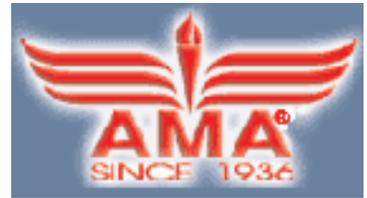


Springfield Radio Control Flying Club



AIRMAIL



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AMA CHARTER CLUB 394

FEBRUARY 2007

VOLUME 19 NUMBER 2

NEXT MEETING

FEBRUARY 1ST
LIBRARY CENTER
4653 S CAMPBELL

BALANCING YOUR PROPS

Do you balance your props? Do you like balancing your props? Balancing props can be a pain on some props, no most all props I should say, but a must if you want long life out of your modes and most of all your engines.

I used to sand on the back side of the heavy blade but quit doing that. I clear spray the back side of the heavy blade now instead of sanding. I use the clear spray that Monocote sells for model airplanes. I don't know why most any clear spray would not work.

I have noticed that the Lustercoat clear is a heavier spray than hardware store brands of paint are. I believe the paint is named Lustercoat clear high gloss. I give the light weight blade a shot of the clear spray on the back side of the blade and keep doing that until the prop balances horizontally. You can also use this spray on carbon fiber props to balance them and it works very well also.

After I get the prop to balance perfectly horizontally and I want a perfectly balanced prop I then rotate the prop on my balancer vertically. If it will not stay there that means the hub is out of balance or the hole is off center a mite causing the hub to be out of balance. I use very thick epoxy. The epoxy is very easy to use, mix an equal part of each and mix well. It is so thick it will stick to your ceiling in the house and not drip off the ceiling.

When the prop is vertical in your balancer and if moves off to your right for example as you face the prop that means the right side of the hub is heavy. I mix up this two part epoxy and put an amount of it on the light opposite side of the heavy hub. I put enough epoxy on the light

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2007 Events

March 31	Night Fly
April 21	Field Day
(April 28	Alt Field Day)
May 12	Fun Fly & Swap Meet & Lady Fly
June 9	Fun Scale Contest
July 28	Float Fly Practice
*Aug 11-12	Float Fly
*Sept 8-9	Pattern Contest
Oct 20	Swap Meet
Dec 7	Christmas Party

*AMA Sanctioned Event

The Presidents Corner

I must say the last meeting was a great success. How do I define meeting success? – good attendance and lively discussion. We had both; keep up the good work.

With the onset and continuation of bad weather, and, assuming one has electricity or another way to keep comfortable in the model work area, this is a good time to go over each model and check things out. I have to admit I am one who doesn't always do this. But with the gray cold gloomy days of winter, this is a good opportunity to make sure all our models and radio equipment are in good working order. Good flying days will come and go this winter and we need to be ready – and hopefully with safe equipment. Battery maintenance is a periodic must – cycling all NiCads is necessary to determine if they are keeping their capacity. If there's any question about

the integrity of the transmitter, maybe it's a good time to send it in for a check up. As far as our models go, we have published a mechanic's checklist before. Key items to look at are: engine mounting screws, muffler screws, servo screws, linkages, hinges, landing gear axles, wheel collar screws, landing gear mounting bracket screws, fuel lines, etc. Depending on where the models are stored, expansion and contraction with temperature changes can/will loosen the engine prop nut. Make sure they are tight too (even if it is a pain to take the spinner off to check it). One seldom checked item is the fuel tank stopper screw. We saw a lot of leaking fuel tanks this last season that led to flame outs, suspected engine troubles and soaked tank areas. This item may be the most neglected but sometimes causes the most trouble.

Berry

From Page 1

side of the hub until the side that was light becomes just a touch heavy. When the prop wants to barely move the opposite direction then you have it just right. I take the prop out of the balancer at this point in time and allow the epoxy to dry well usually about four or five hours depending on temperature and humidity.

After the epoxy is dry I carefully remove small amounts of glue with a dremel rotary sander until the prop will balance in any position of the clock. When it will set in your balancer at any position of the clock the prop is in perfect balance horizontally and vertically.

Until I see you again at the field I will leave you with this one quote that an old wise Pilot told me.

"Be sure to land like a butterfly with sore feet on all your landings."

Justin Heath

HIGH WINGS versus LOW WINGS

-by Clay Ramskill

We finally master our high wing trainer -- or trash it, whichever comes first. Maybe then we build a shoulder wing plane.

Only after we are somewhat competent at flying do we try flying a low wing plane, and then with white knuckles and shaky

knees. WHY? Just what is it about low wingers that make them "tougher" to fly?

Are they faster? No! All other things being equal, there's virtually no difference in drag, or therefore top speed. The illusion comes from designers' choice -- they tend to put faster airfoil sections and lower aspect ratios on low wing planes, making them speedier.

