneuver in time over the flight path it will *really* trace inside the hemisphere, instead of a 2-D representation of a 3-D maneuver on paper. However, one of the best tools that any Stunt clinic can have is an Estes Altitude Calculator (\$29.99), Part No. 302232 AltiTrak™ (www.estes.com). It will give you the real location of 45° and 42° at your field and flying circle. Just remember to get a few feet away from the flight path outside the circle so that the triangulation will be correct. See Picture Five to get an idea of where 45° is in relation to the Stunt judges.

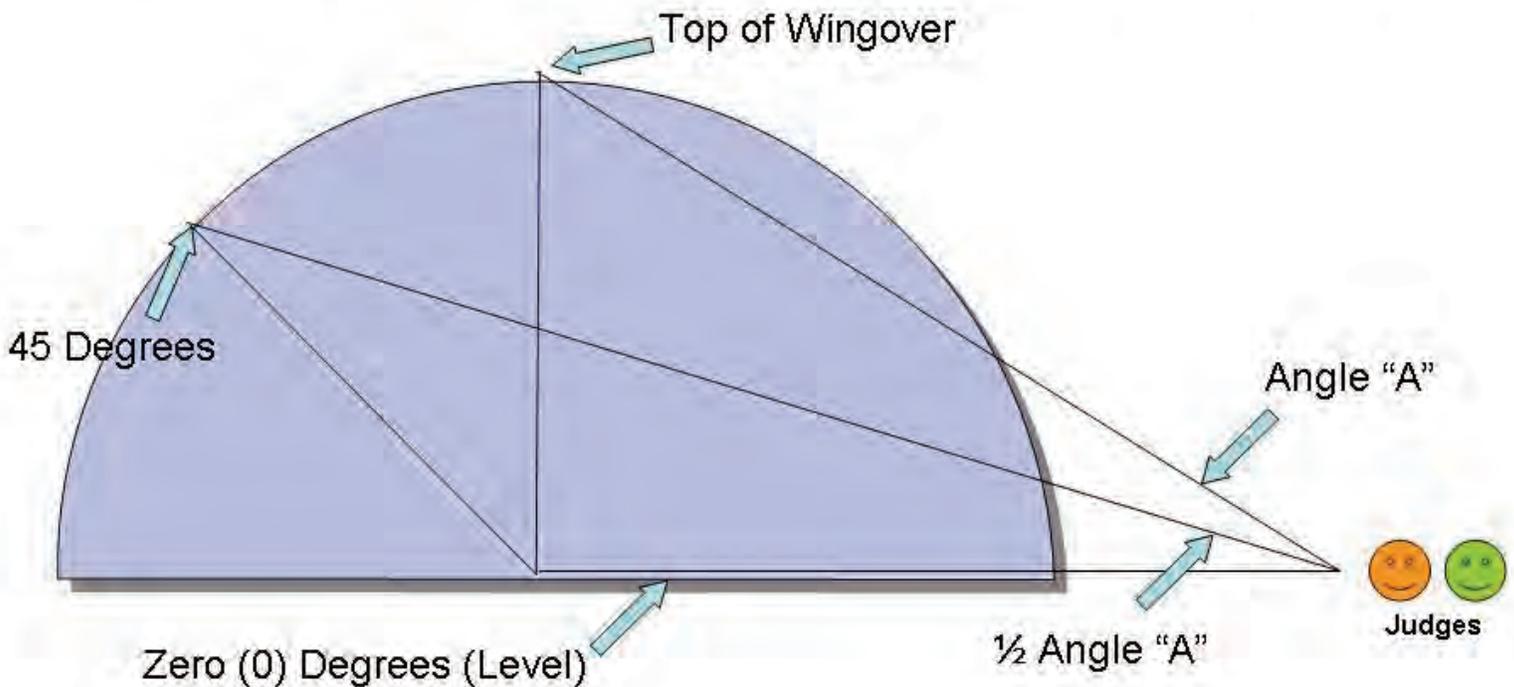
Using the Estes AltiTrak™ Altitude Calculator, you can accurately adjust the angle for any judging position by following these three steps:

1. While watching a real airplane perform a real wingover (hopefully during warm-ups), find the top of the circle with the AltiTrak™. This will become Angle "A."

2. Divide Angle "A" by 2. This will automatically give you 45° on the other side of the circle where the planes will be flying maneuvers.
3. Set the AltiTrak™ for the new angle ($\frac{1}{2}$ Angle "A") and have the other judge help you find that point in the sky. You will need to do this so that you will be looking at the correct spot in the sky for 45°, instead of what you think is the correct spot.

I hope you can use the relatively simple tools for your area Stunt clinics. I've been eye-balling a really big plastic ball at our local toy store thinking that I could cut it in half and view the maneuvers from either the inside or the outside. I just need to wait for my pride to heal enough for me to ask if the ball is pressurized or not, to see if it will hold its shape. They'll probably think I'm a little nuts, but who wants to have two deflated balls lying around? Happy Trails. (*I don't think ... Oh, never mind. —Ed.*) **SN**

Finding 45 Degrees Using Estes AltiTrak™ Altitude Calculator



1. Find the angle (Angle "A") at the top of a Wingover.
2. Divide that angle by 2 - Automatically 45 Degrees in the Flight Hemisphere.
3. Set New Angle ($\frac{1}{2}$ Angle "A") on AltiTrak™ and find that point in the sky.

It's In the Details

By Matthew Neumann

Landing Gear Mounts: There are essentially two places to put the main gear in a CL Stunt model: in the fuselage or the wing. Each location has its own advantages and disadvantages. Wing-mounted gear usually has a wider stance, which improves ground handling. In many pilots' eyes it also looks better. Its disadvantage is it can be a little more fragile than the fuselage-mounted gear because on rough surfaces, such as a grass field, the gear wires can be easily bent out of position. On a good surface, such as smooth pavement, this bending is really not an issue unless you have a tendency to, shall we say, misjudge the height of model from the ground when it stops flying ...

Fuselage-mounted gear, on the other hand, can be made much more sturdy for those rough field landings or for the smooth landing impaired. Fuselage gear can however be a little bit heavier than wing-mounted gear. You don't get something for nothing, at least most of the time.

I choose to use the fuselage-mounted gear on my planes because I fly over rough grass fields. Hey, fly where you can. If I had wing-mounted gear I would be bending it back in shape on a regular basis even with consistent good landings. So for the type of home field that I fly on fuselage-mounted gear is the best option.

This article will be on how I mount my gear so it stays in the plane even during a rough landing.

I used to just put a plywood plate on the bottom of the plane with a triangle gusset at each side. Although this works well over time, this area can get fuel soaked, especially if you are using a muffled engine, and weaken the glue joint. This became quite clear at the '98 Nats when I was flying a practice

flight in one of the grass circles about a half hour before my official. All I wanted was one more flight before going up to the L pad.

Things went well until the landing. Even though the plane was just floating along quite slowly, one of the main wheels fell into a chuck hole and stopped; however, the rest of the plane kept going. The plate holding the main gear popped loose from the fuselage at the glue joint. Needless to say with a half hour before my next official, things suddenly got a little bit more exciting than I wanted. The good news was someone had some instant glue and clear tape handy and we patched the plane up quickly and got it ready for its official without needing to take an attempt.

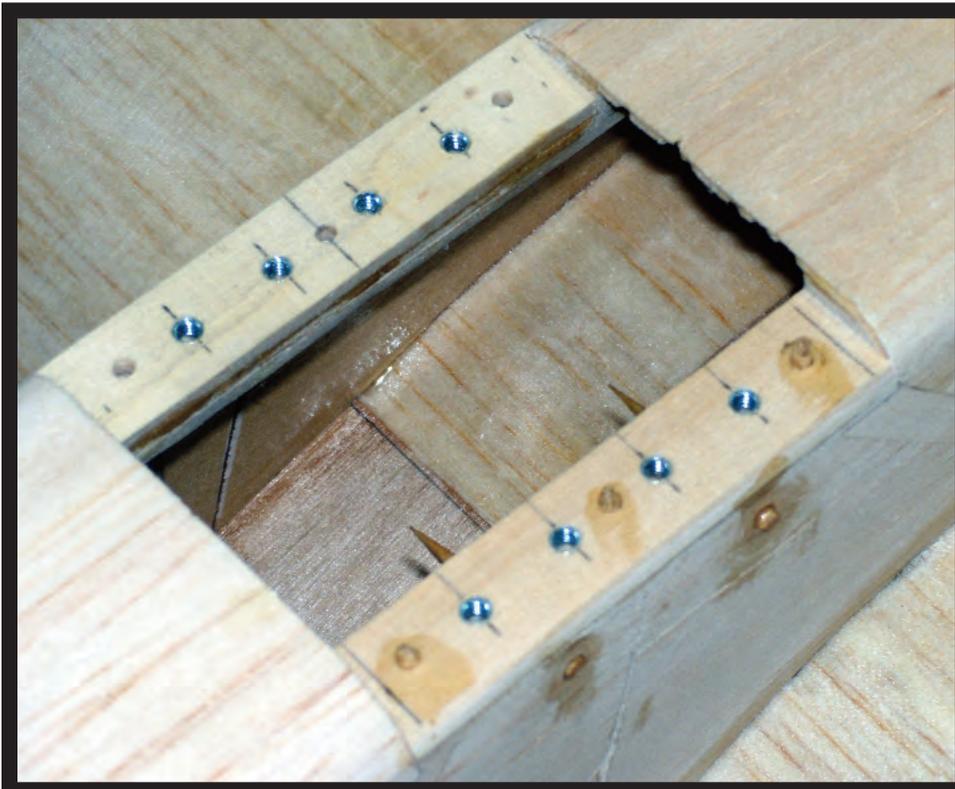
It was after this that I started putting a layer of fiberglass cloth over the joint to help hold it in place. This worked well until a couple of planes later ...

On a practice flight with my 2002 plane, I just started the first loop of the clover when I noticed a black thing shoot away from the plane. When I saw it I said to myself, "That was a really big bug!" After I finished the maneuver I noticed what really had happened was I lost a wheel! With the outboard wheel missing I knew that the landing was going to be a little, shall we say, interesting. On a hard surface the strut would just simply skid across the pavement but I was on grass where I knew it would dig into the grass. It did and it caused some landing gear mount damage that was hard to repair because of oil soaking. After this I was wondering if there was an even better way of strengthening the gear mounts without adding weight. The answer hit me later on in the form of toothpicks!

Toothpicks, you say? How can these help? Simple, they act as a mechanical fastener. Here is how I make my fuselage-mounted gear more bullet resistant. Notice I said resistant, not proof.

The first thing to do is to make sure your fuselage plywood doublers cover the area in which your landing gear mount will be located. This will help transfer the stress of the landing throughout the plane and not in one specific area. I recommend that you use epoxy glue on all joints when it comes to landing gear mounts because this glue is very fuel resistant and more flexible than CA glue. I put some 1/2-inch triangle stock under the 1/8-inch Lite-Ply landing gear plate(s) on each

Here is a picture of my landing gear mount for the 2009 plane. The 1/8-inch Lite Ply plate on the right has the toothpicks installed while the one on the left is ready to receive the toothpicks. I made this mount so I can move the landing gear forward or backward for either grass or hard surface landings, depending upon which set of blind nuts I choose. An easy way to cut the toothpicks off once they have been installed is to use a pair of diagonal cutting pliers. Be careful, however, because the ends tend to go flying across the room. It is best to hold onto the end of the toothpick while cutting in this manner.



side of the fuselage. This gives sufficient surface area for the glue to hold the plate(s) onto the plane. Make the triangle stock a little longer than the plywood plate(s) that you are going to install for the mount. The reason for this is to help spread the

stress of landing over a larger area and to act as a splice between the plate and the bottom fuselage sheeting. This splice is necessary to help prevent a crack between the plate and the fuselage bottom sheeting at a later date. Notice I have been mentioning the "plate(s)." You will either use one or two depending upon your plane. I use two which leaves a gap between the plates. The reason for the gap is that it makes it easier for me to remove the pipe. I would use a single plate if I did not have a pipe or had made the fuselage deep enough that the slot between the mounts would not be necessary to remove the pipe.



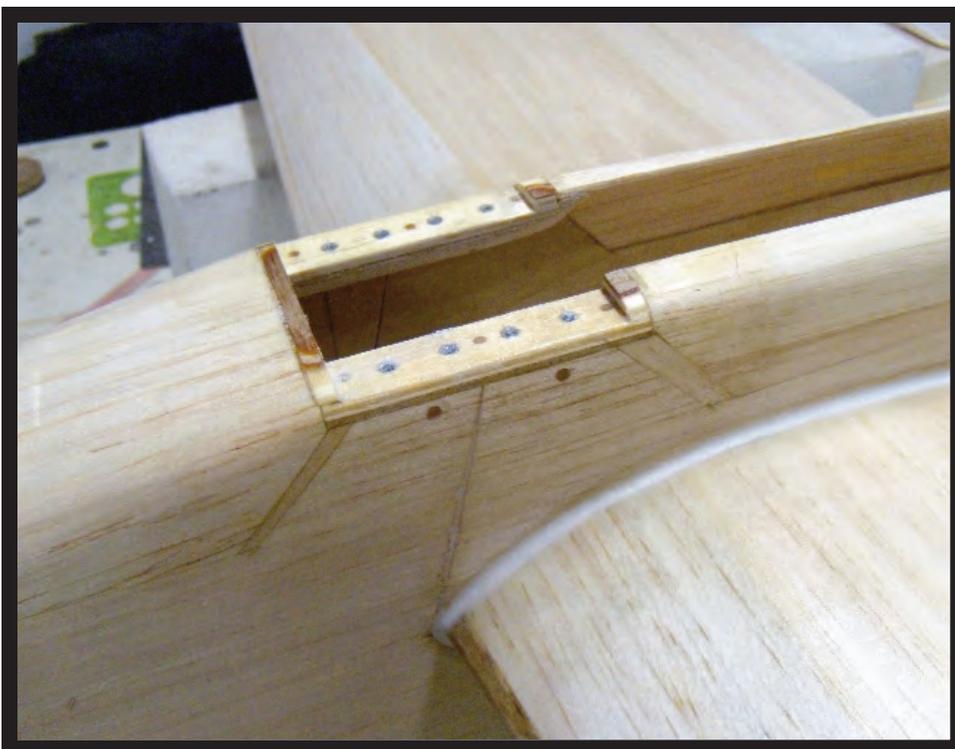
Here is a picture of the toothpicks installed and final sanding completed. If you look closely, you can see where the triangle pieces extend past the plate width and attach to the bottom fuselage sheeting. This helps prevent a crack between the sheeting and the landing gear plate.

Now install the plywood plate(s) with the blind nuts for the gear already installed. Drill a couple of holes through the plate(s) and sides of the fuselage into the triangle pieces. Make the diameter of the holes just large enough so when the toothpicks are installed they go in with a snug fit. Install the toothpicks with epoxy glue and cut them to final length. Contour everything to the final shape by sanding smooth with fine sandpaper. Now put a layer of 1/2-ounce fiberglass cloth over the mount with epoxy glue. After the epoxy has cured you can feather in the edges of the fiberglass cloth and apply the finish of your choice.

The toothpicks used in this manner do not add any weight but do add a lot of strength. This may be one of the few times that you can have something (strength) for nothing (weight).

This method proved its worth on my 2009 plane. One time during take off on my home field the plane turned in on me. I am not sure why, perhaps a gust of wind or maybe the angle of the lines was wrong. Anyway, the plane took off and flew without me controlling it about a foot off of the ground for about an eighth of a lap. It proceeded to land power-on in the thick grass and nose over. I thought for sure that the gear would come out of the plane, but it did not. As far as I can tell there was no damage to the landing gear mount at all and this was a *very* hard landing. I did lose a prop and damaged the bottom front portion of my cowl, but all things considered, the plane basically got away unscathed. Based on previous experience I am sure the gear would have come out of the fuselage had the toothpicks not been there, making for a rather interesting repair that I would not have enjoyed. So you can say that this method of attachment has been real-world tested.

I hope this helps your planes last and look better longer. Remember, it is in the details. *SN*



Here is the final result with the 1/2-ounce fiberglass cloth installed. This is then fine sanded to help blend in the edges of the fiberglass cloth, and then the finish of choice can be applied. Here is also a good view of the slot that I need in order to get the pipe out of the plane. If the fuselage were deeper or no pipe were used, then I would use a single plate the full width of the fuselage.

We Have the Technology

By Noel Drindak

Building Light Airplanes—Why Build Light?

A few years ago at the Nats, in the afternoon after the Walker Cup competition, I invited my friend, Bill Suarez, to fly my plane, a Steve Buso Super Kestrel. If you have a Nov./Dec. 2004 copy of *Stunt News*, it's the plane on the cover with the hot-rod flame job. The basic design and aerodynamics are Steve's, but the structure is completely reengineered. The end result is a 745 in.² plane with a PA .65RE that weighs 50.5 ounces. Most fliers would classify it as an extremely light airplane. I asked Bill to fly it because he's a top level flier and I wanted his opinion. After three flights he told me, "I'd forgotten how quick a light airplane can turn." He went on to say, "There is no kind of trouble you can get yourself into that you can't get out of with this plane."

Most Stunt fliers are in agreement that light airplanes fly better. Some will argue that an airplane can be too light. I've heard Windy Urtnowski say this, but sometimes you need to look at what people do, *not* what they say. Windy's Typhoon, which many think was his best-flying plane, at about 800 in.² with a Saito .91 weighed 62 ounces. It was a feather! Bob Hunt says, "It's possible to build a Stunt model too light, but nobody's ever done it." I agree. *The lighter an airplane is, the quicker it can turn, and the better it can do square corners.*

Ways to build light Stunt ships

1) Make a light finish. A heavy finish is probably the number one cause of overweight models. Making a light finish requires skill and hard work. Windy's videos are a good source of information on finishing techniques. Some of the basic things he teaches are about light finishing are:

- a) Start with a smooth, level wood surface. Filler adds weight. If you build a model with a lot of bad spots to fill, your light finish is in trouble before you even start.
- b) Sand off excess thicknesses of clear, filler, and base coats (silver or gray). What you want is the absolute minimum of material necessary to fill the grain and provide an even-colored base. Sanding is hard work, but hard work is the price you pay for a light finish. Also, skill is required to avoid sanding off too much material.
- c) Use the absolute minimum of color paint. Pigment is heavy. The ideal is one smooth, even coat of color. Don't paint one color over another color—when painting color, backmask areas that are going to be a different color.
- d) An alternative to pigment is to use a dyed finish. There are a number of different dyes available. I've used House of Kolor dyes with success by mixing the dyes with clear dope and spraying on several thin coats. (Hint—change your spray pattern after each coat to get even coverage.) One drawback is that many of their dyes must be followed with a UV blocker to keep them from fading. House of Kolor products are available at auto body shop supply houses. My personal favorite is Higgins Fadeproof Ink. It produces a see-through finish that has the look of dyed silkspan. It's easy, it's good looking, and it's light. Higgins Fadeproof Ink is available in art supply stores.
- e) Don't go crazy with the clear finish coats. You want enough clear to buff out, but not a lot extra.

2) Use light balsa. I'm sure that we've all read construction articles that say something like, "Build light—always use four- to six-pound balsa." Certainly light balsa is an important ingredient in a good Stunt ship, but it doesn't guarantee a light model. I know this because, like most of us, I've used light balsa to build overweight Stunt ships. Because I use weight tally sheets, I also know that *balsa contributes only a fraction of the weight of our models (about one-fourth)*. It's important to use light balsa, but you can't build a light Stunt ship without paying attention to the other three-fourths.

- a) Weighing balsa. I have an easy way to determine the weight of balsa sheets in lb./ft.³. I use my digital scale to get the weight in ounces and multiply by a conversion factor to get the weight in lb./ft.³. It turns out that the conversion factors are simple and easy to remember. I've listed them below:

Sheet Size	Conversion Factor
$1/32 \times 3 \times 36$	32
$1/16 \times 3 \times 36$	16
$1/8 \times 3 \times 36$	8
$1/4 \times 3 \times 36$	4
$1/2 \times 3 \times 36$	2
$1 \times 3 \times 36$	1
$2 \times 3 \times 36$	$1/2$
$3/32 \times 3 \times 36$	12
$3/16 \times 3 \times 36$	6
$3/8 \times 3 \times 36$	3
$3/4 \times 3 \times 36$	$3/2$

So if your $1/16 \times 3 \times 36$ balsa sheet weighs 0.3 ounces, multiply by 16 to get 4.8 lb./ft.³. If you have balsa in 4-inch widths or 48-inch lengths, the conversion factor for that thickness is multiplied by $3/4$.

- b) Always use your best balsa. When you build a plane, you want to build the best model possible. I know guys who save their best wood for some ultimate airplane. They save wood for years and never use it. *Use your best wood.* Also, mark the weight on each scrap when you throw it in your scrap box. When you need a small piece, you'll be able to find the best one.

3) Use less balsa. There are several ways to build an airplane with less balsa. Surprisingly, it's possible that you may be able to use less balsa and have a stronger airplane.

- a) Use built-up components. Built-up fins, rudders, flaps, and elevators require less wood. It's more work to make built-up components, but probably not as much as many think.
- b) Use molded shells. Items such as top shells and bottom shells can be lighter if they're molded from balsa sheet. Most builders use $3/32$ -inch balsa for molding. I use $1/16$ -inch balsa for my shells. It's not possible to hollow out a balsa block to this thickness and get it uniform.
- c) Use thinner wood. Many of our airplanes are overdesigned. Consider using thinner wood. The rear half of the fuselage on my Super Kestrels is made with $1/16$ -

inch balsa instead of the traditional $\frac{1}{8}$ -inch balsa. That's the fuse sides, formers, molded top shell, and molded bottom shell—all $\frac{1}{16}$ -inch balsa. I didn't sacrifice strength. It's a very stiff structure. I've built three of these planes, and I've been flying them for ten years. There's never been a problem with the structure.

- d) Use more efficient structures. The way to make stronger structures with less balsa is to make the structures more efficient. For instance, a traditional fuselage with fuse sides and formers is much stronger if the open top and bottom bays are closed with diagonals or sheets. Years ago I measured the torsional rigidity of a typical fuse section. First I left one bay open, then I added the sixth side to make a closed box. The torsional rigidity increased by 18 times. All the bays of my fuselages are closed boxes. That's why I can use $\frac{1}{16}$ -inch fuse sides in big Stunt ships.



Here's the structure for the fuse rear from my last Super Kestrel. The fuse sides, formers, and molded shells are all of $\frac{1}{16}$ -inch balsa with carbon-fiber mat laminated to one side. It's a very efficient structure, both strong and light (about 1.5 ounces).

4) Consider alternative types of wood. Traditionally, we build our models using balsa, birch plywood, and maple. There's no wood lighter than balsa, but birch plywood can often be replaced with lite-ply (made of poplar) or basswood. Tom Morris has used spruce for motor mounts with success. Weigh all your wood, not just the balsa. I've seen large variations in the weight of other woods, such as maple.

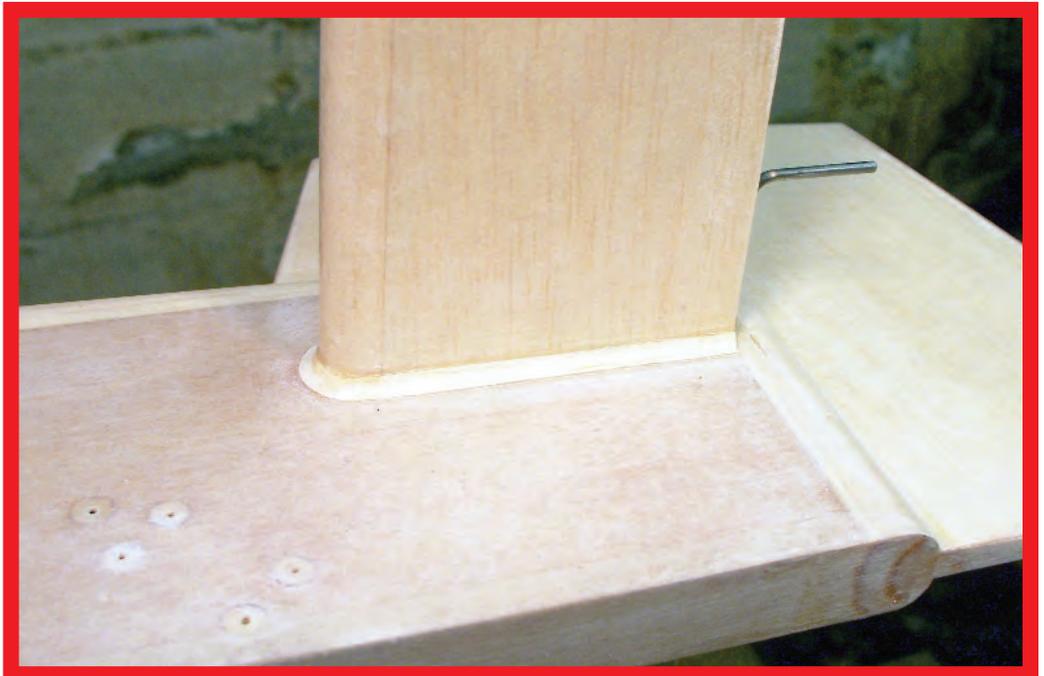
5) Consider alternatives to wood. A product that I've used for years is Rohacell foam. Rohacell has strength comparable to balsa, but is only 2 lb./ft.³. It is impervious to fuel, lacquer thinner, and other solvents. I use it as a core for laminated fuse crutches and other laminated pieces. Since switching to plastic fuel tanks I use it to make shaped tank saddles.

6) Use carbon fiber for strength. Incorporating carbon fiber into your structures allows stronger structures with less balsa. Two-mil carbon-fiber tape (available from Aero Products) adds great strength to spars. I laminate 0.2-ounce carbon-fiber mat (available from Aerospace Composites) to balsa with epoxy and use it in a number of places. In my Super Kestrels, it's used in the fuse for the sides, top, bottom, and formers. It's also used as spar webbing in the wing and stab. I also laminate carbon-fiber mat to the inside of my molded shells. I use bidirectional weave carbon-fiber mat for doublers and for laminated crutches. It weighs about the same as $\frac{1}{64}$ -inch plywood and has great strength. A word of caution—remember that the objective is a light airplane. If you're not careful with the carbon fiber and epoxy you can build a wing that's as strong as an ironing board (and also as heavy).

7) Make tight joints. Tight joints are lighter because they require less glue. (They're also stronger because there is more contact between the pieces being joined.)

8) Use less glue. Cyanoacrylate (CA) is light, but it's not weightless. I realized this after I used an ounce bottle of CA on a wing. CA doesn't lose weight when it sets. Use an ounce bottle of CA, and you've added an ounce of weight to your plane. Other adhesives such as epoxy and aliphatic resin also add weight. Regardless of which adhesive you've chosen, use the minimum amount necessary to make a strong joint, and wipe off any excess.

9) Get a lighter engine. After the basic airframe, the engine is the heaviest item in a Stunt ship. When you choose your engine, its weight should be a big factor in the decision. It's no accident that most popular Stunt engines are among the lightest in their displacement class. I know people who will say that their plane is balanced with a heavy engine, and that using a lighter engine would only result in adding nose weight to replace the reduced engine weight. If that's the case, I would say they built the tail too heavy.



Here's a photo of the balsa fillet on the stab of my Berserker. Balsa fillets are lighter and easier to sand than Aeropoxy fillets. Also, finishes adhere better.

10) Use balsa fillets. I learned about balsa fillets from Bob Hunt's *Stunt Flyer Video Magazine*, Volume 1, No. 3. Bob featured a guest on that program, Mike Spedaliere, who demonstrated how to make balsa fillets. When I decided to build my first airplane with a see-through finish, I also decided to use balsa fillets (an Aeropoxy fillet with a see-through finish would stand out like a sore thumb). I know that many fliers believe that their fillets add great strength to the wing/fuse joint. I believe that you should rely on the structure and tight joints to provide strength. If you do this, you don't need the fillet for strength, just for looks.

The obvious advantage of balsa fillets is their light weight. You'll save half an ounce to an ounce with balsa fillets. Another advantage is that balsa fillets are a lot easier to sand. That's because you're sanding all balsa, instead of a hard fillet material next to soft balsa. A third advantage of balsa fillets is that finishes adhere to balsa better than other fillet materials—there's no problem with bubbled fillets if you use balsa.

I enjoy making balsa fillets—probably because I enjoy working with balsa. I've used them on several airplanes, and I plan to keep using them.

11) Pay attention to bolt-on hardware. In this category I'm including the prop, spinner, muffler or header and pipe, tank, landing gear, axles, wheels, wheel pants, and tail wheel. All of these items add weight. In my last plane (weighing 50.5 ounces) they totaled about nine ounces. I expended considerable effort to get the total that low. It could easily have been a lot more.

12) Use lighter fasteners. The weight of our fasteners is not trivial—the 42 fasteners in my first Super Kestrel weighed almost an ounce. You may think that that's a lot of fasteners. Try counting the fasteners in your model; you'll be surprised. (Don't forget the engine.) Steel has always been the material of choice for our fasteners because of its great strength, but lighter fasteners are available.

a) Titanium offers strength similar to steel with only 60% of the weight. Titanium screws are available from Lunsford Racing. They've been producing titanium products for radio-controlled cars since 1988. They offer 4-40 socket head and button head cap screws in a number of different lengths. A note of caution—don't replace screws threaded into aluminum with titanium screws. They will gall.

b) Use nylon screws. A 4-40 nylon screw has ultimate yield strength of about 40 pounds—certainly adequate for many of our applications (such as hatch covers). Also, you can dye nylon screws to match your finish. Nylon screws are available from Micro Fasteners.

c) Make your control system lighter. I used to say that I would never try to save weight in my control systems. That was before I discovered Central Hobbies' pushrod kits. Central Hobbies' pushrods are *stronger, lighter, and easier to assemble* than arrow shaft pushrods. If you still use arrow shafts and music wire, you should consider changing.

Central Hobbies' kits consist of a pair of hollow carbon-fiber rods with four threaded titanium end fittings. The rods come in three sizes: $1/8$, $5/32$, and $3/16$ -inch diameters. I would expect most Stunt fliers to be interested in the $3/16$ -inch size. End fittings for the $3/16$ -inch rods come with 4-40, 6-32, or 8-32 threads. The end fittings are attached to the carbon-fiber rods using slow-cure epoxy (JB Weld is recommended). Although end fittings are also

available in stainless steel, I recommend not using them. Titanium is both stronger and lighter than stainless steel.

I use $3/16$ -inch rods with 4-40 titanium end fittings. An 8-inch flap pushrod weighs 0.17 ounces and an 18-inch elevator pushrod weighs 0.32 ounces. Fitted with Rocket City #57 Ball Links they weigh 0.29 and 0.44 ounces respectively.

Before using Central Hobbies' pushrods I decided to test them to twice their maximum flight load (this was in 2000). I didn't know what the actual flight loads were, so I called Wild Bill Netzeband. He used his Control Forces Program to calculate the maximum flight loads on the pushrods in a Patternmaster (few Stunt ships will have higher pushrod loads). The maximum pushrod loads are generated in what Bill calls the Zoom maneuver. This consists of giving sudden full up control with the plane in level flight. The instant before the plane starts to rotate, the loads are the maximum possible under any flight condition. In this case, the Patternmaster loads the elevator pushrod to 10.9 pounds (compression), and the flap pushrod to 18.4 pounds (also compression). I thank Wild Bill for providing this information. I wanted to load the pushrods to twice their maximum flying load, both in tension and compression. Rounding off a little I decided to test the flap pushrod to 40 pounds and the elevator pushrod to 20 pounds.

