Stunt News **Precision Aerobatics I**

Pilot's Association

November/December 2014 \$5.00

2014 F2B World Championship Reports



features



2014 F2B World Championship Reports by Mark Overmier and Howard Rush **28** Plywood Control Horn Retainers by Bob Hunt



A Making Carbon-Fiber Pushrods by Don Ogren



On the cover: Igor Burger captured the Gold Medal in F2B at the 2014 World Championships that were contested in Wloclawek, Poland. Igor hails from Slovakia, and flew his original-design, electric-powered Max Bee model. This is two World Championship crowns in a row for Igor! Photo by Howard Rush.

Inside cover: Mark Overmier was invited to be the United States F2B judge at the 2014 World Championships. He took this beautiful photo as he was winging his way home from Poland. Mark Overmier photo.

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

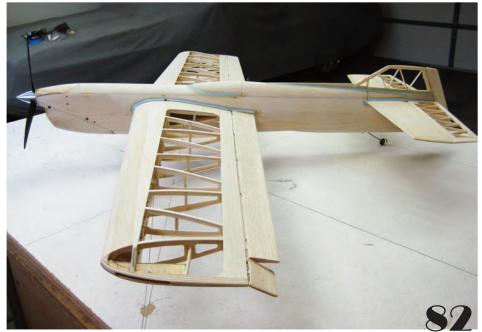
pampa news and reports

- President's Report Warren Tiahrt
 Level Laps
- 5 Membership Application
- 7 PAMPA officers contact information
- 56 Vice President
- 59 PAMPA Election Ballot
- 60 District Reports
- 85 Contest Reports

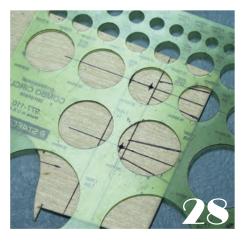


columns

44 IC Engines46 Flying51 E-Stunt







42 VSC Information
57 PAMPA Plans Service
96 PAMPA Products





November/Deceber 2014 1

President's Report

by Warren Tiahrt

It's time to concentrate on our membership numbers.

The year 2014 is nearly over. It has been quite a year with some good news and some bad. The most distressing fact is that our numbers are getting smaller. We have had several member deaths, and some longtime members have not renewed.

Shortly after I was elected, I received a copy of a letter from a longtime member and former PAMPA president who was upset that there was too much coverage given to the electric power-train systems and too little on the IC engine systems, and the "Technology Report" that Noel Drindak collects and summarizes hadn't been published recently.

Also, the contest results didn't have enough data to suit the critic. In view of this, he wasn't going to renew. That is his loss, since the 2013 Drindak report was published in the Jan./Feb. issue of *Stunt News*. The 2014 report was published in the Sept./Oct. issue of *Stunt News*, thanks to Rich Giacobone, who distributed the data forms this year in Noel's absence. Noel did summarize the data for publication.

Howard Rush is doing an excellent job with the contest results and includes info on the models used and power plants when he receives the data. Brett Buck is now authoring a column on the IC engines, fuel, and accessories.

Will DeMauro is doing an admirable job with his "E-Stunt" column. Paul Walker is in the middle of an outstanding series of columns on the art and science of trimming our CLPA machines. Bob Hunt is also working hard to get *Stunt News* back on schedule.

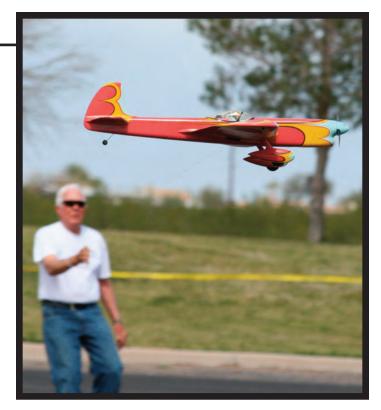
I would say that all is well with *Stunt News*, thanks to all those mentioned above and those who contribute the articles, tips, and how-tos.

It has taken awhile, but the new PAMPA website is up and running quite well. Yes, there have been some glitches, but they have been or are being addressed. There will be features added as time goes on. Bud Morrison is doing an excellent job.

Flying Models magazine has closed its doors, which is most regrettable. This magazine was the longtime premier supporter of CLPA, with countless construction articles and monthly CL Stunt columns since I can remember. Without *FM*, the only sources of CLPA information is the bimonthly column in *Model Aviation* authored by Bob Hunt, some articles in *Control Line World*, and PAMPA's *Stunt News*.

To my knowledge, *Stunt News* is the only publication that is dedicated 100% to the CLPA discipline. The information contained therein is simply without peer. IMHO (for us geezers this stands for "in my humble opinion"), the PAMPA membership is a real bargain.

By giving up just one Starbucks visit every other week, you



can be a PAMPA member with a printed copy of *Stunt News* to peruse in your own private library.

I think it is time for us to concentrate on increasing our membership numbers. Here's a suggestion that may help accomplish that goal. Each of us can canvas the guys and gals who come out to the flying field or to the next club meeting, or at the next contest, and check to see how many have never joined PAMPA, or have let their membership lapse.

You all know that *Stunt News* is the primary hook. Show them a recent issue of *Stunt News*, give them a sales pitch, and convince them that they need to be a member. They won't regret it.

While judging at this year's Nats, I had the pleasure of being teamed up with Dan Banjock, who had the Sept./Oct. *Stunt News* "Cover Girl," Samantha Hines, next to him as a judge in training. Sam managed to win Junior handily and is a delightful young lady. She would be an excellent ambassador as the USA FAI F2B Junior entry at the 2016 Control Line World Championships to be held in Perth, Australia. Of course, Sam would have to qualify for that berth on the USA team. That would really be neat.

After some gentle arm twisting, Bob McDonald has agreed to repeat as the CLPA Event Director at the 2015 Nats, and Curt Nixon also signed on again to be the Assistant Event Director. Both have stated that they would really like to get back to competing at the Nats rather that administrating.

Bob will be looking for volunteers for the upcoming 2015 Nats. If you would like to judge or just volunteer to be a worker, contact Bob at bobsp47@sbcglobal.net. It is not too early for one of you out there to step up and volunteer to be the CLPA ED at the 2016 Nats. Step right up out there; we need people to run these events.

'Til next time, may your fuel not be purple, and may your batteries have excess capacity.



We've come to the end of another year. Like all years, there were some good things that happened and some very sad things that occurred.

Our "analog" sport continues to survive in a progressively "digital" world, and that is a hopeful sign that some people still want to do things in the actual physical world, as opposed to living in a virtual world (I'll get letters, er, ah, emails about that statement...). Survival should not be the goal, however; we should be striving for healthy growth.

To that end, I've spoken with our PAMPA President, Warren Tiahrt, and have received the go ahead to put together a committee commissioned to develop a program that can be implemented by our members to bring the joys of CL flying, and CL Stunt flying in particular, to as many people as possible. I'm happy to report that there are a few PAMPA members besides myself who feel strongly about such a program, and they have contacted me about serving on this new committee. We have some very new ideas, I think, that will yield success. If you have an interest in being a member of this committee, please contact me soon.

The sad news is the fact that our numbers are continuing to diminish alarmingly fast, due to the natural aging-out process. We have lost a number of members again this year, and we are grieving their loss.

One great loss for me was the passing of John Miske. John, as many of you know, was the man who thought up the idea of Old-Time Stunt and brought it to fruition as a competition event in 1970 at the famed Garden State Circle Burners field. That event went on to become extremely popular nationwide, and even worldwide.

John's many other contributions to our sport are not as well documented as his OTS idea, but I can tell you from personal experience and observation that John's influence on the sport

<u>Level Laps</u>

by Bob Hunt

of CL flying on the East Coast was vast and positive. John served as the president of the Garden State Circle Burners for many years, and he also served as the contest director for many of the club's fantastic contests.

Back in the late 1960s and throughout the 1970s, the GSCB club hosted dozens of events that brought out huge numbers of contestants. I can remember getting to the club's field in Lincoln Park, New Jersey, at nearly the crack of dawn on contest days and finding the parking lot already full. By midmorning the line of cars parked out on the main road stretched for nearly a quarter mile!

Getting two official flights in at a GSCB contest was rare, as there were normally dozens of entrants in the CL Stunt event. The flying would start at 8 a.m. and go without stop until dusk! And, I cannot remember any problems that cropped up at any of those meets. The common denominator was John Miske, who ran the contests with a

calm and steady hand. John wanted everyone to have a great time. And, we always did.

On a more personal note, John was always incredibly supportive of my flying activities, and he was always available for counsel whenever needed. I'll miss him dearly. God Speed, John Miske.

Two worlds ...

Mark Overmier and Howard Rush have each submitted 2014 World Championship reports. We have decided to publish both reports in this issue because they are written from uniquely different viewpoints. Mark's report is a bit of a travelogue, but it also tells what the WC week is like for a judge. Mark was the invited USA F2B judge, and his experiences make for interesting reading.

Howard flew in the 2014 World Championships as a firsttime F2B team member. He's no WC rookie, however, as he has flown on two United States F2D (FAI Combat) teams in the past. Howard's astute sense of humor shows through in his very entertaining report.

You go ... girls

In the September/October issue it was reported in the Nats coverage that Samantha Hines had become only the second woman ever to win an official AMA CL Stunt event. I wrote that Dawn Cosmillo won the Junior division title in 1965, and was joined by Sam in that rather exclusive club this year.

Our PAMPA Historian, Wynn Paul has informed me that my reporting was inaccurate; it seems that there was one other member of that club. In 1989, Sharon Garrison won the official

continued on page 4

continued from page 3

Junior CL Stunt event at the Pasco Nats in Washington State. Sharon also flew in that year's Walker Trophy Fly-Off against Open winner, Jimmy Casale, and Senior winner, Nat Gifford. Sharon placed third in the Fly-Off, but she was indeed there and competing. My apologies go out to Sharon for the oversight.

Time for some to vote

The offices of district director for Districts II, IV, VI, VIII, and X, and the offices of vice president and membership chairman are up for election. The candidates for those offices are running unopposed (sounds more like model railroading than model airplanes), but as a PAMPA member you have the right to a write-in vote for your respective district director (if your district is among those listed above), and for the vice president and membership chairman if you so choose.

The original deadline for voting was December 31, 2014,

but, due to unavoidable setbacks in getting this issue out on schedule, the voting deadline has been move to January 31, 2015. Your ballot (presented elsewhere in this issue of *Stunt News*) must be postmarked no later than that date.

Welcome aboard Chris Rud

Our Web administrator, Bud Morrison, has done a wonderful job in getting the new PAMPA website up and running, and we all need to acknowledge and thank Bud for his service to our community. Bud will continue on as the administrator, but we now have a new webmaster who will interface with the membership to answer all member questions about the site, and handle the content aspects of the site as well. That person is Chris Rud. If you have any website questions, please contact Chris. His email address is me@chrisrud.com and his phone number is 815-557-5375.

Thanks for your service, Chris! sN

-Bob Hunt

ELECTRIC CONTROL LINE

Field adjustable timers/flight

managers for Electric CL, for all

ESCs, for all modes. Also throttle emulators for ground checks or test stands. \$10

and up.

Will Hubin, 719 Cuyahoga St., Kent, OH 44240; 330-678-9319;

whubin@kent.edu.





PAMPA Membership Renewal Instructions

The best way to join or renew your P.A.M.P.A membership is to log into the web page at (www.pampacl.org) and sign up.

RENEWALS:

You may also chose to print and mail the membership form with an attached check or money order to the address below.

For all renewals to be considered timely, they must be *postmarked* by December 31st.

Late renewals will <u>NOT</u> get back issues mailed to them; they are available on-line.

NEW:

Members joining after <u>**October 1st.</u>** will get full credit for the next year's membership. They will also receive Stunt News for November / December issues as a bonus.</u>

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

All members have full access to the website and all on-line back issues. These can be read or downloaded to your computer. You can file them, burn them to a CD's or print them directly from Stunt News in color..

Seasonal address changes (Snowbirds) must notify the Membership Chairman of address change and dates of the change; there are no automatic transfers of mailing addresses. (Both your addresses will be kept on file)

You are responsible to notify PAMPA of any address change.....it up to you to be timely!

MIKE STRAND PAMPA Membership Secretary N2 W31920 Twin Oaks Drive Delafield, WI 53018 Phone# 262-352-0645 www.pampamembership@geartekinc.com



PAMPA Membership Application or Renewal Form

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

| Membership Year 2015 | New Me | ember | , | Rene | ewal | A | ddres | ss change: | |
|------------------------------|------------|--------|--------|--------------|----------|-------------|---------|-------------|-----|
| Name: | | | | AMA No |) | | Age | : | |
| Mailing Address: | | | | | | | | | |
| City: | | | Sta | ite: | | _Nation | : | | |
| ZIP Code + 4 (or Postal Code |): | | Те | elephone: _ | | | | | |
| E-Mail address: | | | | | | | | | |
| Comp Member: check box: H | | св 🗆 | Oth | ner 🗆 | Date | e: | | | |
| Office only: Date postmarked | : | C | Date r | eceived: | | For | m com | plete: | |
| Annual Dues Options: | Please Che | ck One | e: | | Met | hod of | Pay | ment | |
| Basic Member-internet ad | cess only | \$35 | | Check | | M.O. | | Cash | |
| US Member – Bulk Mail | | \$60 | Che | eck No. | | C |)ate: | | - |
| US Member – First Class | Mail | \$70 | Cre | dit Card: (c | only Vis | a and M | C are a | acceptable) | |
| US Compact Disk | : | \$60 | Cre | dit Card No | D: | | | - | |
| International Compact Di | sk S | \$65 | Exp | piration: | (Mo | o./Yr) | | _ / | |
| Canada / Mexico First Cla | ass Mail | \$75 | V-C | Code: | (3 c | digits) | | | |
| | Aoil (| \$95 | Sig | nature: | Ар | olied ov | er the | e phone | |
| International First Class N | /iali | | | | | | | | |
| International First Class N | | \$5 | | Membersh | nip Caro | d, if desir | ed: | | \$2 |

| Mail to: | PAMPA Secretary | Phone: 262-352-0645 |
|----------|---|---------------------------------------|
| | N2 W31920 Twin Oaks Dr Delafield, WI 53018 | Email: pampamembership@geartekinc.com |

PAMPA Trustees

President: Warren Tiahrt

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

Vice President: Matthew Neumann Address: 2009 Forbes Rd..

Vincennes IN 47591 Phone: (812) 895-1476 Email: mrstuka@rocketship.com

Secretary/Treasurer: Jim Vornholt

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

Membership Secretary: Michael Strand

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

Newsletter Editor: Bob Hunt

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

District I Director: Steven Yampolsky

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

District II Director: Buddy Wieder

Address: 941 Potters Rd., Newton NJ 07860; Home Phone: (973) 940-1921 Cell Phone: (973) 479-0981 Email: bw427@ptd.net

District III Director: Ken Armish

Address: 310 Quarry Rd., Selinsgrove PA 17870; Phone: (717) 602-2144 Email: karmish@ptd.net

District V Director: Don Ogren

6172 Prestwick Ct. Spring Hill FL 34606 Email: clpa4029@gmail.com Phone: (352) 666-2901

District V Director: Derek Barry

Address: 5173 White Oak Dr., Appling GA 30802 Phone: (706) 833-9110 Email: derk21@hotmail.com

District VI Director: Dennis Adamisin

Address: 2124 Greythorn Dr., Fort Wayne IN 46815-8767 Phone: (260) 433-7198 Email: dadamisin@yahoo.com

Deadlines

Ad and Editorial copy Issue Deadline

March/April May/June July/August September/October Jan. 20, 2015 March 20, 2015 May 20, 2015 July 20, 2015

Postmaster: Send address changes to: PAMPA, P.O. Box 320, Plainfield, IN 46168-0320. *Stunt News* (ISSN 1076-2604) is the official newsletter of the Precision Aerobatics Model Pilots' Association (PAMPA), a not-for-profit hobby association, and is published bimonthly at 209 Old Easton Rd., Stockertown PA 18083. Annual membership dues are \$50.00, which includes a subscription to *Stunt News.* Periodical postage rate paid at Rockport IL.

Send camera-ready ads and payment to:

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

District VII Director: Bob McDonald Address: 28746 Westfield Livonia, MI 48150 Home Phone: (734) 421-4330 Cell Phone: (734) 748-5507 Email: bobsp47@sbcglobal.net

District VIII Director: Doug Moon

Address: 9121 Longmont Dr., Dallas TX 75238 Home Phone: (214) 340-3838 Cell Phone: (972) 529-8603 Email: dougmoon12@yahoo.com

District IX Director: Jack Pitcher

Address: 1744 Platte River Ct., Windsor CO 80550 Home Phone: (970) 460-0682 Cell: (970) 214-8017 Email: mjpitcher67@gmail.com

District X Director: Jim Hoffman

Address: 2658 West Montgomery Dr., Chandler AZ 85224 Home Phone: (480) 897-0630 Cell Phone: (480) 329-3316 Email: windswept4@cox.net

District XI Director: Mark Scarborough

108 NW Lancer Ln. Pullman WA 99163 Email: zedad71@hotmail.com Phone: (509) 432-5751

Advertising rates Page Size 1 Issue 6 Issues

| raye | 0126 | 1 12200 | 0 135065 |
|--------|---|----------|--|
| 1/8 | 2.25"X 3.50" | \$10.00 | \$60.00 |
| 1/4 | 4.75"X 3.50" | \$35.00 | \$210.00 |
| 1/2 | 4.75"X 7.00" | \$70.00 | \$420.00 |
| Full | 9.50"X 7.00" | \$140.00 | \$840.00 |
| Inside | age Color front or back cov le Back Cover | 6@ 1@ | \$225.00 \$1200.00 \$275.00 \$1500.00 |

2014 F2B World Championships, Poland

by Mark Overmier

The 2014 F2B World Championships were held in Wloclawek, Poland. I was fortunate and honored to be invited to represent the US as a judge. At each World Championships, six judges are invited. They must be from different countries, and one judge must not have judged at the previous championships. I was that judge. The other five judges were all experienced World Championship judges: Stepfan Kraszewski, F2B Head Judge (Poland); Rostislav Rozboril (Czechoslovakia); Serge Delabarde (France); Vladimir Salomatin, (Russia); and Joan McIntyre (Australia).

Thursday and Friday

I left Champaign at 5:30 p.m. and had a 2-hour layover in Chicago. A long flight to London followed, with a 2.5-hour layover there; then a 2.5-hour flight to Warsaw. After 17 hours of travel I was picked up, along with three others, and driven 2 hours to Wlocawek (pronounced Vloshlavek). I was dead tired after being up for 36 hours and crashed for the night.

The hotel was nice but certainly not up to American standards. There was no air conditioning, no soap, no maid service, and no screens on the windows. It was very uncomfortable sleeping in the room the first night, being hot and sticky. The weather was cooler after Sunday, so it was bearable by Monday.

The walls were paper thin and I could hear someone snoring. Around 2 a.m., an alarm clock went off and kept going for an hour until it finally quit. I was so tired I just fell back to sleep. Oh, and the beds were short, single-size beds. I'm 6-feet, 4inches tall, and I had to adjust furniture for my feet to hang off the end of the bed. When in Rome...

Saturday

I met up with Joan McIntyre, another F2B judge who hails from Australia, at the hotel, and we had breakfast together with others (Joe from Great Britain). I got a ride to the airfield to check things out. I spent most of the day with Joan, who introduced me to many, many of the attendees. I found out that Kenny Stevens had crashed his contest airplane and that Kaz Minato had loaned Kenny one of his airplanes to compete. Kaz is a pure gentleman!

Joan and I worked with two of the jury members and one of the contest organizers to get the circles ready (mowed again), the height markers properly calibrated, and the ready boxes set correctly. Everyone was working hard to get the contest grass circles in the best possible shape.

There were a lot of weeds growing in the contest circles. These circles were not very good and nothing like the grass circles at the AMA flying site. Because we were at an actual full-





Left: This is the hotel where I stayed while in Poland. It was clean and adequate, but not up to the standards we are used to in America. The walls were very thin, too!

Below: This Polish TS-11 Iskra training jet was on display at the flying field where the championships were held.

8



scale airplane airfield, there were no trees anywhere near the circles to cause turbulence. That was a good thing.

At this airfield there is a glider club and a parachute club, both of which were active all day long, all week. Gliders were constantly in the air. The parachutists were back in the air and jumping as quickly as they could repack their parachutes. At times there were 10 or more parachutes in the air at the same time.

A couple of light aircraft flew in, one in a British World War II paint scheme. I also took pictures of the two jets on static display at the airport. One is a MiG 15 and the other is a Polish-made TS-11 Iskra jet trainer (see the lead photo).

I had not had any problem communicating with any of the contestants or judges at that point. There were some workers at the airfield who didn't speak English, so we needed a translator. Usually, someone was close by to help out.

There was a wedding at the hotel that evening. I heard there were 300 people in attendance. A few of us headed into town to have supper and escape the loud wedding band. I was hoping that the festivities wouldn't go all night long.

There were a lot of sailplanes and gliders at the field on which the contest was held. They were constantly being





Sunday

Well, the wedding did go long—until 5 a.m.—and it was loud! No one at the hotel got any sleep. We were all tired at the field on Sunday.

I spent the day processing airplanes, which involved weighing them, checking the size of the airplanes, checking the spinner radius and the







Some of these fliers have been competing at a world level for more than 40 years!

Left: Traditional Polish dancers were featured during the opening ceremony.

Below: This beautiful and classic Ziln acrobatic aircraft

handled for safety, and marking all the engines, motors, and batteries. I was working with Serge Delbarde, Joan McIntyre, Vladimir Salomatin, Rostislav Rozboril, and Stephan Kraszewski to accomplish these tasks.

At 4 p.m. the Opening Ceremonies began. There were many dignitaries who spoke, a couple of traditional folk dances by young people in full costume, and an airshow that lasted several hours with parachutists, military helicopters, a Zlin aerobatic airplane, and an RC aerobatic model aircraft. It was wonderful.

After the ceremonies we went back to processing, and that

was on display during the opening ceremony.



lasted until 7 p.m. We spent the next two hours getting our score sheets for the next two days ready.

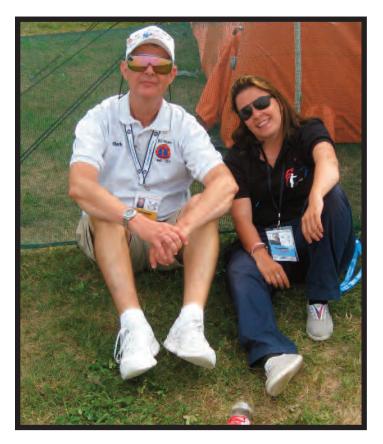


Here's the Fiat that I drove in Poland. It took me a while to find it!

I got a car on this day! One of the organizers gave me a set of keys to a Fiat, so from that point forward I could drive in Poland! It was dark when Joan and I went to find the car, when I realized I didn't know where the car was. I had to click the unlock button on the car remote and walk down the row of cars in the parking lot until the lights in my loaner Fiat went on. It was a long day.

Monday

This was the first day of actual flying! We were at the flying field at 7:30 a.m. for a calibration flight and started the first round



Taniq Uzanova from Slovakia and I taking a break between rounds.

at 8:30 a.m. We had 71 competitors split into three groups, which meant we would see each twice over the next three days.

It started raining at about 10 a.m., and it did not let up before we were finished for the day at 5:30 p.m. I stayed fairly dry with my rain gear, but it was hard to keep the score sheets dry. The weather did not cause any crashes on that day, so that was good.

One competitor flying an electric model had the cowling come off, but it was still held to the airplane by the battery wires. It dragged the ground on landing but did not depart from the airplane. The pilot was worried that once the cowling came off it would detach the battery from the motor and shut the motor down. He stopped flying the pattern in the Overhead Eights in case the motor quit.

We judged 47 flights on Monday. The judges on my circle were Stefan Kraszewski (F2B Head Judge and Head Judge, Circle A), Rostislav Rozboril, and me. Circle B had Serge Delabarde (Head Judge, Circle B), Vladimir Salomatin, and Joan McIntyre.

It was my second day of driving in Poland. It is nothing special—just the fact that I can say I have driven in Poland! I had figured out what the road signs meant, as they are mostly graphics with the speed limit posted as a number (in kilometers) in a large circle sign.

Tuesday

It was nice and cool on this morning, with lots of sunshine, but it didn't last long. The rain came and stopped the contest as it just poured for about 20 minutes. Then it was breezy and cold with the cloud cover. We had our first crash on this day when Keith Renecle's fuselage broke during the downward leg of the outside squares and went straight into the ground.



Keith Renecle's plane broke in the air, but it was soon repaired with the help of the Slovakians.



Here's what a typical lunch at the airfield looked like. Lots of pork and cabbage...

It was another long day with 47 flights to judge. We finished around 5:30 p.m. The airfield was very active again on this day, with some sailplanes being winch-launched into the sky and some being towed up by an airplane. The parachutists were also out in force again, with 10 to 15 jumping at the same time.

It was a very nice evening on Tuesday, and it was nice to just relax and listen to the birds.

I have learned that the people of Poland love pork, potatoes, carrots, and cabbage. I hadn't seen any fast food anywhere. The food was excellent! I had been trying to find out what I had been eating by asking. At lunch I asked Stefan what we were eating but he didn't know, and he is Polish!



Here I'm measuring the wind in kph at the airfield during second day of competition.

Wednesday

This was another long day, but at least there was no rain. We didn't have to look into the sun, either! Keith Renecle got his airplane back together with the help of a lot of friends in an all-night building session. The airfield was busy again on this day with parachutists and gliders.

Kenny Stevens cut his finger while trying to start his airplane during an official flight. He took an attempt to go stop the bleeding; it wasn't too bad of a cut.

We finished the day's flying at 5:30 p.m.

Thursday

It was very windy on this day at the beginning of the flying session. A storm came through just as the Japanese Junior entrant was getting ready to fly. We stopped until the rain went away. The wind was very close to the 9 kph limit in the morning. By afternoon it was still windy but flyable. (The weather forecast for Friday promised to be cold but with less wind.) The wind in the morning of this day was the worst I have ever seen anyone fly in; even some of our worst US Nats conditions were not this bad.

Igor Burger had a part of his battery hatch come off his airplane while in flight in the first round, which gave him a zero for the flight. He was the only casualty in the top 15 pilots on Thursday.

Even the parachutists and glider pilots stayed grounded on Thursday. Only those crazy model pilots were in the air!

Friday

Friday would be the final flight for the top 15 Senior and the top 3 Junior pilots. The winds were calm to start the morning but started picking up as the morning went on. Igor Burger (SVK) became the new Senior World Champion with Richard Kornmeier (GER) second and Jun Yang (CHN) in third. The Junior World Championship was won by Kazuya Yokoyama (JPN). Kazuya is a very good pilot—only 15 years old. He will be a force to contend with in the future!



Here are the F2B individual winners. The Gold Medal again went to Igor Burger (center), the Silver Medal to Richie Kornmeier (left) and the Bronze Medal to Jun Yang (at right).



Kenny and Orestes march by in the closing ceremony parade.

We had lunch and waited for the closing ceremonies at 4:00 p.m. At lunch I took pictures of the Chinese team and the Japanese team. The Chinese team gave me several souvenirs, which I really appreciated. The Japanese team also gave me souvenirs.



The Japanese team takes time out for some lunch.

The ceremonies were delayed as the F2A (Speed) event was still going. Evidently, there were many protests in both Speed and Racing that were slowing down the processing of scores. While we were waiting for the closing ceremonies, we watched several F2C races and the finals. What a race! All three finals' teams could have won, as it was that close. We witnessed a new world record set in the final race.

We got to see the F2B award ceremony before it started to



Here I'm getting to know the Chinese team. There were some new faces on that team.

rain, and we left. It was already getting close to 6:00 p.m. and the banquet was scheduled for 7 p.m.



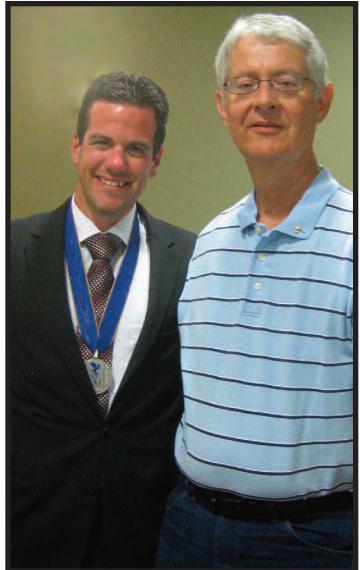
Howard and Marilou Rush enjoying the banquet.



Kenny and Deborah Stevens also seem to be enjoying the festivities. It was a tough contest for Kenny after losing his ship, but he flew very well with Kaz's loaner.



The new Junior F2B World Champion is Kazuya Yokoyama. He hails from Japan.



Richard Kornmeier and I chatted for a while at the banquet.

I went down for the banquet at 7 p.m. and two buses of people showed up. As everyone was getting a beer or drink, we were told the banquet was delayed until 8 p.m. The banquet finally began and the food started flowing into the banquet hall. There was icecold Polish Vodka on the table, along with champagne, and red and white wine. If you wanted to drink, this was certainly the place for it.

It was good to talk with everyone and congratulate the winners. Many photos were taken, toasts were made, shots of vodka drunk, and good food eaten.

Saturday

I was up and ready at 7:30 a.m. for the 2-hour drive to Warsaw for the flight to London. When I arrived in London, I found out the flight to Chicago was delayed 2 hours. This was going to make it very close for me to make the flight to Champaign. We arrived in Chicago almost three hours late. There was no way I was going to make it through Customs and Passport control and make my next flight. Evidently, British Airways also knew that and had a hotel room at the O'Hare Hilton waiting for me and rescheduled a flight to Champaign the next morning. I had a good night's sleep in a real bed in a real hotel room!



The long trip home began with this takeoff at the Warsaw airport.



I took this photo coming into London. That's the River Thames.

Final Thoughts

The Hotel Michelin in Wloclawek was more of a bed-andbreakfast place. I had three towels to last eight days. There was no maid service, nor air conditioning, nor screens on the windows. When it was warm I didn't want to leave the windows open and let the mosquitoes in. The bed was very hard and more like a futon with couch-type cushions. There was no soap provided and you had to go ask for more toilet paper.

The food was good, if you like pork, potatoes, carrots, and cabbage. After eight days I ate pork prepared in every possible way.



The police officers at the field were pleased to pose for this photo (very nice gentlemen!).

I noticed

that no one locked up their bicycles when at the airfield. Everyone was very friendly. Even the police officers were very friendly. When I asked if I could take a photo of their motorcycles, one of the officers said, "moment" and both took off their helmets, put on their caps, and posed for the photos. Many others also took photos of the two officers, and I think they enjoyed their moment in the sun. Most of the Polish people could speak English, some better than others. There was one lady in particular. I just could not figure out what it was about her English that was bothering me. The next day I finally realized she was speaking English with a British accent. I asked her about it and she explained she was a teacher. When she learned English, she had a choice of learning either American English or British English; she chose British.

Because of the many languages spoken at the World Championships, many people could communicate in more than one language. Consequently, you usually could find someone who could translate for you. I have found that you end up using lots of hand gestures when trying to explain to someone else what you are trying to say. Because Europeans communicate with all different peoples and different languages, that may explain all the hand gestures.



This memorial bolder was at the club field. I don't what its significance was, but it was a popular place for photos!

Judging at the World Championships was one of my bucketlist items. Check that one off! Spending 19 hours traveling 5,000 miles to a contest can be hard on anyone, and it took me two days to acclimate to the 7-hour time difference between my home town and Wloclawek, Poland. Judging just less than 50 flights a day in hot, cold, rain, and wind for five days straight is also strenuous. I spent several months prior to the World Championships walking and running three to four miles a day to physically prepare for the contest.

At this World Championship there were distractions. We had a team racing practice circle near us that was very noisy. There were gliders in the air all day long, constantly taking off and landing. Parachutists were overhead constantly from dawn to dusk.

I had to really work on concentrating to judge each flight in front of me. One trick I learned from Wes Eakin is to count *everything*! Counting not only helps you to determine if the competitor has done the proper number of laps or maneuvers, but it also keeps your mind on the task at hand. I found that I can't count silently in my head; I have to count out loud, even if it is just whispering to myself. Counting keeps me focused on my judging.

The World Championships was a wonderful experience, and I am ready to do it again! *sw*

Other links:

My Facebook page with photos:

https://www.facebook.com/mark.overmier.9/media_set?set=a.940 938669265252.1073741825.100000473828538&type=3

Official 2014 World Championships home page: http://cl-wch2014.pl/

Taniq Uzunova's Facebook page (Check this out for lots of WC photos!): https://www.facebook.com/taniq.uzunova

Stunt News 16

The Statue of Liberty, the American Revolution, Stalin, the Battle of Britain, the Flying Tigers, King Kong, and the Insignia on My Stunt Plane by Howard Rush

The plane Dave Fitzgerald flew in the 2008 World Championships in France had a stylized Statue of Liberty, a gift from France to the United States, on its tail. I thought showing this link between the two countries was extremely cool. I looked for a similar link between Poland and the United States to display on my stunt plane for the 2014 World Champs. I found one.

Tadeusz Kosciuszko courted a nobleman's daughter in Poland. The nobleman had his boys beat up Kosciuszko because he was *putki*¹. Thus acquiring a distaste for aristocracy, Kosciuszko audited military classes in France and lit out to join the American Revolution. He designed the fortifications at Saratoga and West Point, which turned the tide of the Revolution in the North. He became a brigadier general, was called "as pure a son of liberty as I have ever known" by Thomas Jefferson, and is largely forgotten in





An RAF 303 Kosciuszko Squadron airplane notes the 126 enemy planes downed by the squadron in the Battle of Britain. Photo from Robert Gretzyngier.

the US, except for some hard-to-spell place names. Kosciuszko returned to Poland, where he led a revolt against the occupying Russians and became a Polish national hero.

Captain Merian Cooper, a US Army aviator, was working in a post-World War I food aid program to Poland in 1919 when

Poland got into a war with the Soviet Union. Cooper organized a squadron of Americans and Poles, who assembled a motley collection of airplanes—one American brought his own Sopwith Camel—and named it the Kosciuszko Squadron. The squadron's insignia included the 13 stars and stripes of the Betsy Ross flag, and hat and crossed scythes representing the farmers that Kosciuszko led into battle for Poland.

The Kosciuszko Squadron defended Lvov from the Red Army by air power alone, almost causing the court martial of the political commissar in charge of the attack, Joseph Stalin.

In 1939, the Kosciuszko Squadron, flying later variants of the plane we know as the Sterling Polish Fighter, held its own against the invading Germans, although outnumbered and outperformed by Messerschmitts. Kosciuszko Squadron members, along with other Polish military, escaped to fight in France and England.

The British reluctantly let the Polish pilots fly in the Battle of Britain. The RAF Polish 303rd Squadron, the battle's highest-scoring squadron, bore the Kosciuszko Squadron insignia on its planes. In 1943, Cooper, then Claire Chennault's chief of staff, recruited Witold Urbanowicz, veteran of both the Polish and RAF

Kosciuszko Squadrons, to join the Flying Tigers, where he scored 11 more kills.

Between his service with the original Kosciuszko Squadron and with the Flying Tigers, Cooper produced and directed the movie *King Kong. sn*



Stunt at the 2014 World by Howard Rush Championships

With many well-known stunt fliers not having attended last year's Team Trials, I was invited to fly stunt at the 2014 World Championships in Poland. This required more work than I expected. The work having been done, I packed the airplane into a Kevlar-lined "shoebox," and we set out for the airport.

Although I had prepared for TSA hassle with documents and a photo essay on how to unpack and repack my airplane, my wife and I, the airplane box, and the LiPo batteries got aboard the flight to Chicago with no hassle. We encountered Dennis Moritz between gates at O'Hare, but his handler wouldn't allow him to tarry and visit with us. We met Kenny and Deborah Stevens at the LOT counter. They had driven up from Kentucky.

This was Kenny's first World Champs and my first flying stunt. Our third member, veteran Orestes Hernandez, was flying from Miami later in the week. The rental car lady was most generous in giving us a free upgrade to a Renault Scenic, meanwhile charging us \$1,000 more than my wife, Marilou, thought we'd pay. The Scenic is a pretty cool short with many gadgets, including what may have been the finest cruise control logic I've seen, had I figured it out.

After several trips to the phone kiosk to ask how to enter the SIM card code, we established telephone communication and lit out. I can imagine the joke going around the Warsaw airport: "How many Americans does it take to activate a SIM card?"

Google Maps gave us a route to Wloclawek, but when I zoomed in on the satellite picture, I saw dirt paths with construction equipment sitting around. In some places the route went through untouched fields. I bought a new European GPS data base to find our way.