Low wing planes do have several characteristics, compared to

high wingers that make them more suitable for higher performance aircraft.

1. "Nicer" (and quicker) roll response. This comes from the relative placement of the Center of Gravity, being closer to the natural roll center of the wing. The CG will be at or only slightly above the roll center of a low wing, but well below that of a high wing. Assuming at least a little dihedral, the roll center of

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**Springfield RC Club
Minutes from the
January 4, 2007 Meeting**

President Barry Harper opened the meeting at 7:00 PM. There were 26 members present.

The treasurer's report was given and approved. Treasurer Rhodes will present a budget type list of expenses at the Feb Meeting to be used for projecting future expenses of the club.

There were no minutes from the Dec Christmas dinner meeting.

Old business:

The unfilled position Field Marshall and Safety Officer was filled by Bert Turner. Dan Curtis had volunteered but shortly thereafter declined the position.

A motion was passed for The Treasurer to recommend, by the February meeting, a suitable investment for the club matured investment account.

Estimates for field grass mowing were presented. Bob Ford

of Green Acres Lawn Care offered the service at \$2000 for the year. Mark Copland offered the same service for \$2500 for the year. A motion, by D. Campbell was passed to accept the quote, pending a more detailed quote, from Bob Ford.

Trash collection was voluntarily offered at no charge by Ralph Todd.

Refrigerator security will be investigated by Ralph Todd.

The new Web Master is Kevin Banes. He has requested input of any and all info, pertaining to the club, for use on the site.

New Business:

A motion, to accept a list of up coming events, was passed and sent to the News letter Editor.

The News editor letter requested that input be received by him no later than the twentieth of the month. The treasurer volunteered to provide the labels for the mailings to J. Kutz. A motion was passed to e-mail the news letter, to those who

have it and regular mail to those who don't.

The Board of Directors have been requested to appoint a bylaws revision committee and a rules review committee.

A new direction for the club was presented by President Harper. In his words "we just need to be newcomer friendly and promoters of our hobby to the community. It is obvious this will only be accomplished in very small steps. Reviving the Intro Pilot Program is a first small step. Yes, there are many details to work out, but I think an organized program is better than no program".

A request was made by D. Bennett to allow he and other pattern fliers to erect, at their expense, a permanent sun shade shelter at the south end of the pit area. The request was tabled at the request of D. Campbell until the February meeting.

Meeting was adjourned at 8:40 PM

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the wing will be slightly above the center of the wing. See figure 1.

In a roll, the wing (providing the "power") wants to roll about its own roll center. The rest of the plane (the "resistance") wants to roll about the CG. The wider the distance between roll center and CG, the funnier-looking is the roll (i.e., "non-axial").

2. The low wing lends itself to a less stable stabilizer position,

leading to more pitch maneuverability.

With a high wing, it's simple, and natural, to have the stabilizer well below the wing. When the nose is pulled up, the stab drops down well below the wing's downwash, and becomes increasingly resistant to further AOA increases. This is great for stability, and makes stalls less likely.

The opposite is true for the low winger -- or a pull-up, the higher

stab drops into the wing's downwash, making further AOA increases easier, and the plane more maneuverable.

3. The low wing reacts more neutrally to power changes.

Our old high wing trainer, with the thrust line very low, will respond by pitching nose up when power is added, nose down if power is reduced. This contributes to stability, with the

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You Might Be An RC Modeler If...