The flap pushrod handled 40-pound tensile and compressive loads with no problem. The longer elevator pushrod had no problem with the 20-pound tensile load, but it did bow about a quarter-inch when loaded to 20 pounds in compression. Considering that it only bowed when subjected to twice its maximum flight load, and that it's much stiffer than an arrow shaft, I think that this minor bowing is acceptable. As a final test, I decided to do a little destructive testing, loading the elevator pushrod in tension until something gave. I started out at 50 pounds (tension) and increased the load in 10-pound increments. The *pushrod and ball links* handled a 100-pound load without problem. At that point something gave: me. I gave up. However, at a later time in a test of the Ultra Hobby Products Ultra Clevis (mounted to a $3/16$ -inch Central Hobbies' pushrod) I loaded the pushrod and clevis to 400 pounds with no problem. Four hundred pounds is an amazing load for a pushrod weighing less than $1/3$ of an ounce. If you don't think so, I suggest that you try hanging 400 pounds on the tail of your next Stunt ship.

Caution Note: I originally used Rocket City #57 ball links (they're about twice as strong as the #87 ball links). However, after a conversation with Ted Fancher years ago, I switched to #87 ball links. (Ted pointed out that the extra strength of the #57 ball link was unnecessary because no one had ever broken a #87 ball link.) This is no longer the case. This year one of the fliers at the Nats, Bene Rodrigues, experienced a ball link failure. He was using Rocket City #87 ball links from Tom Morris (as I do). The ball link on the flap horn broke in two where it wrapped around the ball. I examined the failed ball link, and can only attribute the failure to a defective, over-stressed, or fatigued ball link. This is the first failure I'm aware of that wasn't damaged in some way during assembly. My response to this event is that I'm switching back to #57 ball links. I no longer recommend the #87 ball link.

In over ten years of using Central Hobbies' pushrods I've never had one fail. During that time I've crashed several planes. In every case the ball link control system survived intact, with the elevator pushrod holding the pieces together. To repeat a bit, *Central Hobbies' pushrods are stronger, lighter, and easier to assemble than arrow shaft pushrods. Why would you use anything else?*



Here's a Central Hobbies pushrod kit—two $\frac{3}{16}$ x 36-inch carbon-fiber rods with four titanium 4-40 ends. Stronger, lighter, and easier to assemble than arrow shaft pushrods. Just measure, cut, and glue. Why would you use anything else?



A Rocket City #87 ball link (left) and a #57 ball link (right). The #57 is the best choice because of its extra strength.

Tools

1) Digital balances. If you're serious about building light airplanes, you need a good digital balance. I have two. I've had a Pelouze PE5 postal scale for many years. It measures up to 5 pounds in 0.1-ounce increments. It's probably sufficient for most builders. I recently priced it at \$59. I also use another digital balance—an Acculab EC-411. It's accurate to less than 0.01 ounce with a 14-ounce range and costs about \$84. I use the Acculab for weighing individual pieces and the Pelouze for larger assemblies or finished planes.

2) The weight tally sheet is an indispensable aid for building light airplanes. I keep mine on a PC in Microsoft Word. This is adequate for me because I'm only concerned with total weight, and the only math I need is simple addition. Excel would be the choice if you wanted to use more involved calculations. (Paul Walker used Excel to calculate the CG when he built his B-17.)

However, you don't need a PC to use a weight tally sheet. I've used notebook paper for weight tally sheets and it works fine. *The most important thing in using a weight tally sheet is to form the habit of weighing every part that goes into your model and writing it down.* Initially, you'll have a hard time remembering to do this. Keep working at it until it becomes a habit. Some of your entries will be hard to make exact—I'm thinking of parts that get trimmed or sanded after installation. In cases like this just do the best you can and remember that the weight tally sheet is a tool, not an end in itself. A good weight tally sheet is useful in many ways:

- a) It allows you to estimate the finished weight of the model.
- b) It helps make decisions on building materials, engines, hardware, and finishing.
- c) If you build several models of the same design, the weight tally sheet from the first model is *extremely useful* when you build the second model. It shows where to focus your efforts in reducing the weight of the second model.

It would be nice to have a weight tally sheet that could be used for all models, just filling in the blanks.

Unfortunately, that isn't possible. To be most useful, a weight tally sheet must be tailored to the type and sequence of construction being used. For example, a weight tally sheet for an airplane using a foam wing wouldn't be suited to a built up design. If you cover and finish the wing before installing it in the fuse, you don't want a weight tally sheet for the opposite sequence of construction.

In Summary

Building a light airplane is a lot of work, but light airplanes fly better and turn quicker. As you work to make your airplane lighter, be careful not to sacrifice strength. This is possible because most of the things that make planes heavy don't make them stronger. For example—too much paint, too much glue, heavy engines, and heavy hardware. The weight tally sheet is invaluable when your goal is a light airplane.

Good luck with your next plane. *SN*

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The Euro Scene

By Andy Sweetland

A Somewhat Different View of Stunt Judging



Guest columnist Andy Sweetland.

Many readers of this magnificent journal will perhaps be wondering what a Swiss/Brit who does not compete regularly in Stunt/Precision Aerobatics/F2B is doing writing in these hallowed pages—even more surprising, some readers may even know that my main activity these days is judging FAI class F2C (Control Line team racing)!

A few with longer memories may remember my name as Peter Germann's associate in the long-running tasks of re-casting the FAI's *Sporting Code* F2B section plus the related "Judges' Guide" a few years back, but the reality is that my reason for appearing here has rather more to do with the persuasive (read "pleading"?) powers of Peter Germann than because of any real "Stunt expertise" that I possess (I'm *still* trying to learn to fly the full schedule properly).

But anyway, I'm here now, and with something to say about judging our events which I hope may strike a chord with you, whatever your level of Stunt interest and expertise.

Those of you who have seen F2C will know that it is "fast and furious"—usually *very* fast. And having three pilots flying in the same circle at once definitely adds to the drama and tension! The speed with which things happen, and the need for the three judges to confer and have two out of the three agree before issuing warnings means that those judges experience a considerable level of stress. Yes, sure, a typical race lasts for less than 5 minutes, and typically there are fewer contest races per day than flights at a major Stunt contest. But at the end of a racing contest day I personally feel completely drained and good

for little else beyond a decent meal, a glass or two of suitable restorative, and an early night. Discussing that point with a very experienced F2C pilot and judge at a recent major contest, he told me "That's not really surprising Andy. In effect you're flying *every* race yourself." Thinking it over I decided that he was quite right.

Now let's compare all that with that much more "gentlemanly" event, Stunt. For a start it's only one aeroplane at a time; each flight takes about 7 minutes start to finish; all manoeuvres are the same for each pilot (or at least they're supposed to be); and the airspeeds are, comparatively speaking, "sedate." So judging Stunt must be, comparatively speaking, a cakewalk, right?

Well, as I have discovered from a couple of (fortunately very brief) practical exposures to judging Stunt, nothing could be further from the truth. In fact, for a totally inexperienced F2B judge like me, my opinion now is that it may well be even more demanding than judging F2C!

The last time I was "asked" to judge F2B ("Press Ganged" would be a more accurate term) was just a few weeks ago, fortunately at a reasonably low-key local contest. After some of the *real* Stunt judges had left the site for the day it became apparent that one of that day's contestants would not be able to make his second round flight the next day. So he requested the chance to make his second flight on the same day. With some of the judges now no longer available, replacing any of them with someone else was not really as per the rules, but the contestant would rather accept that solution than miss his second flight completely. So the call went out for a replacement judge, and it was not long before the finger was pointed at me—"You know the rules, you helped write the 'Judges' Guide,' you do it."

This had already happened to me a couple of times in the past, but "only" for judging beginners' contest flights. From that I had already learned that using the "deduction method" suggested in the "Judges' Guide" as one possible way to generate scores is something that definitely requires a lot of practice and a cool, deliberate approach if it is to do the contestant any justice at all. But this was the first time I had tried to judge a "real" F2B Precision Aerobatics contest flight by an experienced pilot flying a "proper" aeroplane.

With barely enough time for a quick reminder skim through the "Judges' Guide" before the takeoff, I was feeling far from confident as the start signal was given. That feeling of inadequacy was soon to be fully justified!

"OK lad," chief Judge says. "Time OK; you can do this, so now watch the Take-off very carefully—did the aeroplane 'jump' off the ground?—did he reach the right altitude at the right point, overhead the release point?—was it a 'smooth, progressive' climb?—were there any 'bobbles' on the way up, or during the 2 level laps?—were the errors that you did see minor or major errors?—so what score are you going to write down then?"

By the time I'd finished arriving at the answers to all those questions and had then totted up the errors and written down my idea of the score, the aeroplane was now half-way into the first climb of the Wing-over! "Blimey," I thought, "Stunt is supposed to be *slow*!"

I won't proceed with a blow-by-blow account of all the problems I experienced during just that one contest flight, but suffice it to say that I lost count of my errors several times during some manoeuvres, so ended up spending so long trying to think back that the aeroplane was well into its next manoeuvre before I had even written down the score for the previous manoeuvre. As a result of which, I was, of course, totally unable to even attempt to judge some of the manoeuvre bottoms, intersections, and double-figure shape placements.

And on some of the more complex manoeuvres I got even more hopelessly out of synch with the aeroplane, resulting in losing all track of "where are we now with errors, minor & major?" So I ended up resorting simply to judging the whole manoeuvre—"was that an 8.0 or an 8.5?" It's remarkable how often you then end up asking yourself, "If that Hourglass was an 8.5 just now, is this Cloverleaf worth an 8.0 or a 9.0?" Not to mention, "I wonder what score Mr. X has given for that manoeuvre? Oh no, blast it, the rules don't allow comparing with other judges' scores do they?"

Hopeless! Totally useless—and I hope the subject contestant *never* gets to see that Andy Sweetland Score Sheet! He should have just gone home and not bothered with his second flight!

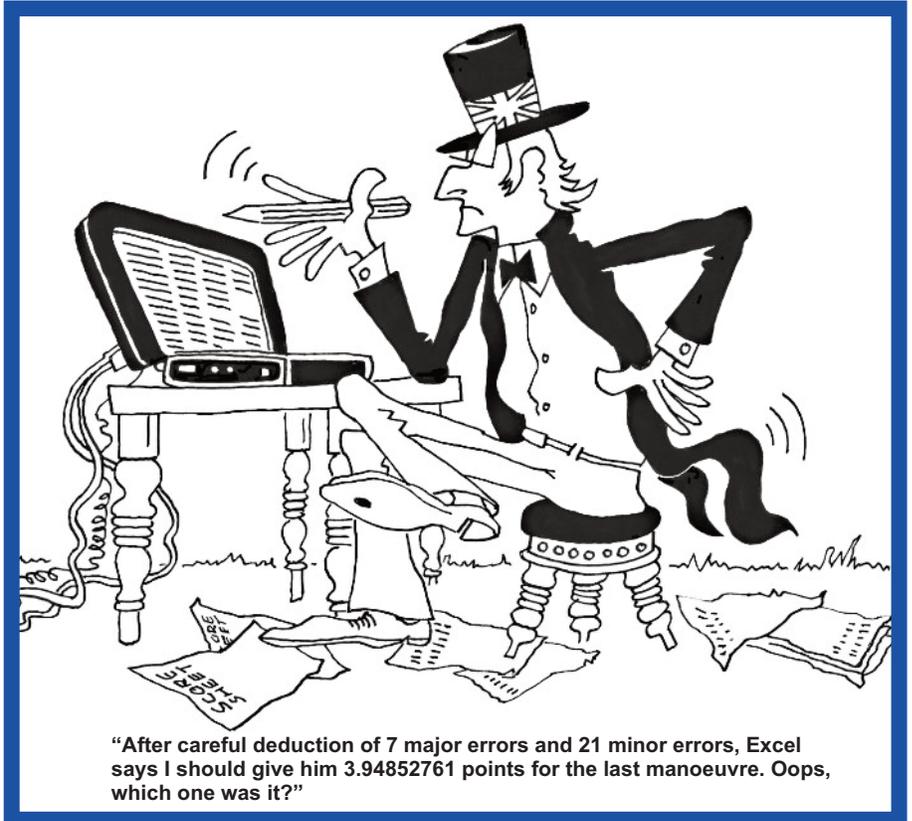
The point of all this is not to have me embarrassing myself and have the whole Stunt world laughing its head off by demonstrating that Andy Sweetland is a total incompetent (not to mention a congenital idiot), even if that might be a fair conclusion from the above. In fact, in conversations with a number of experienced judges of both sexes at the time when I was producing various iterations of the F2B "Judges' Guide" and Rules revisions, I learned that for some judges (though not all), the deduction method *does* work, and it works well—*provided* that the judge has had lots of training and practice with it. That's why it's suggested as one possible scoring methodology in the "Judges' Guide."

And neither is the point of this to "prove" that Stunt is anything other than just different to Team Race (though racers should realise that in practice, Stunt is really *not* as "slow" as it appears from outside the circle—well not if you're a judge it's not anyway).

Just try it out yourself once in a while—pick up a Score Sheet and try to "seriously" judge a single top-level contest flight from outside the circle one day. Then think about doing that all day for 8 or more hours per day, sometimes for several days in a row. That's what happens at top level contests such as your US Nats I think, and certainly that's the procedure at FAI World and Continental Championships with probably around 100 contestants each flying three rounds. Then go on to consider the amount of personal effort and commitment needed by judges to reach such a top level of expertise, and the long hard road they have travelled through local contests at various levels to reach a position of being an approved US Nats or FAI international judge. Personally I would say that the levels of personal effort needed by your judges would compare very strongly indeed with the amount of personal effort needed to become a top-level Stunt pilot—apart from BOM that is, and I'm *definitely not* getting into that one!

Finally, please also think about your own reactions as a pilot when a particular judge or the overall judging standard does not come up to your expectations. As a contestant you certainly deserve the best that your judges can give you, but my main hope is that all Stunt fliers reading this will spare a thought for their judges once in a while—and even better, will in the future take active steps to support and help train all their local trainee and aspiring/improving judges.

I'm sure many of you immediately recognised his inimitable artistic style, but I mustn't forget my thanks to Claus Maikis for the excellent cartoon. *SN*



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AIRPLANE STORAGE

By Don Ogren

HOLDERS

My work shop is half of a two-car garage, so safe storage of the finished products was a problem, until I discovered the un-used cubic feet of the garage's ceiling space. "Where there's a will, there's a way," and it wasn't long before I had a couple of racks designed! One of the racks will hold three planes, out of the way of normal potential "hanger rash." The top plane on the three tier rack is the only one not reachable from the floor. The other rack is suspended from two ceiling mounted screw eyes for a fourth plane. A fifth plane hangs by the tail wheel wire on the front of a wall cabinet over the washer and dryer. The racks are made of $\frac{3}{4}$ -inch x $1\frac{1}{2}$ -inch (knot free) pine, and are screwed and glued together. Plywood gussets reinforce the angled corners. Spacing is wide enough to straddle the landing gear, and the wing supports are 10-inch long $\frac{1}{2}$ -inch diameter dowels with small pipe insulation as protectors. The points



Three-tier plane rack with center screw eye for single ceiling hook.



The screw eye is over the plane's center of gravity providing near-level suspension.





Left: The ceiling rack above the plane supports used boxes containing the usual collection of leftover items.

Below: This single plane rack is suspended by two cords from ceiling hooks.

of suspension are above the center of gravity of the planes, which is pretty much above one-another, so removing a plane from the multi-plane rack doesn't unbalance the others. (now isn't that clever?) Vertical spacing is about 7 inches on my rack, and I'd recommend at least another inch, to separate the vertical fins a bit more. There you have it, making the most of what I've been given.

Remember—wheels on the bottom side... *Before* the engine quits!

Regards. *SN*



Left: The 12 inches between the verticals is wide enough for wheels and my 11-inch props.

The Appearance Point

By Tom Luper



Well, nobody ever accused me of being too fast! Back in 2005, my good friend and flying buddy Wayne Foster asked me if I could help him design a modern Stunter that looked like a PT-19 and had the lines and size of a Veco Chief. That didn't sound like too much of a problem to me, and he said he'd draw it in AutoCAD if I'd help him with the design. Many days, lots of hamburgers, French fries, and diet Pepsis later we had something we both liked.

Wayne designed the wing with CompuFoil (a very fine tool for airfoil plotting and modification) to get just the platform we were looking for. The drawings were sent to the laser cutter and soon we had a fine set of parts to build the airplane.

Now Wayne's no slouch when it comes to designing and building models. He and his daughter Karyn were the ones to beat at the Nats in the Mouse Race circle several years ago, and he's great at designing fixtures and jigs to make multiples of almost anything.

I really liked the looks of our design, and had a Double Star 60 with which I was very familiar and could get to run the way I want a Stunt engine to run. That's what I wanted to use for power.

Collecting the right balsa and finishing some other projects that I had started took more time than it should, but by the summer of 2009 it was looking pretty good. I'd carved and painted the pilots, relocated the windshields (that's



Scout Specifications:

Model Name: Scout

Designer: Tom Luper and Wayne Foster

Construction type: Built up balsa with Polyspan covering on the wing

Wingspan: 55 inches

Length: 43 1/4 inches including the spinner

Moment arms: 10 inches from the front of the wing to the back of the spinner, 16 1/8 inches hinge line to hinge line

Weight dry: 57 ounces

Power package: Double Star 60 with 6-ounce Sullivan round tank

Propeller: 12-6 wood paddle blade carved from a 13-6 Zinger

Finish (Dope, auto paint, shrink film, etc.): Brodak color dope with an automotive clear coat. All markings are painted on.

Line length: 62-foot eyelet to eyelet

another story), and modified some aluminum wheels to look



like I wanted them, and was working on making it look like it had been in the air over a battle area for some time.

I really wanted it to look like a war-weary plane and used many techniques that I've developed in my paintings to get that effect. I've looked at many pictures of WW II era planes and have an idea what all the "grunge" looks like and how it flows from many openings and joints on the planes. Once I had all the insignia and detail painting completed, it was painted with a clear coat of PPG

automotive urethane gloss coat for protection and hand rubbed and polished.

Test flying started in the summer of 2009, getting ready for the Huntersville NC contest in October. The controls were a little sensitive, but a slight amount of



nose weight in the way of a Charlie Reeves-made steel heavy hub on the engine shaft solved that problem. Some slight tank shimming and tip weight modification solved the flying problems, and the engine run was very good. Then at the Huntersville contest it placed first in

Expert in its first outing.

All the work in the last four years had been worth it! Now I can fill the tank and fly the plane without major modifications and enjoy it.

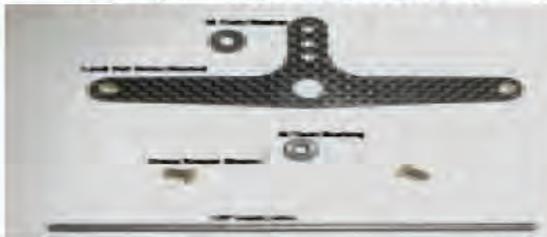
As a sequel, I think a bubble canopy, some outline changes ...*SN*

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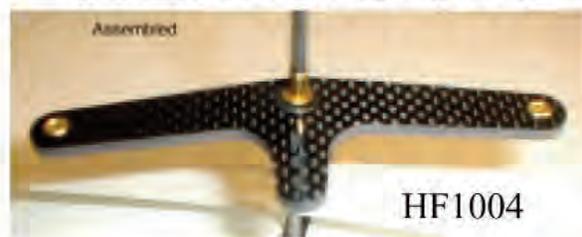
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In 1946 ...

- The first meeting of the United Nations is held in London.
- Project Diana bounces radar waves off the Moon, measuring the exact distance between the earth and the moon, and proving that communication is possible between Earth and outer space, effectively opening the space age.
- The Central Intelligence Group is established (the CIA in 1947).
- Japanese Lt. General Masaharu Homma is executed outside Manila, the Philippines for leading the Bataan Death March.
- Tokyo Telecommunications Engineering (later renamed Sony) is founded with about 20 employees.
- Bikinis go on sale in Paris.
- Nuremberg Trials: Hermann Göring, founder of the Gestapo and recently convicted Nazi war criminal, poisons himself hours before his scheduled execution.
- In Chicago, a branch of the Exchange National Bank (now part of the LaSalle Bank) opens the first 10 drive-up teller windows.
- UNICEF (the United Nations Children's Emergency Fund) is founded.
- Frank Capra's *It's a Wonderful Life*, featuring James Stewart, Donna Reed, Lionel Barrymore, Henry Travers, and Thomas Mitchell, is released in New York.
- Cold War: Indian Prime Minister Jawaharlal Nehru appeals to the United States and the Soviet Union to end nuclear testing and to start nuclear disarmament, stating that such an action would "save humanity from the ultimate disaster."



- The first Tupperware is sold in department and hardware stores.
- The Flamingo Hotel opens on the Las Vegas Strip.
- The New York Knicks play against the Toronto Huskies at the Maple Leaf Gardens, in the first Basketball Association of America game. The Knicks win 68–66.
- A magnitude 8.0 earthquake hits the northern Dominican Republic, killing 100, and leaving 20,000 homeless.
- People born in this year include: Diane Keaton, Reggie Jackson, Cher, Donald Trump, Gilda Radner, George W. Bush, Bill Clinton, Freddie Mercury, Naomi Judd, Dolly Parton, Liza Minnelli, Susan Sarandon, Ed O'Neill, Candice Bergen, Suzanne Somers, Andrea Mitchell, and Emerson Fittipaldi.

... and this young man was learning the joys of model aviation at his father's knee. Send your guesses to Bob Hunt at robinhunt@rcn.com. *SN*

Why I Fly Stunt

By Fred Carnes ←

John McDonald and the Muncie Controliners

At VSC-21 Bob Hunt asked me to consider writing an article on “Why I Fly Stunt.” Initially I discounted Bob’s suggestion because I do not fly Precision Aerobatics and do not enter contests. I am a sport flier who likes to build Stunt planes and fly the old time pattern—all just for fun. I do fancy beautiful airplanes, be they large or small. So, the words famed aviatrix Amelia Earhart used to describe flying resonate with me. She said, “The reason fliers fly, whether they know it or not, is the aesthetic appeal of flying.” Aesthetics being the beautiful in art and nature, I believe Amelia understood what draws many, possibly most of us, to airplanes. They are beautiful creations of man, they are beautiful to watch fly, and from the air they allow us to see the beauty of nature and the world.

Recently Bob’s request came to mind, and I asked myself, “Why *do* I fly Stunt?” What was it that so enthralled me with model airplanes—this delightful combination of hobby and sport that has given me so much pleasure for over 60 years? As I reflected on this, I realized that Stunt flying was much more than a hobby and sport for me. It started me on a career path in aviation and aerospace that has provided me with enjoyment, meaningful work, a livelihood, and fascination for most of my life. I concluded that beauty drew me to airplanes, but the credit for “Why I fly Stunt” belongs to people who inspired and motivated me while I was growing up in Muncie, Indiana—specifically, John McDonald and the Muncie Controliners club where I was a member from 1948 to 1958.

Please indulge me while I share some memories of being in the Muncie Controliners model airplane club, from age 11 to 21, and a bit of personal history. As a young boy I had no idea that model airplanes and that club would lead me into a wonderful career in the Air Force filled with airplanes, missiles, spacecraft, high-energy lasers, aerial targets, and air armaments. And never during the 1950s would I have believed that the Academy of Model Aeronautics (AMA) would move to Muncie, and the club

flying circles at Muncie’s Westside Park would have started a series of events that resulted in that move. So, here is what I recall of those formative years.

After returning from service in the Army in World War II, my father obtained employment at the Kuhner Packing Company, and our family moved from Indiana farm country to the city of Muncie. That was December 1946; I was 9 years old and in the fourth grade. I recall Mom taking me to Kirk’s Sporting Goods store where she let me buy a Comet stick model kit and a tube of glue—life was good.

My school, Garfield Elementary on South Madison Street at the West end of Heekin Park, was about eight blocks from our new home. That park was a great place to splash in the wading pool, play softball, hear evening music concerts at the bandstand, and watch scary horror films after dark on Saturday night. Dad bought me a used bicycle, and I soon knew where the other kids my age lived and most of the neighborhoods on the south side of town—I liked Muncie.

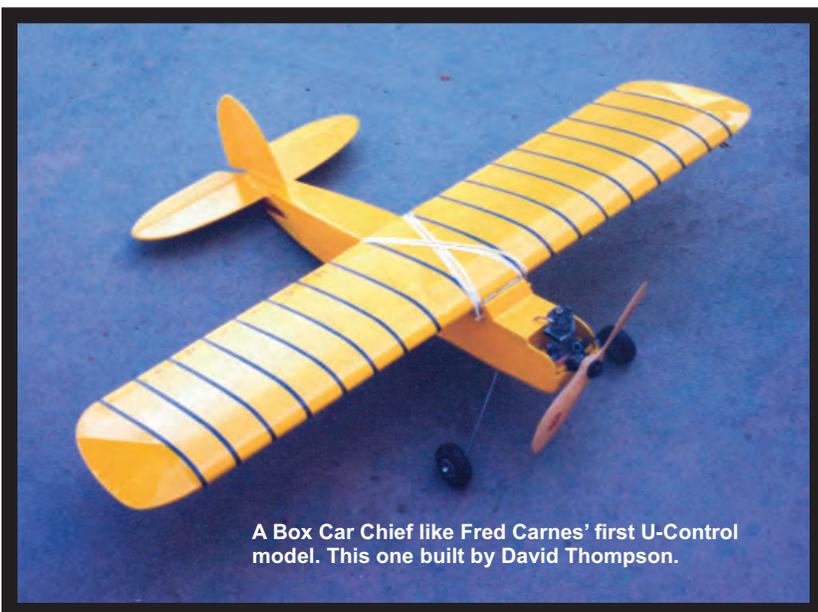
Midget racing was big then with weekly races at Muncie’s Veladrome speedway and racetracks in Anderson and Winchester. Don Reeves, a half-grade ahead of me, made small race cars from balsa wood sticks, covered with silkspan, and painted them with bright colored dope. So, I started making them as did Sonny Kistler, another schoolmate. Our cars had Veco wheels attached to balsa axles with straight pins, and we used a plywood ramp for their gravity power. During 1947 we had many races in our basements that later led to the three of us building Soap Box Derby cars—great fun.

One summer day in 1948, while riding my bicycle, I heard an engine running with the sound coming from the open garage of Gene Eber’s Refrigeration Service on the corner of 13th and Hackley streets. Inside were some adults and kids, including Gene and his brother Howard. On the garage floor were two gas-powered model airplanes with big engines. One was a Big Cut-Up and the other a Joker. Howard was a bit upset because he had just discovered the need to cut into the Joker to rework the controls. I remember him saying, “This airplane really is a joker!” That was my first introduction to U-Control Stunt models—I was fascinated.

There also was Wesley Rickard, about 3 years older than me, from whom I learned built models. Later Wesley took me to his house where he showed me a black deBolt Bipe, a profile Stunter, and a rubber powered free-flight under construction. Wesley told me there was a model club called the Muncie Controliners, and members flew their planes at Thomas Park off the West end of 12th street.

The next Saturday I rode my bicycle to Thomas Park and sure enough several planes and fliers were there. Seeing those planes, hearing the sound of those engines, and watching the fliers made me want to build a control line model. Wesley had his O&R .23 powered profile there, and he could do climbs, dives, and wingovers—I was impressed.

I asked Wesley for advice about an engine to buy,



A Box Car Chief like Fred Carnes’ first U-Control model. This one built by David Thompson.



Above: Muncie Controliners, fall of 1948. I am at the far left front row. Wesley Rickard is next to me. Howard Gregory is between Wesley and me in the second row. On the far right is Paul Brown. Next to Paul in the back row is John McDonald. The very large plane on the ground belonged to the Reber brothers. The large plane being held is a Big Cut-Up.



Right: John McDonald with two of his 1946 U-Control models. John's early control line models were functional, flew round and round, but were not things of beauty.



Left: Paul Brown's Pitts Special built in 1948. By this time attractive scale models were being built.

and he recommended a Forster .29. So, Mom took me to Kirk's and let me buy an ignition Forster .29. Wesley loaned me his deBolt Bipe to mount it in, and I wired it up per directions. Then I mixed the heavy motor oil and gasoline fuel in a gallon jug. I was in the basement, anxious to start the engine, and to my surprise it fired right up making a really loud noise and pouring out a great quantity of smoke that soon filled the basement. Mom opened the basement door, saw all that smoke around her clean clothes hanging on the clothes lines and said, "No more running that model airplane engine in the basement!" From then on it was the back yard or the flying field for engine runs.

Dad had a steady job, and we always had the necessities, but money was tight. I knew that my model airplane hobby took dollars our family needed for other things, so I started mowing yards and soon had a job shining shoes at Mack's barber shop. That gave me the money needed to buy balsa, dope, wheels, tools, and other items needed. Winford Tinch, another school chum, said his dad had finished building a control line plane, and

I could have the kit plan he no longer needed. That plan was for a Rick's Box Car Chief. I soon built for my Forster .29. Making it was no problem as previous rubber powered Comet models and the stick balsa race cars were great training for cutting out parts and building from plans.

Wesley Rickard told me I could get rid of the coil, condenser, and two dry-cell batteries in the Box Car Chief by changing to a glow plug and using a special alcohol and castor oil glow fuel, which I did. Dad took me to Thomas Park for my first flight. He held the plane and released it when I gave the hand signal. I had not flown a U-Control plane before and was not prepared for the sensitivity of the controls. That Box Car Chief was lightweight, probably a bit tail heavy, and the Forster was running fast. In what seemed like an instant my Box Car did an unintentional wingover and ker-whop into the dirt on the opposite side of the circle from Dad—what a surprise and disappointment for both of us. I think Dad felt worse than I did—and I felt terrible.

Anyway, we took the pieces home and in a few days I was

rebuilding. That first attempted flight taught me that my Box Car Chief was very sensitive to control inputs; so I was prepared for that on my second try at U-Control flying, which was successful. The summer of 1948, I joined the Muncie Controliners club and soon met many other modelers who lived in and around Muncie. The most memorable being John McDonald, now a dear friend, still a club member after more than 60 years!

John McDonald started building scale and rubber powered models in the early 1940s. He went into the Army Air Corps in World War II and was trained as a radio operator, then as a tail gunner in B-17 and B-24 bombers. John built his first U-Control models in 1946. Being 12 years older than me, having a car, a girlfriend, and flying model planes, John McDonald was someone I greatly admired. Actually, John got into Stunt flying after watching Paul Brown do stunts with a good-looking McCoy-powered Hot Rock. John soon had a Hot Rock of his own and was teaching himself to fly stunts.

During WW II, Paul Brown was an instructor pilot in Texas flying PT-17s, and for a short time after the war he gave flight instruction at the Yorktown airport. Paul built and flew control line mostly for his own satisfaction, but he would occasionally enter local contests. Paul built scale, speed, and Stunt models. At the Muncie Controliners June, 1948 club meet, Paul placed first in Class A and B Speed and first in Stunt. Paul Brown was a

master craftsman, and every plane he built was a thing of beauty. He was not just good, he was the best; and I remember his finishes as being flawless. He built kits, built from plans, and built originals of his own design each one a work of art. I remember an original scale team racer of Rudy Kling's Pride of Lemont Thompson Trophy winner, a KENHI Wildcat Stunter, a DMECO Continental Stunter, an original Johnson powered Stunter, and a scale Beechcraft Staggerwing.

John McDonald built his planes to fly, not to be pretty, and his early Stunters were rough in comparison to Paul Brown's. I once heard Paul laughingly say, "John cuts his balsa with an axe, paints his planes with a broom, and he doesn't know what sandpaper is." But Paul and John were the best of friends, even though they were as different as night and day. John was more vocal; Paul was rather quiet. John was very frugal; Paul was freer with money—he once bought me a malted milk on the way home from a club meeting.

