HI-LOW-LANDINGS The Newsletter of the Navy Carrier Society

| | President: | Vice President: | Secretary / Treasurer | NCS Top 20 |
|---|---|---|---|---|
| | Pete Mazur<br>5 W. Windsor Ct.<br>Sugar Grove, IL<br>60554<br>pomazur@gmail.com | Bob Heywood<br>5135 Crescent Ridge Dr.<br>Clayton, OH 45315<br><br>rheywood@woh.rr.com | Dick Perry<br>427 Live Oak Ln NE<br>Albuquerque, NM<br>87122<br>tailhooker@comcast.net | Burt Brokaw<br>4233 W. Tombolo<br>Trails<br>Tucson, AZ 85745<br>lecreit@msn.com |

Issue 25.4 20 August 2025

# Editor's Note

This issue includes the NATS results (for those who haven't looked them up on the AMA web site or monitored the goings-on in Melvin Schuette's "NATS News" submissions). The results from the Knights Joust last weekend come from Ron Duly. The NCS Fall Postal Contest starts in a couple of weeks, so plan your September flying activities accordingly. The Top Twenty listing has also expanded considerably with the NATS scores included, and I expect further additions and some changes in the rankings as we get into the Fall Postal. Send me your photos and results so our readers can see what's happening in your area. We have some Carrier equipment hitting the market; see the end of this newsletter for details. I've also reprinted an article by Pete Mazur on modifications to the Brodak Guardian model designed by Bill Calkins. Since the Guardian is the only Carrier kit currently in production and readily available, I thought it was time to reintroduce Pete's work to make the model highly competitive in the Profile Navy Carrier event.

# Let's Go to a Contest!

30 August – 28 Sept, **NCS Fall Postal Contest** at a flying field near you. Details in this issue.

30 August, Midwest Regional C/L Championships, Carrier portion of 30-31 August event, Aurora, Illinois.

31 August, Charles Ash Memorial/Southwest Regionals, Carrier portion of larger contest 30-31 August, Dallas, Texas. AMA listing at: 2025 Charles Ash Memorial/Southwestern Regionals | Academy of Model Aeronautics

6-10 July 2026, CLNC National Championships, Muncie, Indiana. 100th anniversary! Don't miss it!

# National Model Airplane Championships -- CLNC

## July 7-10, Muncie, Indiana

Dick Perry

Official results for the AMA events can be found on the AMA web site at Nats Event | Academy of Model Aeronautics . Results from prior years are also accessible at the same page by changing the date selected. Melvin Schuette's "NATS News" submissions can be seen at CL Navy Carrier (start on this page and scroll down to see prior-year Carrier reports).

We had good flying weather throughout the NATS this year with winds consistently from the same direction so we didn't have to move the deck. The weather was, however, quite hot and humid, which created some issues with engine setting for some folks travelling from different climate zones. It was nonetheless typical for Muncie in July! We had two Junior competitors this year – Connor and Wesley Smith – who came with their whole family. Dad David supported them and was kept quite busy, but he did manage to fly events of his own. Uncle Mike and Mom Sarah also entered. Angstrom Eberenz moved up to Senior this year and flew well in a variety of events. He set four new Senior records while winning Electric Profile and placing second in four other events. He also took home the Eugene Ely Award!

Angstrom Eberenz accepts the Eugene Ely Award from NCS President Pete Mazur at the annual NCS Awards Banquet at the NATS.

Wesley Smith holds the XF5U after a successful landing while his dad, David, prepares to disconnect the battery. Photos courtesy of Melvin Schuette.

David Smith flew the prototype XF5U in multiple classes at the NATS. It was light enough to fly in .15 and large enough to fly in Electric Profile, Electric Class I and Electric Class II (without scale points) with different batteries, props, and ballast. It placed in all but Class II, suffering a structural failure before flying in Class II. More development is coming, including a Class I/II with scale fuselage and nacelles.

