

Issue # 9

Belleville RC Flyer's Newsletter

September 2014

September Meeting Minutes

The Meeting was called to order by Club President Dave Fannin at the flight field on Tuesday, 9 September, 2014 at 7:05 pm. Due to inclement weather, there were only 7 members present. The President called for a motion to accept the minutes of the previous meeting as outlined in the August Newsletter. The motion was seconded and passed by the membership.

Club Operation Reports

TREASURER: Club Treasurer Dan Arens reported on the Club's financial status. Currently, we have 48 active dues paying members. Only a few members have not renewed their dues to bring them even to the new payment structure which begins in January of 2015. For those of you who remain in this status, you owe the Club \$25 for the use of the Club's flying field and facilities. The attending members passed the Treasurer's Report as read.

CORRESPONDENCE: None.

FIELD MAINTENANCE: Intermittent rain has kept the field in good condition and the grass continues to grow which requires additional mowing. Our mowing man, Jeffrey Wehrle, will be on summer vacation for three weeks starting on Thursday, the 11th of September. In his place will be Kenny Brown. Kenny is not an RC advocate and there will be no flying when he is in the mowing process. Kenny plans to mow about every 4th or 5th day so please remember...no flying while Kenny is mowing. If you should happen to arrive while Kenny is in the process of mowing, you must wait until he has completed his task or leave and return at a later time.

SAFETY: Our Safety Officer Marcus Robinson reported that "to date," everything at the flight field has been pretty stable from a safety point of view. Dan Arens reported on another Club's mishap as outlined in an article from "Fly RC" magazine where an individual put a new electric aircraft together

without a prior check of the lipo battery and charger compatibility. The aircraft burst into flames ruining not only the aircraft but some transmitters and other equipment located nearby. This episode stresses the significance of thoroughly checking out your aircraft and its systems...especially a new one that hasn't been flown before...just because it's new doesn't mean it can't have a problem. Go through all of the systems carefully. Most RC aircraft today are high tech, complicated and costly...one can't afford to be careless and hurt oneself or a colleague in the pursuit of this fun hobby.

TRAINING: Club Instructor Dan Arens reported that fellow Club Instructor Ray Teliczan has withdrawn from his position as instructor and we are sorry to hear that Ray has dropped this duty because he was our specialist in RC reciprocating motors. Thanks Ray for all of your time spent with the Club as an instructor.

WEB PAGE: Our web guy, Bill Eischeid, has recently updated our web page with photo stories of our Club's RC events...the latest being our Invitational Fly-in for the East Side RC Club. Also, many photos have been posted to our rogues gallery of Club Members. Check out this section under documents on the web page and see if you are part of the gallery...if not, let the Club Secretary know and if you can, send a photo of yourself to either the webmaster or the secretary for posting on the web page.

OLD BUSINESS: Don't forget that we will have a "Chili Cookout" on Saturday morning, the 27th of September at our flight field.

NEW BUSINESS: There was a discussion on the providing of food for pre-programmed Club events such as Frosty Finger, Cub-n-Kind Fly-in, Military Fly-in and our Invitational Fly-ins. A motion was made and passed to make those events a "cost as we go," where the Club provides hamburgers, hot dogs, buns, condiments and the attending members pay a fee that will be determined at the Club meeting preceding the event. There will be no fee for "pot luck" events, just the programmed events.

NEW MEMBERS: The attending members voted-in Charles Wright as our newest Club member. We look forward to seeing you Charles out at the flight field.

NEXT MEETING: The next meeting will be held at Eckert's Family Restaurant Tuesday, October 14th at 7 pm. Time to come indoors...see you there.

MEETING ADJOURNED at 7:36 pm

**IF YOU REALLY WANT TO GET THE PERFECT
BALANCE FOR YOUR RC MODEL...TRY THE
VANESSA BALANCER**

You can do the measurements by hanging the model by its wings (see figure D in chart below)



