

*The Pylon Racer's Official Voice*

# NMPRA

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## HIGH PERFORMANCE

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### A Word from the President

Hello and greetings from the Midwest where we are barely starting to thaw out a bit.

I have just returned from the Toledo RC Show last weekend where I was able to meet with old friends, get to know a few new friends, and simply enjoy the camaraderie of the show. On the way home through Indiana we did have to deal with a bit of snow, so our winter doldrums are not quite over yet. Lately we have been having 65-degree weekdays and 35-40 degree weekends, and this is starting to frustrate me, but I know that there is better weather and times on the way. Simply changing the clocks over to Daylight Savings Time perked me up and makes me want to leave work early enough to get a few flights in before the sun retires from the day.

Speaking of a few flights, don't hesitate to use any of the current offerings in the slow flyer electric realm to limber up the thumbs and sticks after a long winter's rest. If you haven't flown one of these great airplanes, you are really missing a treat. You won't believe how much fun you can have in your front yard or down at the schoolyard in the early evening. Kind of takes us back to our roots.

I unfortunately have not had the chance to do any racing yet this year,

with everyday life taking precedence. While I will have a shortened racing schedule this year, I will be able to get out and see a lot of you in and around various events this year and am very much looking forward to this.

I understand that both of the Phoenix Races were absolutely a blast to attend (Winterfest and the JR Gold Cup). I am sorry that I missed them both. We had some of the Giant Scale Racers join us at the JR Gold Cup race – and I want to thank each and every one of you that attended for your hospitality and the warm welcome you extended to them.. Don't forget that if you happen to be in the area of one of their races, hook up with one of them and learn a little about their event. They are always looking for people to get involved and I am sure they will provide the same warm welcome to all of us that would like to try our hand at their event.

The Phoenix club has certainly earned their stripes and has developed some top notch racing equipment. (I understand that there is an AARP Chapter in Phoenix dedicated solely to the design and construction of state-of-the-art high tech racecourse equipment for the pylon racing community.<G>) I can't even imagine what it must be like to have that level of knowledge and experience to draw upon. Because of this I have finalized arrangements with the Phoenix Club to hold the NMPRA Q40

Championship Race at their field on November 6 & 7, 2004. All the details will follow soon but you can be sure that they will put on a fantastic event. Plan on attending the banquet on Saturday night where we will pass out the Season Awards for the 2004 racing season. Also don't forget that this is the 5<sup>th</sup> JR Gold Cup Race of the season and Randy plans on having the points up to date prior to the race so we can award season trophies at the conclusion of Sunday's racing.

Unfortunately, the dream of a joint Q500 – Q40 Championship Race will not become reality this year ... maybe in the future. We are still looking at having a separate Q500 (428) Championship Race at the end of the season but haven't locked in a site yet. We will keep you informed.

On a side note, let's share some of the knowledge that we all have regarding our common love of racing airplanes. If you have a tech tip, article, or point of view regarding any of the racing activity in the US, please forward those to Darrol Cady (Newsletter Editor) for inclusion in the next issue of the Newsletter. The "Soapbox" area is always open. Please email them to him at [dcady@pacifier.com](mailto:dcady@pacifier.com) in a Word text file.

Have a great spring!  
Pete

## **District 1, Bill Vargas VP**

Every time we go to a SpeedWorld race, there is new technology on the off- course race system for us to enjoy. This time, there were cut lights for the racers and spectators to see from the pits. It makes the races much more interesting to be able to know who is really leading the race. Those cuts sometimes are a surprise to us and we think someone else is leading a heat. Thanks to Lenny and Randy for making the lights possible.

Randy Dauer is a master of getting all the pre-race things done well before the race day... That is concessions, field preparation, equipment condition and of the most important all the race official positions filled. Most of the club members at SpeedWorld step up and do what it takes to put on a quality race. Thanks to all of them.

On race day, Jim Allen CD does his thing, as well as race. Jim makes sure that the racers all know what is expected of them and how the race will be run. Both days, the races started on time, at 8:30 as scheduled. All the race officials were in place and the first round was on the trailer. The pace of the heats was again below the 5 minute rate, flag to flag. These are the things that make a good race if you have a lot of racers. I have been to too many races that the CD is not prepared before the race and nothing gets started until 10:00 or even later. I think that this organization is part of the reason that the Phoenix races are so well attended. Both the Winterfest and the JR Gold Cup had record numbers of entries. Even with the record number of entries, no one felt that they were shorted on flying. Racing in both events started early and ended early. What a great group to run a race!

Now on to the 2004 JR Gold Cup. The 1<sup>st</sup> of 4 JR Races was held there at SpeedWorld in AZ in February. It was one of the largest turnouts ever with 63 racers from all parts of the USA, Canada, Mexico, and Hong Kong. The news coverage by local papers and TV stations surely contributed to the tremendous spectator turnout both days. Good thing for the TV helicopter being on station as it play a part in retrieving a plane that was temporarily lost in the desert landscape!

After 8 rounds of some of the best racing anywhere, Dane Kane took top honors with a 1:03.52 Jamie De La Vega took 2<sup>nd</sup> and Travis Flynn took 3<sup>rd</sup>. Mr. Fast guy was, you guessed it, Gino Del Ponte with a 1:02.16 Blast! Full results are on the NMPRA website. [WWW.NMPRA.org](http://WWW.NMPRA.org).

Once again thanks to the efforts of the club members at SpeedWorld, The race wouldn't have been possible without all of you!

Just in case you didn't know, Whittier Narrows has been gracious enough to put the Pylons up every 4<sup>th</sup> Saturday or Sunday of each month now since Jan. for practice. I am not sure how much longer this will last due to the relatively small turnouts in the past 2 months. So if you guys are able to, come on out and enjoy an afternoon that's been designated "For Pylon Racers Only" at Whittier Narrows.

SpeedWorld is once again hosting their monthly Races and as always are having a Great time of it. Welcome to Pylon Cole Thornton. Cole is a young newcomer and its rumored he's catching on Fast!

Basin Race'n is just around the corner! Beginning on the 16<sup>th</sup> of April with a 1/2 day Practice and 2 one day Races on the 17<sup>th</sup> and the 18<sup>th</sup>. So for those of you that weren't able to make it to the WinterFest or the JR Race... your fix is just around the corner ☺

Pylon Rules cycle for 2005 is coming up and there's a "buzz" over there on the NMPRA site about engines for 424. The NMPRA Prez is looking for comments about .46 size engines for use in 424.

Safety note – when was the last time you checked your wing bolts? If they are looking worn out or rounded off threads are apparent, change them out.

See you at the Races!

BV  
D-1 VP

### **High Performance Information**

High Performance is published 8 times per year.