We were delighted to find excellent freeways all the way to



Howard's airplane fits into this wee box. A two-piece fuselage would have allowed more volume within the 62-inch-total-dimension airline constraint.

We took LOT, the Polish airline, from Chicago to Warsaw. This was the first time I'd flown on a 787, a project I'd worked on from its beginning. The 787 was a little disappointing, but the window dimming was pretty cool. Among the stuff they fed us were Prince Polo candy bars and black currant juice, Polish specialties of which we bought lots after our arrival.

The *Economist* told of a bloated Polish public sector, so I imagined spending hours filling out forms when we arrived. We didn't even get a head start on the plane, as one does when entering the US. Nope! They just looked at our passports and welcomed us to Poland.

Wloclawek. The rest areas included showers, playgrounds for kids, and McDonald's. We dined at the latter and observed that all Poles wear English-language T-shirts, usually with American themes. One gentleman with a size 24 collar wore a Route 66 Tshirt with some text referencing a café in the Northeast—New York, maybe. It was obviously bogus. Kenny suggested I take him to task for this misrepresentation. I let it slide this time.

Our hotel was very nice. It wasn't one of those old European hotels where you leave your props out in the hall at night and the staff balances them while you sleep, but it was just fine, particularly at \$50 per night. Restaurant meals in Poland are



Above: A Polish girl in national costume identifies the US team at the opening ceremony.

similarly fine and inexpensive. Tapas, a Spanish-theme outdoor restaurant on the town square, became pretty much the official restaurant of the North American stunt and combat teams. They had the best roasted potatoes I've ever eaten, and I ate a bushel of them most every night.

A guy who had flown in the helicopter WC at the same site last year gave us a good description of the contest venue. It is a big grass field used for sport aviation such as soaring and parachuting, free from wind obstructions like the Muncie AMA facility, but with an untended surface like the grass areas between sites at Muncie. I took three sets of landing gear with different wheel positions to deal with any terrain.

We arrived at the contest site a





Left: Keith Trostle keeps the lines off the wet weeds as Orestes signals the start of his flight. Our team used Mark Overmier's yellow jacket as the marker for starting wingovers, same as at the US Nats.

Below: The Japanese and Chinese delegations pose for a picture together. The World Champs is the most competitive Control Line contest on the planet, but it's also a big fun-fly.



few days early to find line-grabbing clover and dandelions several inches high at the stunt circles. We then drove around looking for a place to practice stunt to no avail. (*Been there, done that!*—*Ed.*). The organizers mowed two official circles and one practice circle Tuesday. They mowed only the circles. They put sheets of plastic over the weeds for a pull test area.

Unwilling or unable to mow more, the organizers were extremely helpful about everything else. They called me at the hotel to tell us when the field was ready for practice. They brought in a fire truck from town to wet down the official circles and then rolled them. When the combat guys complained about dust blowing from a dirt road near their site, the organizers got a water truck to run up and down the road continuously sprinkling the dust.

The practice circle was still really rough. We established a procedure where one guy would stand just outside the circle next to the takeoff path so he could grab the airplane and pull the plug in case of a noseover, thus avoiding burning out a motor or ESC. Our procedure had prepared us for the wrong problem.

I was on nose-over duty for Kenny, but I was useless when his prop hit some dirt and threw a blade, causing an imbalance which instantly shook the nose of his beautiful plane off. Kenny and Keith fixed the plane in time to fly again the same day. Alas there was unseen interior damage that caused the fuselage to fail on the **November/December 2014 21**



Left: Howard asked Lauri Malila if the engine in his Yatsenko Shark was a TeeDee .65. "Yes," he said, "Cox only made a few of them." It's actually a Metkemeijer stunt engine.

Below left: Jerker Vinna of Sweden flies this Gordan Delaney-designed Pathfinder. Jerker also has a 1955 Chevy.



first wingover pullout, annihilating Kenny's plane.

An amazing international response followed. Igor Burger arranged for Kenny to use a Slovakian model that belonged to a guy who wouldn't be flying in the World Champs. The Dutch team manager bicycled over to tell us that Bruno van Hoek and Henk de Jong were still at home in the Netherlands and would displace some cargo in their car to fit in a plane for Kenny. Bene Rodrigues of Brazil offered the use of a new Shark that he'd just received from the Yatsenkos. Kaz Minato let Kenny use his Blue Max. Kenny knew Kaz and his models and felt most comfortable accepting Kaz's offer. It took Kenny a few flights to trim the Blue Max to his liking, after which he flew it confidently and well.

Temperature and altitude in Wloclawek were similar to those of Seattle, so I was fortunate not to have to do much trimming. A leadout tweak and a couple of gain changes in the electronics and I was ready for Teddy. Orestes was cheerfully intense as usual and spent his time flying or waiting to fly over the weeds, launching from a corner of the paved area used for team race practice. None of us got in as much practice as we would have liked, but we had fun visiting between flights.

As at other recent World Championships, a World Cup series contest took place first. Stunt was limited to 30 entries. Kenny and I were able to get in. The World Cup contest started after Kenny's crash, but before he got a replacement, so I was the sole US entry. I came in sixth. Igor Burger, the current World, European, and

Above: The well-dressed Chinese team seemed to be having more fun than in past World Championships. Yang Jun, who placed third, prepares for a finals flight.

Second-place winner Richard Kornmeier flew his Tom Lay Supertigre .60-powered model, rather than his new electric plane. He said that he did this, "In memory of my friend, Tom Lay."

3-K4

* CEP. 2826

ST/

KOORDY

World Cup Champion, won. Igor is good at stunt. He has a deep, theoretical understanding of stunt flight dynamics. He makes his own equipment, including an autothrottle with inertial sensors, a nonlinear flap mechanism, and an NC-machined fuselage. He designed and analyzed his airfoils using computational fluid dynamics. He practices a lot, including practicing flying at all angles relative to the wind. Igor's airplane is beautiful at a distance, but it is filthy. It looked as though he had never cleaned the insects

Marshall

GERMANT

November/December 2014 23

A hard-working tow plane hauls up another glider. The contest was at a full-scale sport aviation field. Flight and parachute operations went on next to the contest circles. Stunt fliers would start a wingover and then be surprised by a sky full of parachutes overhead. One parachutist landed in the stunt practice circle!



off the wing leading edge. Guys were threatening to wash his airplane. Somebody remarked that his airplane would be put on the back row at the US Nats. "They would not let me fly at the US Nats," he said. "There are a thousand wings on my model, and I built only two of them."

There was a nice lunch buffet at the field with good Polish food. One day while we were dining there, I noticed a guy from Kazakhstan with another Route 66 shirt. It mentioned Austin, Texas, which we know from the song is not on Route 66. Bill Lee was sitting a few tables over. I know that team management likes to take care of problems like this, so I pointed to the shirt and gestured to Bill. Bill didn't act, so I was forced to deal with it myself.

The Kazakh had me





Above: Dane Dan Hune had vortex generators on his Yatsenko Shark. Howard pointed out to Dan that the more VGs one has, the higher his score. "I know," Dan said, "I have all I need."

Left: Igor, Alex Schreck, Jan Stano, Svorad Sýkorčin, and Tania Uzunova rebuilt Keith Renecle's destroyed Newtron in five hours. It flew well the next day.



know that his brother-in-law in the US sent him the shirt, which meant that it was authentic.

The two qualifying rounds were spread over three days and what would be three weeks' worth of Muncie weather. I got pretty good conditions for my flights. Some didn't.

Lauri Malila asked me, "What scoring range do you use in the US?" He was puzzled at receiving a 3 for his square eights from Mark Overmier. I looked at his scores. Mark had given him a 30. F2B scores go from 1 to 10 in tenth-point intervals. The tabulator assumed the 30 to be 3.0. Lauri called it to Mark's attention. Mark did the metric conversion, and the officials rectified the score with no fuss.

Igor Burger and Alex Schrek were a constant presence on the field, but one afternoon they disappeared. Keith Renecle

Above: "Come back, man!" Disappointed with Howard's decline to F2B, Vernon Hunt urges him to return to his F2D Combat roots.

Right: Illustrating the international spirit of the World Championships, Bulgarian Tania Uzunova, the team manager of Slovakia, wears sneakers with Phillipine flag tongues. Note the Rabe rudder mechanism on Igor Burger's airplane. Mark Overmier prepares to judge in the background.





Left: Two-time US Nats champion Orestes Hernandez of Miami led the US Stunt Team, placing fifth.

Right: Polish big-box stores have everything a stunt flier might need.

Below: Within the Stalin building (see the photo on the next page) is a museum with this Lego depiction of the assassination of Archduke Ferdinand. It is a display so bizarre that Dennis Moritz could have made it, and there is possible evidence that be did that he did.



of South Africa had destroyed his airplane, and the Slovakians went off to fix it. The rebuilt airplane appeared the next day and flew well. Such cooperation was common. Everybody helped everybody.

Of the US team, only Orestes was invited to fly in the 15person finals. The first two of three finals flights were on Thursday. Thursday morning began with a howling wind, much like the notorious Top 20 day wind at the 2003 Nats. Finals score is the best two of three flights. Everybody flew the first round, but the weather was so awful that nobody's flight counted. The weather got better.

Orestes had the last flight of the day and flew some good stunt. A circle being available after the official flights, Orestes flew continuous stunt until dark. I stayed to help, but my judging and coaching skills are nil, so about all I could do to help was to let go of his airplane.

The weather for the third round on Friday started with calm, then got thermally, then became nice for Orestes's flight, then got windy, and then rained. The judges took a rain break with one flight to go. Muramatsu-san flew the last flight in good conditions.

Igor won again. The difference in score between first and second was greater than the difference between second and fourteenth. Second place was Richard Kornmeier of Germany, the 2010 World Champion.

Richie has class. He dresses in white to fly stunt, as a stunt flier should. He has gone electric, but he reverted to his Supertigre .60 for this contest in honor of Tom Lay. Third was Yang Jun of China, flying a four-stroke. Yang was thirteeth in 2012. Former World Champion Han Xin Ping was not on the Chinese team this year. The other two Chinese contestants flew electric airplanes. They had lights on the sides of their planes, so you know they're cool.

Andrei Yatsenko was fourth. We gave him a Boeing hat to replace his less-sightly Antonov hat, and he wore it all week. Our own Orestes was fifth. The top Junior was Kazuya Yokoyama of Japan, son of former US Nats finalist Mitsuru Yokoyama. At the banquet the elder Yokoyama-san handed out rubber ears, which he thought were hilarious. (*The Japanese team gave me one at the 2004 World Championships, and I can tell you from experience, they are hilarious!—Ed.*)

The World Champs traditionally concludes with a banquet. I have attended some of those banquets, which mainly served to remind me what a bad idea it is for people to drink alcohol. This year's banquet was the finest I've attended. It was in a fancy hotel, the excellent food was served on time, and there were no speeches.

I thank PAMPA and other donors for your support of our team. I also thank Bill Lee and Keith Trostle for taking care of our team so we could concentrate on flying. The World Championships is a great venue at which to see old friends, to meet new ones, and to see some awesome flying. I recommend the experience to you, whether you go as a contestant or a supporter. SN





There are a number of ways to anchor the flap control horn to the trailing edge of the wing. In the past I've used the formed brass strap method with some success, but I was never able to fully ensure that I had the horn positioned perfectly in the vertical plane on the trailing edge, and the straps were difficult to adjust.

I started thinking about a better way to secure the horn that would allow for finite vertical position alignment of the horn. What I came up with was custom-made $^{1}_{/16}$ -inch thick plywood retainers that capture the horn bearing on either side of the horn upright and fit up over the wing. By carefully sanding the internal surfaces of these plywood retainers as required, I could ensure that the horn was perfectly positioned.

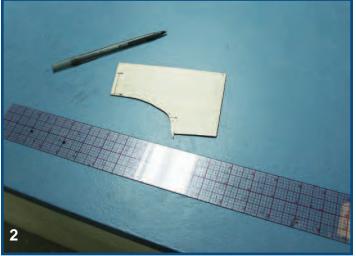
Each wing and horn arrangement will require a specially designed and made set of retainers, but the actual steps to make these pieces are very simple and can be done with normal model shop equipment. The idea here is to ensure that the brass tube horn wire bearings are lined up vertically and also horizontally from end to end to prevent any binding, and to ensure that the horn wire will not be pushed back from the trailing edge of the wing over time.



Designing and making the retainers

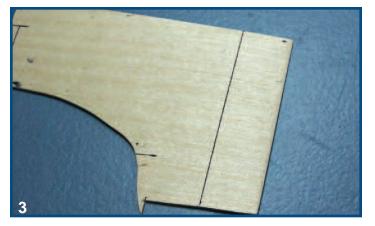
The photos contained in this article probably contain enough detail so that written instructions are not required. There are, however, a few critical operations that might benefit from some additional information.

In Photo 1 the flaps are attached to the control horn, and the horn is positioned against the trailing edge of the wing in the desired final position. Note that the front of the dual horn uprights will interfere with the back face of the trailing edge cap. Relieve the trailing edge cap as required to allow the horn to fit snuggly against the trailing edge and be able to arc through its entire range of motion without hitting any portion of the trailing edge cap.

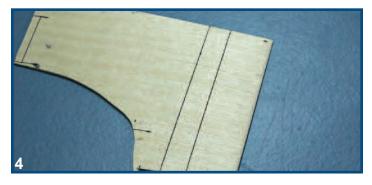


Make the retainers from a piece of scrap ${}^{1}/{}_{16}$ -inch thick birch plywood. Photo 2 shows the items required for the initial layout of the retainer blanks. A straightedge and a ball point pen are needed here.

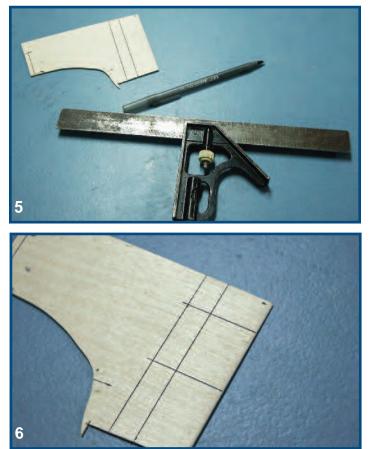
Stunt News 28



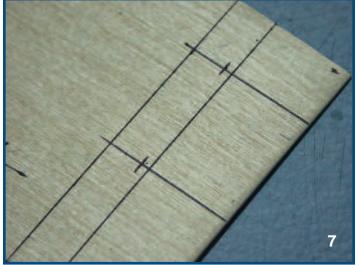
Start with a clean cut and sanded straight edge on the scrap plywood. Make a pen line ³/₄ inch in from the straight edge of the plywood. This line should be parallel to the edge of the plywood from top to bottom (see photo 3).



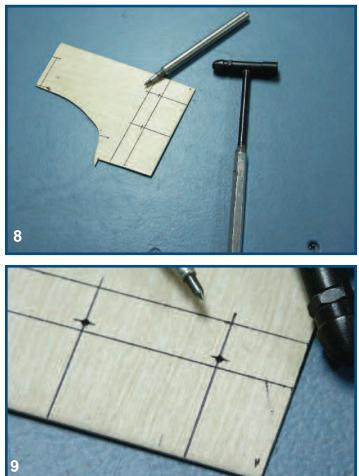
Scribe another pen line $\frac{1}{2}$ inch beyond the first line. This line will be $1\frac{1}{4}$ inch from the edge of the plywood (see photo 4).



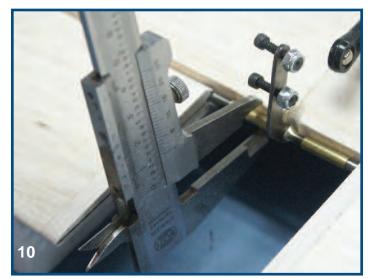
For the next step you will need a combination squar (see photo 5)e. Scribe two lines that are 90° to the edge of the plywood. These lines should be drawn nominally $1\frac{1}{2}$ to 2 inches apart. These are the center lines of the two retainer pieces (see photo 6).

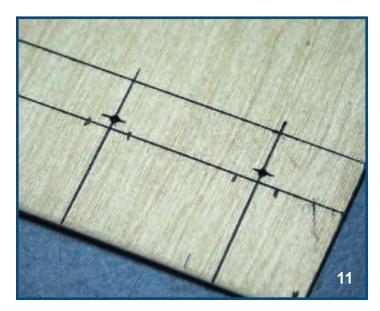


The next line to be drawn is dependent on the diameter of the horn wire bushing (see photo 7). If the bushing is ${}^{5}\!/_{32}$ outside diameter (used on a ${}^{1}\!/_{8}$ -inch horn wire), you will need to scribe a short line half that dimension (${}^{5}\!/_{64}$ inch) aft of the pen line that is ${}^{3}\!/_{4}$ inch from the edge of the plywood. (If you are using a ${}^{3}\!/_{32}$ -inch flap horn, the bushing's OD will be ${}^{1}\!/_{8}$ inch and you will have to drill these holes accordingly, ${}^{1}\!/_{16}$ inch aft of pen line that is ${}^{3}\!/_{4}$ inch from the edge of the plywood.)



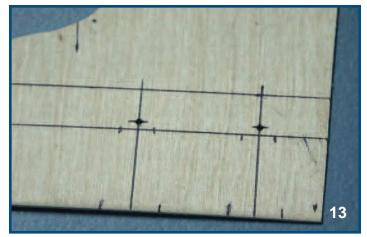
Using a center punch, or an awl and a small hammer, make accurate indents at the intersection of the short lines that you just made and the retainer center lines (see photos 8 and 9).



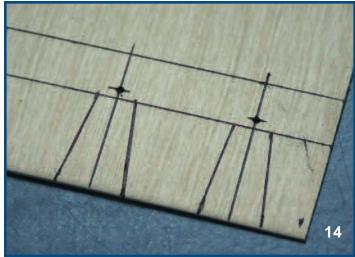


Use a Vernier caliper to measure the thickness of the rear edge of the trailing edge. Halve that dimension and make marks either side of the center line of each retainer (see photos 10 and 11).





Again, use the caliper to measure the thickness of the wing ³/₄ inch forward of the rear face of the trailing edge. Halve that dimension and make marks either side of the center line of each retainer at the edge of the plywood (see photos 12 and 13).

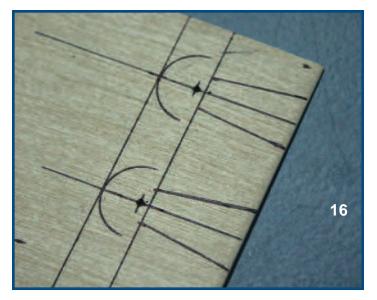


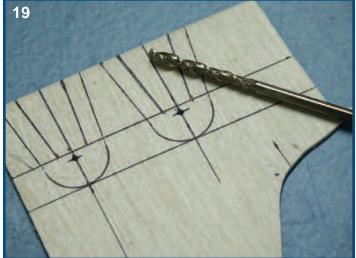
Use the straightedge and the ball point pen to connect the two marks just made on each horn retainer blank (see photo 14).



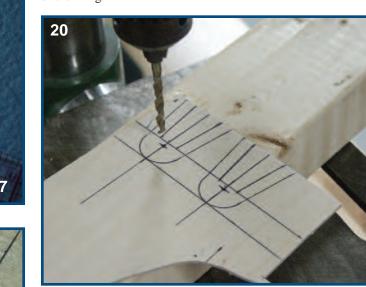
Using a circle template, scribe a half circle as shown in photo 15. The diameter of this circle is dependent on the thickness of the trailing edge of the wing. The idea is to scribe two arms that have at least a $\frac{3}{16}$ -inch top-to-bottom depth. A study of the photos should make this clear.

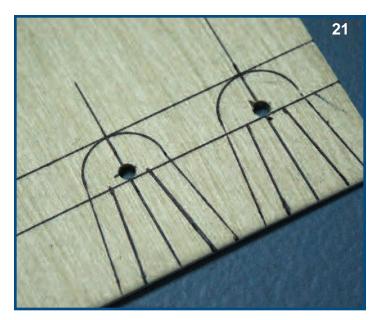
Stunt News 30

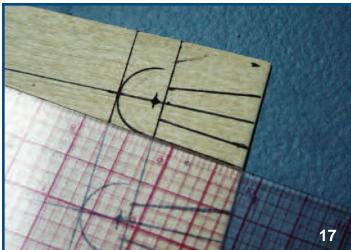




Using the appropriate diameter drill to suit the outside diameter of the horn bushing, very accurately drill holes as shown in photos 19 through 21. Note that the front edge of the holes *just touch* the point that will fit up against the trailing edge of the wing.

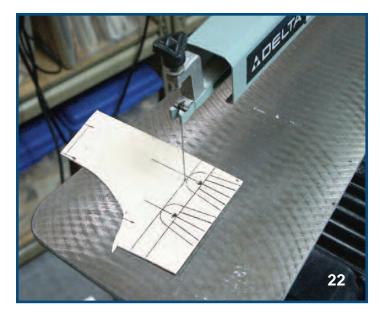


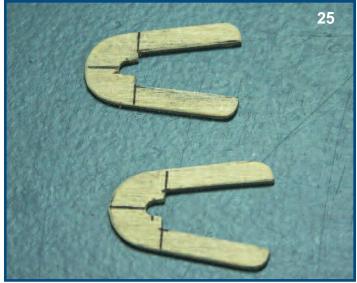


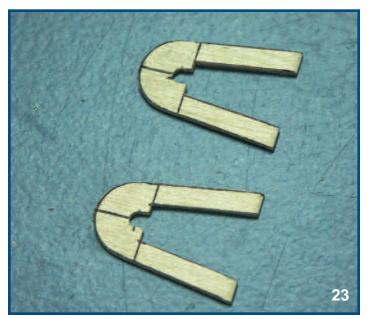




Scribe lines parallel to the face of the retainer that will fit against the wing to achieve sufficiently robust attachment arms (see photos 16, 17, and 18).

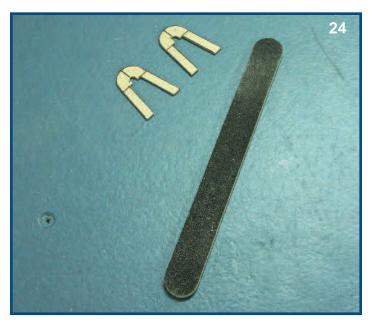






Using a scroll saw, accurately cut out the retainers, and then sand them until all surfaces are smooth (ee photos 22 through 24). For better appearance during the building process (you know, to impress your friends who come to visit during building season), round off the front edge of the retainer arms as shown in Photo 25.

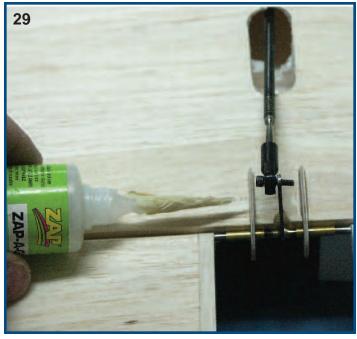








Test fit the retainers, and ensure that when they are in position that the horn is perfectly aligned in all planes. You will probably have to adjust the retainers by sanding the arms as required. When you are totally satisfied with the horn's location, carefully glue the retainers to the wing using gap



filling CA glue (see photos 26 through 29).

Be very sure not to let any CA get into the horn bushings. You should also glue the retainers to the horn bushings. You can use the CA glue for this, or you can use a dab of five-minute epoxy. Again, be very certain that no glue gets anywhere near the lip of the horn bushing! *s*N

-Bob Hunt

| | FROM RSM DISTRIBUTI | ON |
|--|--|---|
| rib sets for many other C any ribs sets you wish if | rrent kits are available for scr OTS, Classic and Modern mod you send us a copy of the roo TIAL LIST OF AVAILABLE | dels. We can also custom cut ot and tip rib. |
| * Blue Angel | * Primary Force | * Phoenician |
| * Big Job | * Gladiator | * Scimitar |
| U | * Imitation | * S1 Ringmaster |
| * Blue Max Eternal | | 0 |
| | * Trivial Pursuit | * Stiletto |
| * Chizler | * Trivial Pursuit* Olympic | * Stiletto * Stiletto 660 |
| * Chizler * DQ Master | | |
| * Blue Max Eternal * Chizler * DQ Master * F4 Phantom Order On Line at | * Olympic | * Stiletto 660 |

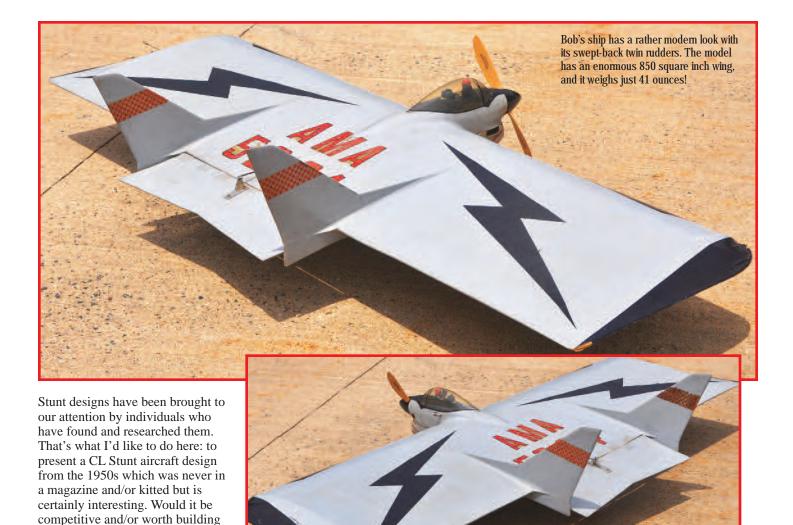


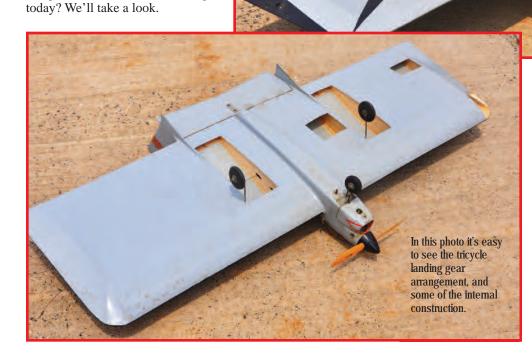
Control Line Stunt has a long and interesting history. Fortunately, for those of us who like to know about the history, it has been well documented. It's not too hard to get information on just about every airplane design ever used in this event, whether commercially kitted or presented as a magazine article. Since the start of the VSC meet in Tucson (thanks, Uncle



Mikey), there is, of course, much interest in the eligible model designs for Old-Time Stunt usethose done prior to December 1952and there are events for later designs. I like looking at the issues of Stunt News from 1995. which contain a listing and pictures of all the published Stunt designs for many years and the plans which are available for them. If not

commercially kitted or magazine published, other





A bit about the designer

life, owning a full-line retail hobby shop, a hobby distributorship, and balsa processing and kit manufacturing operations.

In full-scale aviation he was a pilot, instructor, and aircraft owner, and he flew for a small airline service. He was an airplane guy. Bob built this CL stunter in the '50s; we can't be sure just when, but it had to be before the end of the '50s, because by then he had switched completely to RC flying and was fully occupied as owner/operator of a growing full-line hobby shop and handling his growing family.

So we can't say for sure that this design would be eligible for OTS competition. I would not be surprised to hear from some readers of this

article who were active in New Jersey during the '50s and might remember something about Bob and this airplane.

Bob Peru (1929–2014) was a serious CL flier and AMA contest director in the 1950s. In the USAF he served in Texas, wrenching on AT-6 airframes. He was self-employed in the retail and wholesale parts of the model airplane industry for most of his

Bob's flying wing

As a friend of Bob's for more than 50 years, during the many



times I was in his workshop, I would look at this airplane hanging on the wall or up among the ceiling beams. He's gone now, and I can't ask him for more information about the plane, but when we did talk about it, he said it was a serious Stunt machine, which did everything it needed to do in the air and was fully competitive.

I thought I remembered seeing the plans for this model in an old magazine, and with some research we found that a CL flying-wing combat design of Bob's had been published in the February, 1959 issue of *Air Trails*. (The same small article was reprinted in the 1960 *Air Trails Annual* issue.) But this was strictly a much smaller combat job, not a serious Stunter.

Here are the overall specs: Wingspan, 53 inches; Length, 27 inches; Wing chord, 16 inches; Wing thickness, almost 3 inches; Wing area, 850 square inches; Weight, 41 ounces; Engine, a K&B Torpedo green head .35.

The plane has tricycle landing gear. Inside the plastic canopy is a pilot and some cockpit detail, and the engine is fully enclosed with a removable cowling. It looks like a serious stunter to me.

These days, everyone's first reaction to a flying wing stunter is

probably the same—they've been tried before and they don't work well enough to be serious, despite Red Reinhardt and his Stunt Wing, with which he won the Mirror Meet, but that was different.

Wild Bill Netzeband's Fierce Arrow? Well, that was different, and Bob Baron's kind of wings were different. My good friend, Ray Borden, probably did the first CL flying wing. His Flip Flop was on the cover of the December, 1948 issue of *Flying Models*, but it wasn't a competitive Stunt machine.



Taking a close look at Bob Peru's airplane, I think he tried to address some of the flying wing's inherent shortcomings. Flying wings go too fast, so this one is big with a 53-inch wingspan, 850 square inches of area, and a 3-inch thick wing. Now that's going to slow it down! Big planes are too heavy.

Well, he built this one light; it weighs only 41 ounces. That light wing loading should ensure its maneuverability. Flying wings are too sensitive, so the balance point here is well forward,





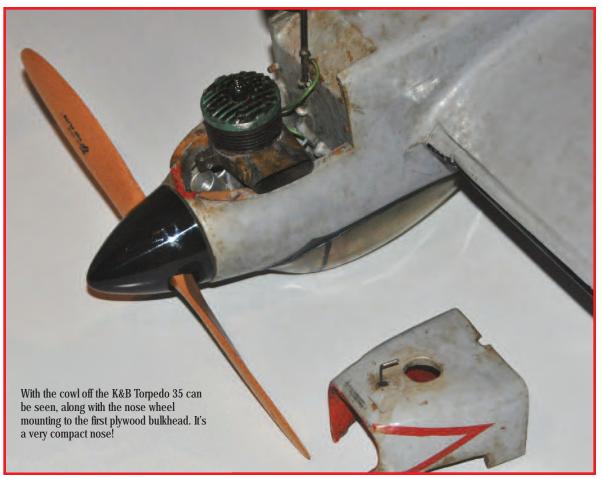
and that would calm down the response.

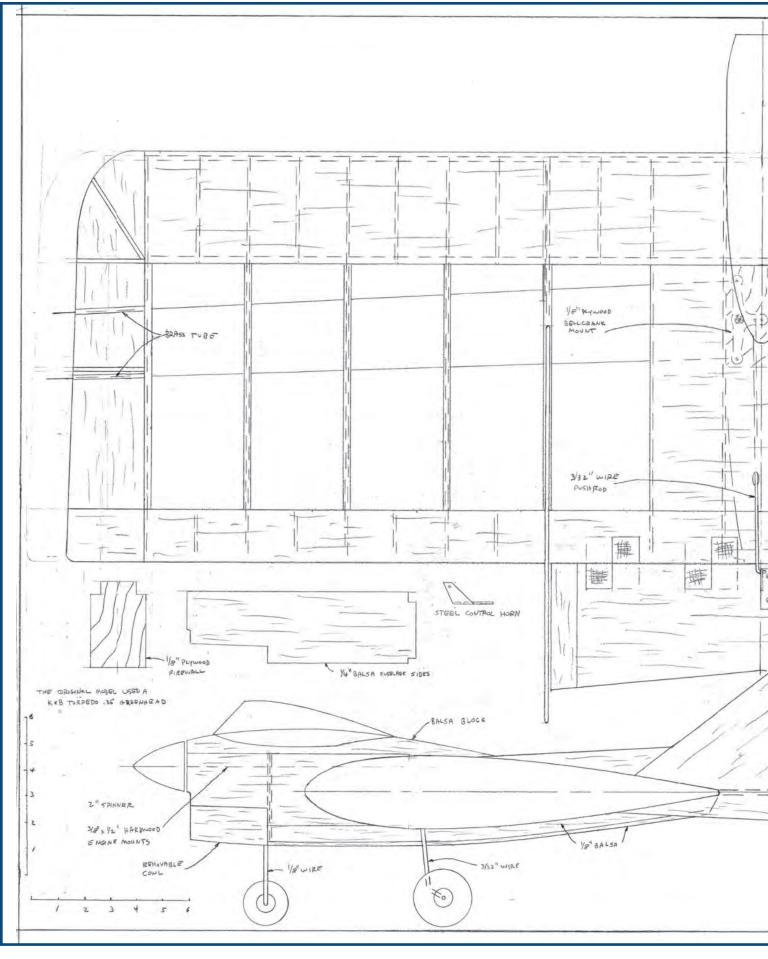
It had to turn sharp corners, so there is a very big elevator in place, even with the forward balance point it should turn sharply. Everything is a compromise, so this probably wouldn't be a competitive Stunter. But designed as it is, maybe, maybe it could do the job. Will we ever know how it flew? Does anybody care? It's an interesting subject for thought anyway. should be 2³/₄ inches behind the leading edge.)

If somebody from the Circle Burners or the Philly Fliers wants to have the original airframe to refurbish and try flying it, come and get it from me. I don't need it any longer. Hey, this stuff is fun. *s*N

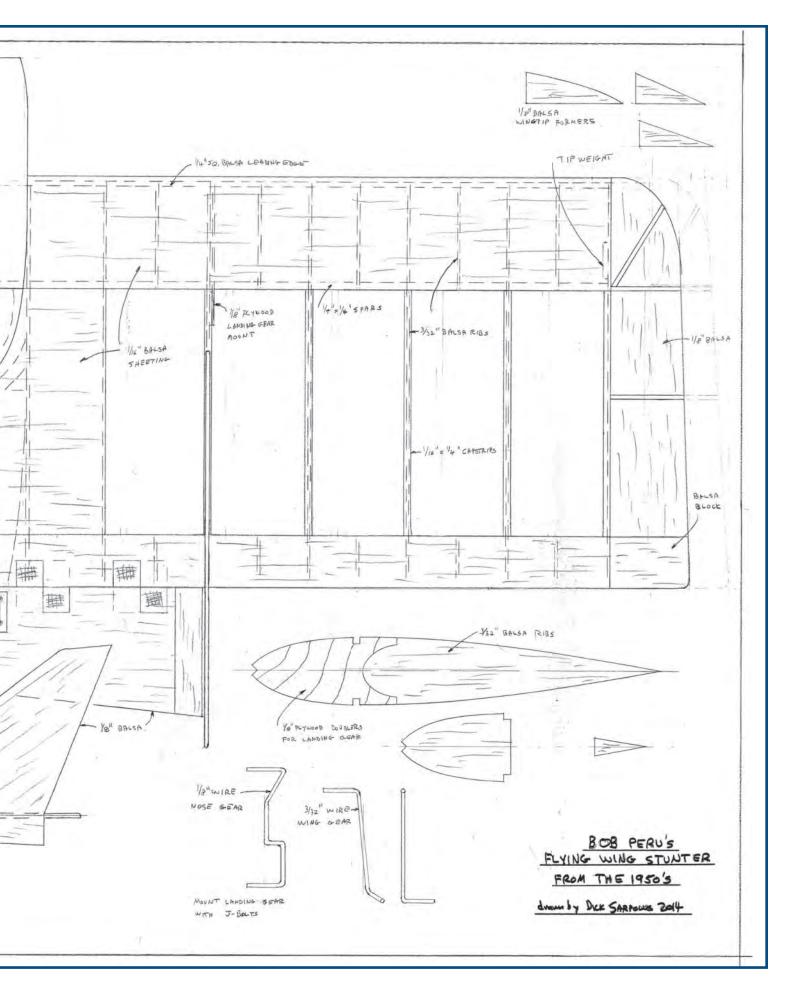
—Dick Sarpolus rsarpolus2@comcast.net

I decided to draw up a set of plans, as accurately as I could make them, from the airplane. Some of the fuselage construction details are vague. I wasn't going to cut the plane apart to find out just how it was built, but obviously, it could be built without too much trouble. I'd use heavier wing spars and a strong bellcrank mount. Also, adjustable leadouts would be nice, etc. The plans will be available from PAMPA, and maybe someone will try one. Maybe one will show up at the next VSC, just for fun. (By the way, on the pencil plans I sent for Peru's Wing Stunter, I forgot to show the balance point location. It





Stunt News 38





It wasn't too long after coming back to stunt following a hiatus of several years, that I realized I needed to change to the best building techniques available. And that brought up a very important component of the stunt plane.

