

Prop



Wash

Prop Wash is a publication of the Piston Poppers Inc., an AMA U-control club

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Any articles for the newsletter are greatly appreciated and will be published as soon as possible.

July 2020



<http://www.pistonpoppers.com>

June Meeting

There were no meetings in March, April and May because of the COVID 19.

Old Business: None

New Business: Because of the COVID 19, all activities at Westwood School, indoor and outdoor are cancelled until further notice. All of our flying will have to be at the Anoka County airport site.

There will be no Polk City contest this summer, maybe they will be a fun fly this September.

Tony went over some of the guidelines we promised to abide by at the airport site.

I have a complete list and will send out a copy to all via e-mail.

Greg Thomas showed up, he's a new member and posted some photos of his projects on our FB page. He also donated a real nice Ringmaster to the club for a trainer, all it needs is an engine and tank. It's set up for an Enya 29-35.

There was flying before and after the short meeting.

Jim Gevay

Piston Poppers June Meeting

This was our first club meeting since all of us were wearing boots and parkas last February.

Jim Ehlen brought out one of his new original designs from a combat wing, electric of course. Looks great and fly's great too. In the time I was there I saw Tom, Bob, Keith and Greg fly. Greg Thomas, our newest member had his new Hellcat out to fly. I forgot to ask what engine he has in it, but it looks great. The Ringmaster he donated to the club is a real nice one, looks clean and straight.

All in all, it was a nice evening to be out with club members.

Jim Gevay




Team Racers

Two fine models, each designed to take a wide variety of motors.

RANGER

Controlline enthusiasts everywhere have long since acclaimed the RANGER as the top kit design for class 'A' team racing—its easy handling characteristics and 'real aircraft' appearance having made it justly famous at contests up and down the country. Construction is very simple—the fuselage being built up on a basic crutch and afterwards planked. The wing is flat sectioned, features upper and lower spars and is built flat on the plan. Tailsurfaces are ready-shaped from sheet. The well detailed plan shows four different engine installations and drawings for making a neat 15 c.c. fuel tank. **12/3**

SPECIFICATIONS: Span 24". Wing area 88 sq. ins. Length 18". Weight 10 ozs. Complies with S.M.A.E. Class 'A' team racing formula. Designed to take E.D. Bee, ElfIn 1.49, ElfIn 2.49, Alton Arrow, etc. Also suitable for Alton Spitfire.



• CONTENTS OF THE RANGER KIT



PACER

The PACER is Keil Kraft's answer to modellers' repeated requests for a class 'B' team racer design of the same high calibre as the *Ranger*. Similar construction methods of those of the smaller model have been featured, but externally the PACER differs considerably. Main recognition points of this distinctive model are straight tapered flying surfaces, radial type cowd and bubble canopy. No less than seven engine installations are shown on the plan, plus full details for making a 15 or 30 c.c. fuel tank. **17/6**

MODEL BECOMES AN 'A' RACER WHEN FITTED WITH E.D. 2.46 OR ELFIN 2.49 POWERPLANT.



SPECIFICATIONS
SPAN 30" WING AREA 126 sq. ins. LENGTH 20" WEIGHT 16 OUNCES COMPLIES WITH S.M.A.E. CLASS 'B' TEAM RACING FORMULA. DESIGNED TO TAKE AMCO 3.5, ETA 29, E.D. 3.46, D.C. 350, FROG 500 and SIMILAR MOTORS.

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From Jim Gevay

Flying Report

The summer has flown quickly into July. We've had lots of calm days to fly but the temps have been warm.

Dave Vandegrift and Tom Sontag took a few flights on July 5th. Dave flew his green Cheney-modified SkyRay 35 with a strong running OS 40FP. She did some nice wing overs and loops. Tom flew The pattern with the Brodak P-40 Warhawk ARF, unmodified from the Boise shipment. It has a steady running OS 46LA with a custom tank and wooden prop. It may be a Pat Johnston build. She did well but practice makes perfect.

The field is looking better after the recent rains. The grass is green again. There are some big strong weeds growing, so you have to watch your

lines. The P-40 did a line snagged pirouette on its first landing. Please use a towel beneath the tank while fueling to protect the grass in the event of an overflow.