Information for publication can be forwarded to:

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If possible, please submit information in Microsoft Word format

### **Race Announcement Policy**

High Performance will publish announcements of upcoming races free of charge, on first come, and space available basis. Also, camera ready copy no larger than 7.5" wide by 2.5" high (border dimension). Copy must be received by the Editor no later than the announced due date.

### **Advertising Rates**

Rates are for camera ready artwork. Artwork, composition and typesetting will be charged at cost. Printable are 7.5"x10", lpi=133, halftone permitted. Ads for upcoming issues must be received by the deadlines published below.

Size	Single	Annual
Full Page 7.5"x10"	\$ 50	\$ 350
1/2 Page 7.5"x5"	\$ 35	\$ 245
1/4 Page 7.5"x2.5"	\$ 20	\$ 140
Card Ad 3 5/8"x2 3/8"	\$ 10	\$ 70

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# District News



## **District 2-Patt Poinsett**

Behind us now - The NorthWest Model Expo was a great success for PROPS. We had a fabulous booth that saw lots of interested pylon (and future) racers. The club made money on our raffle, we increased membership in our PROPS group, we promoted the NMPRA and had the opportunity to show off some beautiful racing planes. It was well worth it. Unfortunately, the club that has been putting on the Expo for the past 24 years has decided not to do it anymore. Very disappointing for us, as it was a very successful weekend for promoting pylon racing.

Ahead - in the near future - Spokane, WA. We are all greatly anticipating our first WA 2 day race in Spokane in May. If you have never attended this race, it is a good one. They have a very open, large area to race and downtown Spokane is just 20 minutes away with lots of hotels, restaurants and more. The Spokane Barons will put on 2 races this year. The weather is almost always nice in May and the club takes good care of us. If you need more information on this race, please contact me - [patt@seanet.com](mailto:patt@seanet.com) or 425-271-5268. I have flyers, hotel and contact info I can send you.

Ahead - a little farther along - Arlington JR Cup. Things continue to fall into place for the JR Cup in Arlington, WA at the end of the summer. The airport has confirmed our dates and Dan Nalley is getting things organized for a great weekend. Start thinking about travel arrangements and reservations now. I will have hotel info with any discounts we can manage soon. There are several new hotels in the Arlington area (Smokey Point) and they are within 10 minutes of the field. Arlington Airport is another terrific place to fly. They allow us to camp on-site and there is lots of room.

And - our local racing website is now up and running <http://nwprops.com>. We have a schedule posted, as well

as some other info at this time. Soon to follow, maps to race sites, year to date points stats, pictures and more. Take a moment and check it out!

So, back to the shop we go - building airplanes and getting ready for the season ahead!

Hope to see many of you this summer. Blue skies to ya!

Patt - 22e

## **District 3-Chuck Swaney** -by Randy Smith

Winter in the Great White North is coming to an end as I write this article on the first official day of spring. However, I just got back from a great snowboarding trip in the mountains of Banff and my prediction is that we will still have some snow to deal with throughout March and into April - at least here in Calgary. With that in mind, the Calgary winter Club 20 racing continues with fairly good participation. I flew my Quickie in the Club 20 event last weekend and had a blast. A little friendly pylon competition throughout the winter helps to keep the thumbs in nimble shape for the summer season.

Some members of our district just could not wait for the onset of spring and had to attend the Quickie Winterfest and the Q40 JR Gold Cup in Phoenix. Terence Palaschuk attended the Phoenix Winterfest for Quickie 500 in January and turned some very respectable times. Good show Terence. Harold Sattler, designer and builder of the Miss Candace Q40, and Roy Andrassy attended the JR Gold Cup in February. Both events attracted over 50 of the best pilots in North America. Racing was fast and furious and our Canadians did well.

The Tech Tips that were presented in the last newsletter were well received so I thought I would add a couple more in this issue. The first is from Rod Kelln of Regina, Saskatchewan who describes how to accurately set the

angle of a V-tail in a Quickie 500 racer. The second tip is from Delbert Godin of Calgary, Alberta showing a simple tool that he created to cut a thin slot in the leading and trailing edges of tail surfaces so that 1/64" plywood can be easily inserted to make a hard and sharp edge.

## **1) Alignment Jigs for that perfect 110° V-tail**

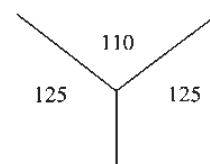
Materials: two pieces 1/16" aluminum 12" x 4"

Bend one piece in middle to give 110° V; this will be the jig to glue the two halves.

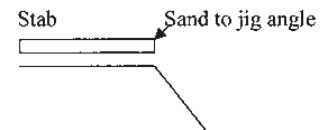
Bend the other to 125° (see diagram A for rationale); this will be the sanding jig.

Make sure the trailing edge of the stab is straight. Prepare as usual re shaping, hinging tips etc. Cut stab in half. Now use the sanding jig to sand that perfect angle (diagram B). The trailing edge of the stab is held straight in line with the edge of the jig during sanding. Make sure you put the angles in the right direction for left and right halves of the stab (I know this seems trivial, but it is easy to sand from the wrong side if in too much of a hurry). Now drop the two pieces into the 110° jig. If you've done it right, the two sanded surfaces should mesh perfectly and the trailing edge of the stab halves will be flush aligned with the edge of the jig. Line jig with wax paper and glue.

**Diagram A**



**Diagram B**





# ***JR Gold Cup Series 2004***

**February 28/29      Phoenix, AZ**

**April 24/25      Apopka, FL**

**June 5/6      Bowie, MD**

**September 11/12      Arlington, WA**

**NMPRA Championship/JR  
Gold Cup**

**November 6/7      Phoenix, AZ**

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# District News



## Slotting Tool

Install 1/64th ply in the leading and trailing edges of your tail feathers using this easy to make tool. Glue three scraps of balsa together and push a #11 blade through the center one. Make sure the blade comes out centered between the two guide pieces. Only the center piece of balsa must be the same thickness as your tail feathers. Secure the blade with a drop of ca. Run the tool all around the leading edges, the trailing edges, and the tips too with the guide pieces on either side of the tail feathers. Insert 1/4 inch strips of 1/64th inch ply and use thin ca to glue in place. Plane the tail feathers and sand to a point and cover with 3/4 oz. fiberglass cloth. You will have the sharpest tail feathers around with the least amount of drag.



Randy Smith for Chuck Swaney

[pylon.guy@shaw.ca](mailto:pylon.guy@shaw.ca)

## District 4 - John Sandusky

There isn't much to report from District 4 at this time so I thought I take the opportunity to conduct a little business.

First, I'd like to post my updated contact information in case anyone would like to send me race reports, pictures, or would just like to shoot the breeze.

John Sandusky  
6765 Nelson Street  
Arvada CO 80004-1425  
Phone: 303-424-1856 (home) and  
303-275-0174 (work)  
Email: [deuce50@comcast.net](mailto:deuce50@comcast.net) (home)  
or [jsand@jefferson.lib.co.us](mailto:jsand@jefferson.lib.co.us) (work)

Second, let me reiterate this year's schedule for those interested in attending races held within District 4.