When we want the control surfaces to respond from the control handle demands, all the connecting components, including the lines, leadouts, bellcrank, ball links, etc., all the way to the flaps and elevators, have to respond and act as one link—one that has no "play" or "slop," so to speak. And I believe that the pushrods—normally just two—must be constructed as best we can. That's what this article will address. Building light is the name of the game, so the use of lightweight, stiff carbon-fiber pushrods is a step in that direction.

The first pushrod I made using carbon fiber was a failure. The finished rod ended up *too long*, because the J-B Weld had trapped air inside the tubular rod. The air forced each threaded end to move out of the pushrod before the weld material had cured—enough so that the rod length was about ¼ inch too long. A heat gun allowed me to disassemble the rod and start over. This time I did a little bit of engineering and designed a fixture in which to assemble the control rod, as well as to prevent the trapped air from lengthening the rod while the "glue" dried.

Materials required:

Carbon-fiber rod (see paragraph below) 4-40 screw stock approximately 1½ inches long 4-40 threaded inserts, two for each pushrod J-B Weld I found a good source for carbon-fiber items:

www.rcfoam.com. This supplier has not only foam products, but also a huge inventory of carbon-fiber products, including (hollow) tubes, (solid) rods, and flat stock, all of various dimensions.

For 4-40 ball links, I selected 5mm OD, and 3mm ID carbon tube from RC Foam. This tube accepts the 4-40 threaded inserts with enough room for the J-B Weld. (From here forward I'll refer to these tubes as rods or pushrods in this article.)

Step-1

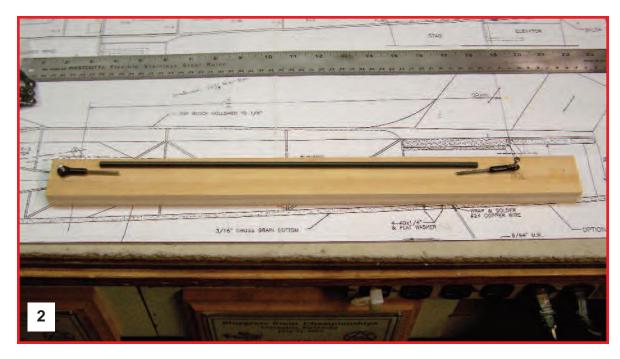
From the plans and the plane, measure the center-to-center distance of the control horns that you want for the flap-toelevator pushrod (see photo 1). I also made a similar measurement from the bellcrank-to-flap control horn for that pushrod.

Step-2

Make a fixture using a length of pine stock (longer than the length of the longest pushrod assembly to be constructed) and at the needed length dimension, drill a $\frac{1}{8}$ -inch hole at each end, about $\frac{1}{2}$ inch deep for two 4-40 screws that will hold the completed pushrod while the glue cures.

Step-3

Measure the depth of thread in the ball links. (I found this to be close to $\frac{9}{16}$ inch for a 4-40 ball link.) Threading the screw stock into the ball link member to about $\frac{2}{3}$ of the depth will



allow lengthening or shortening adjustments of each link in either direction. (If the builder measures correctly in Step 1, an adjustment may not be necessary.)

Step-4

Place the ball links on the fixture and use a couple of 4-40 screws to hold them in place, while taking another measurement for the length of the carbon-fiber rod. Measure the distance between the ball-links and subtract $\frac{3}{4}$ inch. This will be the length of carbon-fiber rod and will allow $\frac{3}{8}$ inch of the thread to be exposed for adjustment at each end (see Photo 2).

Wrap the rod with masking tape at the location of the required cut, and mark the length with pen. Use a razor saw to make the cut where marked. The carbon-fiber rod is likely to shatter or split if a coarse-bladed saw is used, so be careful in this operation. After cutting the rod to length, lightly sand the inside and outside at the rod ends.

Step-5

Now the final assembly can be accomplished with a small amount of J-B Weld mixed as per the directions on the tubes. With a spatula, spread the glue onto the threaded ends and into the ID of the rods. (Keep the J-B Weld away from the ball links.) Insert the threaded ends into the pushrod, allowing equal space

 $(^{3}/_{8}$ inch) between the rod and the ball links at each end.

Place the finished rod on the fixture again, and now hold the rod at the controlled length with the two 4-40 screws. You may want to put some waxed paper under the rod ends to catch any drips. You may also want to tape the rod to the fixture to make sure it doesn't move while the J-B Weld cures.

Now set the completed pushrod aside for 12-24 hours at room temperature (see Photo 3).

The rod will not fail under normal flying conditions and is probably the best you'll ever build. To the experienced stunt flier/builder, what I've shared with you is probably not new. But hopefully, what I've described is new and helpful to many others. Best to all, and tight lines always. *s*N

-Don Ogren



Vintage Stunt Championships XXVII <u>Five Days</u>: March 17 – 21, 2015

Pre-Registration Required.

VSC-XXVII (27) will be held at Christopher Columbus Park on Silverbell Rd., Tucson, Arizona between Grant and El Camino Del Cerro (see map).

VSC Headquarters Hotel is the Hotel Tucson City Center. A second hotel option is also available, see page 2 for details. Mention Vintage Stunt when making your reservation to get the room rate.

The Judges Meeting for all VSC judges will take place at the Hotel Tucson City Center on Mon. Mar 16, starting at 3PM.

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

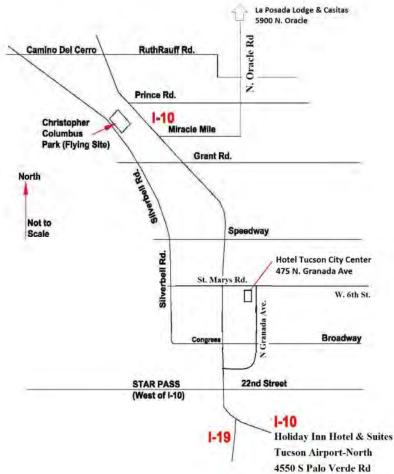
Old Time Stunt (OTS), Ignition OTS and Ringmaster OTS will be held Tuesday & Wednesday, March 17 & 18, one round per day. OTS on asphalt circles, IGN & Ringmaster on grass. You may enter all three if you wish.

Classic & Super 70's will be held Thursday - Saturday March 19 thru 21; one round per day over three (3) days. The two highest scores will be added together for a final score and placing. The events will be run concurrently and the entries will be co-mingled on the circles. You may enter <u>only one</u> of the two events.

Classic & Super 70's Appearance judging will be held Wed. (Mar 18) starting promptly at **4:30PM at the Hotel Tucson City Center** (See map).

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

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



Ignition OTS - will be held Tue. & Wed. (Mar 17 & 18) on grass. Pilots meeting promptly at 8:00 AM each day.

Ringmaster OTS will be held Tue & Wed. (Mar 17 & 18) on grass. S-1 Ringmaster required, no BOM. This event will be held on a non-interference OTS. You may enter OTS, IGN OTS, and Ringmaster OTS if you wish.

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

VSC Banquet - Saturday evening Mar 21 at a new venue, (See map). Cash Bar at 5:00PM and Dinner served at 6:30PM. This is a sit down dinner plus award presentations.

Entry Deadline: Friday March 6th, 2015. By this date and time we need to have <u>received</u> your entry. John Callentine's mailing address is on the registration form. Registration form is available for download at **www.ccmaconline.org**. Our policy is to return your entry fees if you have registered and cannot attend for any reason.

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

The Banquet sign-up is held open until after the start of VSC. If you wish to attend the banquet and have not signed-up, check with John Callentine at the flying site by 8 AM, Wed. March 18th. Refunds for the banquet are handled by John Callentine and cannot be made after 8 AM, Wed. March 18th.

The Banquet info is on page 2 – We need to know your meal choice on the entry form. The menu choices are: **Beef, Chicken or Vegetarian.** All meals include house salad, rolls, side vegetable, potato, dessert, coffee or tea.

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

CD: Jim Hoffman: 2658 W. Montgomery Drive Chandler, Az. 853224 Home 480-897-0630 Cell: 480-329-3316 Email: <u>windswept4@cox.net</u> Assistant CD: Leroy Black 25526 W. Rio Vista Lane Buckeye, AZ 85326 Home: 623-327-9227 Cell: 623-326-4110 Email: Lindyle1@yahoo.com

ENTRY FORM IS ON PAGE 2

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

| REGISTRATION FOR | M: VSC-XXVII (27) Ma | rch 17 –21, 2015 (<u>Fi</u> | <u>ve Days</u>) |
|--|---|---------------------------------------|--------------------------------|
| NAME: | | AMA # | |
| STREET: | | | |
| EMAIL ADDRESS: | Lic | ense Plate # and State: | |
| Needed if you would lik | e entry conformation | (Only if sta | ying at flying site overnight) |
| FOR ANY AND ALL EVENTS: I hereby certify that I I built by me (if required) and flown in compliance w successfully flight tested and proved to be airworthy i | ith the current Competition Regul | ations (both AMA and PAMPA | |
| Signature: | | | |
| EVENTS ENTERED: | th | · · · · · · · · | |
| | (Tues. 17 th – V | | |
| IGN OTS @ \$20.00 _ | | • | |
| OTS Ringmaster @ \$20.00 | • | • | |
| | (Thru. 19th – S (Thru. 19th – S | • | |
| ARF's, ARC's, purchased or borrowed models | • | - | |
| for appearance points. No more than two conte 'Y' can fly the same plane in Classic but no o Cholla Chopper web site; <u>www.ccmaconline.org</u> BANQUET Selections (Sat Nigh | stants can fly the same plane i ne else. This goes for OTS, C 2 | n the same event. Example: | Contestant 'X' and contestar |
| Beef Top Sirloin & Mushroom Demi-Glace_ | @ \$37.50, Names: | | |
| Chicken Breast Garlic Mornay Sauce | @ \$37.50, Names: | | |
| Pasta Primavera Aglio Olio (Vegetarian) | | | |
| | | | |
| | <u>e received no later than</u> to John Callentine (Ema | | |
| | entine, 5625 W. Owl Rid | | |
| | • | | |
| Rules & Flyer – All are posted on the Cholla Ch use <u>PAMPA</u> OTS rules. If you do not have inte | nopper web site: <u>www.ccmacc</u> ernet access, please call & we | will send by snail mail. | e printed or downloaded. We |
| PAMPA OTS / OTS IGN / OTS Ringmaster - wi OTS will be run on two paved circles. | II run concurrently Tue & Wed | (Mar 17 & 18). | |
| OTS IGN / OTS Ringmaster will be ru | n on two separate grass circles | 6 | |
| Classic/Super 70s competition will run concurre | ently Thu, Fri, Sat (Mar 19, 20, | <u>21).</u> | |
| Three rounds, one round each day usi | | | |
| Two highest scores will be added toge 25 pattern points will be included in the | | | المع |
| Appearance judging at Hotel Tucson C | City Center Wed Mar 19, 4:30 F | PM | |
| We will try to post the flight order at the | e Hotel Tucson City Center dur | ing appearance judging. | |
| Builder of the Model (BOM) | | | |
| BOM rule, as it applies to VSC is poste OTS/OTS IGN-current PAMPA rules E | | | bonus is 5 nte |
| Ringmaster OTS - no BOM rule & no b | | | bonus is 5 pis. |
| Classic & S/70 – No BOM. Zero (0) for | | | |
| Dinner & Awards Banquet - Sat Mar 21 nd at Th PM; Dinner 6:30 PM. | e Holiday Inn & Suites, Tucsor | n Airport, 4550 S. Palo Verd | e Rd, Tucson Cash bar 5:0 |
| HOTELS (2 choices) Mention Vintage S | Stunt when making your rese | ervation to get the room r | ate |
| Hotel Tucson City Center- 475 N. Grana | | (520-622-3000) | |
| Located at I-10 and St Mary's, near | irer to the flying site, | , , , , , , , , , , , , , , , , , , , | |
| Free full breakfast buffet @ 6:30Al | | | |
| \$65 + tax 2 queens or one king suite \$75 + tax 2 hadroom quite | | | |
| • \$75 + tax 2 bedroom suite, 2 quee | ns or one king + sleeper So | ia in the 2nd room | |
| La Posada Lodge and Casitas - 5900 N. | Oracle, Tucson Az. 85704 | near to Tucson Mall. (5 | 20-887-4800) |
| Nicer facilities, but slightly further a | away from flying site (suspe | ct traffic might be heavy a | t AM rush hour) |
| • \$69 + tax per room per night for ei | | ble queen guest room. (N | lust book by Feb 28, 2015 |
| • \$89 + tax per room per night for a | Casita upgrade | | |

• Free full breakfast buffet @ 6:30AM

by Brett Buck

IC Engines

A small-engine setup

Small engines experiments, aka flogging a dead horse

For those of you who have not followed my Internet exploits, I am infamous for having done an extensive set of experiments with small engines in the early/mid '90s. Everybody got really sick of hearing about it from me, and from Da Dirt, who wrote a 20-page monograph on the topic in his usual style.

Say what you want about Dan, in all seriousness, he's probably the most consistently entertaining hobby writer I have ever seen—not to mention prolific.

The original motivation was to find a reliable replacement for a Fox .35 *and* the O.S. 40FP for profile airplanes. Despite the religious fervor for the Fox 35, and their numerous laudable aspects, they are generally pretty terrible for profiles. The "Fox Burp" has ruined a lot of afternoons.

By the same token, the usual alternative was the O.S. 40FP—which is almost as bad, at least in stock form. It is very highly prone to screaming runaway after runaway. Running in a two-stroke, it just has far too much power for these profile stunt trainers. And yes, again, you can indeed have too much power.

After a few summers of this—I admit, I am slow on the uptake—I figured if a 40FP put out about twice as much power as necessary, a very simple solution could be to get an engine half the size. For example, the O.S. 20FP.

After coming to this notion, and hearing about the experiences with WAM "A" Stunt where Ted Fancher, the McClellans, and the Fitzgeralds ran Veco 19BBs on Banshees and Twisters with good success, I went out and got a range of available RC sport engines from 15s to 32s, and tested them.

The results were very encouraging. I intentionally limited the permitted changes to only a nominal venturi that was either supplied, or easily obtained, and commonly available inexpensive propellers around 4 inches of pitch. No internal changes, no stacks of head gaskets, no chip mufflers, or anything like that.

The idea was to run it in a solid, two-stroke, backed-off peak just enough to not sag in the worst-case maneuver. If it was too fast, use a smaller diameter prop (using the reduced efficiency to ensure the engine running in a happy zone); too slow, go up in diameter.

Every single engine I tried worked pretty well, and gave pretty good performance. They were all very reliable and repeatable. The Brat 28 and Magnum 32 were on the edge of too much.

The 25FP was pretty good most of the time, but tended to home in on one speed regardless of how you set it. The 15FP was on the edge of too small for Twisters/Skyray/Banshee, but was okay on a Flite Streak and excellent on a Ringmaster. That sort of thing.

Of the engines available at the time, the O.S. 20FP ABC stood out as exceptional. The repeatability and handling qualities were outstanding, it had plenty of power, and it had that almost magic "slow motion" feeling no matter what the lap time said.

The key to the setup for the 20FP was really simple. You take it out of the box, and mount it in an airplane, and put on an APC 9 x 4 prop. There are *no* changes—no modifications, no die grinders, no changes of any type. It is literally straight out of the box in every respect. Works every time. I tried a bunch of stuff but it was clearly better *dead stock*.

I learned a lot about all engines doing these experiments, and one of the most important lessons was that most of the advice about props from the 4-2 break era did not apply. The old theory was to put as big a prop on it as possible, and the head would melt when you went too far.

In the case of the small schneurle engines, with the largest practical prop, you got far too much efficiency/level slight speed, which led to trying to richen up the engine with the needle, which started the downward spiral into runways again.

When in doubt, use a smaller prop—it spins faster for the same level flight speed, improving the fuel draw and as you approach peaked-out-lean, it simply can't run away.

Envision decades passing...

The original experiments were 20ish years ago. As new engines came and went, I would occasionally grab one and try it in my Skyray 35 test goat. The FPs went away, and we got the 25LA. The early versions were very unimpressive, with clearly less power than the 20FP (500ish RPM less on the same prop, gutted out lean), and peaked all the way out, unimpressive and "dead" feeling in the maneuvers. I compared notes with several others, and they had more-or-less the same impression.

I pretty well dismissed it, and told people to go on eBay and get a 20FP ABC and the stock muffler. It was kind of funny, all the eBay listings started putting a line in about the "preferred E-2030 muffler," and people were selling the mufflers separately, even with quotes from my Stuka Stunt posts in the description! No one can say I haven't made my mark on the business world.

"New" O.S. 25LA

A few years ago Jim Aron finally ran out of engines to try in his Feno, so he went out and got some of the latest model 25LAs. He brought it out to the field one morning, I made my usual helpful-type comments about going to take a Fox 15 slant plug off one of my Hurl trophies so he could get more power.

That lasted until he started it. Immediately it has that characteristics good sound, a sharp four-stroke even to pretty high revs. Nothing at all like the ones I had tested many years before. He flew it and it was the first engine that ever ran properly in the airplane.

So I had waited for a Tower "deal" and got a pair of them for some ridiculous price (maybe \$45, but so low it didn't register). One afternoon after flying "Stunt 25" with the Skyray/20FP, I slapped a 25LA on to see how it worked. The answer was—very good.

As part of the experiment, I decided to read the directions

and follow them to the letter to see of there was anything to be learned. I bolted it on the airplane exactly as it came, plastic backplate, rear needle, everything.

The needle was supposedly set at the factory to a good break-in position. I primed it as it said and it started on the first flip and ran at a perfect break-in setting well into the four-cycle. After a tank of gas was run through it (which, I might add, didn't take all that long), I put on the flying prop—APC9 x 4, naturally—and did some testing. It peaked out at over 14,000 rpm right away, and had no problem holding a four-stroke at maybe 12,800.

This was *much* stronger than the 20FP I had been running and at least a bit stronger than a perfect 20FP. We flew it and had the same issues we typically had with the 20FP. For the first few runs the fuel consumption was heroic, a 3.8 ounce tank was not *nearly* enough to get through a pattern and it went from a nice rich two-stroke at the beginning of the flight, to nearly quitting rich at the end.

I just kept resetting in to 13,100 or so on successive flights, screwing in the needle every time, and as it got more run time, it started holding its setting. I also noticed that the venturi and front end got incredibly hot on the first few runs.

What is going on, of course, is that the engine was breaking itself in, and loosening up as it got more run time. I was surprised that the front end/sleeve bearing was the culprit, but clearly it was. After 20 or so flights, it was running with the front end very cool, as normal.

After having a fair bit of flying on it, it is quite superior to the 20FP—substantially better performance, even better consistency throughout the flight, and most important of all you can still get one!

By the way, the rear needle and plastic backplate seemed to work just fine. Once the engine settled in, the needle settings were dead nuts repeatable, predictable, showed absolutely no problems. One click was a pretty big change, which is about my only possible criticism of the way it works.

The other problem is that as it comes, it is in a very nice place to keep your fingers out of the prop, but it is also right on top where an inverted crash or landing breaks it off, along with a fair portion of the backplate. We tested that back in January. It should be possible to rotate the entire backplate to get the needle in a safe spot right behind the head, but I haven't tried that.

It's also possible that the GRP (glass-filled nylon) backplate will leak at some point. There's no gasket, and if you overtighten the screws to fix a perceived leak issue, that's likely to distort it and make the problem worse.

If you think there is a problem, I would suggest that you remove the backplate, clean it with acetone or something like that, and then use silicone sealant in a nice big bead down in the corner where it goes into the case, screw it down lightly, let cure, and then tighten snug.

That seals up pipe headers just fine, no problem with a nice cool backplate. Neither of my engines has shown any signs of leaking, but then again, I am not trying to "improve" them.

Of course you could always go get a 20/25FP spraybar assembly and change it to front needle, but I haven't found any real problem with the stock arrangement.

The recommended setup is:

- Stock 25LA-S (new version)
- Stock E2030 muffler
- Stock Venturi and rear needle assembly; Do not change

it to front needle, or at least don't expect it to work better.

- Stock O.S. A3 glow plug
- APC 9 x 4 bone stock, with TE sanded down so it won't cut your finger
- 10% RO-Jett fuel 3 oz for a full pattern
- Launch setting: Find click of needle closest to 13,100 rpm, if there isn't one, use the richer/slower notch. Engine should be mostly two-stroking but occasionally blipping into a four/misfiring at the beginning of the flight, and solid two at the end.
- Tank: Sullivan SS-4 set up for suction, with muffler pressure into suction/overflow vent.

Takeoffs are like an electric, the engine seems to hardly unload at all (running at full inflight rpm at launch causes the JATO-bottle acceleration). This worked at anywhere from sea level and 70 degrees and moderately humid, and 100+ degrees and not at all humid, on the Skyray/Flite Streak-size models.

I cannot guarantee that this is the best possible setup, and using a 10 x 4 seems like a realistic possibility, but it works awfully well, better than most people have ever had in their lives in terms of stunt run quality.

You must have the "new" 25LA. Unfortunately, I cannot tell you how to determine a used or NOS engine is the "new" good version or the "old" bad version. All the good ones we have had are bare metal instead of blue, but I have no idea if that is relevant to the "goodness."

Many people have told me that they asked the O.S. factory about it, and everyone there claims that there are absolutely no changes to the engines; they are all the same from day one. I may not be the sharpest tool in the shed, but I can certainly tell whether or not one engine goes 1,500 rpm faster than another one. There's nothing on the box that says it's different.

Once you have an engine, you can test it for "goodness" very easily. Set it up *bone stock, no changes* including the *stock muffler*, 10% fuel, and an APC 9 x 4. Start it, and peak it out lean (not over the top, just max rpm) and measure the speed.

The good version will peak out around 14,000 rpm even straight out of the box. Then back it off until it is running right at the 4-2 point (half four-stroking, half two-stroking). That should be about 13,100 rpm or so. The old "bad" version won't be anywhere close to that, more like 13,000 and 11,500.

The easiest solution would appear to be getting a new one straight from Tower. As far I as I know, all the new ones are good ones, although don't come to me asking for a refund if that turns out to be wrong. It even comes with an \$8 glow plug; can't beat that.

You might wonder why I care about his so much to spend 2000ish words on it. It's because, in the right airplane (400-500 square inch profile stunt trainer), the "new" 25LA will yield stellar performance, better than most people get, even some of the hot-shots, for \$75 and *no* special knowledge or expertise. Just follow the directions!

I would also point out that the time is ripe for someone to repeat the engine experiment. Time has moved on and most of the engines I tried at the time are no longer available. Use the same theory, *no* modifications, 4 inches of pitch in a medium two-stroke, and see what you can get.

Don't wait around for me to do it again, I can barely find time to fly my regular airplane. *s*_N

—Brett Buck brettbuck@comcast.net

by Paul Walker

This installment of the trim discussion now moves out of the Basic trim area into the Advanced trim area. This includes criteria 6 through 9 in the trim flow chart in Figure 1. The last discussion ended with some homework to be done.

Flying

The question was asked, "What do you really want your plane to do for you?" You honestly need to answer that question to know where you are headed. If you are satisfied with a plane that works as it does after the Basic trim area, then there is no need to follow on. If you wish to improve the scoring potential of your plane, read on.

Before proceeding into the remaining four criteria, you need to have some idea where you are headed. What's that you say? I know what I want. I want the highest score possible! Well, don't be so sure you really know the answer. This area of trimming is very subjective and as a result the same plane trimmed by two different pilots can and will fly differently. You need a plan and a focus for this subjective effort. Read on to find out what you really want to do to maximize your score.

Before we get into the details, let me digress with a discussion on how I see the performance envelope for a given plane design. Figure 2 shows what I define as a performance envelope. The Y axis (vertical) is the scoring potential for the plane and the X axis to the right of the origin is the given weather conditions (wind, rain, heat, cold, dead air, etc.) and the X axis to the left of the origin is the "state of the trim" of the model for the given weather condition. The worse the weather or the "state of trim," the farther away from the Y axis you are.

This should really be a three (or more) dimensional plot, as weather and "state of trim" can combine to make things worse, but is hard to show this effect on a two dimensional page. Don't fixate on the Y axis labels, as they are there only to show a relative value that most stunt pilots will recognize. The X axis origin is the place you want to be: Perfect weather conditions and the plane in a perfect "state of trim."

The basic idea is there, even in two dimensions. Here's where it gets *fun*. If the trim of the plane is changed, then the shape of the performance curve is also changed. The trim of the plane is different than the "state of trim." "State of trim" is the trim condition at any given time relative to the trim it *should* be in at the time. The trim of the plane is where you have decided you want it to be.

Various factors conspire to keep you from being at that ideal trim state at any given time. Changes in humidity, altitude, temperature, and your own physical and mental condition at that given time, keep the plane from being at that point that you decided it needed to be. Then, the "state of trim" is that instantaneous trim point versus the desired value. The farther off of your desired trim the farther away from the Y axis you will be, and thus the scoring potential reduced.

As stated earlier, your ideal trim of the plane defines the shape of the performance curve. Figure 3 shows two different trim configurations. What you should notice is that trim configuration 2 has a lower maximum scoring potential, but has a higher scoring potential when things are not in perfect "state of trim," or when the weather conditions are not optimal.

Yes, it seems obvious that you *would want* configuration 2 to give the same maximum scoring potential as configuration 1, and have a broader envelope, but that is *very* hard to achieve. The shape of these performance curves can be very narrow, and

Figure 4 tries to show that. The narrower the curve, the harder it becomes to remain right at the very top of the scoring potential. The broader the curve, the easier it is to stay near its maximum scoring potential, however it's maximum is lower than the narrow curve.

What makes the shape of these curves different? In general, a plane that flies more nose-heavy creates a flatter curve with a lower scoring potential, and a more tail-heavy plane generates a narrower peak, but has a higher scoring potential. Further, lighter planes generate broader performance envelopes as well. A plane trimmed to fly smoothly will also have a broader envelope. These are just a few examples.

There are other factors that influence the shapes of these curves. Here is what you need to decide: Do you want an allaround configuration that scores well in all conditions, or one that has a higher potential but not as broad an envelope? The answer to this will drive your decision on the trim items in the flow chart. Now, is your answer still the same? Do you want to try for the maximum possible score or have a higher probability of a higher score in less than perfect conditions? You decide!

Where do I tend to fall into this discussion? I tend to try to find the maximum of all potentials and keep it there. This is the "peaky" curve and at times becomes difficult to find and maintain that position. Some of my planes were not capable of reaching that optimal peak, and thus were trimmed differently.

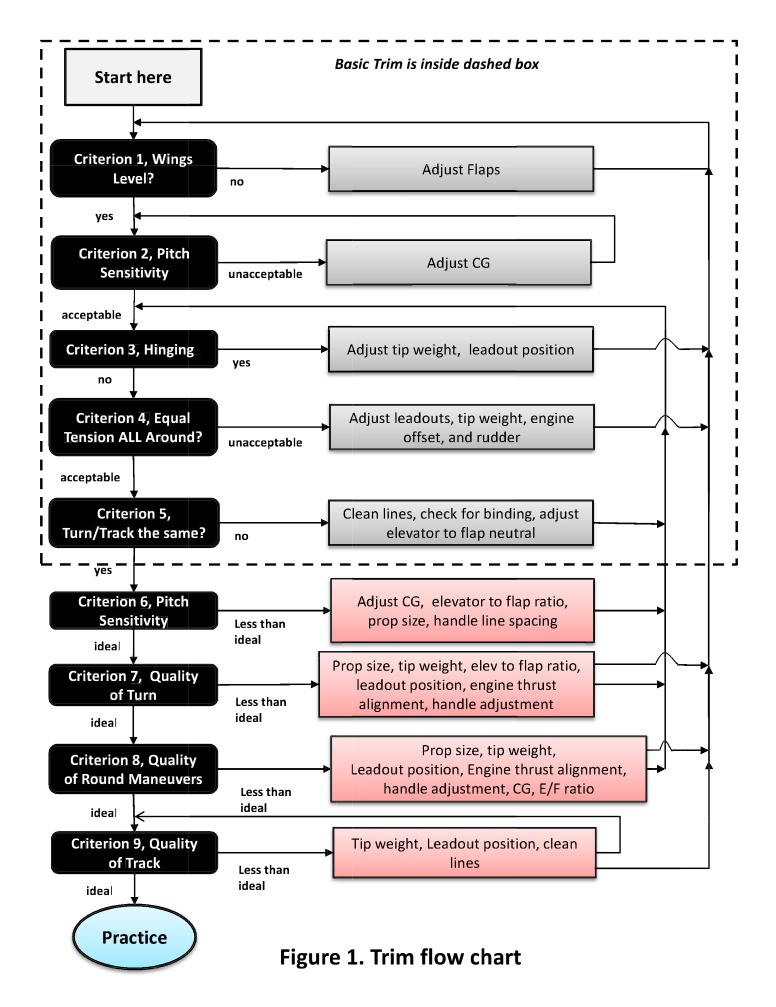
Those two examples were the P-51 with the 4-stroke engine and the B-17 with all its mass. They simply could not corner adequately to reach that potential, and thus I backed off to a broader trim configuration to maximize what I had. The Mustang got lucky and found its ideal weather and "state of trim" on the one Saturday of the Nat's finals in 2002. However, most of the Impacts were trimmed more tail-heavy and had good corners that presented well. The bad aspect of them is they were harder to get into that trim and were sensitive to their "state of trim."

These three examples highlight what you need to start working with. Do you want tighter corners (like the rule book describes) or do you want a smooth no-mistake look pattern? If you want the tighter corners, then the CG will have to be farther aft, and your focus in the advanced trim section will be on tighter corners. Likewise, if smooth is in your future, the CG will move forward and your focus will be on better shapes and smooth corners.

However, there is a downside to going for the max score and tighter corners. That is the variable of the judges. Most judges know the rule book, and if the same square is done but one has tighter corners it should score higher. However, if there is the slightest deviation from perfection with a tight corner, certain judges will be quick to reduce your score. This is a risk you will have to decide to take.

I am asked by fellow fliers to critique their corners, and what to do. My suggestion for them, as well as me, is to know what a 100% corner is and then fly to 90% of that in your competition flight. This helps to avoid the bobbles that judges can see and deduct points on.

Where are we going with this? Figure 1 is the trim flow chart, and criterion 6 is "Pitch Sensitivity." Note that the first option is adjusting the center of gravity. Without a solid plan for where you are heading, it would become very difficult to know which way to go with this option. However, with the knowledge of what direction you want to go this decision is easier. So, pick your



poison and jump into this phase of trimming.

Criterion 6 of Figure 1 is "Pitch Sensitivity." How fast and easy do you want the plane to respond to your inputs? The amount of feedback is primarily a function of the items listed: The Center of Gravity, elevator to flap ratio, the prop size, and the handle line spacing. Start by picking a CG to work with based on your "type" of trim desired.

With that CG, decide if the "Pitch Sensitivity" is too quick or too slow. If too quick, slow the elevators down relative to the flaps. Re-fly and evaluate. Remember, to recheck criteria 3 through 5 as well. Note that there are four variables, and to test them all would take 16 different trim settings to explore all the combinations.

That assumes that there are only two settings on each variable. However, there are numerous settings for each item listed which makes for *many* different combinations. Which one is the most important?

Every plane and pilot is different so there are different responses to each item. You are going to have to experiment yourself to find which one(s) are the driver(s) for your setup. When in this phase, be sure to change just *one* at a time to *know* for sure that the response felt was in fact from that one change that was made. Be sure to try all the different variables to find the one that works best for you. I would suggest that you select a CG and leave that fixed, and try the other variables.

When through with all those, reset the CG and try them all again. Okay, in this loop you might really be assessing the "Quality of Turn" while you are studying the "Pitch Sensitivity." That's okay to do, and keep the focus on the "Pitch Sensitivity" as your primary focus. Once all these combinations have been explored, Criterion 7 becomes easier to navigate as you will have the knowledge of what the response is to each variable!

Okay, we are to Criterion 7 of the Figure 1 flow chart, that

being "Quality of Turn." "Quality of Turn" is not simply how tight the plane can corner; it is how the plane flies through the corner, and then stops, making it look totally under control. This is really the major starting point for your own personality being expressed in your plane and presentation that all can see.

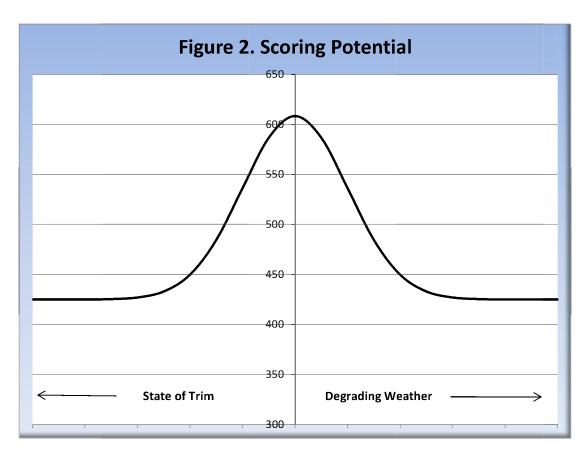
You have already now decided on your approach to trimming. Are you selecting to more broad performance envelope or going for the max score possible? If you select the "max score possible" approach, you will now be working toward tighter corners and better "turn and stop" presentation.

The flow chart lists seven items to be considered at this time. Just as before in Criterion 6, this translates to a *lot* of combinations to try to get the feel of what your plane responds to. The first item is prop size. The larger the prop diameter, the greater its resistance to rotating through a corner, thus producing a larger radius corner as a result.

The flip side of the prop diameter is its greater ability to drive out of the corner stronger. It has been my experience over the last 40 years that to get a tight, repeatable corner requires a smaller diameter prop.

With this in mind, get a number of examples of a given prop that you like and make several sizes of them. For example, 13inch, 12.5-inch, 12.0-inch, 11.5-inch, and 11.0-inch diameters, all with the same shape and pitch distribution. This will eliminate prop shape and pitch variations and leave only the diameter as a "single" variable. Each diameter may require a different lap time (so much for a single variable!), but do try all and find which size produces the best quality corner.

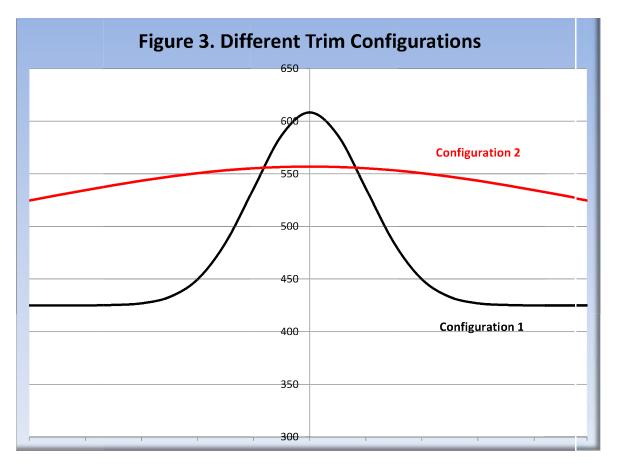
As well as diameter, the prop's pitch can affect the turn rate and quality. Once the diameter is selected, try different pitch values to see its effect on the corner. The pitch variation may have a greater influence on IC power plants as the different load can change the power plant's response to the changed load



in the corner. Further, blade shape can also influence the "Quality of Turn." Wider blades will slow the corner, and narrower blades make the corner easier. Ugh, more variables to experiment with you say with an explanation mark!

The next item on the list is tip weight. This *is* a critical item in quality corners. It there is too much tip weight, it will "drag" the outboard wing (roll away from the pilot) through the corner and as the corner stops the outboard wing then lifts back to its level flight attitude.

This extra motion is visible and detracts from the "clean" impression you are looking for. It does more, as it causes the



pilot to try to turn with more input and can easily lead to a dreaded "bounce" at the exit. That is when the plane has a hop back into level flight because it was overturned. Excess tip weight is a major contributor to this effect.

In the same vein, too little tip weight can also make corners hard to make smooth and flat. It will roll the wing in slightly (which is hard to see) and make the stop hard to do consistently. Experiment to find the correct amount of tip weight needed to make the corner properly stop best.

The next item is the flap-to-elevator ratio. Most designs call for a certain ratio, and most are close to one to one. However, small changes can make significant differences. Things to look for include "how" the plane turns through the corner. A plane with too much flap will "lift" through the corner. "Lifting" through the corner looks like the plane rotates (in pitch) from a point farther aft on the fuselage, thus the wing is lifting away from the center of rotation.

With too much elevator, the plane will pivot from a point much farther forward and have the look of the tail dropping low through the corner and as it approaches the stop point of the corner. The correct balance will make a corner that "looks" like it pivots through the CG of the plane.

Time to digress here: It was back in 1990, and in Lawrenceville, Indiana, for the Nats. The finals were recorded on video. Once home, I obtained a copy and viewed the video of our flights. In real speed, Jimmy Casale's corners looked tighter than mine. This was my first year with an Impact, and I was curious as to why this was. I had worked hard to get reasonably tight corners, and thought I had.