John lived with his parents and built Hot Rock Stunters in his father's garage. He had a model airplane production line in that garage, because he was determined to learn the Stunt pattern, and he needed lots of airplanes. One evening I saw John and his helper arrive at the flying field with a whole car load of Hot Rocks. After many flights and crashes, John's only flyable plane was a Hot Rock that had the outer wing panel broken off, but he let his helper fly it until it was too dark to

continue. John's helper/co-pilot was his lovely girlfriend, Wilma, whom he later married.

After bicycling to Thomas Park one day, a very excited Wesley Rickard ran over to me

pointing to an airplane and shouting, "John McDonald is flying inverted—see he's inverted." There was a small gathering around the flying circle and sure enough John's Hot Rock was upside down. I do not know if John was the first in Muncie to successfully fly inverted, but he was the first Wesley and I saw do it. Not long after that John was flying the full Stunt pattern and entering contests.

The first Muncie Controliners contest I remember was for endurance flying. Howard Gregory showed up with an ignition-engined plane kitted by F&B Models called the Sky Box. If there had been a trophy for the most ugly Stunter, the Sky Box would have won hands down. My Box Car Chief was a raving beauty by comparison. Anyway, Howard needed some ignition fuel, so I raced home on my bicycle, retrieved my gallon jug of ignition fuel, and gave it to Howard. His Sky Box had a big fuel tank in the fuselage, and that ignition engine got good gas mileage. I do not know how long he flew, but it seemed like forever, just round and round—boring, very boring—but Howard won the contest, and I was happy to find a home for the ignition fuel my glow plug Forster .29 no longer could use.

The Controliners had other contests too. We did balloon busting a few times, contests to see who could do the most loops, who could build the best scale model, and a few judged Stunt contests. As time went by combat flying caught on for a while, then team racing, and rat racing. But mostly the Muncie Controliners was a club of sport fliers and Stunt fliers. Speed flying was done by a few, but never really caught on. We met monthly at the MCA, in a Heekin Park cabin, at a school, or at the Muncie airport,



Fred Carnes with his brother, Bob, after a PA-11 flight at Reese airport.



Pseudo Neptune built by John McDonald and finished by Paul Brown.

and we gathered at the flying field, usually on weekends, where there was lots of flying.

The winter months were building time. To keep interest up and get ready for the good weather, the club decided to give an annual trophy for the pilot who accumulated the most points. Each month members would bring in their recently built models for judging. Points were given for original design, construction, finish, scale fidelity, special features, etc. Over the winter Paul Brown would bring in one or two beauties that would get max scores. Other modelers would bring in a few. I decided to build $\frac{1}{2}$ A models as they were cheaper and could be made faster than the big Stunters. But John McDonald had a new Stunt plane about every month. Each one did not score a lot of points, but at the end of the year he had the most points and won the trophy. Paul built quality; John built quantity.

I enjoyed the interesting and informative monthly meetings. Paul Brown would show how to cover a wing, John McDonald would have a new Stunter, someone would bring in the latest kit or engine from one of Muncie's three hobby shops—Kirks, Ross's or Bob Hurst's garage hobby shop. Mostly we just talked airplanes and planned activities. If a meeting got dull, John McDonald, always the club spark plug and frequently the president, would listen for a while and then say something like, "Well are we going to do something or just sit on our behinds and pick our noses?" That would get things moving.

I enjoyed going to the Muncie Public Library, especially to read airplane books and magazines. While there I saw a definition of Aeronautical Engineering by Igor Sikorsky. It read, "Aeronautical Engineering is the art and science of using the properties of matter and the sources of power in nature for the design, construction, and operation of aircraft." I thought to myself, that is exactly what I want to do. So, as a 14-year-old, I decided to chart a course to become a pilot and aeronautical engineer. I knew I would have to do well in math and science and go to college.

From then on my school studies, sports, and jobs were planned to make that happen. I became a line boy at the Muncie airport and that job paid for flying lessons at Reese airport (flying at Reese was cheaper), where I soloed in a Piper PA-18 August 25, 1953. However, I soon realized flying Piper Cubs at Reese, even at only \$10 an hour, had to end, because I would need all the money I could save to pay for the college education required for a degree in aeronautical engineering.

One day while working at the Muncie airport, a Johns Manville Lockheed Lodestar landed and taxied up to the parking area. Its white paint glistened brightly in the sun, and it looked immaculate. After the passengers departed, I went over to the pilot who had stayed with the airplane. I asked what kind of polish was used on the Lodestar; he said none. I then asked, "What makes it shine like that?" He said the paint was heated and sprayed on hot. That way it

flowed out to a very smooth finish with a natural glossy shine. They just washed the airplane with a mild detergent—no wax or polish. When the weather was bad at the airport, I polished airplanes to make them shine and wondered why their paint had not been sprayed on hot!

As I said before, Paul Brown put beautiful finishes on his planes. Paul would not paint in cold temperatures or high humidity. John McDonald stopped at Paul's house one day when Paul was in his garage spray painting a model. John noticed something unusual about the cup on the spray gun. It turned out that Paul had a special cup that heated the dope. Paul used little thinner. It was mostly heat that thinned his dope, and that was one of the secrets Paul used to get glossy finishes—he sprayed hot dope. I have never tried heating dope, but always wanted to. (If any of you decide to try this be careful because it could be dangerous. As you know paint and dope are very flammable.)

In 1954, John McDonald went to the Chicago Nationals where he saw several gorgeous I-Beam Stunters from the Detroit area. Jim Ebejer was there with his Neptune, Tom Ebejer with his Meteor, Art Pawloski with his Lunar, and Rod Pharis with his Jupiter. John came back and told me he saw Stunters at the Nationals that were the equal in construction and finish to those built by Paul Brown. John was so inspired by Jim Ebejer's Neptune that he decided to build a Stunter with the Neptune look. Not knowing how to build an I-Beam wing, the result was a pseudo



Flying circles at Muncie's Westside Park.

Neptune with a C-tube constant chord wing. It had a bubble canopy, inverted engine, and wheel pants—looked real sharp. Later I learned that John had talked Paul Brown into finishing it. John repaid Paul by building him a pseudo Neptune.

The Muncie Controliners were asked to stop flying at Thomas Park because of noise complaints. During the winter of 1954-1955, Jim Fulton, then club president, secured the right to use the West end of the new Westside Park in Muncie for control line flying. At that time there were no buildings nearby. That site had been a low spot filled in with dirt and debris, and as such, it was unsuitable for model airplane flying. So, in the spring of 1955, the club met at the site and members cleared the area of obstacles, then purchased crushed stone for a flying circle. By mid-summer the stone circle was overgrown with grass and weeds making flying impossible. At the time I was the club secretary and working at the Muncie City Engineer's office as a street and sewer inspector, and part-time draftsman. At a club

meeting John McDonald asked me to discuss our flying site problem with city officials. After preparing a drawing for an improved flying circle at Westside Park, and meeting with Mayor Barclay and City Engineer White, they gave approval to pave the circle with asphalt. My brother Bob, our cousin Ed Bush and I laid out the circle—the city did the rest. The completed circle took 10 loads of stone and 14 loads of asphalt. That one circle was soon heavily used; at times weekend fliers had long waits taking turns to fly. It became apparent that more circles were needed.

In 1957, with John McDonald as president, the club petitioned the city for two more circles. A half-A circle was added to the West and another large circle was added to the East, making three circles for control line flying—all are still there. Several years later Jack Sheeks, from Indianapolis, was looking for a place to have a control line contest. He had heard about the Muncie circles, and went there to get permission to use them. This turned out to be the start of discussions that eventually led to the AMA coming to Muncie.

Here is that story in Jack Sheeks' own words:

“The AMA had given Shirley and me the responsibility of being the CD of the 1987 aerobatic team trials, which we held at the airport at Mount Comfort. Before we finally got that site we had checked Cincinnati and Muncie flying sites. Realizing neither of them was big enough for the event, we went through the Indianapolis Mayor's office in order to get the Mount Comfort site. While checking on the Muncie site we met with Miss Vickie Veech, who was with the Muncie city government. She showed us various places we could have the event. None were big enough, but we told her about the AMA looking for a site to move the AMA Headquarters. She told us about being able to get a bunch of land for us. We told her how to get in touch with the AMA president and the



Neptune built by Milton Boos. Milt was a friend of Jim Ebejer, the Neptune designer.



Saturn Detroiters—Don Ogren's in foreground and Bob Randall's in background.



Friendly Bob Norwood with John McDonald's Detroit I-Beam Stunter and ever-present cigarette.



Picture of the Muncie Controliners in 1961 at Heekin Park prior to speech by AMA President Pete Sotich. John McDonald in suit on front row to right of center. Paul Brown on front row far right.

council. She did so and went to Washington to a meeting with all who were involved at that time with the moving of the AMA. It didn't take long to get things moving. And that was how it first started."

Also, in 1957, John took me to a contest in Findlay, Ohio where I saw a

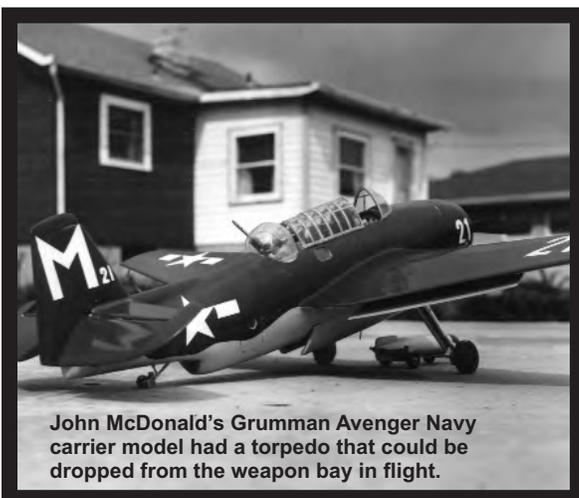
Neptune built by Milton Boos fly and win first place in Stunt. Then I knew why John was so taken with the Neptune design and look. It was the most beautiful Stunter I had ever seen; far more lovely than the All Americans, Barnstormers, Warriors, Chiefs, Smoothies, Thunderbirds, and Noblers I had seen at the Muncie control line circles. I was smitten by that Neptune and vowed to have one someday.

Later that year I went to a contest in Indianapolis where I saw Bob Randall and Don Ogren with their attractive I-Beam Saturn Detroiters. After seeing the Neptune and Detroiters, I was totally enamored with I-Beam Stunters. I did not know how they were built, but I sure liked the way they looked. It wasn't until the October 1959 issue of *Flying Models* magazine came out that I found out how they were constructed. Charles

Lickliter of Indianapolis published his Ballerina design that revealed the secret of the I-Beam wing.

About the time the Nobler came out as a Top Flite kit, I was working part time in the basement hobby shop at Ross's Corner while attending Ball State Teachers College. Bob Norwood, who worked at Colonial Bakery and lived nearby, would come in every few days to buy something—glue, dope, fuel, etc. Bob built kit Noblers and liked to fly them in contests. He was a heavy smoker, stood in a slouch, and was a bit overweight, but Bob Norwood was one of the most cheerful, friendly, generous, talkative, and likable people I ever met.

One day Bob came in smiling and laughing with a new Nobler covered and clear doped—said he was on his way to the bakery to spray paint it. He bought some color dope and was off. About an hour later Bob came back very quiet and with a strange look on his face. His hair and eyebrows were singed as was the hair on his arms. I asked him what happened.

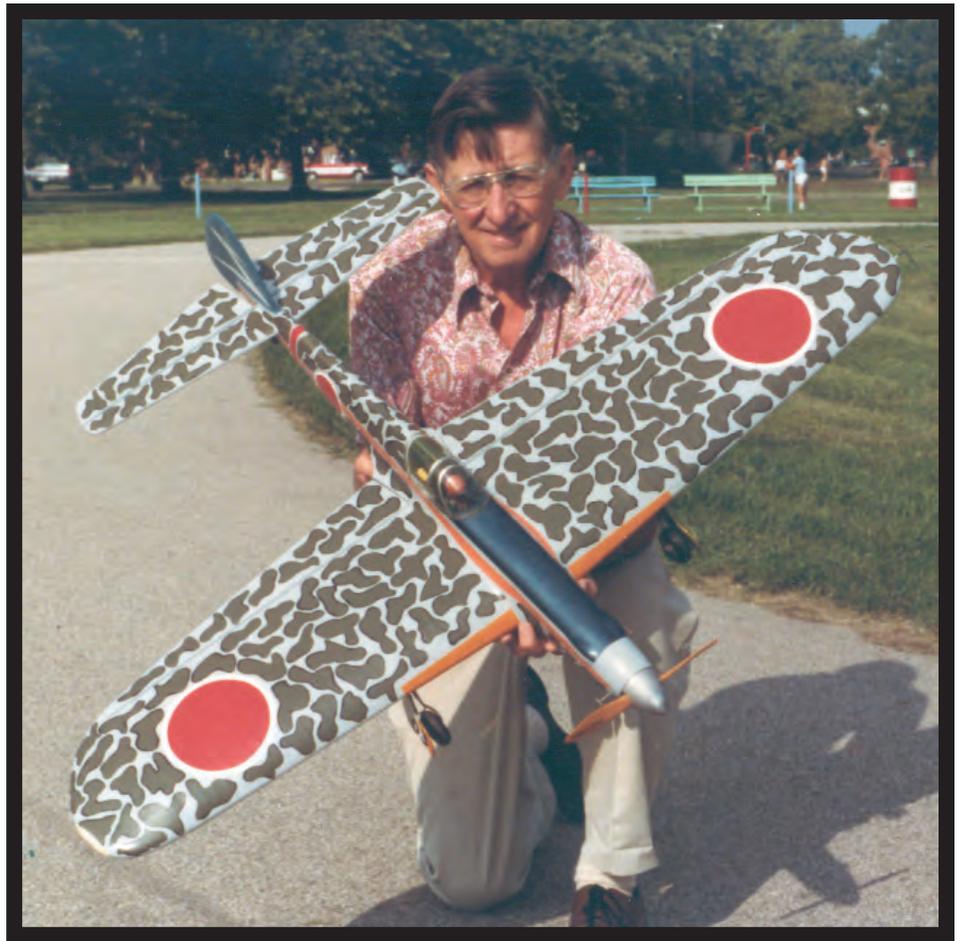


John McDonald's Grumman Avenger Navy carrier model had a torpedo that could be dropped from the weapon bay in flight.

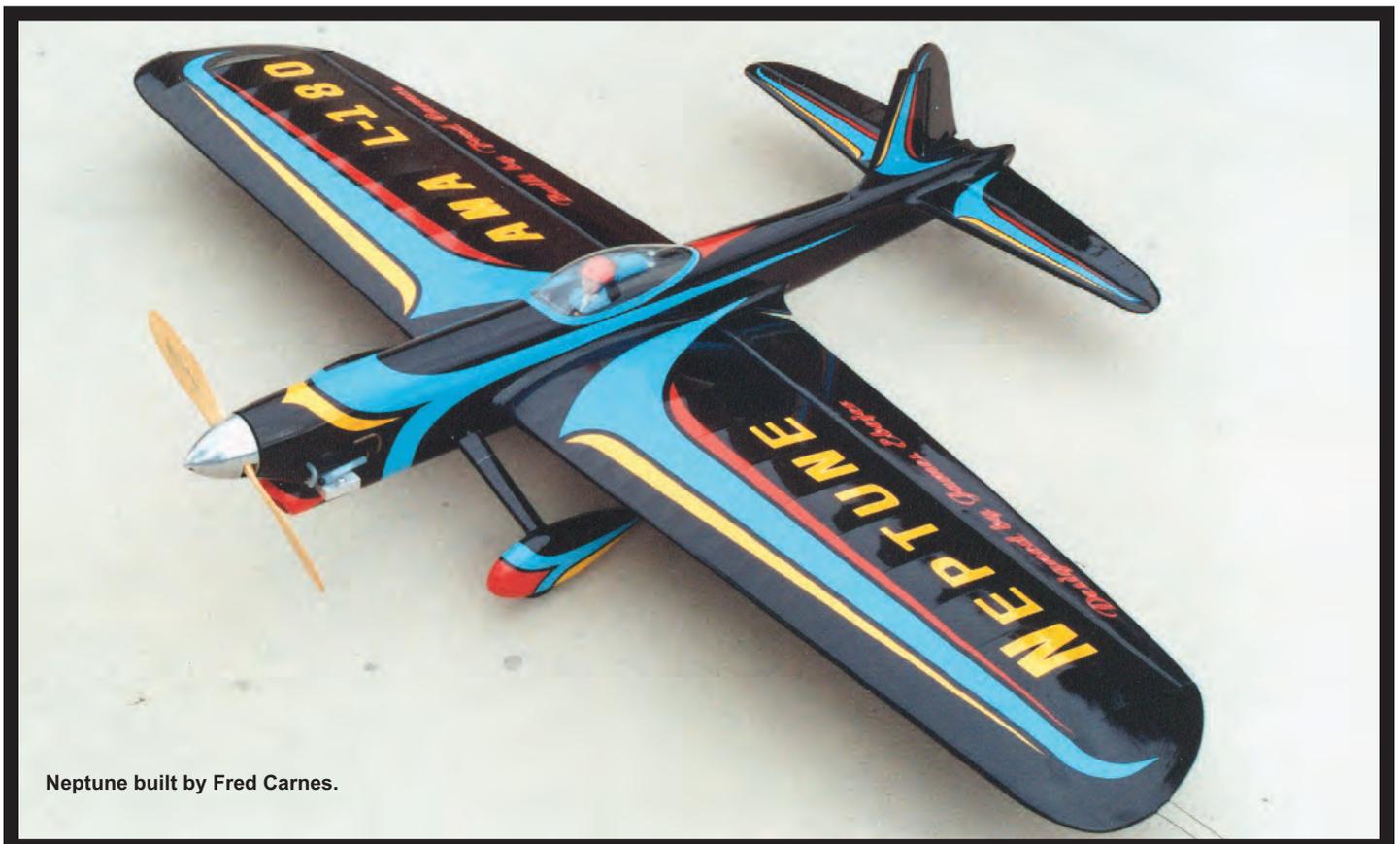
Bob said he was spraying and Ka-whoof, a fireball instantly enveloped his Nobler and burned it to ashes! Bob's lighted cigarette had ignited the mist of dope from the spray gun. He built more Noblers, but stopped smoking when spray-painting them.

Bob became a rather good local-area contest flier. He saw John McDonald's pseudo Neptune with wheel pants, and put that kind of landing gear on his later Noblers which really dressed them up. Bob Norwood, a great mechanic, put a new water pump on my '47 Chevy coupe for only the cost of the pump, and for years he kept the city buses in Muncie repaired and running. Bob and John McDonald became good friends and rivals at local Stunt contests.

The year 1958 was a big one for me because I got married and transferred from Ball State to Purdue University so I could get the Aeronautical Engineering degree I had set my sights on. After the 1958 Nationals, where John McDonald and Bill Netzeband were the co-Stunt directors, there was a control line contest at the Chrysler plant in Kokomo, Indiana. There I saw Art Pawloski with his Atom, Steve Wooley with his Argus, and Larry Phillips with his Hi-Fi—all superbly beautiful I-Beamers and all well flown. Art Pawloski, the 1958 Senior Stunt and Walker Cup winner, also won Stunt at Kokomo. That



John McDonald with one of his Toni I-Beam Stunters at the Westside Park flying circle.



Neptune built by Fred Carnes.



Fred Carnes today with two of his favorite planes: the Lancet Old Time combat plane and the Classic Neptune.

was my last contact with Stunt flying for many years.

John McDonald and his son Johnny helped with the 1961 Chicago Nationals, and John invited AMA President, Pete Sotich, to Muncie to see an active control line club and speak to the members. The following picture was taken before Pete spoke.

About this time John became interested in Navy Carrier and built a Douglas Skyraider and a Grumman Avenger he entered in contests. These were actual scale models with scale details, not the highly modified carrier models that later caught on to maximize high and low-speed performance.

John McDonald kept up his interest in Stunt and started building semi-scale I-Beam Stunters using Fox .25 and Fox .29 engines. One of his favorite original designs is the Japanese Toni fighter—he built several.

John and I chose totally different career paths. John worked for the railroad, which enabled him to stay in the Muncie area and continue as a member of the Muncie Controliners. Upon graduating from Purdue I went into the Air Force for 24 years where I had a wide variety of assignments in operations, engineering, test, and program management. I took up radio control in 1962 and flew trainers, pattern planes, gliders, and Quickie 500s for several years. In the fall of 1992, I rekindled my desire for the Neptune control line Stunter, and with Jim Ebejer's help, ended up drawing a plan for it, building one, and doing a construction article for *Flying Models* magazine.

Then I did about 2 years of research on I-Beam Stunters and wrote several articles for *Flying Models* and *Stunt News*. Because

most of the early I-Beam Stunters never had plans drawn, I decided to document a few of my favorites while their builders were still around to help. I drafted plans and wrote articles on Art Pawloski's Atom, Don Ogren's Saturn Detroiter, Vic Carpenter's Lancet, and Sam Dehelean's Nuts and Bolts. As with Jim Ebejer and the Neptune, I am indebted to Art, Don, Vic, and Sam for working with me on those endeavors.

It turned out the I-Beam articles were enjoyed by several Stunt lovers whom I came to know through phone calls, e-mails, and my visits as a spectator to the Vintage Stunt Championships in Tucson, AZ. Clearly we share a common interest in beautiful Stunt models. Now, there are several reasons why I fly Stunt. I can build a

model and take pride in my craftsmanship. I have the challenge and fun of Stunt flying and a reason to be outside in the wonderful Florida sunshine. I can satisfy my creative urge by doing everything from designing to building to flying. I have an activity I can share with others—especially youngsters who come to watch—when I put two handles on the lines of a trainer and give them dual instruction. And I have a common interest with several wonderful people throughout the United States and in a few foreign countries.

In August 2009, my wife Shirley and I had dinner with John and Wilma McDonald, my father George Carnes and his good friend Cliff Ingalsbe. John brought his scrapbook of model pictures, several of which are in this article, and we talked of good times gone by. It was a wonderful evening bringing back fond memories of the Muncie Controliners from 1948 to 1958 when I was a member. John McDonald is still a member of the Muncie Controliners, and I give him and that club credit for "Why I Fly Stunt."

I will conclude with a thought about airplanes and happiness. Happiness—that hard to define state of well-being, peace, joy, and pleasurable satisfaction we humans seek. I find happiness around airplanes and pilots, when in my workshop, at the flying field, and when being with those who fly Stunt. One definition of happiness is, "Having something to look forward to." Stunt flying and all that is associated with it gives me something to look forward to. Beauty is what drew me to Stunt flying, but happiness is what keeps me so attached to it. **SN**

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

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

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

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



which went on to win the Vintage Stunt Championships. Its wing was light, strong and true!

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

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

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

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



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

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

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

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

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Our motto:

RELENTLESS INNOVATION!

31st GOLDEN STATE Stunt CHAMPIONSHIPS

October 17-18, 2009

Presented by:
The Woodland/Davis Aeromodelers and The Valley Circle Burners

The 31st Golden State Stunt Championships, one of the longest running contests in California, nearly went AWOL. Half way through the Year of the Ox, there was neither a CD nor a venue, both rather important components for a successful event.

California is 770 miles long, so a central location is required to enable both Californians and Southern Californians (OK, that wasn't called for) to meet half way and do honorable battle. Buchanan High, in the lovely town of Clovis, normally hosts the event, but for some wacky idea they scheduled soccer games on "our field". Soccer??? Now I could live with baseball, football or even the debate club, BUT SOCCER?

In the end, I volunteered to be the substitute CD. "Good morning children, I'm Uncle Jimby and I will be your CD today... spit out your gum, Dave and stop pulling out Brett's hair."

All we needed was a place to roll out our lines. This is where the local hero, Richard Walbridge, Jr., stepped up to the plate. (Try that with a soccer metaphor.) At the eleventh hour, Richard was able to procure a beautiful site at the Clovis North Educational Center: four circles, short grass, no turbulence, everything we could ever want. Well, almost everything: "You need to do a #1, Howard? OK, you're excused. Got your car keys?" It was a good seven minute walk each way to the one facility available to us.

We awoke Saturday to the thickest fog that I had ever seen. Mr. Fitzgerald and I literally could not find the field, driving randomly down streets we thought were close to the field. There would be no way to even find your handle, let alone see the airplane. We did eventually find the place, the sun eventually found us and it was a go.

We had an unusually small, but competitive crowd in Old Time this year with John Wright prevailing as expected. Jim Goss had a very nice 2nd flight and placed second.

Classic featured Dave Fitzgerald flying his dad's recently dusted off Gieseke Nobler with a full flying tail. It turns out that this particular airplane, although competitive, had never won a contest in Bill's capable hands and, it turns out, did not win this contest either. Dave was handicapped by receiving no appearance points and a healthy fidelity penalty for the flying tail and lost to Jerry Silver who regularly competed with Bill back in the day. Déjà vu.



Jerry Silver's Classic winning Caprice



John Wright and his Boxcar Chief



Bill Fitzgerald's Nobler with flying tail (see inset)



Brian Moore and Da' Nobler



OK Peter, I admit it. I don't know how to adjust the damned valves!

Old Time Judges: Doug Barton & Dave Fitzgerald

1	John Wright	297.50	Box Car Chief	OS25FP
2	Jim Goss	295.00	Jamison	OS46LA
3	Jim Aron	294.25	Ringmaster	OS20FP
4	Bob Duncan	290.75	Jamison	Magnum 32
5	Antone Kephart	263.75	Adams	Brodak 40

Classic Judges: Richard Walbridge, Jr. & Larry Fernandez

1	Jerry Silver	509.00	Caprice	Aero Tiger 36
2	David Fitzgerald	505.50	Gieseke Nobler	OS35S
3	Ray Firkins	500.00	Heinz57	Aerotiger 36
4	Jim Aron	489.00	Ringmaster	OS20FP
5	Paul Pomposo	481.00	Coyote	Aero Tiger 36
6	John Wright	476.50	Hawker Hurricane	OS25FP
7	Peter Deane	468.50	Ares	OS25FP
8	Antone Kephart	468.50	Neptune II	Brodak 40
9	Brian Moore	455.00	Nobler ARF	Fox 35
10	Jim Goss	436.00	Jamison	OS46LA
11	Brian Baker	433.50	Tony	OS40FP
12	Fred Staley	432.00	Nobler ARF	Brodak 40
13	Clint Ormosen	103.00	Playboy	SmithFP40

Sunday began with a bevy of walk-up registrations, which delayed the start of what looked to be a long day. I must admit that running a contest like this and competing does not lend itself to noticing any of the human interest stories that undoubtedly were occurring. I did notice that Kirk Mullinix was having some trouble with his two OS25VF's and was not able to get in a second round flight and that Erik Rogers who was flying Phil Granderson's Diva #2 was having trouble starting my ROJett 61. I experienced some instant karma after somehow botching the launch of Paul Walker's trike geared All American Eagle. Two flights later Dave launched me and I proceeded to mow down about 30 yards of grass. My bad.

In the end, David Fitzgerald won the Gilbert Rodriguez Memorial Cup for high score of the day and Kirk Mullinix's P38 and Richard Walbridge's Spitfire were co-winners of the Concours d'Elegance. Let the results tell the story.

-Jim Aron



Brain trust?



above: Kirk Mullinix's P38 and Richard Walbridge's Spitfire



Peter Deane launches Erik Rogers



Christiana awards "Senior" trophy to Marshall Palmer

Beginner Judges: Bob Duncan & John Wright

1	Roger Anderson	190.00	Cardinal ARF	OS46
2	Dick Walbridge	165.50	Cardinal ARF	Brodak 40
3	Bruce Fraser	164.00	Skyray	OS20FP
4	Lynn Price	145.00	Flight Streak ARF	OS25LA

Intermediate Judges: Howard Rush & Brett Buck

1	Brian Baker	449.50	Tony	OS40FP
2	Douglas Barton	445.00	Tomster	OS35FP
3	Fred Staley	443.50	Imitation	OS46VF
4	Jeremy Baker	439.00	P-40 ARF	OS46LA
5	Greg Bahman	432.50	Cardinal Profile	OS46LA
6	Larry Williams	414.00	Nobler ARF	Brodak 40
7	Brian Massey	408.00	Magician	McCoy 40
8	Gary Anderson	402.50	Tutor	Merco ??
9	Ron Anderson	392.50	Tutor II	OS46LA

Advanced Judges: David Fitzgerald and Antone Kephart

1	Mike Causey	490.00	Impact	PA51
2	Peter Deane	490.00	Saturn	Aero Tiger 36
3	R. Walbridge, Jr.	486.50	Spitfire	RO-Jett 76
4	Erik Rogers	484.00	Diva	ROJett61
5	Marshall Palmer	482.00	Avenger	OS46
6	Derek Moran	469.00	Skyray	OS20FP
7	Clint Ormosen	465.50	Sig Mustang	Brodak 40
8	Jerry Arana	464.00	Trivial Legacy	Jett 50
9	Brian Moore	458.00	Twister	Brodak40
10	Bob Duncan	452.50	Imitation Electric	Electric
11	Mark Wasnick	448.00	Wazzi	PA65
12	Jim Goss	441.00	Jamison	OS46LA
13	Rudy Taube	382.00	Brodak P-40	AXI 2836-10

Expert Judges: Lee Strickland & Richard Walbridge, Jr.

1	David Fitzgerald	585.50	Thunder Gazer	PA75
2	Brett Buck	576.50	Infinity	ROJett 61
3	Paul Walker	571.00	All American Eagle	Plet ORB 25-H
4	Jim Aron	558.00	Systema	PA65
5	Howard Rush	557.50	Impact	ROJett65
6	Phil Granderson	544.50	Skinny Diva	OS40VF
7	Jerry Silver	527.00	Caprice	Aer Tiger 36
8	Robert Harness	520.50	SV22ish	PA65
9	Jim Tichy	505.50	Pathfinder	PA40 Lite
10	Kirk Mullinix	503.50	P-38	2 OS25FP's
11	Antone Kephart	494.00	Neptune II	Brodak 40
12	Jim Rhoades	489.00	Sultan	PA51
13	John Wright	483.00	Sig Magnum	Merco 64
14	Paul Pomposo	478.00	Imitation V	PA40 Lite
15	Larry Fernandez	465.00	Crusader	Jett 51



Appearance judging with Brett Buck and Ray Firkins



Were those triangles or square loops?



I'm Rudy Taube



Jim Tichy and his Delaney Pathfinder



Expert judges Richard Walbridge, Jr. And Lee Strickland annoint David Fitzgerald.



You've seen me judge, now watch me fly.

Derek Moran launches Peter Deane



Kirk Mullinix assists Mike Causey

Photos provided by David Fitzgerald



Tools of the Trade

If I were to be asked, “What is the most useful and most indispensable tool in your shop,” I wouldn’t have to consider the answer for even a second. The answer would be: my Solingen Mini-Plane razor plane.

I’m a bit of a collector of modeling razor planes, and each time I see a new one, or one I haven’t seen before, I buy it. Most of the time the result is an experience that ends up in disappointment. Rarely do modeling razor planes actually work the way they were intended to. A notable exception is the Solingen Mini-Plane. This tool is a precision instrument that allows the user to shave extremely thin and accurate “curls” of balsa with precise control.

The base of the Solingen Mini-Plane is made from a beefy die casting. The base of the plane is milled flat and the entire plane is finished with what seems to be a type of blue powder coating. It is a very solid and good-looking unit. There is a blade retaining bar that is held in place with a wing nut and it allows you to adjust the double edged razor blade that does the cutting.