Tom Sontag



Hobby Articles

Our family friend, Marilyn Lutz, recently gave me some hobby articles and plans from her late husband's collection. In the various articles were these gems from the 1950's, including one by National Open Stunt Champion Bob Elliott entitled Stunt Pilot Techniques. Here is sage advice from Mr. Elliott: "too much engine or rudder offset can cause the airplane to rock very badly, naturally hampering the smoothness of your flying" and "Select

a proven engine that is recommended for your airplane."

By **BOB ELLIOTT**
National Open Stunt Champion

Stunt Pilot Techniques

Upright Double Vertical 8
Vertical Hourglass
Inverted Horizontal 8
Inverted Overhead 8
Inverted Vertical 8
Spectacle (Johnson)
Inverted Outside Loop
Upright 2-Inner Clover
Inverted Double Vertical 8
Triple Vertical (Johnson)
Belo Wingover
Upright Square Outside Loop
Inverted Square Inside Loop
Triple Overhead (Johnson)

The old saying "practice makes perfect" is basically the only way a flyer can become a consistent winner. I see the pattern as a piece of chain, each link representing a different set of maneuvers, with each set smoothly joining the others. If I have a rusty link in the chain, I don't like to break the chain just to practice the maneuvers that need attention. Consequently, I practice the full pattern each and every time I fly my ship unless I have a bad trouble setting. Using this method, you can not only improve your poor maneuvers, but your good ones as well. This may be considered a slow method of improving those poor maneuvers, but I believe you will be satisfied with the overall results. As for size of maneuvers, large and small, it makes very little difference, but, in order to make your flight more uniform, keep all of your maneuvers the same size and as smooth as possible. For a much neater pattern, connect each set of maneuvers with smooth level flight.

Another important item is your airplane. In the past few years, the stunt event has changed with the addition of semi-scale stunt ships. Remembering the importance of appearance, select an airplane with proven, dependable stunt qualities capable of flying a winning pattern, if built properly. Properly build your airplane. If a modeler spends a good deal of time, effort, and money on an airplane and its performance is not up to par, maybe this is due to a few small but significant things he overlooked. Always keep your control system working smoothly. Be sure to make all pushrod connections snug and free from play. At all times use good hinge material. If cloth hinges are needed, remember that all flaps and (or) elevators must be hinged as tightly and neatly as possible. In the construction of your wing, check and remove all warps. Before construction you can straighten each spar by careful bending.

If your completed plane has any tendency to fly with the inboard or the outboard wing low, adjust it to fly perfectly level by adding trim tabs, or adjust wing flaps. During construction be sure that your wing and stab are parallel to the thrust line. Positive or negative incidence can bring on headaches. Another cause of poor flying characteristics comes from too much engine and rudder offset. Some modelers have a false idea that very much of one or the other, or both, is needed to keep the ship tight on the lines. Actually, too much engine or rudder offset can cause the airplane to rock very badly, naturally hampering the smoothness of your flying. Above all put a good finish on your ship. Don't spare the elbow grease!

Select a proven engine that is recommended for your airplane; always keep it clean and well oiled when not in use. Be sure to use the best fuel for your particular engine. When an engine is completely cooled, sometimes it is advisable to use a slightly cooler fuel.

Tom Sontag

BOB PALMER'S SMOOTHIE

Draw the wingtip area, obtaining two main ribs with a 1/2" chord. Transfer the leading and trailing to the wheel to have a red model by the rubber air controller.

Mount the fuselage with the plywood into position and secure screws. Remove and glue supports to plywood and allow plywood to cure some time. Make landing gear, attach landing gear to fuselage. Make the main gear 1 1/2" long, the main end cut both the wing to front, rear, and top.

Assemble all the bulkheads. Finish bulkheads of fuselage up to the gear. Place wire lines to assemble top of fuselage. Bend the main gear and set the end plates to allow, after landing, bulkhead supports to slide in place.

All parts of the wing, including leading edge, are 1/2" thick.

The first step in assembling the wing is to remove the fuselage area. Plywood form built at 2 1/2" width and also in place 1 1/2" x 17" sheet built as shown. Plywood in the center of where wing will rest through fuselage and 1 1/2" x 17" hole. Round the outside edge smoothly on both to a straight line, then from the center 17" cut both ribs, then square the ribs and square the wing to front and rear on the right side.