Races held by the Western Flyers in Mead NE (Close to Omaha and

Lincoln) will be on May 16, June 20, July 25, August 29, and September 19. The Western Flyers race three classes of Q500: Sportsman, using Thunder Tiger Pro 40 motors and APC C-2 / 9 X 7 props, Quickie, which specifies any factory stock engine with factory stock muffler **EXCEPT** Nelson and Jett motors, and Standard AMA 428. Contact Randy Tentinger, 402-734-0947 and Charlie Turdik, 402-896-0707 for more information. If you want a flier for the Western Flyers races, please contact me and I can email you a document in MS Word format.

Racing hosted by the Airpark Elite R/C Club in Denver will be on May 8, June 12, July 10, August 14, and September 11. The Airpark club provides races for AMA 422, AMA 424, AMA 428, and Trainer class races. Contact Tom Neff, 303-686-0639 and myself at 303-424-1856 for information. You may also want to visit the Airpark website at [www.airparkelite.net](http://www.airparkelite.net).

When I was putting the race dates from both clubs into the same spreadsheet I noticed that none of the race dates conflict with each other. Never mind that Airpark's races are on Saturdays and the Western Flyers race on Sundays. None of the races fall on the same weekend. We got lucky there I guess. Maybe we can get some cross-pollination of racers going between these two clubs! Oh, also never mind that Airpark's race on July 10 falls on the same weekend that the Pylon NATs begin. Oh well.

My third order of business this month is an update on Duane Gall's eye injury. As many of you already know, Duane nearly lost an eye when a prop failed while he was bench running a racing motor on the test stand. Here is Duane's response when I asked how his eye was doing.

The eyeball is continuing to improve — I can now fly, drive, and read without any headaches or that drunken-sailor feeling. The pupils are very close to the same size at all hours of the day, which tells me the one retina is returning to full sensitivity. I still have a hazy patch in the

middle that's slowly evaporating like the snowcap on Mt. Kilimanjaro. Na werries, it's all gravy from here.

I am SO ready to retire and hit the contest circuit in a big-ass motor home. Does Rhonda have a sister?

Some of you may also know that Duane recently set his personal best fast time (1:06) in Q40 at the Phoenix JR Gold Cup race. I think he's trying to emulate Lance Armstrong with the using-one-when-you-should-have-a-pair approach. Enough said.

Ok, so that's all the business I have right now. I've given you my updated contact info, made you aware of the race dates for District 4, and given you an update on Mr. One-Eyed Wonder.

Gear up! Racing season is on its way!

John - 17f

## District 5-Marcus Blanchard

As spring approaches and we are used to getting ready to race, there seems to be no rush if you live in the District 5 area. When I came to this area about 12 years ago, I can remember, until recently, how we started racing the last weekend of March or early April in Kentucky every year racing Q500. We would then go into an intense schedule, racing about twice a month plus the NATS until early October where we would also finish in Kentucky. That's right, we were going to some places twice a year, and now they are mostly a thing of the past.

In 2004 there are exactly 2 races in District 5, plus the NATS for those who can and are able to attend and participate. Hopefully with so few races, the attendance will be up and the competition awesome. I personally will be there along with Bryan and we will also probably take a ride out to Bowie, MD in early June for the JR Cup. If anyone out there has any ideas on how to improve this cycle and downturn of attendance and races please let me and the rest of the country know!!!



# District News



## **District 5 - cont'd**

Speaking of JR Cup's, I made my first trip to Phoenix a few weeks ago for a most impressive race weekend. Randy Dauer and his people really know how to put on a show. Jim Allen was CD and started the races on time. I went to Arizona with Tom Scott, Grunk, Dan Kane and family and Ray Blake. Fun was had by everyone and even a few beers in between. As for myself I was awful, but we all must congratulate Danny for taking 1<sup>st</sup> place with his own kit the Polekitty. He was smoking all weekend and flew 8 rounds without ever having to catch anybody for the entire 80 laps. No cuts either and he took home the gold!!!!!! Of course I have been listening to Tom and Grunk and others about how great the weather in Phoenix is in February, well this year we had times where we didn't have enough clothes to keep warm. I want to personally thank Ray Blake for driving some of our equipment from Michigan to Arizona and back!!! Cool Ray!!!

Anyhow that's all for now and lets really try to be at the races this summer, and have a lot of entries. Even you guys that don't get out much, try to make at least one race. If any of you are at the Toledo Weak Signals show come over to the Performance Specialties booth and say Hi!!

### **2004 Race Dates**

June 19<sup>th</sup> & 20<sup>th</sup>

Cincinnati, OH

July 11<sup>th</sup> -16<sup>th</sup>

NATS Muncie, IN.

August 7<sup>th</sup>-8<sup>th</sup>

Caps Classic—Muncie, IN

Later,  
Marcus Blanchard

## **District 6-Steve Bakler**

We are slowly coming out of hibernation in the Mid-Atlantic region. The temps have risen above the 50 degree mark on several occasions (sometimes as far as the upper 60's), enabling a few of us to see if we don't need remedial flight training. In spite of the typical blustery conditions, I always feel it's a good idea to come out and put yourself and your equipment through a shake-down. This is when you learn the gel cell has died in the flight box, half your tools are missing, and you have to think to remember how to put fuel in the plane. Don't feel bad, it gets better.

### **THE FIRST PGRC Q-500 RACE IS MAY 1 !!!**

As a follow-up to my last column, I actually got the Great Planes Viper finished and test flown. I also brought it to the club meeting for Show and Tell, just after the entire membership present got into a 25 minute jag on 'what's happened to all the real modelers in the hobby' fueled by Rick Moreland's presentation on a modeling book he purchased from the *Flying Models* Magazine portfolio of publications. It's a great book, but the follow-on discussion made for the 'Segway from Hell' in which to show off my ARF racer. I made the best of it.

So, as promised, a few highlights about the plane. The quality of all the parts, pre-fabrication, engineering and workmanship are outstanding. The kit was very complete and featured no junk hardware. The instructions and flying tips were excellent and full of very useful set-up information. To test the validity of this information, I chose to follow it until something else convinced me to change things. The outcome? I didn't kill it, and made only minor modifications. Follow along as I spew.

At the outset, I noticed the firewall on mine was constructed with a modest

but detectable amount of left thrust. Knowing this wasn't a speed tip, I pondered the fix for days and finally settled on fixing it by creating and attaching a tapered stack of glass cloth and resin. To do this I cut several pieces of 1.5 oz in a cascading array that provided a thick left side that tapered to nothing on the right side of the firewall, about 7 layers of cloth. Next, I wetted them together with finishing resin over a piece of wax paper and stacking them just so, I securely clamped the fuselage firewall side down onto the sticky stack that was resting on a smooth section of "pressboard, tightening the clamp until the new face of the firewall was showing a touch of right thrust. If you have to do this, be sure to fill the motor mount holes with clay before you cover the face of the firewall with such a concoction, or you'll wish you'd stayed in bed that day. An alternative approach is to use the pre-made set of nylon angled firewall shims manufactured by Edson to solve this problem.