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(NEW) 469-487-1256, (NEW) blueskymodels@mypbmail.net

See our web site: www.blueskymodels.net

The Mini-Plane (Hobby Lobby part No. HLAE801) is priced at \$13.99 and is a tremendous bargain at that price!

The blades for this plane are special Solingen blades, and only one comes with the plane when you

buy it. Extra blades are available in packs of five for \$10.99 (Hobby Lobby Part No. HLAE802). That may seem very expensive until you realize that one blade will probably last for years with proper care. And when an edge does finally dull, you can reverse the blade and get another few years of service from it!

Of course you want to be certain to place the plane on your bench on its side so the blade doesn’t get prematurely dull ...

In use, you get the best results by setting the blade depth for thin cuts and holding the plane at about a 30-degree angle to the piece you’re “shaving.” With practice I’m sure this plane will become your favorite modeling tool as well!

The Solingen Mini-Plane is available from Hobby Lobby and you can view this plane at www.hobby-lobby.com/tools.htm. You can call Hobby Lobby and order by phone at (866) 512- 1444.

—Bob Hunt



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ALWAYS REMEMBER, IF IT’S “BUILT RIGHT, IT WILL FLY RIGHT”

The Next Generation

By Matt Colan

Different Setups from Yesterday to Today

I asked a few fliers who flew back in the '50s and '60s what setups they first used back then. I then asked a couple of next generation fliers the same question to see what their first setup was. I am presenting the results in two separate tables, one

for the "older" fliers (*Matt: we prefer to be known as the mature, sage, and omniscient fliers. —Ed.*) and one for the next generation fliers. I'll leave it to you to make comparisons or notice differences between yesterday and today.

Fliers from the '50s and '60s

Name	First Plane	First Engine	First Prop	What Brand Lines Used	First Tank
Don Herdman	Sterling Yak-9	K&B .19	Wood Prop	U-Reely	Perfect Tank
Will Moore	Sterling Ringmaster	Fox .35	Top Flite 10 x 6	Sullivan	Du-Bro
Bob Hunt	A 1/2A	Atwood .049	Probably Top Flite Wood	Pylon Brand	Homemade unit by his father
Windy Urtnowski	Smoothie	Veco .35	N/A	Sullivan .015	Veco 4 oz.
Les McDonald	Modified Nobler called Nova (first contest plane)	Unmuffled Fox .35	9 x 6 Grish 3-blade	Plyon brand .015	Veco 3 1/2 oz.
Don Shultz	1/2A Balsa Profile Kit	Sptizie .049	Plastic prop that came with the Spitzie	Dacron	Spitzie had a built-in tank
Randy Smith	P-40 Warhawk 1/2A	Cox 1/2A	Cox black 3-blade	Cox dacron	Cox Plastic
Tom Neibuhr	Magnesium Fuselage by Consolidated	Fox .25	Power Prop 10 x 6	Sullivan in a U-Reely	Froom 3.5 oz.
Bill Hummel	Top Flite Junior Nobler kit	McCoy .19 Red Head	Top Flite 8 x 6 9 x 4 9 x 5 wood	Sullivan 52 foot lines	Perfect 2 oz. tank
Dennis Adamisin	Goldberg Buster (first contest plane)	Fox .29	Top Flite 9 x 6	Sullivan .015	Veco Profile 3 1/2 oz.

The Next Generation

Name	First Plane	First Engine	First Prop	What Brand Lines Used	First Tank
Matt Colan	Smoothie ARF	O.S. Max .35S	10 x 6 Zinger?	Brodak .015	Brodak 3 1/2 ounce tank
Michael Duffy	Tutor	Fox .35	APC 10 x 6	N/A	4 oz clunk tank
Chris Stevens	Gotcha from Corehouse	O.S. .40	BY&O 10 x 5	Tom Morris lines at 60 ft	Sullivan plastic round
Michael Paris	Sterling beginners Mustang	Cox Baby Bee	Top Flite 6 x 3 Nylon	Sig 1/2A Dacron	Tank attached to
Grace Paris	Sig Skyray	Cox Baby Bee	Top Flite 6 x 3 Nylon	Carl Goldberg 1/2A Dacron	Tank attached to
Ryan Young	Baby Clown	N/A	N/A	Sig	N/A



A young Les McDonald with one of his early Stunters.

While I was asking all these fliers about their first setups, Bob Hunt confessed that he really didn't remember it because he was 22 months old at the time.

Paint Used	Fuel	Where He Flew	First Contest	Started Flying
Testors	Testors?	Millville NJ, Airport	Flushing Meadow, 1969	1952
AeroGloss	Fox SuperFuel	Rhode Island	Quonset Naval Air Station, South County Rhode Island 1952	1950 at Age 6
Titanine Dope	Union club brewed their own fuel	Union MAC	Linden, New Jersey as a 22 month old	1949 at 22 months old
AeroGloss	Fox Superfuel	Garden State Circle Burners	N/A	1957
AeroGloss spray cans	Fox Superfuel	N/A	Rebel Rally, Jacksonville, Florida, May 1969	1953
Testors	Testors	Football field at Woodrow Wilson High School	Ames, Iowa in 1955	1951
Testors	Cox Blue Can	I-20 Interstate	Atlanta 1970	1958, then again in 1969
Testors, then AeroGloss	Testors 39	Pelham Bay Park in the Bronx, NY	East Patterson, NJ by the Garden State Circle Burners	1956
Pactra Dope (no thinner)	Fox Superfuel	Various parking lots around Albany, NY	Coxsackie, NY, 1990	1966
N/A	K&B 100	Willow Grove, PA	1965 Nats	1963

Paint Used	Fuel	Where He/She Flew	First Contest	Started Flying
ARF was UltraCote, now use Brodak dope	Sig Champion	My backyard, Swanton, VT	Wrentham, Mass. 2007	Sep-05
MonoKote	N/A	Tucson, Arizona at the Cholla Choppers field	Karl Marschinke Contest September 2003	Easter Weekend 2003
Sig	Sig 5%	Lexington, KY field	Huntersville, NC	Age 8
Sig	Sig 10% nitro, all castor	Our backyard	Signal Seekers, Detroit, MI	Age 4 in 2002
Sig	? probably had 10% nitro	our backyard	Sig CL championships	Age 5 in 1998
Clear Brodak Dope	Powermaster	Scobee Field	Dallas 2004	2004



A young Grace Paris holds a Sig 1/2A Skyray.

Both Dennis Adamisin and Les McDonald gave me their first contest setups. One thing I did find interesting is a lot of the Next Generation used similar setups compared to yesterday's fliers.

While I was asking all these fliers about their first setups, Bob Hunt confessed that he really didn't remember it because he was 22 months old at the time. That's right 22 months old. He also flew in his first contest as a 22 month old. Here is his story about his first contest based on stories he heard from his family:

The following is an absolutely true story. I don't remember any part of it due to my age, but it is well remembered by two families in particular, and it has become a source of hilarity for both.

Apparently my father had been letting me try my hand at flying a 1/2A model in our diminutive front yard for a few weeks. The routine, according to dad, was to hold me up cradled in his right arm while he flew the model with his left hand. He would have me put my little mitt into the handle and then let me fly the model for a few laps. I guess I did it pretty well and so dad entered me in the Youngest Contestant event at an upcoming contest.

This was a popular event in those days, I'm told, and there were many youngsters entered. I was the youngest—but not by much! My first "win" in CL competition came when I successfully flew the required number of laps and bested the second place contestant—who also flew successfully—by two months' age difference.

He was two years old on the money and I was 22 months old! Who was this adversary? None other than Don Shulman, the son of the legendary Leon Shulman!

This story has been told many times by the two families and we all still smile about it. Leon was reputed to have threatened to get his new-born daughter out of the crib for the next contest, but that never happened. So, when people ask me how long I've been flying in competition, I can tell them that I started in the 1940s! Like I wrote before, I don't remember any part of any of this.

—Bob Hunt

Call out for the Next Generation:

I only know of a handful of Next Generation fliers, so if you know any in your area, try to get them to write something and have them submit it to me via email (ecolan@comcast.net) to have them be featured in *Stunt News*. **SN**

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Tips, Hints & Wags

By Bob Whitely

In the last installment of THW (Tips, Hints & Wags ...), we talked a little about engine sizes and nitro usage. This time, we'll expand on some of the more esoteric variables and hopefully make the complex somewhat easier to grasp. We'll start with engine size and why I believe that bigger is almost always better in the Stunt world.

The Stunt pattern as we know it today has many abrupt direction changes that happen within seconds of each other. These abrupt changes in direction (in our case, an up or down pitching moment) drastically increase the wing loading which results in additional drag due to the greater angle of attack (AOA). At a certain AOA the airfoil can no longer carry the additional G-load caused by the hard change in pitch attitude and gives up or stalls.

Rule #1: For a given airfoil as the wing loading increases, so does the stall speed. Conversely, a lighter wing loading decreases the stall speed so you can fly the plane at a slower lap time.

I know you're wondering when I'm going to get to the engine part. Here's why bigger is better. Until recently, we fliers of the AMA Stunt events had to restrict our engine sizes to accommodate a particular line size; i.e., a .40ci engine or smaller, so as to use .015 diameter lines. Over 40ci we had to use a minimum of .018 diameter lines. Bigger diameter lines mean more line weight and more drag which results in reduced performance. Now, under the new rules, our line size is governed by the model's ready to fly weight minus fuel. What this really means is now we can put a bigger engine in a smaller model and enjoy some really startling performance!

Since Stunt is a subjectively judged event, there are many

variables and some hard and fast items that need to be present to have a winning combination. One of these is the perception of speed or how fast or slow the model looks to the judges. If the judges think that the plane is flying too fast or too slow, you will *not* get a good score. This is the real world, people; get over it! Therefore, to regulate the speed we need an engine with an abundance of power. Bigger engines almost always do have that! Constant engine speed or RPM is also extremely desirable. Also, bigger engines are not affected as much as smaller ones by weather changes or wind fluctuations. In addition, the bigger engines are easier to set or needle than the smaller ones.

Here comes the fun part with the bigger engines ... You don't have to run them at W.O.T. (wide open throttle) like you would a smaller displacement engine to fly a particular model. We do need to remember that big and small are relative to the model they are powering.

Anyway, now that we have this *gimongous* engine in our plane, we can run it on what is called the "fat side of the torque curve." This is generally accepted as the left side on torque graph. The RPM is usually set in the mid-range of the torque curve and usually results in rock-steady four stroke run. A very good example of this would be Dave Fitzgerald's World Championship winning model, the Thunder Gazer. Powered by a PA .75, this 630 square inch model can handle the windiest conditions with aplomb, *and* will do it time after time.

Big engines mean big power that is easily controllable and extremely consistent flight after flight.

Well folks, that's the "why" of using big engines. Next time, I will talk about how to adjust the fuel flow and torque settings. *SN*

J & J Hobbies -

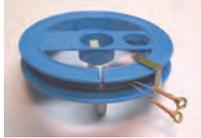
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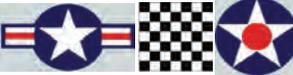
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Finishing 101

By Larry Fernandez



Larry Fernandez kicks off his column on finishing by introducing himself. If you were wondering what his qualifications are to take on this subject, just take a look at these two examples of his handiwork. Photo: Courtesy Brian Baker.

Hello fellow Stunt enthusiasts, allow me to introduce myself. My name is Larry Fernandez, and after several months of arm twisting by our illustrious PAMPA editor, Bob Hunt, I have agreed to write your finishing column. Bob was pretty desperate and I believe I was his twenty seventh choice. *(Now Larry, I've warned you a trillion times about not exaggerating ... —Ed.)*

For years now I have benefited from PAMPA and *Stunt News*. So many people have given so much of their valuable time for all of us to enjoy this wonderful hobby, and now I

would like to give back what I can.

A little about myself: I have been flying model airplanes for most of my life. My warmest, most vivid childhood memories are of Sunday mornings when my mother would fix up a big breakfast and afterward, my father and I would head off to Irvington High School in Fremont, California, to spend the entire day flying. My father was a first rate builder/finisher and I learned most of my techniques from him. Together we built cars, motorcycles, guns, full-scale aircraft, and whatever else we could get our hands on. He taught me the virtues of patience and

experimenting with different techniques to find better ways of doing things. He was my best friend throughout my life and I still dream about him almost every night since his passing three years ago.

I was mostly a sport flier, but I enjoyed building more than flying. I flew a bit of combat in the late seventies while I lived in San Diego, during my hitch in the Navy. It was fun but I really enjoy building pretty planes. However, pretty planes do not last very long in combat. When I moved to the Bay Area in 1980, I could not find anyone to fly with, so I turned to the "Dark Side." I flew RC for a few years, but I still had the itch to fly Control Line. I met Ted Fancher while he was flying in Gilroy, sometime around 1995, and I've been hooked on "Stunt" ever since.

I started flying competitively in 1998 and finally made it to the Expert ranks two years ago, or as they call it in Northern California, "The Junior Varsity." Around here it's one contest between David, Ted, Brett, and Paul Walker (if he decides to show up), and another contest for all the other expert fliers. Win or lose, first place or last, I still have more fun than anybody at the contests. After all, I am the founder of the "World Famous Fox .15 Hurl." Along the way, I have picked up a few Concours Trophies and Bob thought that I might pass on some of my thoughts and techniques to PAMPA members.

Please bear with me. My writing skills are not the best and I will never claim to be the best builder/finisher. In fact, like you I am always looking to improve my work and I am open to new ideas and better ways of building and finishing. Hopefully, through this column, we will all learn a little something along the way.

In future columns we are going to cover, not only finishing, but finish preparation, details in trim colors, masking, materials, ink lines, color sanding and polishing, cockpit detailing, and anything else we can think of along the way. *Stunt News* is your magazine and this is written for you. If you have ideas for the column, I invite you to contact me and I'll try to work it into my writings.

One thing I must point out. There are many paths to the front row, and I intend to cover the many different ways to get there. I am very fortunate in that some of the finest model builders live here in the San Francisco Bay Area, and they are always willing to pass their ideas on to all. I will be referring to the likes of "Uncle Jimby" Aron, Phil Granderson, Jim Tichy, and others. An



Yes, Larry is a masochist... Checkerboards are very difficult to apply correctly and Larry seem to have the technique down pat as evidenced by this shot of the bottom of his Thunderbird II. Perhaps he will cover applying them in a future Finishing 101 column. Photo: Courtesy Brian Baker.

interesting point is that you will find all of our planes in or near the front row, but we all use different methods to get there.

So many times I have heard it said, "I wish I could paint like that" or, "I could never get a finish like that." Well I'm here to tell you that you can finish like that, if you really want to. It is time consuming and it takes patience. But you can do it! The information is out there, through *Stunt News*, the Stuka Stunt Control Line Message Board, or Windy's videos. I will not be reinventing the wheel and most of what I will be writing has been covered somewhere before. Next month we'll start with bare bones wood and begin with the prep work, on our way to a "Front Row Finish."

Please feel free to call or email me with any questions or ideas. I love talking model airplanes (almost as much as I love talking baseball) and I would love to hear from all of you.

Till next time, *fly Stunt!* **SN**

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January/February 51

Crash Repairs

By Windy Urtnowski

When all the construction, covering, and clear dope are on a new ship—or a repaired one—the subject of color comes up. For a new ship, the big question is what color(s) to use, while for a repaired ship, the question is “Will the new paint match the old?”

I’ve had good results for more than 10 years now using Brodak dope, and they offer many stock, metallic, and pearl colors. If you’re not sure exactly what you want, check out the extensive Brodak color chip chart first, as your color may already be available.



“color wheel” to start from scratch and get a specific color. Sure, anyone can dump so many ounces of one color into so many ounces of another color and get a unique result, and more often than not, the result isn’t desirable ... and you start over again. I gave up trying to use this technique years ago. (Next time you’re at a home improvement store, take a look at the “mixtures” for colors that are basically similar but not exactly the same—you’ll see that any given color may have three, four, or more components, in very precise percentages.)

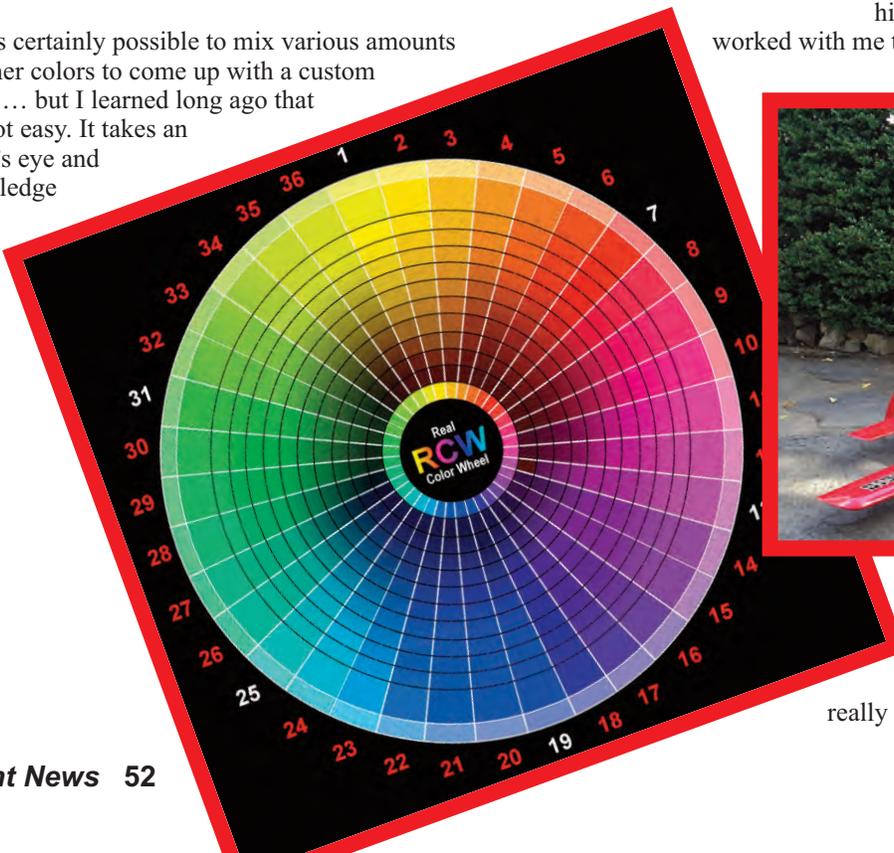
My preferred method for getting the exact shade has two parts: (1) add colored pigment to clear dope and (2) get a professional’s help in acquiring the pigment.

The pigment that’s used to make auto lacquer works perfectly to color Brodak clear dope. If you live in a state where lacquer is still legal to use, any good auto paint store should be able to mix up the pigment for any shade in their color chip books, or a color sample (a photo or paint chip ... even a piece from a damaged model) that you supply. If lacquer can’t be gotten in your state, you can search the Internet for paint suppliers that still mix it. Tip: look for sources that supply paints for classic cars.

Bob Brookins is a professional auto paint and body man, as well as an expert CL Stunt modeler who is always willing to help a fellow modeler. For many years now Bob has helped me solve paint problems. His help mixing and matching custom colors of Brodak dope has been a great asset, especially in obtaining Ferrari-matching paint in Brodak dope for my two Ferrari-theme models, the Testarossa and the Novanta. John Cafaro (a Ferrari owner himself) and good friend, Les Demmet, had

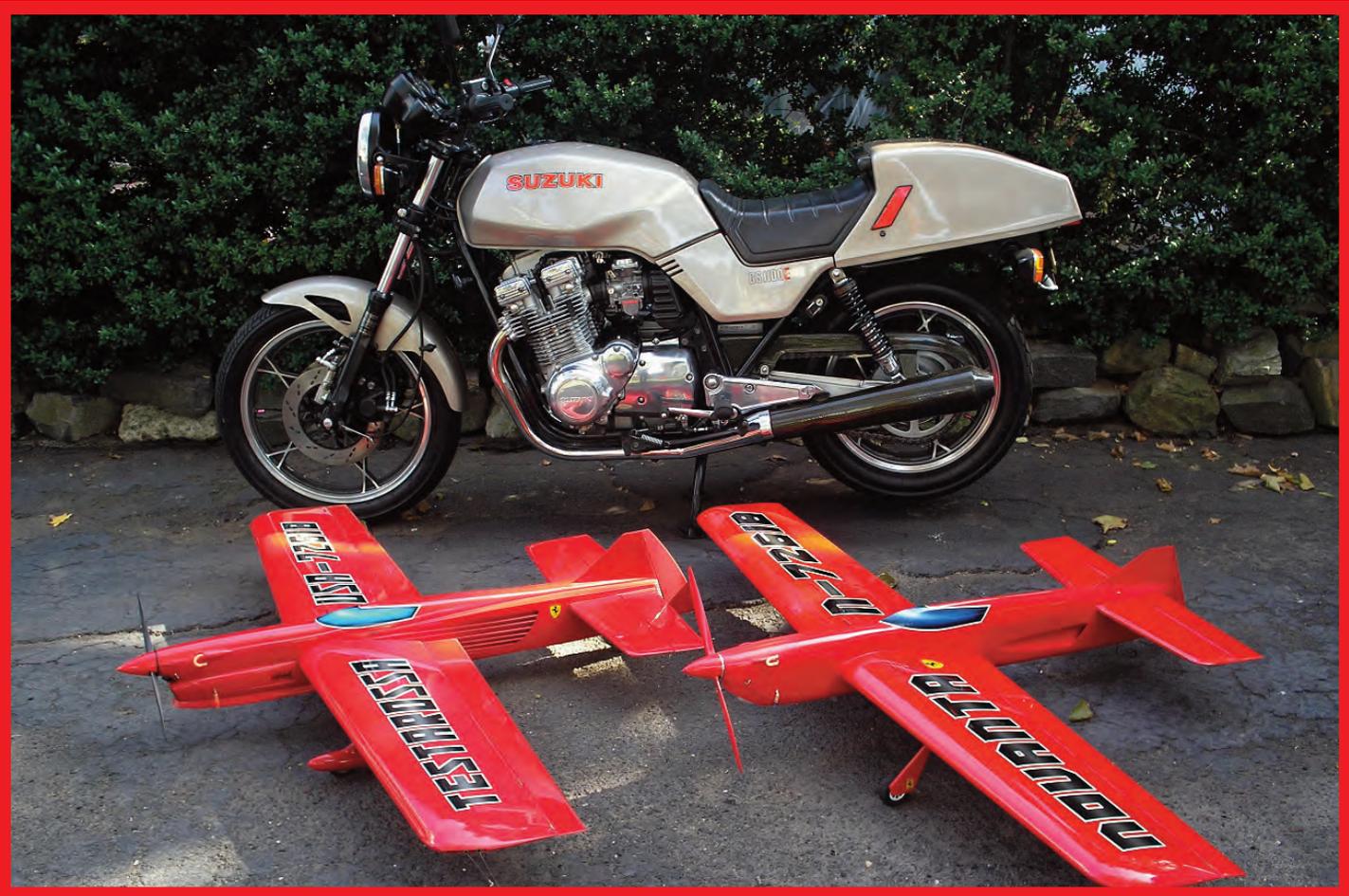
worked with me to refine the details of these two ships,

It’s certainly possible to mix various amounts of other colors to come up with a custom color ... but I learned long ago that it’s not easy. It takes an artist’s eye and knowledge of the



especially the authentic Ferrari colors.

Bob got the correct pigment for me to add to Brodak clear, but when the Novanta had to be repaired—twice—I really needed help in getting pigment in exact



shades. You may ask, “Windy, you tell us to save color paint for eventual touch-ups and repairs. Why didn’t you save any?” The answer is that I did ... but I’d used all that I had in the first repaint of the Novanta and was in desperate need for more to do the second repaint. Bob gave me a second batch that was such a perfect match that many people don’t even know it’s a repaired ship, and I have to prove it by showing them the DVD I’ve made of doing the repairs. Some people think I built a new model from scratch—no, there are only two Ferrari-theme Stunters that I know to exist.

In adding these pigments to clear Brodak dope I’ve found a

relatively simple way to see how much raw pigment to add to the clear. I start by making a batch of dope slightly larger than the amount I need to paint the model. Typically a pint of un-thinned color dope will be enough for a typical Stunt ship, but it never hurts to mix more than you need in case a repair is ever necessary down the road ... or as in the case of my Novanta, *twice* down the road.

I add the pigment a little at a time until the dope dries dull instead of shiny. At this point I go back and put just a bit more clear in the batch, and I then know it will cover in a minimum of coats and not suffer de-lamination when masking tape is pulled up. Too much pigment will dry dull, and you risk not bonding to the coats underneath the pigmented dope.

In summary, using stock colors is the easiest way to go. If you’re intent on using custom colors, it can be done. But either way, whatever colors you use to finish a ship, save a fair amount of the original batch for touch-ups and repairs. You *will* need it eventually, and you’ll be glad that you have it. Even stock colors can vary from lot to lot, so a jar of “Whizz-Bang Blue” bought in 2010 may not be exactly the same shade as a jar of the same color that you bought in 2008. **SN**



The Stiletto

By Les McDonald

Chronicles

Diane

On August 26th 1976 Nancy blessed me with a beautiful seven-pound baby girl. Now this was scary since I had not prepared myself to be a father. I didn't even really like kids, except the Cooper girls, but Diane was special. It was time to catch my breath, get Diane started and reconnect with Nancy, and take a year off from the contests and try to be normal, for a little while.

Stiletto Business

Carl Wheeley called from *Model Aviation* magazine and really, really wanted for me to do a feature article on the 660. "Aw Carl I really, really am not interested." I told him what a chore the text and plans were for me, how I wanted to get my life back on track. Let me think about it.

Dick Mathis called and wanted to redo the Stiletto kit. Redesign the whole thing so it looks like a little 660, this time with die-cut Chipmunk ribs from Sig and redrawn plans. He realized most kit builders were not Nats fliers and just wanted something easy to build that looked the part. He asked for my help and I tried to explain that I was trying to get my life back on track.

"Okay," I said, "Send me some stuff and I'll see what I can do."

I did some drawings and sent them to Mathis. He sent some parts to me; sort of a prototype kit and I had one of my Park Ranger buddies build it. The thing flew really well so I signed off on the final design and wished Mr. Mathis well. I went back to the business of getting my life back on track.

Speaking of Stiletto kits and plans let us take a brief trip into the future from here. First, no Stiletto is "Classic eligible." However all the ones I produced up to #11 would be "Nostalgia 30" eligible. Second, I have personally been involved with four kits; two were from M&P discussed in this story, the third is the ARC that Walter Umland is attempting to produce, and the fourth is the 660 kit to be released soon, also from Walter Umland.

I have had two magazine articles published that offered plans: The Stiletto in the June '74 issue of *Model Airplane News* and the Stiletto 660 in the July, '77 issue of *Model Aviation*. Other kits and plans have shown up around the world that I had nothing to do with. There are plans circulating called the "Stiletto XL," a plane that I have never seen. A horrible kit from someone in Central Florida that I've only heard about and a kit that was produced in Argentina that I wish I could show you. This kit comes packed in a long poly bag and was derived from the MAN plans with instructions in Spanish. It features excellent wood that is precisely cut by hand. It was gorgeous, but I had nothing to do with that one either. There have probably been others but these are the ones I know about. I see conversations about these kits

Stunt News 54



For 1978 Les went the I-Beam route and produced the magnificent Stiletto #11 with which to defend his world title from 1976.

The whole Stunt thing was still there, just dormant, sort of in hibernation.

and plans on the Internet. I hope this answers a few questions. Now back to my story.

Normal ... almost

Actually my life was pretty good. I did a few newspaper interviews and filled an entire half hour TV show on the local PBS station talking about flying Stunt. At work, in the hobby shop, I was in constant demand from our Latin American customers (lots of pictures and autographs). Sometimes I would need to break away from my adoring public to help some Cub Scout Den Mother gather supplies to build twelve authentic Cherokee Indian villages or explain to a third grade teacher that a radio controlled helicopter probably would be a bad choice for a class project but all told I enjoyed my new found celebrity.

Non modeling friends started coming around to see the new baby so Nancy and I renewed some old ties. Ted and Shareen Fancher came for a visit and I was sure Shareen had serious doubts as to my ability to raise spawn. The Rutherfords also spent a day or so with us, probably for the same reason. They knew at least that Nancy was competent with the baby. At least little Diane didn't smell like Sig Dope and castor oil because my

workroom, the showcase at work, my car, and everything else I was around had the odors so familiar to us all.

The whole Stunt thing was still there, just dormant, sort of in hibernation. By now Vince and I had become really tight buddies and his Stiletto 660 was a work of art. He had built it from my brown paper drawings with very little assistance from me, so when Carl Wheeley called again and made a very generous offer, I accepted. Inking a full set of plans is a lot more tedious than pencil scratches on brown paper, but from my prior experience with the *MAN* article I hoped to do better, not only the plans but the text as well. *Model Aviation* enjoyed a huge circulation, the 660 was both simple and successful, so we all agreed the plans would sell quite well.

Shortly after submitting the Stiletto 660 article to *Model Aviation* I started thinking about a new plane with an I-Beam wing, but first I had family business to take care of. With all this new found wealth from the World Championship, the 660 article, and sponsorship money rolling in it was time to buy a house. Actually it wasn't quite like that but I still find myself trying to justify all the time, money, and dedication it took to get where I was in 1976. By April of 1977 Nancy and I had become homeowners and like many young people back then wondered how we could possibly afford the \$240 a month mortgage payment.

Within a week of moving into our "new" house I purchased a Ping Pong table and declared the 400 square foot Florida room my recreation area. In Miami we don't have basements (water issues ...) and we don't have attics (hurricane issues) so you must make do for Stunt plane building space. We did play five or six games of Ping Pong before the building boards covered the table.

I could build and I could fly but I just wasn't much of a writer.

Vince was a carpenter by trade; a very good carpenter. At that time he was doing finish work for a "high end" contractor in some super luxury condominiums. Can you believe some people have their baseboards, chair rail, and crown moulding made from teak or walnut or other even more exotic wood? Back at my house—trimmed in pine and spruce—we had it fixed up in no time. A big plus for me was that our "new" house was located in North Miami, close to my friends, my Mom, and my flying field. Nancy was happy, Diane had her own room, and now Vince and I could get started on a couple of new I-Beam Stiletto's.

The Stiletto 660 article appeared in the July 1977 issue of *Model Aviation* and once again, as with my previous magazine work, I was thrilled and still a bit bummed. I tried so hard to put down some helpful, even prophetic, information but it all seemed a bit corny. The reality sunk in. I simply did not have the talent of the truly gifted "Stunt Masters." I could build and I could



Al Rabe stands guard over Les McDonald's Stiletto and Bob Hunt's Genesis at the Burtonwood RAF base practice site. Al's Snaggletooth Mustang was sitting just out of the frame of this photo.

fly but I just wasn't much of a writer. Make no mistake, I did cash the check.

The '78 FAI Team Selection

The 1978 team selection would be held at Ft. Gillem, Georgia, an Army post that was situated near Atlanta.

Thankfully when Bob Gieseke went to Holland as a

defending World Champion it set a precedent so fully embraced by me. I too would attend the 1978 World Championships as a defender. Very

honorable and noble but the big plus was the fact I didn't have to compete in the always brutal team selection contest. I went simply to fly the judges' training and warm up flights. I brought along Stiletto #10, the 710, for these tasks and that in itself

Stiletto #11 is captured here in flight at the 1978 World Championships.

was regrettable. I had flown very little in the past year and, as you remember, #10 was a dog, so my performance was substandard. In real life that didn't matter but for a Stunt fighter like me I always wanted to present, at least, a moderately good performance. I had to let several people fly #10 just to save face since they also agreed it wasn't a very good flying plane.