Attach two 1/2" spacers by 1/4" with a space of 1 1/2" x 4" plywood and mark the center on the outside edge. Assemble the wing area right on the work, putting the ribs in position. Attach the upper and the lower edge smoothly with rubber bands. Right wing and left side be straight line. Glue all joints and then square the wing every through the 1/2" holes, give a taper of 1 1/2" x 4" at the center. Then square an end cut to the tip. Cut by ribs out and attach to forward and rear main. Cut line of assembly by holes and square on the right side.

The same method assemble the plywood center to main wing. Attach bulkheads to main wing and glue an inner smooth square. Square bulkheads in, using a second set of the same on under bulkheads. Wings should be attached to bulkheads before attaching them to main wing. Make sure the wings are straight line. Glue all joints and then square the wing every through the 1/2" holes, give a taper of 1 1/2" x 4" at the center. Then square an end cut to the tip. Cut by ribs out and attach to forward and rear main. Cut line of assembly by holes and square on the right side.

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Mr. Palmer's "Smoothie" Stunter

One of the world's top-ranking stunt designers presents a new fast model for .29-.35 motors

By **ROBERT L. "BOB" PALMER**

First of all, the model is one of the most important things to be considered, for without a good model you can't even begin to do good results.

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difficulties and now some of them are expert stunts.

To the interested reader who is already a stunter, here are four rules to follow to become a top competitor:

1. A Good Model: This is most important. The stunt kits on the market are very good, and usually, if followed in the letter, will fly well.

2. A Dependable Motor: The various model airplane motors advertised are very good. The 20 to 30 displacement motors are best for stunt; run according to instructions from the manufacturer.

3. A Good Tank: A good tank is very important. Its design will either make or break a stunt model. Clarence Lee, who drafted the

original plans for the Smoothie, also designed the tank for this model. He has experimented with tanks for four years and knows most of the answers on good tank design.

The location of the tank to the intake of the engine is just as important as the design.

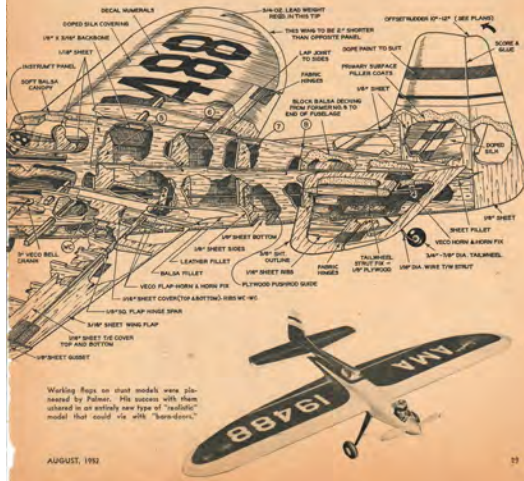
4. Practice Flying: It takes constant practice to be able to fly well. After finding the right combination—that is, propeller, engine, and model—practice constantly to fly with more ease each successive time.

Trying stunts that are difficult should also be practiced. For example, stunting with a wider radius than necessary, then tightening them up as you become more acquainted with the looping radius of the model.

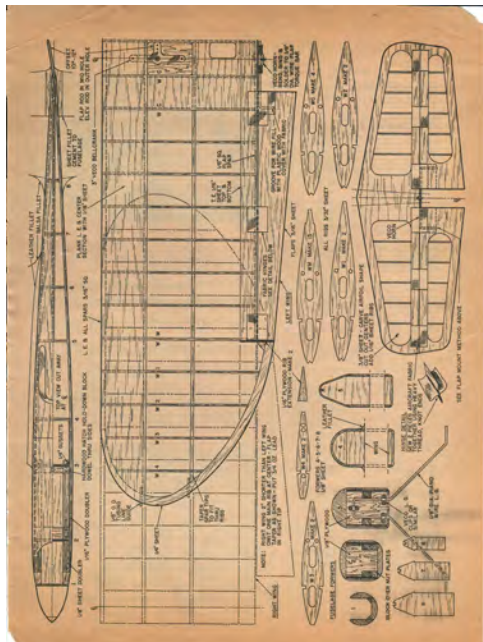
Try those stunts on which you are especially rusty.