| NATS 2025 | | | | | | | |
|---|---|---|---|---|---|---|---|
| **CLASS I** | | **CLASS II** | | **PROFILE** | | **SPORTSMAN PROFILE** | |
| Duly, Ron | 326.8 | Schuette, Melvin | 361.1 | Shoemaker, Jo | 265.2 | Smith, Wesley (J) | 188.6 |
| Smith, David | 186.1 | Shoemaker, Everrett | 224.8 | Eberenz, Angstrom (S) | 201.7 | Smith, Connor (J) | 119.4 |
| Smith, Wesley (J) | 181.2 | Duly, Ron | 197.2 | Smith, Michael | 189.4 | | |
| | | | | Schuette, Melvin | 169.2 | | |
| | | | | Shoemaker, Everett | 88.1 | | |
| | | | | | | | |
| **CLASS I ELECTRIC** | | **CLASS II ELECTRIC** | | **PROFILE ELECTRIC** | | **SKYRAY** | |
| Perry, Dick | 406.8 | Perry, Dick | 399.1 | Eberenz, Angstrom (S) | 275.3 | Smith, Paul | 223.5 |
| Eberenz, Angstrom (S) | 320.9 | Eberenz, Angstrom (S) | 336.7 | Smith, Paul | 262.2 | Eberenz, Angstrom (S) | 216.8 |
| Smith, David | 275.3 | | | Smith, David | 258.8 | Smith, Wesley (J) | 181.3 |
| | | | | Shoemaker, Everett | 256.1 | Smith, Connor (J) | 168.6 |
| | | | | Schuette, Melvin | 188.6 | | |
| | | | | | | | |
| **CLASS I NOSTALGIA** | | **CLASS II NOSTALGIA** | | **PROFILE NOSTALGIA** | | | |
| Smith, Wesley (J) | 246.16 | Smith, Paul | 392.75 | Smith, Paul | 399.03 | | |
| | | | | Shoemaker, Jo | 263.53 | | |
| | | | | | | | |
| **.15 EXPERT** | | **.15 SPORTSMAN** | | | | | |
| Smith, David | 239.1 | Smith, Wesley (J) | 188.6 | | | | |
| Smith, Paul | 222.9 | | | | | | |
| Shoemaker, Everett | 208.9 | | | | | | |
| Shoemaker, Jo | 105.0 | | | | | | |

# NCS Fall Postal Contest

30 August – 28 September

In 2020 NCS started the **NCS Postal Contest** tradition because of COVID. The threat of COVID has significantly diminished with outdoor events having been shown to be very low risk, and the restrictions have gone away, but the event has become a popular way to get together to fly Navy Carrier and to post a score in the NCS Top Twenty listing. The contest will not be sanctioned, though any local activities can certainly be sanctioned, such as the Midwest Regionals and Southwest Regionals.

To make things as easy as possible for local flying fields and small groups, you can use a painted or otherwise marked carrier deck (as allowed in the rules), and without a sanction, you can use as many (up to ten) or as few arresting lines as you have or are willing to risk a bolter with. You can also lend a model to another potential Carrier modeler, teach them how to fly Carrier and have them fly for score. Share the fun! With a painted outline at your local flying field, your local club members might be encouraged to practice more often or even sanction a local contest in the future. Here are the details:

Navy Carrier Society is the sponsor. All official and unofficial events are included. There are no prizes and no entry fees. What you get is bragging rights and a Top Twenty listing – plus the opportunity to participate in a contest this spring. Fly as often as you like – each day is a new opportunity for making three attempts, and models may be shared.

All AMA rules apply, except for the requirement for a full set of arresting lines and the ability to share models.

The only requirement for entry is that each entry be accompanied by an electronic photograph of the activity – models, contestants, etc., even the pizza party after flying – plus a brief description (who, what, where). Send scores (and high, low, landing scores if you like) and an electronic photo to Dick Perry ( Tailhooker@comcast.net ) We'll publish the photos in periodic High-Low-Landing newsletters.

We'd like to see who is flying and what you are flying. Do you have a new model ready to go? Bring it out. Even better, if your new model isn't quite finished, finish it in time to enter it in the Postal Contest. We'll be looking for your entry, and we'll be looking forward to filling up the Top Twenty rankings for the year.

# Knight's Joust, Whittier Narrows Park, El Monte, California

16 August

Ron Duly

The 2025 edition of the Knights Joust is in the books. Excellent weather made the day very enjoyable. As the Event Director, I elected not to fly. This contest includes Stunt and Combat so all four circles were busy all day. Stunt and Carrier events are favorable for cross-over participation and Jim Hoffman did just that. Jim and Mike Hatfield made the trip from Arizona and were gladly welcomed. Where were the local Carrier entrants? Nowhere to be found. Bummer! The two pilots each brought two planes for various classes of Carrier. The results are:

100% Mike Hatfield Nostalgia Cl. 2 with a score of 497.92
74.7% Jim Hoffman 15 Profile with a score of 189.2
65.4% Jim Hoffman AMA Profile with a score of 248.4
61.1% Mike Hatfield Nostalgia Profile with a score of 321.68

Scoring is by percent-of-record, whether from AMA, Northwest or NCS Top 20 for the last year, 2024. I researched published sources and found results for all but Nostalgia Cl. 2, hence the 100% score for Mike. I explained my rationale to both and they accepted my reasoning. Funny, why won't my wife see it their way....