Rabe, with that particular Mustang could be a real problem, and Hunt, lacking the help and support of his "Up North" buddies, would fold like a cheap tent.

Bob Gieseke placed first at that Team Trials but Al Rabe got my attention with a very, very good Mustang. Bob Hunt also made the team so my next overseas adventure would have two new guys. All of a sudden I was no longer a rookie.

I wanted more than anything to keep my championship, so I did a quick review of the situation. Gieseke is always a threat. Rabe, with that particular Mustang could be a real problem, and Hunt, lacking the help and support of his "Up North" buddies, would fold like a cheap tent.

Simple no more

The days of the simple Stiletto were over; it just happened that way. For years I had admired Billy's I-Beam creations and now I wanted one for myself. The construction would be different than the conventional method for an I-Beam, so Vince and I figured it out as we went. Stiletto #11 would have a thinner high aspect ratio wing with small flaps incorporated into the airfoil. The horizontal tail would have an even longer span and be airfoiled as well. The fuselage would be traditional Stiletto with a bit fancier cowl. All along I had hoped to be able to use a SuperTigre .40 which would allow me to fly on .015 stranded lines.

Ribs were stacked and shaped between aluminum templates and the prepared ribs slipped into place onto the I-Beam. There were no half ribs, just full ones spaced at one inch.

Designing and building the I-Beam spar itself was fun. Vince and I would build a test I-Beam using various sizes of balsa and spruce and then put it in a vise and hang weights on the outer ends of it until it broke. We were surprised by the different results but finally settled on a $\frac{1}{4}$ balsa core faced with $\frac{1}{16}$ balsa and ply in the center. The real strength came from the .040 spruce caps on the top and bottom. There was no carbon fiber available to us back then.

The wing tips were built from a gazillion pieces of $\frac{1}{16}$ inch balsa and $\frac{1}{32}$ inch plywood. The stab used a 1 inch by $\frac{1}{2}$ inch balsa trailing edge with a $\frac{1}{16}$ inch balsa horizontal center core. The ribs were glued to the center core, top and bottom. A small cap of $\frac{1}{4}$ inch balsa became the leading edge and the whole thing got sanded into an airfoil. The elevators were constructed the same way. There were one hundred forty separate pieces in the stab and elevators alone. It was overkill but it was light and looked very cool. The flaps were blended into the wing and quite small. Only eighteen and a half inches

in span (eighteen even for the outboard) by two and a half inches at the root and one and a quarter inch on the ends. They were too small and would eventually keep #11 from being a good plane. I did this in an effort to make it a low drag operation. I knew the .40 would give away power so I tried to make this thing easy on the engine. Somehow I felt I could tame down the ST 40 and handle the rest with props.

I also wanted more dark color on the wing, to show off the bubbly luster of the ribs. (*Ah, yes, Billy's Juno had an effect on all of us. —Ed.*) Like the top block back on Stiletto #6, some things didn't present well. The swayed top block on #6 took away the directional profile in the air and the wider wing trim on #11 took away the pivot visuals in the corners. I had explained it all in the 660 article and then turned around and shot myself in the foot. The fact that the first I-Beam Stiletto didn't turn very well compounded the situation. It looked good though, sitting on the ground.

This program was in trouble from the beginning.

This program was in trouble from the beginning. The SuperTigre .40s I put together were horrible and by May I had a SuperTigre .46 in #11. In FAI the flying line regulations were simple. If they could pass the scary pull test you were good to go,

so that's what I did. Once again I found myself in denial but I kept at it because #11 looked so good. Even a blind pig finds a truffle once in awhile so I continued the search. I now had a beautiful I-Beam Stiletto, flying on .015 lines, powered by some pretty decent ST .46s. No truffle yet since all the blue on the wing only exaggerated the fact it didn't turn very well. Another bad mushroom: since it was so low in drag it would wind up everywhere and it still had only modest line tension. The I-Beam Stiletto Vince built was exactly the same plane as mine with different problems. He was using .018 lines for the AMA contests which created grief in other ways. These planes were like beautiful movie-star women. We put up with the heartbreak and aggravation because they're beautiful movie stars. In my now mature vision we all



Vince Schnetzer with his I-Beam Stiletto.



Here's Vince's wing prior to being installed in the fuselage.



Les's Stiletto sits in echelon with Stan Powell's Dove (center) and Dave Hemstrought's Classic at the 1979 Lincoln Nats.

from Miami to London so I was able to have airline friends handle my "special needs" and they did both to and from the UK.

Working at Orange Blossom Hobbies had allowed me to cultivate many friends that worked or had access to people in "high places." In fact working there allowed me to meet not only airline executives but also famous rock stars, race car drivers, NFL and NBA players. There was also the constant flow of TV personalities, politicians, and drug smugglers.

The 1978 World Championships

Transportation for the '78 Champs was so much easier than my '76 experience. I took a direct flight from Miami to London, picked up my rental "estate wagon" at London's Heathrow airport, and then it was on to Glen Alison's house in nearby Rickmansworth.

I spent several days with Glen and his wife Penney and

know a good woman ... let's stop here before I get us all in trouble.

I soon had the same problems as Vince. We planned to attend the Winston-Salem contest, so I began flying on the heavier lines.

By early June we had worked out most of the really glaring faults and the I-Beamers didn't look too bad in the air. Vince's ship was a real beauty. All his planes were basic white with different shades of brown and tan trim, truly exquisite.

We both did well at Winston-Salem, Vince winning Advanced and receiving "The Most Beautiful Model" award. I outscored Norm Whittle for first place and although I may have won I didn't beat Norm. He was annoyed, I was a bit embarrassed, and we all went home. Mr. Whittle was—and still is—a very worthy competitor.

Back to Miami and time to get ready for the 1978 World Championships, to be held at an airfield near Liverpool England. The weather is always a concern in that part of the world any time of the year.

I constructed a better, lighter transport box and started making all the arrangements. This time it would be possible to fly directly

Al had won the '77 Nats with this same Mustang, so I knew he had a proven package and "The Bear" had so much experience at these things you could never count him out even after watching him struggle in practice.



Les fuels the Stiletto for a flight at Winston-Salem in 1978.

enjoyed every moment with them. I spent a day on my own exploring downtown London, with a visit to Henry Nichols' hobby shop thrown in and then spent some time with the Alison family sightseeing at Windsor Castle and the Royal Air Force Museum at Hendon. After several relaxing days and a short three hour drive to the contest site at Woodvale it was back to business.

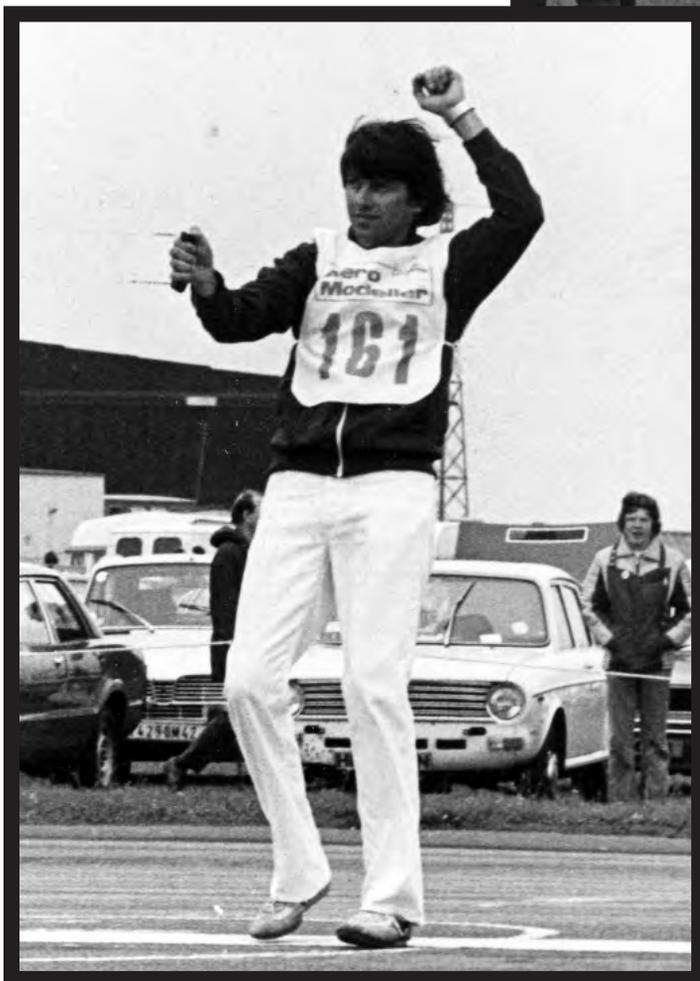
World Championships are no different than any other Stunt contest in one respect. Everyone does "Show and Tell" with their new Stunt models. Just like in Mrs. Russo's third grade classroom we beam and point at all the special attributes of these gorgeous creations trying to gain some sort of leverage over our rivals. I showed off the glossy finish of my new I-Beam Stiletto and Hunt showed me his little handmade three blade wood prop on his Genesis. "Check out these neat air scoops," I said as I held my Stiletto high. Hunt showed me his O.S. .40 FSR nestled in the front of his bronze, red, and white machine. I was still convinced that, without the help of his entourage, he would fold. We hadn't even started our engines yet and I kept thinking about Al's

Mustang and Gieseke's magic. Al had won the '77 Nats with this same Mustang, so I knew he had a proven package and "The Bear" had so much experience at these things you could never count him out even after watching him struggle in practice.

Fliers from other countries had improved quite a bit also. All the Japanese fliers, Billion from France, Compostella from Italy, and several others looked really good. A political boycott had eliminated all the fliers from the communist countries and that was okay by me. I did feel a bit sorry for them though since they had worked hard to prepare and then couldn't compete. They're Stunt guys just like we are.

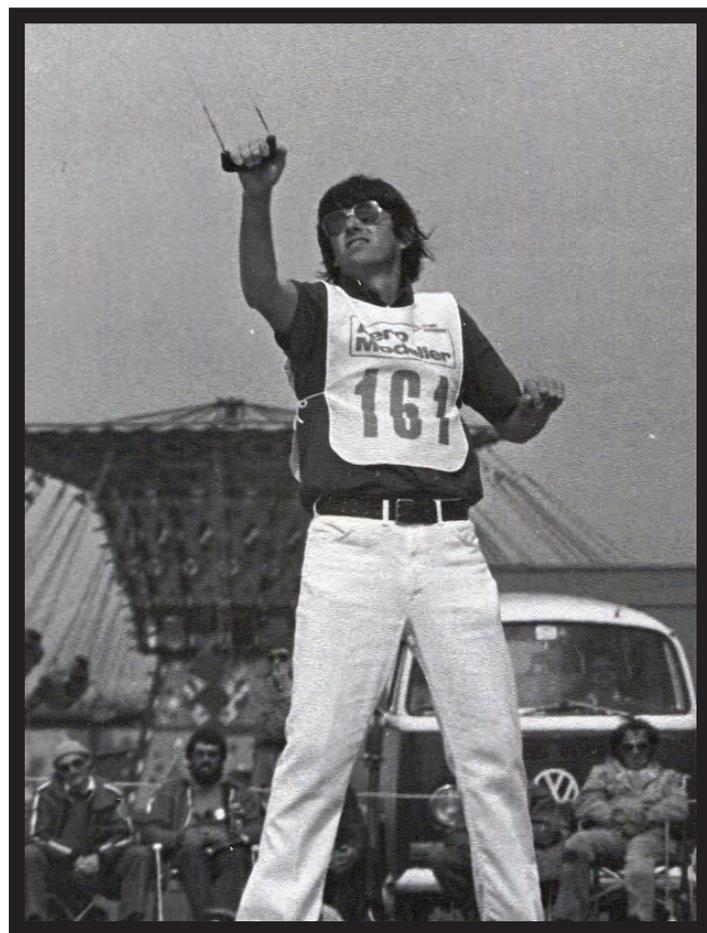


Bob Hunt leans into the "significant" pull test that was administered at the 1978 World Championships. Bob went on to win Gold in his first WC outing.



Les signals for a maneuver during a qualification flight at the World Championships.

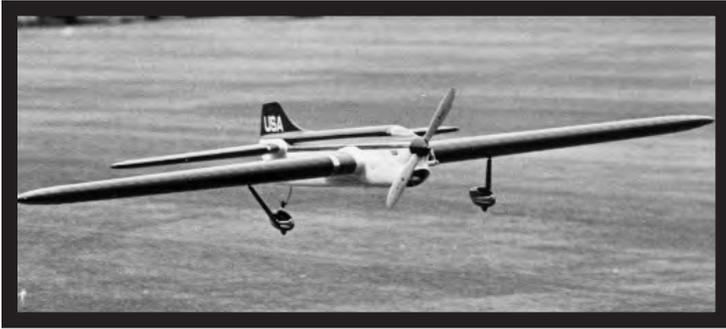
This time we had a place to practice; an entire unused runway on old Burtonwood RAF base. Keith Trostle had come along as a Stunt coach, so Bobby and I took advantage of his expertise. My Stiletto was suffering a serious case of "Wind Up" in all the consecutive maneuvers. It was windy and I was on .015 lines. As you know by now I swore by the lighter lines but in the wind they would stretch. That was the bed I made and would sleep in. Bobby and I were practicing together; Keith coached Bobby and tried to help me select a prop. I would fly and Keith would carve and sand. Bobby would fly and Keith would critique while I carved and sanded. Hunt simply had a combination that worked



Here Les concentrates on a maneuver during the finals at Woodvale in 1978. Photo by Doc Jackson from Bob Hunt's collection.

in the very cold, wet, dense wind. My shiny Stiletto with the cute air scoops was in trouble. Al was flying on a circle next to us and I don't remember Keith helping him much. Rabe didn't need help. Just as I had figured, the "The Mustang Man" was working very well.

Bob Gieseke was in trouble also. The little red Nobler with the Fox motor was fighting the wind, but I soon remembered past contests when his "magic" would appear during the "Official Flights." His son Joe was his helper/coach and more than a few



The Stiletto glides in gracefully for a perfect landing.



Bob Hunt holds the Stiletto while Les contemplates a needle valve adjustment before a flight.



Les signals to start his pattern during a very windy and cold round at the World Championships.

I couldn't see the plane, my lines were sticking, and I almost crashed trying to do the cloverleaf.

times I saw both of them shaking their heads at the same time. Bob and I had both brought "knives" to a gunfight.

We did this flying/coaching/prop making thing for two or three days and then Keith was gone. The Czech judge, Mr. Liska, was a no show because of the political "poop" so Keith was asked to be a judge. The organizers were very lucky to have someone of his caliber do this on short notice, since they would never have come up with anyone else that could fill Mr. Liska's position fairly.

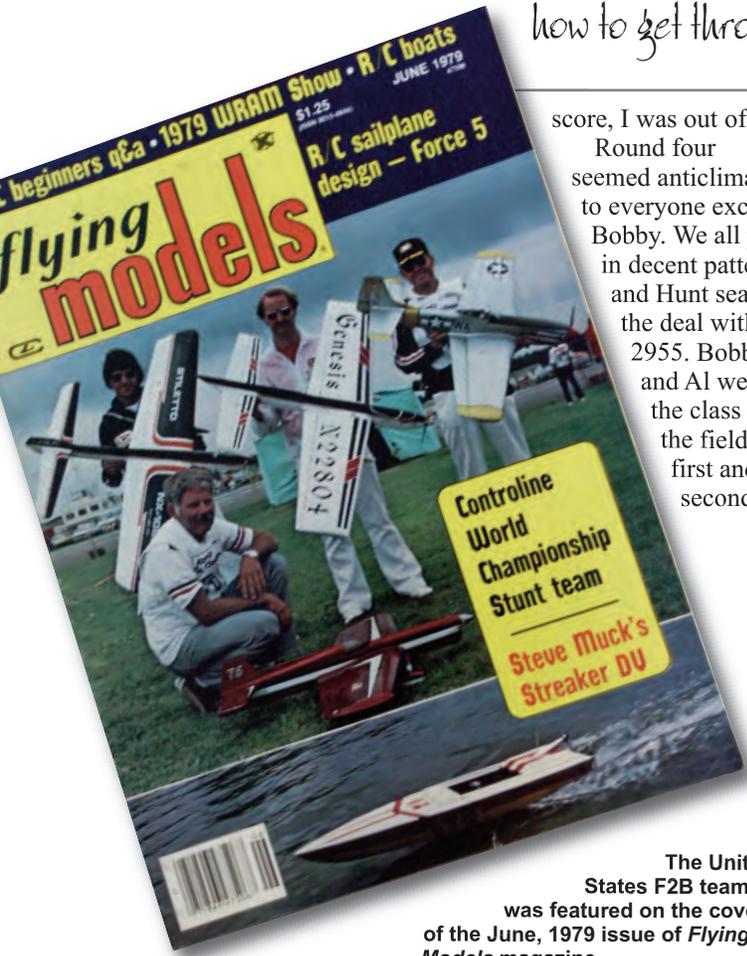
The first round confirmed what I had anticipated long before. Rabe flew well and they loved his presentation. Gieseke flew his best only a couple of flights after Al and came up forty seven points behind the "Mustang." Hunt did a "nervous" flight and was in sixth and I did my best for third but still thirty seven points short of Rabe.

In the second round, things changed dramatically. The weather turned nasty and the scores fluctuated. Rabe went up thirty points and Gieseke went down forty four. I needed something in the middle 2900s to stay in the running. Not impossible since Al was already there but difficult, considering the weather which seemed to be getting worse. Hunt was concerned. Bobby certainly didn't like sitting in sixth but the O.S. powered Genesis was working well; he just needed to settle down. Settle he did. His round two flight, a good one, scored a 2963 and put him in first place and moved Al into second. Compostella was in third and I was sitting fourth. When the time came for my flight it was really windy with downpouring, cold rain. It was a disaster. I couldn't see the plane, my lines were sticking, and I almost crashed trying to do the cloverleaf. No matter what I scored in the finals this World Championship belonged to Al or Bobby.

Bobby and Al were the class of the field in first and second.

In round three Rabe, Gieseke, and Compostella all scored in the high 2800s and then Bobby put up a 2921. I flew the highest scoring flight of the contest at 2966 but, added to my mediocre qualifying

There are no "Do-Overs" so I just sucked it up and enjoyed the celebration. The "Old Bear" and I licked our wounds and shared our concern on how to get through the cut throat team trials in 1979.



The United States F2B team was featured on the cover of the June, 1979 issue of *Flying Models* magazine.

score, I was out of it. Round four seemed anticlimactic to everyone except Bobby. We all put in decent patterns and Hunt sealed the deal with a 2955. Bobby and Al were the class of the field in first and second.

Vince and I spent the entire winter experimenting with different engines, mufflers, and "aero nonsense." We taped all sorts of balsa sheet and foam blocks to my 710 just to see what would happen. Giant elevators, wing fences, and big fuselage side area were all things that we tried along with stupid amounts of tail weight and goofy spoilers on the flaps. The result: either no difference or results that made the models un-flyable. Bob Baron had probably tried all this before, so even if something improved the way a Stunter flew it would have to be a dramatic plus to be incorporated in a new ship. We simply validated what everyone already knew. A good basic Stunt model design, built light and straight, was as good as it gets. Everything else was in the front end.

I wanted to keep my Stiletto 660 intact so we pulled out the old 700 and started working with .40 size engines. SuperTigre .40: Been there done that. In went an O.S. Max .40 FSR. Different head shapes, move the ports, shim the sleeve: still nothing. Next goes in a Webra—and then out right away. We tried some HPs and got pretty close with them but couldn't get close enough. The ST .46 was still way better. My stuff couldn't come close to the HP Billy had used at the '76 Champs or the O.S. Max FSR .40 Bobby was using in the Genesis. In those days you couldn't buy custom engines and there weren't many choices. I needed to find something. After months of trying everything within my means I was back to "square one."

For some reason totally unexplainable I had decided to fly Stiletto #11, the I-Beamer, in the '79 Nats. I just didn't want to go back to the 660 even though it was a better flying airplane.

From the beginning of this story I have exulted that I'm a lucky guy. Rays of luck were about to drop right in my lap.

For some reason totally unexplainable I had decided to fly Stiletto #11, the I-Beamer, in the '79 Nats.

Compostella, a really neat old guy, placed third with myself and Gieseke in fourth and fifth.

Bob Hunt never did fold, never panicked after his first round flight, and was now the new World Champion with a high-powered, low-pitch Genesis that flew better than anything else in the lousy weather. Al Rabe, with his Mustang, was a class act and Bobby was very appreciative that Al bounced one of his landings or things might have been different.

There are no "Do-Overs" so I just sucked it up and enjoyed the celebration. The "Old Bear" and I licked our wounds and shared our concern on how to get through the cut throat team trials in 1979.

What now?

Once again back to Miami so I could get my act together for the '79 season. No longer World Champion, I did notice I still had a job, a wife, and a beautiful two year old daughter that I didn't spend near enough time with.

There was a void, a certain emptiness that only I could feel. Certainly not depression or sadness just a feeling that something was missing and there was no secret as to what I needed. A Nats win and a first, second, or third place at the '79 team selection would do the trick. I would be "whole" once again.

I had decided not to build a new Stiletto until I could come up with a better engine program. I just could not put anything together without using an I-Beam wing and felt the time would be better spent fixing the short comings in the Stiletto's front end.

Enter Stan Powell

At that point Dave Hemstrought, Remel Cooper, Vince Schnetzer, and I, over the past few years, had become travel companions. Not all of us all the time but various combinations of us went to different events around the country sharing expenses and "windshield time."

The '79 Nats were to be contested in Lincoln, Nebraska, and since Remel was going to be a judge and Vince had to do normal married guy things, Dave and I agreed to go together. Through our prior phone conversations Dave was aware of my problematic engine program and started telling me about the K&B .40 engines that Stan Powell was building. As the weeks passed, and my engine situation lacked any form of improvement, a new plan took shape.

Dave, Stan and I would go to the Nats together in Stan's new "Le Baron" station wagon with one of Stan's K&B .40s bolted into Stiletto #11.

Since the company I worked for was a K&B distributor I gathered some bits and modified my Stiletto to accommodate one



Les' I-Beam Stiletto was voted as the Concours winner at the 1979 Nats, and for that he received the Arlie Prezzler hand-carved prop that was the traditional trophy for many years. This photo was taken years later...

of Stan's engines and then drove from Miami to Dave's home in Moncks Corner, South Carolina. From his house we drove to Stan's place near Spartanburg, South Carolina. In Stan's workshop we mounted one of his spare engines in the Stiletto, ran another in his driveway on a test stand, loaded up the "Le Baron," and headed for Lincoln. I was already tired of traveling and still had another 1100 miles of road time. I had just driven 600 miles to Dave's home and another 175 miles to Stan's and was, needless to say, anxious to try the K&B. This sounds wimpy to you Northeast guys who routinely drive to VSC, but this was on an incomplete Interstate system with "engine stuff" in between. Dave and I were cigarette smokers, so by the time we got to Tennessee the "new car smell" was gone from the "LeBaron" and by the time we hit Kansas City I was sure Stan hated his new flying buddies. I was able to sleep a bit during the long ride so we hit the practice circles almost immediately after arriving in Lincoln.

The 1979 Nats

Totally unconvinced this was my engine package for the future, and completely out of options, I fired up the K&B for the first of many, many test flights. As the practice days went by, Dave and Stan dedicated their personal practice time to help me. For example, late one night we found a shipping pallet behind a supermarket and turned it into a test stand. By two in the morning I was using it to break in engines behind some warehouses while Stan stayed in the motel room to assemble yet another engine. Thanks Stan, thanks Dave.

I was impressed at Stan's ability to change the run/power characteristics to suit my demands. He understood it all: Different head shapes, different crankshaft styles, not to mention all the venturi changes, deck height changes, and timing variations. Stan's engine was, by far, the best power plant I had used. The fact that it was a .40 allowed me to use my beloved .015 lines and its short stroke, four cycling at almost 10,000 rpm, gave me the opportunity to use low pitch props; I just had no idea which one yet.

Stan and I tied for top appearance points with eighteen apiece. My points came from the bubbly luster on #11's I-Beam wing. Stan's points came from the first rate construction quality of his Dove. No flashy colors or graphics, not even a clear canopy with interior detail, his plane was a Mercedes among Fiats.

By qualification day my Stiletto was flying better than it ever had in the past. Not all was well though since I was not even close in the prop department. I had brought along two SuperTigre .46s and a set of .018 lines "just in case." Even without a clue as to which prop to use I was better off with Stan's engine. On the morning of qualifications I installed a Grish nylon three blade 10 x 6 and explained to Bob Hunt it was the only prop I had in my box that was sharp enough to slit my wrists. The nylon prop produced only modest line tension and I still didn't have good corners. The heavy wind that persisted all week was not going to make these two issues any better. I never was a good "wind flier" so this was going to be a real challenge.

Stan was using all K&B parts in these engines and I was depleting the inventory of spares at a rapid pace. After forty or fifty runs the "Dykes" ring seal would deteriorate and a new piston ring was needed.

Stan was aware I had access to the K&B factory and wasn't too concerned about the voracious parts consumption. I was impressed because he just kept feeding me engines that, after twenty minutes or so on a "test pallet," would run just like the one before. I never had a "Motor Guy" before.

Qualification rounds weren't too bad since we were on a runway, but the wind during the five-man finals was a study in survival.

Dave Fitzgerald, the Senior winner, crashed on flight one round one. In round one I was blown out entering the Cloverleaf and had to do some fancy footwork to avoid crashing into the judges' area.

Bob Hunt missed the finals due to a faulty plug and a very bad decision on his part to try and fly an official with it at about a 6.1 second lap time. So it would come down to Rabe, Fancher, Werwage, Gieseke, and me, plus the Junior and Senior winners.

Dave Fitzgerald, the Senior winner, crashed on flight one round one. In round one I was blown out entering the Cloverleaf and had to do some fancy footwork to avoid crashing into the judges' area. Everyone had speed up and line tension problems.

In round two Werwage was slammed by wind in the Hourglass, Andy Harassiadis, the Junior winner, crashed during the Vertical Eights, I forgot the Triangles and once again lost it entering the Cloverleaf; again the Stiletto headed for the judges. Ted, Al, and "The Bear" had reasonably good flights.

In round three Ted chipped a prop during his takeoff and used an attempt. Just before my last try to perform some sort of decent Cloverleaf I shouted, "Heads up" to the judges. That received a good laugh from everyone.

In the end "I fought the wind and The Bear won." Once again Bob Gieseke, with that little red Nobler, won the Nats. Billy, flying the dark blue Juno, placed second, I came in third, Al placed fourth, and Ted ended up in fifth.

I have always found it difficult to talk about the death of Bob Gieseke's lovely wife Anna Mae. Bob is as fierce a competitor as anyone but his family always came first which made her death an even greater tragedy. He dedicated this "Walker Trophy" victory to her memory and I can't think of a more deserving name on that trophy.

What makes the Concours award so special is the fact that the selection is decided by votes from the contestants. This was a really big deal for me.

Lanny Shorts, assisted by Bill Howe had directed an excellent Nats despite the unrelenting wind.

Normally I would find it impossible to accept third place a "satisfactory result" but in my mind, considering the wind, the last minute engine program, and the high level of competition it was a victory of sorts.

At the PAMPA banquet I was awarded the "Concours de Elegance" for "The Most Beautiful Plane At The Nationals." I was dumbfounded but very honored and proud.

What makes the Concours award so special is the fact that the selection is decided by votes from the contestants. This was a really big deal for me. It validated my skill as a builder/finisher beyond the verbal compliments and positive comments in the various publications. Stiletto #11 had finally paid me back. Thanks Buddy.

All three of Stan's K&B powered entries did quite well. Besides my third place both Stan and Dave finished in the "Top Twenty." During the long drive home we made plans to refine these engines as partners, each with a defined responsibility. I was "giddy" anticipating how much easier my life could be with the help of Stan Powell and his engines.

New power, old plane

Within a day of returning to Miami I mounted the K&B in my Stiletto 660 and started sending parts to Stan. Not to replenish the depleted inventory but to keep our stuff running.

The '79 Team Trials were less than a month away and yet another program was in order. I needed two engines right away. Stan had the setup for my engines which happened to be somewhat different than his or Dave's. They also were going to compete at the Team Trials so it looked like Stan would be busy, big time, for the next month. We still had the dilemma of fast wearing piston rings. We could solve that problem in the coming months but right now I needed engines. Prior to the team selection contest Stan would "rotate" an engine to me every six or seven days and, due to his expertise, each one ran exactly the same. I never dreamed a "Motor Guy" would be such a blessing.

I removed the lightweight RC wheels and gear fairings from the 660 and installed thin, ugly racing wheels, then a set of wheel pants to hide them. The K&B engine with an Adamisin muffler

was almost two ounces lighter than the ST unit allowing me to remove the small amount of tail weight that was installed three years earlier.

On .015 lines the Stiletto 660 became a different animal. I now started to understand the "short stroke/fast four cycle" concept so prop selection became my top priority.

In no more than a week after returning from Lincoln I had my "new program" and I liked it. The 660, on .015 lines, now about three ounces lighter, with Stan's K&B turning a very stock RevUp 11 x 5 prop flew well, very well. Good line tension, nice corners, stable in the round stuff I was a happy camper. In fact it was working so well I decided to change ... "Me."

I had always thought we all were flying "big." Not so much over the 45° line but it seemed, to me at least, maneuvers like the Round and Square Eights were using over a full third of the circle. Remel and I had discussed this during our "classroom" meetings and now I would start working on "maneuver compression." Nothing dramatic, just a little bit.

Two weeks before the team selection I started practicing my "new presentation" that would surely put me on the team. In actuality this was not as risky as it sounds. Bob Hunt was the defending World Champion and would be at the trials to train and warm up the judges. I knew he would be around while I was practicing since we had become such good friends and if I heard him, after watching some of my practice flights, say something like, "Dude, what are you doing?" I would return to my prior style.

Remel and I had discussed this during our "classroom" meetings and now I would start working on "maneuver compression."

The 1979 Team Trials

With a Hurricane lurking in the Atlantic Ocean, Vince and I made the trip to Wright-Patterson AFB in Dayton, Ohio, for the team selection contest.

During two days of practice, prior to "official flights" Hunt only said stuff like, "Let's share a room in Poland" and, "Do you think we will all leave from New York together this time?" He even commented on who might place second or third on that Labor Day weekend. Bob Hunt was not a "Head Game Player" so I was pumped but also aware how things can go bad quickly, remembering the '76 Nats.

At the Lincoln Nats, a few weeks before, Wynn Paul witnessed me getting physically ill from nervousness just prior to one of my final flights. I always stayed near my plane in the pit box waiting to fly. I would try to mentally prepare for an upcoming flight but the distractions from curious or well meaning people would get me upset. At times I remember being somewhat less than cordial to these spectators and that would upset me even further.

I remembered that in Holland, Gene, Bear, Billy, and I stayed isolated for this exact reason. Wynn was a professional coach and explained I should leave the pits and be on my own during these few minutes so I could concentrate on what I wanted to do. This was one more piece of the puzzle I was starting to master. Thanks Wynn.

Keith Trostle was the event director with an impressive panel of judges. The only two top seeded US fliers not competing were

Keith Trostle was the event director with an impressive panel of judges.

Jim Casale and Gene Schaffer. Gene was not flying at this contest; he was judging, along with Lou Wolgast, Remel Cooper, Mike Ditrich and other very qualified people. Up to this point I had not been “officially judged” by a current top Stunt flier.

Following Wynn Paul’s advice, seeking solitude just before flying, my fear of failure was reduced considerably. This state of mind was certainly enhanced by a good flying airplane with a fine running engine. Had a problem arisen I am sure a well disguised “mental meltdown” would have occurred.