Once this minor setback was behind me, the remaining work went quickly. Once you trim the laser servo tray to fit your rudder and elevator servos (I used Hitec 81-MG's), remember to route the pre-installed antenna tube through the servo tray as you install it so that you can get your fingers on the antenna tube later to thread the antenna through it. I chose to partially sink the aileron servo rails into the wing to allow some additional space for the rest of the equipment. Since the aileron servo well is already pre-lined with balsa (and it just fits the JR-911 servo's width), I opted to cut a separate path for the servo lead to exit the cavity, straight out the bottom of the wing, just ahead of the aileron torque rod fittings, beyond the servo rail.

A word to the new-comer: Quickies are not all that big inside. Fortunately,



# District News



the kit doesn't leave you in the dark for where everything fits best. Just make it easy on yourself and use the smallest and most reliable set of components you can afford. Leave all those big standard servos for another sport plane (this racing is serious stuff man).

The hardware provided is very complete, down to providing Velcro straps for tying down the battery and receiver. Seeing an easier and lighter way to secure the battery, I ended up removing some of the plywood structure and just stuffed a 300 mah 5-cell NiMH battery pack under the extraneous tray material behind the servos and skipped the Velcro. This also gave more room for the ruddervator pushrods.

I opted to replace the pre-threaded control rods provided for the tail with 3/64" music wire fitted with threaded brass couplers at the tail. The Hitec's servo output wheels were already drilled to fit 3/64 wire, and no bends were needed to make the 3/64" rods reach the control horns without binding. They haven't buckled when pushing the control surfaces down either. I bent small "Z" bends using needle nose pliers at the servo end, then figured out the proper length at the tail and soldered it all up.

Since most of us no longer install fuel tanks directly behind the firewall, I opted for a permanent hatch over the alleged fuel tank compartment and

installed a Tetra 3 oz tank in the forward section of the wing cavity. The fuel lines were routed to accommodate the Thunder Tiger Pro .40's fuel and pressure fittings.

A few points about the landing gear. The dural is pre-painted, drilled and countersunk. The mounting holes are positioned to enable you to attach it with the dural's taper either facing or trailing to accommodate the type of surface you will fly from. Unfortunately, I had one wheel bind when it was assembled. To cure this, I thinned the portion of the brass hub that retains the wheel. Lesson #1: if you need to do this, de-burr your work (Thanks Dr. post-mortem JE). Failing to do this, the sharp edge I introduced sawed the wheel off its brass hub on just the 2<sup>nd</sup> flight. Live and learn.

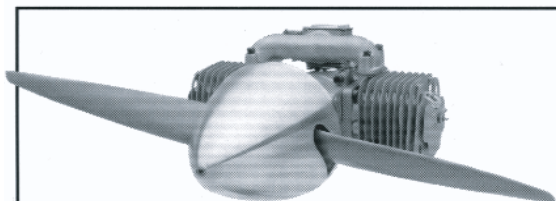
## Trimming the Viper

We know the adage of what happens when we assume, and what opinions have in common with our back sides (everybody has one, duh...), but 'assume' is what a lot of newbies will do, so that was my excuse to assume that merely attaching the tail to the fuselage as it fit, and permanently, was the thing to do. How I wish I could have had that moment back (and to think the kit even gives you the option of a removable and therefore adjustable stab). **Double** duh....

Knowing that not all airfoils use the same force setup to fly best, I reasoned the incidence meter can only tell you what angle you are about to commit to, not what angle the stab should be set to for any airfoil. Oh well, I can't get it to trim in pitch for beans, in spite of using the recommended CG of 3" behind the leading edge. I've been down this road before. For the rest of you, it will likely trim easier if you add 1/16" of **NEGATIVE** to the stab assembly. That's **LOWER** the leading edge 1/16".

For myself, I had to correct this condition by changing the angle of the engine and wing to get them in proper alignment with my now-permanent stab. So I shimmed the face of the firewall to add a little down thrust, and shimmed the leading edge of the wing up as much as I could at the field. The next day, I had added a small spacer that shimmed the leading edge up a bit more and helped dissipate the load caused by tightening the front 8-32 steel flathead screws that retain the wing. A word of caution about this attachment method: The bolts will come loose in flight. One of the 2 front wing retaining bolts unthreaded itself over 1/4" on the first flight. I solved this by running enough CA glue in the wing mounting blind nuts to make the bolts bind and stay put.

Still not satisfied after one more test



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# District News



## District 6-cont'd.

flight, on a whim, I removed the quarter I added to the tail to achieve the 'recommended CG', and it actually flew better and landed fast enough to not have the ailerons die on final. It was then I knew the plane was a good design, but mine would need a wing saddle facelift. That evening, I completely trimmed the saddle so that the trailing edge was 3/32" lower than before. I also added ?" balsa to the inside of the fuselage to provide a wider wing saddle, then re-potted the whole mess that evening. The result is that I was able to get it to fly with the elevators almost dead straight, rather than 1/16" up. In the air, it's a piece of cake to fly and does not require changing rates for take-offs and landings.

I plan to do one more thing before its first contest and that's to put the structure on a diet. New, the plane was a 4.5 ounces over the minimum 3.5 pounds. At the cost of a partial or total re-covering job for the wing, lightening holes can be added that will take out at least half of this excess baggage.

So after all is said and done, I definitely recommend the plane for the 424 event. I have heard its also being flown as a 428 airframe. The wing is definitely stout enough to withstand the additional speed. I expect to see these at contests this year thicker than seagulls at the beach.

I'd like to remind everyone intending to enter the JR Gold Cup Race in Bowie, MD, please get your registration data to Rick Moreland (301) 261-7366. The dates are Friday, June 4 through Sunday June 6. Dan Myer and I will put on the steak party. Instead of the usual 'stop-gap-heartburn-gruel' we typically serve for lunch, we will have our favorite private vendor (Hog Wild BBQ) specializing in homemade barbeque for all 3 days.

Its time to throw the snow shovels all the way to the back of the garage – the new racing season is just around the corner!

Steve Baker  
AMA 68276  
NMPRA 15R

## District 7- Tom Dobyns

On February 28-29<sup>th</sup>, Markham Park Pilot's Association held a race in Sunrise, Florida. Attendance was good in both 428 and 424 even with some of our racers attending the Race in Phoenix caused the 422 races to have only a handful of pilots. In 424 the numbers are growing as some new racers have joined us. Even though the nice winter weather was hiding from us in Florida, we still had a good time racing. The winds were gusty both days as well as from different directions each day. Inclement weather in the afternoon on Saturday caused the final heat of 428 and 422 to be held Sunday morning. The hard working volunteers of the MPPA did a great job of running the race. We look forward to the next race they will hold, but has yet to be determined.