Anyway, the equipment:

Mike flew a Roland Baltes designed Japanese MYRT with a HB 61 R/C engine. This is a Perry-ported engine but still a cross-flow design so he earned the 20 point Nostalgia engine bonus. Between his two flights the best high speed was 19.36 seconds and best low speed was 59.64 but not during the same flight. He unfortunately missed both landings. A good way to hit the deck was shared with him. After signaling for the landing, at the half-circle point of the final lap, plant the left foot pointed directly at the deck. As the pilot completes the lap the landing area will be exactly where the foot is pointed.

Jim flew a Sniper in 15 Carrier with an AME 15 engine. Best high was 32.88 and best low was 113.43 with a 100 point landing. He is an enthusiastic proponent of the "momentary inadvertent deviation" rule (111.2.1.2 of Navy Carrier rules) but never earned a DQ.

Jim also flew a MO-1 in AMA Profile. Power was a Thunder Tiger 36 R/C engine. Best high was 23.25 and best low was 143.52 with a 100 point landing.

Mike Hatfield flew a GS (now Brodak) Skyraider in Nostalgia Profile with Nelson 36 power. Best high was 20.47 and best low was 70.27 with a 100 point landing. No engine bonus.

What can we learn from all this? One, a good R/C engine is plenty capable of winning in Carrier. Two, Nostalgia Carrier, without the dreaded slider, can be enjoyed with modern engines by not getting the 20 point cross-flow engine bonus but getting some exciting high speeds. What is not to like? Three, Carrier and Stunt pilots can enjoy both events at the same contest.

Finally a BIG thank you goes out to Howard Doering, especially, and Mike and Jim for helping me run the contest. Mike and Jim traded Pilot/Pit Man duties while Howard helped me set up the deck and time all day.

Pete'sBrodakGuardianattheNatsDickPerryphoto

# Pete's Guardian

Pete Mazur tells how
he converted
the Brodak Guardian kit

One week before the Nationals I found myself with no Profile entry, but I did have a Brodak Guardian kit. The Guardian had produced respectable performance in the hands of others. Could it be updated to produce outstanding performance? I had a chance to find out, but time was a challenge. Minimal modifications would be possible because of the time constraint. Bill Calkins, the Guardian designer and my flying partner, had already suggested changes which I would implement: remove the outer rib bay from each wing, remove some height from the top and bottom of the fuselage, add a kick-out feature to the rudder, and, most important, move the bellcrank to an external location and add a more effective

line slider than is possible with the internal bellcrank. I planned to use the kit parts to trace out new parts on selected wood, some other changes, done for personal preference but not necessary for good performance, were possible as well.

The fuselage is pretty tall, so removing between one quarter and three eighths of an inch from both top and bottom was easy and it reduced drag and weight a little and also improved the appearance. I also used longer maple motor mounts, cutting a bevel on the aft end and bring them back about three quarters of an inch past the leading edge. I also added a ½" thick spacer between the motor mounts, extending from just before the leading edge to right behind the engine, in order to stiffen up the assembly for modern high-performance engines. The plywood doublers were about the stock length on the upper fuselage, but were extended almost to the trailing edge below the wing. This doubler extension provides a very strong place to grip the airplane, firmly connected to the bellcrank, for pull tests. The fuse is notched to capture the 1/8" plywood bellcrank platform which is epoxied into position at the same time the wing is epoxied into the fuselage. The bellcrank axis is 6 ¼" aft of the leading edge. This aft location, coupled with the slider design, results in a slider that activates with no springs or rubber bands needed to pull it to the rear.

With no controls inside the wing and the outer rib bay removed from each wing, the construction is even easier than stock. Rather than using 3/8" sheet balsa for the wing tips, I simply carved tips from 1" balsa blocks. The only other addition to this simple wing was adding two ¼" plywood plates (parallel to the rib with the plywood flush with the rib shape after the rib has been cap-stripped) to the sides of the sixth (near the trailing edge) and seventh (near the front) ribs. I would screw the line slider assembly to the wing with a couple of #2 sheet metal screws threaded into each of these plywood plates. That way the slider could be added after covering the wing and could be removed for repair or replacement, if needed. The angled mounting of the slider allows it to slide when released without a rubber band. This doesn't happen if the slider is straight, parallel to the ribs. I made my slider out of 0.230" diameter carbon fiber tube. Slit the tube with an abrasive cutoff wheel mounted in a drill press. One way to do this is to build up a corner on the drill platform from motor-mount stock and C-clamps that puts the carbon fiber tube at the right height and position to be slit. Push the tube along the motor-mount corner and it is perfectly slit, that is, if you don't twist it in the process. Clamp a stick to the tube as a visual guide so you can see that it is not twisting as you push it through. The sliding part of the slider is made up of 1/32" brass sheet soldered into 5/32" brass tubing. I install aluminum eyelets, available from local craft or fabric stores, into the brass sheet to reduce wear on the leadouts. To mount the slider to the wing, I bent up two pieces of 1/8" solid aluminum rod (not tubing) from the K&S rack at bigger hobby and hardware stores. One end of each was hammered flat and drilled out to accept two #2 sheet metal screws, and the other end was epoxied into the end of the carbon fiber tube. I learned during test flying in the wind that the slider must be latched to keep it from moving forward and causing some very undesirable maneuvers in low speed. A simple latch was made from 1/32" music wire and epoxied to a spruce strip, also epoxied to the side of the carbon fiber tube.