The qualification rounds started in really nice weather for a change and I placed first on Circle One besting “The Bear” by 33 points. On the other circle Fancher ended up 48 points above Bob Baron in second. Ted just killed everyone on Circle Two. Back on Circle One Wynn Paul was right behind Gieseke for third and Billy third on Circle Two.

As the finals started, Al Rabe withdrew. His engine was done and so was he. This was “Good news, Bad news” for me. It was good news because he was one less person I had to fly against. It was bad news because Al had always been one of the truly great Stunt competitors. His dedication and work ethic were unrivaled and his technical contributions would live on, way into the future. Molded balsa, adjustable controls, coupled rudder, super custom engines. Al didn’t just “dabble” with these innovations, he was successful with them.

The three round finals began and I soon found solitude behind a pickup truck. I was in the lead after Round One by 23 points. The air had been slightly turbulent and I felt good, confident almost. Gieseke finished round one in second place with Ted in third, Billy in fourth.



The winners in the 1979 Team Trials were first-place Les McDonald (kneeling), second place Wynn Paul (L), and third-place Bob Gieseke.

As Round Two moved along I rested, once again, behind the pickup truck until it was my turn to fly. I showed up for my flight and won that round also. It looked as if Bob Hunt’s comments earlier in the week were prophetic. Not only was I on the 1980 team it was probable I would win the contest.

It seemed as though Ted Fancher and Wynn Paul would be my teammates in Poland. I was happy for them both and once again felt Billy’s pain. Deep inside I wanted Billy and “The Bear” as teammates, familiarity is comfort.

This contest wasn’t over.

As the third round started, Fancher broke a flying line during the “pull test” and his bellcrank “rotated over center.” Frantically cutting into the “WhicheverTation” and borrowing a set of lines, with no test flight and a misadjusted handle, he too was done.

I was thrilled for Wynn Paul. He had been lurking in the top ten for several years so it was great to see him do so well.

After “The Bear’s” third round flight, which put him in third place, it was up to Wynn Paul to do at least an average flight. He came through with a very good flight putting him in second place and on the team. I felt bad for Billy and Ted. We all know there are no “Do Overs” only “What Ifs.” That’s what gets us over the disappointment of not placing higher.

I was thrilled for Wynn Paul. He had been lurking in the top ten for several years so it was great to see him do so well. He had worked so hard, not only on his flying program, but with all the stuff involved with PAMPA. I remember so well listening to him “talk to his Pampawagon” during every flight, urging it through the maneuvers, weird. Thinking back now I remember cussing at my plane sometimes.

So the 1980 FAI F2B Stunt Team had been selected. Bob Hunt would go as the defending World Champion along with Wynn Paul, Bob Gieseke, and myself.

Vince and I took off for home. The Hurricane lurking in the Atlantic when we left for Dayton was bearing down on Florida and although not forecasted to hit Miami it could come close. Like many Hurricanes, this one was forecasted to turn North into the Atlantic Ocean before reaching Florida.

Like many Hurricanes, this one was forecasted to turn North into the Atlantic Ocean before reaching Florida.

As we headed South the storm did turn North but not into the Atlantic. We had no way of knowing that it had turned towards the Northwest and came across Central Florida just as Vince and I, you guessed it, were driving into Central Florida.

Trees, powerlines, and debris covered the Interstate. We even saw an overturned

eighteen wheeler. There was rain and wind like we've never seen before. We inched along in Vince's Ford pickup for hours.

We finally made it home and found that Nancy and Lisa had boarded up both houses helping each other, one house at a time, just in case the storm did not turn. This is no easy task. At the time Lisa was pregnant and Nancy had three year old Diane to deal with. "Hey Ladies, I killed 'em in Dayton, wanna see my medal?" They were not impressed at all, so Vince and I started opening up the shutters and taking down the plywood.

"Hey Ladies, I killed 'em in Dayton, wanna see my medal?"

Analyze and Review

Nineteen seventy nine turned out to be a good year for me. The new version of the Stiletto kit had been available since the beginning of the year. A much better value than the first kit, it was selling very well. Third place at the Nats was commendable considering the wind and the desperate engine situation I had been in. The "Concours" award was, no doubt, a special event for me. First place at the Team Trials would be a major win for anybody and to this day I still think of it as one of my most gratifying victories. However, these were now past events—history in my world.

The two things that really made my contest season a good one were two things I could carry forward into 1980. The most obvious was the connection I had made with Stan Powell.

Together he and I, along with Dave Hemstrought, would turn these sweet running engines into powerful long lasting world beaters. Thanks Stan.

The other notable item I could carry forward would seem virtually insignificant.

After following the advice of Wynn Paul to isolate myself just prior to a flight I discovered a new found calmness that allowed me to focus my concentration on the upcoming flight; wind, sun, clouds, needle setting, reference points, stuff like that.

After following the advice of Wynn Paul to isolate myself just prior to a flight I discovered a new found calmness that allowed me to focus my concentration on the upcoming flight; wind, sun, clouds, needle setting, reference points, stuff like that. By avoiding the distractions of someone asking what to use for fillets or what size tip did I use in my Rapidograph for the rivets it is amazing what you can accomplish. This is not Zen or some magical zone. It is simply evaluating the dynamics of what your assigned task is and that would be to fly better than everyone else that day. If you do this your chances are good that you will win. And that, my friends, was the only thing important to me. **SN**

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

MNT International

Kaz Minato

3-12-6 Higashi Niiza-shi Saitama
352-0002 Japan
fax: +81-48-474-8079
e-mail: bluemax.minato@nifty.com



STALKER ENGINES



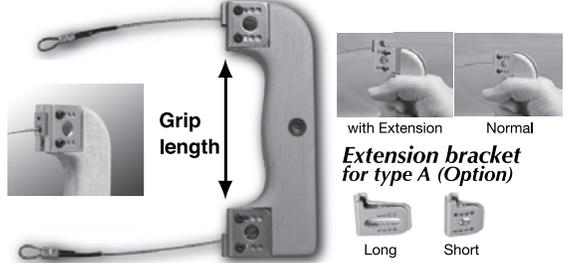
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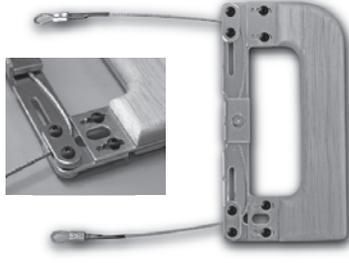
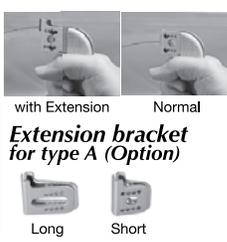
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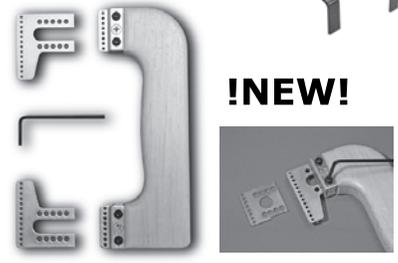
MNT HANDLES



MNT Handle Type A
Grip length 80(A-80),85(A-85),
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Adjustable Control-Line Handle
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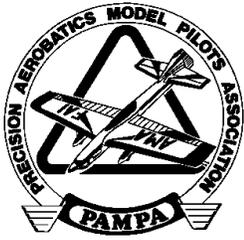


MNT Handle Type B
Grip length 85 mm
For Compact Stunt model.
Adjustable Control-Line Handle
Up & Down Space, Reach, Neutral adjust



MNT Handle Type C
Grip length 85(C-85) or 90(C-90) mm
Adjustable Control-Line Handle
Up & Down Space, Reach, Neutral adjust,
with Extension Bracket (Long & Short)





PAMPA Products Price List

Prices Effective January 2008

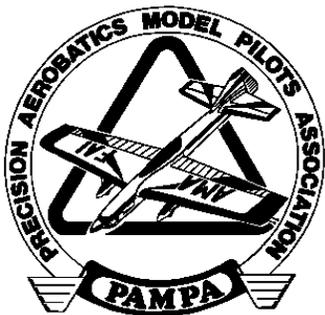
FAI RULES: F2B Current Year	\$ 2.00	PAMPA CAPS:	10.00	
AMA RULES: CLPA Current Year	2.00	Size - One size fits all		
CLPA 1951-52 (Old Time Stunt)	2.00	Colors - White, Black, Red, Sky Blue, Royal Blue, Navy		
PAMPA RULES: Bylaws25	Note: List several color choices in case your first choices are out of stock		
Old Time Stunt	1.00	PAMPA DECALS: Small (1 1/2" Black on Clear, Fuel Proof).....	.25	
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PAMPA GUIDES: For Contest Directors	2.00	BACK ISSUES OF STUNT NEWS: (Cost for Entire Year) (# Issues)		
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Beginner Pattern25	2003 - \$30 (6)		
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Beginner Pattern.....	.25	(A Great Handout at Contests, Shows & Hobby Shops)		
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	Shipping**		
	6.75% Tax (NM Residents)		
	Total Cost		

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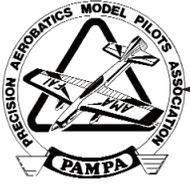
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Expiration Date: _____

Signature: _____

Telephone #: _____

Ship to: _____



PAMPA News & Reports

Vice President's Report

By Brett Buck

Brett Buck
972 Henderson Ave. #4
Sunnyvale CA 94086
brettbuck@comcast.net
(408) 246-8173

A good idea is a good idea and should be treated as such, regardless of the source.

Pictures from an exhibition—an exhibition of Stunt, that is. I figure most of you will get this in late January or so, in the grips of what looks like it will be a pretty rough winter. So what better to see than a bunch of pictures from July? They are just sprinkled around with no real rhyme or reason. I have no stories to go with them, but remember that the dictates of orbital mechanics mean that you will be warm again pretty soon. Enjoy.

Elections '09

Congratulations to the winners, but, and no offense to any of the candidates, the election was very boring—essentially everyone was running unopposed. I don't know exactly what that means. Either we are all doing such a bang-up job that we are beloved by all, or there's so little controversy that no one disagrees! Or possibly, no one really cares about elections, and would rather be flying airplanes.

Also passed were the bylaws modifications. By far the most significant was the change to effectively split the

duties of the Secretary/Treasurer by redefining the otherwise poorly defined task of the Membership Secretary. For all intents, we now have separate Treasurer and Secretary.

I think this unloads some of the otherwise crushing burden on the Secretary/Treasurer to do essentially everything. This is a good goal. What we tend to do is get people to volunteer, and when they prove capable, burden them with as much stuff as possible (since they do it so well) until they get overloaded and then burned out.

The same thing happens with the CDs of big contests, judges, etc. Keep that in mind when you go to a contest, and if you can, offer to help, the CD will appreciate it. If you can't help that's okay, but think twice before complaining about them, too. Then don't!

Of course, we also had a little problem with the ballots and the election end dates. I didn't get my ballot by either the original October 10 date, or

by the modified date (October 16). And of course unless you happened to notice it online, there was no way to know to let the members know that we had extended the election to accommodate the late mailing.

There was some discussion in the EC about extending it even further but ultimately we stuck with the October 16 date. As it was, there was a pretty decent rate of return, but I think we will make some attempt to improve on the scheduling and timing for the future. It's important to get input from everyone, and if you want to pursue some change, as always, contact your district director, or failing that, Bill or myself. We are here to help.



Bruce Perry, Jim Aron, and David F. watching the Walker Flyoff. Dave doesn't look too worried, and note the can of a common stimulant/glitch generator. Caffeine during the contest? Guess it's not exciting enough anymore! Buck photo.



Thomas Case Jr. shows us that they know how to find 1.524 meters down in Brazil, too. This was during the very-hard-fought Senior Championship—the best in years. Buck photo.

Stunt News

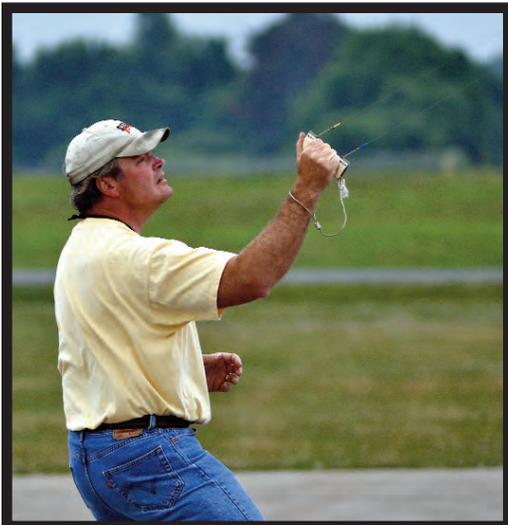
By now everyone will have gotten his or her “Special Edition” *SN*. That should make it the promised six issues for 2009. It was unfortunate that it had to be that way, but we have to thank Bob and Liz for getting it back on track. I think we will be good for 2010 and from now on.

Note that *SN* is your magazine—they can only print what you send in. So if you have a trick, a good story, or anything that’s on topic, by all means, write it and submit it. If you need any assistance in developing the articles, please drop me an e-mail and I will help you get it in shape.

Note also that if you just can’t wait for the always dubious US mail system to get your *SN* to you, any member can download a copy to his/her (or the local library’s) computer and view it there. And all the pictures are in color. Or at least those that were in color to begin with—



A super-detailed view of my buddy PTG. Buck photo.



Bruce flies, too. Look at that concentration—and a fair bit of “down” at the top of the outside rounds. Buck photo.

some Luddites such as me still use black-and-white and that ancient film technology.

The topic of downloads came up recently in another context and I was surprised at how few downloads there were. That’s fine, no problem with that, but it was a surprise to me. If you can take advantage of it, then by all means do so.

Letters ... We Get Letters

Technically, this was a postcard, but I took poetic license. Doug Dahlke writes:

“Hi Brett—*SN* used to run a membership survey. For some reason it ‘went away.’ I thought it was a good idea then and still do. Change from the original questions as you think best but, hopefully, you will start it up again. I am sure there is a better chance if you suggest it. It would seem that one survey every 2 years would be sufficient? Any interest in this? Regards, Doug”

That’s a good question/suggestion. I don’t recall ever having intentionally stopped doing it, I think it just stopped. I see only a few issues with starting it up again—mainly, who collects and collates the data, and then publishes it.

I am going to contact Doug on the topic of being in charge of coming up with the questions (with final editing from the EC/me, maybe) and I can look into how we would work the mechanics of it. Presumably it’s an addition to the ballot mailing, which means our new membership secretary Noel would have to end up putting it in the envelopes. So, good idea, I will look into starting that up again

Note that while there may be a kernel of a point about raising the odds if I suggest it, that’s a bug in the system, not a feature. A good idea is a



Ryan flies while Grandpa Bill Rutherford marks downwind for him. Some of my favorite people in the world. Buck photo.

good idea and should be treated as such, regardless of the source.

Golden State Meet

Another tour de force by Uncle Jimby! Jim took over as CD this year from Jerry Silver, with Rich Walbridge as the local contact in the Fresno/Clovis area. For a while there were some doubts about whether we were going to have it at all, but ultimately it worked out. We were at a new site this year: Clovis North Educational Complex.

When I started going to these things back in the mid-80s, this area north of town was so far out in the boonies that even the coyotes didn’t go there. Now, 25 years later, it’s right in town with lots of developments are around and a *huge* school complex. A very good site for the contest. There was a football game going on on the other side of the complex, and they had some pretty good pizza at the concession stand!

Attendance was a little down this year with the late planning, but was still pretty darn good. I can’t run down the results since I was quite out of it on Saturday (too tired, 80-hour week) and then I judged all day Sunday. I can say that apparently, 3-peats really are difficult, particularly when the entry list looks a lot like a Team Trials. So even though I managed to work it so I got the last flight again, David beat me and Paul was right on my heels.

There were a lot of neat airplanes. Aside from the usual “lawn darts” as my hero Al Rabe refers to them, the two Warbirds were tied for the Concours de Elegance. Nats Top 5 participant Kirk Mullinix had a P-38 “Lightning” with two 25VFs on pipes. This is a big airplane and the little Vfs look a bit lost in there. It flew pretty well, but I think Kirk was off looking for some lower-pitched props to get the Vfs wound up to where they prefer to live—up in the 11,500+ range.

The other airplane in the tie was Rich Walbridge’s “Spitfire” a la Windy. Outstanding finish, of course, and somehow looked a little more in proportion to me than some of Windy’s. After some crude person suggested a “glow plug spit” to resolve it (with John Wright as Kirk’s “proxy spitter”), Jim thought better of it and decide to award duplicate trophies. *SN*

Secretary/Treasurer's Report

By Dave Gardener



Okay, anyone seen my motorcycle (and no more MC references this year!)? And here we are, into the Happy New Year of 2010!

We now have a new Membership Chairman: Noel Drindak. Since this batch of renewals has been received before the end of the year, I still have had the job!

By the way, *thanks very much for timely renewals by about 700 of our members!*

That said, the renewal process is really not very complicated, since at least 95% of the members get it complete and correct the first time. There are some, however, who find this process to be overwhelming! In the midst of processing all the membership forms, here are some complaints from your curmudgeon and galley slave:

1. Using abbreviations for your info. We don;t always know what your local shorthand is.
2. Sending in a form with cut-up/cut-out address information stuck/stapled to the form.
3. Sending in all your information in an e-mail, so *all* the information has to be filled out on this end.
4. Sending in a form with a note "Same as last year."
5. Scanning on "low-rez" so the standard page is barely readable.

Is it really that much of a struggle to *write* your name in the blanks, preferably in black ink? If that's all you send in, that's all that gets in the roster. We may or may not be able to contact you if we need to.

Remember, the paper membership form is the *gospel* for PAMPA's records, *and* the source of your mailing address for *Stunt News*. We require a *new* and current form each year (and one for each year, if you send in multiple-year renewals) because *all* the data entry is from the latest form (not last year's or whenever), and there is only *one* person doing all that, as well as handling a fair volume of correspondence for the organization.

There is some perception that PAMPA has a staff, as does AMA ... well, it just ain't so!

If you make it more difficult to read/enter/credit your information, you are just delaying activity for the large majority of the members who do it right. To fill out your form for you takes about another 10 minutes, so it nearly doubles the time required. As mentioned in an earlier column, this position is Secretary/Treasurer for PAMPA, *not* your private secretary!

If information is muddled, missing, or otherwise difficult, and requires researching last year's files, sending e-mails or letters, determining why your check/credit card did not go through, it delays everything! The time, in some cases, has

been two hours or more to fix forms or payment data. ...End of gripe!

On to new business! We have now separated the Membership function from the Secretary/Treasurer position. That means that the S/T is no longer responsible for the Membership functions; that is now the job of the new Membership Chairman: Noel Drindak.

With that change also is the starting of the final term of the current Secretary/Treasurer. I kept this part of the job for a second term because the transition of member functions and the banking and finance functions all in the same time frame was rather daunting. With membership separated, the job of a new Secretary/Treasurer will be a simpler switch, in about a year and a half.

Begin thinking of someone who might be interested in this very active position within PAMPA ... otherwise, we'll have to shanghai someone in the middle of the night!

... and now for some positive stuff from the Grouch! Over the last couple of years, various folks have generously made donations to PAMPA, and although not intended that way, they've been pretty anonymous!

Okay, now we're letting them out of the closet!

For 2008 General Fund Contributions:

Marshall Busby	\$40
Pat Rowan	\$10
Dennis Choate	\$35
Gary Letsinger	\$10
Ron Merrill	\$10

For 2008 FAI Fund Contributions:

Marshall Busby	\$40
Jim Aron	\$200 ("Leave it to Shareen")
Glen Peterson	\$10
Apparel Sales	\$2,009

For 2009 FAI Fund Contributions:

Les McDonald	\$150
Floyd Layton	\$200
George Phillips	\$38
Apparel Sales	\$145

Out of this, we contributed \$500 each to our 2008 FAI Team members, Paul Ferrell, David Fitzgerald, Orestes Hernandez, and Paul Walker. This is a small stipend to offset the significant costs of attending a Control Line World Championship in Europe. AMA also assists by paying for the team members' rooms, meals and team uniforms for the events (F2A, F2B, F2C and F2D).

We, the PAMPA fliers, are the F2B lot. The others are Speed (F2A), Team Race (F2C), and Combat (F2D). We also had to pay for the shirts and hats (Apparel), so the actual income contribution was about \$600, all told.

On to bigger and better things (and economics!) for PAMPA in 2010!

Tight lines! *SN*

Membership Secretary

By Noel Drindak

Membership Message: It is my privilege to have been elected PAMPA's Membership Chairman. This position was created by making the Secretary/Treasurer's duties relating to membership into a separate job.

I'll be responsible for processing membership applications and renewals, and for maintaining an accurate and up-to-date membership database. Also, it will be my job to promote membership in PAMPA.

It's no secret that PAMPA membership has decreased—it's about half of what it was a few years ago. We've been through a period of political feuding and bickering. Our major product (*Stunt News*) wasn't the same after a new Editor/Publisher took over. Many of our members decided that they didn't want to belong anymore and membership dropped.

The people who left are still our friends in Stunt. We need to tell them that the feud is over, the hatchets have been buried, and everyone is getting along. Bob Hunt is our new Editor/Publisher. He's working to make *Stunt News* the equal of publications like *Flying Models* and *Model Aviation* (both of which he previously edited).

We need your help to grow PAMPA. Talk to your friends who are ex-members (and also friends who might want to be a new member). Tell them that PAMPA is in a new era. Tell them about *Stunt News*. Share an issue. Give them an application and invite them to join.

Yours in Stunt.

—Noel Drindak

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District I

By Dave Cook

There's not much to report as I write this. We are into November here in New England and that brings to mind the saying, "No sun, no leaves, and no fun—November."

As this is my last column I will digress from reporting happenings in District I as there is not much going on this time of the year. At 80 years old and having been District I Director for PAMPA since the early 1980s it is time for a new voice. In my 60+ years of flying and administering I have enjoyed the opportunity to serve the sport and appreciate the many friendships formed. I especially want to thank all the past and present Administrators, Nationals staff, the Officers of PAMPA as well as the Editors of *Stunt News* who all have done an outstanding job over the years. PAMPA still has problems but considering where it started and where we are now—is a strong tribute to the efforts of a lot of volunteers who often don't get enough credit. If you want continuation of the sport and good contests, PAMPA in general and this District need more people to step up and be administrators, CDs, judges, and contest help. Without administrators our hobby/sport will cease to exist.

Will Moore, a longtime competitor, is the new Director for District I. He is well qualified for the position. I urge people to keep him supplied with information about happenings in the District. Will is one of our best Expert class fliers and joins the likes of Bill Suarez, Dick Carville, Steve Yampolski, Rick Campbell, and Dave Midgley that are at the top of District I's Expert Class. He is well versed in the sport and highly competitive. He is very much an innovator, having been successful in competing with both electric and 4-stroke power plants. We wish him well.

Soapbox comments

Keith Trostle has done a good job tending to our rules, but PAMPA needs to establish an active group to include judge training and contest formats along with rules on a regular review basis. They need to look at problems and check as to their relevance to the current state of the sport. We need to keep Stunt a current and popular event so we don't go the way of Speed and Carrier and fast Combat. The group should monitor the posts on Stuka Stunt and Stunt Hangar as to ideas as well as problems.

A "no change attitude" has settled into the sport and this is not good. If it persists the world will pass us by. We need to look for changes to keep as well as attract all ages of people to the sport from the public as well as other AMA events.

PAMPA started as a rather exclusive group supporting CLPA at the Nats. We have evolved to a group in which 90% of our members do not fly CLPA or even go to the Nats. PAMPA has developed skill classes as well as Old Time and Classic and these have drawn members to CL Stunt as opposed to CLPA. This 90% of our membership needs to be recognized when considering changes. One group wants PAMPA dedicated to preserving the Nationals CLPA event only. The other wants to promote and further all events under the broader envelope of Control Line Stunt (CLPA, PAMPA Classes, OT, Classic, and Profile events). In any case changes must be evolutionary not revolutionary.

As I stated in the last issue—since our most basic need is flying sites that help in the development of local clubs, PAMPA must be actively involved in getting AMA to promote Control Line Stunt by developing ideas and details of how to start clubs and obtain flying sites. AMA has a flying site assistance program but it seems to be mostly concerned with RC and Park Flyers. PAMPA needs to change that. AMA needs to get involved on a national basis to get the provisions for Control Line flying sites included in local city and town recreation programs. We want to get kids away from TV and Nintendo and into a hobby that teaches so many of the basic life skills that the next generation is going to need.

I think significant changes in the pattern are long overdue. The current pattern has been very successful but we have been flying basically the same pattern for over 50 years. The top fliers have it down pat, as shown by the closeness of scores at the Nats (place is often decided by a couple of points out of a thousand). It has become difficult for the judges to place fliers in the proper order, with luck playing too big a role. We need to increase the separation at the top.

Changes that would help are more difficult maneuvers, new sequences, and new improved contest formats. We need to insure that the judge can see the full shape of each maneuver well enough to

judge it. As a general rule any maneuver that has elements above 45° is tough for a judge to put a fair number on. The Overhead Eight is the prime example—nobody can judge the shape of this maneuver accurately from outside the circle; the judge has no idea how good the geometry is. They can only see the intersection and 45° points.

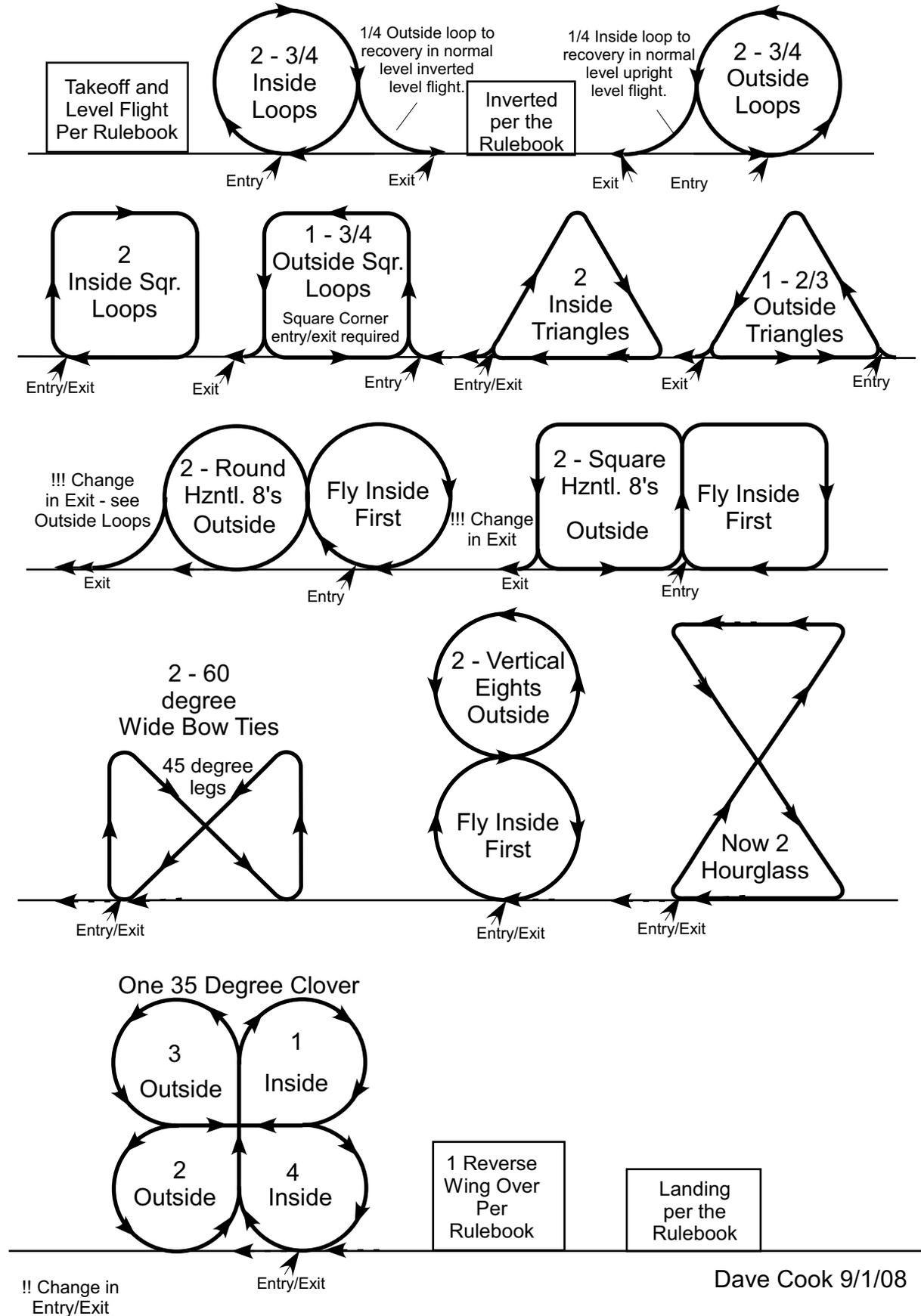
The attached Masters pattern eliminates the Overhead Eight and brings the Clover down to 35°. All maneuvers start and finish in level flight to simplify entry and exit points. This pattern was published in *Stunt News* a while ago and received more positive than negative comments but I still am looking for more input. As stated above, the purpose was not only to add difficulty in order to increase separation between top flyers but also to make the pattern easier to judge accurately.

I still hear a lot of complaints about judging. Most are from people who do not understand the limits of a judge to consistently render subjective numbers on something as complicated as the pattern. The Nats uses an elimination format to give judges a fair chance to pick the winners by closer comparison. The reason for this is that judges are limited in their ability to give an accurate score in a large group of fliers. The Nats rounds can have more than 40 fliers in a group; that takes most of the day to fly with 4 sets of judges. Being consistent all day is impossible. Any set of judges has a tough time trying to pick the true winners out of closely matched groups of more than 10 fliers and large contests should all consider elimination formats to reduce the number of fliers in a round. I find when faced with large groups, judges consciously or unconsciously resort to scoring by reputation.

I also encourage rule changes to allow the use of wireless technology throttle control as an option for other new maneuvers. It may never come into reality but the ability to try should not be restricted. Windy Urtnowski and a few others have used throttle control with some success in competition. This should be allowed to be developed and not arbitrarily rejected. Having this can be an important safety factor, especially when flying alone.

Go forth, build Stunt ships, find someone to fly with, and fly. *SN*

The New Masters Pattern



Dave Cook 9/1/08

District II

By Windy Urtnowski

New Jersey, New York

It's building season in District II and definitely my favorite time of the year. Starting a new ship is always the beginning of a new adventure. For the last 30 years in a row, every building season I've managed to add at least one new ship to my air force. These ships live in my museum, my shop, my van, my garage, New Hampshire, California, Texas, and Pennsylvania. But adding a new one is always a new adventure. As I get older I realize that there may not be too many left in my arthritic fingertips, but I'm hoping to go on as long as I can.

Billy Sargent has been working in my shop as time permits, and his mechanical skills have complemented mine so we both seem to learn a lot from each other working and building models together. My shop has always been a gathering place and general hangout in the winter months.

Recently Rich Walbridge finished his Adamusko Spitfire, and I think the photos in this issue speak for themselves. The

Spitfire is a challenging model for any level of modeler, and I think Joe Adamusko is as proud of Rich's accomplishment as I am. Rich and I burned up the phone lines and e-mailed each other virtually every day for over a year through some testy issues and some celebrations, and I hope Rich will enjoy his model as much as I enjoy my four Spitfires. (They are a joy to own and fly.) Rich has even shared his adventure with Bob Green, who is currently still working on his Spitfire. Congratulations, Rich—welcome to the RAF!