The racing action in all three of the classes was spectacular. Almost every race was close racing action! The 424 class had its fair share of planes being lost both days with the gusty winds on landing, but the pilot's had backups and were out again in the next heat! They all had a good time and I noticed that many of them are learning how to keep their planes on the course. Their race times are coming down. It is fun to watch them fly and become addicted like the rest of us! We all should give a big hand to Kevin Kruszeki, our youngest 424 pilot. He has made a vast improvement and I expect him to be giving us all troubles staying ahead of him in the future. Also a special congratulation to Matthew Fehling for placing first both days. Way to go guys, keep it up!

The next race in District 7 will be held in Sanford, FL on March 27-28<sup>th</sup>. They will host a 424 and SEMPRA quickie event. This looks like it may be the last time to race using the SEMPRA engine as they are working on getting a longer piece of land and then they will host 428 events. We look forward to racing there in the future and for a long time. The Central Florida Sport Flyers host a great event that has a wonderful down home feel to it. If you need more information, contact Chris Mahnken at 407-925-2956.

In April the RCACF Club, in Apopka, are holding a Gold Cup event at the Tangerine site on the 24-25<sup>th</sup>. If you need more information or would like to help, contact either Gary Freeman JR at 407-673-0635 or Randy "The King" Bridge at 407-388-1928.

As of yet there have been no races scheduled for the rest of the year. Many of the clubs are waiting on changes that are occurring at their fields or other events to be decided before committing to dates. I will keep you all informed as I get the information. We are also working on picking up two more racing sites, one in the Tampa area and one down near Miami.

## **RESULTS:**

### **2/28/04 424**

- |                     |            |
|---------------------|------------|
| 1. Matthew Fehling  | 1:46.25    |
| 2. Jesse Burk       | 1:48.12    |
| 3. Kevin Kruszkeski | 1:45.91 FT |

### **428**

- |                   |            |
|-------------------|------------|
| 1. Steven Vaclav  | 1:08.84 FT |
| 2. Mario Travieso | 1:11.66    |
| 3. Tom Dobyns     | 1:12.47    |

### **422**

- |                   |            |
|-------------------|------------|
| 1. Ray Brown      | 1:04.10 FT |
| 2. Jerald Smith   | 1:05.55    |
| 3. Mario Travieso | 1:08.84    |

### **2/29/04 424**

- |                    |            |
|--------------------|------------|
| 1. Matthew Fehling | 1:48.16 FT |
| 2. Dean Eberly     | 1:50.03    |
| 3. Jesse Burk      | 1:50.78    |

### **428**

- |                   |         |
|-------------------|---------|
| 1. James D. Glass | 1:17.21 |
| 2. Tom Dobyns     | 1:12.03 |
| 3. Dennis O'Brien | 1:12.10 |
| FT Steven Vaclav  | 1:09.41 |

### **422**

- |                   |            |
|-------------------|------------|
| 1. Jerald Smith   | 1:03.60 FT |
| 2. Ray Brown      | 1:05.55    |
| 3. Dennis O'Brien | 1:12.46    |

I hope to see everyone at the races.  
Have a happy and safe Easter.

**Tom Dobyns**



## **District 8 - Dennis Cranfill**

Hello from District VIII! If you haven't been able to go racing yet, hopefully you have had a change to get out and do some practicing to knock the dust off that accumulated over the winter. I just returned from the Phoenix JR race, and what an excellent race it was. With close to seventy entries, it was one of the most fun and exciting I've been to. The competition was fierce. The weather tried to be tricky with a cold front coming in on Friday, but for the most part it turned out great, especially on Sunday. The downwind takeoffs proved to be tricky, claiming several nose overs, myself included. Dist. VIII was well represented at Phoenix. Mike Tallman, Mark Parker, Norm Johnson, Chuck Anderson, Dub Jett, Mike Helsel, Jerry Small, Jason Duda, and I were all there. Results from the race can be found at [www.nmpira.org](http://www.nmpira.org). If you have never attended a race at Phoenix Speed World, you should make plans to make one. It is one of the best run pylon races out there.

On to local news. I recently completed the race schedule for the 2004 season. We have an excellent schedule with some great clubs hosting the events. A copy of the schedule will be posted at the end of this column. We have a new venue this year at Bay City, TX. We managed to get the local airport for the weekend all to ourselves. The city is excited about the event as well as the club. If all goes well, and the club feels comfortable, I plan to approach the club about hosting a national level event next year. Returning to our list of hosting sites is the Wichita Falls, TX group. We have had races in the past at this site, and the field is excellent. Jerry Small approached the club about hosting the event, and they seem very excited to have us. Please check out the schedule and plan to attend as many of the events as possible. We also invite any of the other district members to attend any of our races, if you want to come out for a "Good ole Texas butt whoopin".

I explained in last month's column, we are trying a new Sportsman AMA 424 event in Dist VIII. This event will be run on the two pole course before any of the other events will be flown. The other events will still use the original three pole course. The Sportsman event will require a Lanier Predator with a Thunder Tiger Pro.40, and a 9X6 APC Sport Propeller. Anyone who shows up to an event with equipment other than specified will be allowed to race until breaking out of the set "break out time," which will be determined at the first Sportsman race. Once the breakout time is reached by the individual, he/she will be allowed to finish the weekend, but required to have the legal equipment at the next race. This is to keep from obsoleting anyone.

In looking at the layout of the course for two pole racing, the required length for pilots and callers to stand from the course was much too far for seeing the aircraft as well as taking off and landing. It is also a long distance for callers to have to run back to their respective pilots. I brought this issue up to AMA Competitions director Steve Kaluf, who in turn directed me to AMA Dist. VIII VP Dr. Sandy Frank. Sandy had me to design a request for waiver, which was recently approved by both Sandy Frank and Steve Kaluf. The distance is now short enough to see the planes as well as take off and land. In order to get this waiver, we have to ensure that the Sportsman aircraft all stay within the 120mph range. We will do this by frequently checking the lead aircraft's speed with radar. As it turns out some of the local clubs around the country who partake in club racing, have similar waivers on that distance.

We are geared up to have a great season. I'm looking forward to the Sportsman event bringing in new contestants as well as sharpening up old ones. Head out to some club meetings and recruit a couple of new guys. Take your Predator with you for show and tell. Again check out the schedule and I hope to see you at the races...

I have sent the District 8 race schedule to the Webmaster. You will find it complete at [WWW.NMPRA.org](http://WWW.NMPRA.org).