I reviewed them over and over on the television until I finally got a grease pencil out and marked the flight path of each plane through the corners. It turned out that my plane in fact *did* have a smaller radius corner than Jimmy's. Upon further review, he was flying through the corners faster, and

thus the total time in the corner was less, and this *appeared* to the eye to be a tighter corner.

Don't forget this aspect of your presentation for the corners. Your goal is to entice the judges to give you the maximum score possible and there is more to this than working to the "exact" rules. The overall presentation is critical. Illusion can be your friend. Even though Jimmy's corners were softer, the *illusion* was different. He still had to have quality corners, but they didn't have to be the smallest radius.

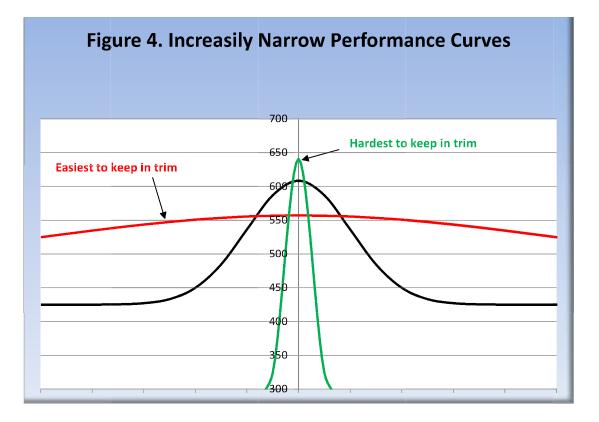
With that in mind, I have made it a point to make the corners *look* tight and smooth. The point of this is to have a trusted pilot/judge watch your corners and see if they appear tight, or not. Their input at this time could save you some time and frustration later.

The next item on the checklist is the leadout position. Leadout position controls the turn and stop of the corners significantly. Start with the leadouts about 2 degrees aft of the CG. If you use engine offset, add that to this number as well. If you use 2 degrees offset, set your leadouts 4 degrees aft of the CG. Moving the leadouts forward from there will make the corners fly through "cleaner" with more even line tension in all four corners of a square.

Flying with the leadouts farther aft will produce a corner with better damping on exit which makes the "turn and stop" look more locked in and is also easier to do repeatedly. Be aware that moving the leadouts will require a close evaluation of Criteria 3 through 6.

The next item on the checklist is engine thrust alignment. Slight amounts of up/down thrust can correct for a misaligned model. Getting the thrustline up/down alignment correct will aid in the pursuit of a clean corner.

Another option is to use thrust offset to the outside. It can help in balancing the line tension between inside and outside corners/maneuvers and to aide in the corner exit drive. A little



offset can act like more prop diameter in the corner exit, making a "flat" exit easier to achieve. The most significant issue with either up/down or offset is that most planes have a nice spinner matched to the fuse, and changing the engine orientation will mess up your nice fit at that joint.

Close your eyes to this while you are trying these changes. These changes might help you pattern in the end. You might then have to decide how to fair in the offset spinner.

The last item to check is the handle adjustment. The item to be checked is the spacing of the lines as they attach to the handle. It is obvious if the spacing is increased that the plane will corner faster. One thing to look for is your exit from the corner. If you continue to find that you have a "hop" on the exit (tail dropping low then finally lifting up to the correct attitude) then the handle spacing is likely too narrow and you will not able to move the wrist fast enough to do what the plane is doing. trim changes influence the "Pitch Sensitivity" the most. I have tried to list the items in each checklist for a given Criterion in order of importance. For "Quality of Turn," I find that props are a significant

For "Quality of Turn," I find that props are a significant driver followed by tip weight, flap to elevator ratios and leadout position. If time is limited go through these items in this order.

One advantage of building the same design year after year is that once you have been through this process, it can generally be repeated on the next plane much quicker as you now know what variables are not important. Of course, everyone tries to make the next plane better and make some small changes. None the less, the major players can be found and can make the trim process on the next plane easier as some items will not have to be reinvestigated.

The next installment will conclude the discussion on the trim flow chart. $\mathfrak{s} \mathbb{N}$



Increasing the spacing will allow the wrist and plane to be in balance and the corner will be cleaner. Likewise, if the exit on the corners pass 90° often, then it is likely you are overpowering the plane and the spacing should be reduced. Consider these changes even if you think things are perfect now.

I can hear you now, "There are *way* too many variables to work through in the time I have available. What should I work on first?" As mentioned earlier, dealing with Criterion 6 will give you some insight into what _____

E-Stunt

by Will DeMauro

I am running my Nats column one issue later than everyone else, as I wanted to make it a little different than in the past and not focus on everybody's planes and power systems. Most of us are running very similar power setups anyway, with very few minor differences, and most of that has been discussed in previous columns. This year I thought it would be nice to focus on one of the father and son teams (this was really a family team as Mom Beth was there every step of the way supporting both James and Ben) and what it takes to get ready to fly in an event like the Nats. Since everyone is already familiar with Kevin and me (and probably tired of reading about us, too...), I asked James Mills from Springfield, Missouri, to share his and his son Ben's experiences. I would like to congratulate Ben on his Beginner win in junior/senior. Ben also placed second to Samantha Hines in the official Junior stunt event on Saturday. He gets to take home the Beginner Stunt Eagles Nest Trophy for a year. I also want to thank Ben for the great job he did running score sheets for Advanced, Expert, and Open fliers on Wednesday, Thursday, and Friday. Special thanks to James Mills for his help in writing this month's column. The following is written by James Mills:

electric setups. I spread the expense out some by picking up pieces here and there over about a year and a half with the encouragement of my wife (she liked the non-oily side of launching my plane). The largest expense was probably the charger, and there you get what you pay for. As far as batteries are concerned, I think Ben still has one or two of the initial ones purchased. We started our foray into electric flight with a couple of Flite Streaks converted from IC to inexpensive Rocket Exceed motors and Zippy batteries. Ben flew these in Basic and Beginner, and we bounced them around a lot. My first full size ship was an SV 11 ARC converted from a PA .61/pipe setup to an E-Flite 25, Gens Ace battery, Phoenix 45, and Hubin timer. The plane flew very well in spite of being a bit porky. (Will got a flight or two on the SV.)

This year we converted a new, but not flown, Skyray to electric power for Ben that he flew in Beginner. The system ran flawlessly and consistently. One thing to note is that the plane took some abuse (he's a beginner flier, remember), and the only thing we had to replace was the prop. The biggest benefit of all has been how fast Ben has advanced this summer with the

> electric package. We were able to get him in the air more with consistent, solid runs.

Left: Beth Mills gets ready to launch Ben for his official flight in the Beginner Stunt competition. Dad James looks on and is ready to assist Ben if needed.

Below: Ben and James pose with his Beginner-winning Skyray. The plane was powered by an Exceed 3015-910, a Hubin FM9 timer, and a Zippy Compact 4s 2,200 mAh battery. This combination flew the Skyray with ease through the Beginner Stunt maneuvers.

Our First Electric Nats

Will asked me to share my Nats experience from this past summer. This was my third Muncie Nats flying Advanced, and my first year exclusively flying an electric setup. Prior to my "going" electric I flew a well-worn Shark 45 with a Barker ST .51. I'm not sure how many flights that plane has, but I have been flying it off and on for around 12-plus years. I think the Shark has taken me as far as it can.

Like most of us, I had none of the equipment necessary for





Above: Ben receives his First Place Award from Mike Stinson. Mike took over running Beginner at the Nats after Allen Brickhaus passed away. Mike continued Allen's work and did a great job running Beginner.

Right: Ben Mills poses with his Eagles Nest Award and his first-place certificate.

My plane this year was a Bill Werwage-designed Junar. This was my full electric build, and, as is normally the case when trying something for the first time, it took much longer to finish than I planned. I wanted to up my game with this build and as a

result came out with one of my better efforts (there is still a lot of room for improvement). I was hoping to have a max weight of 64 ounces with BOB (battery on board) and hit 65 (as I said, some room for improvement). I used Bob Hunt's front mount set up (G-10) and a version of his battery mount. I borrowed the front hold-down technique for the battery from a picture posted on "Stunt Hangar." I'm not sure who posted it, but thank you, as it's worked well.

As I wrote earlier, it took longer to get into the air than I planned. The week before the Nats I finally shot the urethane clear and put it up. I started with a Cobra 2826/19, Phoenix 45, Hubin timer, and Zippy 3700 4S battery. Things were going well until the second or third full pattern. I was into the horizontal square eights and heard a weird sound. I immediately pulled out of the

Right: Ben and Mike Schmitt enjoying themselves while watching official flights. Most likely they were watching Dad James put up his flight.



maneuver and noticed the prop/spinner on a noticeable down angle of around 20 degrees. The bolts I used to hold the motor in place were a bit short, and three of the four came out. The worst part was that the spinner back plate ground a lot of the nose ring

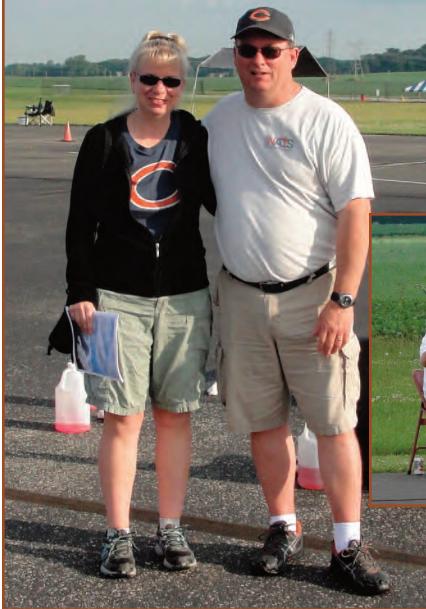


Right: Ben's Skyray gets weighed in for his official flight in Junior on Saturday. James and Ben look on.

and nose away. I did the repair, put the E-Flite 25 back in for a couple of short flights, and all seemed well (this was two days before we left for the Muncie). A quick paint touch-up and we were off.

I was able to finally start some serious practice after some short runs on the grass circles. I was sharing a circle with Brett Buck and Dave Fitzgerald, with Paul Walker walking through from time to time, so I had some good sets of eyes watching. Off





we went to appearance judging. I had hoped for better results, but looking back I think 14 points were pretty good, considering it was missing part of the nose a few days earlier.

I was able to get plenty of practice before Wednesday on the grass circles with the help of Jim Lynch and Charlie Reeves. We made a lot of progress the next couple of days. The E-Flite ran perfectly; not having to worry about a motor run was a huge benefit. I managed to make the finals



Above: Ben is working hard as he takes a score sheet from the judge to run into the tabulators after an official flight.

Left: Beth and James Mills take time out to pose for the camera.



Ben flies a practice flight on Saturday. Dad James looks on, offering pointers on how to increase his score.

and finished seventh overall in Advanced.

We plan to attend the 2015 Nats flying electric, with a new plane that will be finished much earlier (I hope). I don't mean to be controversial, but I have no intention of going back to IC. I think the "smartest" move I made with the electric setups is that I copied the setups that worked and asked questions of those who knew more than I before I made any drastic changes. I have to say, I'm sold on the electric set ups. *s*N



James Mills' Junar and Billy Werwage's Thunderbolt sit together on the flight line awaiting their turn for official flights. Both planes are Billy Werwage designs.



Tom Morris Products Stunthanger.com /hobby 327 Pueblo Pass Anniston, AL 36206 256-820-1983

LEE MACHINE SHOP Quality Modeling Products

Propeller Scribes 5 oz fuel syringes With o-ring plunger Venturies for OS FP, LA 20 – 46 Ball Drivers and Finger Drills Gasket Cutters, Line Wrappers Derek Moran Line Clip Bender Motor Mount Drill Guides

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

Stunt News Wants You!

Wanted: Articles and Columnists for the pages of *Stunt News. Reward:* Everlasting satisfaction that you have contributed to the advancement and enjoyment of the greatest hobby/sport on earth!

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

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

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

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

PAMPA News & Reports Vice President's Report



I have written over the past four years several times on how pleased I am to see how generous the Stunt community is. Since I am in the United States, I, of course, get to hear mostly about the generosity of the US fliers. This time I get to be astounded at the international community, as well.

This has to do with what happened to one of the US team members at the World Championships. The short story is that Kenny Stevens had a prop strike while trying to take off on a practice flight. This resulted in some fairly major damage to his plane.

He did manage to fix the nose of his plane but missed something in the tail. While he was doing the wingover in the next flight, something let go and the plane went straight in, completely destroying the plane, and he had no backup.

The call went out for help, and within a short time people started offering help. I believe that he actually had offers to use several contestants' backup planes. He wound up using Kaz Minato's plane, which was the same one that Kaz flew here at the US Nats this year. (*It was the Concours winner! —Ed.*) But that did not stop the offers of help. I am just amazed at how generous fellow contestants are at these meets. They could have said, "Good, we don't have to worry about him anymore."

No! They jumped in and made sure he could compete, even if that meant he would beat them. I am quite proud to be part of this community because of such things.

Now this was just the short story. I am sure, as Paul Harvey used to say, the rest of the story will be printed here in these pages, and I can't wait to read it all. But I do know that my hat is off to Kenny. Not only did he lose his plane, but then, when he did get another plane to fly, he had to get used to it in a hurry, in a foreign country and under difficult circumstances. Sure, he may not have made it to the finals, but to make it as far as he did under those circumstances was nothing short of astounding. Great job, my friend, and the same goes out to the rest of the team.

Okay, now for some political stuff, so to speak. Over the past month or so there has been an executive meeting going on via emails about the fate of Expert class at the Nats. After much debate, it was decided to drop Expert at the Nats. The main reason for this was the attendance—or lack thereof—in Expert.

What has happened is it split the attendance with the Advanced class, reducing both classes' attendance to the point of being at, or maybe even less than, a local contest (at least the contests that I go to). This is not a true Nats experience. Why travel hundreds, if not thousands, of miles just to enter in effect a small contest for those classes when you could just go to your local contest around the corner and get the same experience with the same number of contestants?

What I figure will happen is the Advanced class will most likely go back to its previous attendance numbers before Expert came into being. This should work out better in the long run.

Howard Rush, who wrote the program used for seeding at the Nats, has volunteered to tweak the program to make it easier to use and to take into account some of the problems that have popped up over the years. This will make the pilots' meeting at the Nats go much quicker and easier. Thank you, Howard!

I have said this before and I will say it again. This is your magazine, but it does not write itself. We need you to submit



articles. Remember, they do not have to be long. Even a short half page tidbit about something will be greatly appreciated not only by us, but also by the rest of the community.

And besides, it can be a kick to see your name in the byline. I mean, you can bring the magazine to work and gloat to your coworkers what a big shot you are because you got something published and they did not. That in itself has to be worth the trouble of writing something up, doesn't it? *SN*

-Matt

The new inductees to the PAMPA Hall of Fame are:

John Brodak David "Dave" Cook Bart Klapinski Rolland McDonald Bill Rich James "Randy" Smith Warren Tiahrt

Our congratulations and thanks go out to these outstanding gentlemen for their contributions to our hobby/sport.





Introducing the New PAMPA Plans Service PAMPA Plans number/plane name and designer/plan size in inches Price