John Cafaro is still working on a semi-scale P-51, and I hope we'll get some photos soon. He's made some very custom exhaust manifolds that replicate the exhaust of the early P-51s with the smaller engine and turtle back.

The last photos I got from Buddy Wieder show that he has his new electric Ryan's Eagle in filler coat, and it looks very sleek.

Jose Modesto was flying his electric

Genesis Extreme at the Pal Park meet and said he was going to put an all-new finish on it for the 2010 contest season. I'm sure it will be more colorful than Dave Midgley's new ship, which only has five shades of purple, green, and gold—all custom mixed. See this month's "Crash Repairs" column for some tips on creating your own custom colors.

Our friends from Spain, Susana and Javier Rodriguez, visited our home and shop, and we persuaded them to come to our Pal Park Fall Meet. They met all the local fliers there and also met John and Buzz Brodak, who attended this meet. They were especially impressed with Dan Banjock's jet scale model. Javier took a ton of photos during his trip and made me a photo-show DVD (most appreciated!). Javier enjoyed running my O-Gauge model railroad, and is going to send me some photos of his Cardinal. If I get these before publication deadline, I'll submit them for this SN issue. *SN*



Ohio, Pennsylvania, West Virginia

District III

By Patrick Rowan

If you fly Stunt in September in District III, you want to be in Cleveland, Ohio. On September 19 and 20 the North Coast Control Liners put on another great Stunt contest. CD Dave Heinzman and gang did a super job.

Bob McDonald again took 1st place in PAMPA Expert and Classic with some fine flying. John Paris again gets the Iron Man award. He either won or placed in 4 of the Stunt events on both days.

By the way John Paris is the new PAMPA District VII Director. Thanks for stepping up to the plate, John.

Cleveland Area Stunt Championship photos are next.



Ray Rowh with ARF Smoothie, Cleveland, OH. Dave Evar photo.



Bob McDonald holding his Classic winning USA 1 PA .40 UL-powered Stunter. Evar photo.



Dave Johnson with his OTS 2nd place Jamison. Nicely done. Evar photo.



Jim Skinner with OTS Guided Whistle. Jim flew well in his first Stunt contest. Evar photo.



Eric Keller with his OTS Viking powered by an LA .46.



Rob Young holding his ARF Nobler. Evar photo.



Don Sopka holding his ARF Nobler. Evar photo.



Bill Stewart's Pathfinder DS .54 powered. First place in PAMPA Beginner. Evar photo.



Michael Paris with his Skyray 35. Second place in Beginner. Evar photo.



Gary Tults with his Cyclone PA .61 piped Stunter. Evar photo.



Phil Spillman holding his 4 stroke-powered OTS Dragon.



John Paris with his Fox .36-powered Viking. Second place in OTS.



Dick Hodge with his modified LA .46-powered Cardinal.



Scott Reynolds flew his Silver Knight in PAMPA Expert. PA .61 on muffler. Evar photo.

Till next time, fly Stunt. *SN*

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

District IV

By Steve Fitton

Hello everyone, I hope this winter is treating you well, and you find some cool Stunt goodies under the tree! Before real winter set in, District IV had two contests I want to talk about in this space.

On September 26, about 15 pilots from Northern Virginia and Maryland got together in Lorton Virginia for the 3rd annual Stunt Fest contest. They were greeted by dirty grey skies, but light wind, and no rain until almost the very end of the contest. This is a pretty new contest, but Dick Houser, Scott Richlen, and the rest of the club up in northern Virginia have done a great job and each year the number of entries creeps up a little higher. This was my first year that I was able to attend, and I was impressed at the nice little field the Northern VA club has tucked away in the woods not far from Mt. Vernon. It was great to meet some of the pilots from that area and Maryland that don't get the chance to get to some of the contests farther south in the district, and an opportunity to get some photos of people you don't always see in *Stunt News*.



Northern VA contest CD Dick Houser gives the morning briefing to some of the flyers assembled for the September contest.



The pit area for the 4th annual Northern Virginia contest.



Bub Reese gets ready to bring his spark ignition OTS plane out for an official at Northern Virginia.



Maryland flyer Paul Raley brought his gorgeous Aerotiger .36-powered T-Bird II out to the contest.



NVCL member John Murphy flew Intermediate PAMPA with his profile Cardinal and entered beginner OTS with a Ringmaster.



Frank Dobrydney brought this LA-powered Teosawki with him to the NOVA contest.



Bill White came down from Maryland with this ST .46-powered Fancher Imitation.



Tim Stagg cleaned up in Advanced with this original design ST .60-powered job.

October, 24 and 25 2009 saw District IV fliers congregate in Huntersville, North Carolina, for the annual fall contest. Despite a gloomy weather forecast for the weekend, turnout was good and pilots came all the way from Florida to New Jersey to enjoy the fellowship, compete, and try not to get drowned in Saturday's rain deluge. I have been blessed with a *huge* amount of pictures from this event, many courtesy of William Davis and Gene Martine, so I will keep the verbiage to a minimum here and get on with some of the pictures!



Harry Clark, John Rakes, and Bill Ballinger take in one of Josias Delagado's patterns at Huntersville.



Kent Tysor and John Rakes judged Profile Stunt. Watching Dan Banjock's antics in Profile Stunt put smiles on their faces.



Nostalgia '79 winner Tom Hampshire's Ares arcs over the top of a wingover. Tom uses an Aerotiger .36 for power.



Charlie Reeves releases Allen Brickhaus's OTS ship at Huntersville. Allen would come in 2nd while Charlie took home the win.



Gene Martine needles his Staris during practice on Saturday afternoon as Stan Powell holds. William Davis picture.



Charlie Reeves' Big Job puts in the winning flight for OTS at Huntersville.



District IV director emeritus Bill Little came out to visit Huntersville. Here he chats up Eddy Ruane on Saturday.



Tommy Luper returns to the Stunt scene with this original design, about 630 squares, 55 ounces, DS .60 for power, and a superb finish and detail! It was great to see Tommy back in action.



Scott Bolton came down to Huntersville for his first ever contest. Here, his LA .46-powered profile Smoothie carves through a pattern on Saturday.



Another former director is Phil Spillman, who recently moved into District IV. Phil is enjoying a conversation with Richmond-based flyer Jimmy Paul at Huntersville.



The cockpit of Tommy Luper's new Stunter. Tommy went on to finish 1st in Expert on Sunday.



The new ARF T-Rex made its competition debut at Huntersville. Jimmy Welch was one of the very first to order and assemble one, completing it just in time for the contest. Here, Jimmy gives the start signal to the judges while Willis Swindell holds. Jimmy would go on to finish 3rd in Intermediate with this ST .51-powered 55-ounce plane. Martine photo.



Alan Buck came down from Pennsylvania with his exceedingly light SV-22.



Eddy Ruane had some motor run issues with his Tempest 40 on Sunday. Between rounds he gets under the hood and tries to fix it.



Josias Delagado came up from Miami to visit with his buddy Adrian Dominguez and enter the contest. Josias was flying a Yatsenko Shark and placed fourth in Expert.



The business end of Josias's Yatsenko Shark.



Marshall Busby takes a break from combat long enough to put up some flights in Advanced on Sunday. It's always a treat to see Marshall and his buddy Mack Henry at a contest. Martine photo.



Adrian Dominguez made his debut in PAMPA Expert at Huntersville, with his new Yatsenko-based model named "Sunshine" replacing Moonshine which was lost at the Nats.



Derek Barry's Dreadnought knives through the overheads during Sunday's action.



If you look at the Huntersville report from last year's contest, you would see the picture of how badly smashed up Dan Banjock's MiG 15 was at the end of the weekend. I don't know how he did it, but this year the MiG was rebuilt and ready for action again!



It's great to see some new faces participating at contests, and this year we had young Lyndia Moore winning Basic. Great work! Martine photo.



John Rakes brings the Ringo Perpetual Trophy home to Lynchburg after his win in Advanced at Huntersville.

It's been a great season, and a new one begins with King Orange right around the corner. We'll see you there! *SN*

District V

By Eric Viglione

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

Hello District V! For those who don't know me, allow me to introduce myself. My name is Eric Viglione and I am your new PAMPA District V representative.

First and foremost, I think we all would like to thank Dale Barry for his years of service. Dale left some big shoes to fill, and I'd be fortunate to serve you nearly as well. I wish Dale well and hope he enjoys his newfound free time in the shop and on the contest trail with his son, Derek, and grandson, Gavin.

Dale and I have spoken and he won't be a stranger to the District V column. We can look forward to any help he can provide reporting on contests that I may not be able to attend.

This leads nicely into the first request I'd like to make as your new district director, and that is a request for info on what's going on in our area. Most people are too humble for their own good and somehow don't feel "worthy of note"; well I'm here to tell you, *you are!*

So please, no matter how trivial you may think it is, let your fellow district members know what you are up to; we want to hear from you.

Have something new on the bench? Had a nice flying session and took some pictures? Traveled to a contest, in or out of District V, had a small club contest, or just visited a fellow member's shop and had a building session? We want to know!

I'm a firm believer this column should be about you, the district, so please, don't make me fill it up with filler material about my personal activities or my local clubs.

I do try to make most of the local contests every year, including the King Orange, and recently the Nationals. Look me up when you are there, and I'd be thrilled to meet you and hear what you have been up to. Don't be shy folks. Send me some info, and I promise I'll publish everything I can fit.

A little about myself ...

I am a resident of Clearwater, Florida, which is on the west coast between Tampa and St. Petersburg. Like most people my age, I had a Cox PT19 as a kid in Massachusetts where I grew up.

As a young teen moved to Florida where I met former District V member Ed

Ruane (now in Dist. IV) and long since deceased Bill Whitson, who both spent a lot of time patiently teaching this kid the ropes of building and flying.

Eddy took me to my first big Stunt contest, which was a King Orange in the early 80s where I flew Novice, then in subsequent years where I flew Beginner, etc. as I learned the pattern. I met my wife Lisa, became somewhat distracted, as many young men do, and proceeded to take a 14-year layoff from Stunt.

When I returned to Stunt it was also via Ed Ruane, who I had kept in touch with. One day I get a phone call, "Hey Eric, I'm flying with this club called the Tampa Bay Line flyers, you ought to come watch some Sunday."

I did, and brought my beat up old Banshee. Ed looked at it and said "Here, fly one of mine, you don't want to chance your old plane just yet." It was a Veco Tom Tom, and was trimmed very well. I was instantly bit by the bug again, and have been trying to work my way up the contest ladder ever since.

I now fly with the Manatee R/C club where most of the Tampa Bay Line Flyers club has made our home. They put in a nice Control Line circle for us, and let us host our annual Stunt contest there where we open up a second circle on the runway and a third circle for practice on contest day.

Speaking of our annual club contest, yup, that was this past Sunday, Nov. 1st. We had Open, Beginner and Old Time Stunt, with a good turnout of fliers. This contest is growing, and we hope to keep adding events and make this a two-day contest someday.

Congrats to the winners, hopefully reported in the contest section of this issue. It also can't go without saying a big thank you to the volunteer judges, including Gene Martine who made the 3 1/2-hour drive just to judge, along with Bill Rich and Jim Silhavy. Also thanks to our hard working tabulators and organizers, Paul Sequira, Phil Bayly. And, last but not least, thanks to Ray Thompson who CDs our contests.

The MCRC ground crew also spoils us rotten with grass that golf courses would envy. We have it really made at this facility, with an air conditioned club house and indoor clean restrooms, R/V hookups, etc.



Don Ogren seen here having a good time speaking with Warren Wagner and Rose.



Tabulators extraordinaire, Marty Doyle and Paul Sequira, kept things running smoothly.



Normally seen on the racing circles, here we had Bob Whitney visit from the Florida east coast to fly in Old Time Stunt and Open.



Eric Viglione tachs engine on Starfire before an official in Open. Klaus Preen photo.



Jim Smith's original design Tracer splits the judges Gene Martine and Bill Rich. Klaus Preen photo.



Tom Weedman of the X47 club also made the drive seen here with Bob Whitney and Wayne Smith.



Partial shot of flight line. We even had some locals show up to watch.



The concession stand was a hit. Phil Coopy seen here during break between rounds.



Some R/C guys wandered down to watch as well.



Sneaky shot of an animated Ward Van Duzer explaining the finer points of Stunt to Larry Minott.

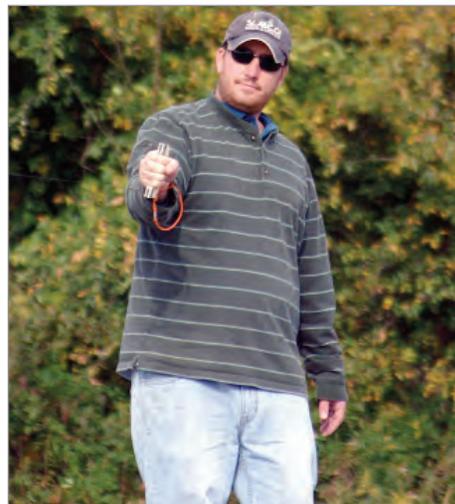
Reports are already coming in from District V members, including these pictures from Gene Martine and my friend and fellow District IV rep. Steven Fitton. See captions.



Phil Coopy made the trek to Huntersville. Martine photo.



A great shot of an unfortunate incident. Phil's GeeBee buzzing the prop on take off.



Derek burning in a flight. Fitton photo.



Josias putting his Shark through its paces. Fitton photo.

Next issue I should have the skinny on the King Orange; be there or be square! Till next time, see ya on the circle. *SN*

District VI

By Allen Brickhaus

Illinois, Indiana, Kentucky,
Missouri

The selection of shots is gathered from the Treetown Modelaires contest at Aurora Airport, the Peoria Wyreflyers at Davenport, Allen Goff's FCM event, and the Broken Arrow contest at Buder Park in southwest St. Louis, Missouri. *SN*



Denis Downs of the Chicago area took the travel time to attend the Peoria Wyreflyers Heart of Illinois contest in Davenport this past summer. The Peoria site was under water from the Illinois River for more than 93 days. They had to move.



Bud Bodzioch brings his Sig Skyray '40' to the line at the Treetown event at Aurora Airport west of Chicago over the Labor Day weekend.

Stunt News 80



Bob Johnson readies his Be Bop Deluxe for an official flight at the Peoria Wyreflyers contest at Davenport on the weekend after Labor Day. Bob's Be Bop Deluxe is powered by a .20 or .25 O.S. Max engine.



Bill Smith (L) assists Aaron Nottingham with a flight at the Peoria Wyreflyers event in southeast Iowa. Aaron replaced his worn Ro-Jett with an ST. 51. He was still struggling with new needle settings on the ST .51.



Above: Greg Voumard's wife gets Greg's Vector primed and ready for an official at Mt. Joy Airport, the scene of the 2009 Heart of Illinois Peoria Wyreflyers contest.



Left: I spent a Sunday afternoon flying with Paducah Aero Modeler member Steve Moore. He was teaching Tim Mason of Dexter how to fly Control Line.



Tim Mason of Dexter, Missouri, is quickly learning how to fly Control Line and I am encouraging him to be a PAMPA member soon. Thanks to his dad Tom Mason's blessings and the assistance of Steve Moore.



We will miss Mike Condon; he passed from our presence late in 2009. He was indeed a wonderful mentor to his son Scott. Here they are together at the 2009 FCM contest.



Jim DeYoung, Eric Taylor, and Mike McHenry overview Jim's Bill Werwage USA 1 at the FCM contest held at the AMA "L" pad this past summer.



Howard Terrell and Terry Meidroth take in a fine lunch at the Iowa Machine Shed restaurant near Mt. Joy Airport. The gathering of a dozen fliers celebrated the successful Peoria Wyreflyers contest at the Mt. Joy Airport.



Brad Jungheim uses the very successful Sig Banshee to the Treetown contest held at the Aurora Airport over Labor Day weekend.



Dennis Vander Kurr involves a bunch of flight craft in his official at the Aurora Airport Treetown Modelaires contest.



Larry Fruits of Plymouth, Indiana, drives to Valley Park Missouri to attend the Broken Arrow event at Buder Park in southwest St. Louis. Larry's weapon of choice for Profile and Classic is a Midwest Magician.



Michael Paris does excellent pit work for his dad John at the Aurora Airport contest. Both are from the Detroit area and always attend the Treetown Modelaires event.



Ed Mason of Florida launches for Bob Whitney at the Broken Arrow contest sponsored by the Lafayette Esquadrielle at Buder Park near St. Louis. The event always happens near the end of September, in this case 2009.

Iowa, Michigan, Minnesota, Wisconsin

District VII

By John Paris

First things first, I would like to thank Crist Rigotti for the time he served as District VII representative and I hope that I am able to fill his shoes.

As this is my first column, I thought that it might be appropriate to introduce myself. My name is John Paris and I live in Clio, Michigan. I am currently 43 years old and have been flying CL since I was 10. Within CL I can be found flying PA, OTS, Profile, and Classic Stunt.

I have also done some entry-level Racing and Combat. I work as an engineer for Nexteer Automotive in Saginaw, Michigan, and work primarily with hydraulic power steering pumps.

If you have read *Stunt News* for any

amount of time you may have seen my children on the pages. Grace is 16 and has recently left flying to pursue other interests and Michael is 10 and still flies. My wife, Sook-Hi, can also fly, but has not done so for quite a while. I can count on her for launches when needed though.

As mentioned above, I started flying when I was 10 with Sterling Beginner's Ringmaster and a Cox Baby Bee from an old Cox Shrike. Like most people, I bounced that little airplane off the ground many times until I figured out how to go around in circles in a controlled manner. My father was actually the one who helped get me started because he flew as a teenager himself.

After I had soloed I started to hang around with other kids in the area who enjoyed model airplanes as well. We spent our calm summer days flying in a local church yard with primarily 1/2A models and eventually moved up to the .15 size and .35 size models. I remember that one of fun things we liked to do was to take a new Top Flite white plastic propeller and fly low to see if we could make the tips green. While it was possible, it usually involved a subsequent overnight repair.

During this time it was still possible to get reasonably priced Cox plastic models and sometimes one of the guys would bring one by to fly. I only recall one that seemed to fly fairly well and that was the

P-40. Some just had enough power to get off the ground while others would run in circles on the ground never getting airborne.

All of my planes were built from kits. I had the Beginner's Ringmaster, Baby Ringmaster, Lil' Satan, Lil' Jumpin Bean, Jr. Ringmaster, Jr. Flitestreak, Shoestring, and Voodoo at various times while I lived at home. My father gave me a McCoy 19 that he had left over from his youth to run on the mid-sized airplanes and I purchased my first Fox 35 Stunt somewhere along the way as well.

While I was in high school I met Dan Miles, who used to fly with my father, and I was introduced to CL Combat. He took me to a few contests and we had a good time even though I was never able to win a match. My avoidance technique was generally to dive into the ground.

I joined the U.S. Army after doing about a year of college as I thought I could use a little money for school and some focus in my life. While I was at Korean language school I stopped by the local hobby shops and picked up a Lil' Jumpin Bean to fly down on the parade field when I had some time available. I even found a Fox Combat Special Mk. III that I still have today. As I served in Korea I continued to work with CL airplanes and picked up RC as a side event.

One of the highlights while I was in Korea was to attend a model airplane event at their Air Force Academy a number of times. The first was just to see what it was about and the second and third were to compete. I watched the Stunt events, flew in the Combat events, and even tried out Team Racing for the first time. The best I (we) did was in the Team Racing event with a third-place finish.

When I was reassigned to the U.S. in 1992, I attended my first PA event in Gilroy, California. I even managed to get my first trophy for second place. Good thing there were only two of us. The hook was in.

I left the Army in late 1992 with a wife, a child on the way, some RC and CL airplanes, money for school and some focus. School, work, and raising a family kept me busy from between 1993 to 1997 and I only attended the contest that Sig was putting on with my friend Dan Miles, but I did a lot of sport flying.

In 1998 I bought the house that I currently live in and made sure that there was enough room out back to put in my own flying circle.

With the increased practice that the circle provided I was able to win my first PA trophy at the Signal Seekers event late that year. The hook that was "in" in Gilroy

became set after that contest.

Over the last 11 years I have attended a good number of local contests in Michigan, Ohio, Illinois, Indiana, and Iowa. Some of the larger events that I have attended include Brodak's Fly-In, Sig's CL Championships, and the Nationals. I have been fortunate enough to fly in the Canadian Nationals this past year as well as putting up a flight before a contest in Brazil. In 2008

I was also fortunate to be in France just prior to the start of the Worlds and was able to meet up with our team to watch them fly and even had lunch with them. The European Grand Prix that was running at the time was fun to watch as they had many different events going on: Speed, Racing, Stunt, and Combat. One thing that I noticed about the flying in France, and particularly in Brazil, was that attending one of their contests is amazingly similar to attending one here in the U.S. Outside of the language differences, you see people flying familiar equipment in a familiar manner and appear to have familiar discussions just like if you were at home.

I am sure that this has been enough babble about me and time to turn things back to our District. First, a word of thanks for those who voted for me. I was not too worried about running as there was not a big field to compete against, but the fact that you voted showed that you care about the district.

Over the next two years I plan to change up my summer contest schedule a bit to try and make more of the District VII events. While I have flown at the Sig event in Iowa, I know I have not flown in any Wisconsin or Minnesota contests, and will keep my eyes open for the dates and places. I certainly could use some help on the coverage so I may ask some of you for some pictures or reports on the events that I cannot attend.

Building season is upon us again and I would like to hear what you have planned for the next year. In our shop, we just finished a Flying Clown for my son Michael. It is a stock Brodak kit that weighs in at 13.8 oz. and is powered by a Fox 15. The inboard tank was almost a requirement due to the clearance between the engine and the wing.



My Umland Barnstormer.



Michael Paris is gluing the ribs and sanding the wings of his Flying Clown.

Thanks to the closeness of a flying field, we even managed to get a couple of flights in on it. Needs a little trim but appears to be a good start. His next project should be a Tutor II ARF that he picked up

The completed Flying Clown.



in Beginner at the Nats a couple of years ago. I am trying to finish an Umland Barnstormer. It is currently covered and has a few coats to seal it up, but I need to put some CF on the fuse and tails. I'm not exactly sure what I am going to do with the canopy at this point-attach and then paint or paint then attach.

Right behind this project is a Jamison Special that is built and has one coat of clear on it. I pulled down a Sig Super Chipmunk kit and took the wrapper off the other day. While some of the wood will need to be replaced, there is a good start to my next Chipmunk there. I should have some updates for the next column.

Once again, thanks to all who voted and thanks to Crist for his time. I can be contacted via e-mail at parisjm2@aol.com; phone (810) 686-5914; or snail mail 10120 N. Jennings Rd., Clio MI 48420. Also check out <http://forum.amadistrictvii.org/>. It is our site to use. *SN*

Arkansas, Louisiana, New Mexico, Oklahoma, Texas

District VIII

By Don Hutchinson

It's early November as I start this one; a beautiful day to be out flying in Fort Worth right now, but by the time ya'll read this, the contest season will be finished and we will be heavy into the building season. I'll start out with the current news and then slip back into my "old goat" mode since I always have some kind of vintage stuff to pass on.

The quest for the coveted District VIII trophy finished up with our annual fall Stunt clinic/profile Saturday event followed by the last points paying PAMPA event on Sunday. When the smoke cleared, Dale Gleason came out on top for the second straight year so once again, the big trophy will reside atop his entertainment center for another year. Congratulations on a great season Dale, ya done yourself proud! For those who are not aware of how this works, any sanctioned PAMPA Stunt event taking place in District VIII pays 6 points for a win in those classes flying the standard PAMPA pattern, and 1 point less for each place down through 6th. The flier accumulating the highest point total at the end of the season is awarded the trophy and crowned as the District VIII Champion for the year. One is also awarded 3 points for working a contest and not flying so being a judge etc. doesn't spoil one's chances for the trophy. Anyone in Intermediate, Advanced, or Expert can win it so if you want your name on it, go for it!

Shortly after the above was finished, it started all over again for 2010 in Baton Rouge at the annual Lee Lorio Memorial contest. It was quite breezy on Saturday for the profile event but Stunt heaven on Sunday. This is always a fun contest, not a

lot of pressure on the fliers, a really nice flying site and always a great Cajun dinner at Brunet's on Saturday evening, plus a raffle of some very nice merchandise. Rats, I didn't win one of the LA .46s or a gallon of Powermaster 10/22 fuel. And the gallon I bought last year is almost gone! Where did they say the trophies came from? I recommend this meet as one to get to next year. Start your quest for the District VIII Championship off right. There is a write up plus more great David Russum photos of the contest in the Stuka Stunt forum but you will have to go back to an Oct. 28th posting to see it.



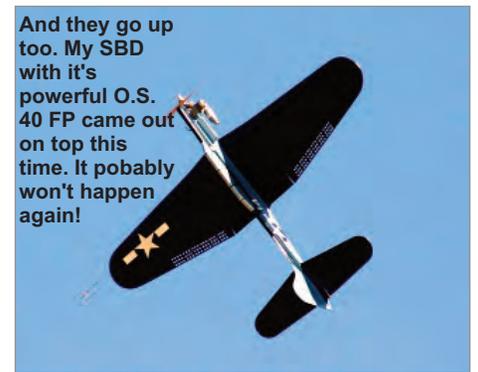
Military Vets at Baton Rouge. Gil Causey sets up this photo every year. Well done, Gil.



At Baton Rouge they come down. Craig Beskow's PA 75 piped Impact.

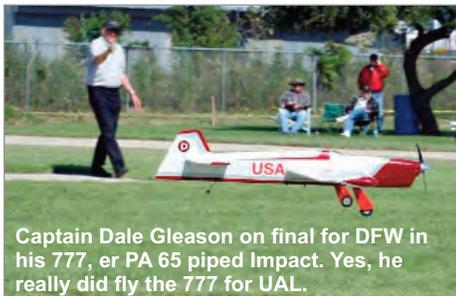
Since I write the column, I can show a photo of my SBD as an intro to a story from WW II. Out in the Pacific, there was an SBD pilot who got caught in a dustup with three Japanese Zeros and by means of great flying skills, neatly shot them all down with the nose guns in his airplane. When he got back to his carrier, they promptly assigned him to fighters! The SBD was indeed a nimble airplane.

And they go up too. My SBD with it's powerful O.S. 40 FP came out on top this time. It pobably won't happen again!



It doesn't get boring down here on the prairie. Right after Baton Rouge we had the annual Dallas club fish fry at the Dale and Linda Gleason spread. They graciously open the place for us all to get together with wives, girl friends, and our models for a day of flying, hangar flying, socializing, and picking as a sort of farewell to the contest season for 2009. Dale keeps a very nice flying circle close to the ranch house and has added a beautiful veranda so we can escape the sunshine while we chow down on fish that Dale and Linda caught during the summer. They were served up along with all the sides the guests brought in for a gourmet experience. I'm putting a few of the many

photos Dee Rice shot of the day's activities in here just to whet your appetite for next time!



Captain Dale Gleason on final for DFW in his 777, er PA 65 piped Impact. Yes, he really did fly the 777 for UAL.



Bill Wilson flies his panther at the fish fry. The trees keep the turbulence out, ha ha ha.



A pair of old combat aces, Dee Rice and Riley Wooten.



Richard and Edie Oliver presented this beautiful Ringmaster 576 to Dale during the flying session.

I finally got some response to my plea for some grist for the column. Down in the Southern part of Texas, Carl Chapman is organizing flying events at the Scobee field flying site to ramp up the Control Line activities in the "deep south" part of the state. He is putting out a newsletter on a regular basis informing the folks of the scheduled activities coming up. Some great subjects to help hone your Stunt skills such as flight trimming, engine and prop clinics, judging clinics, etc. To get on the E-mail list, contact Carl at

carlchapman33@hotmail.com and get hooked up for all the great things coming up. Thanks, Carl for taking on this task, I'm sure it will get results. By the way, if you have never been to Scobee field, there are two of probably the best CL circles in the world there. Flat, smooth, concrete, and no trees nearby to roil up the wind (when there is any)!

Ya'll were warned, you're dealing with an old timer! If you are real old like me you probably built ten-cent Comet and Megow models when you were a kid similar to the Fokker D.VII in the photo. This shot was taken at a *Flying Aces* (remember that magazine?) contest near my home.

This one is a bit more competition oriented than the ten-cent kits I built. A much better job too! How well do these models fly? Well, this one carries a pop up stab dethermalizer and a tiny radio beeper for tracking with a directional finder just in case. I did watch several models go OOS at the meet. Yes, they fly amazingly well.



Jerry Murphy from Manitou Springs, Colorado winding his Rocky Top Models Fokker D7. Very nice work. I should try this again.

Now, let's get back to Control Line Stunt but only up to a point in time.

Mike's Hobby Shop, where the Dallas club meets, keeps a rack full of old model mags and I happened to pick up a copy of *Model Aviation* that had the results of the 1981 Nats in it. The names? In finishing order: Werwage, Fancher, McDonald, Paul, Mullinix, Gieseke, Casale, Adamisin, Fitzgerald, Walker. Notice how many of these fliers are still at it today! There must be something to this Stunt game, as that is a terrific retention rate. Twenty eight years later many of them are still at the top of the game.

That's about all for this issue. Note, when the deadline approaches and one is trying to figure out what to put in a column, inane thoughts run through one's mind so with apologies to Dorothy Parker, here are mine!

The Stunt Flyer's Lament

*Had I a PA Sixty-one, I could have a world of fun,
Tracing patterns in the sky. That the judges would score high.*

*Or had I a super Stunter, that no other trophy hunter,
ever had a chance to beat,
competition would be sweet.*

*But I have no such a weapon, thus does fate my pleasure step on.
Hence the other stunt top guns, still come out and drub my buns!*

That ought to be incentive enough to get you to feed me some great material for the next issue of *Stunt News*. **SN**

T&L SPECIALTIES CATALOG - Tom Lay

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District IX

By Carl Shoup

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

Hello, I hope that you had your fill on Thanksgiving and received all of the new Stunt equipment you wanted for Christmas and put in your first flight on New Year's day.

I would like welcome Jack Pitcher to District IX.

I received the follow from Jerry Higgins.

News from Denver

In mid August, Chris and Linda Brainard and Patty and Jerry Higgins went to the Albuquerque, New Mexico, contest. Chris and Jerry went to compete, Linda to judge, and Patty to shop. Patty took the picture



of Chris, Linda, and Jerry and the picture



of the loaded van at the contest hotel near the club flying site. Chris's Caprice and Jerry's Cardinal are powered by O.S. .46 LA engines, and Jerry's Jamison is powered by a Brodak .40.

The Jamison's first flights were between 8 AM and the 9 AM start of the Old Time event on Saturday morning. Fortunately, the engine ran and the trim was right on!

This summer Linda Brainard decided that judging Stunt was not enough, so she started learning to fly. One of the photos



shows her husband Chris launching for her at the Arvada Associated Modelers (AAM) new Control Line circle. Another shot



proves that she can pull her Flite Streak out of a loop (note that the power lines are not as close as they look in the telephoto shot). Linda is rapidly improving and gaining confidence. She hopes to fly in the Beginner Class next contest season.

There's a photo here that shows



Jerry Higgins practicing the pattern with his Cardinal 40. This picture is also taken at the AAM site. Note the RC electric site and model car track in the background. There is also a long concrete runway for the glow and gas RC planes east of the Control Line circle.

The Rocky Mountain Control Line Championships were held September 5 and 6 at the Front Range Airport, a few miles east of Denver International Airport. The site includes five circles on an asphalt parking apron. There's a photo here



that shows part of the Stunt area, which included two official circles and a practice circle. The contest attracted fliers from Colorado, Arizona, New Mexico, and Utah. The contest results are included below.