Dennis

## ***A Note from Bob Brogdon, Our NMPRA Sec/Treasurer***

Hi everyone, I hope the holidays went well for all. And a well done to Mike Helsel for his win at the Winter Fest meet in Phoenix and Tanner Pacini for his new record in Quickie; hey, that's right up there with the big boys, Tanner!

The reason I'm writing to you today is that I recently read an article by Corky Heitman, "Corky's Corner" in the Winter 2003 issue of High Flight, the publication of the International Miniature Aircraft Association. I have included a portion of Corky's article as I think it is worth passing on to the NMPRA membership. When you read it and see I.M.A.A., just think NMPRA, at least in most cases.

Corky's article follows:

*"As I travel around the country, attending the many fly-ins, I often hear discussions about "what can the I.M.A.A. do for me?" It strikes me as a strange question. What can any organization "Do" for it's members. Is the I.M.A.A. going to buy you that new 12 channel Super Whazoozy radio? I don't think so. Is the I.M.A.A. going to send someone over to paint your new 1/3 scale WorldBeater? Nope...not likely.*

*But is the I.M.A.A. going to provide you a quality magazine, that is 100% devoted to Giant Scale technology, with nothing but Giant Scale related advertising? YES! Is the I.M.A.A. going to represent your very special needs and interests to the AMA? YES! Is the I.M.A.A. going to provide the structure to promote quality, non-competitive, and SAFE fly-ins all over the country, with the assurance that your meet is not going to have a conflict with another in the immediate*

### **Bob Brogdon, cont'd**

area? YES! Is the I.M.A.A. going to provide special educational materials, including a professionally produced Safety Video, and a Giant Scale Handbook? YES!

*I really believe (with apologies to President Kennedy) that folks shouldn't be asking "What can the I.M.A.A. do for me?" They should be asking "What can I do for the I.M.A.A.?" This is the largest special interest group within the Academy of Model Aeronautics. It provides a unified voice to the AMA on insurance and policy matters. It provides a meaningful structure to the most sophisticated, and frankly, most expensive branch of model aviation today. And it does all of this for the ridiculously low annual membership fee of \$20.00*

*Twenty dollars, folks....you spend more than that when you break a propeller. Anybody who tells you that they don't join the I.M.A.A. because they are saving money...is not telling you the truth. That \$20 bill is not the issue.*

*I believe in this organization. I believed in it when I was involved in founding it 24 years ago, and I believe in it just as strongly today. I would like to encourage every one of you reading this to sit back in your Lazy Boy, and think about your flying buddies. Who do you know who flies giant scale, but doesn't belong to the I.M.A.A.? Now, find the membership application that is in this issue, tear it out...or better yet make a half dozen photocopies...and give one to each of your flying friends. A bigger, stronger I.M.A.A. can only help to provide even more for the betterment of YOUR favorite hobby! What can YOU do for the I.M.A.A.?"*

Well racing fans, need I say more; Corky has made a number of good points that also apply to the NMPRA. Then, in addition, the NMPRA tracks points for its members and presents year end awards to the top twenty in Q-500 and Q-40. The NMPRA also has a Championship Race with trophies to the top flyers. And, the

NMPRA helps fund trophies for district Q-500 championships. Then, there's the NMPRA web site that is an outstanding site with a forum where you can exchange information and/or voice your opinion. You get all this for only \$20 or \$30 a year. That seems like a deal to me. What do you think? Send in your dues and recruit a new member or two.

Bob Brogdon

### **JR Gold Cup 2004-Randy Bridge VP**

The JR Gold Cup 2004 series is officially under way. As you all know, we started the series down in Phoenix Arizona and we managed to pull 63 competitors from their couches and computers. The weather was a bit chilly this year, but I imagine that for some it was just right.

The racing was awesome. Each heat has the appearance and intensity of a fly-off. It appeared early on that we might be headed for the classic shot out. Dan Kane and Gino DelPonte were keeping pace with one another with perfect scores until late Sunday when Gino was called for an early launch that forced him to take second in his heat. Then the unexpected happened. Gino's engine had the glow plug come loose on the line and they were unable to get in the air. Tough luck, Gino. Remember the little thing I told you on how to check that before each heat??? Gino did hold fast time for the event with a 1:02:16.

Anyway, no such blunders in the Kane pit. Dan kept his focus and flew awesome. He finished with a perfect score and a quick time of 1:03:52. Congrats to Dan Kane for an awesome win, flying his Polecat (manufacture: Bruce DeChastel). Dan also does an awesome job building Polecat's for the racing public. I'm sure his list will be growing!

We had some added flavor to the mix in Phoenix. The Giant Scale boys decided to give the small planes and the 3-pole thing a try. What an awesome bunch of guys!! Top finisher for those guys was Ken McSpadden, turning a 1:07:97 (getting the job done nicely). Dave Presta (crazy fool) was

not far behind in 21<sup>st</sup> with a 1:07:89. Then there is Scott Hanbury, who didn't finish where he wanted for sure. But never the less, we all had a blast with you guys, and we welcome you.

**New Planes:** Jerry Small and the Texas boys were flying Jerry's new Miss Reno. Jerry was kind enough, and trusting enough (I don't know why?) to let me take Miss Reno for a full flight and some serious hot laps. Awesome airplane! Flew great, took off great, and landed great. Thanks Jerry for the test flight, and be sure to let us all know if and when they will be available.

Next stop for the JR series is Apopka Florida on April 23-24-25. Call Gary Freeman Jr. to get signed up. The top 10 for the season points are as follows after one race:

- 1<sup>st</sup> Dan Kane
- 2<sup>nd</sup> Jaime De La Vega
- 3<sup>rd</sup> Travis Flynn
- 4<sup>th</sup> Lyle Larson
- 5<sup>th</sup> Tom Scott
- 6<sup>th</sup> Randy Bridge
- 7<sup>th</sup> Gino DelPonte
- 8<sup>th</sup> Gary Freeman Jr
- 9<sup>th</sup> Lee Ulinger
- 10<sup>th</sup> Fred Burgdorf

AND, a big thanks to our series sponsors: Horizon Hobby, JR Radios, and PowerMaster Fuels. This couldn't be the series it is without their support.

*No right turns allowed!  
Randy Bridge -*

*The Pylon Racer's  
Official Voice*

**Next Article  
Due Date  
May 20, '04**



# Starting Line

## **USRA President's corner** **-Scott Hanbury**

It's hard to believe spring is already upon us. For many of us the warming of the weather is a signal how close the racing season is. Not only do we have to finish prepping our planes (new and old) but, it is also time to go over all of our support gear such as wagons, starters, tents, trailers and various other tools used during a typical race weekend. Being prepared with your equipment in good working order before your team gets to a race allows for less work and more enjoyment throughout the weekend. Remember, by getting your entry fees in early assures that you will get your preferred frequency and tail number, but also helps the promoter cover the early costs of running a race.