PPN046 Speed King



PPN040 Tucker 4



PPN010 Doctor



PPN038 Trivial Pursuit



PPN017 Legacy 40

| PPN001 Adam's Special (1 sheet 36 x 65) \$11.00 PPN002 Bearcat III by AI Rabe (1 sheet 30 x 42) \$9.00 PPN003 Mustang III by AI Rabe (1 sheet 30 x 42) \$9.00 PPN004 Bearcat Profile (1 sheet 30 x 42) \$9.00 PPN005 Escrekre by Noel Drindak (1 sheet 36 x 55) \$11.00 PPN006 Capricom by Orestes Perdomo (1 sheet 36 x 61) \$11.00 PPN007 Cavalier by John Simpson (1 sheet 30 x 42, 1 sheet 24 x 34) \$15.00 PPN008 Challenger (2 sheets 36 x 50) \$20.00 PPN0101 Dragon by J.C. Yates (1 sheet 36 x 60) \$11.00 PPN011 Dragon by J.C. Yates (1 sheet 36 x 40) \$10.00 PPN013 Golden Falcon by Chris McMillin (1 sheet 30 x 42) \$0.00 PPN016 Lancet by Vic Carpenter (1 sheet 36 x 44) \$20.00 PPN016 Lancet by Vic Carpenter (1 sheet 36 x 47) \$10.00 PPN017 Madic by Ted Fancher (1 sheet 36 x 47) \$0.00 PPN018 Madman by J.C. Yates (1 sheet 30 x 42) \$9.00 PPN019 Medic by Fancis D. Reynolds (1 sheet 36 x 54) \$20.00 PPN021 Moite by Francis D. Reynolds (1 sheet 36 x 57) \$10.00 PPN022 Natke by Juhani Kari (1 sheet 30 x 42) \$9.00 PPN022 Notie A Bolis by Sam Dehelean (1 sheet 36 x 57) \$ | | |
|---|--|---------|
| PPN003 Mustang III by AI Rabe (1 sheet 30 x 43) \$00 PPN004 Bearcat Profile (1 sheet 30 x 42) \$9.00 PPN005 Berserker by Noel Drindak (1 sheet 36 x 55) \$11.00 PPN007 Cavalier by John Simpson (1 sheet 36 x 51) \$11.00 PPN008 Challenger (2 sheets 36 x 50) \$20.00 PPN009 Cutlass by Jim Kostecky (2 sheets 36 x 60) \$11.00 PPN011 Dragon by J.C. Yates (1 sheet 22 x 34) \$8.00 PPN013 Golden Falcon by Christ McMillin (1 sheet 30 x 58) \$10.00 PPN013 Golden Falcon by Christ McMillin (1 sheet 30 x 58) \$10.00 PPN015 Golden Falcon by Charles Mackey (1 sheet 30 x 42) \$9.00 PPN016 Lancet by Vic Carpenter (1 sheet 36 x 44) \$9.00 PPN017 Legacy 40 by Allen Brickhaus (2 sheet 36 x 64) \$20.00 PPN018 Madman by J.C. Yates (1 sheet 30 x 42) \$9.00 PPN019 Medic by Ted Fancher (1 sheet 36 x 64) \$20.00 PPN019 Medic by Ted Fancher (1 sheet 36 x 40) \$20.00 PPN020 Moi' Best by Larry Cunningham (2 sheets 36 x 48) \$20.00 PPN021 Moitle by Francis D. Reynolds (1 sheet 36 x 57) \$11.00 PPN022 Nake by Juhani Kari (1 sheet 30 x 42) \$9.00 PPN022 Nuks & Doits by Sam Dehelean (1 sheet 36 x 57) | PPN001 Adam's Special (1 sheet 36 x 65) | \$11.00 |
| PPN004 Bearcat Profile (1 sheet 30 x 42)\$9.00PPN005 Berserker by Noel Drindak (1 sheet 36 x 55)\$10.00PPN006 Capricorn by Orestes Perdomo (1 sheet 30 x 42, 1 sheet 24 x 34)\$11.00PPN008 Challenger (2 sheets 36 x 50)\$20.00PPN010 Doctor by Ted Fancher (1 sheet 30 x 42, 1 sheet 24 x 34)\$8.00PPN011 Doctor by Ted Fancher (1 sheet 36 x 60)\$20.00PPN012 Force by Mike Pratt (1 sheet 36 x 48)\$10.00PPN013 Golden Falcon by Chris McMillin (1 sheet 30 x 42)\$9.00PPN014 Fancher (1 sheet 36 x 48)\$10.00PPN015 Hallmark by Gene Schaffer (1 sheet 34 x 47)\$10.00PPN016 Lancet by Vic Carpenter (1 sheet 36 x 44)\$9.00PPN017 Legacy 40 by Allen Brickhaus (2 sheets 36 x 64)\$20.00PPN018 Madman by J.C. Yates (1 sheet 30 x 42)\$9.00PPN019 Medic by Ted Fancher (1 sheet 36 x 24)\$9.00PPN020 Mo' Best by Larry Cunningham (2 sheets 36 x 64)\$20.00PPN021 Moitle by Francis D. Reynolds (1 sheet 36 x 57)\$10.00PPN022 Noitle by Sam Dehelean (1 sheet 36 x 57)\$10.00PPN022 Nakke by Jahani Kari (1 sheet 30 x 42)\$9.00PPN022 Nix & Bolts by Sam Dehelean (1 sheet 36 x 57)\$10.00PPN022 Profile Photoe Special by Ron O'Toole (36 x 50)\$10.00PPN023 Profile Nobler by Jim Harris (1 sheet 36 x 45)\$20.00PPN024 Oriental Pub So Zambelli (2 sheets 36 x 45)\$20.00PPN025 Profile Nobler by Jim Harris (1 sheet 36 x 52)\$10.00PPN026 O'Toole Special by Ron O'Toole (36 x 50)\$10.00PPN033 Stunt reso by Joe Adamusko (2 sheets 36 x 52) <td>PPN002 Bearcat III by AI Rabe (1 sheet 30 x 42)</td> <td>\$9.00</td> | PPN002 Bearcat III by AI Rabe (1 sheet 30 x 42) | \$9.00 |
| PPN005 Berserker by Noel Drindak (1 sheet 36 x 55) \$10.00 PPN006 Capricorn by Orestes Perdomo (1 sheet 36 x 61) \$11.00 PPN007 Cavalier by John Simpson (1 sheet 30 x 42, 1 sheet 24 x 34) \$15.00 PPN009 Cutlass by Jim Kostecky (2 sheets 36 x 60) \$20.00 PPN010 Doctor by Ted Fancher (1 sheet 36 x 60) \$11.00 PPN011 Dragon by J.C. Yates (1 sheet 32 x 34) \$8.00 PPN013 Golden Falcon by Chris McMillin (1 sheet 30 x 58) \$10.00 PPN014 Grandpa's Bipe by Charles Mackey (1 sheet 30 x 42) \$9.00 PPN015 Lancet by Vic Carpenter (1 sheet 36 x 24) \$9.00 PPN016 Lancet by Vic Carpenter (1 sheet 36 x 40) \$9.00 PPN017 Legacy 40 by Allen Brickhaus (2 sheets 36 x 64) \$9.00 PPN019 Medic by Ted Fancher (1 sheet 36 x 40) \$9.00 PPN020 Mo' Best by Larry Cunningham (2 sheets 36 x 64) \$9.00 PPN021 Nuite by Francis D. Reynolds (1 sheet 36 x 24) \$9.00 PPN022 Nuite & Bolts by Sam Dehelean (1 sheet 36 x 42) \$9.00 PPN023 Nuite & Bolts by Sam Dehelean (1 sheet 36 x 43) \$9.00 PPN024 Nite by Francis D. Reynolds (1 sheet 36 x 42) \$9.00 PPN025 Oriental Pus by Dee Rice (2 sheets 34 x 52) \$20.00 PP | PPN003 Mustang III by Al Rabe (1 sheet 30 x 43) | \$9.00 |
| PPN006 Capricorn by Orestes Perdomo (1 sheet 36×61)\$11.00PPN008 Challenger (2 sheets 36×50)\$20.00PPN009 Cutlass by Jim Kostecky (2 sheets 36×60)\$20.00PPN010 Doctor by Ted Fancher (1 sheet 36×60)\$11.00PPN012 Force by Mike Pratt (1 sheet 36×48)\$10.00PPN013 Golden Falcon by Chris McMillin (1 sheet 30×58)\$10.00PPN014 Grandpa's Bipe by Charles Mackey (1 sheet 30×42)\$9.00PPN015 Hallmark by Gene Schaffer (1 sheet 36×24)\$9.00PPN016 Lancet by Vic Carpenter (1 sheet 36×24)\$9.00PPN017 Legacy 40 by Allen Brickhaus (2 sheets 36×64)\$20.00PPN018 Madman by J.C. Yates (1 sheet 30×40)\$9.00PPN019 Medic by Ted Fancher (1 sheet 36×24)\$9.00PPN019 Medic by Ted Fancher (1 sheet 36×24)\$9.00PPN020 Mo' Best by Larry Cunningham (2 sheets 36×48)\$20.00PPN022 Noite by Francis D. Reynolds (1 sheet 36×24)\$9.00PPN022 Noite by Francis D. Reynolds (1 sheet 36×57)\$10.00PPN023 Nuts & Bolts by Sam Dehelean (1 sheet 36×57)\$10.00PPN026 O'ronetal Plus by Dee Rice (2 sheets 34×52)\$20.00PPN027 Profile Nobler by Jim Harris (1 sheet 36×45)\$20.00PPN028 Profile Nobler by Jim Harris (1 sheet 36×52)\$10.00PPN039 Stuntess by Joe Adamusko (2 sheets 36×45)\$20.00PPN039 Stuntes by Joe Adamusko (2 sheets 36×52)\$20.00PPN039 Stuntes by Joe Adamusko (2 sheets 36×52)\$20.00PPN039 Stuntes by Joe Adamusko (2 sheets 36×52)\$20.00 | PPN004 Bearcat Profile (1 sheet 30 x 42) | \$9.00 |
| $\begin{array}{llllllllllllllllllllllllllllllllllll$ | PPN005 Berserker by Noel Drindak (1 sheet 36 x 55) | \$10.00 |
| PPN008 Challenger (2 sheets 36 x 50) \$20.00 PPN010 Octor by Ted Fancher (1 sheet 36 x 60) \$11.00 PPN011 Dragon by J.C. Yates (1 sheet 22 x 34) \$8.00 PPN013 Golden Falcon by Chris McMillin (1 sheet 30 x 58) \$10.00 PPN014 Grandpa's Bipe by Charles Mackey (1 sheet 30 x 42) \$9.00 PPN015 Hallmark by Gene Schaffer (1 sheet 36 x 24) \$9.00 PPN016 Lancet by Vic Carpenter (1 sheet 36 x 24) \$9.00 PPN017 Legacy 40 by Allen Brickhaus (2 sheets 36 x 64) \$20.00 PPN018 Madman by J.C. Yates (1 sheet 30 x 40) \$9.00 PPN019 Medic by Ted Fancher (1 sheet 36 x 60) \$11.00 PPN020 Mo' Best by Larry Cunningham (2 sheets 36 x 48) \$20.00 PPN021 Motile by Francis D. Reynolds (1 sheet 36 x 24) \$9.00 PPN0220 Mo' Best by Larry Cunningham (2 sheets 36 x 48) \$20.00 PPN0220 Make by Juhani Kari (1 sheet 30 x 42) \$9.00 PPN023 Nuts & Bolts by Sam Dehelean (1 sheet 36 x 57) \$10.00 PPN024 Oriental Plue by Dec Rice (2 sheets 36 x 45) \$20.00 PPN024 Oriental Plue by Dec Rice (2 sheets 36 x 45) \$20.00 PPN025 Profile Nobler by Jim Harris (1 sheet 36 x 52) \$10.00 PPN026 O'Toole Special by Ron O'Too | PPN006 Capricorn by Orestes Perdomo (1 sheet 36 x 61) | \$11.00 |
| PPN008 Challenger (2 sheets 36 x 50) \$20.00 PPN010 Octor by Ted Fancher (1 sheet 36 x 60) \$11.00 PPN011 Dragon by J.C. Yates (1 sheet 22 x 34) \$8.00 PPN013 Golden Falcon by Chris McMillin (1 sheet 30 x 58) \$10.00 PPN014 Grandpa's Bipe by Charles Mackey (1 sheet 30 x 42) \$9.00 PPN015 Hallmark by Gene Schaffer (1 sheet 36 x 24) \$9.00 PPN016 Lancet by Vic Carpenter (1 sheet 36 x 24) \$9.00 PPN017 Legacy 40 by Allen Brickhaus (2 sheets 36 x 64) \$20.00 PPN018 Madman by J.C. Yates (1 sheet 30 x 40) \$9.00 PPN019 Medic by Ted Fancher (1 sheet 36 x 60) \$11.00 PPN020 Mo' Best by Larry Cunningham (2 sheets 36 x 48) \$20.00 PPN021 Motile by Francis D. Reynolds (1 sheet 36 x 24) \$9.00 PPN0220 Mo' Best by Larry Cunningham (2 sheets 36 x 48) \$20.00 PPN0220 Make by Juhani Kari (1 sheet 30 x 42) \$9.00 PPN023 Nuts & Bolts by Sam Dehelean (1 sheet 36 x 57) \$10.00 PPN024 Oriental Plue by Dec Rice (2 sheets 36 x 45) \$20.00 PPN024 Oriental Plue by Dec Rice (2 sheets 36 x 45) \$20.00 PPN025 Profile Nobler by Jim Harris (1 sheet 36 x 52) \$10.00 PPN026 O'Toole Special by Ron O'Too | PPN007 Cavalier by John Simpson (1 sheet 30 x 42, 1 sheet 24 x 34) | \$15.00 |
| $\begin{array}{llllllllllllllllllllllllllllllllllll$ | | \$20.00 |
| $\begin{array}{llllllllllllllllllllllllllllllllllll$ | | |
| PPN011Dragon by J.C. Yates (1 sheet 22×34)\$8.00PPN013Force by Mike Pratt (1 sheet 36×48)\$10.00PPN013Golden Falcon by Chris McMillin (1 sheet 30×58)\$10.00PPN014Grandpa's Bipe by Charles Mackey (1 sheet 30×42)\$9.00PPN015Hallmark by Gene Schaffer (1 sheet 36×24)\$9.00PPN017Legacy 40 by Allen Brickhaus (2 sheets 36×64)\$20.00PPN018Madman by J.C. Yates (1 sheet 30×40)\$9.00PPN019Medic by Ted Fancher (1 sheet 36×60)\$11.00PPN021Moite by Fancis D. Reynolds (1 sheet 36×24)\$9.00PPN022Nakke by Juarni Kari (1 sheet 30×42)\$9.00PPN023Nuits & Bolts by Sam Dehelean (1 sheet 36×57)\$10.00PPN024Oriental by Dee Rice (1 sheet 30×42)\$9.00PPN025Oriental Plus by Dee Rice (2 sheets 34×52)\$20.00PPN026Oriental by Dee Rice (2 sheets 36×45)\$20.00PPN027Pluma by Bob Zambelli (2 sheets 36×45)\$20.00PPN028Profile P-51D by Tom McClain (1 sheet 36×52)\$20.00PPN028Profile P-51D by Tom McClain (1 sheet 36×48)\$10.00PPN033Saturn by Don Ogren (1 sheet 36×50)\$11.00PPN034Stuht Trainer by Pat Johnston (1 sheet 36×50)\$10.00PPN035Stunt Trainer by Pat Johnston (1 sheet 36×50)\$20.00PPN035Stuntress by Joe Adamusko (2 sheets 36×50)\$10.00PPN035Stunt reso by Joe Adamusko (2 sheets 36×50)\$20.00< | | |
| $\begin{array}{llllllllllllllllllllllllllllllllllll$ | | \$8.00 |
| $\label{eq:product} PPN013 Golden Falcon by Chris McMillin (1 sheet 30 x 58) $10.00 \\ PPN014 Grandpa's Bipe by Charles Mackey (1 sheet 30 x 42) $9.00 \\ PPN015 Lalmark by Gene Schaffer (1 sheet 36 x 47) $10.00 \\ PPN016 Lancet by Vic Carpenter (1 sheet 36 x 24) $9.00 \\ PPN017 Legacy 40 by Allen Brickhaus (2 sheets 36 x 64) $20.00 \\ PPN018 Madman by J.C. Yates (1 sheet 30 x 40) $9.00 \\ PPN020 Mo' Best by Larry Cunningham (2 sheets 36 x 48) $20.00 \\ PPN021 Moitle by Farancis D. Reynolds (1 sheet 36 x 24) $9.00 \\ PPN022 Nakke by Juhani Kari (1 sheet 30 x 42) $9.00 \\ PPN023 Nuts & Bolts by Sam Dehelean (1 sheet 36 x 57) $10.00 \\ PPN024 Oriental by Dee Rice (1 sheet 30 x 42) $9.00 \\ PPN024 Oriental by Dee Rice (1 sheet 30 x 42) $9.00 \\ PPN025 Oriental Plus by Dee Rice (2 sheets 34 x 52) $20.00 \\ PPN026 O'Toole Special by Ron O'Toole (36 x 50) $10.00 \\ PPN027 Pluma by Bob Zambelli (2 sheets 36 x 45) $20.00 \\ PPN028 Profile Nobler by Jim Harris (1 sheet 36 x 52) $10.00 \\ PPN028 Profile Nobler by Jim Harris (1 sheet 36 x 45) $10.00 \\ PPN028 Profile Nobler by Jim Harris (1 sheet 36 x 45) $10.00 \\ PPN030 Ruffy by Lew McFarland (1 sheet 36 x 46) $10.00 \\ PPN033 Shaman by Steve Moon (1 sheet 36 x 46) $10.00 \\ PPN033 Shaman by Steve Moon (1 sheet 36 x 50) $10.00 \\ PPN034 Stukta by Matt Neumann (2 sheets 34 x 45) $20.00 \\ PPN035 Stuntres by Joe Adamusko (2 sheets 36 x 52) $20.00 \\ PPN035 Stunters by Joe Adamusko (2 sheets 36 x 50) $10.00 \\ PPN036 Stunt Trainer by Pat Johnston (1 sheet 36 x 50) $11.00 \\ PPN036 Stunt Trainer by Pat Johnston (1 sheet 36 x 50) $11.00 \\ PPN037 Super Caudron by Fran McMillan (1 sheet 36 x 50) $11.00 \\ PPN034 Stukta by Matt Neumann (2 sheets 36 x 55) $20.00 \\ PPN034 Stukter by Bob Tucker (1 sheet 36 x 50) $11.00 \\ PPN040 Tucker 4 by Bob Tucker (1 sheet 36 x 50) $11.00 \\ PPN041 Twistmaster by Bob Reeves (1 sheet 36 x 50) $11.00 \\ PPN042 Valkyrie by Harold Price (2 sheets 36 x 50) $10.00 \\ PPN044 Curtiss Swift by Nate Rambo (1 sheet 36 x 50) $10.00 \\ PPN045 F&B Sharpy by Carl Maimsten (1 sheet 36 x 50$ | PPN012 Force by Mike Pratt (1 sheet 36 x 48) | \$10.00 |
| PPN014 Grandpa's Bipe by Charles Mackey (1 sheet 30×42)\$9.00PPN015 Hallmark by Gene Schaffer (1 sheet 34×47)\$10.00PPN016 Lancet by Vic Carpenter (1 sheet 36×24)\$9.00PPN017 Legacy 40 by Allen Brickhaus (2 sheets 36×64)\$20.00PPN018 Madman by J.C. Yates (1 sheet 30×40)\$9.00PPN021 Medic by Ted Fancher (1 sheet 30×40)\$9.00PPN021 Moitle by Earry Cunningham (2 sheets 36×48)\$20.00PPN022 No'b Best by Larry Cunningham (2 sheets 36×48)\$9.00PPN022 Nakke by Juhani Kari (1 sheet 30×42)\$9.00PPN023 Nuts & Bolts by Sam Dehelean (1 sheet 36×57)\$10.00PPN024 Oriental by Dee Rice (1 sheet 30×42)\$9.00PPN025 Oriental Plus by Dee Rice (2 sheets 34×52)\$20.00PPN026 O'Toole Special by Ron O'Toole (36×50)\$10.00PPN027 Pluma by Bob Zambelli (2 sheets 36×48)\$10.00PPN028 Profile Nobler by Jim Harris (1 sheet 36×48)\$10.00PPN029 Profile P-51D by Tom McClain (1 sheet 30×48)\$10.00PPN030 Ruffy by Lew McFarland (1 sheet 36×48)\$10.00PPN031 Saturn by Don Ogren (1 sheet 36×50)\$11.00PPN032 Scared Kitten by Bill Netzeband (1 sheet 30×48)\$10.00PPN033 Shaman by Steve Moon (1 sheet 36×55)\$20.00PPN035 Stuntress by Joe Adamusko (2 sheets 36×50 , 1 sheet 36×34)\$20.00PPN036 Stunt Trainer by Pat Johnston (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN037 Super Caudron by Fran McMillan (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN038 Trivial Pursuit | | \$10.00 |
| PPN015 Hallmark by Gene Schaffer (1 sheet 34×47)\$10.00PPN016 Lancet by Vic Carpenter (1 sheet 36×24)\$9.00PPN017 Legacy 40 by Allen Brickhaus (2 sheets 36×64)\$20.00PPN018 Madman by J.C. Yates (1 sheet 30×40)\$9.00PPN019 Medic by Ted Fancher (1 sheet 36×60)\$11.00PPN020 Mo' Best by Larry Cunningham (2 sheets 36×48)\$20.00PPN021 Moitle by Francis D. Reynolds (1 sheet 36×24)\$9.00PPN022 Nakke by Juhani Kari (1 sheet 30×42)\$9.00PPN023 Nuts & Boits by Sam Dehelean (1 sheet 36×57)\$10.00PPN024 Oriental by Dee Rice (1 sheet 30×42)\$9.00PPN025 Oriental Plus by Dee Rice (2 sheets 34×52)\$20.00PPN026 O'Toole Special by Ron O'Toole (36×50)\$10.00PPN027 Pluma by Bob Zambelli (2 sheets 36×45)\$20.00PPN029 Profile P-51D by Tom McClain (1 sheet 36×48)\$10.00PPN030 Ruffy by Lew McFarland (1 sheet 36×46)\$10.00PPN033 Shaman by Steve Moon (1 sheet 36×50)\$11.00PPN034 Stukra by Matt Neumann (2 sheets 34×45)\$20.00PPN035 Stuntress by Joe Adamusko (2 sheets 36×52)\$20.00PPN036 Stunt Trainer by Pat Johnston (1 sheet 36×58)\$11.00PPN037 Super Caudron by Fran McMillan (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN038 Trivial Pursuit by Ted Fancher (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN037 Super Caudron by Fran McMillan (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN038 Trivial Pursuit by Ted Fancher (1 sheet 36×50 , 1 sheet 36×34)\$20.00< | PPN014 Grandpa's Bipe by Charles Mackey (1 sheet 30 x 42) | |
| PPN016 Lancet by Vic Carpenter (1 sheet 36×24)\$9.00PPN017 Legacy 40 by Allen Brickhaus (2 sheets 36×64)\$20.00PPN018 Madman by J.C. Yates (1 sheet 30×40)\$9.00PPN020 Mo' Best by Larry Cunningham (2 sheets 36×48)\$20.00PPN021 Moitle by Francis D. Reynolds (1 sheet 36×24)\$9.00PPN022 Nakke by Juhani Kari (1 sheet 30×42)\$9.00PPN024 Oriental by Dee Rice (1 sheet 30×42)\$9.00PPN025 Oriental Plus by Dee Rice (2 sheets 34×52)\$20.00PPN026 O'Toole Special by Ron O'Toole (36×50)\$10.00PPN027 Pluma by Bob Zambelli (2 sheets 36×45)\$20.00PPN028 Profile Nobler by Jim Harris (1 sheet 36×52)\$10.00PPN029 Profile P-51D by Tom McClain (1 sheet 36×48)\$10.00PPN032 Scared Kitten by Bill Netzeband (1 sheet 30×48)\$10.00PPN033 Shaman by Steve Moon (1 sheet 36×52)\$20.00PPN034 Stuk by Matt Neumann (2 sheets 36×52)\$20.00PPN035 Stuntress by Joe Adamusko (2 sheets 36×52)\$20.00PPN036 Stunt Trainer by Part Johnston (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN037 Super Caudron by Fran McMillan (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN038 Trivial Pursuit by Ted Fancher (1 sheet 36×56)\$11.00PPN039 Trophy Trainer by Tom Warden (1 sheet 36×56)\$11.00PPN039 Trophy Trainer by Bob Tucker (1 sheet 36×56)\$11.00PPN040 Tucker 4 by Bob Tucker (1 sheet 36×56)\$11.00PPN041 Twistmaster by Bob Reves (1 sheet 36×56)\$11.00PPN042 Valkyrie by Harold Pric | | |
| PPN017 Legacy 40 by Allen Brickhaus (2 sheets 36×64)\$20.00PPN018 Madman by J.C. Yates (1 sheet 30×40)\$9.00PPN019 Medic by Ted Fancher (1 sheet 36×60)\$11.00PPN020 Mo' Best by Larry Cunningham (2 sheets 36×48)\$20.00PPN021 Moitle by Francis D. Reynolds (1 sheet 36×24)\$9.00PPN022 Nakke by Juhani Kari (1 sheet 30×42)\$9.00PPN023 Nuts & Botts by Sam Dehelean (1 sheet 36×57)\$10.00PPN024 Oriental by Dee Rice (1 sheet 30×42)\$9.00PPN025 Oriental Plus by Dee Rice (2 sheets 34×52)\$20.00PPN026 O'Toole Special by Ron O'Toole (36×50)\$10.00PPN027 Pluma by Bob Zambelli (2 sheets 36×45)\$20.00PPN028 Profile Nobler by Jim Harris (1 sheet 36×52)\$10.00PPN029 Profile P-51D by Tom McClain (1 sheet 36×46)\$10.00PPN030 Ruffy by Lew McFarland (1 sheet 36×46)\$10.00PPN031 Saturn by Don Ogren (1 sheet 36×59)\$11.00PPN033 Shaman by Steve Moon (1 sheet 36×50)\$20.00PPN034 Stuht Neumann (2 sheets 34×55)\$20.00PPN035 Stuntres by Joe Adamusko (2 sheets 36×52)\$20.00PPN036 Stunt Trainer by Pat Johnston (1 sheet 36×56)\$11.00PPN039 Trophy Trainer by Tom Warden (1 sheet 36×56)\$11.00PPN039 Trophy Trainer by Bob Reeves (1 sheet 36×56)\$11.00PPN039 Trophy Trainer by Tom Warden (1 sheet 36×56)\$11.00PPN040 Tucker 4 by Bob Tucker (1 sheet 36×56)\$11.00PPN041 Twistmaster by Bob Reeves (1 sheet 36×50)\$10.00PPN044 Curti | | |
| PPN018 Madman by J.C. Yates (1 sheet 30×40)\$9.00PPN019 Medic by Ted Fancher (1 sheet 36×60)\$11.00PPN020 Mo' Best by Larry Cunningham (2 sheets 36×48)\$20.00PPN021 Moitle by Francis D. Reynolds (1 sheet 36×24)\$9.00PPN022 Nakke by Juhani Kari (1 sheet 30×42)\$9.00PPN023 Nuts & Bolts by Sam Dehelean (1 sheet 36×57)\$10.00PPN024 Oriental by Dee Rice (1 sheet 30×42)\$9.00PPN025 Oriental Plus by Dee Rice (2 sheets 34×52)\$20.00PPN026 O'Toole Special by Ron O'Toole (36×50)\$10.00PPN027 Pluma by Bob Zambelli (2 sheets 36×45)\$20.00PPN028 Profile Nobler by Jim Harris (1 sheet 36×52)\$10.00PPN029 Profile P-51D by Tom McClain (1 sheet 36×48)\$10.00PPN030 Ruffy by Lew McFarland (1 sheet 36×46)\$10.00PPN031 Saturn by Don Ogren (1 sheet 36×50)\$11.00PPN032 Scared Kitten by Bill Netzeband (1 sheet 30×48)\$10.00PPN033 Shaman by Steve Moon (1 sheet 36×52)\$20.00PPN035 Stuntress by Joe Adamusko (2 sheets 36×52)\$20.00PPN036 Stunt Trainer by Pat Johnston (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN039 Trophy Trainer by Tom Warden (1 sheet 36×50)\$11.00PPN0304 Turker 4 by Bob Tucker (1 sheet 36×50)\$11.00PPN040 Tucker 4 by Bob Tucker (1 sheet 36×50)\$11.00PPN041 Twistmaster by Bob Tacker (1 sheet 36×50)\$11.00PPN042 Valkyrie by Harold Price (2 sheets 36×50)\$11.00PPN045 Kee A King by John Havel (1 sheet 36×50)\$10.00< | | |
| PPN019 Medic by Ted Fancher (1 sheet 36×60)\$11.00PPN020 Mo' Best by Larry Cunningham (2 sheets 36×48)\$20.00PPN021 Moitle by Francis D. Reynolds (1 sheet 36×24)\$9.00PPN022 Nakke by Juhani Kari (1 sheet 30×42)\$9.00PPN023 Nuts & Bolts by Sam Dehelean (1 sheet 36×57)\$10.00PPN024 Oriental by Dee Rice (1 sheet 30×42)\$9.00PPN025 Oriental Plus by Dee Rice (2 sheets 34×52)\$20.00PPN026 O'Toole Special by Ron O'Toole (36×50)\$10.00PPN027 Pluma by Bob Zambelli (2 sheets 36×45)\$20.00PPN028 Profile Nobler by Jim Harris (1 sheet 36×45)\$20.00PPN029 Profile P-51D by Tom McClain (1 sheet 36×48)\$10.00PPN030 Ruffy by Lew McFarland (1 sheet 36×48)\$10.00PPN031 Saturn by Don Ogren (1 sheet 36×59)\$11.00PPN033 Shaman by Steve Moon (1 sheet 36×59)\$10.00PPN034 Stuka by Matt Neumann (2 sheets 34×45)\$20.00PPN035 Stuntress by Joe Adamusko (2 sheets 36×52)\$20.00PPN036 Stunt Trainer by Pat Johnston (1 sheet 22×34)\$8.00PPN037 Super Caudron by Fran McMillan (1 sheet 36×50)\$11.00PPN038 Trivial Pursuit by Ted Fancher (1 sheet 36×50)\$11.00PPN041 Twistmaster by Bob Reeves (1 sheet 36×57)\$11.00PPN042 Valkyrie by Harold Price (2 sheets 36×50)\$20.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×50)\$11.00PPN045 Veck Sup Use (1 sheet 36×50)\$10.00PPN045 Veck Sup Use (1 sheet 36×50)\$10.00PPN045 F&B Sharpy by C | | \$9.00 |
| PPN021 Moitle by Francis D. Reynolds (1 sheet 36×24)\$9.00PPN022 Nakke by Juhani Kari (1 sheet 30×42)\$9.00PPN023 Nuts & Bolts by Sam Dehelean (1 sheet 36×57)\$10.00PPN024 Oriental by Dee Rice (1 sheet 30×42)\$9.00PPN025 Oriental Plus by Dee Rice (2 sheets 34×52)\$20.00PPN026 O'Toole Special by Ron O'Toole (36×50)\$10.00PPN027 Pluma by Bob Zambelli (2 sheets 36×45)\$20.00PPN027 Pluma by Bob Zambelli (2 sheets 36×45)\$10.00PPN028 Profile P-51D by Tom McClain (1 sheet 36×48)\$10.00PPN030 Ruffy by Lew McFarland (1 sheet 36×48)\$10.00PPN032 Scared Kitten by Bill Netzeband (1 sheet 30×48)\$10.00PPN033 Shaman by Steve Moon (1 sheet 36×50)\$10.00PPN034 Stuka by Matt Neumann (2 sheets 34×45)\$20.00PPN035 Stuntress by Joe Adamusko (2 sheets 36×52)\$20.00PPN037 Super Caudron by Fran McMillan (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN038 Trivial Pursuit by Ted Fancher (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN040 Tucker 4 by Bob Tucker (1 sheet 36×50)\$11.00PPN042 Tuktyrie by Harold Price (2 sheets 36×50)\$20.00PPN043 Vegas by Steve Buso (1 sheet 36×50)\$11.00PPN044 Curtiss Swift by Nate Rambo (1 sheet 36×50)\$11.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×50)\$10.00PPN044 Sepeed King by John Havel (1 sheet 36×50)\$10.00PPN045 Vegas by Steve Buso (1 sheet 36×50)\$10.00PPN044 Speed King by John Havel (1 sheet 36×50)< | | \$11.00 |
| PPN021 Moitle by Francis D. Reynolds (1 sheet 36×24)\$9.00PPN022 Nakke by Juhani Kari (1 sheet 30×42)\$9.00PPN023 Nuts & Bolts by Sam Dehelean (1 sheet 36×57)\$10.00PPN024 Oriental by Dee Rice (1 sheet 30×42)\$9.00PPN025 Oriental Plus by Dee Rice (2 sheets 34×52)\$20.00PPN026 O'Toole Special by Ron O'Toole (36×50)\$10.00PPN027 Pluma by Bob Zambelli (2 sheets 36×45)\$20.00PPN027 Pluma by Bob Zambelli (2 sheets 36×45)\$10.00PPN028 Profile P-51D by Tom McClain (1 sheet 36×48)\$10.00PPN030 Ruffy by Lew McFarland (1 sheet 36×48)\$10.00PPN032 Scared Kitten by Bill Netzeband (1 sheet 30×48)\$10.00PPN033 Shaman by Steve Moon (1 sheet 36×50)\$10.00PPN034 Stuka by Matt Neumann (2 sheets 34×45)\$20.00PPN035 Stuntress by Joe Adamusko (2 sheets 36×52)\$20.00PPN037 Super Caudron by Fran McMillan (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN038 Trivial Pursuit by Ted Fancher (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN040 Tucker 4 by Bob Tucker (1 sheet 36×50)\$11.00PPN042 Tuktyrie by Harold Price (2 sheets 36×50)\$20.00PPN043 Vegas by Steve Buso (1 sheet 36×50)\$11.00PPN044 Curtiss Swift by Nate Rambo (1 sheet 36×50)\$11.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×50)\$10.00PPN044 Sepeed King by John Havel (1 sheet 36×50)\$10.00PPN045 Vegas by Steve Buso (1 sheet 36×50)\$10.00PPN044 Speed King by John Havel (1 sheet 36×50)< | | \$20.00 |
| PPN023 Nuts & Bolts by Sam Dehelean (1 sheet 36×57)\$10.00PPN024 Oriental by Dee Rice (1 sheet 30×42)\$9.00PPN025 Oriental Plus by Dee Rice (2 sheets 34×52)\$20.00PPN026 O'Toole Special by Ron O'Toole (36×50)\$10.00PPN027 Pluma by Bob Zambelli (2 sheets 36×45)\$20.00PPN028 Profile Nobler by Jim Harris (1 sheet 36×52)\$10.00PPN029 Profile P-51D by Tom McClain (1 sheet 36×48)\$10.00PPN030 Ruffy by Lew McFarland (1 sheet 36×46)\$10.00PPN031 Saturn by Don Ogren (1 sheet 36×59)\$11.00PPN032 Scared Kitten by Bill Netzeband (1 sheet 30×48)\$10.00PPN033 Shaman by Steve Moon (1 sheet 36×50)\$10.00PPN034 Stuka by Matt Neumann (2 sheets 34×45)\$20.00PPN035 Stuntress by Joe Adamusko (2 sheets 36×52)\$20.00PPN036 Stunt Trainer by Pat Johnston (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN037 Super Caudron by Fran McMillan (1 sheet 36×58)\$11.00PPN041 Tucker 4 by Bob Tucker (1 sheet 36×50)\$11.00PPN041 Twistmaster by Bob Reeves (1 sheet 36×50)\$20.00PPN043 Vegas by Steve Buso (1 sheet 36×50)\$20.00PPN043 Vegas by Steve Buso (1 sheet 36×50)\$11.00PPN044 Curtiss Swift by Nate Rambo (1 sheet 36×50)\$11.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×48)\$20.00PPN046 Speed King by John Havel (1 sheet 36×50)\$11.00PPN047 Detroit Stunter by Roland McDonald (1 sheet 30×43)\$9.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 30×43)< | | \$9.00 |
| PPN024 Oriental by Dee Rice (1 sheet 30×42)\$9.00PPN025 Oriental Plus by Dee Rice (2 sheets 34×52)\$20.00PPN026 O'Toole Special by Ron O'Toole (36×50)\$10.00PPN027 Pluma by Bob Zambelli (2 sheets 36×45)\$20.00PPN028 Profile Nobler by Jim Harris (1 sheet 36×52)\$10.00PPN030 Ruffy by Lew McFarland (1 sheet 36×48)\$10.00PPN031 Saturn by Don Ogren (1 sheet 36×59)\$11.00PPN032 Scared Kitten by Bill Netzeband (1 sheet 30×48)\$10.00PPN033 Shaman by Steve Moon (1 sheet 36×50)\$10.00PPN034 Stuka by Matt Neumann (2 sheets 36×52)\$20.00PPN035 Stuntress by Joe Adamusko (2 sheets 36×52)\$20.00PPN036 Stunt Trainer by Pat Johnston (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN039 Trophy Trainer by Tom Warden (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN039 Trophy Trainer by Tow Warden (1 sheet 36×57)\$11.00PPN040 Tucker 4 by Bob Tucker (1 sheet 36×50)\$20.00PPN042 Valkyrie by Harold Price (2 sheets 36×50)\$20.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×50)\$10.00PPN045 Swift by Nate Rambo (1 sheet 36×48)\$10.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×48)\$10.00PPN046 Speed King by John Havel (1 sheet 36×54 , 1 sheet 36×48)\$20.00PPN047 Detroit Stunter by Roland McDonald (1 sheet 30×43)\$9.00PPN048 HiB by by Bob Palmer and Ted Goyet (1 sheet 30×43)\$9.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30×43)\$9.00PPN049 Veco Squaw | PPN022 Nakke by Juhani Kari (1 sheet 30 x 42) | \$9.00 |
| PPN025 Oriental Plus by Dee Rice (2 sheets 34×52)\$20.00PPN026 O'Toole Special by Ron O'Toole (36×50)\$10.00PPN027 Pluma by Bob Zambelli (2 sheets 36×45)\$20.00PPN028 Profile Nobler by Jim Harris (1 sheet 36×52)\$10.00PPN029 Profile P-51D by Tom McClain (1 sheet 36×48)\$10.00PPN030 Ruffy by Lew McFarland (1 sheet 36×48)\$10.00PPN031 Saturn by Don Ogren (1 sheet 36×59)\$11.00PPN032 Scared Kitten by Bill Netzeband (1 sheet 30×48)\$10.00PPN033 Shaman by Steve Moon (1 sheet 36×50)\$10.00PPN034 Stuka by Matt Neumann (2 sheets 34×45)\$20.00PPN035 Stuntress by Joe Adamusko (2 sheets 36×52)\$20.00PPN036 Stunt Trainer by Pat Johnston (1 sheet 22×34)\$8.00PPN037 Super Caudron by Fran McMillan (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN039 Trophy Trainer by Tom Warden (1 sheet 36×58)\$11.00PPN040 Tucker 4 by Bob Tucker (1 sheet 36×57)\$11.00PPN041 Twistmaster by Bob Reeves (1 sheet 36×57)\$11.00PPN042 Valkyrie by Harold Price (2 sheets 36×50)\$20.00PPN043 Vegas by Steve Buso (1 sheet 36×50)\$10.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×48)\$10.00PPN046 Speed King by John Havel (1 sheet 36×54 , 1 sheet 36×48)\$10.00PPN047 Detroit Stunter by Roland McDonald (1 sheet 30×43)\$9.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 22×31)\$8.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30×43)\$9.00PPN049 Veco Squaw by Joe Wag | PPN023 Nuts & Bolts by Sam Dehelean (1 sheet 36 x 57) | \$10.00 |
| PPN026 O'Toole Special by Ron O'Toole (36×50) \$10.00PPN027 Pluma by Bob Zambelli (2 sheets 36×45)\$20.00PPN028 Profile Nobler by Jim Harris (1 sheet 36×52)\$10.00PPN029 Profile P-51D by Tom McClain (1 sheet 36×48)\$10.00PPN030 Ruffy by Lew McFarland (1 sheet 36×46)\$10.00PPN031 Saturn by Don Ogren (1 sheet 36×59)\$11.00PPN032 Scared Kitten by Bill Netzeband (1 sheet 30×48)\$10.00PPN033 Shaman by Steve Moon (1 sheet 36×50)\$10.00PPN034 Stuka by Matt Neumann (2 sheets 34×45)\$20.00PPN035 Stuntress by Joe Adamusko (2 sheets 36×52)\$20.00PPN036 Stunt Trainer by Pat Johnston (1 sheet 22×34)\$8.00PPN037 Super Caudron by Fran McMillan (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN038 Trivial Pursuit by Ted Fancher (1 sheet 36×58)\$11.00PPN040 Tucker 4 by Bob Tucker (1 sheet 36×57)\$11.00PPN041 Twistmaster by Bob Reeves (1 sheet 36×50)\$20.00PPN042 Valkyrie by Harold Price (2 sheets 36×50)\$20.00PPN043 Vegas by Steve Buso (1 sheet 36×50)\$10.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×48)\$10.00PPN045 Stunter by Roland McDonald (1 sheet 30×43)\$9.00PPN046 Speed King by John Havel (1 sheet 36×54 , 1 sheet 36×48)\$20.00PPN047 Detroit Stunter by Roland McDonald (1 sheet 30×43)\$9.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 22×31)\$8.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30×43)\$9.00PPN049 Veco Squaw by Joe Wa | PPN024 Oriental by Dee Rice (1 sheet 30 x 42) | \$9.00 |
| PPN027 Pluma by Bob Zambelli (2 sheets 36×45)\$20.00PPN028 Profile Nobler by Jim Harris (1 sheet 36×52)\$10.00PPN029 Profile P-51D by Tom McClain (1 sheet 36×48)\$10.00PPN030 Ruffy by Lew McFarland (1 sheet 36×46)\$10.00PPN031 Saturn by Don Ogren (1 sheet 36×46)\$10.00PPN032 Scared Kitten by Bill Netzeband (1 sheet 30×48)\$10.00PPN033 Shaman by Steve Moon (1 sheet 36×59)\$10.00PPN034 Stuka by Matt Neumann (2 sheets 34×45)\$20.00PPN035 Stuntress by Joe Adamusko (2 sheets 36×52)\$20.00PPN036 Stunt Trainer by Pat Johnston (1 sheet 22×34)\$8.00PPN037 Super Caudron by Fran McMillan (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN038 Trivial Pursuit by Ted Fancher (1 sheet 36×58)\$11.00PPN040 Tucker 4 by Bob Tucker (1 sheet 36×57)\$11.00PPN041 Twistmaster by Bob Reeves (1 sheet 36×50)\$20.00PPN042 Valkyrie by Harold Price (2 sheets 36×50)\$20.00PPN043 Vegas by Steve Buso (1 sheet 36×50)\$10.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×54)\$20.00PPN045 Stunter by Roland McDonald (1 sheet 30×43)\$9.00PPN047 Detroit Stunter by Roland McDonald (1 sheet 30×43)\$9.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 30×43)\$9.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30×43)\$9.00PPN045 Veco Squaw by Joe Wagner (1 sheet 30×43)\$9.00PPN045 Veco Squaw by Joe Wagner (2 sheets 34×64)\$20.00 | PPN025 Oriental Plus by Dee Rice (2 sheets 34 x 52) | \$20.00 |
| PPN028 Profile Nobler by Jim Harris (1 sheet 36×52)\$10.00PPN029 Profile P-51D by Tom McClain (1 sheet 36×48)\$10.00PPN030 Ruffy by Lew McFarland (1 sheet 36×46)\$10.00PPN031 Saturn by Don Ogren (1 sheet 36×59)\$11.00PPN032 Scared Kitten by Bill Netzeband (1 sheet 30×48)\$10.00PPN033 Shaman by Steve Moon (1 sheet 36×50)\$10.00PPN034 Stuka by Matt Neumann (2 sheets 34×45)\$20.00PPN035 Stuntress by Joe Adamusko (2 sheets 36×52)\$20.00PPN036 Stunt Trainer by Pat Johnston (1 sheet 36×50 , 1 sheet 36×34)\$8.00PPN037 Super Caudron by Fran McMillan (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN039 Trophy Trainer by Tom Warden (1 sheet 36×58)\$11.00PPN040 Tucker 4 by Bob Tucker (1 sheet 36×51)\$11.00PPN041 Twistmaster by Bob Reeves (1 sheet 36×50)\$20.00PPN042 Valkyrie by Harold Price (2 sheets 36×50)\$20.00PPN043 Vegas by Steve Buso (1 sheet 36×50)\$10.00PPN044 Curtiss Swift by Nate Rambo (1 sheet 36×50)\$10.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×48)\$10.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×48)\$20.00PPN047 Detroit Stunter by Roland McDonald (1 sheet 30×43)\$9.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 30×43)\$9.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30×43)\$9.00PPN045 Kae by Igor Burger (2 sheets 34×64)\$20.00 | PPN026 O'Toole Special by Ron O'Toole (36 x 50) | \$10.00 |
| PPN029 Profile P-51D by Tom McClain (1 sheet 36×48)\$10.00PPN030 Ruffy by Lew McFarland (1 sheet 36×46)\$10.00PPN031 Saturn by Don Ogren (1 sheet 36×59)\$11.00PPN032 Scared Kitten by Bill Netzeband (1 sheet 30×48)\$10.00PPN033 Shaman by Steve Moon (1 sheet 36×50)\$10.00PPN034 Stuka by Matt Neumann (2 sheets 34×45)\$20.00PPN035 Stuntress by Joe Adamusko (2 sheets 36×52)\$20.00PPN036 Stunt Trainer by Pat Johnston (1 sheet 22×34)\$8.00PPN037 Super Caudron by Fran McMillan (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN038 Trivial Pursuit by Ted Fancher (1 sheet 36×58)\$11.00PPN040 Tucker 4 by Bob Tucker (1 sheet 36×57)\$11.00PPN041 Twistmaster by Bob Reeves (1 sheet 36×57)\$11.00PPN042 Valkyrie by Harold Price (2 sheets 36×59)\$10.00PPN044 Curtiss Swift by Nate Rambo (1 sheet 36×59)\$11.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×54 , 1 sheet 36×48)\$10.00PPN046 Speed King by John Havel (1 sheet 36×54 , 1 sheet 36×48)\$20.00PPN047 Detroit Stunter by Roland McDonald (1 sheet 30×43)\$9.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 22×31)\$8.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30×43)\$9.00PPN045 F&B De palmer and Ted Goyet (1 sheet 22×31)\$8.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30×43)\$9.00PPN045 F&B De palmer and Ted Goyet (1 sheet 22×31)\$8.00PPN045 F&B De palmer and Ted Goyet (1 sheet 20×43)\$9.00 | PPN027 Pluma by Bob Zambelli (2 sheets 36 x 45) | \$20.00 |
| PPN030 Ruffy by Lew McFarland (1 sheet 36×46)\$10.00PPN031 Saturn by Don Ogren (1 sheet 36×59)\$11.00PPN032 Scared Kitten by Bill Netzeband (1 sheet 30×48)\$10.00PPN033 Shaman by Steve Moon (1 sheet 36×50)\$10.00PPN034 Stuka by Matt Neumann (2 sheets 34×45)\$20.00PPN035 Stuntress by Joe Adamusko (2 sheets 36×52)\$20.00PPN036 Stunt Trainer by Pat Johnston (1 sheet 22×34)\$8.00PPN037 Super Caudron by Fran McMillan (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN038 Trivial Pursuit by Ted Fancher (1 sheet 36×58)\$11.00PPN040 Tucker 4 by Bob Tucker (1 sheet 36×66)\$11.00PPN041 Twistmaster by Bob Reeves (1 sheet 36×57)\$11.00PPN042 Valkyrie by Harold Price (2 sheets 36×50)\$20.00PPN043 Vegas by Steve Buso (1 sheet 36×59)\$11.00PPN044 Curtiss Swift by Nate Rambo (1 sheet 36×54)\$10.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×54)\$10.00PPN045 Steed King by John Havel (1 sheet 36×54 , 1 sheet 36×48)\$20.00PPN045 PN045 Detroit Stunter by Roland McDonald (1 sheet 30×43)\$9.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 22×31)\$8.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30×43)\$9.00PPN045 F&B Delamer and Ted Goyet (1 sheet 22×31)\$8.00PPN045 F&B be plager Surger (2 sheets 34×64)\$20.00 | PPN028 Profile Nobler by Jim Harris (1 sheet 36 x 52) | \$10.00 |
| PPN031 Saturn by Don Ogren (1 sheet 36×59)\$11.00PPN032 Scared Kitten by Bill Netzeband (1 sheet 30×48)\$10.00PPN033 Shaman by Steve Moon (1 sheet 36×50)\$10.00PPN034 Stuka by Matt Neumann (2 sheets 34×45)\$20.00PPN035 Stuntress by Joe Adamusko (2 sheets 36×52)\$20.00PPN036 Stunt Trainer by Pat Johnston (1 sheet 22×34)\$8.00PPN037 Super Caudron by Fran McMillan (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN038 Trivial Pursuit by Ted Fancher (1 sheet 36×58)\$11.00PPN040 Tucker 4 by Bob Tucker (1 sheet 36×60)\$11.00PPN041 Twistmaster by Bob Reeves (1 sheet 36×57)\$11.00PPN042 Valkyrie by Harold Price (2 sheets 36×50)\$20.00PPN044 Curtiss Swift by Nate Rambo (1 sheet 36×50)\$10.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×48)\$10.00PPN046 Speed King by John Havel (1 sheet 36×54 , 1 sheet 36×48)\$20.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 30×43)\$9.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30×43)\$9.00PPN050 Max Bee by Igor Burger (2 sheets 34×64)\$20.00 | PPN029 Profile P-51D by Tom McClain (1 sheet 36 x 48) | \$10.00 |
| PPN032 Scared Kitten by Bill Netzeband (1 sheet 30×48)\$10.00PPN033 Shaman by Steve Moon (1 sheet 36×50)\$10.00PPN034 Stuka by Matt Neumann (2 sheets 34×45)\$20.00PPN035 Stuntress by Joe Adamusko (2 sheets 36×52)\$20.00PPN036 Stunt Trainer by Pat Johnston (1 sheet 22×34)\$8.00PPN037 Super Caudron by Fran McMillan (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN038 Trivial Pursuit by Ted Fancher (1 sheet 36×58)\$11.00PPN040 Tucker 4 by Bob Tucker (1 sheet 36×61)\$11.00PPN041 Twistmaster by Bob Reeves (1 sheet 36×57)\$11.00PPN042 Valkyrie by Harold Price (2 sheets 36×50)\$20.00PPN043 Vegas by Steve Buso (1 sheet 36×59)\$11.00PPN044 Curtiss Swift by Nate Rambo (1 sheet 36×54 , 1 sheet 36×48)\$10.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×54 , 1 sheet 36×48)\$20.00PPN047 Detroit Stunter by Roland McDonald (1 sheet 30×43)\$9.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 22×31)\$8.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30×43)\$9.00PPN050 Max Bee by Igor Burger (2 sheets 34×64)\$20.00 | PPN030 Ruffy by Lew McFarland (1 sheet 36 x 46) | \$10.00 |
| PPN033 Shaman by Steve Moon (1 sheet 36×50)\$10.00PPN034 Stuka by Matt Neumann (2 sheets 34×45)\$20.00PPN035 Stuntress by Joe Adamusko (2 sheets 36×52)\$20.00PPN036 Stunt Trainer by Pat Johnston (1 sheet 22×34)\$8.00PPN037 Super Caudron by Fran McMillan (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN038 Trivial Pursuit by Ted Fancher (1 sheet 36×58)\$11.00PPN040 Tucker 4 by Bob Tucker (1 sheet 36×61)\$11.00PPN041 Twistmaster by Bob Reeves (1 sheet 36×57)\$11.00PPN042 Valkyrie by Harold Price (2 sheets 36×50)\$20.00PPN043 Vegas by Steve Buso (1 sheet 36×59)\$11.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×48)\$10.00PPN046 Speed King by John Havel (1 sheet 36×54 , 1 sheet 36×48)\$20.00PPN047 Detroit Stunter by Roland McDonald (1 sheet 30×43)\$9.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 22×31)\$8.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30×43)\$9.00PPN050 Max Bee by Igor Burger (2 sheets 34×64)\$20.00 | PPN031 Saturn by Don Ogren (1 sheet 36 x 59) | \$11.00 |
| PPN034 Stuka by Matt Neumann (2 sheets 34×45)\$20.00PPN035 Stuntress by Joe Adamusko (2 sheets 36×52)\$20.00PPN036 Stunt Trainer by Pat Johnston (1 sheet 22×34)\$8.00PPN037 Super Caudron by Fran McMillan (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN038 Trivial Pursuit by Ted Fancher (1 sheet 36×58)\$11.00PPN039 Trophy Trainer by Tom Warden (1 sheet 36×60)\$11.00PPN040 Tucker 4 by Bob Tucker (1 sheet 36×61)\$11.00PPN041 Twistmaster by Bob Reeves (1 sheet 36×57)\$11.00PPN042 Valkyrie by Harold Price (2 sheets 36×50)\$20.00PPN043 Vegas by Steve Buso (1 sheet 36×59)\$11.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×48)\$10.00PPN046 Speed King by John Havel (1 sheet 36×54 , 1 sheet 36×48)\$20.00PPN047 Detroit Stunter by Roland McDonald (1 sheet 30×43)\$9.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 22×31)\$8.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30×43)\$9.00PPN050 Max Bee by Igor Burger (2 sheets 34×64)\$20.00 | PPN032 Scared Kitten by Bill Netzeband (1 sheet 30 x 48) | |
| PPN035 Stuntress by Joe Adamusko (2 sheets 36×52)\$20.00PPN036 Stunt Trainer by Pat Johnston (1 sheet 22×34)\$8.00PPN037 Super Caudron by Fran McMillan (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN038 Trivial Pursuit by Ted Fancher (1 sheet 36×58)\$11.00PPN039 Trophy Trainer by Tom Warden (1 sheet 36×60)\$11.00PPN040 Tucker 4 by Bob Tucker (1 sheet 36×61)\$11.00PPN041 Twistmaster by Bob Reeves (1 sheet 36×57)\$11.00PPN042 Valkyrie by Harold Price (2 sheets 36×50)\$20.00PPN043 Vegas by Steve Buso (1 sheet 36×59)\$11.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×48)\$10.00PPN046 Speed King by John Havel (1 sheet 36×54 , 1 sheet 36×48)\$20.00PPN047 Detroit Stunter by Roland McDonald (1 sheet 30×43)\$9.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 22×31)\$8.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30×43)\$9.00PPN050 Max Bee by Igor Burger (2 sheets 34×64)\$20.00 | | \$10.00 |
| PPN036 Stunt Trainer by Pat Johnston (1 sheet 22×34)\$8.00PPN037 Super Caudron by Fran McMillan (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN038 Trivial Pursuit by Ted Fancher (1 sheet 36×58)\$11.00PPN039 Trophy Trainer by Tom Warden (1 sheet 36×60)\$11.00PPN040 Tucker 4 by Bob Tucker (1 sheet 36×61)\$11.00PPN041 Twistmaster by Bob Reeves (1 sheet 36×57)\$11.00PPN042 Valkyrie by Harold Price (2 sheets 36×50)\$20.00PPN043 Vegas by Steve Buso (1 sheet 36×59)\$11.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×48)\$10.00PPN046 Speed King by John Havel (1 sheet 36×54 , 1 sheet 36×48)\$20.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 22×31)\$8.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30×43)\$9.00PPN050 Max Bee by Igor Burger (2 sheets 34×64)\$20.00 | | \$20.00 |
| PPN037 Super Caudron by Fran McMillan (1 sheet 36×50 , 1 sheet 36×34)\$20.00PPN038 Trivial Pursuit by Ted Fancher (1 sheet 36×58)\$11.00PPN039 Trophy Trainer by Tom Warden (1 sheet 36×60)\$11.00PPN040 Tucker 4 by Bob Tucker (1 sheet 36×61)\$11.00PPN041 Twistmaster by Bob Reeves (1 sheet 36×57)\$11.00PPN042 Valkyrie by Harold Price (2 sheets 36×50)\$20.00PPN043 Vegas by Steve Buso (1 sheet 36×59)\$11.00PPN044 Curtiss Swift by Nate Rambo (1 sheet 36×50)\$10.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×48)\$10.00PPN046 Speed King by John Havel (1 sheet 36×54 , 1 sheet 36×48)\$20.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 22×31)\$8.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30×43)\$9.00PPN050 Max Bee by Igor Burger (2 sheets 34×64)\$20.00 | PPN035 Stuntress by Joe Adamusko (2 sheets 36 x 52) | \$20.00 |
| PPN038 Trivial Pursuit by Ted Fancher (1 sheet 36×58)\$11.00PPN039 Trophy Trainer by Tom Warden (1 sheet 36×60)\$11.00PPN040 Tucker 4 by Bob Tucker (1 sheet 36×61)\$11.00PPN041 Twistmaster by Bob Reeves (1 sheet 36×57)\$11.00PPN042 Valkyrie by Harold Price (2 sheets 36×50)\$20.00PPN043 Vegas by Steve Buso (1 sheet 36×59)\$11.00PPN044 Curtiss Swift by Nate Rambo (1 sheet 36×50)\$10.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×48)\$10.00PPN046 Speed King by John Havel (1 sheet 36×54 , 1 sheet 36×48)\$20.00PPN047 Detroit Stunter by Roland McDonald (1 sheet 30×43)\$9.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 22×31)\$8.00PPN050 Max Bee by Igor Burger (2 sheets 34×64)\$20.00 | | \$8.00 |
| PPN039 Trophy Trainer by Tom Warden (1 sheet 36×60)\$11.00PPN040 Tucker 4 by Bob Tucker (1 sheet 36×61)\$11.00PPN041 Twistmaster by Bob Reeves (1 sheet 36×57)\$11.00PPN042 Valkyrie by Harold Price (2 sheets 36×50)\$20.00PPN043 Vegas by Steve Buso (1 sheet 36×59)\$11.00PPN044 Curtiss Swift by Nate Rambo (1 sheet 36×50)\$10.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×48)\$10.00PPN046 Speed King by John Havel (1 sheet 36×54 , 1 sheet 36×48)\$20.00PPN047 Detroit Stunter by Roland McDonald (1 sheet 30×43)\$9.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 22×31)\$8.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30×43)\$9.00PPN050 Max Bee by Igor Burger (2 sheets 34×64)\$20.00 | | |
| PPN040 Tucker 4 by Bob Tucker (1 sheet 36×61)\$11.00PPN041 Twistmaster by Bob Reeves (1 sheet 36×57)\$11.00PPN042 Valkyrie by Harold Price (2 sheets 36×50)\$20.00PPN043 Vegas by Steve Buso (1 sheet 36×59)\$11.00PPN044 Curtiss Swift by Nate Rambo (1 sheet 36×50)\$10.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×48)\$10.00PPN046 Speed King by John Havel (1 sheet 36×54 , 1 sheet 36×48)\$20.00PPN047 Detroit Stunter by Roland McDonald (1 sheet 30×43)\$9.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 22×31)\$8.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30×43)\$9.00PPN050 Max Bee by Igor Burger (2 sheets 34×64)\$20.00 | | |
| PPN041 Twistmaster by Bob Reeves (1 sheet 36×57)\$11.00PPN042 Valkyrie by Harold Price (2 sheets 36×50)\$20.00PPN043 Vegas by Steve Buso (1 sheet 36×59)\$11.00PPN044 Curtiss Swift by Nate Rambo (1 sheet 36×50)\$10.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×48)\$10.00PPN046 Speed King by John Havel (1 sheet 36×54 , 1 sheet 36×48)\$20.00PPN047 Detroit Stunter by Roland McDonald (1 sheet 30×43)\$9.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 22×31)\$8.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30×43)\$9.00PPN050 Max Bee by Igor Burger (2 sheets 34×64)\$20.00 | | |
| PPN042 Valkyrie by Harold Price (2 sheets 36 x 50)\$20.00PPN043 Vegas by Steve Buso (1 sheet 36 x 59)\$11.00PPN044 Curtiss Swift by Nate Rambo (1 sheet 36 x 50)\$10.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36 x 48)\$10.00PPN046 Speed King by John Havel (1 sheet 36 x 54, 1 sheet 36 x 48)\$20.00PPN047 Detroit Stunter by Roland McDonald (1 sheet 30 x 43)\$9.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 22 x 31)\$8.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30 x 43)\$9.00PPN050 Max Bee by Igor Burger (2 sheets 34 x 64)\$20.00 | | |
| PPN043 Vegas by Steve Buso (1 sheet 36×59)\$11.00PPN044 Curtiss Swift by Nate Rambo (1 sheet 36×50)\$10.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36×48)\$10.00PPN046 Speed King by John Havel (1 sheet 36×54 , 1 sheet 36×48)\$20.00PPN047 Detroit Stunter by Roland McDonald (1 sheet 30×43)\$9.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 22×31)\$8.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30×43)\$9.00PPN050 Max Bee by Igor Burger (2 sheets 34×64)\$20.00 | | |
| PPN044 Curtiss Świft by Nate Rambo (1 sheet 36 x 50)\$10.00PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36 x 48)\$10.00PPN046 Speed King by John Havel (1 sheet 36 x 54, 1 sheet 36 x 48)\$20.00PPN047 Detroit Stunter by Roland McDonald (1 sheet 30 x 43)\$9.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 22 x 31)\$8.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30 x 43)\$9.00PPN050 Max Bee by Igor Burger (2 sheets 34 x 64)\$20.00 | | |
| PPN045 F&B Sharpy by Carl Malmsten (1 sheet 36 x 48)\$10.00PPN046 Speed King by John Havel (1 sheet 36 x 54, 1 sheet 36 x 48)\$20.00PPN047 Detroit Stunter by Roland McDonald (1 sheet 30 x 43)\$9.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 22 x 31)\$8.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30 x 43)\$9.00PPN050 Max Bee by Igor Burger (2 sheets 34 x 64)\$20.00 | | |
| PPN046 Speed King by John Havel (1 sheet 36 x 54, 1 sheet 36 x 48)\$20.00PPN047 Detroit Stunter by Roland McDonald (1 sheet 30 x 43)\$9.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 22 x 31)\$8.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30 x 43)\$9.00PPN050 Max Bee by Igor Burger (2 sheets 34 x 64)\$20.00 | | |
| PPN047 Detroit Stunter by Roland McDonald (1 sheet 30 x 43)\$9.00PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 22 x 31)\$8.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30 x 43)\$9.00PPN050 Max Bee by Igor Burger (2 sheets 34 x 64)\$20.00 | | |
| PPN048 Hi Boy by Bob Palmer and Ted Goyet (1 sheet 22 x 31)\$8.00PPN049 Veco Squaw by Joe Wagner (1 sheet 30 x 43)\$9.00PPN050 Max Bee by Igor Burger (2 sheets 34 x 64)\$20.00 | | |
| PPN049 Veco Squaw by Joe Wagner (1 sheet 30 x 43)\$9.00PPN050 Max Bee by Igor Burger (2 sheets 34 x 64)\$20.00 | | |
| PPN050 Max Bee by Igor Burger (2 sheets 34 x 64) \$20.00 | | |
| | | |
| PPN051 Crusader by Charles A. Mackey (1 sheet 35 x 50) \$10.00 | | |
| | PPN051 Crusader by Charles A. Mackey (1 sheet 35 x 50) | \$10.00 |