It seems as though most modelers prefer flying under ideal conditions. When the wind comes up they go home. Yet when coasted day rolls around the wind may be blowing a gale. So you want to be sure and practice in the wind as well as under ideal conditions. This can be attained by having a model that will fly in the wind. I had the same difficulties and so I kept right on trying to find an answer to a "wind" model. Smoothie is the answer. I have flown this model in high winds and I have won every time.

It takes a large area to stunt a model commonly known as a "barn-door" type. In Smoothie, I have cut



Working plans on stunt models were prepared by Palmer. His success with them culminated in an entirely new type of "barn-door" model that could vie with "barn-doors."



Crashed Plane Triage

With my recent retirement and sultry July days, I have finally gotten to repairing some planes waiting for epoxy and silkspan.

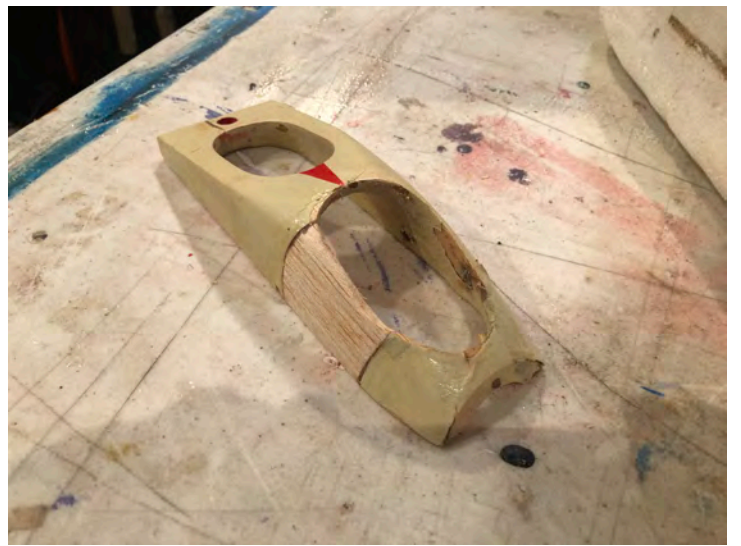
The Score was pancaked in inverted last Summer. Tore off the fin, canopy and engine mount former. Cracked fuse in half. Gotten it mainly back together paying special attention getting the engine former strongly installed.

The Privateer has been stashed away as I was hiding from myself. Minor damage really. Needs new canopy and some silks-an repair and paint. Always liked that plane.

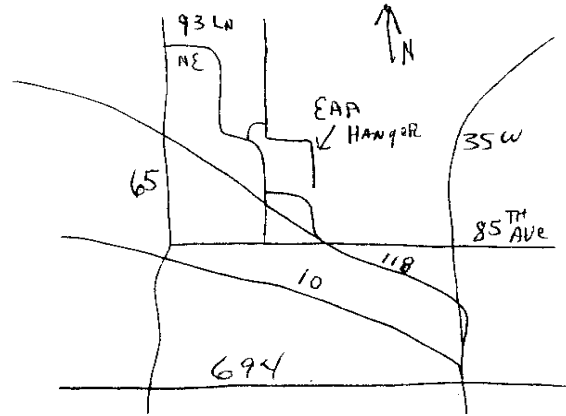
Bought the Panther from Keith a while back. Great flyer....until in my hands on a windy day at the airport. My stubbornness in doing outside square eights in a dodgy wind caused me to pancake it inverted. With Keith watching. Outboard wing clearly snapped off. Engine knocked loose. Engine cowl fouled. Cleaned the OS 35FP. Not happy with the underside wing repair. Kinda loose and can't get it tightened. Well, only ants will see it. Man, am I good at making pancakes. Feels good to get them all ready to get back on the lines. Who knows...maybe they will fly even better. Or I should learn to fly better!

Sean Emery









MEETING NOTICE:--July 30th at Club Field 7:30PM.

The Piston Poppers Club meetings are held on the last Thursday of each month at the Anoka Co. Airport in Blaine, MN. Enter the airport road from the automatic gates on the West side, turn right and go south past the airport beacon to the 2