The JR Gold Cup race in Phoenix was a blast! The race was hosted by the Speedworld R/C club at their facility north of Phoenix. It was a perfect venue for a Q-40 race. There were, at last count, 62 registered pilots including SpeedDemons Ken McSpadden, John Creagh and myself. Other familiar faces were Dave Presta, Robert Holik, Doug Killabrew and Fred Bergdorf. Practice was Friday and we all tried hard to dial in our racers. Saturday competition started and we raced 5 heats. Sunday we raced 3 heats and then the trophy heats. John and Kenny finished in the top 20 and did a great job representing the USRA. I, on the other hand, showed why I should stay with flying the big ships! John, Kenny and I wanted to thank our good friends Darrol and Rhonda Cady for all of their support over the weekend. Darrol was always quick to jump in and offer any help we needed and we needed a lot. I think we bought 12 props from him. Rhonda was nice enough to pull my name out of the can for the 50/50 raffle. A big thanks goes out to Doug and Mish Clancy for taking me out to a nice dinner and getting me to the airport!

Randy Dauer and his Speedworld crew did an excellent job at keeping things going and Jim Allen was a trooper taking care of the CD duties. Thanks again to everyone that made us feel welcome and we look forward to attending more Q-40 races.

While in Phoenix I had the opportunity to talk to Fred Bergdorf from APC props. As many of you know, Fred and his brother Otto have provided the props for the Dominator, AT-6 and GT-80 classes. Fred said that APC would sponsor us with the props for these classes again this year. The USRA would like to thank Fred and APC for their continued support!

The board has past a vote on putting a moderated web board of some type up on the USRA web site. This will allow our members and new visitors to our web site a chance to converse about different aspects of giant scale racing. We need a message board where current members and people interested in our sport can get info and be part of the giant scale racing community. We are hoping that those who participate will keep the posts upbeat and positive.

Also, going up on the USRA web site will be a link to purchase USRA and USRA sponsors apparel. The link will have some examples of embroidery options and a link to an online apparel catalog for ordering. This gives the buyer the opportunity to purchase exactly what they want. The prices for the embroidery will be posted and then we will add that to the price of whatever shirt, jacket, hat, etc. is to be embroidered. The profits from these sales will go into the USRA Championship fund for the end of the year.

Another addition to the USRA web site is a crew member sign up link. People interested in attending a race and

getting a "hands on" experience can sign up and get place with a team in need of a crew member.

Michael Luvara has donated one of his RCATS onboard telemetry systems for a raffle to be held at the end of the year. Thanks to Mike and RCATS for their generous donation!

Fly low and fast!  
Scott Hanbury  
USRA-President

## **USRA GIANT SCALE RACING** **-Ed. E. Rankin**

### **Getting Started-Part 1**

You should attend several races to determine if you are interested in participating in Giant Scale Racing.

Some things to do at the races are:

Observe the total Race Procedure: Registration, safety/radio check, pit preparation, ready line, start line, take off procedure, and the equipment required.

Talk to USRA members in the pits: discuss airplanes/engines available and cost for each class, competition, airplane race preparation, building time, and flying skills required.

Notice the sporting friendship that all pilots demonstrate by helping each other.

After you have decided you want to race giant scale models decide on the class you would like to participate in.

Consider your skills and attitude to determine if you are qualified to build and control these fast models, and if racing fulfills your desires. You should be an experienced pilot with large scale models, have quick responses and reflexes, be able to avoid accidents (6 airplanes are flown in



# Who Says Racing Doesn't Pay?



## Giant Scale Air Racing Does!

**\$15,000.00** in prizes courtesy of  
USRA Champion Race Series sponsor ZENOAH

Over **\$3000.00** per race given to the top  
finishers in the Formula 1 class courtesy  
of California Research Tabulations

Over **\$1,500** in year end contingency bonus  
money for the F1 and F1GT classes courtesy  
of Ed Rankin Designs and California Research  
Tabulations

**\$1,500.00** "Rookie of the Year" prize.  
Courtesy of California Research Tabulations  
and Lopez Construction

For more information visit us at  
**www.usrainfo.org**

## USRA Championship Series 2004

**Jun. 24-27**

Wings Over Eldorado  
Eldorado, KS

**Aug. 19-22**

North Coast Challenge  
Ashtabula, OH

**Oct. 14-17**

The Blue Water  
River Run  
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Unlimited Scale Racing Association

**TURN.**

## USRA GIANT SCALE RACING

### -Ed. E. Rankin cont'd

each heat), have good depth perception (take off and landing, pylon turns), have good eye to hand coordination (control the airplane properly), and have a good attitude and reaction to others.

You must understand that Giant Scale Racing is a form of risk just like any racing sporting events. Considerable cost is involved in travel, and entry fees, constructing the model, engine purchase, and equipment required. You must consider if you can afford these costs for the class you choose. Make sure you can handle the tremendous stress involved in competition pylon racing, and that you can handle the possible risk of crashing your airplane and destroying the model, engine and radio systems.

Another consideration is to make a self-examination of what type of competitor you are. Are you one who likes competition and fly for fun regardless if you win or not? Are you a very serious competitor and think you

must win to continue. Believe me, you will probably not be successful the first few races. However, you will be successful if you have dedication to improve regardless if you don't win or lose your airplane. Remember, emotions are high and the competition is tough.

### JOINING THE USRA

To race in a sanction event you must join the AMA and USRA. The Unlimited Scale Racing Association (USRA) was created in 1994 and is the international special interest group representing all of giant scale racers and races. The USRA's purpose is to promote the sport in a professional manner with a democratic organization. The USRA represents the best interest of its members and the sport by setting organizational by-laws, class specifications, the conduct of the races and regulations. Also, the USRA controls the sanction race points that are accumulated during the year to determine and reward individual racing class champions. The USRA's web site is

<http://www.usrainfo/presf.htm>.

The following information can be obtained: about USRA, rules and specs., constitution and by-laws, contact USRA, Join USRA, manufacturer list, media relations, World Championship Point standings, President's report, prior year's races results, race workers, racing links.

### ORGANIZING A TEAM

You would be wise to find an experienced race pilot as a mentor. He could advise you on every step of preparations, organizing a team, financing, selecting a class, and purchase of your model and race engines/prop./ fuel systems. Several people are needed on the team:

Help you build your model

Help you test fly and fine-tune your model for racing. You should have an experienced pilot to test fly your airplane. He can save your airplane in case of an emergency, and trim it properly.



# Starting Line

## **USRA GIANT SCALE RACING**

**-Ed. E. Rankin cont'd**

A racecourse caller is a very important person in your team. He must understand your flying skills, have good depth perception and timing to tell you when to turn, advise you of race course strategy during the race, and prompt you on a good race start on the clock

Two people are required to launch the airplane: one to start the engine and move starting equipment off the starting line, and another person to hold the airplane and move it to the prescribed take-off-line.