PPN005 Berserker



PPN015 Hallmark

PAMPA Plans Order Form

| | Plans Description | | | | Price Each | Total |
|----------|--|--------------------|----------------|-----------|---------------------|-------------|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | *Minimum Order \$5 Please ** Shipping: | | | Total for | products* | |
| | US orders less that \$60 | Add 25% | | Ship | ping** | |
| | US orders more than \$60 Canada and Mexico | Add 20% Add 35% | | 7% tax | Indiana | |
| | Foreign orders airmail | Add 40% | | resi | dents | |
| | Foreign orders surface mail | Add 30% | | Tota | l cost | |
| Mail o | rder to: | M | ethod of payme | nt: | | |
| | A Plans Service | | | | | |
| | n Vornholt A, PO Box 320 | I | | - | IPA; must be drawn | |
| | eld, IN 46168. | | | | in A, must be drawn | on oo banky |
| | | [| MasterCard | | ISA | |
| | A@indy.rr.com | | A | | | |
| (317) | 385-4751 | | Account # | | | |
| hip orde | er to: | | Exp. date: | | | |
| | | | Signature | | | |
| | | | Tel: | | | |
| | | | | | | |



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



PAMPA Membership Voting Instructions

Please Read This First Before Voting!

2015 PAMPA Election Instructions

Your Name:

Your District Number

Fill in your name and district number. If you don't know your district number, it is listed with the appropriate States included, with the District reports in Stunt News.

International members should note "INT" in this space.

<u>Next</u>, vote for the officer candidate noted (this year vote for Vice President) you may also write in a candidate.

International members vote for the one officers, but NOT the District Directors!

<u>Next</u>, for District Directors, please only vote for the <u>Director of your district</u>. You may vote for the listed candidate or write in the name of the person you think appropriate.

If you don't find your district listed, it's because the even and odd District Directors are elected every other year. This is the year for the 'even' Districts.

Once you've made your choices and noted them simply print out your ballot and mail to:

PAMPA Secretary/Treasurer at P.O Box 320 Plainfield, IN 46168-0320.

To be considered as valid please be sure your Ballot is postmarked by January 31, 2015

Thanks for your consideration.....we're looking forward to a good turnout!

| VICE PRESIDENT | | DISTRICT 2: NY, NJ | | |
|----------------|--|--------------------|--|--|
| Matt Neumann | | Buddy Wieder | | |
| (Write-in) | | (Write-in) | | |

| | | <u>District 6: IL, IN,MO,KY</u> Dennis Adamisin | | | | |
|------------|--|--|--|--|--|--|
| (Write-in) | | (Write-in) | | | | |

| DISTRICT 8: AR, LA, NM, OK, TX | DISTRICT 10: AZ, CA, Guam, Hawaii, NA, UT | | | | |
|--------------------------------|---|--|--|--|--|
| Doug Moon | Jim Hoffman | | | | |
| (Write-in) | (Write-in) | | | | |

| Membership Secretary | |
|----------------------|--|
| Mike Strand | |

PAMPA, Secretary / Treasurer P.O. Box 320 Plainfield, IN 46168-0320

District I

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

by Steve Yampolsky

The 2014 flying season is over and the 2015 season is beginning. It is a good time to reminisce about contests attended and to think about what we can improve on for the next season. This is why this report will cover two things: contest pictures and a technique for winning contests.







6919501

Stunt News 60



Let's bring on the HEAT!

Competition is an endeavor that allows one to demonstrate mastery. All past Nats winners have been able to demonstrate mastery of flying and building skills. Over the past season I've been trying to understand what it takes to win at the Nats, or even at a local contest. I've met many of the past Nats winners and have spoken to some of them at length.

Many past champions shared their stories in print, as well. With this wealth of information, one should easily be able to define what it takes to win, right? Go ahead! Write down what it takes to win. I'll wait ...

Not so easy, is it? I've struggled with this question throughout this past season, and it wasn't until very recently that I've stumbled upon a method that seems to describe things extremely well: "Bring on the HEAT."

"Bring on the HEAT," or just HEAT has been practiced by very successful individuals and describes the steps required to be successful at pretty much anything, even CL Stunt! The word HEAT stands for: <u>Have a plan, Execute with intent, Ask for help,</u> and <u>Track success</u>. Let's take a look at each step.

Have a plan means that one has to come up with a plan of action to win. We all know that winning at the Nats requires serious time commitment. That means coming up with a plan (or schedule) that will enable you to have the time to practice, to

build, or to travel to contests. It also means having a plan for each contest.

A plan will make things less stressful, as you will not need to think about anything else but flying. Winging it is not an option if you plan to win. Here's a plan I put together for the recent contest in Lee:

• Leave home at 8:30 a.m. on Saturday with plan to arrive at the field in Lee at 11:30 a.m.

• Put up a flight to set up the engine for the conditions of the field (it's located at a higher elevation than my home field).

• Over the past two weeks, practice flying has been in windy weather and the model felt light on the lines. Weather forecast in Lee is calling for very light winds. Review model's behavior and adjust leadouts/tip weight.

• Fly three flights to work on consistent corner transitions and to settle nerves.

• Have dinner around 6:00 pm with a plan to be in bed by 9:00 pm in order to get good rest for the next day's event.

• Wake up at 6:30 am in order to be at the field at 7:00 am to put up a morning "wake up" flight.

• Be prepared to volunteer to judge other skill classes or for anything else the CD needs.

• Arrive in the pits two flights before mine, clean the lines, and fuel the plane. Be ready to go one flight before mine.

Compared to the prior year, when I was "winging it," this year's contest was a lot less stressful, and as a result I placed much, much higher than expected!

Execute with intent means to actually do what you planned. Your actions should be following the plan. This seems like the most obvious thing, but statistics show that the vast majority of plans are never followed through. If you want to win, you need to follow the plan you set for yourself.

Ask for help. Just like the previous step, this one seems obvious, yet it is one of the hard ones. In western culture, asking for help is viewed as a sign of weakness. Most men are notoriously stubborn when it comes to asking for help. The goal is to find the areas you are lacking (be honest with yourself!) and then find someone who is knowledgeable in those areas. If your flying skills are subpar, get a coach! If your last model had more twists than a Six Flags rollercoaster, find a builder that can show you how to build right!

Track success means to focus on your successes. Figure out what you do well and improve other areas to match! Do not get discouraged by a bad wingover pullout; fly the pattern as if nothing happened! Had a bad first round flight? So what! It's in the past and there is nothing you can do to change it! Instead, focus on what you are doing or about to do.

I am reminded of a recent story. At the 2013 Nats, on the Top-5 day, Paul Walker had a really bad first flight. Did he get discouraged? Absolutely not! He focused on the flight at hand and went on to win the Walker Cup that year! Why? Because he put aside one bad flight and instead focused on flying the next one.

If you were to ask any Nats winner if he or she had followed any of the above steps, I bet you will find out that each of them had done the steps of the HEAT method in their own way. All of them! So as you contemplate the 2015 competition season, try following the HEAT method and you too may end up in the winner's circle! *s*N

District II

by Bud Wieder

Hi to all you District II guys and gals. There's not too much to report at this time, but I will try to get you caught up with a few events and happenings that went on in our District II area since our last issue of *Stunt News* came out.

One of the events that took place was covered for me by Ron Testa:

GSCB Nostalgia Combat/Union MAC Reunion

Sunday, September 7, was the date for the Second Annual Nostalgia Combat Fun-Fly at the Garden State Circle Burners flying field in Lincoln Park, New Jersey. The Middlesex Modelers originated this combat fun-fly last year at the GSCB field. It was such a huge success that it was held again this year. We were also pleased to have a reunion of the illustrious Union Model Airplane Club (UMAC) in conjunction with the combat fun fly.

The turnout was great, the weather was absolutely perfect (a rare thing at the GSCB field...), and everyone had a fantastic



Almost all the combat planes in this photo are Larry Scarinzi published designs. He was very prolific in the 1950s, '60s, and '70s! Can you name them all?

New Jersey, New York

time. As a bonus, we also saw some great combat competition matches. There were also a number of CL Stunt fliers in attendance, and they had a lot of fun flying on the back circle at the GSCB field.

Thanks to all who attended this year, and we hope to see you all for the Third Annual Nostalgia Combat Fun-Fly next September.

-Ron Testa



Left to right in this photo are Larry Scarinzi, Frank Imbriaco, and Jim Vigani. Larry is holding one of his Super Satan designs, Frank is holding a Satan, and Jim is holding his own design, Double Diamond.



Stunt News 62



Bob Hunt and Bud Wieder brought their new twin-engine test-bed electric ship and flew a few demo flights with it. The ship also features retractable landing gear!



Here's Mike Cooper's beautiful new Steve Wooley-designed Cobra. Way to go, Mike!



Jim Damerell's new, original-design, electric-powered Cosmic Wind features RC throttle control.



Bob Hunt and Bud Wieder with their beautiful stunt ships.



Jim Damerell displayed his two stunt ships. Nicely done, Jim.

Thanks, Ron, for all your great help covering the day. One observation that I made was that more than half of the combat ships there were Larry Scarinzi designs. What a great testimonial to this legendary designer, builder, and flier.

At the end of the flying session everyone went to the local diner for food and more conversation about the good old days. One of the gentlemen that attended the fun fly was my friend, Frank Pisz, who drove in from Texas. Frank was a National Champion in the Junior Combat event in 1961, and he is getting back into the hobby after more than fifty years. Frank flew a bunch of flights that day, and as everyone could see, he is coming back very quickly.

Frank's new ride

Frank Imbriaco has just completed his newest airplane and it's a real beauty. His new Ryan's Eagle is a 20-point, front-row caliber airplane. Frank is a great builder and finisher and an up and coming competition flier.

I was present for the first few flights on this new bird. It flew virtually "off the building board," and I was honored to have been asked by Frank to take the third flight on the new ship. It flies just like my Ryan's Eagle. This new ship joins Frank's fantastic Caprice in his stable of fine stunt models. Here are a few pictures that show the fantastic quality of Frank's work:



When I arrived, Bob Hunt was taking a practice flight with the test-bed electric twin design that he and Buddy Wieder built. The ship is equipped with retracts. It was a pleasure to watch, especially when the landing gear retracted after takeoff and came down at the end of the flight. Both Bob and Buddy Wieder flew it in the contest that day, and they each received a round of applause after their flights.







The Garden State Circle Burners Fall Precision Stunt Contest was held at the Palisades Park flying site on September 9, 2014. Our steadfast reporter, Ron Heckler, was good enough to take some photos and write a report for this column:

Fall GSCB Precision Stunt Contest

After a rainy Saturday, it was expected to be a windy day on Sunday, September 14, for the GSCB Fall PA Contest. However, it turned out to be another "stunt heaven" day, and a good turnout was seen. Not only did members of the GSCB club attend, but there were also a few members of the New York Control Line Stunt Team and couple of Philly Flyers in attendance. There was one lone wolf from Stockertown, PA, there, and another one from Massachusetts. We also saw a bunch of interested spectators.

Mike Cooper (left in photo) and Ron Testa proudly unfurl the GSCB club banner.



The judges for the GSCB Fall PA contest were Ken "Sleepy" Dawson (left in photo) and Rich Giacobone.



Bob Hunt and Buddy Wieder both flew their new test-bed, electric twin design in the contest. It has retracts!

Stunt News 64



Ron Testa guides his ARF Nobler through a pattern in the Intermediate Stunt event.



Steve Yampolsky made the trip down from Massachusetts to fly in the Expert class at the GSCB meet.



The "Godfather of Electric Stunt," Mike Palko, flew his veteran, Bob Huntdesigned, P-51B Mustang in the Expert class. Mike placed second on this occasion.



The New York Stunt Team's Will DeMauro flew his brand-new, original-design Voltron in the Expert class at the GSCB meet.





Buddy Wieder launces the test-bed electric twin on a flight. Bob Hunt was at the handle and he won the Expert class that day. It is the first known electric twin to win in Expert Stunt!



Bob's footwork needs a bit of attention, but he twisted the handle just right on this occasion for the win. Note the retracted main gear. The nose gear tucks neatly into the front of the fuselage. As Howard Hughes might say, "It's the way of the future..."

Before the start of the contest, Mike Cooper, the Contest Director, called a pilots meeting and announced the contest would consist of four categories: Expert, Advanced, Intermediate, and Beginner. All would be flown on the same circle and the judges would be Rich Giacabone and Sleepy Dawson. Jim Damerell would be score keeper. There were no appearance points and there was no builder-of-the-model rule in effect.

The scores for this contest can be found in the Contest Scores section in the back of this newsletter.

-Ron Heckler

Thanks, Ron, for that fine report!

New arrival

On a slightly different note, Rich and Susan Giacobone's daughter Amy and son-in-law, Andrew Healy, welcomed their first child into the world. John Healy was born on Sept. 17th weighing in at 7 pounds, 9 ounces, and with a fuselage length of 21 inches. Mother, son... and grandpa are all doing fine.



Welcome to the world, John Healy! It's time to get that youngster a CL handle ...



Susan Giacobone (left in photo) looks way too young to be a grandmother. Rich (at right in photo) on the other hand... Note that the proud dad Andrew is holding the new arrival. Rich wasn't checked out yet.

That's about it for now. Stay well and warm, and build! sn —Bud Wieder

Ohio, Pennsylvania, West Virginia



It's hard to believe that this column is being written for the November/December issue of *Stunt News*. Where did the summer get to?

Since my last column, we have been to the Nats, to the Jim Coll Memorial in Maryland, and to a first-year Fun-Fly in Jerseytown PA. I'm sure the Nats will be covered in its entirety in several publications, so I'll let the particulars of the competition to other writers. One unique aspect of this year's Nats for me has nothing to do with the flying, but everything to do with spending quality time with good friends.

Alan Buck takes his camping trailer to Muncie, and he and I camp behind the RC field in a spot set up to handle campers. This year, about mid-week, Alan invited some friends over for something to eat and drink.

With very little coaxing, we got Jeff Traxler, Bob Hunt, and Bill Werwage to stop by. Since all of these gentlemen are musicians, it didn't take too much of an effort to get them to play a little. Jeff had several guitars with him, and soon we had a jam session going on. Before we knew it, other fliers gathered, as well as several spectators. We had our own hootenanny!



Bob Hunt, Jeff Traxler, and Bill Werwage jamming at Alan Buck's trailer at the Nats. Bill looks as if he is waiting for the two rookies to catch up.



Our illustrious leader doing what he does best. He would tell us he was thinking!

Eventually, one of the RC pylon pilots showed up with his instrument and joined the group. These fellows sang, played, and poked fun at each other with all of us laughing and trying to sing along. As we all get older, I believe these are the moments in our hobby that we are going to count as the best times. What's better than great models and best friends?

Jim Coll Memorial

Again this year, the Jim Coll Memorial was extremely well run by Jack Rosemere and Tim Stagg. It was also great to visit with Ann Coll, Jim's wife. Ann is such a wonderful hostess and fine lady. Ann, you will always be part of the CL family.

District III was well represented at the Jim Coll meet with eight fliers present.



Bemie Suhamski preps for a flight. Bemie, you don't have to pump electrons and they are not as messy.



Mike Palko's still beautiful, electric-powered P-51 is a potent performer.



Here's Joe Adamusco's Rojett-powered Seafire.

| Name 11 | et 12na | Firial | Name | Art | Zeid F | in the | 1 |
|------------------------|------------|--------|--------------------|---------|--------|--------|-------|
| Tenny Thomas 8 | 5 1905 | 1.00 | Phil seilman * | | 3/10 | 346 | D |
| has the more # 23 | 1 /89 | 2310 | 2 Bred Smith " | 2175 | 153 | 27 | 5 1 |
| Fringen Dawson 7 84. 7 | 5 / 18/0.5 | | k. Dan Bianjach * | 32525 | 337 | 1.5 | s-cur |
| - / | 1 | | " Price Deese " | 264.29 | 251 | 21 | #125 |
| | 1 | | s Rice Weller | 271 | 285 | 5 7 | 2855 |
| | | | 6. Bernie Suhahari | 285.75 | 2901 | 5 \ | 2905 |
| 11 | 1 | | 7. John Sauders | * 321.5 | 318 | .75 | 3215 |
| | 1 | | stick thusar * | 175. | 25 - | / | 175. |

Old Time score sheets: District III. Denny Thomas finishes third in Old Time Intermediate; District III Dan Banjock finished first; and John Saunders second in Old Time Expert.



Joe Adamusco and John Saunders appear to be in deep discussion.

The weather on the Eastern Shore of Maryland seems to be one of those places where, if it's good, it's great; but if it's bad, run for cover. This year, the weather was beautiful... no excuses based on poor weather. I showed up this year with my new Genesis MKIII electric with about four flights on it, so my expectations were not real high. The flying site in Hurlock is second to none with three circles, but only two used for the competition. There is a full-time circle for practice, or, in my case, trimming. When the contest is over, the post flying activity is starting to become legendary. I encourage everyone in District III to put this contest on their attendance list.

Jerseytown Fly-In

Over the Labor Day weekend, my flying partner, Alan Buck, organized a two-day fly-in at our home field. As you will see in some of the enclosed pictures, the field is an all-grass area about 450 feet by 450 feet, and relatively flat.

Alan cut the entire field on Friday; but, as you will see, the grass was a little tall for those of us who fly with wheel pants. When Alan realized some planes would not get off the ground, he took a short walk to the neighbor's (a farm implement dealer) and returned with a very large lawnmower and proceeded to cut two circles of much shorter grass... problem solved!



The lineup of aircraft at the first Fly-In at Jerseytown, PA, organized and expertly executed by my good friend and flying partner, Alan Buck.



Bernie Suhamski and Jen Fedorick. Jen, you look as if you are worried about the next flight. Relax.



Mr. Buck, either working hard or thinking, "If I had another quarter, I could buy a hot dog."



Tom Hampshire (a District II interloper) holding court at Circle II. Bob Hunt and Joel Constantino don't seem too worried about the outcome.



Bob Hunt pitting for Tom Hampshire. I think Bob set fire to the Kingfisher just before he launched it.



Dennis Lipsett, one of my flying buddies, along with George Waters admiring Bob Hunt's Crossfire.



Ken Armish holding a Shoestring Profile built by Ken and Dennis Lipsett, designed by Pat King. With only a few flights on it, it seems as if it is going to be a great flyer. An electric version is available also.

I counted about 35 aircraft on the field at one time, and I know there were a few more still in some of the cars. Everyone seemed to enjoy the flying, and I am sure they enjoyed the food being served by Diane Buck, Norine Armish, and others. There was a small charge for food and drink, and all the profits were donated to the Jerseytown Community Center, which owns the property.

The neighbors and townsfolk seemed to enjoy the show. Some were heard to say they hoped it would become an annual event. I believe Alan plans to do it again next year. I hope many more District III fliers will take advantage of some great flying in a very relaxed environment.

Well, since Mr. Hunt is waiting for my article, I will close with my usual plea for any information that you may wish to see in *Stunt News*. Remember, this is your column. I would like to start a collection of building hints. So, if you have a new or unique way of building, send me a description. Remember, what seems simple to you may be completely different to others. Don't discount your abilities.

Until next issue, fly well, my friends. sN

—Ken Armish

District IV by Steve Fitton

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

Sometimes it's amazing how fast your brain works. Just last week I was thinking this as I watched my Nats plane speeding toward me, out of control and moments from destruction. You see, a few days earlier *SN* Editor, Bob Hunt, gave me a call to tell me he was giving my new Dreadnought a mention in his Nats article, and he wanted to check that he had the details right.

We spent a few minutes chatting about the plane, and I was looking forward to seeing its mention in print. As I watched my Dreadnought hurtling toward the center of the circle, courtesy of a bad stooge launch, two thoughts had time to wander through my mind. The first was "Yes, I really AM that stupid!" and the second was that it was going to be a bummer to read what was about to be a posthumous mention of my plane!

When the grass clippings and flying parts came to rest, it turned out the plane was repairable. Figuring out the chain of events that caused the accident took a bit longer than the crash, but I realized one of the elements of the accident was a bad habit I had not realized I was doing (again). I'll explain the way the accident went down in the hope that you, gentle reader, might spend a moment to think if you are letting any bad habits creep into your flying, either in procedure or technique

After I collected the pieces from the accident, I noticed that the chalk line reel I use as a stooge release had the handle in the up, or *unlocked*, position. That was a major clue, but it didn't explain why the airplane had cocked left about 30 degrees at the moment I pulled the release.

As I mulled over the way the airplane had turned prior to release, I realized that the most likely culprit was...me. One of my many bad habits happens on takeoff, where, if I am not paying attention, I tend to jerk the handle toward me at the moment the plane is released.

The problem originally came to a head back at a Marietta contest where I was destroying many expensive props because of nose overs on takeoff. After another ground-up prop, my friend Derek Barry, who had launched the plane, came up and said, "You do realize you are yanking the plane in about three feet when I let it go, don't you?"

I had to admit I *didn't* know that; it was a bad habit that had started out gradually, but reached the point that I was side-loading the wheels to the point where they jammed in the wheel pants upon launch. After this bit of coaching, I got back into the habit of backing up smoothly at launch—when being launched by a helper!

The aftermath of the stooge crash made me realize that when launching from a stooge, I was always so afraid the plane would turn in on me that I was anticipating the launch and yanking hard on the handle the same moment I pulled the stooge release. I kept getting away with it for hundreds of stooge launches, because they always took place over grass and the wheels skipped over the grass instead of bending as they were dragged over the pavement, preventing any telltale noseovers.

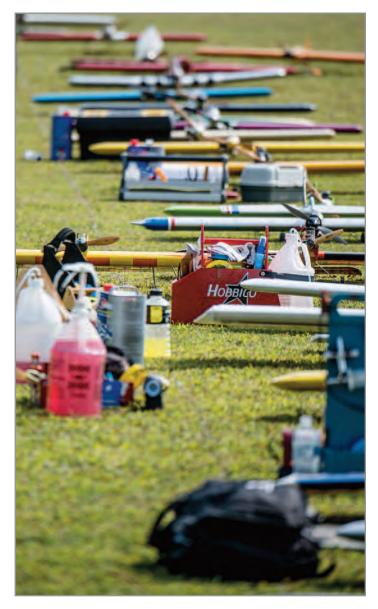
In the case of the accident flight, the stooge didn't release right away because the reel handle was unlocked; instead it released a bit more line. The yank on the flying lines arrived right on schedule, though, and since the tail was still restrained, it broke the tailwheel mount and turned the airplane 30 degrees in toward the center of the circle.

The final link in the accident chain was when human nature

took over, and purely by reflex I pulled the stooge release again before I could stop myself. That time, the unlocked stooge reel did not pay out any more line but released the model (now equipped with a free-castering tailwheel) and the crash was on.

If that bad habit of pulling hard on the plane had not been there, the failed release would not have been such a problem. The point of all this is to stop and think every now and then about everything you are doing. Whether it's the way you fly a maneuver or the way you needle your engine, you might realize that you have let a bad habit creep in there, and you have the chance to fix it now before it becomes a costly mistake.

The weekend of August 10th saw District IV gather in Hurlock, Maryland, for the Jim Coll Memorial contest. With perfect weather on tap, attendance was great and everyone had a good time. I am delighted to show some photos here that were taken by Jack Upchurch at that event.



A whole mess of airplanes in the pits at the Jim Coll Memorial contest.



With OTS entry and cigar at the ready, Dick Houser is ready for action!



Lloyd Gregory coaches his grandson through a flight.



Bub Reese tinkers with his OTS bird between rounds at the Jim Coll Memorial contest.



This is where it matters: the all-important scores going up on the sheet.



Tim Stagg guides his F-86 through the pattern at the Jim Coll contest. Tim and his comrades put on a fantastic event each year in honor of their late buddy, Jim Coll.



One of the curses of missing a contest (your scribe was trapped on a rock called Sanibel Island) is that it's hard to figure out who flew what, but, I thought Jack Upchurch's picture of this Cardinal was worth sharing anyway.



Tabulation is going full speed to keep up with a lot of flights.



Tim Stagg runs the pilots meeting at the start of Sunday's schedule of events.



The end of an era: Dan Banjock brought his well-worn Vista stunter down from Philly, but the plane reached the end of its life at the Jim Coll event. An encounter with wake turbulence left it pretty smashed up on Saturday, and an inflight structural failure on Sunday more or less finished it off.



Alan Buck wings his SV through the inverted laps at the Jim Coll. This is his crazy light SV and it flies awesome.



Ken Armish and Bub Reese are having a discussion about hand/arm position.



Jim's widow Anne personally hands out the trophies for the Jim Coll contest. Here, Phil Spillman collects one for his third-place finish in Expert Profile.

Now, the time has come for me to conclude my tenure as District IV Director. As all of you know, I put out a call for volunteers this past summer to take over my post when my term ends this December, and I am delighted to announce that Scott Richlen has agreed to step up and represent District IV.

Since there were no nominations by the time of the Nats meeting this summer, PAMPA President, Warren Tiahrt, had directed me to railroad, er, ah, find a replacement, and Scott was amenable to the idea.

It seems hard to believe, but I have had the privilege of being your director for the last six years. My first article for *SN* was written when the directors had a byline picture over their column each month, and I chose a picture of myself and my brand-new infant daughter, Charlotte. Today Charlotte is a second grader; that's how much time has gone by!

So, it's goodbye for now, but not forever. Scott and I have agreed to trade off the job every term or two if nobody else wants it, because I know from experience it starts to become onerous after a few terms.

So, don't be afraid to volunteer in the future! It's a benefit to all to have different viewpoints every few years as a director, and I for one am excited to see what Scott does with the new job. Be sure to help him out with pictures and stories of what you are doing in your part of the district!

Have a great winter, guys, and give Scott a warm welcome. I will see *you* at the contests! *s*N



There is no District V report for this issue. SN

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

—Derek Barry

District VI

by Dennis Adamisin

For us fair-weather fliers, the flying season in the Midwest is essentially over, although there are a few hardy souls and All-Season patch fliers who will hardly miss a beat during the cold days. I congratulate them; I'll sit at home with a laptop, a lap cat, and a mug of hot chocolate.

I have wanted to get out and fly more, and 2014 was finally the year I got to do it. I didn't make it to all the contests I had hoped to attend, but I had a great time at those I did attend. While I did not get into a rhythm and the practice routine I need to get back to top national level, I was able to get some pretty good flights on a fleet of airplanes. I test flew the Profile Kell, Fancy Pants, Vampire OTS, and Ringmaster, and got more flights in on the Cosmic Wind and Typhoon profiles.

I had some great contests with the Joker OTS (and Classic) stunter and also had a few flights on the Sheeks Swinger and my Mythbuster. Just for laughs, the Junior Flite Streak proved itself a pretty awesome fun bird, and the Circus Prince showed it is not a Flite Streak. By the time you read this, I hope to have some flights on the new Baby Ringmaster electric conversion for Brodak.

I had two crashes—both in the Vertical Eight—but neither caused any damage; one didn't even break the prop! I learned a lot (good and not so good) about hard-point handles and learned to tie Uni knots so I could make up and try out my first sets of Spectra lines—they won't be the last ones, either.

I work on a contract during the week. I live and work in Indy and then get home on weekends. While home I get to fly with Wesley Dick at a nice site next to the airport. Early in the season, Wes and I started using critique sheets to coach each other to

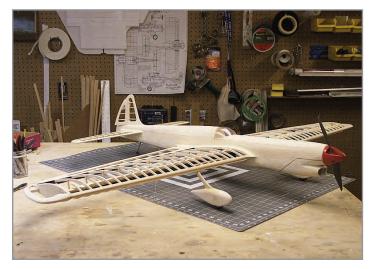
Illinois, Indiana, Kentucky, Missouri

some better flying. I think it worked for both of us.

Wes is a good flier who usually flies alone, or without anyone who could critique his flying. A little coaching and he got really sharp really fast. Wes was very happy with his placing at Brodak back in June. In fact, after he beat me at Brodak, I told him I was through coaching him!



Here's just part of the flightline at the Tree Town Modelers meet; looks as though they had a good turnout. Check the results elsewhere in *Stunt News*. Photo from Dennis Van der Kuer.



Master Scale modeler, Steve Couch of Indy, is trying his hand at a scratch-built Ares. Can you say "Classic?" Look for photos of the finished product in a future column. Steve Couch photo.



Another view of the flight line at the Tree Town Modelers meet. Note the B-17 giving rides. Bet they knew there was a stunt contest on site! Photo from Dennis Van der Kuer.

In Indy this year I connected with Gary Alspaugh and the Pioneer Park CL Flyers. We go out Wednesday nights to fly at the park. Gary mows a takeoff strip in the otherwise nice (but somewhat hilly) park. This is a group of sport fliers who thoroughly enjoy flying (imagine that!), even though they are not practicing for contests. This summer we were blessed with a stretch of really nice weather on Wednesday nights.



Will Hubin captured this great inflight shot of my Ringmaster at the Akron contest. I think it is during the glide; there's a tick of up-elevator and the bird is slightly nose-high.

Gary is a former contest flier who drifted into RC then drifted back. I helped convince him to fly in the FCM contest, where he showed he can still compete *and* he thoroughly enjoyed himself doing it! Bob Fisher is a Combat flier from the 1960s who just restarted control line flying last year. He is doing patterns now, but I have not talked him into a contest—yet.

Another of the regulars, Don Mains, is a beginning flier learning the basic maneuvers. He continues to improve while persevering through a number of setbacks. I think he will be doing the pattern next summer. Don also built a very nice electric Ringmaster using the conversion kit I designed for Brodak. It is the first such build I saw. I really enjoy getting out with this bunch and the spirit of laidback camaraderie.

Family commitments prevented me from participating in the FCM at AMA meet, but I was able to pass through Sunday afternoon and at least say hi. Allen Goff works his tail off to consistently put on one of the best contests around at a really terrific site. Meeting up with Allen and Will Hinton is always a special treat.

One contest I got to make was down in Sellersberg IN. Mike Stinson and the Skyliners club have a nice single-circle site and put on a really good show. Unfortunately, entries were down this year (a trend noted at several other meets), but that did not stop us from having a good time. Kenny Stevens came up, his first meet since his WC adventure in Poland. He and Eric Taylor put in some really good flights—me, not so much! I got to meet a bunch of District VI members who I had only met previously on the online forums or on the phone. Even getting a flat tire—and discovering that cars no longer come with spares—could not put a real damper on my weekend.

I also finally got to attend the Akron Skymasters meet that is held at the MAPS (Military Aviation Preservation Society) museum facility. This one got rained out last year on the only day I could have attended. This year the rains held off but the wind was there. We were also flying directly downwind from the museum hangar, which made it interesting! Pilots paid attention and no birds were lost.

The site for this meet is pretty special, with lots of warbirds parked around the perimeter. This was the first time I ever got to use an F-14 Tomcat as a downwind reference point. This was right in the backyard of the Northern Ohio contingent: Bob Hudak, Jeff Trexler, and Dan Bregar, all flying electric models and making great strides. In fact, it seemed that electrics were in the majority this day—first time I ever noticed that.