I added hinges to the rudder and my usual rubber band hook/movement limiter to the side of the rudder. The release pin is a piece of 1/32" music wire that goes vertically through the very aft end of the fuselage, fitting through a piece of 3/32 brass tubing. A short piece of .018" control line goes from the 1/32" wire to the tail hook, pulling the wire out and releasing the rudder when the hook drops. A turn or two of copper wire soldered at the bottom end of the tube, and a retaining bend on the 1/32" wire, will keep the wire from falling out during flight. I use the same retaining bend shape for the slider release and the hook release as well: There is a U-bend in the wire, with the long arm of the U going to the device to be released and the other going parallel at a distance of about 1/8" for a distance of about ½", then bending toward the long arm, and then away.

I used a carbon-fiber pushrod and eliminated the steady bearing. I like to solder wraps of copper tubing to 1/16" steel welding rod to increase its diameter to fit nicely into the carbon fiber pushrod tube and

epoxy the weld rod into the tube. This welding rod material bends and solders very easily and is a pleasure to use. I also bought the tallest control horn I could find to reduce control sensitivity in high speed. I mounted the control horn backwards to give differential elevator operation: More up than down during the low speed.

The tailhook is mounted a bit lower on the fuselage with a bend a couple of inches from the pivot. Solder a little hook to the tailhook and another to the fuselage for rubber bands to pull the hook down. A wire loop soldered near the rear provides the release. The release comes from a piece of control line bound and soldered to the pushrod, then attached to a 1/32" release pin passing through another piece of 3/32" brass. Two wrappings of copper wire soldered to the tube will prevent premature release of the hook and retain the pin after release. The hook shape is different than shown on the plans. This shape, where the hook bends up 45°, goes ½", does a ¼" U-turn, and comes back 1 1/8", works extremely well. The shape on the plan does not. The hook movement is limited by a piece of control line attached to the tailskid.

The chicken hopper tanks setup shown on the plan will work. I like to make the big tank more streamlined for better high-speed performance, and I mount the small tank lower than the big tank so it is filled more reliably while running on the deck. In flight, the differential pressure is greater between the tanks, so the greater tank height differential is only valuable on the deck.

Because I mounted the bellcrank on the inboard side of the fuselage, I needed to install a transfer crank to move the throttle motion from inboard to outboard. This is based on a piece of 1/8" stainless steel tubing (from the K&S rack again) that passes through (and is CA'ed to) the fuselage. Through that is a piece of 1/16" weld rod, bent on each side and soldered to strips of 1/32" × ¼" brass. Pushrods from the bellcrank on one side and from the carb arm on the other side complete the assembly.

I mounted the landing gear with two standard nylon clips on each side of the fuselage, and with across-brace soldered between the two 1/8" wire legs. This is much stiffer than the stock landing gear. With luck, I can get through a season with one prop!