- ...You have ever glued both hands together with CA and had to use an exacto knife in your teeth to cut them apart.
- ...You have taken your plane off and panic on the third lap, realizing that you haven't extended the transmitter antenna.
- ...You have built two right wings for a single wing plane.
- ...You get to the field and realize your transmitter is still on charge at home.
- ...You have switched your retracts up while you taxi your plane out to take off.
- ...You are making an inverted low pass and then pull "UP" on the elevator.
- ...You have more than one scar on your "cranking" hand.
- ...You have fuel stains on your new sneakers.
- ...You spend more time browsing Tower Hobbies catalogs than the TV guide.
- ...You will go flying when it's 104° but won't cut the grass for your wife 'cause "it's too hot out there".
- ...You have 47 miscellaneous NiCad batteries and can't find a pair of D cells for your flashlight.
- ...Your O.S. engine purrs like a kitten but the family car will barely run.
- ...You see your wife ironing while wearing a thin nightgown and it reminds you of the monocote job you need to finish.
- ...100 deg. is forecast for the weekend and you hope there isn't a breeze blowing.
- ...You have grass stains on the knees of your favorite slacks.
- ...You have a sun tan in the roof of your mouth.
- ...You always keep a supply of paper towels and Windex but never clean your car windows.
- ...Your dad is looking for his padlock and find you are using it for balance weight.
- ...You have balsa dust on top of your living room furniture.
- ...You keep feeling for the trim tabs on your TV remote control.
- ...You have at least three planes in various stages of completion.
- ...The neighborhood kids come to you to help them with their summer school projects.
- ...You can't understand how some men can get so involved with a silly thing like golf.
- ...You fit a drop tank on your weed eater.
- ...You have a layaway account at the local hobby shop but can't understand why your wife buys so many clothes.
- ...You use your field box to crank your lawn tractor.
- ...Your kids borrow rubber bands from you.
- ...You think R/C flying should be an Olympic event.
- ...You read the AMA Journal of Medicine but can't find first aid treatment for prop cuts or monocote iron burns.
- ...Your wife frowns at you at the family cookout when you carve the Thanksgiving turkey with an Exacto knife.
- ...You buy a 4-wheel drive pickup so you can go get your plane when you "land" it.
- ...Your wife spray paints her wrought-iron patio furniture with your fuel-proof paint.
- ...You use fuel tubing to drink from your sports cool cup.
- ...You have to put out an APB for your plane that flew out of the back of your pickup on the interstate.
- ...You have watched TOP GUN and IRON EAGLES more than ten times.
- ...Your neighbor calls the cops on you for spraying your lawn with an Aries Thrush crop duster model.
- ...You put DU-BRO wheels on your TV tray.
- ...You have a field box full of every special tool made but don't have a lug wrench when you have a flat tire on your car.
- ...You look for the servo linkage and antenna wire on every airplane in a movie.
- ...You have at least ten T-shirts with airplanes on them.
- ...You carry a chain saw with you to the flying field so you can retrieve your plane or clear for a landing approach.
- ...You have ever made a picture frame from parts left over from an airplane kit.
- ...You change glow plugs every other week but have over 100,000 miles on your car's spark plugs.
- ...You buy gas for your lawn mower in a Cool Power jug.
- ...You play your AMA and radio channel numbers in the lottery.
- ...You have ever glued your ring to your finger.
- ...You modify your garage door opener with trim tabs.
- ...You plan your vacations using Fly-In schedules.
- ...You use more wax paper building planes than your wife does baking.
- ...You have more pictures of your airplanes than of your wife.
- ...You buy a \$600 mini-lathe to make \$5 airplane parts.
- ...You have enough broken props to use for firewood.
- ...You have ever used an old elevator pushrod to scratch your back.
- ...You shop Toy-R-U's for pilots.

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nose going the way we want it to on a trainer.

On the other hand, the low winger will be more neutrally stable, without much pitch reaction to power changes. The low winger will also be more

wind "resistant" on the ground, a function of wing height above the wheels. The high winger will naturally be more "tipsy," reacting to wind while taxiing and during takeoff and landing.

We must all understand that we're only talking of tendencies here. There are many other vari-

ables that have an impact on the characteristics involved -- the designer can juggle these around to get the desired handling. But wing placement is definitely one of the biggies when it comes to establishing how a plane is going to handle.

Figure 1

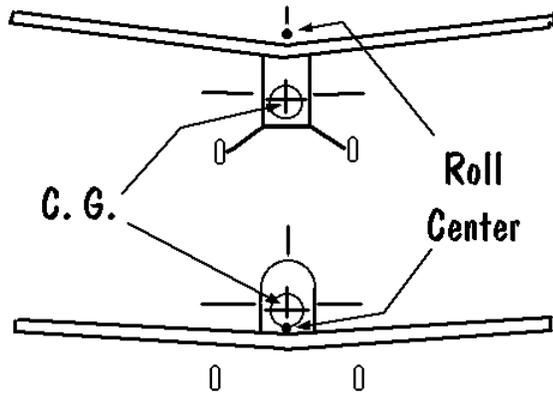
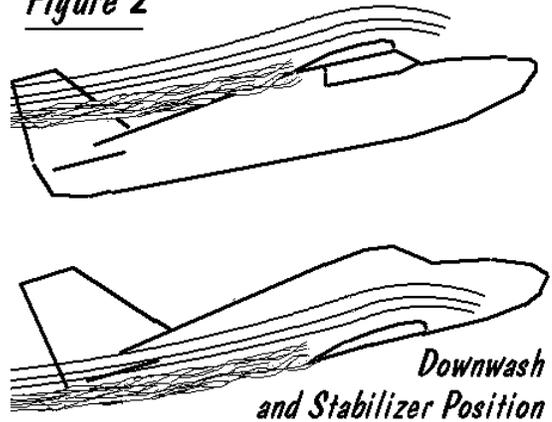


Figure 2



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