Timer maker Will Hubin is also from around there. He was manning his camera and got some awesome inflight shots. (Check out the one of me and the Ringmaster.) Crist Rigotti has retired to Texas, so it was quite a pleasant surprise to see him there (visiting family) and not a surprise to see him flying really well.

I had never met Serge Krause before, so I checked that box while I was there. Dave Evar was taking the pictures for the awards. Samantha Hines toughed out a good flight in the windy turbulent conditions; her dad Steve was beaming with pride afterward! Wesley and Marie Dick were there as guests of Gerry and Merry Phelps, but a sore heel kept Wes from flying.

I spent quite a bit of time talking with Jim and Todd Lee something I have not done in a while—and I finished off the day at dinner with Dan, Crist, and Will, discussing electric things. No flat tires on the way home this time; I was okay with that.

Building season is upon us. I have half a dozen birds ready to cover and another half dozen with fuselages built but needing all the flying parts to be built. That's what happens when you design electric installations, build the fuselages for the instruction manual, but do not finish the build because the *next* installation is ready to go...sw

Aero Products

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

Send \$3.00 for Catalog: Randy Smith: Aero Products 980 Winnbrook Drive, DACULA GA 30019, USA Ph (678) 407-9376; Fax (678) 985-5085 Web site: www.Aeroproduct.net

Iowa, Michigan, Minnesota, Wisconsin

This column is largely a contribution from Samantha Hines, our current Nats Junior CL Stunt Champion. She is 14 years old, and, with the help of her dad, Steve, has become quite competitive very quickly. I think we will be seeing good things from her in the future.

She has included for us some info and pictures from the Kalamazoo Tour D' Michigan event, as well as her experiences at the Akron contest held at the MAPS facility. MAPS stands for: Military Aircraft Preservation Society. They are a group who have joined together to refurbish World War II and newer aircraft, and have created a very nice little museum. Of late they have been blessed with some outside support and have been able to increase their efforts on the restorations, and it shows.

The contest itself is fun, though the weather the past two years has not been good. It's worth the trip just for the setting.

So let's see what Samantha has for us:

Sam's report

The most recent competitions in District VI were the Tour'D Michigan and the Sky Masters in Akron. I couldn't attend the Tour'D Michigan (Kalamazoo) competition because I had bronchitis. But I do have the results from that contest.

Slalom:

1st: John Paris 2nd: Rich Imhoff 3rd: Terry Bentley 4th: Al Rohrstaff 5th: Jay Williams 6th: Jeff Hitchcock 7th: Paul Barbour 8th: Joe Kresnak **.35 Rat Race:** 1st: Joe Kresnak 2nd: John Paris 3rd: Rich Imhoff



Here's Teny Bentley and his Think. That's his nephew, Aedin Woods, chilling out with him at Kalamazoo.

District VII

by Bob McDonald

.15 Race: 1st: Rich Imhoff 2nd: Frank Passorelli 3rd: Al Rohrstaff Fun Stunt:

1st: Rich Imhoff 2nd: Paul Barbour 3rd: Terry Bentley 4th: Joe Kresnak 5th: Tom Alberty 6th: Jay Williams

My dad, Steve Hines, said it was a very nice day, and everyone had a great time. They had four very fun events going on and many people showed up. The wind stayed to a minimum. Many people helped out, even though some did not fly. They had a lunch, and everyone got to catch up with each other. I wish I could of been there to see everyone and, of course, to fly. All in all the Tour D' Michigan was a success.

The weather for the Sky Masters contest in Akron was very windy. I did not get the scores for the first day, but mostly the people who were there the first day were there the second day. The wind speed was at least 25 mph.

After the first round we all left for lunch for an hour, and when we had returned to the contest site the wind had gotten worse. Everyone did very well in the wind for the first round when it was gusting. The judges were asking if people wanted to fly their second round and everyone said no, so nobody flew their second round. Even the chairs were blowing over. We all said it was a sign from God not to fly! The patterns were not the prettiest but they were recognizable. The day was not the best but everyone had a good time.

I got to see old friends, such as Jeff Traxler; I had not gotten to see him since the Nats. At Akron people also got the choice to go into actual full-scale warplanes and see how they looked inside. I think I was the only one fascinated with this.

They also had a drawing for prizes. Among the prizes were an Oriental kit and an AF-2S Guardian Carrier kit with extra rib kit. There was a hat and T-shirt. (I wanted the T-shirt because I always get oversized things to sleep in...)

There was also an O.S. LA .46 engine. The AMA donated an RC radio for the drawing. There were three \$25 gift certificates from Tower Hobbies, and another gift certificate, as well. There were also a lot of motor mounts. They also had quick drying glue and epoxy. They put on a very good drawing.

My name was drawn once, but Crist Rigotti's name was drawn many times. He gave me two of his tickets so I got to pick two things. The first time I drew I got the Carrier airplane; I can use that in CL Scale events. Then Crist gave me his ticket and I picked out a \$25 Tower Hobbies gift certificate and a glow plug igniter.

Even though the wind blew like crazy, everyone had a good day and enjoyed the contest. With that said, the scores for the second day were as follows:

Intermediate:

1st: Dan Bregar 2nd: Samantha Hines

Advanced:

1st: Jeff Traxler 2nd: Bob Hudak



Samantha Hines (our guest author) poses with her award for her placing in Intermediate.

Expert:

1st: Jerry Houpt 2nd: Dave Heinzman 3rd: Crist Rigotti 4th: James Lee

In conclusion, both competitions ran very smoothly, even though the wind was a factor. It's always nice to see everyone at the contests and catch up. But mostly for me, I like to stay at the motel and swim in the pool. Just kidding! I love seeing everyone



Todd Lee shows a young fan his award for winning Classic Stunt on Saturday.

and I hope everyone goes to Brodak so I can see you guys again next season! See you in the circle.

-Sam

Well, that's all I have for now. Fly Stunt and send me stuff for the column. 'Til next issue. *s*N

-Bob McDonald

District VIII

by Doug Moon

Hello again from Dallas, Texas. It is now September 30, and I am very late with this column. Sorry, Bob. It has just been an insane month around here for sure. (Trust me, Doug. You're not the last one in. —Bob). School starting, overtime at work, etc., have made time a very tough thing to come by. The busy schedule hasn't stopped stunt around here, and it won't any time soon.

About mid-August the winds finally died and the heat really came on strong, just in time for some practice leading up to the Labor Day weekend contest.

This weekend we were treated to loads of sunshine, lots of heat, and some wind—just the makings for a good oldfashioned contest in District VIII. (I was not available for all of the Saturday festivities, but I have sent the results to Howard and they should be in this issue.)

Arkansas, Louisiana, New Mexico,

Oklahoma, Texas

There were racing events, as well, on Saturday. My son was really taken by seeing three guys in the circle at the same time. He thought that was really cool. I thought it looked really hard to do.

Sunday saw a nice turnout. Richard Oliver, Frank McMillan, Joe Gilbert, Don Cranfill, Steve Moon, Joe Bowman, Crist Rigotti (welcome to Texas, Crist), John Hill, Doug Moon, Mike Greb, Gaylord Elling, Mark Troutman, Gregg Elling, Andy Stokey, John Binder, Dave Ek, Jim Svitko, and Max Moon were the contestants of the day. It would make for some real interesting flying for sure.



Frank McMillan waits his turn in the pits.



Jim Svitko whispers to his plane, "Five feet and 45 degrees. I know you can do it!



Dave Ek signals and Bill Wilson holds.



Mike Greb keeps it steady while inverted.



John Hill takes off for an official.

The ones who make this thing go were also on hand running the show and keeping us all in line, and well-fed I might add. They included Sheila Cranfill, Dale and Linda Gleason, Mike and Pricilla Scott, Tom Niebuhr (his heart surgeon), Don Hutchinson, and Stephen Jeansonne.



The table that keeps it all together and sells the raffle tickets.

David Russum and Fred Kocher were on hand snapping photos, many of which can be seen on Stunthanger.com. There were many others who there, as well. I can't remember them all. Participation was way up this year, to say the least. That was really a good thing to see.



Joe and Colleen prepare to fly the Vortex Generator machine.



There are so many VGs on this plane it won't land!

A couple of milestones happened during this contest, as well. This would be my son Max's first contest. We went flying several times in the weeks leading up to the contest. His profile mini Bear is taking the beating of a beginner flying it really well.

A word to the wise when building a trainer: Use $\frac{1}{8}$ -inch diameter landing gear wire on your .15 -.25-size models. It will take the hard pounding on forced landings very well. Bend the gear legs out, change the prop, and go again.

On the morning of the contest he told me he was a little nervous, but excited. Well, I was, too, to tell you the truth. We headed to the circle for his first flight. Steve was there helping all along the way. Mom and his sisters were there to see this, as well. We got the pull test out of the way and it was time to go. I still have to stand in the circle with him to keep him in the middle and help with some of the climbing and diving. I just tug on his arm or help hold his forearm to keep him out of the dirt.

Max made a good first flight, even though it ended with belly landing/crash. He was real happy to have done it and was ready for round two. A little while later when it was time, we went for it again. This time the winds were up a little. He couldn't stay with it, as the climbing and diving got the best of him, and it smacked in on the belly.

The 1/8-inch gear wire took the brunt of it but the inboard wing snapped off. (It's a foamer.) As we were taking it off the circle, he said, "Dad, I think I did real good on that one!" He had a huge smile on his face. It took all of 15 minutes to get the plane ready for our next outing. I was—and am—real proud of him for

getting out there and trying his best. He says now that he doesn't get dizzy anymore he should be ready to really get this figured out.



Max going through his very first pull test.



Max and I perform a takeoff with his model. Only moments after that I removed my hand and he took over for most of the rest of the flight! Way to go, bud!

The other milestone was the awarding of the District VIII points trophy. This year there was a tie between Richard Oliver and Andy Stokey. They will share the honor of holding the top spot for the 2014 points race.

The points race in our area is a tough one, as there are many contests all across District VIII. Traveling to all of them is a must if you plan to get your name on that trophy. I have done it myself. I encourage anyone to try for it. It's quite an accomplishment, for sure.



Dale Gleason presents Max with his first CLPA trophy.



Steve Moon's Furias in the "outsides."



Dale Gleason presents the points champ trophy to Richard Oliver. He will share this honor this year with Andy Stokey.

Thanks again to the DMAA for another great contest. I can't wait for the next one—especially for the food! We had outstanding barbecue this time. The DMAA never disappoints in the food department.

There have been rule changes. Please see the AMA website for the updated BOM rule and the other rules that will be in place for the upcoming 2015 season.

By the time you read this, the winter building season will be in full swing. Please send me some information on your projects you have going as of now so we can let everyone in on your progress. Thanks again to everyone for another great year of CLPA. See you in 2015. *s*N

-Doug

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

District IX by Jack Pitcher

The Wichihawks Control Line Club of Wichita, Kansas, held their Air Capitol Control Line Championships over the weekend of August 9 and 10. After a rainy start on Saturday, the weather cleared for stunt events on Sunday. Elywn Aud was busy with his camera as usual and sent along some photos of the stunt action.

Joe Gilbert flies his Don Hutchinson-designed T-6 inverted. Photo by Elwyn Aud.





Andrew Hathaway's Nobler in inverted flight. Aud photo.



Here's Joe Gilbert's modified, Bradley Walker-designed T-rex. Aud photo.



Cary Minor flew this interesting Fw-190. Aud photo.



Lee's cheek cowl-equipped Barnstormer. Aud photo.



Jim Lee's Primary Force is shown here with the fuel line and filter wedged in the remains of its shattered prop. The fuel tank rubber bands failed in flight allowing the tank and fuel line to pivot around into the wooden prop with the pictured results. Aud photo.

The Rocky Mountain Aeromodelers hosted their 38th Annual Rocky Mountain Control Line Championships over Labor Day weekend at the Front Range Airport in Watkins, Colorado, just east of Denver. The RMA contest offers an assortment of control line events including racing, speed, and balloon pop. The stunt events were flown on Saturday and Sunday.

Members of the Colorado Control Line Aerobatics Club assisted the RMA club by running the stunt portions of the contest. Attendance was relatively light with mostly local fliers competing, but six events were flown over the two days, so there was plenty of flying for everyone.

The only out-of-town stunt entries were Jim Rhodes from Salt Lake, and Jared Hays who came over from Omaha to fly in PAMPA Expert and Profile. Jared brought a very nice ST .60powered ARF Strega that he had extensively upgraded to make it more scalelike.

It was interesting to watch all the work Jared put in throughout Saturday and Sunday to trim and adjust for his first time flying at high altitude. He even went out scouting the local hobby shops on Saturday evening looking for better props and more nitro. The work paid off, as his motor was sounding much happier on Sunday, and he put up some good-looking flights in Expert.



Here's a group photo of the stunt fliers at Front Range Airport. Left to right: Linda Brainard, Ray Nyce, Jeny Higgins, Jared Hays, Jeny Chambers, Jim Rhodes, Chris Brainard, and Keith McMahan.

Stunt News 80



Here's Jared Hays' ST .60-powered ARF Strega. Jack Pitcher photo.



Keith McMahan and his profile Venture. Pitcher photo.



Rhodes brought his PA .51-powered, Jerry Worth-designed Apteryx. Pitcher photo.



Ray Nyce flew this electric-powered Yak 9. Pitcher photo.



Mark Gerber's ARF Nobler features an Aero Tiger .36 for power. The Nobler met its demise during the contest going in hard on the nose after the motor quit unexpectedly. The motor fortunately seemed undamaged, saved, it appeared, by the collapsible "mystery wood" motor mounts that gave way under the impact. Pitcher photo.



Here's Chris Brainard's Bob Hunt-designed Caprice with Aero Tiger .36 power. Pitcher photo.

That's all I have in the hopper for this issue. You can reach me or send material at my contact info listed on the Directors page. s_{N} —Jack



Knights Joust: The Knights of the Round Circle held their annual Sir Dale Kirn Memorial Knights Joust contest at the Whittier Narrows site in El Monte, California, on the weekend of August 16 and 17. The weather cooperated with sunny days and reasonable breezes. The afternoon temperatures were pretty warm for Southern California, but the flying was done early enough to avoid the heat.

Contest Director Warren Walker and his crew did a nice job of getting the site into shape and kept the contest moving. The Knights also provided morning coffee and donuts, as well as a flame-grilled hamburger/hotdog lunch. On Saturday we flew OTS, Classic, Profile, and Beginner Stunt. Sunday we flew the standard PAMPA class events.

They also offered Sport/Profile Scale, 80 mph Combat, and most of the Carrier events. I fly 15 Carrier, which kept me reasonably busy over the weekend. The Knights really go the extra mile to make everybody feel welcome and ensure they have a good contest experience. (The contest results ought to be listed elsewhere in *Stunt News*.)



Warren Walker is a man of many talents. He is an extraordinary host and fed a few of us out-of-town Joust contestants at his home. He showed us his wine making effort, his spectacular veggie garden, and of course the legendary man cave.

Leroy Black is a prolific builder; his Yak 9 may be my favorite of his many stunters. It looks awfully good in the air and on the ground. The Yak 9 flies very well, is powered by a custom Roy Trantham Double Star motor and was Leroy's plane of choice in Expert at the Joust. Bill Byles judged several events but was able to get away to fly his profile Sterling Yak 9 in profile stunt. Bill's plane is powered by a Larry Foster L&J Fox 35. I was able to get a photo of both Yaks together.

Arizona, California, Guam, Hawaii, Nevada, Utah



Two Yak-9s at the Knights Joust (Bill Byles and Leroy Black).

Kestas Dvarvydis flew a beautiful electric model in Expert at the Joust. It is based on the full-scale XtremeAir Sbach 342 aerobatic airplane (Google it). I was able to watch one of his flights and was most impressed at the hard corners it could fly.

Sbach 342 that Kestas flew was beautifully finished and well-trimmed. It weighs 61.2 ounces and has a wing span of 61¹/₂ inches and a wing area of 672 square inches. This is not a purchased ARF; Kestis built the model and used quite of bit of composite materials.

He was able to purchase molded shells from Sergiy Solomyannikov in the Ukraine. The shells were all formed in halves, i.e., top and bottom of wing and stab; left and right halves of fuselage. Kestas then installed ribs and bulkheads and assembled and painted the model.

BTW, Kestas designed and built his own 3-blade, 12 x7 prop for the model. I know Kestas is appreciative of his consultations with Sergiy and our own Igor Panchenko as he built the airplane. Power is an E-flite 32 motor controlled by a ZTW ESC 70-amp speed controller and a KR governor timer (both from RSM). The model carries an Admiral four-cell 4,000 mAh battery.

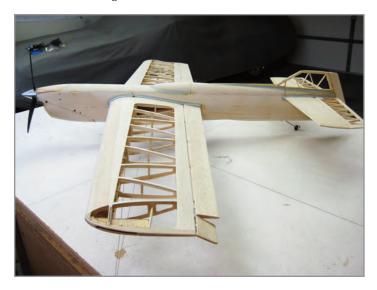
Stunt News 82



Kestas Dvarvydis flew his beautiful electric Sbach 342 at the Joust.



Bill Barber and the still-beautiful Arabesque that was designed and built by Jerry Silver over a decade ago.



An archive photo of Dave Fitzgerald's current Thunder Gazer ready for covering. Photo by Dave Fitzgerald.



Archive photo of Sean McEntee from the 2005 Southwest Regionals in Tucson. Sean was stationed at nearby Davis-Montham Air Force Base at the time.



Archive photo of Chris McMillin, also from the 2005 Southwest Regionals in Tucson. Chris was flying is beautiful Copperhead stunter.

The Knights awarded the Dale Kirn Excellence in Modeling Award to Dave Sabon of Ramona California. This award recognizes the most outstanding modeling project entered. Dave Sabon won this award for his good flying and good looking Werwage P-47. The plaque includes a beautiful and numbered cast-metal RCA biplane (5000 were made). Dale Kirn donated three of the cast-metal models to the club to use as they saw fit, and the Excellence in Modeling Award was created.



Right: The Dale Kim Excellence in Modeling Award presented to Dave Sabon at the Knights Joust. Sabon photo.

Warren Walker selected the winner based on the most outstanding modeling project, not necessarily the Concours winner. Dave's P-47 was selected due to the uniqueness and complexity of the model and the fact that he replicated an actual warbird. The Margie II P-47 was part of the 368th Fighter Group and flown by Lt. Gerald Grace.

Dave did research through Randolph Dope and used the military specification paint colors for his plane. Dave also connected with Lt. Grace's son Tim, who is a P-47 historian, and got the fuselage nomenclature for his dad's plane and also the names of his crew chief and armament guy. The tail number is the number for Lt. Grace's airplane and to be AMA legal is only ³/₄-inch tall.

The full-scale Margie II was eventually shot down, but not with Lt. Grace at the controls. It seems that a mission was going out that Lt. Grace was not flying in. A friend of his in the squadron had engine issues with his plane, so he asked Lt. Grace if he could use Marge II. Gerald said, "Okay, but don't wreck my plane." Although the pilot came back, Margie II did not.

The model itself is the Billy Werwage design. The wing was built using Bob Hunt's Lost-Foam system with Warren Truss ribbing. The bottom of the fuselage is molded from the nose to the tail, and the top block from the nose to the back of the cockpit is molded. I am always looking for input for this column. Please consider sending me some shots of you and your pals, airplanes, how-to stuff,

local CL news, etc. We have a very large district, both geographically and by PAMPA members. s_N



by Mike Haverly

There will be no report this issue. sN

Stunt News 84

Alaska, Idaho, Montana, Oregon, Washington

Contests

Contest Results

| | Bob Palmer Memorial April 26-27, 2014, Madera, CA Results from <i>The Direct Connection</i> | | | | |
|--|---|--|--|--|--|
| Expert Judges: Joel Chesler, Bill Byles | Intermediate Judges: Larry Renger, Steve Harris | Profile Judges: Eric Rule, Gary Akers | | | |
| 1 Bob Whitely 592 2 Steve Harris 579.5 3 Dave Sabon 577 4 Phil Granderson 576 5 Bob Harness 573.5, 564.5 6 Lou Wolgast 573.5, 480 7 LeRoy Black 570.5 8 Kestutis Dvarvydis 567 9 Ray Firkins 563.5 | Randy Doll 332 Charles Carter 176 Classic Judges: Richard Walbridge, Al Hieger Lou Wolgast 563 Bob Whitely 560, 548 Dave Sabon 560, 529 Steve Harris 521 Mark Wasnick 495 | 1Ray Firkins5242Lou Wolgast5123LeRoy Black5024Erik Duggie4765Dave Sabon4066Warren Walker400.57John Wright169Bob Palmer Perpetual Trophy winner:Bob Whitely | | | |
| 10Mark Wasnick503.5AdvancedJudges: Stan Tyler, Antone Kephart1David Riggs4982Pete Cunha496.5 | 6 Fred Staley 483.5 7 David Riggs 444.5 8 Chris Forbes 433.5 Old Time | CD: John Wright Assistant CD: Warren Walker Photography: Paul Westcott Tabulation: Paul Westcott, John Gluth, | | | |
| 3Bob Brooks4944Jim Lally4875Erik Duggie4866Fred Staley485.57Bill Barber448 | Judges: Dave Kick, Dennis Coleman 1 Bob Whitely 514 2 John Wright 489 3 Lou Wolgast 480 4 LeRoy Black 384 | Randy Heydon Food: Mike Costner Field preparation, score sheets: Al Shorey Registration: Randy Heydon, Tom Collier | | | |
| 8Alon Yehezkelof446.59Larry Renger440.510Al Shorey426.5 | 5 Randy Doll 313 | Running: Tom Collier, Kathy Wright Raffle: Tom Collier, Warren Walker | | | |

Texas Control Line Championships

May 24-25, 2014, Houston, TX Results from Frank Williams, CD

| Expert | | Intermediate | | Old Time |
|---|-------------------------------------|---|-------------------------------------|---|
| Richard Oliver Frank McMillan Dale Gleason Gaylord Elling David Gresens | 530.5 529.5 519 508 470 | Greg Elling Mark Troutman Classic Don Cranfill John Hill | 425 334.5 530 529.5 | 1Frank McMillan297.52Gaylord Elling295.53.Dale Gleason286.54Greg Elling269.55Don Cranfill2616Mark Troutman243.5 |
| Advanced 1 Stephen Jeansonne 2 Andrew Stokey | 464 422 | Gaylord Elling Gaylord Elling Dale Gleason Gregg Elling Mark Troutman Colin Anderson | 524 500.5 465 437.5 271 | 7 Colin Anderson 165.5 |

Toronto & District Championships, 54th Anniversary May 31-June 1, 2014, Toronto, Ontario

Results from http://www.balsabeavers.com

| F2B (Canadian Rules) Judges: Naomi Macklem, Mike McMahon | | | l d Time dges: Naomi Mack | Profile Judges: Naomi Macklem, Bill Bowmer | | | | |
|--|--------|---|-------------------------------------|--|--------------------|---|------------------|--------|
| 1 Konstantin Bajaikine | 150.5 | 1 | Len Bourel | 292.5 | Viking | 1 | Len Bourel | 139 |
| 2 Len Bourel | 140.5 | 2 | Dwayne Donnelly | 269.25 | Barnstormer | 2 | John McFayden | 132.5 |
| 3 Geoff Higgs | 139.65 | 3 | Paul Smith | 265 | Trixter Profile BC | 3 | Keith Morgan | 129.25 |
| 4 John McFayden | 135.65 | 4 | Chris Brownhill | 259 | Ringmaster | 4 | Chris Brownhill | 125 |
| 5 Keith Morgan | 130 | 5 | Doug Blackmore | 249.5 | Ringmaster | 5 | Mike McMahon | 124.5 |
| 6 Chris Brownhill | 124.25 | | - | | - | 6 | Dwayne Donnelley | 114.5 |
| 7 Dwayne Donnelley | 117.35 | | | | | | | |

Carolina Classic

May 3-4, 2014, Huntersville, NC Results from Howard Shenton

| | | | Results from 1 | 10 w | alu Shenton | | | |
|--|--|---|---|----------------------------|--|--|---|--|
| Expert Judges: William Dav | vis, Dave | Wenzel | | | ostalgia 30/Classic Idges: Wayne Robin | | ve Wenzel | |
| Charles Reeves Steve Fitton Gene Martine Phil Cartier Advanced Judges: Wayne Robi | 517 506 505 359 | Lark Dreadnough SV-11 Streak III | OS .46LA nt PA .61 PA .75 OS .46LA | 1 2 3 4 5 6 | Tom Dixon Steve Fitton Charles Reeves Bob Zambelli John Tate Don Jenkins | 528.5 519.5 504 500 483.5 480.5 | Brock Nobler Nakke Lark Nobler Dalphin G. Nobler | DS .40BB DS .50 OS .46LA Fox .35 Electric OS .35S |
| Don Ogren Mike Waldron Artie Jessup John Tate Don Jenkins Jim Welch | 508 500.5 495 494.5 494.5 316.5 | Pathfinder Legacy | Electric Electric wk Supertigre .51 Electric OS .46LA Electric | | Ed Ruane Id Time Idges: William Dav Bob Zambelli Brian Moore Charlie Reeves | 427 is, Doug 290.5 261.5 245 | Tucker Spl. Taffinder Icarus YoYo Big Job | Supertigre .35S ETA .29 Fox .35 Fox .59 |
| Intermediate Judges: William Dav | vis. Evere | ett Shoemaker | | | r ofile Idges: John Rakes, I | Bob Zam | ıbelli | |
| 1 David Smith 2 Brad LaPointe 3 Brian Moore 4 Ray Copeland | 498 473.5 439.5 348 | Vector Pathfinder Black Tiger Cardinal | OS .46LA OS .46LA | 1 2 3 4 | Tom Dixon Curtis Comer Don Ogren John Tate | 526 498 493 481 | P-51C Pathfinder Pathfinder P-47 | DS .54 Supertigre .51 Electric Supertigre .51 |
| Beginner Judges: William Day | vis, Evere | ett Shoemaker | | 5 6 | Jim Welch Ray Copeland | 463 434.5 | Pr. Dreadnough P-40 Warhawk | t Electric Evo .36 |
| Rusty Knowlton Roger Altizer Shawn Hicks | | Skyray Humongous Super Clow | OS .25FP Supertigre .40 | 7 8 9 10 | Brad LaPointe Artie Jessup Phil Cartier) Rusty Knowlton | 431.5 427.5 396 215 | Pathfinder P-40 Warhawk Streak RST Skyray | OS .46LA Supertigre .51 Asp .21 OS .35FP |
| Basic Flight Judges: William Dav 1 Shawn Hicks 2 Layla Barry | vis, Watt 164.5 103 | Moore Super Clow Tomahawk | n OS .25LA OS .25LA | St Re | D: Everett Shoemal unt ED: William D egistration, Tabulat unner: Richard Sch | avis ion: Jam | es Duckworth, Sc | onny Williams |
| Valley Circle May Stun May 24, 2014, V Results from 2 | it Meet an Nuys | , CA | Bean Field June 28-29, 2014 Resul <u>http://www.ba</u> | 4, Dr lts fr alsab | resden, Ontario rom peavers.com | | GSCB Stu June 29, 2014, Li Results from Mik pert | ncoln Park, NJ |
| Bob Harness Dave Sabon John Wright Pay Firking | 10 | 98.5 88.5 77.5 70 | F2B (Canadian F 1 Pat MacKenz 2 Len Bourel | | s) 125.8 125.55 | 1 2 Ad | Mike Ostella Mike Cooper Ivanced | 493 471 |

Dave Kelly

Keith Morgan

Chris Brownhill

Doug Blackmore

Keith Morgan

123.75

136

130

121.75

118.25

3

1

2

3

4

Profile

Advanced

1

2

| 1 | Ryan Barry | 518 |
|---|---------------|-----|
| 2 | George Waters | 498 |
| 3 | Bob Krug | 485 |

Intermediate

| Tom Luciano | 427 |
|-------------|-----|
| Ron Testa | 414 |
| | |

Reinhardt Cup winner: Ryan Barry

4 Ray Firkins

5 Jerry Silver

8 Randy Doll

6 7

Mark Wasnick

Score is total of two flights.

Bill Barber

1070

1001

967

925

832.5

Western Kentucky/Southern Illinois Stunt Championships

Allen Brickhaus Memorial

Beginner

August 16-17, 2014, Paducah, KY Results from James Mills

Expert

| Jud | ges: Jim Lynch, Charl | es Reeves |
|---|--|--|
| 1 | Matt Neumann | 581 |
| 2 | John Simpson | 556 |
| 3 | | 554 |
| 4 | | 537 |
| 5 | Dave Trible | 525.5 |
| 6 | Dennis VanderKuur | 519 |
| 7 | Dan McEntee | 516 |
| 8 | Jim Lee | 509 |
| 9 | Mike Schmitt | 495 |
| 10 | James Mills | 480, 474 |
| 11 | Larry Robertson | 480, 461.5 |
| Ad | vanced | |
| Jud | ges: Mike Stinson, Zu | riel Armstrong |
| 1 | Steve Drake | 533 |
| • | Jason Pearson | 529.5 |
| 2 | Jason Fearson | 527.5 |
| 2 3 | | 519 |
| | Mike Waldron | |
| 3 | Mike Waldron | 519 |
| 3 4 5 | Mike Waldron Ronnie Thompson | 519 518 |
| 3 4 5 | Mike Waldron Ronnie Thompson Don Ogren Paul Taylor | 519 518 509 |
| 3 4 5 6 | Mike Waldron Ronnie Thompson Don Ogren Paul Taylor | 519 518 509 502.5 |
| 3 4 5 6 7 8 | Mike Waldron Ronnie Thompson Don Ogren Paul Taylor Jordan Segal | 519 518 509 502.5 485 |
| 3 4 5 6 7 8 Int | Mike Waldron Ronnie Thompson Don Ogren Paul Taylor Jordan Segal Kevin Prier | 519 518 509 502.5 485 463.5 |
| 3 4 5 6 7 8 Int | Mike Waldron Ronnie Thompson Don Ogren Paul Taylor Jordan Segal Kevin Prier ermediate ges: Jason Pearson, W | 519 518 509 502.5 485 463.5 |
| 3 4 5 6 7 8 Int Jud | Mike Waldron Ronnie Thompson Don Ogren Paul Taylor Jordan Segal Kevin Prier ermediate ges: Jason Pearson, W | 519 518 509 502.5 485 463.5 es Eakin |

 3
 Ryan Taylor
 425.5

 4
 Ty Marcucci
 397

| | ges: Paul Taylor, Wes | Eakin |
|-----|-----------------------|---------------|
| 1 | Ed Palacios | 237 |
| 2 | Andy Saunders | 164.5 |
| 3 | Bill Gray | 134.5 |
| Bas | sic Flight | |
| | ges: Paul Taylor, Wes | Eakin |
| 1 | Ben Mills | 236.5 |
| Nos | stalgia 30 | |
| Jud | ges: Matt Neumann, C | harles Reeves |
| 1 | John Simpson | 518.5 |
| 2 | | 509.5 |
| 3 | Eric Taylor | 501.5 |
| | Steve Drake | 492.5 |
| 5 | | 486.5 |
| 6 | | 485.5 |
| 7 | | 482.5 |
| 8 | Dan McEntee | 473.5 |
| 9 | Tom Morris | 473 |
| 10 | Larry Robertson | 467 |
| 11 | Paul Taylor | 451 |
| 12 | James Mills | 449.5, 444 |
| 13 | Jordan Segal | 449.5, 429.5 |
| | Ty Marcucci | 403.5 |
| 15 | Louis Rankin | 394 |
| Old | l Time | |
| Jud | ges: Jim Lynch, Mike | Stinson |
| 1 | Jim Lee | 264 |
| 2 | Tom Dixon | 261 |
| | | |

| Pro | ofile | |
|-----|--|----------------|
| Jud | ge: Roland Trevino | |
| 1 | Eric Taylor | 548 |
| 2 | Tom Dixon | 544 |
| 3 | Mike Schmitt | 527 |
| 4 | Tom Morris | 522.5 |
| 5 | Steve Drake | 520.5 |
| 6 | Dennis VanderKuur | 518.5 |
| 7 | Mike Waldron | 507 |
| 8 | Don Ogren | 506 |
| 9 | Dan McEntee | 501 |
| 10 | Larry Fruits | 494.5 |
| 11 | | 492 |
| 12 | Paul Taylor | 491.5 |
| 13 | Jordan Segal | 487.5 |
| 14 | James Mills | 468.5 |
| 15 | Kevin Prier | 400.5 |
| 16 | Ty Marcucci | 396.5 |
| | ots' Choice: Jim Lee, C RF: Dan McEntee | lee Bee |
| Bes | st OTS Model: Jim Lee | ; |
| Bes | st Nostalgia 30 Model: | Mike Schmitt |
| | st Warbird: Larry Robe | rtson, Mustang |
| | ps: Louis Rankin | |
| Hig | h Point Champion: Eri | ic Taylor |