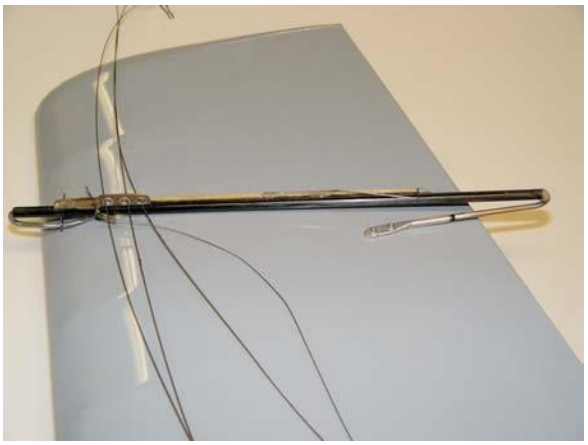
Guardian right side view

Guardian left side view

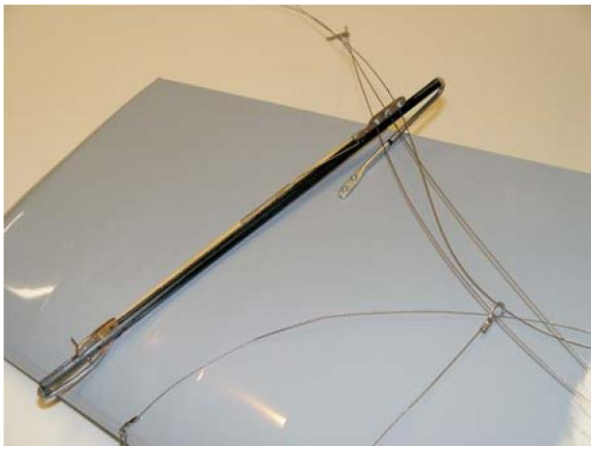
I added 1 ¾ oz. of lead for tip weight and the finished airplane came in at 41 ounces. The balance with an empty tank is right at the front edge of the spar. The airplane is barely controllable in high speed at this balance point, not really good enough for a high speed flight under 20' altitude. With the tank filled, the balance point moves forward nearly an inch and high speed flight characteristics are just fine. It would be fine to have the full-tank CG farther back, but if the throttle system fails and the airplane

flies through the full tank at high speed, it can become unstable enough that it crashes. That's how I found myself without a Profile airplane. A 20 year old solder joint failed and the throttle stuck in high. I knew I was in trouble when it started doing rolls. That won't happen with this model with the empty-tank CG at the front edge of the spar.

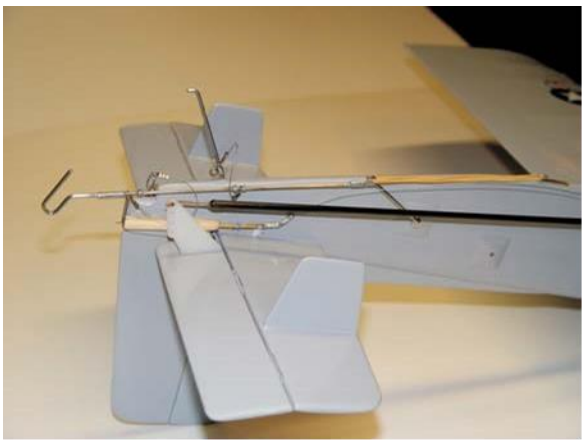
Again, the important modifications are really only external controls and modern line slider, wingspan and fuselage height reductions, kick-out rudder, and getting the CG right. The rest of the modifications vary from helpful but not critical to simple personal preferences. Although I have limited flight experience with it, this model has shown gentle flight characteristics, which should even allow Carrier pilots of limited experience to do well. Maybe it's the extra-thick wing. The high speed is in the 20 second range (still need to get the needle tweaked a bit) and the low speed on its second flight, at the Nationals, was over 323 seconds.



The line slider in forward locked position



The line slider in released and locked position



Hook release, rudder release, control horn (note installation)

Bottom view showing the fuselage doubler extension, the throttle transfer crank, landing and pushrod. gear, bellcrank and fuel tank setup.