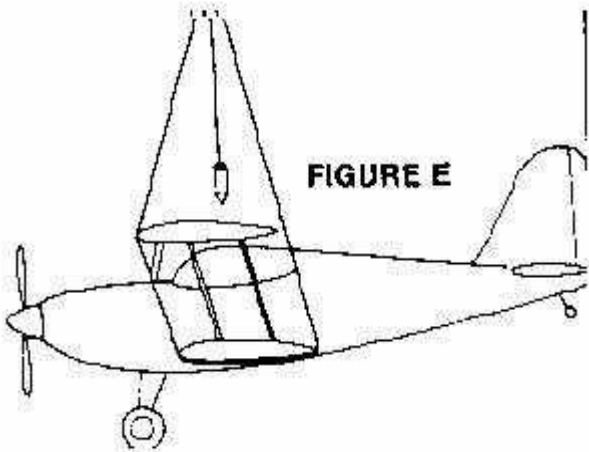
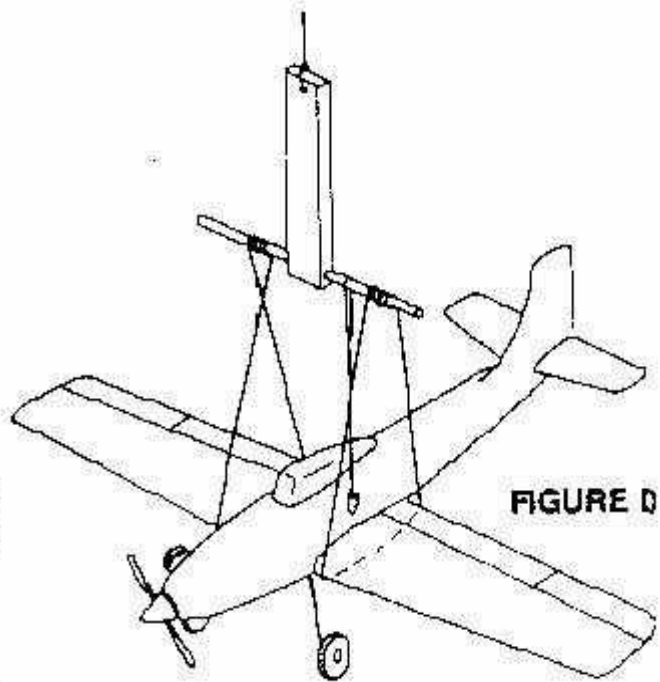
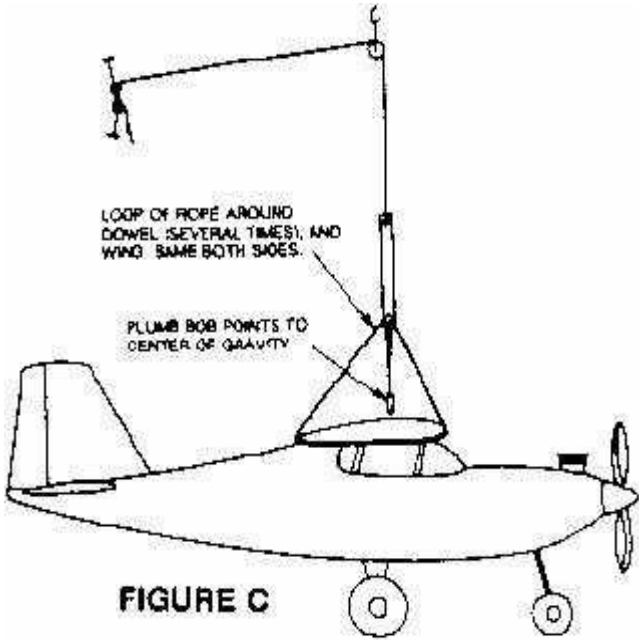
or by the Fuselage (as in figure F, chart below)



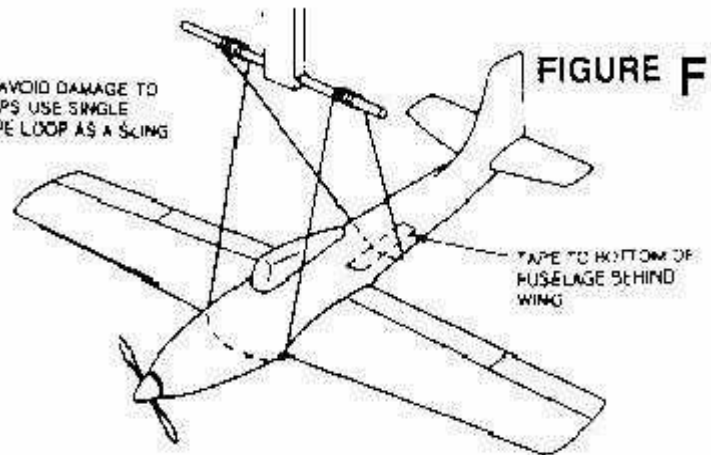
Both systems work but you use only one rope when using the fuselage method.

The article on "Center of Gravity" (below) pretty well explains it. *Ralph*

The Vanessa Balancer



TO AVOID DAMAGE TO FLAPS USE SINGLE ROPE LOOP AS A SCING



Center of Gravity

Where it is located on your model aircraft is one of the most important factors in determining how well it flies. It is also one of the most difficult parameters to measure as anyone will attest who has tried to balance a low wing monoplane on a pair of pencils stuck in a 2 x 4.

If you want to know where the C.G. is located on almost any configuration of model plane accurately, and I mean within a sixteenth of an inch, make this device. I've been using it for many years on everything from a 1/2A two channel to a 26 pound 1/4 scale Tiger Moth. It works every time, is fairly simple to use, and it's accurate. It can be made of almost anything kicking around the workshop, a piece of 1 x 2 (or 2 x 2) wood about a foot long; a piece of 1/4 or 3/8 dowel also about a foot long; some flexible but strong rope about 1/8" in diameter; a pulley you can hook up to the ceiling (preferably over a bench where your plane can sit), and a little plumb bob.