CD: Charles Reeves Pull Test: Doug Vasseur Tabulation: Jo Ann Lynch,

Randall Hopkins

Ben Mills, Ed Palacios

Kathy Brickhaus, Nancy Reeves

Score Running: Angela Pearson,

Registration: Phil Rudd, Jo Ann Lynch,

Cooking: Jim Nygaard, Jim McBride, Mike Woods, Terry Herrin, Jerry Smith

Michigan Control Line Championships

259.5

251.8

258

3

4

5

James Mills

Dan McEntee

Mike Schmitt

August 16-17, 2014, Westland, MI

Results from Randy Ryan, CD

| Ex | pert | | Be | ginner | • | Ol | d Time | |
|-----|--------------|-------|--------|-----------------------------|--------------|----|---------------|-------|
| 1 | Vince Bodde | 525.5 | 1 | | 249.5 | 1 | John Paris | 254 |
| 2 | Wes Dick | 517.5 | 2 | | 243 | 2 | Jay Williams | 184 |
| 3 | John Paris | 501.5 | 3 | Cory McKensie | 177.5 | Dr | ofile | |
| 4 | Gary Lutz | 496.5 | Cl | assic | | 1 | John Paris | 474.5 |
| Ac | lvanced | | 1 | Wes Dick | 501.5 | 2 | Curt Nixon | 431.5 |
| 1 | Curt Nixon | 467 | 2 | Bob McDonald | 501 | 3 | Jay Williams | 416 |
| 2 | Jeff Traxler | 433.5 | 3 | John Paris | 495.5 | 4 | Vince Bodde | 405 |
| Int | termediate | 444.5 | 4 5 | Vince Bodde Jay Williams | 451 291.5 | 5 | Cory McKensie | 156 |
| l | Jay Williams | 444.5 | | | | | | |
| 2 | Jim Bregar | 417.5 | | | | | | |

| | | | | Stunt in the August 24, 2 Results from B | 014, | Lee, M | ÍA | | | |
|-----------------------|---|---|--|---|-----------------------|----------------------------------|---|-----------------------|---|---|
| Ex | pert | | | | Int | termed | iate | | | |
| 1 2 3 | Bud Wieder Steven Yampolski Perry Rose Mike Chiodo | 564 552.5 523.5 520 | Ryan's Eagle Stoli Special Guru Olympic | OS .40VF OS .46LA OS .46LA | 1 2 3 | Josef J Damia John P | Jaworski In Sheehy Passalaqua | 452. 310. 284. | 5 Nobler | Brodak .40 LJ Fox .35 Supertigre .51 |
| | Don Herdman Jim Sumner | 501 443 | P-51 | OS .46LA | | ginner Rick H Rav K | | 239. 113 | 5 Twister Original | Electric OS .25LA |
| 1 | vanced Norm Liversidge | 495.5 | Cardinal | PA .75 | | dges: | Noel Drine | dak, Gu | erry Byers, e Yampolsky | 00.202.1 |
| 2 | Bob Krug | 480.5 | Strega | RO-Jett .76 | He | elpers: | | rlinck, I | Jyle Spiegel, | |
| | | | | | Sp | onsors: | New Engla | and Stu | nt Team, Barn S | Speed Hobbies |
| | | | Rocky I | Mountain Contr August 30-31, 20 Results from | 014, | Watkin | is, CÔ | hips | | |
| | pert lges: Linda Brainar | d, Jerry H | liggins | | - | d Time dges: M | e Iark Gerber, | Linda | Brainard | |
| 2 3 4 | Chris Brainard Keith McMahan Jared Hayes | 545.5 A 536.5 D 524.5 V 516 St | ixon Kairos enture | PA .51 Magnum .53 SFR .40 Supertigre .60 | 1 2 3 4 5 | Chris I Jerry I | McMahan Brainard Higgins Chambers yce | 281.5 264 245.5 | Humongous Jamison Jamison Still's Stuka Yak 9 | OS .46LA Brodak.40 OS .40 FP Fox .35 Electric |
| | vanced lges: Chris Brainarc | d, Linda I | Brainard | | Pr | ofile | - | | | |
| 2 Int | | 460.5 Tu | | T&L ST .51 OS .46LA | | Chris I Jerry I Jared I | | 522.5 505 | Cardinal Profile RH-I/Pathfinde | |
| | - | | | Electric | 4 5 | Jerry (Ray N | Chambers yce | | Tutor II Nobler Profile | OS .46LA Electric |
| | assic | d Iammi I | Linging | | Ev | ent Dir | ectors: | Jerry | / Higgins, Linda | a Brainard |
| 1 2 3 4 5 | Chris Brainard Keith McMahan | 576.5 A 566 Ca 548.5 G 486.5 St 473 N | pteryx aprice ladiator ill's Stuka obler ARF | PA .51 Aero Tiger .36 Magnum .36 Fox .35 Electric Aero Tiger .36 | | : Boss: bulator | s: | Jack | / Chambers Pitcher, Diane h McMahan, M | • |
| Ex | pert | | Results f | ana-Kentucky S September 6, 201 rom Michael Stins ostalgia 30 Exper | 4, S son a | ellersbu | urg, IN | , CD | e Advanced | |
| 1 | Kenny Stevens | 556 | 1 | Dennis Adamis | | 474.: | 5 | 1 S | teve Drake | 461.5 |
| 2 3 | Eric Taylor Dennis Adamisin | 550 499 | N | ostalgia 30 Advar | ıced | | | Profil | e Beginner | |
| | vanced | 477 | 1 | Steve Drake | | 478. | 5 | 1 A | ndy Saunders | 156 |
| Аа 1 2 | Steve Drake Mike Stinson | 474. 446 | 5 O | ld Time Dennis Adamis | in | 246.: | 5 | Conco | ours: Kenny Ste | vens, SV-22 |
| | ginner | 110 | Рі | rofile Expert | | | | | | |
| 200 | Andy Saunders | 148. | | Dennis Adamis | | 481 | | | | |

| | | | | Fall S ptember 7, 2014, N sults from <u>http://wy</u> | liagara Falls | | | | |
|---------------------------------------|---|--|--|---|--|--|--|---|------------------------|
| | F2B (Canad Judges: Pete Chri 1 Len Bou 2 Geoff Hi 3 Keith Mi 4 John Mc 5 Stuart Hi | r Hanson, Da s Brownhill rel ggs organ Fayden enderson | 133 129.55 127.25 125.75 118 | | 1 2 3 4 5 6 7 8 | es: Naomi M Peter Hanso Len Bourel John McFay Keith Morga Dave Kelly Ron Peters Chris Browr Doug Black | n den an hhill more | m, Geoff Higgs 143.1 142.85 137.45 135.25 136.8 132.8 128.5 114.5 | |
| | | Berg | | ty Control Line eptember 14, 2014 Results from | , Palisades | Park, NJ | Cont | est | |
| 2 N 3 D 4 E 5 J | rt Bob Hunt Aike Palko Dan Banjock Bud Wieder Osé Modesto Villiam DeMauro | 569 563 554 | 1 2 3 | Ivanced Ryan Barry Doug Benedetti Ed Barry termediate Tom Luciano Ron Testa | 503 490 467 463 435 | | CD: R | ner ick Huff ich Giacobone oy Ward | 271 |
| | | | | tevenson Memor September 13-14, 2 Results from Ho | 2014, Aubu | rn, WA |) | | |
| 1 Pa 2 Ch 3 Al 4 Mi 5 Ste | s: Bruce Hunt, Pet ul Walker uris Cox an Resinger ike Haverly eve Helmick hn Thompson | e Peterson 602.5 2012 I 595.5 Cross 575.5 Cross 553 Sultar 518 Eagle 507.5 Vecto | fire fire | Electric Electric Electric Electric OS .46VF OS .40LA | John T Rex Al Mike F Profile Judges: Sta Mike F | ary Letsingen hompson bbott Haverly eve Helmick | 264 232 164.5 , Pete I 519 | Ringmaster All American Sr. Barnstormer Peterson Starfinder | Magnum .28 Electric |
| Judges 1 Re 2 Ma | s: Bruce Hunt, Mi ex Abbott ark Scarborough om Strom | 469 Legac | e Impact | Saito .56 Electric OS .46LA | 3 Mark S4 Fred URF Steven | Scarborough Inderwood son Crock P | 484.5 462 ot awa | rd: John Thompson | Electric n |
| 1 Br 2 Ma 3 Jol | ic s: Pete Peterson, F uce Hunt ark Scarborough hn Thompson ex Abbott | aul Walker 507 Skylar 498.5 Avenş 481 Black 454.5 Strath | ger Ma bird Th | ectric agnum .53 under Tiger .35 ito .40 | Field Prep Pull Test: Runners: Food: | Dave Gar Ben Jone | dner, N s, Gary | d, Pete Ferguson, S Mike Potter, Randy V Letsinger Iarilou Rush | |



| | | | S | Meet ' September 20-21 Results from | , 20 | 14, Davis, CA | | | |
|---|---|----------------------------|---|---|-----------------|-------------------------------------|-------------------|---|-------------------------------|
| | bert ges: Lanny Shorts, L | arrv F | ernandez | | | e ginner dges: Bob Duncan | , Brian | Moore | |
| 1 | David Fitzgerald | 592.5 | Thundergazer 2 | PA75 | 1 | Fred Cadiente | 213 | Flite Streak | OS .25LA |
| | Brett Buck | | Infinity | RO-Jett .61 | 2 | Jim Cunningham | 163 | Flite Streak | OS .25LA |
| | Ted Fancher Jim Aron | 568 551 5 | Trivial Pursuit Systrema | RO-Jett .61 Electric | - | assic | | | |
| | Paul Pomposo | 541 | Temptation 3 | Electric | Ju | dges: Brett Buck, I | Richard | Walbridge, Jr. | |
| | Richard Walbridge | 524 | Diva | OS .40VF | 1 | Ted Fancher | 547 | Ruffy | Merco .40 |
| | Pete Cunha | | Traveler | OS .46LA | 2 | Jim Aron | 531 | Feno | OS .25LA |
| | Mark Wasnick | 516 | Wazzi | PA75 | 3 4 | Paul Pomposo Brian Moore | 522 506 | Coyote Gieseke Nobler | Aero Tiger .36 Stalker .46 |
| | Marshall Palmer | | SkipJack | OS .46LA | 5 | Pete Cunha | 500 | Shark 35 | Aero Tiger .36 |
| | Clint Ormosen Cleon Lingwood | 503 | Tempest ePathfinder | Brodak .40 Electric | 6 | Mark Wasnick | 501.5 | Tempest | OS .40FP |
| | | τ <i>ι 7.3</i> | | Liccult | 7 | Lanny Shorts | 484.5 | Tony Ki-61 | Aero Tiger .36 |
| | vanced | 1 | 1 337 11 1 1 - | | 8 | ~ | 460.5 | GB Nobler | OS .46LA |
| | ges: David Fitzgeral | | - | | 9 | Brian Massey | 453.5 | ARF Nobler | Brodak .40 |
| | Peter Deane | 520.5 | | Mag .36 | 0 | ld Time | | | |
| - | Bob Duncan Carter Fickes | | Lazer USA-1 | Electric OS .46LA | Ju | dges: Doug Barton | n, Ted F | ancher | |
| | Lanny Shorts | | Genesis 46 | Supertigre .51 | 1 | Bob Duncan | 288.75 | Jamison | Magnum .32 |
| | Brian Moore | 495 | SV-11 | Stalker .60 | 2 | Jim Aron | 276.5 | Circle King X2 | OS .46LA |
| | Heman Lee | 488 | Half Lite Stunter | | 3 | 1 | 272.5 | El Diablo | Fox .35 |
| 7 | Larry Wong | 487.5 | Seraphim III | Electric | 4 | | 258.75 | | AP .061 |
| | Mike Massey | 469 | 90% Legacy Spl. | OS .46LA | 5 | Dave Hueseman | 197.75 | Humongus | OS .40FP |
| | Brian Massey Dave Hueseman | 464 349 | Chipmunk Cardinal | OS .46LA OS .40FP | F o 1 | ox .15 Hurl Brett Buck | 208 fee | et | |
| | ermediate | 1 D | | | | | | | |
| | ges: Ted Fancher, Pa | | - | OS ED40 | | | | | |
| | Jeremy Schultz Don Chandler | 451 361 | Primary Force | OS .FP40 | | | | | |
| | Gordon Tarbell | 313 | Prof. Shark 45 | Nelson .51 | | | | | |
| Broken Arrow 27 Stunt and Scale Contest Allen Brickhaus Memorial September 20-21, 2014, Valley Park, MO Results from http://lafayetteesguadrillecl.files.wordpress.com | | | | | | | | | |
| Exp | pert | | Inte | ermediate | | | Nost | algia 30 | |
| | Chris Rud | 590 | | Bob Johnson | | 421.5 | | Mike Schmitt | 561 |
| 1 | Mark Hughes | 581 | RAG | ginner | | | 2 . | ames Mills | 487.5 |
| 2 | Miles Sobmitt | 572 | | Ed Palacios | | 157.5 | Prof | ile | |
| 2 3 | Mike Schmitt | | , I | | | 107.0 | 1 1 | Dennis VanderKuur | 549 |
| 2 3 4 | Charlie Reeves | 570 r 554 | | | | | | Mike Schmitt | 542 |
| 2 3 4 5 | Charlie Reeves Dennis VanderKuu | r 554 | l Cla | | | | | | J72 |
| 2 3 4 5 5 | Charlie Reeves Dennis VanderKuu James Mills | r 554 537 | Cla 7.5 1 | Charlie Reeves | | 571 | | ames Mills | 507 |
| 2 3 4 5 5 7 | Charlie Reeves Dennis VanderKuu | r 554 | Cla 7.5 1 8.5 2 | | | 571 528 | 3 . | ames Mills Gary Frost | 507 489 |
| 2 3 4 5 5 7 3 | Charlie Reeves Dennis VanderKuu James Mills Robert Storick | r 554 537 533 | Cla Cla 5.5 1 2.5 2 | Charlie Reeves | | | 3 . | ames Mills | 507 |
| 2 3 4 5 7 8 9 | Charlie Reeves Dennis VanderKuu James Mills Robert Storick Walt Brownell Mark McKinney | r 554 537 533 473 | Cla Cla 5.5 1 2.5 2 | Charlie Reeves Jordan Segal | | | 3 . 4 . 5 . | ames Mills Gary Frost | 507 489 |
| 2 3 4 5 6 7 8 9 | Charlie Reeves Dennis VanderKuu James Mills Robert Storick Walt Brownell | r 554 537 533 473 | 4. Cla 7.5 1 7.5 2 7 Old 1 2 | Charlie Reeves Jordan Segal Time | | 528 | 3 . 4 . 5 . | lames Mills Gary Frost Iordan Segal | 507 489 |

| | | | September 27, 2 | Stunt Fest 2014, Lorton, VA Dick Houser, CD | | |
|----------------------------|---|--|--|--|--|---|
| Ex | pert | | Intermediate | | Old Time | |
| 1 2 3 4 Ad | Steve Fitton Tim Stagg Scott Richlen Phil Spillman vanced | 574.5 572 567.5 524.5 | Dave Reichan Tom Taylor Jack Roseme Mark Weiss Dennis Hastin | 480 re 427 426.5 | Phil Spillman Tim Stagg Artie Jessup Jack Rosemere Scott Richlen Brad Smith | 320 300 281.5 241 236 77 |
| 1 | Gerry Glier | 537 | Beginner | | 7 Tom Taylor | 35.5 |
| 2 3 4 5 6 7 | Bruce Jennings Scott Bolton John Lindberg Frank Dobrydne Artie Jessup Brad Smith | 532 513 505.5 y 491 490 478 | 1 Colton Smith 2 Carl Cisneros | | , Tom Tuylor | |
| | | | September 27-2 | hinke Memorial 8, 2014, Tucson, AZ n Lou Crane, CD | | |
| Exp Jud | ges: Jack Comer, | Ed Capitanelli | Classic Judges: Keith Tro | stle, Lou Crane | Super 70s Judges: Keith Trostle | e, Lou Crane |
| 1 2 3 4 | Jim Hoffman Lou Wolgast Bob Whitely John Callentine | 538.5 537 533 532.5 | Bob Whitely Jim Hoffman Leroy Black | 574 572 556.5 | 1 Rick Green 2 Lew Corbett Alternate CD: Glen | 476 446.5 |
| 5 | Warren Tiahrt | 529 | Old Time Judges: John Call | entine, Warren Tiahrt | | y Capitanelli 7 Comer |
| | vanced | | 1 Lou Wolgast | 304.5 | Score Runner: Linda | |
| Jud 1 2 3 | ges: Lou Wolgast, Lew Corbett Grady Widener Rick Green | Bob Whitely 464 446.5 304.5 | Leroy Black Bob Whitely Jim Hoffman Glen Allison | 296 291.5 284 279 | Pull test: Jack Rick | Comer Green Corbett |
| | ginner ges: Lou Wolgast, | Bob Whitely | 6 Ken Gulliford 7 Rick Green 8 Lew Corbett | 1 278 219 171 | | |
| 1 | Larry Davis | 176.5 | | 1/1 | | |
| | | | | ll Vintage Stunt Co 2014, Napa, CA n Jim Aron, CD | ntest | |
| Cla Jud | ssic ges: Brett Buck, E | ave Fitzgerald | | Old Time Judges: Doug Bart | on, Dave Fitzgerald | |
| 1 2 3 | Paul Pomposo Clint Ormosen Pete Cunha Bob Duncan | 525.5 Coyote 523.5 Tempest 515 Shark 35 477.5 Jamison | | Bob Duncan Paul Pomposo Larry Wong Fred Constanti | 284 Jamison Spl.280.5 El Diablo268 El Diablo | Fox .35 OS .20FP |

Jim Tichy Perpetual Trophy: Pete Cunha

Oklahoma Control Line Championships September 27-28, 2014, Catoosa, OK Results from <u>http://www.tulsacl.com/Events.html</u>

| | pert lges: Lee Thiel, Wal | t Weat | herford | | | d Time Stunt Plus lges: Tim Tipton, E | | a Rules) | |
|--|--|--|--|---|--|---|--|---|--|
| 1 2 3 4 5 6 | Jim Lee Frank McMillan Dale Gleason John Hill | 549.5 539.5 538.5 | Gee Bee V Caudron Impact Caudron Skylark Strega | Evo .60 PA .75 PA .75 RO-Jett .67 RO-Jett .40 RO-Jett .65 | 1 2 3 4 5 6 7 | Jim Lee Don Cranfill Gary Mondry Dale Gleason | 367 358 352.5 342 337 323.5 | Barnstormer Stinger Super Clown Wildman .60 Madman Ringmaster Humongous | Fox .35 Thunder Tiger .36 Veco .19 Orwick .64 Glow Orwick .29 Ign. Brodak .25 SFxx Tower .46 |
| | l vanced lges: Joe Gilbert, Bil | ll Gilde | er | | Pr | ofile | | Ū. | |
| 1 2 3 4 5 6 Int Juc 1 | Andrew Hathaway Don Hutchinson Tim Tipton Bob Brookins Kevin Prier Andrew Stokey rermediate dges: De Hill, Bob R Mike Makepeace | 527 515.5 504 503.5 491 489.5 eeves 421 | Nobler Vega .35 E-Vector Airbender Sukoi Buccaneer Cardinal | OS .35S ABC OS .46 LA Electric OS .46 LA OS .40 FP Supertigre .60 OS .46 LA | Juc 1 2 3 4 5 6 7 8 9 | lges: Walt Weather Don Cranfill Dale Gleason Gary Mondry Bob Brookins Tim Tipton Mike Makepiece Kevin Prier Andrew Stokey Cary Minor | 515.5 505.5 497 471.5 471 469 466 464.5 | Twister Ringmaster 576 Primary Force Super Magician | OS .25 FP |
| 2 | Cary Minor | 372 | Zero | RO-Jett .60 | | Daryl McComb | 95.5 | | Supertigre .51 |
| Juc 1 | ginner lges: De Hill, Bob R Joe McGilbra Doug Burright | 199.5 | WBN Stuka F. Twister | OS .25 FP Electric | Sp Sp Kk | ncours: John Hill irit of '52: Jim Lee irit of '64: Don Hut McClure Award: chyderm Award: Ca | Grayso | on and Cooper | |
| | assic/Nostalgia lges: Joe Gilbert, Bil | ll Gilde | Pr | | | s: Bob Reeves, Le | 2 | | |
| 1 2 3 4 5 | Larry Oakley Don Cranfill Jim Lee John Hill Dave Trible | 543.5 530.5 521 512.5 486 | Thunderbird II Skylark ARF Nobler Cavalier Formula S VEGA .35 Oriental | Doublestar .54 RO-Jett .40 Fox .35 RO-Jett .40 OS .40 FP OS .46 LA Supertigre .46 | Pu Ph Ta Av Ra Fo | ll Test: Bob Reeves Joe McGilb otographer: Elwyn bulators: Janice Sto vards: Bob Reeves ffle: Tom Martin, J | s, Doug ra, Var Aud okey, S ferry N ert, Ja | g Ames, Tom Doo ace Munsell tella Hill, Pat Rec eafus unice Stokey, S | eves stella Hill, Linda |
| | | | | GSCB Fall October 12, 2014, I Results from I | Pali | sades Park, NJ | | | |
| Ex | pert | | | | C | assic Expert | | | |
| 1 2 3 Ad | Bob Hunt Bud Wieder José Modesto vanced | 564 561 551 | 0 | | 1 | Bob Hunt assic Beginner Rick Huff | 2 | 66 49 isle Uniff hu Doh | II.ust |
| 1 | Tom Luciano | 46 | 1 | | | Ottavio Cup deferro | | - | 114111 |
| Be | ginner | 25 | - | | C | Ds: Mike Cooper, N | viike O | stella | |
| 1 | D 1 TT CC | 25 | | | | | | | |

1 Rick Huff 258

Fall Follies October 4-5, 2014, Salem, OR Results from John Thompson, CD http://www.flyinglines.org/follies.14.html

| Expert Judges: Scott Riese, Dave Royer | | | Intermediate Judges: Steve Helmick, John Thompson | | |
|--|---|-----------------------|--|--|----------------------------|
| 1 2 3 | Paul Walker Howard Rush Pat Johnston | 604.5 578 529.5 | 1 Cl | Richard Entwhistle | 255.5 |
| 4 5 | Bruce Hunt Mike Haverly | 529.5 520 516.5 | Juo 1 | lges: Scott Riese, Tim Mark Scarborough | Wescott 553.5 |
| 6 7 | John Leidle John Thompson | 512.5 487 | 2 3 | John Leidle Bruce Hunt | 539 537.5 |
| 8 9 | Tim Wescott Steve Helmick | 486 477 | 4 5 6 | Gordon Rea John Thompson Mike Massey | 496.5 475 460 |
| Advanced Judges: Steve Helmick, John Thompson | | | Ol | d Time | |
| 1 2 3 | Fred Underwood Mark Scarborough Mike Massey | 495 494 470 | 1 2 | lges: Scott Riese, Bruc Dave Royer John Thompson | 292.75, 292 292.75, 274 |

464

| Classic Judges: Scott Riese, Tim Wescott | | | | | |
|--|------------------|-------------|--|--|--|
| 1 | Mark Scarborough | 553.5 | | | |
| 2 | John Leidle | 539 | | | |
| 3 | Bruce Hunt | 537.5 | | | |
| 4 | Gordon Rea | 496.5 | | | |
| 5 | John Thompson | 475 | | | |
| 6 | Mike Massey | 460 | | | |
| Old Time Judges: Scott Riese, Bruce Hunt | | | | | |
| 1 | Dave Royer | 292.75, 292 | | | |
| 2 | John Thompson | 292.75, 274 | | | |

Profile Expert

Judges: John Leidle, Bruce Hunt

| 1 | Mike Haverly | 508.5 |
|---|----------------|-------|
| 2 | Tim Wescott | 504 |
| 3 | Pat Johnston | 502 |
| 4 | John Thompson | 496 |
| 5 | Fred Underwood | 483.5 |
| | | |

Profile Sportsman

4

Judges: John Leidle, Bruce Hunt

Mark Scarborough 479.5 1 427 2

Dave Denison 3 358.5

Russell Shaffer Gordon Rea 246.5

Field preparation: Mike Hazel, WOLF Registration, tabulation: Barbara White Sunday barbecue: Mike Hazel Pull test: Mike Denlis, R. Entwhistle

Charlie Melancon Memorial Stunt Contest

241.25

Russell Shaffer

3

October 18-19, 2014, Baton Rouge, LA Results from Joseph Patterson, CD

Expert

4

Mike Hazel

| 1 | Richard Oliver | 603 | | | |
|----------|----------------------|-------|--|--|--|
| 2 | Frank McMillan | 600.5 | | | |
| 3 | Joe Gilbert | 598.5 | | | |
| 4 | Frank Williams | 590 | | | |
| 5 | John Hill | 588 | | | |
| 6 | Dale Gleason | 580 | | | |
| 7 | Bill Rutherford | 575.5 | | | |
| 8 | Joe Bowman | 573.5 | | | |
| Ad | vanced | | | | |
| 1 | Don Hutchinson | 506.5 | | | |
| 2 | Steve Hollier | 502 | | | |
| 3 | Richard Stubblefield | 498.5 | | | |
| 4 | Andrew Stokey | 466 | | | |
| Int | ermediate | | | | |
| 1 | Leroy Polk | 501 | | | |
| 2 | Mark Troutman | 498.5 | | | |
| 3 | Mike Makepeace | 488 | | | |
| 4 | Bill Brown | 478.5 | | | |
| 5 | Ty Marcucci | 417.5 | | | |
| Beginner | | | | | |
| 1 | Bill Gray | 107 | | | |
| No | stalgia 30 | | | | |
| 1 | Bill Brown | 275 | | | |

| | Results from Joseph Fa | itterson |
|--------|------------------------|----------|
| Cla | assic | |
| 1 | Joe Gilbert | 573 |
| 2 | Richard Oliver | 572.5 |
| 3 4 | Tom Dixon | 564 |
| | Joe Bowman | 569 |
| 5 | Don Cranfill | 569 |
| 6 | Allan Perret | 561 |
| 7 | Bill Rutherford | 552.5 |
| 8 | Dee Rice | 491.5 |
| 9 | Richard Stubblefield | 436 |
| 10 | Don Hutchinson | 51.5 |
| Ol | d Time | |
| 1 | Frank McMillan | 300 |
| 2 | Joe Gilbert | 290.5 |
| 3. | Don Cranfill | 269 |
| 4 | Mark Troutman | 266.5 |
| 5 | Mike Makepeace | |
| Pr | ofile Expert | |
| 1 | Joe Gilbert | 565.5 |
| 2 | Richard Oliver | 545.5 |
| 3 | Tom Dixon | 547 |
| 3 4 | Don Cranfill | 544 |
| 5 | Frank Williams | 537 |
| 6 | Dale Gleason | 531 |
| 7 | Perry Rose | 527.5 |
| 8 | Dee Rice | 522.5 |
| 9 | Joe Bowman | 488 |
| | | |
| | | |

Profile Advanced

| 1 2 3 4 | Tom Morris Richard Stubblefield Don Hutchinson Andrew Stokey | 508 483.5 481.5 474.5 | | | | |
|--|---|--------------------------------|--|--|--|--|
| Pr | ofile Intermediate | | | | | |
| 1 2 3 4 | Leroy Polk Mike Makepeace Mark Troutman Ty Marcucci | 488.5 461 457.5 | | | | |
| Pr | ofile Beginner | | | | | |
| 1 2 | Bill Gray Steve Moore | 160 117.5 | | | | |
| W | War Bird | | | | | |
| 1 | Joe Gilbert | 600.5 | | | | |
| 2 | Tom Dixon | 580 | | | | |
| 3 | Frank Williams | 563 | | | | |
| 4 | Perry Rose | 559 | | | | |
| 5 | Don Cranfill | 556.5 | | | | |
| 6 | Dale Gleason | 530 | | | | |
| 7 | Don Hutchinson | 493.5 | | | | |
| 8 | Mark Troutman | 474.5 | | | | |
| Top Gun: Joe Gilbert | | | | | | |
| Pilot's Choice: John Hill, Texan | | | | | | |
| Spirit of '52: Frank McMillan, Big Job | | | | | | |
| Spirit of '64: Don Hutchinson, Vegas 35 | | | | | | |
| Best Warbird: Frank Williams, Bearcat | | | | | | |
| District VIII Outstanding Service: Richard Oliver | | | | | | |

Golden State Stunt Championships October 18-19, 2014, Madera, CA Results from Brian Massey, CD

| Results from Brian Massey, CD | | | | |
|--|--|----------------------------|--|--|
| Expert | | | Intermediate | |
| Judges: Joan Cox, Al H | - | | Judges: Jim Hoffman, John Wright | |
| 1 Chris Cox | 616.5 Crossfire | Electric | 1 Tom Brightbill 456.5 Chipmunk OS .46LA | |
| 2 David Fitzgerald3 Paul Walker | 611 Thundergazer 2 606 Impact | Electric | 2Charles Carter416Tutor IIOS .46LA3Shawn Lenci411Vector 40Electric | |
| 4 Howard Rush | 606 Impact 602.5 Impact | Electric | | |
| 5 Ted Fancher | 598 Trivial Pursuit | | Beginner | |
| 6 Jim Aron | 596 Systrema | Electric | Judges: Bob Swan, Chris Cox | |
| 7 Bob Whitely | 590.5 Formula S | Double Star .60 | 1 Fred Cadiente 238 Super Clown OS .25LA | |
| 8 Alan Resinger | 580.5 Crossfire | Electric | 2 Reuben Frutos 202 Tutor II MDS .40 | |
| 9 Kestutis Dvarvydis 10 Phil Granderson | 578.5 Electra 578 Diva | Electric Electric | Classic | |
| 11 Ray Firkins | 575.5 Calypso | Electric | Judges: Richard Walbridge, Alan Resinger | |
| 12 Jim Hoffman | 570.5 Impact | PA .51 | 1 Bob Whitely 550.5 Formula S Double Star .60 | |
| 13 Kirk Mullinnix | 569.5 Sweet Thing | PA .65 | 2Jim Rhoades533ApteryxPA .513Jim Aron520.5FenoOS .25LA | |
| 14 Jim Rhoades | 568 Apteryx | PA .51 | 4 Ray Firkins 519 Heinz 57 Aero Tiger .36 | |
| 15 Warren Tiahrt | 567.5 Aerobatician | Electric | 5 Jerry Silver 503.5 Zlin 226 Brodak .40 | |
| 16 Paul Pomposo 17 Marshall Palmer | 565 Temptation 5 559 Skipjack | Electric OS .46VF | 6 Mark Wasnick 488.5 Tempest OS FP 40 | |
| 18 John Wright | 558 Sig Magnum | Merco .64 | 7 Clint Ormosen 488 Tempest Brodak .40 | |
| 19 John Callentine | 556 Rabe Sea Fury | Electric | 8 Steven MacBride 479.5 Shark 45 RO-Jett .67 | |
| 20 Mark Wasnick | 537 Wazzi | PA .75 | 9 David Riggs479Trophy TrainerAero Tiger .3610 Pete Cunha479Shark 35Aero Tiger 36 | |
| 21 Clint Ormosen | 531 Tempest | Brodak .40 | 11 Lanny Shorts479Shark 55Acto Figer 5011 Lanny Shorts478.5 TonyActo Tiger .36 | |
| 22 Richard Walbridge | 517 Diva | OS .40VF | 12 Chris Forbes 472 Nobler Brodak .40 | |
| Advanced | | | 13 Fred Staley 459 Shark 45 Supertigre .60 | |
| Judges: Ted Fancher, D | avid Fitzgerald | | 14 Bob Swan 451 Yak 9 OS .25FP | |
| 1 Peter Deane | 532 Saturn | Aero Tiger .36 | 15 MikeMassey 433.5 Nobler OS .46LA | |
| 2 Osvaldo Campos | 520.5 | PA .65 | 16 BrianMassey 425 Nobler Brodak .40 | |
| 3 David Riggs4 Lanny Shorts | 519.5 Trophy Trainer 511.5 Genesis 46 | Supertigre .51 | Old Time | |
| 5 Brian Moore | 511.5 SV 11 | Superligie .51 | Judges: Al Hieger, Larry Renger | |
| 6 Bob Duncan | 509.5 Lazer | Electric | 1 Bob Whitely 309.75 Humongous Double Star .60 | |
| 7 Mike Massey | 505 Lego C | OS .46LA | 2John Wright306.75 Big JobSupertigre .563Jim Hoffman292.25 Galloping Comedian Brodak .40 | |
| 8 Steven MacBride | 499 Shark 45 | RO-Jett .67 | 4 Ray Firkins 275.75 Ringmaster OS .35 | |
| 9 Larry Wong 10 Fred Staley | 488 Seraphim 3 480.5 Shark 45 | Electric Supertigre .60 | 5 Bob Duncan 269.75 Jamison Magnum .32 | |
| 11 Larry Renger | 473 RSM P-51 | Electric | 6 Tom Brightbill 241.5 Humungus OS .46LA | |
| 12 Brian Massey | 472.5 Nobler | Brodak .40 | Concours: John Callentine, Rabe Sea Fury | |
| | | | | |
| | | | Appearance Judges: Phil Granderson, Ray Firkins Pull Test: Mike Massey, Pete Cunha | |
| | | | Runners: Doss Porter, Gary Rosa | |
| | | | Tabulators: Barbara Swan, Norm Gayer, Bill Swan, Bob Swan | |
| | | | Cooks: Chuck Milsap, Richard White | |
| | Southor | m Ontaria Cant | uel Line Chempionshins | |
| | | | rol Line Championships 4, Dresden, Ontario | |
| | | | ww.balsabeavers.com | |
| F2B (Canadian Rules) | | ld Time | Profile | |
| Judges: Chris Brownhil | | idges: Naomi Mac | | |
| 1 Len Bourel | 135.3 | Mike McM | | |
| 2 Keith Morgan | 134.55 1 | Len Bourel | 320.9 2 Dave Kelly 142.9 | |
| 3 John McFayden | 131.25 2 | Keith Morgan | 317.55 3 Keith Morgan 141.55 | |
| 4 Pat MacKenzie | 127.55 3 | John McFayden | 316.4 4 Gustavo Urtubey 140.85 | |
| 5 Gustavo Urtubey | 123.35 4 | Chris Brownhill | • | |
| 6 Mike McMahon | 120.8 5 | Doug Blackmor | | |
| | | | 7 Mike McMahon 124 | |
| | | | | |



BLACK TIGER COMPETITION ELECTRIC MOTORS BY RSM DISTRIBUTION

High Quality Japanese Bearings, Imported Stator Cores & Neo Magnets Give High Efficiency and Low Temp Operation with High Torque.

| Part # | Glow | Price |
|----------|-----------|---------|
| RSM2836C | .049—.061 | \$29.99 |
| RSM3530C | .15—.20 | \$39.99 |
| RSM3536C | .25—.32 | \$44.99 |
| RSM3542C | .35—.40 | \$49.99 |
| RSM3548C | .46—.51 | \$54.99 |
| RSM4240C | .61—.75 | \$59.99 |

Black Tiger Motors offer high quality with reasonable prices. Two Year Warranty covers everything except crash damage

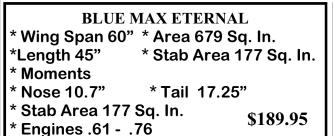
Order On Line at www.rsmdistribution.com By Phone at 951-678-1406



NEW KITS From RSM DISTRIBUTION Designed by Kaz Minato

To order go to www.rsmdistribution.com Call 951-678-1406







| DQ MASTER | | | | |
|-------------------|------------------------|--|--|--|
| * Wing Span 55.5" | * Area 612 Sq. In. | | | |
| *Length 41.8" | * Stab Area 77 Sq. In. | | | |
| * Moments: | | | | |
| * Nose 10.2" | * Tail 15.85" | | | |
| * Engines .4661 | \$144.95 | | | |

Books:

Classic Era Construction Drawings compiled by Tom Morris \$12.00

Old-Time Stunt Construction Drawings compiled by Tom Morris \$ 8.00

Pioneers of Control Line Flying by Charles Mackey \$12.00

PAMPA Decals, Stickers and Pins:

PAMPA Logo: Full color water-transfer decals. One 3-inch diameter decal and two 11/2-inch diameter decals \$2.00 **PAMPA Logo:** Black on clear 1½-inch diameter vinyl sticker \$.25

PAMPA Pin: A 1¹/₄-inch diameter, five-color metal lapel pin \$ 4.00

Compiled by Tom Morris **PAMPA Products Order Form**

Control Line Precision Aerobatics Ar

CLASSIC ERA

CONSTRUCTION

| Item Description | Quantity | Price Each | Total |
|---|--|------------|-------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Payment □ Cash □ M.O. □Check #: □ Credit Card □ MasterCard □ Visa | Total for Products* | | |
| | Shipping** | | |
| Account #: | 7% tax Indiana residents | | |
| Exp. Date: | Total Cost | | |
| V Code: | *Minimum Order | | |
| Amount: | **Shipping: US Orders Under \$60 add 25% | | |

US Orders Over \$60 add 20% Other Nations Airmail add 40% Other Nations Surface Mail add 30% Canada and Mexico add 35%

Mail Order To: PAMPA Products c/o Jim Vornholt PAMPA, PO Box 320 Plainfield, IN 46168.

Voice Order: (317) 385-4751 Email: PAMPA@indy.rr.com



ULU TIME STUNT SUNSTRUCTION DRAMINES

Signature: ____

Ship to:

Telephone:



Plainfield, IN 46168-0320 P.O. Box 320 AAMAA



B·**R**·**O**·**D**·**A**·**K** MANUFACTURING AND DISTRIBUTING COMPANY, INC.

Your one-stop source for everything related to building and flying!



A Classic Stunt Legal design by multiple champion Jim Silhavy.

AVIASTAR .61 ENGINES



The Aviastar offers a power level and ease of use typically associated with more expensive motors.

BRODAK PROP SHAFT EXTENSIONS

ELECTRIC CONVERSION KITS



Now only \$18.99 !

Our "Big Art" Tongue Mufflers

are back in stock! Machined

in our facility, these mufflers

are lighter than original ones.

Brodak Mfg. has launched a line of Electric Conversion kits. Everv kit includes illustrated, step-by-step instructions, laser-cut

balsa and hardwood pieces to convert a new or existing plane, and a supply list. The Barnstormer and Vector conversion kits are in stock now, with kits for many more airplanes on the drawing board!

ELECTRIC PACKAGES



Our complete electric packages include BH-1832 (left), for 1/2A designs, and BH-1833, for planes in the .19

BH-1832 \$79.99 BH-1833 \$174.99 to .35 range.

Check out our Brodak Turn-Key Power System sheet at www.brodak.com. Click Arrowind in the Electric section for information on the items you need for your airplane. We have what you need!

Design Your Own Decals!

We are proud to introduce our line of paper. It is easy to use and can be applied to most surfaces including plastic, glass, wax, wood, metal, cardboard, tile, pottery, ceramics and enamel. Includes 1 sheet 8-1/2" x 14" and photo \$2.59 each

BH-1136 White Inkjet Decal Film BH-1137 White Laser Decal Film BH-1138 **Clear Inkjet Decal Film** BH-1139 Clear Laser Decal Film



Brodak Nylon Bellcranks are the lightest bellcranks on the market! We have 2", 3" and 4" in stock. See our website for prices.

We have the lightest fuel filters on the market. They weigh only 6 grams!

BRODAK SHAFT NUT ADAPTERS

Designed to adapt Brodak

aluminum spinners to

Our lightweight compact spacer, with special shaft nut and prop washer design, fits onto your prop shaft to move the propeller one-half inch or three-guarter inch forward, for better aerodynamics. See our website for specifications. Only \$9.99!

vering Buy 1 (\$10.99 ea.), Get 1 Free

BH-1803: Silver

BH-1804: Purple

BH-1805: Black

BH-1807: Grav

BH-1802: Dark Blue BH-1808: Gold

BH-1811: Pink

BH-1814: Transparent Red

BH-1820: Olive Drab



We now have Medium and Lite Silkspan in stock. . . and don't forget that great finishes start with the full line of Brodak **Butvrate Products!**



(Supplies are limited)

ATTENTION BARGAIN HUNTERS! Check out the Clearance Section at www.brodak.com. We're adding new deals all the time!

100 Park Avenue / Carmichaels. PA 15320 / www.brodak.com / email: flvin@brodak.com (724) 966-2726 (voice) / (724) 966-5670 (fax) / (724) 966-9131 (voice)

"Big Art" Tongue Mufflers

premium grade water-slide decal illustrated instructions.