# TOP TWENTY

## TOP TWENTY 2025

| CLASS I | | CLASS II | | PROFILE | | SPORTSMAN PROFILE | |
|---|---|---|---|---|---|---|---|
| Brokaw, Burt | 416.3 | Schuette, Melvin | 361.1 | Brokaw, Burt | 304.8 | Paris, John | 212.9 |
| Schneider, Jim | 369.9 | Schneider, Jim | 278.3 | Shoemaker, Jo | 284.0 | LaNore, Tim | 209.1 |
| Duly, Ron | 326.8 | Shoemaker, Everrett | 224.8 | Wolgast, Lou | 266.3 | Smith, Wesley | 203.9 |
| Wolgast, Lou | 308.7 | Duly, Ron | 197.2 | Shoemaker, Jo | 265.2 | Morenka, George | 135.1 |
| Smith, David | 186.1 | | | Hoffman, Jim | 258.4 | Dukes, Mike | 128.3 |
| Smith, Wesley (J) | 181.2 | | | Schluter, Mark | 230.1 | Smith, Connor (J) | 119.4 |
| | | | | Hazel, Mike | 202.7 | Suhamski, Bernard | 107.3 |
| | | | | Eberenz, Angstrom (S) | 201.7 | | |
| | | | | Smith, Michael | 189.4 | | |
| | | | | Dukes, Michael | 187.8 | | |
| | | | | Schuette, Melvin | 169.2 | | |
| | | | | Millard, Kris | 92.6 | | |
| | | | | Shoemaker, Everett | 88.1 | | |
| | | | | Chuna, Pete | 77.1 | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| **CLASS I ELECTRIC** | | **CLASS II ELECTRIC** | | **PROFILE ELECTRIC** | | **SKYRAY** | |
| Perry, Dick | 421.5 | Perry, Dick | 399.1 | Eberenz, Angstrom (S) | 275.3 | Brokaw, Burt | 237.2 |
| Mills, Steve | 352.4 | Mazur, Pete | 337.0 | Smith, Paul | 262.2 | Smith, Paul | 234.1 |
| Eberenz, Angstrom (S) | 320.9 | Eberenz, Angstrom (S) | 336.9 | Smith, David | 258.8 | Eberenz, Angstrom (S) | 224.0 |
| Smith, David | 275.3 | | | Shoemaker, Everett | 256.1 | Smith, Wesley (J) | 181.3 |
| Smith, Paul | 92.2 | | | Schuette, Melvin | 188.6 | Smith, Connor (J) | 168.6 |
| | | | | Vlna, John | 143.8 | | |
| | | | | | | | |
| | | | | | | | |
| **CLASS I NOSTALGIA** | | **CLASS II NOSTALGIA** | | **PROFILE NOSTALGIA** | | **NORTHWEST 40** | |
| Hatfield, Mike | 504.40 | Hatfield, Mike | 523.86 | Brokaw, Burt | 495.03 | Millard, Kris | 200.4 |
| Schluter, Mark | 390.09 | Smith, Paul | 392.75 | Hazel, Mike | 415.24 | Schluter, Mark | 196.9 |
| Hawk, Bob | 284.80 | | | Mills, Steve | 415.13 | Hazel, Mike | 195.4 |
| Smith, Wesley (J) | 246.16 | | | Schluter, Mark | 407.72 | Dukes, Mike | 167.3 |
| | | | | Smith, Paul | 399.03 | McCartney, Jim | 141.5 |
| **.15 EXPERT** | | **.15 SPORTSMAN** | | Hatfield, Mike | 321.68 | | |
| Brokaw, Burt | 260.3 | Wolgast, Lou | 208.3 | Schluter, Mark | 296.75 | | |
| Vlna, John | 246.2 | Marenka, George | 198.6 | Shoemaker, Jo | 263.53 | | |
| Smith, David | 239.1 | Hoffman, Jim | 195.4 | | | | |
| Smith, Paul | 222.9 | Smith, Wesley (J) | 188.6 | | | | |
| Perry, Dick | 219.8 | Shoemaker, Jo | 179.1 | | | | |
| LaNore, Tim | 210.8 | | | | | | |
| Shoemaker, Everett | 208.9 | | | | | | |
| Schneider, Jim | 62.4 | | | | | | |

# Carrier Equipment For Sale

Bill Bischoff

I went to Mike Pugh's house today. I don't know if you remember him. He and his two sons flew in the early '90s, and he wrote the newsletter for a time. He's now in his mid 70's, and his sons are adults, busy with their own lives. He has decided it's time to get rid of all his CL stuff, and the majority of it he's giving to me. Today I picked up some engines suitable for Carrier. There's a set of reverse O.S. 40 and 46 SFs in a box and an O.S. 32F with a 4BK carb. Admittedly, none of them are ready to take out and fly tomorrow after

sitting for 30 years, but with a cleaning and freeing up the things that move, any one could be useable the day after tomorrow. I don't know if any lines survived, but there are handles and other items that I will get on my next trip in two weeks.

FWIW, I also have one more of your [Golden States, Ed.] MO-1 kits that I will part with for $75. I also have an OS 32FX and an OS 35AX engine that have been used on a profile Hellcat I built some time ago. Both have been retrofitted with "good" OS carbs. These are mine personally. I will sell them for a fair price, but not a fire-sale price. I will offer a combo price on the kit and one of the 32-35 engines (including the 32F) if anyone's interested -- $75 for the plane, $100 for the engine, $20 off for both. The 35AX is low time, fitted with factory muffler.

Terry Cowger

If you're into three-line, Terry Cowger (terry.cowger@yahoo.com) has bellcranks, handles, some lines. This is the good stuff by Bob Smurthwaite and Leon Ryktarsyk. Also a Sig Acrobat and a couple of Fox 35s (used), but that's Stunt stuff.

For the next few months, as for the last few years, while we continue our search for a full-time editor, I'll be producing the H-L-L newsletter. It will be primarily a means of distributing information about the contest results, but I'll be including additional items from my archives. If you have an item to share, send it to me at tailhooker@comcast.net .