People to retrieve your airplane and move it your pit for the next heat race preparation.

There are three ingredients that produce a winner: caller, pilot, airplane/engine

## **CHOOSING THE CLASS**

There are six classes to choose from and a new F-I class is being formulated to reduce the cost to new race pilots. There is no so-called entry-level class; all of these airplanes require a high level of pilot skills and are very competitive. However, in 2001 and 2002 several of the race promoters have offered a non-sanctioned USRA entry-level class called the Dominator class. It is a low cost easy to fly, one airplane/engine type airplane class that has had considerable success.

Fiberglass/foam kits, or ARF airplanes are available from many manufacturers (refer to USRA website). Observe what airplane/engine combination is the most popular being used. You may want to choose this airplane for the class you have selected. However, you may want to choose something

different that is competitive. In either case you should consult your mentor or other active race pilots.

## **THE AIRPLANES**

The six classes available are: AT-6, BIPLANE, THOMPSON TROPHY, FORMULA-I, UNLIMITED, and EXPERIMENTAL. Each class has different parameters of speed, different requirements in pilot skills, and different options and costs. All of the airplanes are scale replicas of airplanes flown in full-size airplanes races such as Reno and Cleveland. Airplane size, requirements, engines, weight are covered in the USRA's Specs. Race course speeds vary from approximately 120 mph for the AT-6 to 230 mph for the Experimental Class. Costs not including radio systems will vary from around \$2000 to as high as \$6000 depending on the class and whether you build a kit or buy an ARF model, or have your engine tuned by a specialist. The following is a brief description of each class. Refer to the USRA web site for manufacturers list:

**AT-6 CLASS-** This is a one-model, one-engine class using the AT-6/SNJ and the stock Zenoah 62 ignition engine running on gasoline/ prop furnished by the Race Management. Speeds range from 100-120 mph. Costs for the airplanes range from \$1500 to \$3000. (Wood kit, fiber glass, foam kit, or ARF) Engine cost about \$800. Weights vary from 25-28 pounds.

There are several choices in this class; you can build a wood kit from plans or build a model from a fiberglass fuselage and foam wing/tails kit or buy an ARF. Building an AT-6/SNJ model from a wood kit/plans requires a very high degree of building skills. The stock Zenoah 62 should be disassembled and "Blue Printed" by an engine tuning specialist. Remember no reworking

can be made other than substituting factory parts to make better fits, or some hand lapping.

**BIPLANE-** these models are scale replicas of the Reno Sport Biplane race planes, and use an engine with a maximum displacement of 4.8 cu. in. They weigh from 25-30 pounds and speeds range from 120-150 mph. Costs of the model are from \$1000 to \$3000, engine \$800 to \$1200.

USRA rules state that the lower wing should be no less than 30% of the total wing area of 1475 sq. in. The fastest models in this event are the biplanes that have more wing area on the top wing than the bottom. The technical reason for this is that interference drag is reduced for biplanes by a smaller lower wing/upper wing, and/or negative wing stagger. The new Mong design with the very small lower wing, the Sundancer, or the Soceress with negative stagger wings are popular. The Mong Special versions and the Knight Twister are also very competitive. You can choose either a single or twin cylinder 4.8 cu. in. engine, but it is recommended that an engine tuner rework it for maximum power.

**THOMPSON TROPHY-**These models are scale representation of the fuel-size airplanes that raced in the Thompson Trophy Races between 1929 and 1939. Speeds range from 150-170 mph. Maximum engine displacement is 6.0 cu. in. for fixed gear airplanes, and 4.8 for retractable gear airplanes. They weigh between 25-30 pounds, and the cost of the model is from \$1000 to \$2000, engine costs are \$800-\$1200.

Plans for wooden kits, and fiberglass/foam kits are available for this class. Retractable landing gear models are usually chosen with a



## **USRA GIANT SCALE RACING**

### **-Ed. E. Rankin cont'd**

reworked 4.8 engine. However, fixed gear models can be chosen with a reworked 6.0 engine. Choose one with a wing area of 1100-1300 sq. in. to keep the wing loading down because of the model weight. Good choices are the Caudron, Eight Ball, and Miss Los Angeles. (Fixed or retractable landing gear)

**FORMULA I** –These airplanes are a 42% replica of the Reno Class Formula I full size airplanes using a maximum displacement engine of 4.8 cu. in. Costs for the model range from \$1500 to \$3000, engine cost about \$1000-\$1500; speeds range from 150-180 mph and weight from 25-30 pounds. A new low cost F-I event is being created for this class using a stock 4.8 ignition engine with fuel and prop furnished by the race management that should weigh 27-32 pounds. Airplanes should cost the same but the engine should cost \$800-\$1000. Speeds should be 130-140 mph.

This class is the fastest growing event in Giant Scale Racing, and many choices are available (see web site). You can build wooden models from scratch or fiberglass/foam kits, or buy ARF's. Midwing models are generally lower drag than low wing airplanes due to the lower wing interference drag. This is especially true in the straightaway where skin friction drag and interference drag are predominating. However, midwing models are usually heavier than low wing models. This is due mainly to wing/fuselage structural attachment requirements. Wing aspect ratio will be examined in future technical articles. Popular models to choose from are the GR-7, Polecat, Nemesis, Shoestring, and the Proud Bird. Have your single or twin cylinder 4.8 engine reworked and tuned for maximum power.

**UNLIMITED-** All airplanes must be

scale replicas of the full size aircraft that raced in the Unlimited Class at Reno or other races such as Phoenix 500. They cost between \$2000 and \$4000, engine cost \$2500-\$3000, speeds can range from 200-220 mph on the race course. They weigh approximately 32-50 pounds. Engine limit is 14 pounds.

Several manufacturers offer plans, fiberglass/foam kits, ARF models, or you can design your own within the USRA specs. All models require retractable gear. Popular models are P-51 clip wing variants, Vendetta, Miss Ashley, Corsair, Sea Fury, Bearcat, and Tsunami. Twin cylinder engines are necessary to meet the horsepower requirements to power these models. The Herbrandson 280 & 290, A3 8.8 & 11.4, and Aerrow 200 are good engine choices but need heavy rework to be competitive.

**EXPERIMENTAL-** these models are scale representations of the full size airplanes raced in the Reno Sport Class, or any of the full size Experimental Class airplanes that have flown. They are approximately the same cost as Unlimited Models. Speeds range from 210-240 mph and weigh 28-35 pounds.

These are the fastest models, and require top skills to fly them. There is a lot of room for new airplane designs in this class. Presently the Lancair IV, Lancair 360, and Polen Special II are the popular models used. Popular engines are the Herbrandson 217, Aerrow 200, and the A3 8.8, and all require tuning for maximum horsepower.

Please let me hear your comments on these subjects at 817-292-0465., e-mail: [rankin@airmail.net](mailto:rankin@airmail.net)

Ed Rankin

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