Norm Whittle took first in Expert flying his beautiful Stalker .76 powered Sultan.



Chris Brainard won Classic with his Caprice.



Keith McMahan won Profile with his Tower .40 powered Katera Profile.



and Old Time Stunt with his Tower .40 powered Humongous.



Mark Gerber took intermediate flying his Palmer Hurricane



which is powered by an ST .46, and Jerry Chambers captured first in Advanced with a Magnum .36 powered Brodak ME 109.



Russ Gritzko gave his lovely wife some flying lessons following the official flights.



We are not certain if his right hand is waving goodbye to his plane or if he is shading his eyes from the sun.

Mark Gerber sent this information about his new Veco Hawker Hurricane:

Scratch built to CAD plans drawn from Tom Dixon's plans and Veco kit plan

Span: 54 inches

Wing Area: 556 square inches

Weight: 44 ounces

Engine: T&L ST .46

Muffler: Strap on Adamisin tongue muffler

Prop: Rev Up 11 1/2 x 6

Glow Plug: Thunderbolt Long R/C

Spinner: Veco 2-inch with 1/2-inch shaft extension

Tank: 5 ounce Brodak uniflow; revented with muffler pressure

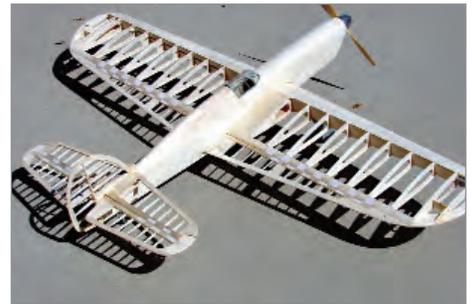
Canopy: 40 mil plastic vacuum-formed over basswood mold

Finish: Brodak dope and silkspan

Other: Molded 1/8-inch balsa turtledeck behind canopy

The "Powered by Veco" flags, Veco Hurricane, and AMA decals are water-slide repros that I had made. All other markings were painted using frisket film stencils.

There are photos here of Mark's Hurricane before finish



and of Mark's first Hurricane with Bob Palmer's at Bill Heyworth's home in Tucson.



Mark used these next pictures



for the color layout.

Here is Mark's Hurricane on the flight line in Denver this year.



Mark received the Spirit of '64 award at the 2009 VSC with this very nice Hurricane.

Jerry Higgins sent in the results for the Rocky Mountain Control Line Championships.

**Rocky Mountain Control Line Championships
September 5 and 6, 2009**

Old Time Stunt (Judges: Linda Brainard and Mark Gerber)

Keith McMahan	Humongous	Tower .40	282.5	1 st
Chris Brainard	Jamison Special	Brodak .40	279.5*	2 nd
LeRoy Black	Jamison Special	Brodak .40	279.5*	3 rd
Jim Rhoades	Humongous	Magnum .36XL	273.5	4 th
Jerry Higgins	Jamison Special	Brodak .40	263	5 th
Russ Gritz	Easy	LA .40	247.5	6 th
Jerry Chambers	Twelve	Fox .35	215.5	7 th
Tom Chambers	Ringmaster	O.S. FP.25	182	8 th

*Final placing determined by total score.

Classic (Judges: Linda Brainard and Tom Chambers)

Chris Brainard	Caprice	LA .46	553.5	1 st
LeRoy Black	Oriental	Brodak .40	552	2 nd
Keith McMahan	Gladiator	Magnum .36	546.5	3 rd
Jerry Chambers	Stills Stuka	Fox .35	503.5	4 th
Mark Gerber	Hurricane	T. Lay ST .46	420	6 th
Jerry Higgins	Jamison	Brodak .40	134.5	7 th

Profile (Judges: Linda Brainard and Jerry Higgins)

Keith McMahan	Katera	Tower .40	486.5	1 st
Jerry Chambers	ME 109	Magnum .36XL	390	2 nd
Russ Gritz	Pathfinder ARF	Evo .36	352	3 rd

PAMPA—Intermediate (Judges: LeRoy Black and Keith McMahan)

Mark Gerber	Hurricane Veco	ST .46	399.5	1 st
Bill Ledden	Cardinal Profile	Paw .40 Diesel	352.5	2 nd
Russ Gritz	Pathfinder ARF	Evo .37	326	3 rd
Tom Chambers	Flight Streak	O.S. .25 S	300	4 th

PAMPA—Advanced (Judges: LeRoy Black and Keith McMahan)

Jerry Chambers	ME 109	Magnum .36	432	1 st
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PAMPA—Expert (Judges: Linda Brainard and Jerry Higgins)

Norm Whittle	Sultan	Stalker .76	520	1 st
Keith McMahan	Katera	ST .51	500	2 nd
Dave Myer	King Bear	ST .60	499.5	3 rd
Chris Brainard	Caprice	LA .46	486.5	4 th
Jim Rhoades	Classic Akrobat	Retro .60	481.5	5 th
LeRoy Black	Oriental	Brodak .40	474.5	6 th

Please send in photos and information about your flying or new airplanes. Thanks. *SN*

Arizona, California, Guam,
Hawaii, Nevada, Utah

District X

By Dave Fitzgerald

Kids' basketball: Eric is deep into basketball season. He's playing center on two different teams/leagues. He's not that tall, but there aren't many kids that can push him out of the way for a rebound. Rachael and Michael's season hasn't gotten underway yet. However, everyone is recovering from the flu. Yes, probably H1N1. It hits pretty hard and Michael got pneumonia out of the deal. He missed quite a bit of school

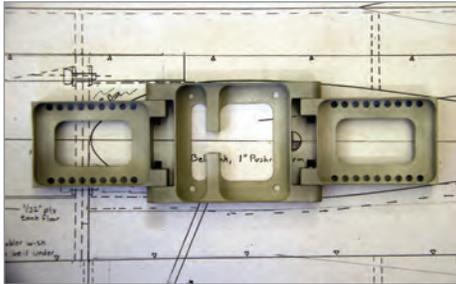
and wasn't that thrilled with catching up on his homework.

I do have to say that I've been doing a bit of homework catching up myself. Quite a while ago, Bob Hunt asked me to write an article about the Thunder Gazer. It's been done for a while, but I think we finally have room in this issue to publish it. Sometime later this year, the plans and a kit will be available from Eric Rule at RSM. We are working on the AutoCad

plans now with Robin Sizemore.

While I'm talking about Stunt stuff, I've recently been trading E-mails with Dallas Hanna, from North Richmond, New South Wales, Australia. He's a machinist by trade. There was a brief thread on Stuka about take-apart wing hardware he is making. The specs looked pretty good, and he makes a very nice machined aluminum joiner for the spar and trailing edge. If you are interested in

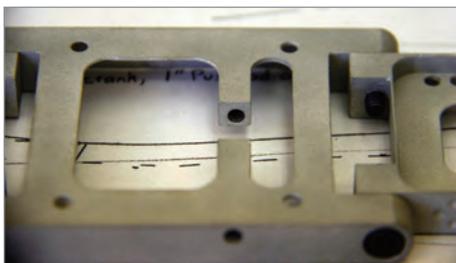
his hardware, feel free to drop him an E-mail or Skype call at: dhanna07@smartchat.net.au, dallashanna. He can/will custom build the hardware to match your choice of planes. There are two dimensions he needs to do this, 1. Wing thickness at the main spar location, 2. Interior Fuselage width at that same point. It may take a week or two, depending on his spare time, but he delivers on time and as promised. Payment is a bit tricky for overseas, but he has a PayPal account that works pretty good.



This is the heart of the spar joiner. The main center and wing joiner pieces weigh an even 50g. The trailing edge piece is 10g.



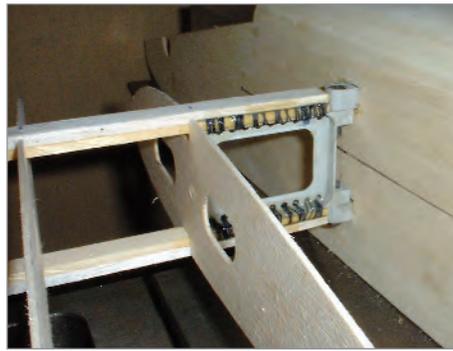
Wing joiner bolts and bellcrank mount.



Back side.



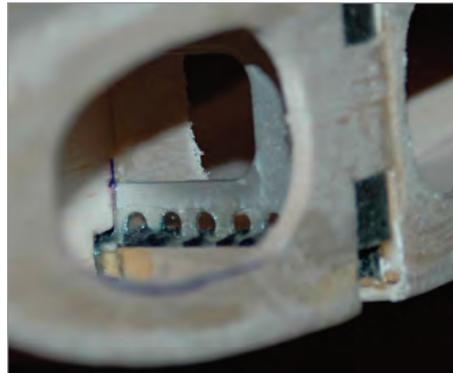
Excellent overview on Dallas's new project.



Close up 1 on the spar details.



Fuselage side of the mount.



Close up 2 on the wing spar.



This is what Dallas does in his spare retirement time/job. Looks pretty nice Dallas. Thanks for your help and work.

Jim Aron should have a comprehensive Golden State article in this issue as well as some nice pictures.

Just a couple of days ago, I got this note from Joe Parisi. It seems like I have known Joe for a long time, as far back as 1994 and the Shanghai World Champs. I get to trade E-mails, but mainly only get to catch up at the World Champs. I have had to correct a few things in his note, like the Queen's English:

Hi David:

Hope all is going well for you, Kathy and the children. We are all well here and the end of school term is only about 3 weeks away so the kids are very busy. Our Nats are getting closer too, so we are currently organizing for our trip to Albury, NSW in late December.

Well I finally finished my version of the Trivial Pursuit—see photos attached. It is built from the RSM plans, but I made the fuse slightly wider to accommodate any type of tank set up if required and fuse is slightly deeper to give adequate prop clearance with the carbon landing gear. I had trouble finding a tall enough landing gear as most were not designed with 13 inch props in mind. I also made some cosmetic changes to the fin/rudder shape.

Finished weight is 62 ounces. It has foam core wing, flaps, tail and fin/rudder. Molded balsa shells were used for wing tips, fuse top & bottom decks and wheel spats. Wing, tail & fin/rudder/rear fuse are removable as per Paul Walker's original Impact article. Finish is automotive acrylic lacquer paint with 2 part acrylic urethane clear top coat. I built in about 0.6 degree down thrust ($\frac{1}{8}$ inch over 12 inches of bearer length) and everything else is at zero-zero alignment.

Power is PA75 on pipe. I flew it yesterday for the first time and got in 4 test flights before it got too windy. The PA75 (brand new, just broken in a few weeks ago) is just awesome and the model & engine combination looks to be by far my best ever. Model was rock steady, tracked beautifully and overall I'd say it was generally in ball park trim. Lap times were about 5.5 sec/lap on 64 foot lines (eyelet to eyelet). The CG location is about 6.7 inches from the root TE and the lead out location at the tip is about 5.3 inches from the TE.

Looking forward to getting out again this coming weekend to do more trimming and practice.

Kind regards, Joe Parisi



Looks pretty nice Joe. However, Jim Tichy named his plane "Hot Pursuit" several years ago. Might have an international naming rights incident.



Another view of Joe's new plane.

I have just a bit more information on Joe's initial setup, he is using a Bolly 13x4.5-inch 3-blade at around 9k rpm, and will try the Eather blue 13-inch prop at 4.25, then possibly a 13.5-inch prop. Randy's newest 5-port PA75 @ 19.5 inches on the Smith Ultra Torque pipe.



Nicely done Joe. Hope the family is well.

I just got a note from Mike Keville asking me to remind everyone about the particulars on VSC-22, so here's Mike:

Dave:

You might want to mention VSC-22, which will be held March 16-20. Two days of OTS, will be followed by three days of Classic. Headquarters hotel is the Riverpark Inn, on the I-10 frontage road just south of the Congress Street/Broadway exit. Phone 520-239-2300 for reservations, being sure to say the full contest name at the hotel (not just "VSC") for the special group rate. Inquiries about the meet itself go to Assistant CD Robin Sizemore, ExpStunt@cox.net or 520-749-4434.

Regards, Mike K.

And now, a few words about the Fox 15 Hurl from the ever famous, Larry Fernandez:

This year's "Fox .15 Hurl" had 15 contestants. That was down a few from last year's 18. The temperature was about 100 degrees with no wind at all. Most

Hurlers opted for the high trajectory strategy. (High temp, high density altitude, less drag, longer hurl). The drawback to this technique is a somewhat shorter bounce since the field was a bit softer this year. Fred Staley went with the high trajectory "Hurl" and got a surprisingly good bounce. His 131 foot "Hurl", with his added 15 "Geezer points," netted him a 146 foot total. Good for third place.

This year's big surprise was "Word Stunt Champ" Dave Fitzgerald. Dave tried the low trajectory approach and got a decent bounce. When the junk motor came to a rest it had traveled 158 feet. Since Dave is still a Spring Chicken, he received no "Geezer Points" and had to settle for second place.

Robert Harness drove four hours to defend his title and he did not disappoint. With a low trajectory "Hurl," he got a very good bounce and subsequent roll for 165 feet! Good enough for first place without his 15 "Geezer Points." Congratulations Robert. Hope to see you defend your title next year.

Thanks to Uncle Jimby, the wonderful tabulators and the poor judges who stood in the hundred degree heat so we could fly toy airplanes. Uncle Jimby always runs a "First Class Contest."

Thanks. Larry, NorCal Circle Jerks

A quick but painful note from Jim Hoffman:

Hi Dave—I regret that my modeling activities came to a screeching halt first week in October. I injured my right foot w/ a dumb fall around the yard. I have two titanium screws in my foot that will be coming out in January. I missed all the AZ and So Cal contests in October and November. The SW Regionals in Tucson in January will likely find me attending as a spectator. —Cheers, Jim Hoffman.

Finally, the saga of the Woodland flying circles continues, this from Doug Barton:

Good morning:

As it stands right now, the field will close on November 30, 2009. We met with the Mayor, and the City Manager, last week. We are scheduled to do demo and sound measurement flights on December 5, 2009. These flights will be conducted with a flight pattern to the east, over the CL area. The mayor, Forrest, the pilots and reps from the home owners will be present. They will fly a jet and a large one third scale aircraft. If that all goes well, then we will reverse the field, until we can get relocated to a new site. The current CL area will be maintained, and will be

available for contests. When we hold a contest, the RC flying will be shut down for the days we have a contest. We will put in a temporary circle out by the road, and run water to it for keeping the grass watered. It will require a fair amount of work to make the changes, but we are out of options at this point. We are also looking at a couple of other alternate sites. Our main focus is still on the site west of the landfill. Con Agra, who owns the property, has not responded back to offers that have been made on the property. If we have any new news, I will let you know.

Regards, Doug. *SN*



Sunrise over Keith Trostle's FW190. Rickii Pyatt pictures.



Kirk getting the P-38 under way.



What? Who me, am I up? I don't know where the wind is, I was hoping you knew. Add your caption of choice.

District XI

By Bruce Hunt

Alaska, Idaho, Montana, Oregon, Washington

The last contest of the 2009 season, the Fall Follies, was held in Salem, Oregon the second weekend in October. As it turned out, the weather cooperated and there were good flying conditions for both days.

Saturday saw the final competition for the annual Vintage Stunt Championships with Bruce Hunt taking first place and the 2009 season Championship. John Leidle took second with Greg Hart third by a half point over Dan Rutherford. In the afternoon the Profile Stunt event saw a close competition between Greg Hart, Steve Helmick, and Dane Covey. With only a point separating Greg Hart's first place performance from Dan Covey in third, Steve Helmick managed to slip into second only a half point out of first.

In the Northwest the Profile event is often divided into two classes, Sportsman and Expert, to foster more competition. The Expert Profile class saw Dan Rutherford flying his patriotic Flightstreak to first place with Mike Haverly flying his KISS!², anything but simple, to second. John Thompson flew the Terrible Twin Flightstreak to third. You've got to love the sound of two O.S. .15FPs turning in perfect sync.

Sunday was a cool sunny day with a density altitude showing minus 200 feet, and that was affecting everyone except Paul Walker and his electric All American. In Expert class Paul showed us again how it should be done finishing first with Howard Rush second and Bruce Hunt third. Advanced competition participation has been light this season with several regulars moving up to Expert. Greg Hart took first in Advanced with Steve Helmick coming in second in his first Advanced showing.

Intermediate competition, unlike Advanced, has shown a significant increase in participation this year. Richard Entwistle took first place with solid flying in Intermediate. Dane Covey was second and John Witt third. In Beginner Robert Ladd made a good first competitive showing as the only entry.

With the 2009 season ending the Northwest looks forward to a series of Fun Flies beginning New Year's Day in Portland.

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**

Stunt News 90



Dan Rutherford's Flightstreak looks great against a blue sky.



Dan looks really spiffy in this season's "Dirt Shirt" specially produced from the red dirt of Arizona.



Part of Greg Hart's arsenal of models sits in the pit at Salem's Fall Follies.



Greg Hart sets the needle on his Falcon prior to a flight in Classic. Richard Entwistle is holding.



Dane Covey's Profile entry. Dane has been an up and coming competitor attending all the contests in the Northwest this season.



The pit at Salem's Fall Follies attracts a lot of parents with their young in tow.



John Leidle prepares his Skylark for Classic competition.



Bruce Hunt poses with his 2009 Vintage Stunt Championships Trophy and Southwick Lark. This is the second year in a row for both.



The bottom of Mike Haverly's Classic entry is displayed as Dave Royer does the heavy lifting.



Mike Haverly poses with his Expert entry, Shrike.



Mike Haverly's Profile entry is anything but the simple stupid machine its name implies. KISS!² is as technically advanced as Mike's full sized Shrike. Maybe he was implying it should have been simpler.



A close-up of Mike Haverly's Profile entry. Rear exhaust, tuned pipe, carbon fiber everywhere you look. If only he would fly with his handle right side up.



What better way to end a season than flying a beautiful model against a blue sky? Mike Haverly's Shrike takes center stage at Salem.

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Contest Reports

2010 AMA Control Line Aerobatics National Championships

July 12 - 17, 2010

Monday, July 12

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

Tuesday, July 13

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

Wednesday, July 14

7:00 a.m.	Control Line Precision Aerobatics Practice	L-Pad, Grass Circles
8:00 a.m.	Open/Advanced Qualifications Rounds 1 & 2	L-Pad

Thursday, July 15

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

Friday, July 16

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

Saturday, July 17

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

*Unofficial Event

If you are flying only unofficial events, you still must register with Nats headquarters and pay a small site use fee.

CHARLES A. MACKEY OPEN 2009

By Eric Rule

The Charles A. Mackey Open was held November 14-15, 2009 at the Whittier Narrows CL flying site in South El Monte CA. The event was sponsored by the Knights of the Round Circle (www.kotrc.org), and I was the CD.

The club workers arrived bright and early to set up the field for safety and get the pits ready for the competitors. Once the initial flood of pilots finished registering and the flight orders were arranged, the organizers had time to get things moving.

As a note of observation, I would like to mention that although we had requested early registration, only a third of the competitors did so. When asked why they waited until the last minute to register for their events, some pilots said that they had forgotten to send in their registrations while others claimed that they wanted to assure themselves of a later flight when there was "good air." What these individuals forgot was that all they accomplished was holding up the start of the contest because items which could have been completed prior to the contest had to be done before we could start to fly. As the CD, I had requested pre-registration so that we could have the flight order all done and be ready to fly immediately after the scheduled Pilots' Meeting. That is why the Pilots' Meeting was scheduled for 8:00 AM with the first flight starting at 8:30 AM. Due to the large number of entries having to be processed, we were unable to hold that schedule. As a result we did not start until 9:15 AM. That meant that 5 flights which could have been flown on each of the circles (a total of 10 flights) in the lost time period were not done.

All that these folks who simply forgot or who wanted to "assure themselves of good air" accomplished was to push back their own second round flight times into the afternoon when the



wind is sure to increase in velocity. This was in addition to inconveniencing all of the other competitors who had gotten out of bed early to arrive at the contest on time. When the Knights of the Round Circle asked for pre-registration, it was attempting to make the contest run more smoothly. If someone had registered and for whatever reason was unable to attend or had to scratch an event, the club would have been happy to refund the entry fees. In fact, we did that very thing in two circumstances on Saturday. Please remember that pre-registering is for the competitors' own good. In the future please do this.

After the Pilots' Meeting and a test flight for the judges, the 4 scheduled events began with Classic Stunt on the north circle and Beginner/Profile Sportsman on the south circle. It was great to see that Beginner Aerobatics had 5 entries with three youngster pilots. Profile Sportsman had 6 entries. The pit boss kept things moving and we finished the first round in just less than 2 hours. Since Classic had so many entries, we

decided that we were going to move Old Time Stunt to the south circle. In order to accomplish this move we allowed the judges to have a comfort break and grab something to eat then flew the second round of Beginner/Profile Sportsman 20 minutes later. In the meanwhile Classic Aerobatics was working its way through the 18 entries on the north circle. This meant that they would be flying for approximately 3 hours in order to complete the first round.

As soon as Beginner/Profile Sportsman finished the final round we started Old Time Stunt on the south circle. The 9 entries in OTS took approximately 1 1/2 hours to complete the first round. Again we allowed the judges a bit of time off to have a comfort break and chomp down some food. After that short break we began the second round. Everything was going beautifully until Larry Fernandez ("Evil Larry" to those of us who know him well) decided it was time to get one of

his lines caught in the line clip. The resulting crash of his very nice Don Still Stuka brought proceedings to an immediate halt. After the wreckage was cleared from the circle, everyone with the exception of the next pilot up and the judges gathered around the picnic table to discuss the crash, dissect what was left of the Stuka, and commiserate with Larry. A suitable time having been spent and everyone having offered their expert opinions, most of us got back to watching the rest of the second round.

While all of this was going on, the first round of Classic Aerobatics was completed and the pit boss gave the judges a bit of time off and started the second round. It is really nice when you have competent people running the pits, as it takes a lot of pressure off the CDs



CHARLES A. MACKEY OPEN RESULTS

Old Time Stunt

Bob Whitely	447
Dennis Choate	435
Keith Trostle	422.5
LeRoy Black, Jr.	416.5
Jim Rhoades	413.5
John Wright	412
Ray Firkins	390.5
Warren Tiaht	386.5
Leroy Polk	308

Classic Aerobatics

Bob Whitely	550.5
Stan Tyler	527.5
Keith Trostle	525
Dave Sabon	518.5
Ray Firkins	516.5
Antone Kephart	509.5
Jeff Reeves	508
LeRoy Black, Jr.	498.5
Warren Tiaht	495.5
John Wright	484
Chris McMillin	483
Gordan Delaney	475
Warren Walker	465
Jim Rhoades	458.5
Gary Gingerich	453.5
Nick Lemak	442
Larry Fernandez	214

Beginner Aerobatics

Dave Kick	170
Joe Passanante	124
John Gluth	75
John Passanante	35.5
Trevor Shorey	0

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Profile Sportsman Aerobatics

Brian Baker	420
Fred Staley	416.5
Jeremy Baker	350
Albert Shorey	333
Andy Borgogna	246.5
Joe Passanante	117.5

Icc/Leprechaun Aerobatics

Stan Tyler	469.5
Antone Kephart	448
Larry Renger	446
Warren Walker	430.5

Profile Competitor Aerobatics

Gordan Delaney	534.5
Bob Whitely	520
Ray Firkins	511.5
Dennis Choate	507.5
Chris McMillin	500
Keith Trostle	487.5
Warren Walker	485.5
Mark Wasnick	479.5
Pete Cunha	473
Larry Renger	454

Intermediate Aerobatics

Brian Baker	452.5
Jeremy Baker	446.5
Fred Staley	444.5
Joel Chesler	405.5
Albert Shorey	419

Advanced Aerobatics

Marshall Palmer	444
Clint Ormosen	440*

Pete Cunha	440
Larry Renger	435
David Passanante	430.5
Nick Lemak	425.5
Mark Wasnick	418
Gary Gingerich	417
Bob Brooks	405.5

* Awarded second place due to higher overall score.

Expert Aerobatics

Bob Whitely	574.5
Keith Trostle	567*
Gordan Delaney	567
Ray Firkins	552
John Wright	550
Antone Kephart	545.5
Dave Sabon	540
Stan Tyler	539.5
Warren Tiaht	537
Chris McMillin	535
Bill Ervin	526.5
Mike Causey	522.5
Larry Fernandez	522
LeRoy Black, Jr.	518
Warren Walker	515
Jim Rhoades	508
Kirk Mullinnix	Pass

* Awarded second place due to higher overall score.



worthy of notice. This year our honoree was Mr. Warren Walker.

The banquet was again hosted by Mr. Mackey, who regaled us with observations about the people he knew in the hobby/sport and spoke eloquently about Warren. After reminding us that Warren was no relation whatever to the great Jim Walker, he turned the rest of the event over to individuals in the crowd who had something to tell us about Mr. Walker. We learned

when they make good decisions without having to involve you in every step of the process. We ended the day at 3:30 PM and enjoyed Mr. Mackey awarding the trophies. After cleaning up the site and putting away the equipment we were off to the Double Tree Hotel in Rosemead (one exit west of the flying site) for the banquet.

Anyone who has ever attended the Charles A. Mackey Open knows that the Saturday night Banquet is the high point of the weekend. Every year we meet to have a nice dinner and celebrate the contributions made to the hobby/sport by some distinguished individual. Past honorees have been Charles A. Mackey, Dale Kim, Bart Klapinski, Col. Keith Trostle (USAF Ret.), Wild Bill Netzeband, and Ken Kaiser. Each year the previous year's honoree nominates someone whose contributions to our hobby/sport have been outstanding and

about Warren's days as a cowboy when he tried to drown a horse in quicksand and then tried to grab hold of a rattlesnake. Dave Kick described how Warren reacts in a crisis situation and then told us how Warren had contrived to fly spinner to spinner when Dave was flying in a different circle.

Evil Larry spoke about Warren's weekly building meetings and the "Tower of Honor" in his "man cave." He also explained fully that Warren Walker was not "Grizzly Adams." Larry Renger shared with us all of Warren's projects on behalf of the club. Bill Heyworth told of many shared experiences. After all of the honoring and roasting, we decided to allow Warren to refute some of the comments and attempt to restore his reputation. Now anyone who knows Warren Walker will understand that Warren is the original "gentle giant" without a mean bone anywhere in his body. Try to picture this giant of a man

with his fiercely bristling whiskers holding a microphone and scowling at the audience attempting with little success to manfully hold in his sobs. It was a beautiful moment!

After the success of Saturday night's banquet, we all arrived at the field on Sunday morning. The weather reports had said that we would have winds in the afternoon. With that looking us in the face, we got the Pilots' Meeting and test flights done quickly and started in on the first round. We were flying

Profile Competitor combined with Intermediate Aerobatics (15 pilots), Advanced Aerobatics combined with 1cc Aerobatics (13 pilots), and Expert Aerobatics (17 pilots). Once again we had to decide to switch our planned flight circles due to the unexpected high entry numbers in both Profile Competitor and Expert. We ran Advanced/1cc first in the south circle and started Expert in the north circle. The first round went smoothly for Advanced/1cc. We averaged 9½ minutes per flight, which means that the pit boss was keeping things moving fast. This allowed us to go on to the first round of Intermediate/Profile Competitor. Since we had five of the Expert flyers competing in Profile (all of them flying Gordan Delaney's Twin Pathfinder), we had to do a lot of shuffling of the flight order in the Expert's pit. Although this placed a lot of stress on poor John Gluth, he handled it very well and we had no delays in flights. We averaged 10 minutes per flight, and that is a testament to John's hard work!

With the Expert Aerobatics first round completed, we gave the judges a short comfort break and started the second round quickly. We also started the second round of Advanced/1cc as soon as the first round of Intermediate/Profile Competitor was finished. We got lucky when the wind did not come up as high as had been predicted. It is always fun to run a contest in the LA area. The weather reports are correct approximately 1/3 of the time (not very many weather stations between Hawaii and LA, so I guess we can forgive the inaccurate reports). On this day our luck was good with only a light wind which stayed fairly constant, so we had very little of the wind shear which sometimes plagues Whittier Narrows. This made the pilots very happy as they were able to astound us with their aerobatic abilities. We only had one crash which also made all but one pilot happy. We finished off the second round of Expert in great time and waited for Intermediate/Profile Competitor to finish. All flights were completed by 4 PM and Mr. Mackey again gave out the trophies.

When a contest goes off as smoothly as this one did, it is due to the hard work of the people who volunteer their services to help run the event. If no one shows up to help set things up and take them down, run the pits, do score keeping and post scores, judge the flights, and run the scores, you cannot hold a contest. The CD has very little to do with the outcome! My profound thanks and respect go out to all of the people who made this event run.

Submitted with respect. *SN*

MACKEY OPEN WORKERS

Saturday 11/14/09

Pit Bosses: John Gluth and George Barlow

Judges:

Classic: Larry Renger and Bill Heyworth

OTS: Antone Kephart and Frank Martin

Beginner/Profile Sportsman: Jim Lally and Stan Tyler

Scorekeepers: Elaine Heyworth and Sylvia Strickland

Sunday 11/15/09

Pit Bosses: John Gluth & Ray Ebert

Judges:

Intermediate/Profile Competitor: Andy Borgogna and John Wright

Advanced/1cc: Dave Kick and Dennis Coleman

Expert: Lee Strickland and Al Higer

Scorekeepers: Elaine Heyworth and Sylvia Strickland

Registration: Mike Godward



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The Appearance Point

By Bob Whitely



Formula "S"

I first saw the Formula "S" model in a hobby shop in the St. Louis area when visiting my friend Chris Mc Millin. I was enchanted with the color scheme and the styling of the airplane. Fast forward 15 years and a conversation with Bob Hunt where we both agreed that the "S" is arguably the most elegant model we had seen led to the one you see here.

I have endeavored to faithfully recreate this model as Jim had designed. I had gotten a picture from Keith Trostle of Jim's plane, but the colors were difficult to determine. Again speaking with Bob Hunt he said that Greg Zajack had built one and I should ask him. I have known Greg more than 30 years and called and he said yes had built one and thought he still had it in the rafters.

He brought it out to a contest in Southern California so I could see a real one with the correct colors which were Fokker Red and Diana Crème with black and gold and silver trim, and white ink lines. Greg builds front row planes and it was obvious that his had been one.



I am extremely pleased with mine as it flies superbly! I am still getting used to the way it reacts to control inputs as it is truly a competitive design. It exhibits Gene Shaffer-like corners, yet locks into level flight without conscious effort. It is an absolute joy to fly! It is only one of two planes I have ever had that would turn the third corner of the hour glass as hard as the first and do it effortlessly!

I am not known for building lightweight planes, however I tried to keep this one in the ball park and it did make it at 52 ounces all-up ready to go.

The Formula "S" has a very light wing loading with its 650 square inch area. Mr. Kostecky designed and built a gorgeous model that I am proud to fly and compete with in future events.

I have no doubt that the "S" will do very well wherever it flies. Watch for it at VSC mixing it up with the rest of the Classic planes!

Regards, Bob "AlfaDawg" Whitely. *SN*



Specifications:

Model Name: Formula "S"

Designer: Jim Kostecky

Construction Type: Built-up C-tube with shear webs on main spars and trailing edge

Wingspan: 55 inches

Length: 45.5 inches

Moment Arms: Nose: 9.75 inches,
Hingeline to hingeline: 15.5 inches

Weight Dry: 52 ounces

Power Package: Double Star 54 with
4-ounce plastic clunk tank

Propeller (type and size): 10.75 x 5.5
three-blade Eather carbon

Finish: Polyspan covering, all
butyrate dope, Sig colors

Line Length: 66 feet center to center
(handle/model)