Drill a hole parallel to the long dimension near the end of the 1 x 2. It must be snug enough so that you can just turn the dowel by hand. If it is too loose put a saw-cut through the hole and a bit beyond it, and a bolt with a wing nut (as shown in Fig. A) so that it can be adjusted by hand. A hole in the other end for the "hanging rope," a pulley, and two nails in a stud to snub the "hanging rope," and that part is ready.

Next, make two equal loops of soft rope or cord to support the model. The pair I use are 40" in circumference, and they handle most 40 to 60 size models. Cut two pieces of soft cord 40" long and tie the ends together. Pull them taut over your index fingers to make sure that the lengths are equal, and then put a drop of CA on each knot to assure they stay forever.

Now make a small plumb bob. I made one out of a 2" length of 3/8" dia. aluminium rod. I chucked it in a drill press and filed a point on one end. A small axial hole at the other end and a cross-hole made a neat place to tie a piece of string or thread. I discovered later that wallpaper stores sell cute little lead bobs that are perfect. About a foot and a half of thread tied in a slipknot will allow you to adjust the height of the plumb bob.

To use this marvelous device, place the model aircraft on the bench with the centre of the wing more or less below the pulley in the ceiling. Lower the dowel and support to a couple of inches above the wing. Place the 40" loops around the wing as shown in Fig. C or D, and wrap them around the dowel 4 or 5 times (same on both sides). Since the C.G. is normally well forward of the centre of the chord of the wing, there will be more weight on the forward side of the loop than the rear, and the angle of dangle will be different fore and aft. Thus the rope would like to slip forward, but the wraps around the dowel provide enough friction to prevent this. Put the plumb bob string over the dowel. Usually it is more convenient to have the plumb bob on the inside of the loop, hanging over the fuselage, or wing root.

Carefully hoist the model a couple of inches off the bench. Steady it until it reaches a state of equilibrium. By hand rotating the dowel in its hole, adjust the model to a level flight attitude. An important detail in using this device is to have the dowel parallel to the wing spar.

Adjust the slipknot on the plumb bob so that it hangs just above the model and - Voila! - It points to the Center of Gravity. Since all of the weight of the model is being supported by the dowel, the C.G. will be directly beneath the dowel (where- the plumb bob is pointing).

Put a piece of masking tape on the model where the plumb bob is pointing, and mark the spot with a felt tip pen. Or better still; put the tape on before you hoist the model, mark where the C.G. should be, and then get the good/bad news when you hoist it. While it is still up there, you can add weight to the nose or tail, adjust the attitude to level flight again by rotating the dowel, and see before your very eyes where the C.G. has moved to. After a couple of tries you should know exactly how much weight to put where.

Versatility Fig. C shows a high wing trainer, but the device works equally well with a low or mid wing pattern type aircraft (Fig. D). With a biplane, just put the loop around both wings (Fig. E). You say you have a J3 Cub with wing struts that get in the way! No problem; make a pair of 40" ropes with a loop at one end and a little wire hook at the other end. Feed this under the wing, around the dowel, and put the hook in the loop.

If you have flaps or strip ailerons that come close to the fuselage, and may not support the weight put on them by the ropes, a couple of things can be done. Make a single large loop of rope and sling it under the fuselage fore and aft of the wing as shown in Fig. F. Tape the rope to the bottom of the fuselage, far enough behind the wing to keep the rope off the trailing edge. Or cut a piece of balsa (or Styrofoam, or aluminum) an inch or so wide and a bit longer than the chord of the wing at the root. Place this under the wing with the rope beneath. Make sure they stay in place as you hoist the model. A delta can be tested with the single loop fuselage sling method (Fig. F) by putting a strip of 3/32" balsa beneath the fuselage. The strip must be long enough to be held by the front sling, and protrude behind the wing for the rear sling.

Take a few minutes to put one of these things together. The dimensions and the materials are almost unimportant. It's the configuration and gravity that do the job. From then on you will know exactly where the Center of Gravity is. Where it should be or where you like it to be is your problem.

Club Officers

President Dave Fannin

Vice President Jerry Nevenner

Secretary Ralph Miller

Treasurer Dan Arens

Safety Marcus Robinson



DAN ARENS 618-444-8063
DARWIN EVELSIZER 618-205-3340
DAVE FANNIN 618-401-2451

THE TRANSMITTER is the monthly newsletter of the Belleville RC Flyers. It is published to keep the club members informed of club activities. Club meetings are held the 2nd Tuesday of each month. In Summer, May through September, the meetings are held at the flying field. From October through April the meetings are held at a local restaurant. The standard meeting time is 7 pm. The flying field is located on Rentschler road 1/2 mile South of Rte's 177 and 158, half way between Belleville and Mascoutah. Visitors and spectators are always welcome and Club membership is open to all. Yearly dues are \$50.00 and there is an initiation fee of \$15.00. Academy of Model Aeronautics membership is also required. For info or submissions to the Newsletter, contact the Newsletter Editor through the Club's Web Page at bellevillercflyers.com