Dick Perry, Temporary Editor

# CONTEST FLYERS ON THE PAGES THAT FOLLOW

# The Tree Town Modelaires

## 59th Annual

# Midwest Regional C/L Championships

**AMA Sanction #18211**

**Saturday August 30, 2025 - Sunday, August 31, 2025**

**Location: Aurora Municipal Airport, Rt. 30, Sugar Grove, IL 60554**

## Saturday Events:

**Stunt Events - (JSO) – Old Time; Classic/N30; Over 70??**

**Navy Carrier – AMA glow and electric classes are combined for Profile, Class1, Class 2, Skyray and Sportsman. (see special carrier rules)**
**Class 1 (319,340)(JSO); Class 2 (320,341)(JSO); Profile (321,342)(JSO); Skyray Carrier; (JSO); Sportsman Profile Carrier (JSO)**
**Note: you may only fly Profile or Sportsman, not both.**

## Sunday Events:

**Precision Aerobatics - PAMPA**

**323 - Beginner Aerobatics (JSO)**
**324 - Intermediate Aerobatics (JSO)**
**325 - Advanced Aerobatics (JSO)**
**326 - Expert Aerobatics (JSO)**
**- Profile (engines up to .92) (JSO)**
**Notes: Beginner, Intermediate and Profile stunt events will be flown over grass**

**C/L Scale 509 - Sport Scale (JSO); 521 - Profile Scale (JSO); 526 - Fun Scale (JSO); 529 - 1/2A Scale (JSO)**

**Awards through 3rd Place. Awards for best Junior/Senior in all events.**

**Entry Fees:**
**Open, $10.00 per Event**
**Junior / Senior, $5.00 per Event**

**Competition Begins at 10:00 AM**
**Registration Closes at 12:00 PM**

**** Food, Porta-john and Raffle Available on Site ****

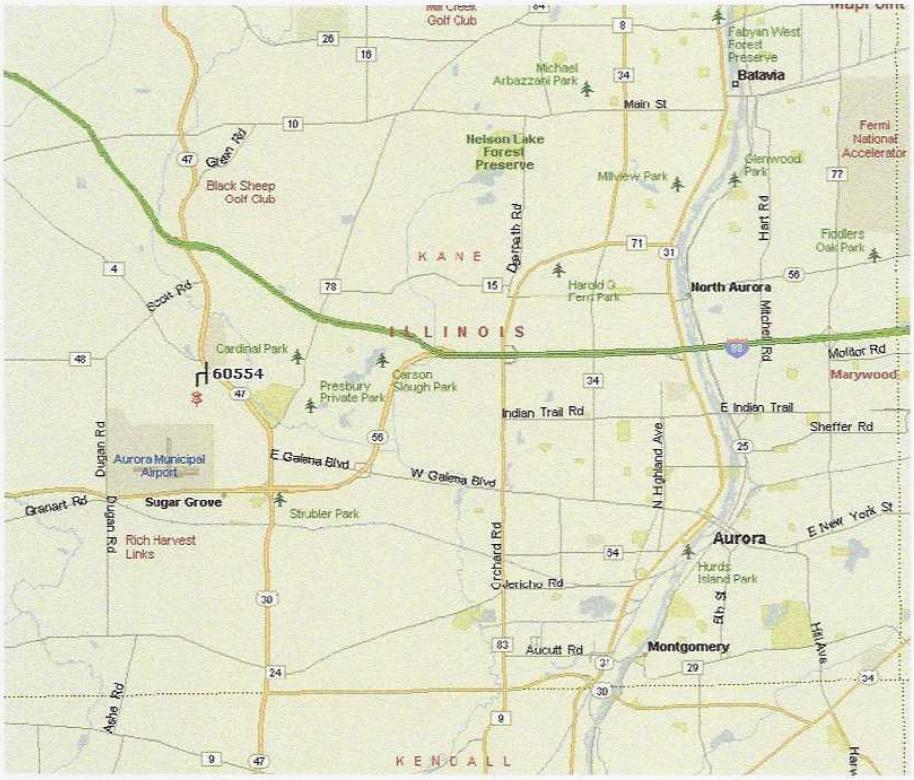
**Lodging:**

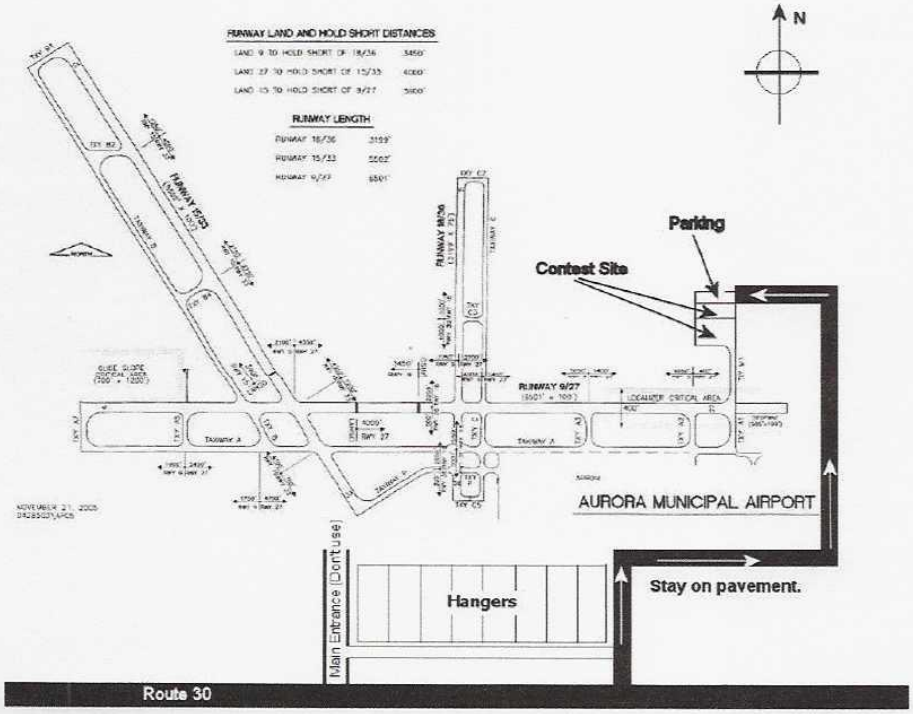
| | | | |
|---|---|---|---|
| Comfort Inn, Aurora | (630) 820-3400 | Hampton Inn, Aurora | (630) 907-2600 |
| Holiday Inn, Aurora | (630) 806-7400 | Holiday Inn Exp., Yorkville | (630) 882-0600 |
| Sunset Motel, Yorkville | (630) 553-7353 | Super 8 Motel, Yorkville | (630) 553-1634 |

**Contest Director:**
**Jim Schuett, AMA 54705**
**2350 Sans Souci Drive,**
**Aurora, IL. 60506**
**Phone: (630) 642-3617** **E-Mail: Jschuett25@comcast.net**

***ATTENTION***
**No Alcoholic Beverages are allowed at the Airport. Violators will be escorted off site by irate club members and / or the Sugar Grove Police.**
**There will be No Refunds, regardless of Weather or other circumstances.**

The Aurora airport is located on the North side of Hwy 30, approximately ½ mile West of Hwy 47 in the town of Sugar Grove.



**Special Rules for the Tree Town Modelaires**
**Midwest Regional Championships:**

***All appropriate AMA safety rules apply to these events*** -

**Sportsman Carrier:** Same rules as Profile Carrier (gas and electric combined). This class is intended for "Sportsman" entrants who do not wish to compete in the "Open" Profile Carrier Class. The event director reserves the right to promote an entrant to the "Open" profile carrier class based on performance. No person may enter both Profile and Sportsman, however Sportsman entrants may also enter Class I, Class II and Skyray events.

**Skyray Carrier:**

1) SIG Skyray 35 kit or accurate reproduction only. Although construction details may be modified, wing and empennage airfoils and outlines of fuselage and flight surfaces shall be stock within normal building tolerances.

a. No additional movable flight control surfaces are allowed other than elevator. The chord of the elevator may be increased from stock.

b. Two-wheel landing gear is allowed. Tail skid may be modified. Motor mounts (and fuselage front end) may be modified in a reasonable way to accommodate the motors being used, but not for additional streamlining.

c. Either a standard 3-line control system (elevator and throttle) or a 2-line control system for elevator with throttle (and options such as hook release) controlled by either an electrical signal passing through the lines or by a 2.4Ghz radio signal. Design and location of control system components is open.

d. Repositioning the lead-outs to a location on the wing tip other than where shown on the plan is allowed as long as the lead-outs emerge from the wing tip within the fore-aft limits of the wing. Line sliders are NOT allowed. Stock wing tips may be left off - no further shortening of the wing is allowed.

e. Addition of arresting hook is allowed.

2) Propulsion system may be either piston engine (glow) or electric motor. Maximum displacement for piston engine is .409 cu.in. (muffler optional).

3) Fuel Tank: Suction only, no pressurized systems.

4) Fuel: SIG Champion 10% (supplied at contest).

5) The scoring of the event shall be per the AMA rule book for Profile Carrier with the following exceptions:

a. No scale bonus points will be awarded, however the model should look like a SIG Skyray 35.

b. Maximum high speed score will be limited to 75 mph

6) All other rules are the same as for AMA Profile Carrier and the AMA Electric Profile event, whichever is appropriate.

**Profile Stunt:**

1) PAMPA Stunt flown with a profile airplane,
2) Any size (up to .92 cu. In.) engine allowed.
3) Must adhere to AMA general control line rules for profile airplanes.
4) All competitors fly one class.
5) Event will be flown off a grass circle.